

# Project Approval

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

As delegate of the Minister for Planning and Infrastructure under delegation executed on 14 September 2011, the Planning Assessment Commission approves the Project application referred to in schedule A, subject to the conditions in Schedule B.

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.

Garry West  
Member of the Commission

Richard Thorp  
Member of the Commission

Brian Gilligan  
Member of the Commission

Sydney

2 December 2013

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### Schedule A

**Application No.:**

MP10\_0156

**Proponent:**

Ratch-Australia Wind Developments Pty Ltd

**Approval Authority:**

Minister for Planning and Infrastructure

**Land:**

The Project is located on the Cullerin Range approximately 3.5km northwest of the township of Collector bounded by the Hume Highway to the north and Collector-Gunning Road to the south.

**Project:**

Collector Wind Farm, including:

- 55 wind turbine generators and associated infrastructure;
  - a wind farm substation and transformers;
  - underground cabling and an overhead transmission connection;
  - operations and maintenance building; and
  - access tracks.
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Red type represents 22 July 2016 modification (MOD 1)

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## DEFINITIONS

Act, the	<i>Environmental Planning and Assessment Act, 1979.</i>
Ancillary Facility	Temporary facility for construction, including for example an office and amenities compound, construction compound, materials storage compound, maintenance workshop, testing laboratory or material stockpile area.
Associated receptor	Landowner that has reached a financial or in kind agreement with the Proponent in relation to the Project.
CEMP	Construction Environmental Management Plan
Conditions of Approval	The Minister's conditions of Approval for the Project.
Construction	<p>Includes all work in respect of the Project other than:</p> <ol style="list-style-type: none"><li>survey, acquisitions, building/ road dilapidation surveys;</li><li>investigative drilling, excavation, or salvage;</li><li>minor clearing or translocation of native vegetation;</li><li>establishing ancillary facilities/ construction work sites (in locations meeting the criteria identified in the conditions of approval);</li><li>installation of environmental impact mitigation measures, fencing, enabling works;</li><li>other activities determined by the Environmental Representative to have minimal environmental impact (e.g. minor access roads, minor adjustments to services/ utilities, etc).</li></ol> <p>Note - work where heritage, threatened species, populations or endangered ecological communities would be affected, is classified as construction, unless otherwise approved by the <b>Secretary</b> in consultation with the Office of Environment and Heritage.</p>
Department, the	Department of Planning and <b>Environment</b>
<b>Secretary's</b> Approval, agreement or satisfaction	<p>A written Approval from the <b>Secretary</b> of the Department of Planning and <b>Environment</b> (or delegate).</p> <p>Where the <b>Secretary's</b> Approval, agreement or satisfaction is required under a condition of this Approval, the <b>Secretary</b> will endeavour to provide a response within one month of receiving an Approval, agreement or satisfaction request. The <b>Secretary</b> may ask for additional information if the Approval, agreement or satisfaction request is considered incomplete. When further information is requested, the time taken for the Proponent to respond in writing will be added to the one month period.</p>
DPI	Department of Primary Industries
<b>DPI-Water</b>	<b>Department of Primary Industries – Water</b>
Dust	Any solid material that may become suspended in air or deposited
EA	<p>The <b>environmental assessment titled Collector Wind Farm Environmental Assessment dated June 2012, as modified by:</b></p> <ul style="list-style-type: none"><li><b>Collector Wind Farm Preferred Project and Submissions Report dated March 2013;</b></li><li><b>Collector Wind Farm Landscape and Visual Impact Assessment Addendum A dated 19 June 2013; and</b></li><li><b>Collector Wind Farm Modification Report dated September 2015, as modified by the Submissions Report dated December 2015 (MOD 1).</b></li></ul>
EEC	Endangered ecological communities
EPA	Environment Protection Authority.
EPL	Environment Protection Licence under the <i>Protection of the Environment Operations Act 1997</i> .
Feasible and Reasonable	<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. Feasible relates to engineering considerations and what is practical to build. Reasonable 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> <p>Where requested by the <b>Secretary</b>, the Proponent shall provide evidence as to how feasible and reasonable measures were considered and taken into account.</p>
Heritage	Encompasses both Aboriginal and historic heritage including sites that predate European settlement, and a shared history since European settlement such as a

