

# Project Approval

## Section 75J of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning, the Planning Assessment Commission determines the application referred to in Schedule 1 subject to the conditions in Schedule 2.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

Red type represents the July 2015 modification (MOD 1)

**Member of the Commission**

**Member of the Commission**

Sydney

2015

File No: S07/00846

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### **SCHEDULE 1**

**Application No:** 07\_0118

**Proponent:** Gullen Range Wind Farm Pty Ltd

**Approval Authority:** Minister for Planning

**Land:** The Land shown in Appendix 2

**Project:** The Gullen Range wind farm and associated infrastructure

**Major Project:** The project was declared a Major Project under section 75B(1)(a) of the *Environmental Planning and Assessment Act 1979*, because it is development of a kind described in clause 24 of Schedule 1 of *State Environmental Planning Policy (Major Projects) 2005*.

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## SCHEDULE 2

<b>Associated property</b>	A property comprising one or more lots, that is owned, leased or otherwise lawfully used by the Proponent or where there is a written agreement between the owner of the property and the Proponent (but only during the currency of the agreement) that part of the property in relation to which the agreement is established.
<b>Associated residence</b>	A residence within a property, comprising one or more lots, that is owned, leased or otherwise lawfully used by the Proponent or where there is a written agreement between the owner of the property and the Proponent (but only during the currency of the agreement) that part of the property in relation to which the agreement is established.
<b>CEMP</b>	Construction Environmental Management Plan
<b>Construction</b>	The carrying out of works and the erection of buildings and infrastructure covered by this approval
<b>Council</b>	Refers to both Upper Lachlan Shire Council and Goulburn Mulwaree Council unless otherwise stated
<b>Decommissioning</b>	The removal of wind turbines and associated infrastructure under this approval.
<b>DEMP</b>	Decommissioning Environmental Management Plan
<b>Department</b>	The Department of Planning and Environment
<b>Dust</b>	Any solid material that may become suspended in air or deposited
<b>EA</b>	<p>The environmental assessment titled <i>Proposed Development of the Gullen Range Wind Farm, Southern Tablelands, New South Wales</i>, prepared by Epuron and dated July 2008, as subsequently modified by:</p> <ul style="list-style-type: none"> <li>• Submissions Report;</li> <li>• <i>Gullen Range Wind Farm – Modification Application – Environmental Assessment</i>, prepared by Goldwind Australia and dated March 2014;</li> <li>• <i>Associated Submissions report dated June 2014</i>;</li> <li>• <i>Report to Planning Assessment Commission, August 2014</i></li> <li>• <i>Supplementary information for Department of Planning and Environment</i> prepared by Goldwind Australia, dated April 2015</li> </ul>
<b>EPA</b>	Environment Protection Authority
<b>Minister, the</b>	Minister for Planning
<b>OEH</b>	Office of Environment and Heritage
<b>OEMP</b>	Operation Environmental Management Plan
<b>Operation</b>	The point at which turbines approved or at which all turbines of the project constructed in any stage (pursuant to condition 1.8) are practically complete and ready for operation for the purpose of generating electricity.
<b>Proponent</b>	Gullen Range Wind Farm Pty Ltd
<b>Reasonable and feasible</b>	<p>Consideration of best practice taking into account the benefit of proposed measures and their technological and associated operational application in the NSW and Australian context. <b>Feasible</b> relates to engineering considerations and what is practical to build. <b>Reasonable</b> relates to the application of judgement in arriving at a decision, taking into account mitigation benefits and cost of mitigation versus benefits provided, community views and nature and extent of potential improvements.</p>

<b>RFS</b>	The New South Wales Rural Fire Service
<b>RMS</b>	Roads and Maritime Services
<b>Secretary</b>	Secretary of the Department, or nominee
<b>Site</b>	The land referred to in Appendix 2 of the project approval.
<b>Statement of Commitments</b>	The commitments in Appendix 3 of the project approval
<b>Submission Report</b>	<i>Proposed Development of the Gullen Range Wind Farm, Southern Tablelands, New South Wales Response to Submissions to the Environmental Assessment</i> , prepared by Epuron Pty Ltd and dated November 2008

## 1. ADMINISTRATIVE CONDITIONS

### Terms of Approval

- 1.1 The Proponent shall carry out the project:
- generally in accordance with the EA;
  - the statement of commitments; and
  - conditions of this approval.
- Note: The general layout of the project is depicted in the figure in Appendix 1.*
- 1.2 If there is any inconsistency between the documents referred to in condition 1.1, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
- 1.3 The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
- any strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with the requirements in this approval;
  - any report, reviews or audits commissioned by the Department regarding compliance with this approval; and
  - the implementation of any actions or measures contained in these documents.

### Modifications to the Scope of the Project

- 1.4 Pursuant to section 75J(4) of the *Environmental Planning and Assessment Act 1979* the project is modified to delete the following turbines from the scope of the project: KIA\_03, KIA\_04, KIA\_05, KIA\_06, KIA\_07, KIA\_08, KIA\_09, KIA\_10, KIA\_11, KIA\_12 and KIA\_14. This approval does not authorise construction of these turbines.

Note: the turbines referred to under condition 1.4 have been removed from the project based on a precautionary approach with respect to potential aviation hazards associated with the project, and for potential users of the Crookwell Airstrip. Turbines have been selected for deletion from the project based on the Inner Horizontal and Conical Surfaces identified for a Code 2, Non-instrument runway under *Manual of Standards Part 139 – Aerodromes* (Version 1.4) (Civil Aviation Safety Authority, April 2008).

- 1.5 Pursuant to section 75J(4) of the *Environmental Planning and Assessment Act 1979* the project is modified to remove the ability of the Proponent to relocate turbines from the locations indicated in the document referred to under condition 1.1a) by up to 250 metres, without further assessment and approval in accordance with the requirements of the *Environmental Planning and Assessment Act 1979*.

### Limits of Approval

- 1.6 This approval shall lapse five years after the date on which it is granted unless the Proponent has confirmed to the satisfaction of the Secretary that orders have been placed for wind turbines, or demonstrated that work subject of this approval has been completed on the site before that time.

### Statutory Requirements

- 1.7 The Proponent shall ensure that all licences, permits and approvals are obtained and maintained as required throughout the life of the project. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals. The Proponent shall ensure that a copy of this approval and all relevant environmental approvals are available on the site at all times during the project.
- 1.8 The Proponent may elect to construct the project in stages. In this case, these conditions of approval may be complied with separately for each stage, as relevant.

## Decommissioning

- 1.9 Within one year of decommissioning, the site shall be returned, as far as practicable, to its condition prior to the commencement of construction. All wind turbines and associated above ground structures (i.e. not including turbine foundations) including but not necessarily limited to, the substation, the control and facilities building and electrical infrastructure shall be removed from the site unless otherwise agreed by the **Secretary**, except where the substation, control room or overhead electricity lines are transferred to or in the control of the local electricity network operator. All other elements associated with the project, including site roads, shall be removed unless otherwise agreed to by relevant the landowner(s).
- 1.10 If any wind turbine is not used for the generation of electricity for a continuous period of 12 months, it shall be decommissioned by the Proponent, unless otherwise agreed by the **Secretary**. The Proponent shall keep independently-verified annual records of the use of wind turbines for electricity generation. Copies of these records shall be provided to the **Secretary** upon request. The relevant wind turbine and any associated infrastructure is to be dismantled and removed from the site by the Proponent within 24 months from the date that the wind turbine was last used to generate electricity.
- 1.11 Prior to the commencement of construction, the Proponent shall provide written evidence to the satisfaction of the **Secretary** that the lease agreements with the site landowners have adequate provisions to require that decommissioning occurs in accordance with this approval.

## 2. SPECIFIC ENVIRONMENTAL CONDITIONS

### Visual Amenity

#### *Landscaping Requirements*

- 2.1 Prior to the commencement of Operation, the Proponent shall consult with Council and the **RMS** in relation to the need to provide landscaping screening measures along public road reserves such as but not limited to Range Road, Storriers Lane, Bannister Lane and Grabben Gullen Road and shall report to the **Secretary** on the outcomes of this consultation. The Proponent shall implement landscaping screening measures in accordance with the **Secretary's** requirements.
- 2.2 **By December 2015**, the Proponent shall notify in writing:
  - a) all owners of existing or approved residential dwellings that are located within three kilometres of the project;
  - b) all owners of approved subdivision allotment where there is an approved dwelling entitlement, where such subdivision allotments were approved by the date of approval of the project that are located within three kilometres of the project;
  - c) the owners of Lot 55 of DP 754115;
  - d) but excluding the owners of Lot 118 of DP 1116333 and Lot 121 of DP 754115 and the owners of Lots 143 and 303 of DP 754115, Lot 2 of DP 541500 and Lot 2 of DP 541499
  - e) the owners of PW37

that they are entitled to landscaping treatments on their property in order to minimise the visual impact of the project on their property.
- 2.3 **Upon receiving a written request from the landowner referred to in condition 2.2 to have landscaping treatments implemented on their property, the Proponent shall:**
  - a) within fourteen (14) days of receiving the request, commission a suitably qualified person approved by the **Secretary**, to investigate reasonable and feasible measures to minimise the visual impacts of the project on the landowner's property using landscape treatments;
  - b) ensure that the qualified person provides a landscaping plan detailing the matters investigated and consequential recommendations within twelve (12) weeks of receiving such request; and

- c) provide the landowner with a copy of the landscaping plan, including suggested landscape treatment measures, within fourteen (14) days of receiving the plan.

If the parties agree on the landscaping plan, then the Proponent shall implement the agreed measures with all landscaping being completed within three months (where practical). The Proponent shall maintain these measures, at their cost, for a period of two years. Access and notification arrangements are to be negotiated between the parties.

Landscape treatments shall include, but not be limited to, site preparation stock and rabbit-proof fencing, selection and planting of appropriate species decided by both parties, watering, weed control and the replacement of failed plants.;

If the parties are unable to agree on the landscaping plan within three months of the plan being provided to the landowner, or there is a dispute about the implementation of any agreed landscaping treatments, then either party may refer the matter to the Secretary for resolution. The Secretary's decision on such a referral shall be final and binding on the parties.

2.3A By 31 December 2015, unless otherwise agreed by the Secretary, the Proponent shall implement:

- a) landscaping treatments to screen the substation and associated switching station for the project; and
- b) colour treatment to perimeter fencing for the substation and associated switching station for the project to minimise glare,

to the satisfaction of the Secretary.

The landscaping treatments referred to in 2.3A a) must employ all reasonable and feasible mitigation measures and utilise mature plantings to screen the substation and switching station from the surrounding non-associated property PW4. Following the installation of the landscaping treatments, the Proponent shall maintain them over the life of project.

### ***Turbine External Design***

- 2.4 Wind turbine generators shall be painted matte off-white/grey. The blades shall be finished with a surface treatment that minimises any potential for glare or reflection.
- 2.5 No advertising, signs or logos shall be mounted on the turbines, except where required for safety purposes. A corporate logo may be placed on the turbines provided it is not distinguishable by the naked eye from any publicly accessible location or from any properties not being an associated property.

### ***Lighting***

- 2.6 No external lighting other than low intensity security night lighting of infrastructure associated with the project, including wind turbine generators is permitted; unless otherwise agreed or directed by the Secretary.

### ***Shadow-flicker***

- 2.7 Shadow flicker arising from the operation of the project shall not exceed 30 hours/annum at any residence not being an associated residence..

## **Noise Impacts**

### ***Construction and Decommissioning Noise***

- 2.8 The Proponent shall only undertake construction or decommissioning activities associated with the project that would generate an audible noise at any residential premises during the following hours:
  - a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive;
  - b) 8:00 am to 1:00 pm on Saturdays; and
  - c) at no time on Sundays or public holidays.

This condition does not apply in the event of a direction from police or other relevant authority for safety reasons, or emergency work to avoid the loss of lives, property and/or to prevent environmental harm.

- 2.9 The hours of construction or decommissioning activities specified under condition 2.8 of this approval may be varied with the prior written approval of the Secretary. Any request to alter the hours of construction or decommissioning specified under condition 2.8 shall be:
- considered on a case-by-case basis; and
  - accompanied by details of the nature and need for activities to be conducted during the varied construction or decommissioning hours and any other information necessary to reasonably determine that activities undertaken during the varied construction or decommissioning hours will not adversely impact on the acoustic amenity of receptors in the vicinity of the site; and
  - affected residential receivers being informed of the timing and duration of work approved under this condition at least 48 hours before that work commences.
- 2.10 During construction or decommissioning, the Proponent shall minimise noise emissions from plant and equipment operated on the site by installing and maintaining, wherever practicable, efficient silencers, low-noise mufflers (residential standard) and replacement of reversing alarms on vehicles with alternative silent measures, such as flashing lights

**Construction or Decommissioning Blasting**

- 2.11 Blasting associated with the construction or decommissioning of the project shall only be undertaken during the following hours:
- 9:00 am to 5:00 pm, Mondays to Fridays, inclusive;
  - 9:00 am to 1:00 pm on Saturdays; and
  - at no time on Sundays or public holidays.
- 2.12 The Proponent shall ensure that air blast overpressure generated by blasting associated with the project does not exceed the criteria specified in Table 1 when measured at the most-affected residential or sensitive receiver.

**Table 1 – Airblast Overpressure Criteria**

Air blast Overpressure (dB(Lin Peak))	Allowable Exceedance
115	5% of total number of blasts over a 12 month period
120	Never

- 2.13 The Proponent shall ensure that the ground vibration generated by blasting associated with the project does not exceed the criteria specified in Table 2 when measured at the most-affected residential or sensitive receiver.

**Table 2 – Peak Particle Velocity Criteria**

Peak Particle Velocity Criteria (mms <sup>-1</sup> )	Allowable Exceedance
5	5% of total number of blasts over a 12 month period
10	Never

- 2.14 Prior to each blasting event, the Proponent shall notify the relevant local council and potentially-affected landowners, including details of time and location of the blasting event and providing a contact point for inquiries and complaints.

**Operational Noise Criteria**

- 2.15 Subject to conditions 2.15 to 2.20 the Proponent shall design, operate and maintain the project to ensure that the equivalent noise level (L<sub>Aeq</sub> (10-minute)) from the project does not exceed at each of the residential receiver locations identified in Section 5 of the Noise Impact Assessment prepared by Marshall Day Acoustics, dated 5 June 2008 (Section 3.2 of EA



Attachments), or any other residential receiver in existence or the subject of a valid development consent at the date of this approval (but including PW37):

- a) 35 dB(A); or
- b) the existing background noise level ( $L_{A90(10\text{-minute})}$ ) correlated to the integer wind speed at hub height at the wind farm site by more than 5 dB(A).

whichever is the greater, for each integer wind speed (measured at hub height) from cut-in to rated power of the wind turbine generator, when determined in accordance with the methodology provided in the *Wind Farms: Environmental Noise Guidelines* (SA EPA, 2003) ('SA Guidelines 2003') or as otherwise agreed with the EPA.

- 2.16 The Proponent shall prepare a revised Noise Assessment for the final turbine model and turbine layout selected, which shall be submitted to the Secretary prior to commissioning of the wind turbines. The assessment shall demonstrate consistency with the EA and the ability of the final turbine model and layout to meet the requirements of condition 2.15. The revised Noise Assessment shall include the following:
  - a) noise predictions of the final turbine model and layout selected at each of the receiver locations;
  - b) method and modelling inputs employed to carry out the noise level predictions according to the SA Guidelines 2003 except that all sounds power levels and wind speeds shall be referenced to hub height;
  - c) an assessment of the suitability of background noise level data to cover the range of wind speeds and directions generally expected at the site; and
  - d) noise predictions shall be conducted by an acoustic engineer defined for the purposes of this condition as an engineer who is eligible for membership of both the Australian Acoustical Society and the Institution of Engineers Australia.
- 2.17 Where noise predictions are found to exceed the limits specified in condition 2.15 the Proponent shall develop and implement a Noise Operating Strategy that identifies specific methods of noise reductions to restore the levels back to the limits in Condition 2.15 at any receiver location for all wind directions including worst case-scenarios. The strategy shall include noise modelling verification that demonstrates the predicted noise reductions can be achieved,
- 2.18 Noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 20 metres of the dwelling, where the dwelling is more than 20 metres from the boundary, to determine compliance with the noise level limits in conditions 2.15 and 2.16. Under this Condition "dwelling" means one in existence or the subject of a valid development consent at the date of this approval.
- 2.19 For the purposes of conditions 2.15 and 2.16 of this approval, 5 dB(A) shall be applied to measured noise levels where tonality is present. The presence of tonality shall be determined using the methodology detailed in Wind Turbine Generator Systems- Part 11: Acoustic Noise Measurement Techniques IEC 61400-11:2002 or its latest edition or as otherwise agreed with the EPA.
- 2.20 Notwithstanding conditions 2.15 and 2.16 of this approval, the noise limits specified under those conditions do not apply to any residence where a noise agreement is in place between the Proponent and the respective owner(s) of those residences in relation to noise impacts and/or noise limits. For this condition to take effect, the noise agreements shall satisfy the requirements of Guidelines for Community Noise (WHO, 1999) and Section 2.3 of the SA Guidelines 2003 or as otherwise agreed by the Secretary.

## **Verification of Operational Noise Performance**

2.21 The Proponent shall prepare a Noise Compliance Plan which shall be submitted to the **Secretary** prior to commissioning of the wind turbines. The Noise Compliance Plan shall include, but not be limited to:

- a) an assessment of the performance of the project against the noise predictions contained in conditions 2.15 and 2.16;
- b) a commitment to operate the Project in accordance with any Noise Operating Strategy that is implemented in accordance with condition 2.17;
- c) a commitment that noise compliance monitoring will be undertaken within three months of the commissioning of the wind turbines. If prevailing meteorological conditions do not allow the required monitoring to be undertaken in this period, the **Secretary** shall be notified and an extension of time may be sought; and
- d) a requirement that all noise compliance monitoring results are submitted to the **Secretary** within one month of completion of the monitoring. The **Secretary** may request that additional noise compliance monitoring be undertaken and completed within a specified timeframe.

The Noise Compliance Assessment shall be undertaken generally in accordance with the procedures presented in SA Guidelines 2003, except that all sounds power levels and wind speeds shall be referenced to hub height **unless otherwise agreed with the EPA**.

2.22 In the event that the Noise Compliance Plan indicates that noise from the wind turbines exceeds the noise limits specified under conditions 2.15 and 2.16, as relevant, the Proponent shall investigate and propose mitigation and management measures to achieve compliance with the noise limits. Details of the remedial measures and a timetable for implementation must be submitted to the **Secretary** for approval within such period as the **Secretary** may require. Remedial measures shall include, in the first instance, all reasonable and feasible measures to reduce noise from the project, including but not necessarily limited to reduced operation of wind turbines. Once all reasonable and feasible source controls are exhausted, remedial measures may include offering building acoustic treatments and/or noise screening to affected residences, but may only be used to address noise limit exceedances at the absolute discretion of the relevant landowner. The Proponent shall also demonstrate that the relevant landowner/resident has been made fully aware of the noise and other implications of making any agreement.

If there is no such agreement with the relevant landowner, then the turbine(s) causing the exceedance(s) of the noise limits must be turned off until the turbine(s) can be operated in accordance with this approval.

2.23 The Proponent shall provide written notice to all landowners that are entitled to rights under condition 2.22 within 21 days of determining the landholdings to which these rights apply. For the purpose of condition 2.22, this condition only applies where operational noise levels have been confirmed in accordance with the conditions 2.15 and 2.16.

2.24 The Proponent shall bear the costs of any additional at-receiver mitigation measures implemented at an affected landowner or property.

### **Land Acquisition and Criteria**

2.25 Should the Proponent determine to proceed with any or all of turbines listed in Table 3, the Proponent shall notify in writing the owner of each of the Lots listed in the corresponding row of the specific turbine(s) it intends to proceed with and that it is initiating the acquisition process.

**Table 3 – Turbines to be deleted or landholdings to be acquired**

<b>Turbines to be deleted</b>	<b>or</b>	<b>Property to be acquired</b>	<b>Relevant Lot and DP numbers</b>
BAN_20, BAN_21, BAN_22		B33	1/568887
BAN_22, BAN_23, BAN_24		Daniel Hewitt	55/754115
BAN_14, BAN_15		G&S Price Jones	111/750042
POM_01		Johnson	53/750043 44/750043 103/750043
POM_12, POM_13, POM_14, POM_15, POM_16, POM_19 POM_20		Kings' Lot 6	<i>See note below</i>
POM_12, POM_13, POM_14, POM_15, POM_16, POM_19 POM_20		Kings' Lot 7	<i>See note below</i>
POM_12, POM_13, POM_14, POM_15, POM_16, POM_19 POM_20		Kings' Lot 8	<i>See note below</i>
POM_19, POM_20, POM_21		Kings' Lot 9	<i>See note below</i>
POM_19, POM_20, POM_21		Kings' Lot 10	<i>See note below</i>
POM_19, POM_20, POM_21		Kings' Lot 11	<i>See note below</i>
BAN_24		Montgomery (B121a)	1/783347
BAN_29		Montgomery (B122a)	54/754115
BAN_22, BAN_25, BAN_26		Picker-Wales	1/810446

Note: on 24 July 2008, Upper Lachlan Shire Council granted development consent (230/07) for the creation of a 20-lot subdivision and dwelling entitlements on the following land: Lots 1 and 2 DP57829, Lots 1 and 2 DP937271, Lot 3 DP974080, Lot 101 DP1096412, Lot 1 DP111454, Lot 104 DP750043, Lots 1 and 2 DP547768, Lot 1 DP64411, Lots 29, 37, 42, 46, 55, 65, 165 and 204 DP750019

Note: The lots listed in Table 3 include any unmade Crown roads adjoining the lots which are purchased by the current or future landowners, including but not limited to unmade Crown roads adjoining the Kings' lots 6 to 8 which the Kings are in the process of purchasing.

- 2.26 At the request of the owner(s) of any of the Lots notified under condition 2.25 if such a request is made within three months of the date of service of the notification required under condition 2.25 and provided that this approval or/and (in relation to any Kings' Lots referred to in Table 3 of condition 2.25) development consent 230/07 has not lapsed or been surrendered within that time, the Proponent shall proceed to acquire the relevant landholdings referred to in the owner(s)' request under this condition.
- 2.27 Within three months of receiving a written request from a landowner with acquisition rights under conditions 2.26 of this approval, the Proponent shall make a binding written offer to purchase the land specified in the request to the landowner with such offer to remain open for a period of three months after receipt and shall not be reduced, based on:
- a) the current market value of the landowner's interest in the land at the date of the written request, as if the land was unaffected by the project, having regard to the:
    - i) existing and permissible use of the land, in accordance with applicable planning instruments at the date of the written request; and
    - ii) presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date;
  - b) the reasonable costs associated with obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is acquired; and
  - c) reasonable compensation for any disturbance caused by the land acquisition process.

If after three months of receipt of the Proponent's offer above the Proponent and landowner cannot agree on the acquisition price of the land, including costs and compensation under b) and c) above, and/or the terms upon which the land is to be acquired, then either party may refer the matter to the **Secretary** for resolution.

Upon receiving such a request, the **Secretary** shall request the President of the New South Wales Division of the Australian Property Institute to appoint a suitably qualified and experienced independent valuer, being a Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, including the reasonable compensation for disturbance caused by the land acquisition process associated with c) above, and/or terms upon which the land is to be acquired. This process is to be completed within three months of **Secretary** receiving any such request.

Within 14 days of receiving the independent valuer's determination, the Proponent shall make a binding written offer (including as to the reasonable costs and compensation under b) and c) above), which shall remain open for a period of three months after receipt and shall not be reduced, to purchase the land at a price not less than the independent valuer's determination and otherwise on the terms specified in the determination.

If the landowner refuses to accept this offer within three months of the date of receipt of the Proponent's offer, the Proponent's obligations to acquire the land concerned shall cease,.

If the landowner accepts either of the offers above and thereafter the Proponent fails to acquire the land on terms consistent with the relevant offer within three months of acceptance, the relevant turbines are to be deleted.

- 2.28 The Proponent shall bear the reasonable costs of any valuation or survey assessment requested by the independent valuer or the **Secretary** and the costs of determination referred to under condition 2.27.
- 2.29 If the Proponent and landowner agree that only part of that landowner's property shall be acquired, then the Proponent shall pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.
- 2.30 If the Proponent has not initiated the acquisition process referred to in condition 2.25 for any Lot specified in any request under condition 2.26 by 26 June 2013 or prior to the commencement of any construction activities in the relevant sector of the project; whichever occurs earliest, the relevant nominated turbine(s) relating to that Lot identified in condition 2.25 are to be deleted from the project.
- 2.31 If the Proponent has initiated the acquisition process referred to in condition 2.25 by the earlier of the dates determined in accordance with condition 2.30 and the owners of the relevant Lot to be acquired notify the Proponent in writing that they do not consent to their Lot being acquired, or fail to provide a written request to the Proponent for all or part of their land to be acquired in accordance with condition 2.26, then the requirement either to acquire that land under condition 2.25, or to delete the nominated relevantly applicable turbine from the project under condition 2.30 lapses.
- 2.32 Conditions 2.25-2.30 of this approval are to apply to the landowners of Lots 105, 106, 112, 113, 195, 227 and 253 of DP 7540042 and Lots 247, 304, 355 and 366 of DP7541115 if:
  - a) turbines BAN\_14 and BAN\_15 are not deleted by 26 June 2013; and
  - b) aviation hazard lighting is required to be installed on any turbines in the project.

## **Flora and Fauna Impacts**

- 2.33 The Proponent shall not operate wind turbines POM\_03, POM\_04, POM\_06, and POM\_07 between one hour before sunset and one after sunrise during the period 30 November to 31 March, unless the Proponent demonstrates to the satisfaction of the **Secretary** that operation

during these periods will not adversely impact on Powerful Owl juvenile dispersion. In undertaking such a demonstration, the Proponent shall undertake the following:

- a) monitoring of the dispersion Powerful Owl juveniles in and around the site, to be conducted by an independent specialist approved by the **Secretary**;
- b) preparation of a report to be submitted to the **Secretary** presenting the outcomes of monitoring and impacts to the Powerful Owl juvenile dispersion in and around the site; and
- c) conclusively demonstrating to the satisfaction of the **Secretary** that the dispersion of Powerful Owl juveniles in and around the site will not be adversely impacted by the project.

2.34 The Proponent shall ensure that during the construction of wind turbine BAN\_14, including construction and/ or installation of any ancillary facilities and any site access arrangements, the following requirements are met:

- a) vegetation defined as all or part of an Endangered Ecological Community shall not be cleared, modified or otherwise directly impacted as a result of the works;
- b) access to the construction site shall be clearly demarcated to minimise the potential for impacts on local vegetation;
- c) disturbed areas shall be stabilised and rehabilitated following the conclusion of construction works; and
- d) an independent qualified ecologist shall attend all site works to advise on mitigation, management and monitoring measures that shall be applied to comply with this condition of approval.

2.35 **By the 31 December 2015, unless otherwise agreed with the Secretary, the Proponent shall revise the proposed compensatory habitat package to offset in perpetuity the value of habitat lost as a result of the project, in consultation with OEH, and to the satisfaction of the Secretary.**

Unless otherwise agreed to by the **Secretary**, the package shall comprise:

- a) a minimum of 2:1 'like for like' offset of the vegetation communities to be removed or otherwise disturbed on site utilising a "Worst Case Scenario" impact assessment; or
- b) the implementation of in kind management measures or funding for such measures as agreed to by **OEH**; or a combination of the measures specified in a) and b).

**Once the Secretary has endorsed the compensatory habitat package, the Proponent shall implement the package to the satisfaction of the Secretary.**

2.36 The Proponent shall make a financial contribution of \$1500.00 to the NSW Wildlife Information and Rescue Service for each death of a Powerful Owl that has reasonably been attributed to the carrying out of the project. The financial contribution must be paid by the Proponent within one month of the Proponent becoming aware of the death. The contribution must be adjusted to take account of any increase in the Consumer Price Index (All Groups Index for Sydney) over time, commencing at the September 2010 quarter.

2.37 The Proponent shall make a financial contribution of \$1500.00 to the NSW Wildlife Information and Rescue Service for each death of the Wedge-tailed Eagle that has reasonably been attributed to the carrying out of the project. The financial contribution must be paid by the Proponent within one month of the Proponent becoming aware of the death. The contribution must be adjusted to take account of any increase in the Consumer Price Index (All Group Index for Sydney) over time, commencing at the September 2010 quarter.

2.38 In order to avoid the Endangered Ecological Community of vegetation in the southern portion of the Pomeroy site, proposed cabling Option 2 shall be utilised.

2.39 Gurrundah Creek shall be surveyed by a suitably qualified ecologist for the presence of Platypus. Subject to identification of the species, any construction works in the vicinity of the creek shall be conducted in accordance with the Flora and Fauna Management Plan contained in condition 7.3 such that negative impacts to the species are mitigated.

2.40 Prior to the commencement of construction, clearly defined work areas (including access trails) must be established using a combination of posts, fencing or markers, and suitably

marked up maps as appropriate. All on-site construction movements are to be restricted to these areas, to prevent uncontrolled or inadvertent access by vehicles or construction personnel to vegetation and fauna habitat to be protected under this approval.

### **Aviation**

- 2.41 Prior to the commencement of operation, the following information shall be provided by the Proponent to the Civil Aviation Safety Authority, Commonwealth Department of Defence and Airservices Australia to inform these agencies of the wind farms location:
- “as constructed” coordinates in latitude and longitude of each wind turbine generator;
  - final height of each wind turbine generator in Australian Height Datum; and
  - ground level at the base of each wind turbine generator in Australian Height Datum.
- 2.42 The Proponent shall notify all known users of the Crookwell, Ashwel and Kings’ Airstrips of the location of the wind turbines and any changes to operational procedures.

### **Bushfire Risk**

- 2.43 Throughout the life of the project, the Proponent shall regularly consult with the local RFS to ensure its familiarity with the project, including the construction timetable and the final location of all infrastructure on the site. The Proponent shall comply with any reasonable request of the local RFS to reduce the risk of bushfire and to enable fast access in emergencies.
- 2.44 The Proponent shall:
- ensure there is appropriate fire-fighting equipment held on site to respond to any fires that may occur at the site during **construction, operation and decommissioning** of the project; and
  - assist the RFS and emergency services as much as possible if there is a fire on-site during the project.
- 2.45 The Proponent shall prepare, in consultation with the local RFS, a **Bushfire Risk Management Plan** based on the guidelines *Planning for Bushfire Protection* (RFS, 2001 or its latest edition). The Plan shall include, but not necessarily be limited to:
- details of the bushfire hazards and risks associated with the project;
  - mitigation measures including contingency plans;
  - procedures and programs for liaison and regular drills with the local RFS; and
  - procedures for regular fire prevention inspections by the local RFS and implementation of any recommendations

### **Bunding and Spill Management**

- 2.46 The Proponent shall store and handle all dangerous goods (as defined by the Australian Dangerous Goods Code) and combustible liquids, strictly in accordance with:
- all relevant Australian Standards;
  - a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and
  - the EPA’s Environment Protection Manual Technical Bulletin *Bunding and Spill Management*

In the event of an inconsistency between requirements listed from a) to c) above, the most stringent requirement shall prevail to the extent of the inconsistency.

### **Safety Management System**

- 2.47 At least two months prior to the commencement of commissioning, the Proponent shall prepare a report outlining a comprehensive Safety Management System, covering all on-site systems related to ensuring the safe operation of the project. The report must clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. Records must be kept at the Site and must be available for inspection by the Department upon request. The Safety Management System must be developed in accordance with the Department’s *Hazardous Industry Planning Advisory Paper No. 9, ‘Safety Management’*, and should include:



- a) procedures and programs for the maintenance and testing of the safety related equipment to ensure its integrity over the life of the project; and
- b) an outline of a documented procedure for the management of change.

### **Traffic and Transport Impacts**

- 2.48 The Proponent shall apply for a Road Occupancy Licence from the **RMS** Traffic Operations Unit prior to commencing work within the classified road reserve or within 100 metres of traffic signals. The application shall be accompanied by a Traffic Control Plan to be prepared by a person who is certified to prepare Traffic Control Plans.
- 2.49 Upon determining the haulage route(s) for the construction or decommissioning of the project, the Proponent shall:
- a) commission a qualified person to undertake a Road Dilapidation Report of all roads proposed to be used for construction or decommissioning activities in consultation with relevant road authorities. The Report shall assess the current condition of the relevant roads; and
  - b) following completion of the construction or decommissioning of the project, a subsequent Road Dilapidation Report shall be prepared to assess any damage that may have resulted due to traffic and transport related to the construction or decommissioning of the project.

The Proponent shall commit to restore the relevant roads to a state, described in the original Road Dilapidation report. The cost of any restorative work described in the subsequent Report or recommended by the relevant road authorities after review of the subsequent Report, shall be funded by the Proponent. Such work shall be undertaken at a time as agreed upon between the Proponent and the relevant road authorities. In the event of a dispute between the parties with respect to the extent of restorative work that may be required under this condition, any party may refer the matter to the **Secretary** for resolution. The **Secretary's** determination of any such dispute shall be final and binding on the parties.