Collector Wind Farm

		shared associations in pastoral landscapes as well as associations linked with the mission period.
Heritage Item		An item as defined under the <i>Heritage Act 1977</i> , and assessed as being of local, State and/ or National heritage significance, and/or an Aboriginal Object or Aboriginal Place as defined under the <i>National Parks and Wildlife Act 1974</i>
Minister, the		Minister for Planning and Infrastructure.
Non-associated	Receptor	Any residence on privately-owned land where the landowner has not reached a financial or in kind agreement with the Applicant in relation to the development. In some cases, this agreement will be restricted. First, it may only cover certain aspects of the development (such as the noise or visual impacts). In such cases, the residence is only associated for those aspects covered by the agreement, and remains a non-associated residence for all those aspects that are not covered by the agreement. Second, while the agreement may cover a certain aspect of the development (such as noise impacts), it may limit the extent of any such impact (by setting absolute noise levels at a residence, for instance). In these cases, the residence is only associated to the extent that the impact is covered by the agreement, and is considered to be non-associated for any impacts that exceed the limits specified in the agreement.
OEH		Office of Environment and Heritage
Operation		Means the operation of the Project, but does not include commissioning trials of equipment or temporary use of parts of the Project during construction.
Project		Means the Project approved under this approval and as generally described in Schedule A.
Proponent		RATCH-Australia Wind Developments Pty Ltd
Publicly available		Available for inspection by a member of the general public (for example available on an internet website).
Registered Stakeholders	Aboriginal	Aboriginal stakeholders identified as registered stakeholders in the EA
Relevant council(s)		Upper Lachlan Shire Council
RFS		NSW Rural Fire Service
RMS		Roads and Maritime Services
Sensitive receiver		Residence, education institution (e.g. school, university, TAFE college), health care facility (e.g. nursing home, hospital), religious facility (e.g. church) and children's day care facility.
Site		Land to which Project Application MP10_0156 applies, as shown in Attachment 2.
Surveyor General		Of New South Wales
TSC Act		<i>Threatened Species Conservation Act 1995</i>

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## SCHEDULE B - CONDITIONS OF APPROVAL

### PART A ADMINISTRATIVE CONDITIONS

#### TERMS OF APPROVAL

- A1 The Proponent shall carry out the Project:
- (a) generally in accordance with the EA; and
  - (b) in accordance with the statement of commitments and the conditions of this approval.

*Notes:*

- The statement of commitments is reproduced in Attachment 1.
- The approved layout of the project is shown in Attachment 2.

- A2 If there is any inconsistency between the above documents, 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.
- A3 The Proponent shall comply with any reasonable requirement(s) of the **Secretary** arising from the Department's assessment of:
- (a) any reports, plans or correspondence that are submitted in accordance with this Approval; and
  - (b) the implementation of any actions or measures contained within these reports, plans or correspondence.
- A4 Subject to confidentiality, the Proponent shall make all documents required under this Approval available for public inspection on request.

#### LIMITS OF APPROVAL

- A5 This Approval lapses five (5) years after the date of this Approval 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 the date on which the Approval would otherwise lapse under this condition. Work, for the purpose of this condition includes at least one of the following:
- (a) internal track construction;
  - (b) civil works associated with the construction of the foundations for the wind turbine footings;
  - (c) control room construction;
  - (d) electrical substation construction;
  - (e) underground cabling; or
  - (f) internal overhead transmission line construction.
- A6 The project is modified to limit the scope of the project to the construction of 55 turbines by deleting the following turbines from the scope of the project: 53, 54, 55, 56, 57, 58, 59 and 60 (refer Attachment 2). This approval does not authorise the construction of these turbines.
- A7 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, and is the responsibility of the Proponent.
- A8 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 18 months of the date that the wind turbine was last used to generate electricity.

### **Wind Turbine Height**

A8A No wind turbines may be greater than 150 metres in height (measured from above ground level to the blade tip).

### **Micro-siting Restrictions**

A8B The Proponent may micro-site the wind turbines and ancillary infrastructure without further approval provided:

- (a) no wind turbine or ancillary infrastructure is moved more than 100 metres from the locations shown on the figures and table in Attachment 2;
- (b) turbine 45 is not moved any closer to residence FF;
- (c) all feasible and reasonable effort is made to locate wind turbines at least 60 metres from existing hollow-bearing trees which have the potential to provide roost or nesting habitat for bird and bat species identified to be at risk of rotor collision during turbine operation, unless the Secretary agrees otherwise; and
- (d) the revised location of the wind turbine and/or ancillary infrastructure would not increase the impact of the project when compared to the approved locations and would not result in any non-compliance with the conditions of this consent.