- 2.50 Heavy vehicle access to Ross Bridge will not be permitted for approximately 12 months from the 23 September 2008 as the bridge is undergoing maintenance.
- 2.51 Prior to the commencement of any works that are part of or extending from Prices Lane, the Proponent is required to obtain the consent of the Surveyor General and a licence under the *Crown Lands Act 1989*.
- 2.52 Grabben Gullen Road, Gurrundah Road and Range Road junctions shall be designed and constructed in consultation with Upper Lachlan Shire Council.
- 2.53 Prior to the commencement of construction, the Proponent shall upgrade all site access roads for temporary use by heavy vehicles to a standard endorsed by the Council to the reasonable and feasible requirements of the Council.

### **Electromagnetic Interference**

#### **Television and Radio Interference**

- 2.54 Prior to the commencement of commissioning of the project, the Proponent shall undertake an assessment of the existing quality of the television/radio transmission available at a representative sample of residential dwellings located within 5 kilometres of any wind turbine.
- 2.55 The Proponent shall undertake reasonable and feasible mitigation to rectify any television/radio transmission problems reasonably attributable to the project at any residential dwelling located within five kilometres of a wind turbine. Such measures may include:
- a) modification to or replacement of receiving antenna;
  - b) installation and maintenance of a parasitic antenna system;
  - c) provision of a land line between the affected receiver and an antenna located in an area of favourable reception; or
  - d) other feasible measures.

- e) if interference cannot be overcome by the measures outlined in a) to d), the Proponent shall negotiate with the impacted landowner about installing and maintaining a satellite receiving antenna.

Any requested works shall be completed within three months of the completion of the relevant television and/or radio reception assessment, unless otherwise agreed by the landowner. The Proponent shall be responsible for all reasonable costs associated with undertaking any mitigation measures.

### **Radio Communication**

- 2.56 In the event that any issue with radio communication service links (installed before construction of the project) arise as a result of the project (such as obstruction of transmission paths), the Proponent shall consult with the operator and undertake appropriate remedial measures to rectify any issue. Such measures may include:
  - a) modification to or relocation of the existing antennae;
  - b) installation of a directional antennae; and/ or
  - c) installation of an amplifier to boost the signal strength.

### **Soil and Water Quality Impacts**

- 2.57 Except as may be expressly provided by an Environment Protection Licence for the project, the Proponent shall comply with section 120 of the *Protection of the Environment Operations Act 1997* which prohibits the pollution of waters.
- 2.58 Prior to the commencement of construction the Proponent must indicate to the **Secretary** in consultation with the **Department of Primary Industries Water**; The details of which water sources are to be used, from which property, for which purpose and the volume and time period required to utilise the water.
- 2.59 Soil disturbing activities of any nature are not permitted in the classified Crown Road reserve between Gurrundah Creek and ten metres upslope from the northern end of the abandoned sheep dip site located on the "Hillview" property, being Lot 206 DP750043, other than any soil sampling activities being carried out by a suitable qualified person to identify whether any soil contamination is present.

### **Heritage Impacts**

- 2.60 If during the course of construction the Proponent becomes aware of any previously unidentified Aboriginal object(s), all work likely to affect the object(s) must cease immediately and the **OEH** informed in accordance with the *National Parks and Wildlife Act 1974*. Works must not recommence until written authorisation from **OEH** is received by the Proponent.
- 2.61 If during the course of construction the Proponent becomes aware of any unexpected historical relic(s), all work likely to affect the relic(s) must cease immediately and the Heritage Office notified in accordance with the *Heritage Act 1977*. Works shall not recommence until the Proponent receives written authorisation from the Heritage Office.

### **Waste Generation and Management**

- 2.62 The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal or any waste generated on site to be disposed of at the site, except as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*, if such a licence is required in relation to that waste.
- 2.63 The Proponent shall ensure that all liquid and / or non-liquid waste generated and / or stored on the site is assessed and classified in accordance with *Waste Classification Guidelines Part 1: Classifying Waste* (DECC, 2008), or any future guideline that may supersede that document.



### 3. ENVIRONMENTAL MONITORING AND AUDITING

#### Bird and Bat Monitoring

3.1 The Proponent shall prepare and implement a Bird and Bat Adaptive Management Program for the project to the satisfaction of the Secretary. This program must be submitted to the Secretary for approval prior to construction, and be updated by 31 December 2015, unless otherwise agreed by the Secretary. The program must be prepared in consultation with OEH, and take into account the bird/bat monitoring methods identified in the current editions of *AusWEA Best Practice Guidelines for the Implementation of Wind Energy Projects in Australia and Wind Farm and Birds: Interim Standards for Risk Assessment*. The Program shall be implemented by a suitably qualified expert, approved by the Secretary. The Program shall incorporate Monitoring, and a Decision Matrix that clearly sets out how the Proponent will respond to the outcomes of monitoring. It must:

- a) incorporate an ongoing role for the suitably qualified expert;
- b) set out monitoring requirements in order to assess the impact of the project on bird and bat populations, including details on survey locations, parameters to be measured, frequency of surveys and analyses and reporting. The monitoring program must be capable of detecting any changes to the population of birds and/ or bats that can reasonably be attributed to the operation of the project, that is, data may be required to be collected prior to the commencement of construction. The requirements must also account for natural and human changes to the surrounding environment that might influence bird and/ or bat behaviour such as changes in land use practices, and significant changes in water levels in nearby water bodies;
- c) incorporate a decision making framework that sets out specific actions and when they may be required to be implemented to reduce any impacts on bird and bat populations that have been identified as a result of the monitoring;
- d) identify 'at risk' bird and bat groups such as the Powerful Owl, the Little Eagle, the Common Bent-wing Bat, the Large-footed Myotis and the Eastern False Pipistrelle and include monthly mortality assessments and periodic local population censuses and bird utilisation surveys;
- e) identify potential mitigation measures and implementation strategies in order to reduce impacts on birds and bats such as minimising the availability of raptor perches, swift carcass removal, pest control including rabbits, use of deterrents, and sector management including switching off turbines that are predicted to or have had an unacceptable impact on bird/ bat mortality at certain times; and
- f) identify matters to be addressed in periodic reports in relation to the outcomes of monitoring, the application of the decision making framework, the need for mitigation measures, progress with implementation of such measures, and their success.

The Reports referred to under part f) shall be submitted to the Secretary on an annual basis, from the commencement of operation, and shall be prepared within two months of the end of the reporting period. The Secretary may vary the reporting requirement or period by notice in writing to the Proponent.

The Proponent is required to implement reasonable and feasible mitigation measures as identified under part e) where the need for further action is identified through the Bird and Bat Adaptive Management Program, or as otherwise agreed with the Secretary.

#### Noise Monitoring

3.2 Noise compliance monitoring shall be conducted in accordance with the Noise Management Plan under conditions 7.3a), 7.5a) and 7.7a), or as directed by the Secretary in response to noise complaints.

#### Independent Environmental Auditing

3.3 Within two years of the commencement of Operation of the project, and then as may be directed by the Secretary, the Proponent shall commission an independent person or team to undertake an Environmental Audit of the project. The independent person or team shall be approved by the Secretary prior to the commencement of the Audit. The Audit must:

- a) be carried out in accordance with ISO 19011:2002 - Guidelines for Quality and or Environmental Management Systems Auditing;
- b) assess compliance with the requirements of this approval, and other licences and approvals that apply to the project;
- c) assess the environmental performance of the project against the predictions made and conclusions drawn in the documents referred to under condition 1.1 of this approval;
- d) review the effectiveness of the environmental management of the project, including any environmental impact mitigation works; and
- e) review the adequacy of the Proponent's response to any complaints made about the project through the Complaints Register required under **condition 5.4**

An **Environmental Audit Report** must be submitted for comment to the **Secretary** within two months of the completion of the Audit, detailing the findings and recommendations of the Audit and including a detailed response from the Proponent to any of the recommendations contained in the Report.

#### 4. ANCILLARY FACILITIES

- 4.1 The sites for Ancillary Facilities must satisfy the following criteria unless otherwise approved through the Construction Environmental Management Plan required under condition 7.2 **or the Decommissioning Environmental Management Plan required under condition 7.7:**
- a) be located within the site;
  - b) have ready access to the road network;
  - c) be located to minimise the need for heavy vehicles to travel through residential areas;
  - d) be sited on relatively level land;
  - e) be separated from nearest residences by at least 200 m (or at least 250 m for a temporary batch plant);
  - f) be located above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented;
  - g) not require vegetation clearing beyond that already required for the project; and
  - h) not affect the land use of adjacent properties.

The location of the Ancillary Facilities must be identified in the CEMP **or DEMP** and must include an analysis against the above criteria. Where these criteria cannot be met, the CEMP must demonstrate there will be no adverse impacts from the Ancillary Facility's **construction, operation or decommissioning**.

#### 5. COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

- 5.1 Subject to confidentiality, the Proponent shall make all documents required under this approval available for public inspection on request.

##### Provision of Electronic Information

- 5.2 **The Proponent shall:**
- a) **make the following information publicly available on its website:**
    - EA;
    - current statutory approvals for the project, including this project approval and any environment protection licence;
    - approved plans or programs required under the conditions of this approval;
    - a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the requirements of the various plans and programs required under the conditions of this approval;
    - a complaints register, which is updated on a monthly basis;
    - any environmental audit of the project, including the Proponent's response to the recommendations in any audit report; and
  - b) **keep this information up to date, to the satisfaction of the Secretary.**

## Community Information Plan

- 5.3 The Proponent shall prepare and implement a Community Information Plan to the satisfaction of the Secretary. This plan must set out the community communications and consultation processes to be undertaken during the construction, operation and decommissioning of the project. The Plan must include but not be limited to:
- a) procedures to inform the local community of planned investigations and Construction or decommissioning activities, including blasting works;
  - b) procedures to inform the relevant community of Construction or decommissioning traffic routes and any potential disruptions to traffic flows and amenity impacts;
  - c) procedures to consult with local landowners with regard to Construction or decommissioning traffic to ensure the safety of livestock and to limit disruption to livestock movements;
  - d) procedures to inform the community where work has been approved to be undertaken outside the normal Construction or decommissioning hours, in particular noisy activities;
  - e) procedures to inform and consult with those landowners who are eligible for landscaping on their property as determined under condition 2.2 of this approval; and
  - f) procedures to notify relevant landowners of the process available to review potential impacts on radio and television transmission.

*Note: With the agreement of the Secretary, an update of the approved Community Information Plan (August 2012) can satisfy the requirements of this condition.*

## Complaints Procedure

- 5.4 Prior to the commencement of construction of the project, the Proponent shall ensure that the following are available for community complaints for the life of the project (including construction, operation and decommissioning):
- a) a 24-hour telephone number on which complaints about construction, operation and decommissioning activities at the site may be registered;
  - b) a postal address to which written complaints may be sent; and
  - c) an email address to which electronic complaints may be transmitted.

The telephone number, the postal address and the e-mail address must be advertised in a newspaper circulating in the locality on at least one occasion prior to the commencement of construction and at six-monthly intervals thereafter. These details must also be provided on the Proponent's internet site.

- 5.5 The Proponent shall record details of all complaints received through the means listed under condition 5.4 of this approval in an up-to-date Complaints Register. The Register shall record, but not necessarily be limited to:
- a) the date and time, where relevant, of the complaint;
  - b) the means by which the complaint was made (telephone, mail or email);
  - c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect;
  - d) the nature of the complaint;
  - e) any action(s) taken by the Proponent in relation to the complaint, including any follow-up contact with the complainant; and
  - f) if no action was taken by the Proponent in relation to the complaint, the reason(s) why no action was taken.

The Complaints Register shall be made available for inspection by the Secretary upon request.

## Community Enhancement Program

- 5.6 Prior to the commencement of construction of the project, the Proponent shall prepare and submit for the approval of the Secretary, a **Community Enhancement Program**, (as generally described in the Environmental Assessment referred to in condition 1.1a) of this

approval, in so far as it is consistent with the terms contained in this condition) with the aim of funding community enhancement measures to the benefit of the local community that consists of the following components:

1. a Clean Energy Program to support the installation of residential clean energy improvements, (as generally described in the Environmental Assessment referred to in **condition 1.1a**) of this approval, in so far as it is consistent with the terms contained in this condition); and
2. a Community Fund, to provide funds to undertake initiatives which provide a direct benefit to the local community.

The Community Enhancement Program shall be developed in consultation with the Upper Lachlan Shire Council, the Goulburn Mulwaree Council and the local community and provide details of:

- a) the process by which the program's funds would be administered, including mechanisms for accounting and reporting;
- b) how measures and initiatives to be funded by the program would be identified, assessed, prioritised and implemented over the life of the project; and
- c) any other terms agreed to by the parties.

The Proponent shall each year contribute the sum of \$1666 per constructed turbine to the Community Enhancement Program, commencing upon commissioning of the project until the end of its life. The contribution shall be adjusted to take account of any increase in the Consumer Price Index (All Groups Index for Sydney) over time, commencing at the September 2010 quarter.

The Community Enhancement Program shall not require any financial contribution from any recipient of the scheme nor shall the program be conditional on the extent of government subsidies or rebates available for measures to be funded by the program.

### **Community Consultative Committee**

- 5.7 The Proponent shall establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Secretary. The CCC must be operational by 31 December 2015, unless the Secretary agrees otherwise, and it must be operated generally in accordance with the guidance in Appendix C of the draft NSW Planning Guidelines Wind Farms (December 2011), or any equivalent guideline.

*Note: The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.*

## **6. COMPLIANCE TRACKING PROGRAM**

- 6.1 Prior to the commencement of construction, the Proponent shall develop and implement a **Compliance Tracking Program** for the project, to track compliance with the requirements of this approval during the **construction, operation or decommissioning** of the project and shall include, but not necessarily limited to:
- a) provisions for an Annual Environmental Management Report (AEMR) that is to be prepared and submitted to the **Secretary** throughout the operational life of the project. The AEMR must review the performance of the project against the Operational Environmental management Plan, the conditions of this approval and other licences and approvals relating to the project.
  - b) **provisions for periodic reporting of the compliance status to the Secretary including at least prior to the commencement of construction of the project, prior to the commencement of operation of the project, and prior to the commencement of decommissioning,**
  - c) a program for independent environmental auditing in accordance with *AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing*;
  - d) procedures for rectifying any non-compliance identified during environmental auditing or review of compliance;

- e) mechanisms for recording environmental incidents and actions taken in response to those incidents;
- f) provisions for reporting environmental incidents to the **Secretary** during **construction operation and decommissioning**; and
- g) provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.

## 7. ENVIRONMENTAL MANAGEMENT

### Environmental Representative

- 7.1 Prior to the commencement of the construction, operation or decommissioning of the project, the Proponent shall nominate for the approval of the Secretary a suitably qualified and experienced Environmental Representative(s) independent of the construction, operation or decommissioning personnel. The Proponent shall employ the Environmental Representative(s) for the relevant stage of the project, or as otherwise agreed by the Secretary. The Environmental Representative(s) shall be the Proponent's principal point of advice in relation to the environmental performance of the project and shall have responsibility for:
- a) overseeing the implementation of all environmental management plans and monitoring programs required under this approval, and advise the Proponent upon the achievement of these plans/programs;
  - b) considering and advising the Proponent on its compliance obligations against all matters specified in the conditions of this approval and the Statement of Commitments as referred to under condition of this approval, permits and licences; and
  - c) having the authority and independence to recommend to the Proponent reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts, and, failing the effectiveness of such steps, to recommend to the Proponent that relevant activities are to be ceased as soon as reasonably practicable if there is a significant risk that an adverse impact on the environment will be likely to occur.

### Construction Environmental Management Plan (CEMP)

- 7.2 The Proponent shall prepare and implement a **Construction Environmental Management Plan** in accordance with the *Guideline for the Preparation of Environmental Management Plans* (DUAP 2004) or its latest revision. The plan must include but not be necessarily be limited to:
- a) a description of all activities to be undertaken on the site during construction including an indication of stages of construction, where relevant;
  - b) statutory and other obligations that the Proponent is required to fulfil during construction including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
  - c) **(deleted)**
  - d) details of how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts. In particular, the following environmental performance issues shall be addressed in the Plan:
    - i) measures to monitor and minimise soil erosion and the discharge of sediment and other pollutants to lands and/ or waters during construction activities, particularly during any construction works at or near drainage lines; and
    - ii) measures to monitor and manage dust emissions.
  - e) a description of the roles and responsibilities for all relevant employees involved in the construction of the project; and
  - f) complaints handling procedures during construction.
  - g) the Management Plans listed under condition 7.3 of this approval.

The Plan shall be submitted for the approval of the **Secretary** no later than one month prior to the commencement of any construction works associated with the project, or within such period otherwise agreed by the **Secretary**. Construction works shall not commence until written approval has been received from the **Secretary**. Upon receipt of the **Secretary's** approval, the Proponent must make the Plan Publicly available as soon as practicable.



- 7.3 As part of the Construction Environmental Management Plan required under condition 7.2 of this approval, the Proponent must prepare and implement, but is not limited to, the following Management Plans:
- a) a **Noise Management Plan** to detail measures to minimise noise emissions associated with the construction of the project. The Plan must include, but not necessarily be limited to:
    - i) identification of all major sources of noise that may be emitted as a result of the Construction of the project;
    - ii) specification of the noise criteria as it applies to a particular activity;
    - iii) identification and implementation of best practice management techniques for minimisation of noise and vibration emissions;
    - iv) procedures for the monitoring of noise emissions; and
    - v) description of the procedures to be undertaken if any non-compliance is detected.
  - b) a **Traffic Management Plan** to outline measures for the management and coordination of road works required under this approval and to minimise potential conflicts between different user groups. The Plan must be prepared in consultation with the **RMS** and Council and must include, but not necessarily be limited to:
    - i) details of measures to minimise interactions between the project and other users of the roads such as the use of fencing, lights, barriers, traffic diversions etc;
    - ii) procedures for informing the public where any road access will be restricted as a result of the project;
    - iii) procedures to inform vehicle drivers and Crookwell Road business owners of the traffic routes to be used by heavy vehicles associated with the project;
    - iv) procedures to manage construction traffic to ensure the safety of livestock and to minimise disruption to livestock, and school children and limit disruption to school bus timetables;
    - v) speed limits to be observed along routes to and from the site and within the site;
    - vi) minimum requirements for vehicle maintenance to address noise and exhaust emissions, particularly along roads in close proximity to residences;
    - vii) precautionary measures such as signage to warn users of the Bicentennial National Trail about the construction activities for the project;
    - viii) details of the expected behavioural requirements for vehicle drivers travelling to and from the site and within the site; and
    - ix) prohibition of heavy vehicle access to Ross Bridge.
  - c) a **Flora and Fauna Management Plan** to outline measures to protect and minimise loss of native vegetation and native fauna habitat as a result of construction of the project. The Plan must include, but not necessarily be limited to:
    - i) plans showing terrestrial vegetation communities; important flora and fauna habitat areas;
    - ii) locations where threatened species, populations or ecological communities have been recorded or are likely to occur; and areas to be cleared. The plans must also identify vegetation adjoining the site where this contains important habitat areas and/or threatened species, populations or ecological communities;
    - iii) methods to manage impacts on flora and fauna species (terrestrial and aquatic) and their habitat which may be directly or indirectly affected by the project, such as location of fencing, procedures for clearing of vegetation or soil and procedures for re-locating hollows or installing nesting boxes.
    - iv) rehabilitation details, such as use of locally native species in rehabilitation and landscaping works and methods to re-use topsoil and cleared vegetation;
    - v) the impact avoidance and mitigation measures outlined in section 4 of the EA;
    - vi) a Weed Management Strategy; and
    - vii) a program for reporting on the effectiveness of terrestrial flora and fauna management measures. Management methods must be reviewed where found to be ineffective.

## Operation Environmental Management Plan (OEMP)

7.4 The Proponent shall prepare and implement an **Operation Environmental Management Plan** in accordance with the Department's publication entitled *Guideline for the Preparation of Environmental Management Plans* (2004) or its latest revision. The Plan shall include but not necessarily be limited to:

- a) identification of all statutory and other obligations that the Proponent is required to fulfil in relation to the operation of the development, including all consents, licences, approvals and consultations;
- b) a management organisational chart identifying the roles and responsibilities for all relevant employees involved in the operation of the project;
- c) overall environmental policies and principles to be applied to the operation of the project;
- d) standards and performance measures to be applied to the project, and means by which environmental performance can be periodically reviewed and improved, where appropriate;
- e) management policies to ensure that environmental performance goals are met and to comply with the conditions of this approval;
- f) the Management Plans listed under condition 7.5 of this approval; and
- g) the environmental monitoring requirements outlined under this approval.

The Plan shall be submitted for the approval of the **Secretary** no later than one month prior to the commencement of Operation of the project or within such period as otherwise agreed by the **Secretary**. Operation must not commence until written approval has been received from the **Secretary**. Upon receipt of the **Secretary's** approval, the Proponent shall make the Plan publicly available as soon as practicable.

7.5 As part of the Operation Environmental Management Plan required under condition 7.4, the Proponent shall prepare and implement, but is not limited to the following Management Plans:

- a) a **Noise Management Plan** to outline measures to minimise noise emissions from the operation of the project. The Plan must include, but not necessarily be limited to:
  - i) details of procedures to ensure ongoing compliance with the operational noise limits specified in **condition 2.15** as they apply to identified receptors. This should include identification of monitoring requirements;
  - ii) identification and implementation of best practice management techniques for minimisation of noise emissions where reasonable and feasible;
  - iii) measures to be undertaken to rectify annoying characteristics resulting from the operation of the project such as, but not limited to, infrasound or adverse mechanical noise from component failure; and
  - iv) procedures and corrective actions to be undertaken if non-compliance is detected.
- b) a **Landscape Management Plan** to outline measures to ensure appropriate development and maintenance of landscaping on the site to address the visual impacts arising from the project including, turbines, site access roads, substation and control and facilities building, as far as is reasonable and feasible. The Plan must be prepared by a qualified landscape architect and meet the requirements of Council, should there be any. The Plan must include, but not necessarily be limited to:
  - i) measures associated with the biodiversity offset package required under **condition 2.35** and any remnant vegetation onsite;
  - ii) details of landscaping to be undertaken at the site including locations for planting;
  - iii) maximisation of use of flora species that are native to the locality and with low maintenance requirements;
  - iv) a program for the removal of weeds introduced or spread as a result of the development at the site; and
  - v) a program for maintenance of all landscaped areas on the site to ensure these areas are kept in a tidy, healthy state.

- 7.6 Within 3 years of the commencement of the operation of the project, or within 3 months of the approval of any modification to this approval, the Proponent shall review, and if necessary, revise the OEMP to the satisfaction of the Secretary. Following approval, the Proponent shall implement the updated OEMP to the satisfaction of the Secretary.

### **Decommissioning Environmental Management Plan**

- 7.7 The Proponent shall prepare and implement a Decommissioning Environmental Management Plan for the project in accordance with the Guideline for the Preparation of Environmental Management Plans (DUAP 2004), or its latest revision, by 30 June 2016 and revised every 3 years thereafter, or as otherwise agreed by the Secretary. The plan must include:
- a) a description of all activities to be undertaken on the site during decommissioning including an indication of stages of decommissioning, where relevant;
  - b) statutory and other obligations that the Proponent is required to fulfill during decommissioning including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
  - c) details of how the environmental performance of the decommissioning works will be monitored, and what actions will be taken to address identified adverse environmental impacts. In particular, the following environmental performance issues shall be addressed in the Plan:
  - d) measures to monitor and minimise soil erosion and the discharge of sediment and other pollutants to lands and/ or waters during construction activities, particularly during any construction works at or near drainage lines; and
  - e) measures to monitor and manage dust emissions.
  - f) a description of the roles and responsibilities for all relevant employees involved in the decommissioning of the project;
  - g) complaints handling procedures during decommissioning; and
  - h) the Management Plans listed under condition 7.8 of this approval.
- 7.8 As part of the DEMP required under condition 7.7 of this approval, the Proponent must prepare and implement, but is not limited to, the management plans referred to in condition 7.3. For the purpose of this condition, all references to construction in condition 7.3 must be replaced with decommissioning.

## **8. ENVIRONMENTAL REPORTING**

### **Incident Reporting**

- 8.1 The Proponent shall notify the **Secretary** and any relevant Government authority of any incident with actual or potential significant off-site impacts on people or the biophysical environment as soon as practicable after the occurrence of the incident (“initial notification”). The Proponent must provide written details (“written report”) of the incident to the **Secretary** and any relevant Government authority within seven days of the date on which the incident occurred.
- 8.2 The Proponent shall meet the requirements of the **Secretary** to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition 8.1 of this approval, within such period as the **Secretary** may require.

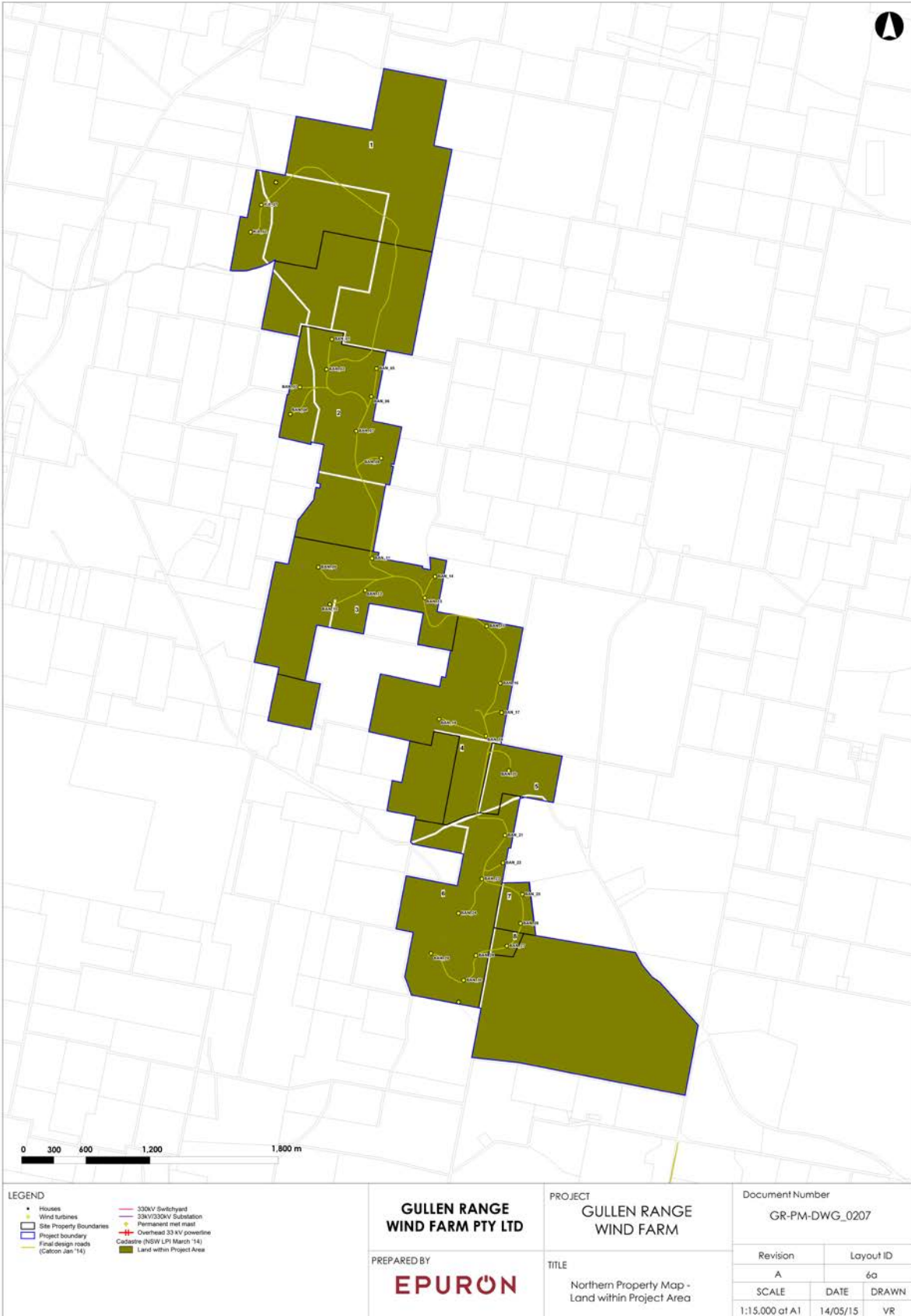
**Tim Moore**  
Senior Commissioner

**Judy Fakes**  
Commissioner of the Court

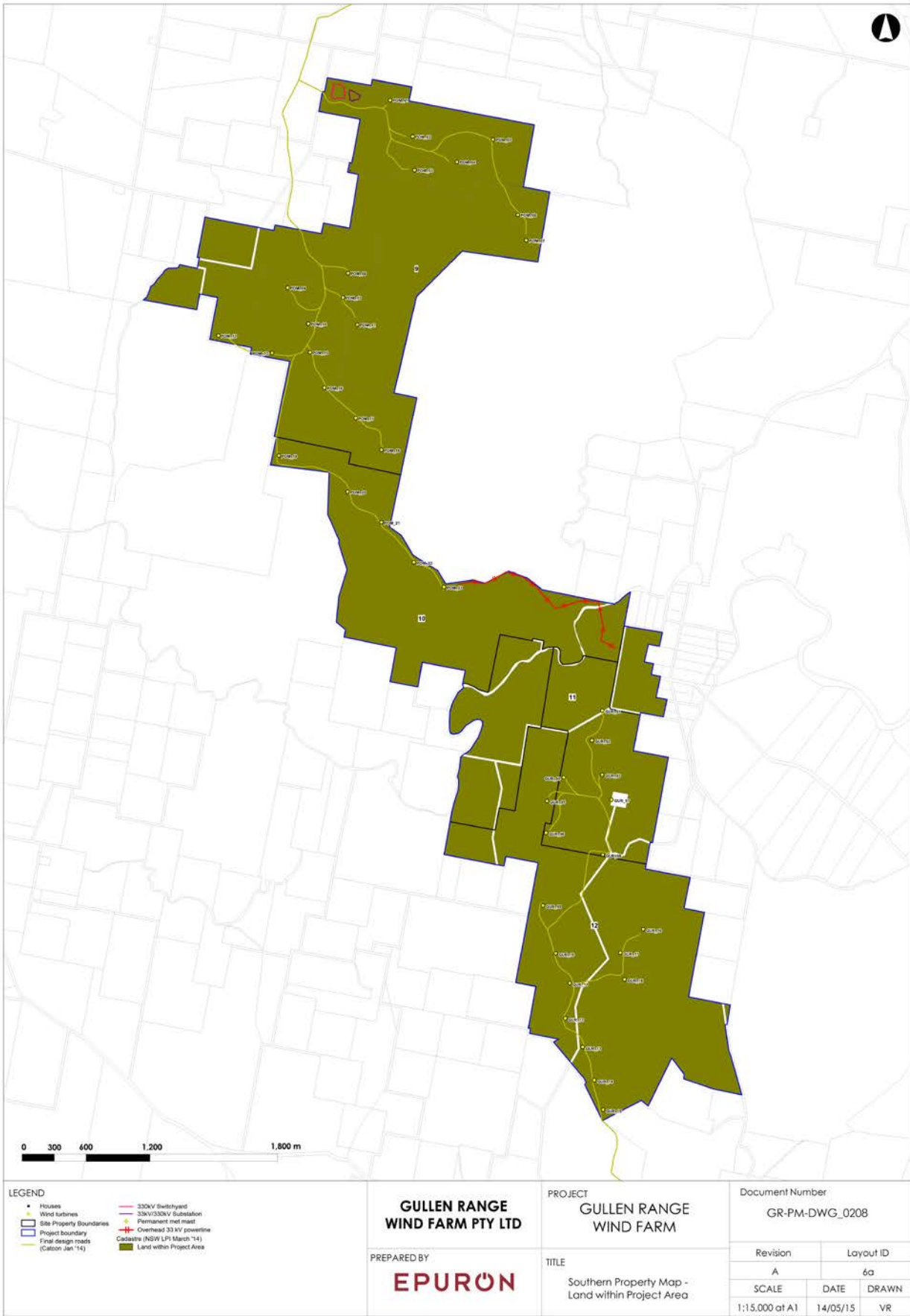


# APPENDIX 1 PROJECT LAYOUT

**Figure A1-1 Project Layout – Northern Turbines**



**Figure A1-2 Project Layout – Southern Turbines**



**LEGEND**

• Houses	— 330kV Switchyard
• Wind turbines	• 33kV/330kV Substation
— Site Property Boundaries	• Permanent met mast
— Project Boundary	— Overhead 23 kV powerline
— Final design roads (Catlon Jan '14)	— Cadastre (NSW LPI March '14)
	■ Land within Project Area