*Note: In considering a request for micro-siting of turbines within 60 m of existing hollow-bearing trees, the Secretary will consider safety concerns, the constructability of the turbine, and/or whether the micro-siting would materially increase biodiversity impacts.*

### **Final Layout Plans**

A8C Prior to the commencement of construction, the Proponent shall submit detailed plans of the final layout of the development to the Secretary, including:

- (a) details on the micro-siting of any wind turbines and/or ancillary infrastructure; and
- (b) the GIS coordinates of the wind turbines.

*Note: If the construction of the development is to be staged, then the provision of these plans may be staged.*

### **NOTIFICATION TO DEPARTMENT**

A8D Prior to the commencement of the construction, operation and/or decommissioning of the development, the Proponent shall notify the Department in writing of the date of commencement.

If the construction, operation and/or decommissioning of the development is to be staged, then the Proponent must notify the Department in writing prior to the commencement of the relevant stage, and clearly identify the development that would be carried out during the relevant stage.

### **STRUCTURAL ADEQUACY**

A8E The Proponent shall ensure that the wind turbines are constructed in accordance with the relevant standards, including the structural design requirements of *IEC 61400-1 Wind turbines – Part 1: Design Requirements* (or equivalent).

A8F The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

#### *Notes:*

- *Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.*

## **DEMOLITION**

A8G The Proponent shall ensure that all demolition work on site is carried out in accordance with AS 2601-2001: *The Demolition of Structures, or its latest version*.

## **OPERATION OF PLANT AND EQUIPMENT**

A8H The Proponent shall ensure that all plant and equipment used on site, or in connection with the development, is:

- (a) maintained in a proper and efficient condition; and
- (b) operated in a proper and efficient manner.

A9 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 of 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.

A10 For the purpose of section 75S(2)(b) of the EP&A Act, the relevant provisions, as defined in section 75S(1A) of the EP&A Act, apply to this Approval.

## **STAGING**

A11 The Proponent may elect to construct and/ or operate the Project in stages. Where staging is proposed, the Proponent shall submit a Staging Report to the **Secretary** prior to the commencement of the first proposed stage. The Staging Report shall provide details of:

- (a) how the Project would be staged, including general details of work activities associated with each stage and the general timing of when each stage would commence; and
- (b) details of the relevant conditions of approval, which would apply to each stage and how these shall be complied with across and between the stages of the Project.

Where staging of the Project is proposed, these conditions of approval are only required to be complied with at the relevant time and to the extent that they are relevant to the specific stage(s). However, nothing in this condition allows submission of the Bird and Bat Adaptive Management Program, as required by condition B6, to be staged.

The Proponent shall ensure that an updated Staging Report (or advice that no changes to staging are proposed) is submitted to the **Secretary** prior to the commencement of each stage, identifying any changes to the proposed staging or applicable conditions.

A12 The Proponent shall ensure that all plans, sub-plans and other management documents required by the conditions of this Approval and relevant to each stage (as identified in the Staging Report) are submitted to the **Secretary** no later than one month prior to the commencement of the relevant stages, unless otherwise agreed by the **Secretary**.

*Note: These conditions do not relate to staged development within the meaning of section 83B.*

## **COMPLIANCE**

A13 The Proponent shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this Approval relevant to their respective activities.

A14 The Proponent shall be responsible for environmental impacts resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and visitors.

A15 In the event of a dispute between the Proponent and a public authority, in relation to an applicable requirement in this Approval or relevant matter relating to the Project, either 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.



## **PART B ENVIRONMENTAL PERFORMANCE**

### **BIODIVERSITY**

#### **Clearing**

- B1 The clearing of all native vegetation is to be limited to the minimal extent practicably required. Details regarding the procedures for clearing vegetation and minimising the extent of clearing shall be clearly included in the Construction Flora and Fauna Management Plan contained in condition D25 (f).