**GULLEN RANGE WIND FARM PTY LTD**

PREPARED BY  
**EPURON**

PROJECT  
**GULLEN RANGE WIND FARM**

TITLE  
Southern Property Map - Land within Project Area

Document Number GR-PM-DWG_0208		
Revision A	Layout ID 6a	
SCALE 1:15,000 at A1	DATE 14/05/15	DRAWN VR

**Table A1-1 Turbine Locations and Levels**

<b>Turbine</b>	<b>Final Design Coordinates and elevation</b>	
<b>Name</b>	<b>Easting</b>	<b>Northing</b>
KIA_01	722206	6178258
KIA_02	722106	6178003
BAN_01	722867	6177000
BAN_02	722816	6176718
BAN_03	722567	6176552
BAN_04	722477	6176299
BAN_05	723284	6176726
BAN_06	723235	6176463
BAN_07	723092	6176141
BAN_08	723327	6175886
BAN_09	722740	6174867
BAN_10	722846	6174519
BAN_11	723242	6174950
BAN_12	723177	6174649
BAN_13	723736	6174579
BAN_14	723832	6174779
BAN_15	724314	6174314
BAN_16	724441	6173780
BAN_17	724453	6173505
BAN_18	723870	6173444
BAN_19	724307	6173286
BAN_20	724521	6172964
BAN_21	724485	6172357
BAN_22	724466	6172100
BAN_23	724269	6171949
BAN_24	724049	6171628
BAN_25	724647	6171804
BAN_26	724630	6171532
BAN_27	724502	6171321
BAN_28	724213	6171232
BAN_29	723793	6171252
BAN_30	724099	6171000
POM_01	725833	6166934
POM_02	726044	6166594
POM_03	726063	6166277
POM_04	726461	6166355
POM_05	726800	6166565
POM_06	727033	6165858
POM_07	727112	6165618
POM_08	725438	6165310
POM_09	724870	6165173
POM_10	725390	6165082
POM_11	725525	6164826
POM_12	724220	6164723
POM_13	724725	6164560
POM_14	725064	6164835

POM_15	725079	6164566
POM_16	725216	6164233
POM_17	725509	6163949
POM_18	725752	6163649
POM_19	724788	6163595
POM_20	725434	6163257
POM_21	725752	6162969
POM_22	726057	6162593
POM_23	726339	6162361
GUR_01	727827	6161200
GUR_02	727730	6160921
GUR_03	727826	6160598
GUR_04	727464	6160571
GUR_05	727307	6160350
GUR_06	727298	6160051
GUR_07	727912	6160363
GUR_08	727832	6159846
GUR_09	727269	6159369
GUR_10	727389	6158918
GUR_11	727520	6158639
GUR_12	727479	6158308
GUR_13	727642	6158039
GUR_14	727753	6157727
GUR_15	727834	6157450
GUR_16	728211	6159145
GUR_17	727997	6158925
GUR_18	728036	6158675

**APPENDIX 2  
LAND TITLE DESCRIPTIONS**

**Table A2-1 Land Title details for Project Area**

<b>Lot(s)</b>	<b>DP</b>
8	754115
376	754115
377, 380, 381,382, 383, 398	754115
332	754115
392	754115
346	754115
140, 331	754115
2	842234
141	754115
145	754115
196	754115
349	754115
85, 195, 257	754115
23	112125
131, 171	754115
319	754115
302	754115
173	754115
174	754115
172	754115
96	750043
1	252162
26	754115
177	754115
170	754115
178	754115
246	754115
90	754126
124	754126
1	1192408
10	1177500
11	1177500
12	1177500
2	1168750
3	
1	1170080
147	750043
148	
75	
89	
159	
205	
144	
202	
149	
204	
203	
67, 68, 126, 127, 132, 206, 207	
139	750043
135, 146	750043
168	750043
231	750019
198	750019
234	722774
155	750019
173	750019

<b>Lot(s)</b>	<b>DP</b>
2	1172409

**Table A2-2 Land Title details for Easement Lands**

<b>Lot(s)</b>	<b>DP</b>
4	1168750
100	1026064
130, 131, 142	750043
1	1031856
146, 170	750019
347, 379, 391	754115
13	1177500
103	750043
44	750043

Including all crown roads within the project boundaries

**APPENDIX 3  
STATEMENT OF COMMITMENTS**

## Appendix 11 of Submissions Report for Modification Application (Mod\_1)

### 1.1 Appendix: Revised Statement of Commitments in full – 3 June 2014

#### 1.1.1 Visual

	Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
1.	Visual impact to nearby properties	Minimise the view of infrastructure	<ul style="list-style-type: none"> <li>The Proponent would determine the extent of planting with residents of properties within 3km of a wind turbine. This would include a site visit. Any such offer would remain in place for a period of 1 year after project construction. Screening options are detailed in Attachment 3.</li> </ul>	The Proponent	During Construction and Operation	CEMP OEMP	Minimise complaints by residents within 3km
1a			Landscaping will be provided as per the GRWFPL Landscaping Management Plan and in consultation with landowners.	Proponent		Cond 7.5(b) and LMP	

#### 1.1.2 Noise

	Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
2.	Construction noise exceedance	Minimisation	<ul style="list-style-type: none"> <li>Limit hours of high noise generating activities</li> </ul>	The Proponent	Construction	CEMP	Minimise noise complaints
3.	Construction noise exceedance	Minimisation	<ul style="list-style-type: none"> <li>Establish communication with relevant authorities and local residents</li> </ul>	The Proponent	Construction	CEMP	Minimise noise complaints
4.	Construction noise exceedance	Minimisation	<ul style="list-style-type: none"> <li>Adoption of a site representative responsible for noise and vibration issues</li> </ul>	The Proponent	Construction	CEMP	Fast response to all complaints



	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
5.	Construction noise exceedance	Minimisation	<ul style="list-style-type: none"> <li>The contractor would select appropriate machinery for the proposed works. This machinery would have low inherent potential for noise generation where practicable</li> </ul>	The Proponent	Construction	CEMP	Compliance with DECC <i>Environmental Noise Control Manual</i>
5a	Construction noise exceedance	Minimisation	<ul style="list-style-type: none"> <li>An onsite representative to meet with residents at their property to discuss the noise issues experienced</li> </ul>	The Proponent	Operation	DPE	
6.	Construction noise exceedance	Minimisation	<ul style="list-style-type: none"> <li>Where necessary, barriers would be erected around potentially high noise generating areas including generator and high duty compressors</li> </ul>	The Proponent	Construction	CEMP	Minimise noise complaints
7.	Construction noise exceedance	Minimisation	<ul style="list-style-type: none"> <li>Appropriate siting of noisy machinery. This siting would be as far away from the nearest receiver as possible</li> </ul>	The Proponent	Construction	CEMP	Minimise noise complaints
8.	Operational noise exceedance	Compliance	<ul style="list-style-type: none"> <li>Further noise assessment would be required to be carried out on the turbine ultimately selected for construction and on the final layout proposed taking into account any minor changes in turbine location to ensure compliance with SA EPA noise guidelines</li> </ul>	Noise consultant	Post final site layout and turbine selection	DPE EPA	Compliance with SA EPA noise guidelines
9.	Noise exceedance	Compliance	<ul style="list-style-type: none"> <li>Develop and implement an operational noise compliance testing program. This is included in OEMP that has been approved.</li> </ul>	Noise consultant	Once all turbines are operational	DPE EPA	Compliance with SA EPA noise guidelines
10.	Noise exceedance	Compliance	<ul style="list-style-type: none"> <li>If operational monitoring identifies exceedances, the Proponent would give consideration to providing mechanical ventilation (to remove requirement for open windows), building acoustic treatments (improved glazing) or using turbine control features to manage excessive noise under particular conditions. (Noise Management Plan)</li> </ul>	The Proponent	Once all turbines are operational	NMP DPE EPA	Compliance with SA EPA noise guidelines

### 1.1.3 Biodiversity

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
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	Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
11. Mod	Loss of biodiversity value	Avoid direct and indirect impact	<ul style="list-style-type: none"> <li>Infrastructure (including turbines, powerlines, access roads, construction works areas and crane pads) would be located to avoid dense woodland/forest, impacts to woodland/forest in all other cases would be minimised through rigid site controls established in the CEMP to minimise clearing. Any loss of native vegetation would be offset in accordance with SoC16.</li> </ul>	The Proponent	Development of site layout	DPE OEH	Minimise clearing
12. Mod	Loss of biodiversity value	Minimise impact	<ul style="list-style-type: none"> <li>The Proponent would locate the electricity corridor required at the Gurrundah property using Option 2 (as shown in figure 7-10 of the EA). The width of the corridor would be minimised and impacts to native vegetation offset in accordance with SoC16.</li> </ul>	The Proponent	During construction	DPE OEH	Minimise clearing of mature vegetation
13. Mod	Loss of biodiversity value	Avoid direct and indirect impact	<ul style="list-style-type: none"> <li>Impacts to isolated mature trees (&gt;60cm diameter at breast height) in cleared areas would be minimised through rigid site controls established in the CEMP to minimise clearing. Where trees cannot be avoided these would be offset in accordance with SoC16.</li> </ul>	The Proponent	Development of site layout	DPE OEH	Minimise clearing of mature vegetation
14.	Loss of biodiversity value	Avoid direct and indirect impact	<ul style="list-style-type: none"> <li>The final infrastructure layout would avoid areas identified as constraints (refer to constraints maps, Figures 7-6 – 7-9 this EA, and Attachment 3.3)</li> </ul>	The Proponent	Development of site layout	DPE OEH	Adherence to biodiversity constraints maps
15.	Loss of biodiversity value	Avoid direct and indirect impact	<ul style="list-style-type: none"> <li>A flora assessment would be conducted as part of the construction environmental management plan, to microsite infrastructure such as tracks away from better quality patches of understorey.</li> </ul>	Proponent	During construction	ER	Adherence to flora assessment recommendations
16. Mod	Loss of biodiversity value	Compensate for biodiversity impact	<ul style="list-style-type: none"> <li>The Proponent would commit to offsets determined by suitably qualified experts on the basis of the quantum of vegetation to be removed, pending development of the final infrastructure layout. The offset plan would be established in perpetuity.</li> <li>A Conservation Property Vegetation Plan (CPVP) area has been defined and actions for this area will be finalized in consultation with OEH and CMA.</li> </ul>	Proponent  Proponent	During construction  Commissioning	DPE OEH  OEH/CMA	Biodiversity Assessment used as guidance to determine appropriate offsets
16a	Loss of biodiversity value	Compensate for biodiversity impact	<ul style="list-style-type: none"> <li>A review of impacts during construction will be undertaken and assessed against the offset to ensure that the offset is adequate</li> </ul>	The Proponent	Post construction	GRWFPL	Ecologist review

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
17.	Loss of biodiversity value	Minimise impact	<ul style="list-style-type: none"> <li>Weed and sediment erosion controls would be implemented to prevent onsite habitat degradation during and following the proposed works. A Construction Environmental Plan would be the appropriate vehicle for these controls. Weeds such as serrated tussock would be treated before the commencement of works to avoid spreading the infestation</li> </ul>	The Proponent	During construction	DPE OEH	Minimise indirect biodiversity impacts
18.	Loss of biodiversity value	Minimise impact	<ul style="list-style-type: none"> <li>All areas of disturbed soil would be rehabilitated progressively as soon as practicable after disturbance, in order to resist erosion and colonisation by weeds. This may require restricting stock access and implementing revegetation activities</li> </ul>	The Proponent	During construction	DPE OEH	Rapid rehabilitation of disturbed areas
19. Mod	Loss of biodiversity value	Minimise impact	<ul style="list-style-type: none"> <li>Where the initial monitoring program demonstrates a need, the Proponent will liaise with landowners to negotiate to fill in dams within 100m of a turbine on involved properties to reduce the potential to attract birds and bats which might collide with turbines. Dams removed due to site development would be reinstated in more appropriate locations to retain this habitat resource onsite.</li> </ul>	The Proponent	During construction	DPE OEH	Minimise bird and bat collisions
20. Mod	Loss of biodiversity value	Avoid or minimise impact	<ul style="list-style-type: none"> <li>Final site inspections would be undertaken for the electricity corridor between Pomeroy and Gurrundah to allow micro-siting of the corridor in areas of least vegetation. If the alternative access off Prices Lane to Pomeroy becomes the preferred option and also if the western access option (a paper road) to Gurrundah becomes the preferred option final inspections would also be undertaken in these areas.</li> </ul>	Ecological consultant	Prior to construction	DPE OEH	Minimise direct biodiversity impact

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
21.	Loss of biodiversity value Mod	Minimise impact	<p>Implementation of design measures:</p> <ul style="list-style-type: none"> <li>Aviation lighting would be minimised in number and fitted to reduce their ability to attract migrating birds and insects. Red lights are preferred, with the least number of flashes per minute. Cows may also shield the light when viewed from the ground and reduce potential to attract wetland birds taking off at dusk</li> <li>Guy lines would not be fitted to wind turbine towers. Guy lines will be avoided on other associated structures, where practical.</li> <li>The turbine towers would not provide perching opportunities</li> <li>Electrical connection lines would be installed underground where practical</li> <li>Power poles and overhead powerlines would be designed to be bird-safe using measures such as flags or marker balls, large wire size, wire insulation, wire and conductor spacing</li> </ul>	The Proponent	During infrastructure and materials selection	DPE OEH	Minimise bird and bat collisions
22.	Loss of biodiversity value	Minimise impact	<p>Pest Animal Control Program</p> <ul style="list-style-type: none"> <li>To reduce the attractiveness of the site to foraging raptors, rabbits would be controlled on the turbine ridges, carrion would be removed from the site as quickly as possible</li> </ul>	The Proponent	During operation	DPE OEH	<ul style="list-style-type: none"> <li>Minimise bird and bat collisions</li> </ul>
23.	Loss of biodiversity value Mod	Minimise impact	<p>Bird and Bat Monitoring Program</p> <ul style="list-style-type: none"> <li>Pre-construction surveying would be undertaken to assist in managing bird and bat impacts (Powerful Owl would be a key species in this Pre-construction surveying). Results would be incorporated into the ongoing monitoring program</li> <li>A monitoring program would be designed to document mortalities, remove carcasses and assess the effectiveness of controls in accordance with Section 9.3.1</li> <li>If mortalities exceed a pre-determined threshold (set out in the monitoring program), additional mitigation measures would be considered, such as diversion structures, turning off turbines at critical times, further habitat modification and enhancement of off-site habitats</li> </ul>	Ecological consultant	Designed prior to operation  Implemented during operation	DPE OEH	Minimise bird and bat collisions
24.	Loss of biodiversity value	Avoid or minimise impact	<ul style="list-style-type: none"> <li>A flora and fauna assessment would be undertaken prior to decommissioning to identify biodiversity constraints</li> </ul>	Ecological consultant	Prior to decommissioning	DPE OEH	Minimise biodiversity impact

	Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
25.	Loss of biodiversity value	Avoid or minimise impact	<ul style="list-style-type: none"> <li>Weed and sediment erosion control principles would be developed and implemented</li> </ul>	Ecological consultant and the Proponent	Prior to decommissioning	DPE OEH	Minimise indirect biodiversity impacts
26. Mod	Loss of biodiversity value	Avoid or minimise impact	<ul style="list-style-type: none"> <li>Disturbed ground would be stabilised and rehabilitated following works</li> </ul>	The Proponent	After decommissioning	ER DPE OEH	Rapid rehabilitation of disturbed areas

### 1.1.4 Aboriginal archaeology

	Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
27.	Loss of Aboriginal heritage items	Minimise impact	<ul style="list-style-type: none"> <li>The Pejar LALC propose to collect artefacts located within proposed impact areas as a form of mitigation prior to the commencement of construction</li> <li>The Onerwal LALC is the relevant LALC for the Gurrundah area.</li> </ul>	Pejar and Onerwal LALCs in consultation with Proponent	Prior to construction	DPE OEH	Liaison with Pejar and Onerwal LALC
28.	Loss of Aboriginal heritage items	Minimise impact	<ul style="list-style-type: none"> <li>An Aboriginal Heritage Management Plan would be prepared, pending Project Approval and prior to any impact, which outlines the strategy of artefact collection, s85A NPW Act (transfer of Aboriginal objects) procedures, and contingencies for unexpected finds such as skeletal remains.</li> </ul>	The Proponent / Archaeologist	Prior to construction	DPE OEH	Liaison with Archaeologist, OEH and LALCs
28a	AHMP update	Minimise impact	<ul style="list-style-type: none"> <li>The AHMP has been updated in association with the Modification Application and has been sent to LALCs and OEH for review.</li> <li>GRWFPL has completed and submitted all Aboriginal Site Impact Recording (ASIR) Forms</li> </ul>	Proponent / Archaeologist		DPE/OEH	Liaison with OEH and LALCs