The Proponent shall ensure that no more than 36.9 hectares of Box Gum Woodland and Derived Grassland EEC is cleared for the development, unless the Secretary agrees otherwise in consultation with OEH.

- B2 Tree trunks and major branches from cleared areas should be used, to the fullest extent practicable, to enhance habitat (coarse woody debris) in rehabilitated areas or derived native grassland (either in offset areas or areas adjoining impacted areas) and details contained within the Construction Flora and Fauna Management Plan contained in condition D25(f).

B3 Deleted

B4 Deleted

B5 Deleted

### **BIRD AND BAT MONITORING AND MANAGEMENT**

- B6 Prior to the commencement of construction, the Proponent shall prepare and submit for the Approval of the Director-General a **Bird and Bat Adaptive Management Program**, which takes into account 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 prepared and implemented by a suitably qualified expert, approved by the Director-General. The Program shall incorporate spring – summer pre-construction baseline surveys, post construction and operational monitoring, and a Decision Matrix that clearly sets out how the Proponent will respond to the outcomes of monitoring. It shall:

- (c) incorporate an ongoing role for the suitably qualified expert;
- (d) set out monitoring requirements in order to assess the impact of the Project on bird and bat populations, including details on spring-summer baseline survey and post-construction monitoring locations, parameters to be measured, frequency, timing and methods of monitoring and analyses and reporting. The monitoring program shall 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, and includes spring-summer pre-construction baseline survey data ;
- (e) 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;
- (f) identify 'at risk' bird and bat groups, seasons and/or areas within the Project site which may attract high levels of mortality and include monthly mortality assessments and periodic local population census' and bird utilisation surveys;
- (g) 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
- (h) identify matters to be addressed in periodic reports in relation to the outcomes of baseline surveys and post-construction and operational monitoring, the application of the decision making framework, the mitigation measures identified, progress with the implementation of such measures, and their success.



The Reports referred to under part (h) shall be submitted to the Director-General and OEH on an annual basis for the first five years of operation and every two years thereafter (unless otherwise agreed to by the Director-General), and shall be prepared within two months of the end of the reporting period. The Director-General may, at the request of the Proponent at anytime, 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 (g) where the need for further action is identified through the Bird and Bat Adaptive Management Programme, or as otherwise agreed with the Director-General.

## RETIREMENT OF CREDITS

**B7** Within 2 years of the commencement of construction, unless otherwise agreed by the Secretary, the Proponent shall retire biodiversity credits of a number and class specified in Table 1B below to the satisfaction of OEH.

The retirement of these credits must be carried out in accordance with the *NSW Biodiversity Offsets Policy for Major Projects*, and can be achieved by:

- (a) acquiring or retiring credits under the biobanking scheme in the TSC Act;
- (b) making payments into an offset fund that has been established by the NSW Government; or
- (c) providing suitable supplementary measures.

**Table 1B: Ecosystem credit requirements**

Homogenous Vegetation Zone	Condition	Total Habitat Loss (ha)	Ecosystem Credits Required
Blakely's Red Gum - Yellow Box grassy woodland of the NSW South Western Slopes Bioregion (LA120) - Tree cover high diversity	Moderate to good	2.36	113
Blakely's Red Gum - Yellow Box grassy woodland of the NSW South Western Slopes Bioregion (LA120) - Tree cover low moderate diversity	Moderate to good	7.93	109
Blakely's Red Gum - Yellow Box grassy woodland of the NSW South Western Slopes Bioregion (LA120) – Derived grassland high diversity	Moderate to good	4.43	111
Blakely's Red Gum - Yellow Box grassy woodland of the NSW South Western Slopes Bioregion (LA120) – Derived grassland low-moderate diversity	Moderate to good	22.23	222
Red Stringybark - Scribbly Gum - Red Box - Long-leaved Box shrub - tussock grass open forest of the NSW South Western Slopes Bioregion (LA182) – Tree cover	Moderate to good	0.61	29
Red Stringybark - Scribbly Gum - Red Box - Long-leaved Box shrub - tussock grass open forest of the NSW South Western Slopes Bioregion (LA182) - Derived grassland	Moderate to good	0.78	7

## WATER QUALITY AND HYDROLOGY

**B8** Except as may be provided by an EPL, the Project shall be constructed and operated to comply with section 120 of the *Protection of the Environment Operations Act 1997*, which prohibits the pollution of waters.

**B9** Waterway crossings shall be designed and constructed in consultation with **DPI-Water** and DPI (Fisheries) and consistent with DPI (Fisheries) guidelines, *Policy and Guidelines for Fish Friendly Waterway Crossings* (2004) and *Why Do Fish Need to*

Cross the Road? Fish Passage Requirements for Waterway Crossings (2004) and DPI-Water's guideline *Controlled Activity Guidelines* (NSW Office of Water, 2012).

## **NOISE**

B10 Any overhead transmission line associated with the Project shall be designed, constructed and operated to minimise the generation of corona and aeolian noise as far as feasible and reasonable at nearest existing sensitive receivers.

## **HAZARDS AND RISK**

B11 Dangerous goods, as defined by the Australian Dangerous Goods Code, shall be stored and handled strictly in accordance with:

- (a) all relevant Australian Standards;
- (b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and
- (c) the *Environment Protection Manual for Authorised Officers: Bunding and Spill Management*, technical bulletin (Environment Protection Authority, 1997).

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

## **AVIATION OBSTACLES AND HAZARDS**

B12 Prior to the commencement of construction, the Proponent shall consult with:

- (a) aerodrome operators that have an aerodrome located within 30 kilometres of the boundaries of the site, to determine any impact on Obstacle Limitation Surfaces at such aerodromes;
- (b) AirServices Australia, to determine potential impacts on instrument approach procedures at aerodromes, navigational aids, communications and surveillance facilities; and
- (c) Aerial Agriculture Association Australia, to determine potential hazards to aerial application and related operations.

Feasible and reasonable mitigation measures for each of the potential impacts and hazards identified, shall be determined in consultation with the respective groups identified in this condition, prior to the commencement of construction.

B13 Prior to the commencement of construction, the Proponent shall provide the following information to the Civil Aviation Safety Authority, Airservices Australia, Royal Australian Air Force - Aeronautical Information Services, the Aerial Agricultural Association of Australia, Rural Fire Service as well as all known users of privately owned local airfields:

- (a) "as constructed" coordinates in latitude and longitude of each wind turbine generator;
- (b) final height of each wind turbine generator in Australian Height Datum; and
- (c) ground level at the base of each wind turbine generator in Australian Height Datum.

B14 The Proponent shall consult with all local aerial agricultural stakeholders to develop a strategy to minimise any aerial agricultural impacts. Should increases to the costs of aerial agricultural spraying on any non-associated property surrounding the site be attributable to the operation of the Project, the Proponent shall fully fund to the affected landowner, the reasonable cost difference between pre-construction aerial agricultural spraying and the increased cost, as agreed between the relevant parties.

## **RADIO COMMUNICATION**

B15 Prior to the commencement of construction, the Proponent shall:

- (a) consult with the NSW Government Telecommunications Authority and other registered communications licensees (including emergency services) to ensure that risks to these services are minimised as far as feasible and reasonable. This may include the installation of additional radio sites or services to ensure coverage of radio communications are not degraded;
- (b) in the event that any disruptions to radio communication service links (installed before construction of the Project) arise as a result of the Project, the Proponent

shall undertake appropriate remedial measures in consultation with the NSW Government Telecommunications Authority and relevant licensee to rectify any issue, including arranging the deployment of temporary measures in order to maintain effective coverage whilst more permanent measures are effected, within three months of the problem being identified, and at the expense of the Proponent;

- (c) consider remedial measures, including:
- i. modification to or relocation of the existing antennae;
  - ii. installation and maintenance of additional radio sites or services;
  - iii. installation of a directional antennae; and / or
  - iv. installation of an amplifier to boost the signal strength.

## **BUSHFIRE RISK**

B16 The Proponent shall ensure that all Project components on site are designed, constructed and operated to minimise ignition risks, provide for asset protection consistent with relevant RFS design guidelines (*Planning for Bushfire Protection 2006 and Standards for Asset Protection*) and provide for necessary emergency management including appropriate fire-fighting equipment and water supplies on site to respond to a bush fire.

B17 Throughout the operational life of the Project, the Proponent shall regularly consult with the local RFS about details of the Project, including the construction timetable, the final location of all infrastructure on the site and contact information. The Proponent shall comply with any reasonable request of the local RFS to reduce the risk of bushfire, minimise impacts on bushfire fighting operations and to enable fast access in emergencies.