### 1.1.5 Aircraft hazards

	Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
29.	Creation of hazard	Minimise risk	<ul style="list-style-type: none"> <li>The Proponent would install obstacle marking as required by CASA.</li> <li>Obstacle lighting has not been required.</li> </ul>	The Proponent	During construction	DPE in consultation with CASA	CASA signoff
30.	Creation of hazard	Minimise risk	<ul style="list-style-type: none"> <li>The Proponent would provide to the RAAF Aeronautical Information Service (AIS), CASA and Air Services Australia the location and height details once the final position of the wind turbines have been determined and before construction commences. After construction is complete, "as constructed" details would also be provided to AIS</li> </ul>	The Proponent	Prior to construction	DPE in consultation with RAAF	Signoff by AIS and Air Services Australia
31. Mod	Creation of hazard	Minimise risk	<ul style="list-style-type: none"> <li>The Proponent would notify known users of the Crookwell and Ashwell Airstrips of the location of the wind turbines and any changes to operational procedures. The Proponent, with assistance from its specialist aviation consultant would assist the aerodrome operator and/or local aircraft operators to develop or amend procedures for safe operations on or within the vicinity of the aerodrome, taking into account the location of the turbine.</li> </ul>	The Proponent	Prior to construction	DPE	Direct notification of users
32.	Creation of hazard	Minimise risk	<ul style="list-style-type: none"> <li>The Proponent would notify other operational information providers such as the Aircraft Owners and Operators Association and Flight Ace of the location of wind turbines in close proximity to Crookwell and Ashwell Airstrips</li> </ul>	The Proponent	Prior to construction	DPE	Direct notification of operational information providers
33.	Creation of hazard	Minimise risk	<ul style="list-style-type: none"> <li>A briefing sheet including a description and an aerial view of the proposed development, expected construction times, extent of the development, lighting, likely operational impacts and contact details of the developer would be distributed widely.</li> </ul>	The Proponent	Prior to construction	DPE	Advertised through local channels

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
34.	Creation of hazard	Minimise risk	<p>The Proponent would provide the following advice to the relevant stakeholders, prompting them to undertake the specified actions:</p> <ul style="list-style-type: none"> <li>• That Crookwell Airstrip consider formalising guidance to airstrip users regarding takeoff and landing procedures giving due consideration to the location of wind turbines and other obstacles, surrounding terrain, aircraft performance, prevailing conditions, runway physical characteristics, regulatory requirements and any other operational limitations</li> <li>• That Upper Lachlan Shire Council's Information Sheet for Crookwell Airstrip be updated to include reference to the location of wind turbines in close proximity to the airstrip</li> </ul>	The Proponent	Prior to construction	DPE	Direct communication

### 1.1.6 Communications

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
35.	Deterioration of signal strength	No deterioration of signal strength	<p><u>Television and radio broadcast services</u></p> <ul style="list-style-type: none"> <li>• Use of primarily non-metallic turbine blades</li> <li>• Use, wherever practical, of equipment complying with the Electromagnetic Emission Standard, AS/NZS 4251.2:1999</li> </ul>	The Proponent	Prior to construction	DPE	Adherence to standard

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
35a	Deterioration of Signal Strength	No deterioration of signal strength	<p><u>The Proponent would install a Radio/Television antennae in the vicinity of Crookwell which would improve the Radio/Television signal strength for the area surrounding the wind farm and for Crookwell.</u></p> <p><u>The commitment above has been modified after consultation with ULSC as follows:</u></p> <ul style="list-style-type: none"> <li><u>GRWFPL will provide funding for a suitable technical and commercial upgrade at an existing ULSC communications mast.</u></li> <li><u>The funding may up to \$100,000. The funding will independent of contributions to the Community Enhancement Fund.</u></li> <li><u>ULSC will be responsible for the construction, operation and maintenance of the new antennae facility.</u></li> </ul>	The Proponent and ULSC	Operation	ULSC	No detected deterioration in signal strength, post mitigation



	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
36. Mod	Deterioration of signal strength	No deterioration of signal strength	<p><u>Television and radio broadcast services</u></p> <ul style="list-style-type: none"> <li>• Prior to the erection of any wind turbine generators on the site, the Proponent has undertaken an assessment of the existing quality of the television/radio transmission available at a representative sample of residential dwellings located within five kilometres of a wind turbine.</li> <li>• The Proponent will undertake further assessment of television/radio reception following commencement of operation to determine any loss in television signal.</li> <li>• In the event that television interference (TVI) is experienced by existing receivers in the vicinity of the wind farm, the source and nature of the interference would be investigated by the Proponent.</li> <li>• Should investigations determine that the cause of the interference can be reasonably attributable to the wind farm, the Proponent would put in place mitigation measures at each of the affected receivers in consultation and agreement with the landowners.</li> </ul> <p>Specific mitigation measures may include:</p> <ul style="list-style-type: none"> <li>• Modification to, or replacement of receiving antenna</li> <li>• Provision of a land line between the effected receiver and an antenna located in an area of favourable reception</li> <li>• Improvement of the existing antenna system</li> <li>• Installation of a digital set top box <u>or</u></li> <li>• In the event that interference cannot be overcome by other means, negotiating an arrangement for the installation and maintenance of a satellite receiving antenna at the Proponents cost</li> </ul>	The Proponent	Prior to construction and commencement of operation	DPE	No detected deterioration in signal strength, post mitigation
37.	Deterioration of signal strength	No deterioration of signal strength	<p><u>Mobile phone (and wireless broadband) services</u></p> <ul style="list-style-type: none"> <li>• The Proponent will consult with Wirefree to avoid impacts to wireless broadband service</li> </ul>	The Proponent	At the commencement of construction	DPE	Direct consultation

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria	
38.	Deterioration of signal strength	No deterioration of signal strength	<u>Radio communications services</u> <ul style="list-style-type: none"> <li>The Proponent has made provisions for a 100m corridor for the RFS links from Mt Martin to Mt Gray.</li> </ul> <p>In the event that any issues with license links are identified as a result of the wind farm, whether prior to or post construction, the proponent would consult with the operator and undertake appropriate remedial measures, which may include:</p> <ul style="list-style-type: none"> <li>Modifications to or relocation of the existing antennae</li> <li>Installation of a directional antennae <u>and/or</u></li> <li>Installation of an amplifier to boost the signal</li> </ul>	The Proponent And RFS	At the commencement of operation	DPE	No detected deterioration in signal strength, post mitigation
38a.			GRWFPL provided additional assessment of potential for impacts to point to point services to relevant stakeholders and will consult further with RFS in respect of its service between Mt Mary and Mt Gray.	Proponent and RFS	Commencement of operation	DPE	No impact on service, Mt Mary to Mt Gray.

### 1.1.7 Electromagnetic fields (EMFs)

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria	
39.	Exposure from EMFs	Minimise exposure	<ul style="list-style-type: none"> <li>The substation would be designed in accordance with all applicable codes and industry best practice standards in Australia</li> </ul>	The Proponent	Pre construction design phase	DPE	Adherence to standard
40.	Exposure from EMFs	Minimise exposure	<ul style="list-style-type: none"> <li>The turbines, control building, substation and transmission lines would be located at appropriate distances from residences, farm shed and yards in order to reduce the potential for both chronic and acute exposure</li> </ul>	The Proponent	Pre construction design phase	DPE	Adherence to ARPANSA guidelines

## 1.1.8 Traffic and transport

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria	
		<b>General measures:</b>					
41.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>Use of a licensed haulage contractor with experience in transporting similar loads, to be responsible for obtaining all required approvals and permits from the RMS and Councils and for complying with conditions specified in the approvals</li> </ul>	The Proponent	Prior to construction	CEMP	Written confirmation of license and experience, including referees
42.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>Development of a <b>Traffic Management Plan</b> to include scheduling of deliveries, managing timing of transport through Goulburn and Crookwell to avoid peak hours (beginning/end of the school day), limiting the number of trips per day, undertaking community consultation before and during all haulage activities (including with neighbouring landowners and landowners adjoining access roads), designing and implementing temporary modifications to intersections and street furniture, restoring all changes to their original condition and managing the haulage process</li> </ul>	The Proponent	Prior to construction	CEMP	Develop TMP in accordance with Traffic Impact Study, Attachment 3.7
43.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>Implementation of all aspects of the <b>Traffic Management Plan</b> in coordination with the Councils and RMS</li> </ul>	The Proponent	During construction	CEMP	Adherence to TMP
44.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>Providing a dedicated telephone contacts list to enable any issues or concerns to be rapidly identified and addressed</li> </ul>	The Proponent	Prior to construction	CEMP	Rapid response to queries
45.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>Installing required signage to direct traffic flows appropriately during haulage through Goulburn and Crookwell</li> </ul>	The Proponent	During construction	CEMP	Timely provision of signage

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
46.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>Reinstating pre-existing conditions after temporary modifications to the roads and pavement along the route.</li> </ul>	The Proponent	During construction	CEMP	Dilapidation report adhered to
47.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>Undertaking forward planning to ensure equipment transportation complies with requirements of the management plan, RMS and Council</li> </ul>	The Proponent	Prior to construction	CEMP	Minimise complaints from road users and risks associated with transport
48.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>The extent of road upgrades, including realignments and paving upgrades, would be determined by a qualified traffic consultant, in consultation with the RMS and Council</li> </ul>	The Proponent	During construction	CEMP	Minimise complaints from road users and risks associated with transport
49.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>The Proponent would prepare road dilapidation reports covering pavement and drainage structures in consultation with Council, for the construction (and decommissioning) route prior to the commencement of construction (and decommissioning) and after construction (and decommissioning) is complete. Any damage resulting from the construction (or decommissioning) traffic, except that resulting from normal wear and tear, would be repaired at the Proponent's cost. Alternatively, the Proponent may negotiate an alternative for road damage with the relevant roads authority. The decision to provide a seal needs to be balanced against the cost of maintenance on the gravel surface.</li> <li>Road condition would be inspected throughout construction to ensure that impacts are addressed as they occur. This would be undertaken at regular intervals by the site manager and council roads engineer</li> </ul>	The Proponent in consultation with Councils	Prior to construction	CEMP	Dilapidation report adhered to Ongoing contact with roads authorities

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
50.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>A speed limit would be placed on some of the roads near dwellings or sub standard junctions. The speed restriction would be included in the <b>Traffic Management Plan</b> to be submitted to Council</li> </ul>	The Proponent in consultation with Council and RTA	Prior to construction	CEMP	Adherence to TMP
51.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>A procedure would be established to monitor the traffic impacts during construction, such as noise, dust nuisance and travel times and work methods modified to reduce the impacts</li> </ul>	The Proponent	Prior to construction	CEMP	Minimise complaints from road users and risks associated with transport
52.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>A procedure would be established to inform vehicle operators on the precise timing of school buses</li> </ul>	The Proponent	Prior to construction	CEMP	Protocols set out in CEMP
53.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>Regular monitoring and scheduled maintenance of gravel pavements such as grading, dust suppression and drainage control would take place during the construction period</li> </ul>	The Proponent	Construction	CEMP	Protocols set out in CEMP
54.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>Signposting to warn horse riders of construction traffic and slashing of vegetation from verges on the Bi-Centennial Route to allow horses to move off the road when vehicles approach</li> </ul>	The Proponent in consultation with Council	Prior to construction	CEMP	Timely provision of signage
			<b>Additional location specific measures</b>				
55.	Safety and asset protection	Minimise risks	<p><i>Hume Highway Junction at Breadalbane</i></p> <ul style="list-style-type: none"> <li>Speed controls. The Roads and Maritime Services are generally not in favour of speed restrictions on the Hume Highway because of the loss in efficiency of the route. However, the use of speed controls for specific short-term activities may be included in a traffic control plan or other temporary traffic control measures</li> </ul>	The Proponent in consultation with RMS	Prior to construction	CEMP	Adherence to TMP

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria	
56.	Safety and asset protection	Minimise risks	<i>Crookwell Road</i> <ul style="list-style-type: none"> <li>The business owners, retailers etc in the main street of Crookwell would be made aware of the timing for heavy, over-mass and over-dimensional vehicles</li> </ul>	The Proponent	Prior to construction	CEMP	Timely notification
57.	Safety and asset protection	Minimise risks	<i>Grabben Gullen Road</i> <ul style="list-style-type: none"> <li>The junction is to be designed and constructed in consultation with Upper Lachlan Shire Council and the Roads and Traffic Authority</li> </ul>	The Proponent	Prior to construction	CEMP	Adherence to TMP
58.	Safety and asset protection	Minimise risks	<i>Range Road</i> <ul style="list-style-type: none"> <li>The new junction required to be constructed on Range Road would be designed and constructed in consultation with Upper Lachlan Shire Council</li> </ul>	The Proponent in consultation with RTA	Prior to construction	CEMP	Adherence to TMP
59.	Safety and asset protection	Minimise risks	<i>Gurrundah Road</i> The new junction required to be constructed on Range Road would be designed and constructed in consultation with Upper Lachlan Shire Council	The Proponent in consultation with RTA	Prior to construction	CEMP	Adherence to TMP
60.	Safety and asset protection	Minimise risks	<i>Range Road</i> <ul style="list-style-type: none"> <li>Consideration would be given to the reconstruction and sealing of the 1.8km length of unsealed pavement which would include the proposed junctions</li> </ul>	The Proponent in consultation with RTA	Prior to construction	CEMP	Adherence to TMP
61.	Safety and asset protection	Minimise risks	<i>Range Road</i> <ul style="list-style-type: none"> <li>The shadow flicker effects would be monitored following commissioning and any remedial measures to address concerns would be developed in consultation with the RMS and the Department of Planning</li> </ul>	The Proponent	Operation	CEMP	Shadow flicker controlled (via roadside planting if required)
62.	Safety and asset protection	Minimise risks	<i>Bannister Lane, Storriers Lane, Prices Lane</i> <ul style="list-style-type: none"> <li>A program would be established to consult with all of the road users and residents in the area particularly those living in the residences close to the roads</li> </ul>	The Proponent in consultation with RMS and Council	Prior to construction	CEMP	Timely notification and consultation

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
63. Safety and asset protection	Minimise risks	<p><i>Gurrundah Road</i></p> <ul style="list-style-type: none"> <li>The junction is to be designed and constructed in consultation with Upper Lachlan Shire Council</li> </ul>	The Proponent in consultation with Council	Prior to construction	CEMP	Adherence to TMP
64. Safety and asset protection	Minimise risks	<p><i>Breadalbane to Gurrundah Road</i></p> <ul style="list-style-type: none"> <li>A procedure would be established for all over-dimensioned vehicles associated with the Gullen Range wind farm project to make contact with a railway service to establish approximate timing of trains so that crossings could be made during the safer periods. The need to always visually check for the approach of trains would be stressed to vehicle operators</li> </ul>	The Proponent	Prior to construction	CEMP	Adherence to TMP

### 1.1.9 Fire and bushfire impacts

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
65. Increase risk of fire ignition or spread	Minimise risks	<ul style="list-style-type: none"> <li>The Rural Fire Service and NSW Fire Brigade would be consulted in regard to the adequacy of bushfire prevention measures to be implemented on site during construction, operation and decommissioning. These measures would in particular cover hot-work procedures, asset protection zones, safety, communication, site access and response protocols in the event of a fire originating in the wind farm infrastructure, or in the event of an external wildfire threatening the wind farm or nearby properties</li> </ul>	The Proponent	Prior to construction	DoP	Timely notification and consultation

	Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
65a	Increase risk of fire ignition or spread	Minimise risk	<ul style="list-style-type: none"> <li>The Proponent will investigate the potential to house an RFS hall within the Wind Farm or at a suitable location identified in consultation with RFS near to the wind farm. This facility could also be used as a community hall. <ul style="list-style-type: none"> <li>The Proponent would offer the land to the RFS in perpetuity.</li> <li>The construction, operation and maintenance of the RFS station would be the responsibility of the RFS</li> </ul> </li> </ul>	The Proponent	Operation	Proponent	Adherence to RFS guidelines for fire safety
66.	Increase risk of fire ignition or spread	Minimise risks	<ul style="list-style-type: none"> <li>Flammable materials and ignition sources brought onto the site, such as hydrocarbons, would be handled and stored as per manufacturer's instructions</li> </ul>	The Proponent	During construction	CEMP	Adherence to safety protocols set out in CEMP
67.	Increase risk of fire ignition or spread	Minimise risks	<ul style="list-style-type: none"> <li>During the construction phase, appropriate fire fighting equipment would be held onsite when the fire danger is very high to extreme, and a minimum of one person on site would be trained in its use. The equipment and level of training would be determined in consultation with the local RFS</li> </ul>	The Proponent	During construction	CEMP	Adherence to safety protocols set out in CEMP
68.	Increase risk of fire ignition or spread	Minimise risks	<ul style="list-style-type: none"> <li>The substation facility would be banded with a capacity exceeding the volume of the transformer oil to contain the oil in the event of a major leak or fire. The facility would be regularly inspected and maintained to ensure leaks do not present a fire hazard, and to ensure the banded area is clear (including removing any rainwater)</li> </ul>	The Proponent	During construction	CEMP	Adherence to safety protocols set out in CEMP
69.	Increase risk of fire ignition or spread	Minimise risks	<ul style="list-style-type: none"> <li>The substation would be surrounded by a gravel and concrete area free of vegetation to prevent the spread of fire from the substation and reduce the impact of bushfire on the structure. The substation area would also be surrounded by a security fence as a safety precaution to prevent trespassers and stock ingress</li> </ul>	The Proponent	During construction	CEMP	Adherence to safety protocols set out in CEMP
70.	Increase risk of fire ignition or spread	Minimise risks	<ul style="list-style-type: none"> <li>Asset protection zones, based on the RFS <i>Planning for Bushfire Protection</i>, would be maintained around the control room, sub-station and in electricity transmission easements. Workplace health and safety protocols would be developed to minimise the risk of fire for workers during construction and during maintenance in the control room and amenities</li> </ul>	The Proponent	During construction	CEMP	Adherence to RFS <i>Planning For Bushfire Protection</i>



	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
71.	Increase risk of fire ignition or spread	Minimise risks	<ul style="list-style-type: none"> <li>Fire extinguishers would be stored onsite in the control building and within the substation building</li> </ul>	The Proponent	During construction	CEMP	Adherence to safety protocols set out in CEMP
72.	Increase risk of fire ignition or spread	Minimise risks	<ul style="list-style-type: none"> <li>Shut down of turbines would commence if components reach critical temperatures or if directed by the RFS in the case of a nearby wildfire being declared (an all hours contact point would be available to the RFS during the bushfire period). Remote alarming and maintenance procedures would also be used to minimise risks</li> </ul>	The Proponent	Operation	OEMP	All hours contact point provided to RFS. Remote alarming installed
73.	Increase risk of fire ignition or spread	Minimise risks	<ul style="list-style-type: none"> <li>Overhead transmission easements would be periodically inspected to monitor regrowth of encroaching vegetation</li> </ul>	The Proponent	Operation	OEMP	Compliance with Transgrid easement maintenance protocols.

### 1.1.10 Hydrology

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
74.	Water extraction	Not deplete local supplies	<ul style="list-style-type: none"> <li>Water would be sourced from an onsite bore (Pomeroy) as well as other local sources including onsite dams. It would be reused where possible to reduce the total amount required. No water would be sourced from creeks or rivers without relevant permits being sought. No water would be or discharged into creeks, rivers or drainage lines without relevant permits</li> </ul>	The Proponent	Construction	CEMP	Minimise water use, maximise reuse onsite,
75.	Deterioration of water quality	Minimise risk	<ul style="list-style-type: none"> <li>All vehicles onsite would follow established trails and minimise onsite movements</li> </ul>	The Proponent	Construction and operation	CEMP and OEMP	Protocols set out in CEMP and OEMP

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
76.	Deterioration of water quality	Minimise risk	<ul style="list-style-type: none"> <li>Machinery would be operated and maintained in a manner that minimises risk of hydrocarbon spills</li> </ul>	The Proponent	Construction and operation	CEMP and OEMP	Protocols set out in CEMP and OEMP
77.	Deterioration of water quality	Minimise risk	<ul style="list-style-type: none"> <li>Maintenance or re-fuelling of machinery would be carried out on hard-stand areas (i.e. existing or proposed road surface or hard-stand areas beneath turbines). Where possible, maintenance and re-fuelling would not occur on areas that either contain native vegetation, or would be revegetated</li> </ul>	The Proponent	Construction and operation	CEMP and OEMP	Protocols set out in CEMP and OEMP
78.	Deterioration of water quality	Minimise risk	<ul style="list-style-type: none"> <li>The concrete batching plants would contain settling ponds sufficient to capture all concrete wash. Wash water would be recycled onsite (in cement mix, road base and dust control) and would not be released. <b>The Batching Plants have been removed from site.</b></li> </ul>	The Proponent	Construction	CEMP	Protocols set out in CEMP
79.	Deterioration of water quality	Minimise risk	<ul style="list-style-type: none"> <li>Waste sludge would be recovered from the settling pond and used in the production of road base manufactured onsite. The waste material would be taken from the batching plant to be blended in the road base elsewhere onsite</li> </ul>	The Proponent	Construction	CEMP	Minimise waste, maximise reuse
80.	Deterioration of water quality	Minimise risk	<ul style="list-style-type: none"> <li>The concrete batching plant areas would be fully remediated at the completion of the construction phase</li> </ul>	The Proponent	Completion of construction	CEMP	Stable and revegetated
81.	Deterioration of water quality	Minimise risk	<ul style="list-style-type: none"> <li>Dust suppression would be carried out where required. Central to controlling dust are means to determine when dust suppression is required and having adequate access to water or chemical dust suppression alternatives to control dust. These specifications would be included in the <b>Construction Environmental Management Plan</b> prepared for the project prior to construction</li> </ul>	The Proponent	Construction	CEMP	Minimise dust complaints

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
82. Deterioration of water quality	Minimise risk	<p>Sediment and erosion would be controlled as part of a formal <b>Sediment / Erosion Control Plan (SECP)</b>, as a sub plan of the <b>Construction Environmental Management Plan</b>. This plan would include the following provisions:</p> <ul style="list-style-type: none"> <li>• Sediment traps would be installed wherever there is potential for sediment to collect and enter waterways</li> <li>• Stockpiles generated as a result of construction activities would be banded with silt fencing, (hay bales or similar) to reduce the potential for runoff from these areas</li> <li>• Soil and water management practices would be guided by the Best Practice guidelines contained within <i>Soils and Construction Vol. 1</i> (Landcom 2004)</li> </ul>	The Proponent	Construction	CEMP	Adherence to SECP
83. Deterioration of water quality	Minimise risk	<ul style="list-style-type: none"> <li>• A <b>Water Management Strategy</b> would be developed for the site as part of the Construction and Operational Environmental Management Plans. This would aim to integrate the total water cycle of the site in terms of water supply, stormwater and wastewater, and maximise the use of best management practice techniques for stormwater and wastewater management. Devices such as swales to disperse rather than concentrate runoff would be implemented. Water use would be minimised by maximising reuse. Detailed measures would be devised in conjunction with the development of the construction drawings.</li> </ul>	The Proponent	Construction and Operation	CEMP and OEMP	Best practice water management devices
84. Deterioration of water quality	Minimise risk	<p>A <b>Site Restoration Plan (SRP)</b> would be prepared as part of the <b>Construction Environmental Management Plan</b>. This would set out protocols for restoration works including:</p> <ul style="list-style-type: none"> <li>• Site preparation</li> <li>• Stabilisation</li> <li>• Revegetation</li> <li>• Monitoring</li> </ul>	The Proponent	Construction	CEMP	Adherence to SRP

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
85. Deterioration of water quality	Minimise risk	<p>The contractor would prepare and implement a <b>Spill Control Plan</b>, as a sub-plan of the <b>Construction Environmental Management Plan</b>. It would:</p> <ul style="list-style-type: none"> <li>Identify persons responsible for implementing the plan if a spill of a dangerous or hazardous chemical/waste would occur</li> <li>Material Safety Data Sheets (MSDS) for all chemical inventories would be located on site and readily available</li> <li>Where chemicals are used, their application and disposal would comply with manufacturers recommendations</li> <li>Any spill that occurs, regardless of size or type of spill, would be reported to the Construction Manager</li> <li>The event and clean up processes would be recorded. Information that would be recorded in the event of spill would include time and date of spill, type of chemical or waste spilt, approximate volume spilt, general area in which the spill occurred, corrective actions applied, and disposal of spilt material</li> <li>Spill protocols in this plan would dictate when the EPA would be notified</li> <li>Chemical / fuel storage areas would be identified, and be bunded to prevent loss of any pollutants</li> <li>Hydrocarbon spill kits would be stored at the site. A number of site staff are to be trained in the use of the spill kits</li> </ul>	The Proponent	Construction	CEMP	<p>Adherence to Spill Control Plan.</p> <p>Minimise spills.</p> <p>Rapid response to spill, involving the EPA as required.</p>
86. Deterioration of water quality	Minimise risk	<ul style="list-style-type: none"> <li>Infrastructure would be bunded to ensure that the amounts of oil could be fully contained in the event of a leak. Bunding provisions would be regularly inspected</li> </ul>	The Proponent	Operation	OEMP	<p>Bunding adequate to contain fluids</p>
87. Deterioration of water quality	Minimise risk	<ul style="list-style-type: none"> <li>Septic systems, if installed, would meet Upper Lachlan Council standards</li> </ul>	The Proponent	Operation	OEMP	<p>Adherence to Council standards</p>

### 1.1.11 Mineral exploration

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
88.	Conflict with mineral exploration	Minimise conflict	<ul style="list-style-type: none"> <li>The Proponent would liaise with the current mineral lease holders, providing a final turbine and infrastructure layout, prior to the construction phase</li> </ul>	The Proponent	Prior to construction	DoP	Timely notification and liaison
89.	Conflict with mineral exploration	Minimise conflict	<ul style="list-style-type: none"> <li>The Proponent would liaise with the current mineral lease holders during the construction phase, to ensure that where possible, the works program does not unnecessarily interfere with planned exploration activities.</li> </ul>	The Proponent	Construction	DoP	Timely notification and liaison
90.	Conflict with mineral exploration	Facilitate access	<ul style="list-style-type: none"> <li>The Proponent would liaise with the involved land owners and current mineral lease holders prior to rehabilitation, to ensure that any project access roads that they may wish to retain are retained. Several of these access roads are likely to be of benefit both to routine agricultural activities as well as to exploration activities onsite</li> </ul>	The Proponent	Construction	DoP	Timely notification and liaison

### 1.1.12 Economic

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
91.	Affect on local economy	Maximise positive effect of proposal	<ul style="list-style-type: none"> <li>The Proponent would liaise with local industry representatives to maximise the use of local contractors and manufacturing facilities in the construction and decommissioning phases of the project</li> </ul>	The Proponent	Prior to construction	DoP	Timely notification and liaison
92.	Affect on local activities	Minimise disruption	<ul style="list-style-type: none"> <li>Co-ordinate construction activities with local events. Gullen Range Wind Farm Pty Ltd would liaise with the local visitor information centres to ensure that construction and decommissioning timing and haulage routes are known well in advance of works</li> </ul>	The Proponent	Prior to construction	DoP	Timely notification and liaison

	Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
92a	Affect on local economy	Minimise impacts	<ul style="list-style-type: none"> <li>Where feasible/reasonable the Proponent would implement a Sustainable Procurement Strategy with the goal of increasing local (regional and national) products required for the construction and operation of the wind farm</li> </ul>	The Proponent	Ongoing	Project Manager	% of local regional products
92b	Local opportunities	Maximise local opportunities	<ul style="list-style-type: none"> <li>The Proponent would source services from the local area including but not limited to: <ul style="list-style-type: none"> <li>Staff</li> <li>Suppliers</li> <li>Materials</li> <li>Services</li> <li>Food and consumables</li> </ul> </li> </ul>	The Proponent	Ongoing	Project Manager	% of local employment

### 1.1.13 Community wellbeing

	Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
93.	Community division	Provide accurate information	<ul style="list-style-type: none"> <li>Dissemination of accessible and independent information on wind farm impacts</li> </ul>	The Proponent	Prior to construction	DPE	Timely dissemination of information
94.	Community division	Provide accurate information	<ul style="list-style-type: none"> <li>Monitoring information collected during the operation of the wind farm would be made publicly available</li> </ul>	The Proponent	Operation	DPE	Timely dissemination of information
95.	Community division	Equitable distribution of benefits	<ul style="list-style-type: none"> <li>Gullen Range wind farm would address the potential for wider adverse community impacts by way of a Community Enhancement Program as presented in Section 4.4.2.</li> </ul>	The Proponent	Prior to construction	DPE in consultation with the ULSC	Agreement on amount and conditions of fund

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
						achieved, in accordance with Council policy
95a	Community division	<ul style="list-style-type: none"> <li>Maximise Benefits</li> <li>The Proponent would investigate and where feasible purchase a property for the use of the Public as a community hall. This may combine with Commitment 65a as a shared facility.</li> <li>The community hall would be run by a panel of community members for the benefit of local people and events</li> </ul>	The Proponent		ULSC	
95b	Community division	<ul style="list-style-type: none"> <li>Provide accurate information and education</li> <li>The Proponent would provide a community education program for local schools which would include: <ul style="list-style-type: none"> <li>Visits to the wind farm</li> <li>Information on renewable energy</li> <li>Information on climate change issues</li> </ul> </li> </ul>	The Proponent	Operation	DPE	
95c	Community division	<ul style="list-style-type: none"> <li>Provide accurate information and education</li> <li>The Proponent would hold an annual 'open day' at the wind farm to allow the public to visit the facility</li> </ul>	The Proponent	Operation	DPE	
95d	Community division	<ul style="list-style-type: none"> <li>Better community relationship</li> <li>The proponent will strengthen its relationship with the community by improving its consultation efforts and undertaking regular interface with neighbours within 2km of the wind farm.</li> </ul>	The Proponent	Operation	DPE	Evidence of consultation by GRWFPL
95e	Community division	<ul style="list-style-type: none"> <li>Provide accurate information and education</li> <li>The proponent would provide an annual public report on the environmental and social performance of the wind farm and the consultation activities undertaken for the year</li> </ul>	The Proponent	Operation	DPE	Annual Report issued to public

### 1.1.14 Tourism

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
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	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
96.	Affect on local activities	Minimise disruption	<ul style="list-style-type: none"> <li>Co-ordinate construction activities with local events. Gullen Range Wind Farm Pty Ltd would liaise with the local visitor information centres to ensure that construction and decommissioning timing and haulage routes are known well in advance of works</li> </ul>	The Proponent	Prior to construction	DPE	Timely notification and liaison
97.	Affect on local activities	Maximise benefits	<ul style="list-style-type: none"> <li>The Proponent would work with the involved landowners, the community and Upper Lachlan Shire Council to allow for the development of the wind farm as a tourist attraction, if this option becomes desirable to these three parties.</li> </ul>	The Proponent	Operation	DPE	Liaison as required

### 1.1.15 Agricultural impacts

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
98.	Affect on current local land use	Minimise disruption	<ul style="list-style-type: none"> <li>A <b>Traffic Management Plan</b> would be developed and would include provisions for construction traffic on access roads where stock may be grazing. These may include specifications for safe speed limits and provision of a construction timetable to affected landowners</li> </ul>	The Proponent	Construction	CEMP	Adherence to TMP
99.	Affect on current local land use	Minimise disruption	<ul style="list-style-type: none"> <li>Stock would be restricted from works areas where there is a risk stock injury. For example, near excavated trenches and within high traffic areas</li> </ul>	The Proponent	Construction	CEMP	Adherence to TMP
100.	Affect on current local land use	Maximise benefits	<ul style="list-style-type: none"> <li>Liaison would be undertaken with involved landowners to explore the possibility of enhancing the native component of the understorey in pasture production. This could be incorporated into the site restoration plan which would dictate protocols for the rehabilitation of areas disturbed during construction</li> </ul>	The Proponent	Construction	CEMP	Liaison as required
101.	Affect on current local land use	Maximise benefits	<ul style="list-style-type: none"> <li>Stock would be restricted from areas being rehabilitated, until surfaces are able to withstand resumed grazing</li> </ul>	The Proponent	Construction	CEMP	Protocols set out in SRP



	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
102.	Affect on current local land use	Minimise risks	<ul style="list-style-type: none"> <li>Liaison would be undertaken with involved landowners to restrict stock access within construction zones during the construction and decommissioning phases. This is aimed at reducing potential for collision and ensuring stock are not able to escape during construction</li> </ul>	The Proponent	Construction	CEMP	Timely notification and liaison
103.	Affect on current local land use	Minimise disruption	<ul style="list-style-type: none"> <li>Liaison would be undertaken with neighbouring landowners and landowners adjoining access roads, to provide information about the timing and routes to be used during construction and decommissioning. This could be in the form of advertising and provision of a contact point for further inquiries. The aim would be to reduce the risk of interference with agricultural activities on affected roads and road verges.</li> </ul>	The Proponent	Construction	CEMP	Timely notification
104.	Affect on current local land use	Minimise risks	<ul style="list-style-type: none"> <li>The <b>Traffic Management Plan (TMP)</b> would contain procedures to manage horse riders using the Bicentennial National Trail during the construction period including keeping the verge of the road clear for riders to allow riders to move off the road. This would include ongoing consultation and liaison with the BNT co-ordinator</li> </ul>	The Proponent	Operation	OEMP	Adherence to TMP

### 1.1.16 Health and safety: construction activities

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
105.	Safety of persons or stock	Minimise risks	<p>A detailed <b>Health and Safety Plan (H&amp;SP)</b> would be prepared, as a sub plan of the <b>Construction Environmental Management Plan</b>, identifying hazards associated with construction works, the risks of the identified hazards occurring and appropriate safeguards would be prepared prior to the commencement of construction works. Additionally:</p> <ul style="list-style-type: none"> <li>The plan would incorporate standard work place practices, such as restraints, fall arrest systems, protective clothing and procedures that enable infrastructure to remain stationary during specific activities</li> <li>Emergency response protocols and equipment and reminders of the requirement for workers to take responsibility for their safety would be implemented</li> <li>All site workers are to be inducted to the site on their first day of</li> </ul>	The Proponent	Construction	CEMP	Adherence to H&SP

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria	
		<p>employment. The induction would include a detailed briefing of the health and safety plan</p> <ul style="list-style-type: none"> <li>Workplace health and safety protocols would be developed to minimise the risk as a result of the ignition of fire from and to workers during construction and during maintenance in the control room and amenities</li> </ul>					
106.	Safety of persons or stock	Minimise risks	<ul style="list-style-type: none"> <li>Liaison would occur between property owners and construction staff in relation to land and stock management during construction (during construction and decommissioning, stock would be excluded from the works area - this would exclude road works)</li> </ul>	The Proponent	Construction	CEMP	Timely notification and liaison
107.	Safety of persons or stock	Minimise risks	<ul style="list-style-type: none"> <li>Site fencing would be installed where there is a risk to the safety of the general public (i.e. when the trench is left open for extended periods)</li> </ul>	The Proponent	Construction	CEMP	Adherence to H&SP
108.	Safety of persons or stock	Minimise risks	<ul style="list-style-type: none"> <li>Employee safety would be managed through the application a <b>Health and Safety Plan</b></li> </ul>	The Proponent	Operation	OEMP	Adherence to H&SP

### 1.1.17 Health and safety: shadow flicker

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria	
109.	Safety / nuisance to persons or stock	Minimise risks	<ul style="list-style-type: none"> <li>If shadow flicker is found to be a nuisance to residents, conditions would be pre-programmed into the control system and individual wind turbines automatically shut down whenever these conditions are present</li> </ul>	The Proponent	Operation	OEMP	Minimise complaints
110.	Safety of persons or stock	Minimise risks	<ul style="list-style-type: none"> <li>Shadow flicker effects on motorists using Range Road would be monitored following commissioning and any remedial measures to address concerns would be developed in consultation with the RTA and the Department of Planning</li> </ul>	The Proponent	Operation	OEMP in consultation with the RTA and the Department of Planning	Minimise shadow flicker on this section of road

### 1.1.18 Health and safety: stability of turbines

	Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
111.	Safety of persons or stock	Minimise risks	<ul style="list-style-type: none"> <li>Obtain and implement sound geotechnical advice during construction, choice of a reliable turbine and proper installation and maintenance of the turbines</li> </ul>	The Proponent	Construction	DPE	Adherence to geotechnical report conclusions

### 1.1.19 Historic heritage

	Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
112.	Deterioration of heritage items	Minimise risks	<ul style="list-style-type: none"> <li>Inform the Upper Lachlan Shire Council, Goulburn-Mulwaree Council and the NSW Heritage Office of the proximity of final access routes</li> </ul>	The Proponent	Construction	DPE	Timely notification and liaison
113.	Deterioration of heritage items	Minimise risks	<ul style="list-style-type: none"> <li>Building design, materials and colour would be appropriate to the heritage values of the area</li> </ul>	The Proponent	Prior to construction	DPE	Signoff from Landscape Architect
114.	Deterioration of heritage items	Minimise risks	<ul style="list-style-type: none"> <li>Underground rather than overhead transmission would be used where possible and where it would not result in inappropriate risks to soils and land forms. Although extensive existing electricity transmission infrastructure is present on the site and to the south, the cumulative impact of the development would be reduced where possible</li> </ul>	The Proponent	Prior to construction	DPE	Minimal overhead transmission

### 1.1.20 Physical impacts: air quality

	Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
115.	Air quality	Minimise risks	<ul style="list-style-type: none"> <li>Subsoil would be separated from topsoil for rehabilitation purposes. All topsoil from the excavation sites would be stockpiled and replaced to its original depth for seeding and fertilising. On steep slopes, topsoil would need to be stabilised using, for example, jute matting. Any excess subsoil would be removed from the site and disposed of at an appropriate fill storage site</li> </ul>	The Proponent	Construction	CEMP	Protocols set out in CEMP
116.	Air quality	Minimise risks	<ul style="list-style-type: none"> <li>Any material stockpiled as would be covered with plastic, seeded or otherwise bound to reduce dust. Dust levels at stockpile sites would be visually monitored. Dust suppression (eg. water sprays) would be implemented if required</li> </ul>	The Proponent	Construction	CEMP	Protocols set out in CEMP
117.	Air quality	Minimise risks	<ul style="list-style-type: none"> <li>Product stockpiles would be protected from prevailing weather conditions</li> </ul>	The Proponent	Construction	CEMP	Protocols set out in CEMP
118.	Air quality	Minimise risks	<ul style="list-style-type: none"> <li>During dry, windy periods a water cart or alternative chemical dust suppression would be available and applied to works areas generating dust. Means to determine when action is required would be detailed in the <b>Construction Management Plan</b></li> </ul>	The Proponent	Construction	CEMP	Protocols set out in CEMP
119.	Air quality	Minimise risks	<ul style="list-style-type: none"> <li>Should blasting be required, it would be carried out in accordance with all relevant statutory requirements</li> </ul>	The Proponent	Construction	CEMP	Adherence to ANZECC guidelines
120.	Air quality	Minimise risks	<ul style="list-style-type: none"> <li>Residences within 1km of blasting activities would be informed prior to blasting</li> </ul>	The Proponent	Construction	CEMP	Timely notification
121.	Air quality	Minimise risks	<ul style="list-style-type: none"> <li>Dust filters would be installed on silos, where required</li> </ul>	The Proponent	Construction	CEMP	Minimal dust complaints

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria	
122.	Air quality	Minimise risks	Sediment and erosion would be controlled as part of a formal <b>Sediment / Erosion Control Plan (SECP)</b> . This plan would include the following provisions: <ul style="list-style-type: none"> <li>• Sediment traps would be installed wherever there is potential for sediment to collect and enter waterways</li> <li>• On the steeper slopes check banks would be installed across the trenchline, as appropriate, following closure of the trench. These would discharge runoff to areas of stable vegetation</li> <li>• Stabilisation would be undertaken as soon as practicable during construction. Furthermore, rehabilitation of disturbed ground would be carried out at the completion of construction works</li> <li>• Stockpiles generated as a result of construction activities would be banded with silt fencing, (hay bales or similar) to reduce the potential for runoff from these areas</li> <li>• Soil and water management practices would be guided by the Best Practice guidelines contained within <i>Soils and Construction Vol. 1</i> (Landcom 2004)</li> </ul>	The Proponent	Construction	CEMP	Adherence to SECP
123.	Air quality	Minimise risks	A <b>Traffic Management Plan (TMP)</b> would be developed and would include strategies to reduce the number of vehicle movements to, from and across the sites. These would include: <ul style="list-style-type: none"> <li>• Only machinery compliant with emission standards would be used</li> <li>• Vehicles and motorised equipment would be maintained so that emissions are minimised</li> <li>• Machinery and vehicles would not be left running or idling when not in use</li> </ul>	The Proponent	Construction	CEMP	Adherence to TMP

### 1.1.21 Physical impacts: soils and landforms

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria	
124.	Soil loss or	Minimise risks	• Concrete wash would be deposited in an excavated area,	The	Construction	CEMP	No effect on

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
	stability of landform loss		below the level of the topsoil, or in an approved landfill site. Where possible, waste water and solids would be reused onsite	Proponent			waterways or top soil
125.	Soil loss or stability of landform loss	Minimise risks	<ul style="list-style-type: none"> <li>Tracks would be graded to enhance their stability</li> </ul>	The Proponent	Construction	CEMP	Adherence to SECP
126.	Soil loss or stability of landform loss	Minimise risks	<ul style="list-style-type: none"> <li>Access routes and tracks would be confined to already disturbed areas, where possible</li> </ul>	The Proponent	Construction	CEMP	Minimise disturbance area
127.	Soil loss or stability of landform loss	Minimise risks	<ul style="list-style-type: none"> <li>ANZECC guidelines for control of blasting impact at residences would be adhered to if blasting is required</li> </ul>	The Proponent	Construction	CEMP	Adherence to ANZECC guidelines

### 1.1.22 Resource impacts

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
128.	Waste generation	Minimise waste and maximise recycling of materials	<ul style="list-style-type: none"> <li>Waste would be reused or recycled whenever possible. Separate recyclable materials receptacles would be provided (eg. For glass, plastics and aluminium)</li> </ul>	The Proponent	Construction and operation	CEMP and OEMP	Waste streams identified, Waste Hierarchy implemented
129.	Waste generation	Appropriate disposal of waste	<ul style="list-style-type: none"> <li>Packaging materials and general construction wastes would be disposed of, with Council's approval, at Council operated waste disposal centres</li> </ul>	The Proponent	Construction and operation	CEMP and OEMP	Waste streams identified, Waste Hierarchy implemented

<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>	
130.	Waste generation	Appropriate disposal of waste	<ul style="list-style-type: none"> <li>Toilet facilities would be provided for onsite workers and sullage from contractor's pump out toilet facilities would be disposed at the local sewage treatment plants or other suitable facility agreed to by Council</li> </ul>	The Proponent	Construction and operation	CEMP and OEMP	Council approved disposal
131.	Waste generation	Minimise waste and maximise recycling of materials	<ul style="list-style-type: none"> <li>Surplus topsoil would be stockpiled on site during construction, and following construction would be spread on the site (particularly over former hardstand areas and access roads) to assist with revegetation</li> </ul>	The Proponent	Construction	CEMP	SRP adhered to
132.	Waste generation	Minimise waste and maximise recycling of materials	<ul style="list-style-type: none"> <li>Excavated material would be used in road base construction and as aggregate for footings where possible. Surplus material would be disposed of in appropriate locations on site (on agreement with the landowner), finished with topsoil, and revegetated</li> </ul>	The Proponent	Construction	CEMP	Maximum reuse of excavated material
133.	Waste generation	Appropriate disposal of waste	<ul style="list-style-type: none"> <li>Risk of chemical spills would be minimised and protocols would be in place to ensure prompt and effective clean up of any accidental spills</li> </ul>	The Proponent	Construction and operation	CEMP and OEMP	Adherence to Spill Control Plan. Minimise spills. Rapid response to spill, involving the EPA as required.
134.	Waste generation	Appropriate disposal of waste	<ul style="list-style-type: none"> <li>No permanent waste disposal would be utilised onsite</li> </ul>	The Proponent	Construction and operation	CEMP and OEMP	Waste disposal protocols set out in CEMP and OEMP adhered to

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
135. Waste generation	Appropriate disposal of waste	<ul style="list-style-type: none"> <li>The contractor would implement a Spill Control Plan as part of its Erosion and Sediment Control Plan. Spill Control Plans would identify persons responsible for implementing the plan if a spill of a dangerous or hazardous waste should occur. Any spill that occurs, regardless of size or type of spill, would be reported to the Construction Manager. The event and clean up processes would be recorded. Spill protocols in the plan would dictate when the EPA should be notified</li> </ul>	The Proponent	Construction and operation	CEMP and OEMP	<p>Adherence to Spill Control Plan.</p> <p>Minimise spills.</p> <p>Rapid response to spill, involving the EPA as required.</p>

### 1.1.23 Cumulative impact

Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
136. Cumulative noise	Minimise risk of construction noise criteria exceedence	<p>Construction noise</p> <ul style="list-style-type: none"> <li>If an additional project proposes concurrent construction timing as the proposed Gullen Range wind farm, the Proponent would enter into liaison to ensure that additional construction noise issues were addressed</li> </ul>	The Proponent	Construction and operation	CEMP and OEMP	Rapid response to complaints, adherence to SA EPA guidelines
137. Cumulative traffic and infrastructure	Minimise disruption	<p>Traffic and infrastructure</p> <ul style="list-style-type: none"> <li>If an additional project proposed concurrent construction timing on access routes nominated by the Gullen Range wind farm, the Proponent would enter into liaison to ensure that additional traffic and transport issues were addressed</li> </ul>	The Proponent	Construction and operation	CEMP and OEMP	Timely notification and liaison with road authorities and second proponent
138. Cumulative economic	Maximise local skill use	<p>Economic</p> <ul style="list-style-type: none"> <li>Liaison would continue with local economic development bodies to</li> </ul>	The Proponent	Construction and operation	DPE	Timely notification



Impact	Objective	Mitigation tasks	By	Timing	Auditing	Criteria
		ensure the potential for local skill use and manufacturing is maximised				and liaison
139.	Impact on future rural subdivisions	<p>Minimise risks</p> <p><u>Future Rural Subdivisions</u>  The Proponent will provide reasonable and feasible noise mitigation measures to achieve a noise criterion (<math>LA_{eq(10\text{-minute})}</math>) of 30dB(A) inside bedrooms (as outlined in the Guidelines for Community Noise (WHO, 1999) for no more than one dwelling on each parcel of land that:</p> <ul style="list-style-type: none"> <li>• Is not associated with the project;</li> <li>• Was lawfully in existence at the date of the approval;</li> <li>• Was lawfully permitted to be developed for the purpose of a residential dwelling at the date of the approval;</li> <li>• Is or was the subject of a valid construction certificate for a residential dwelling, lodged with the consent or a certifying authority within three years of the date of approval; and</li> <li>• Would, but for the requirements of this condition, experience noise contributions from the project at the approved location of the residential dwelling in excess of the noise limits recommended in the SA EPA guidelines.</li> <li>•</li> </ul>	The Proponent	Operation	DoP	Minimise impacts
140.	Impact on local water supplies	<p>Comply with water authority</p> <ul style="list-style-type: none"> <li>• No ground water would be sourced without relevant permits being sought.</li> </ul>	The Proponent	Prior to construction	CEMP	Relevant approvals obtained
141.	Impact on groundwater	<p>Minimise risks</p> <ul style="list-style-type: none"> <li>• Undertake geotechnical investigations to ensure that the project would have no material adverse effect on groundwater/aquifers as a result of blasting activities.</li> </ul>	The Proponent	Detailed design phase	CEMP	No detectable impact on groundwater
142.	Loss of biodiversity value	<p>Avoid or minimise impact</p> <ul style="list-style-type: none"> <li>• <i>During the detailed design phase, a copy of the plans of the final infrastructure layout (including all turbines, hard stand areas, buildings, tracks, power lines and associated infrastructure) would be provided to DoP to demonstrate the achievement of biodiversity SoCs in the EA.</i></li> </ul>	Ecological consultant	Prior to construction	DPE	Minimise direct biodiversity impact

	<b>Impact</b>	<b>Objective</b>	<b>Mitigation tasks</b>	<b>By</b>	<b>Timing</b>	<b>Auditing</b>	<b>Criteria</b>
143.	Loss of biodiversity value	Avoid or minimise impact	<ul style="list-style-type: none"> <li>Additional targeted surveying (utilising 'Spider hole' pitfall traps) would be carried in works area likely to be impacted by GUR-08 infrastructure to establish if the Grassland Earless Dragon utilises this habitat at Gurrundah. If it is identified as occurring, turbine infrastructure would be relocated to avoid this habitat, and a buffer of at least 25 metres maintained</li> </ul>	Ecological consultant	Prior to construction	DPE OEH	Minimise direct biodiversity impact
144.	Safety and asset protection	Minimise risks	<ul style="list-style-type: none"> <li>If haulage is proposed on routes that have not been assessed as part of the EA, assessment would be undertaken, in consultation with the Department of Planning, the roads authority and Council, prior to its inclusion in the haulage route. This would be completed as part of the Construction Environmental Management Plan.</li> </ul>	The Proponent	During construction	CEMP	Minimise impacts on road users