B18 The Proponent must, in consultation with the local RFS, prepare a **Bushfire Risk Management Plan** based on the guidelines *Planning for Bushfire Protection* (RFS, 2006 or its latest edition). The plan must include:

- (a) details of the bushfire hazards and risks associated with the project;
- (b) mitigation measures including contingency plans;
- (c) procedures and programs for liaison and regular drills with the local RFS; and
- (d) procedures for regular fire prevention inspections by the local RFS and implementation of any recommendations.

## **VISUAL AMENITY**

### **Views**

B19 All residents, business owners or public authorities, whose dwelling, business or public area respectively, may be subject to medium, medium to high or high visual significance, as defined in the Collector Wind Farm LVIA Addendum A, shall be consulted regarding impact minimisation measures. The outcomes of this consultation process shall be used to inform the Design and Landscape Plan, required under condition B27.

B20 At the request of any owners of residential dwellings or businesses with views of a turbine(s) located within five kilometres of their dwellings, the Proponent shall provide and bear the full cost of reasonable and feasible landscaping treatments to visually screen these dwellings. Such a request may be made in writing by the owner of the dwelling or business to the Proponent within 6 months from the commencement of operation of the wind farm, and landscaping treatments agreed between the parties shall be implemented and completed within 12 months of such an agreement. Should the parties not be able to reach agreement on the scope of 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.

B21 Landscaping treatments to reduce the visual impact of the Project shall generally comprise of plantings of indigenous and locally occurring tree and shrub species.

### **Turbine and Associated Infrastructure External Design**

B22 The Proponent shall maximise the use of building materials and treatments for associated infrastructure which visually complement the surrounding environment.

B23 The turbines shall be painted matt off-white/grey. The blades shall be finished with a surface treatment that minimises any potential for glare or reflection. No advertising, signs or logos shall be mounted on the turbines, except where required for safety purposes.

### **Shadow Flicker**

B24 Shadow flicker from the Project must not exceed 30 hours/annum at any residence not associated with the Project.

### **Substations**

B25 The Proponent shall ensure that the substations and associated facility sites are designed and constructed to minimise visual intrusion to the nearest sensitive receptors as far as reasonable and feasible, including appropriate external finishes to minimise glare or reflection, landscape planting to screen views, and external lighting requirements in accordance with condition B26.

### **Night Lighting**

B26 With the exception of aviation hazard lighting implemented in accordance with the requirements of this condition, no external lighting other than low intensity security night lighting is permitted on site unless otherwise agreed or directed by the **Secretary**, or required by the Civil Aviation Safety Authority.

Prior to the commencement of construction, the Proponent shall consult with the Civil Aviation Safety Authority on the need for aviation hazard lighting in relation to the wind turbines. If required, any aviation hazard lighting shall be implemented in a manner that minimises visual intrusion to surrounding non-associated receivers as far as reasonable and feasible.

### **Design and Landscape Plan**

B27 A **Design and Landscaping Plan** shall be prepared to outline measures to ensure appropriate development and maintenance of landscaping on the site to achieve adequate landscape buffers and address the visual impacts arising from the Project, including turbines, site access roads and associated above ground infrastructure, as far as is reasonable and feasible.

The Plan shall be prepared by a qualified landscape architect and be prepared in consultation with the Community Consultative Committee. The Plan shall include design treatments for the turbines and ancillary infrastructure, including, but not necessarily limited to:

- (a) the landscape screening measures at residences in close proximity to the Project site and along nearby roadsides to screen potential moderate to significant views of the Project, including an outline of additional measures available for landscaping treatments requested by owners of residential dwellings or businesses;
- (b) landscape elements and built elements, including proposed treatments, finishes and materials of exposed surfaces (including colour specifications);
- (c) lighting;
- (d) a schedule of species to be used in landscaping;
- (e) details of the timing and progressive implementation of landscape works; and
- (f) procedures and methods to monitor and maintain landscaped areas.

The Plan shall be submitted for the approval of the **Secretary** prior to the commencement of construction, unless otherwise agreed by the **Secretary**. The Plan may be submitted in stages to suit the staged construction program of the Project.

## UTILITIES AND SERVICES

B28 Utilities, services and other infrastructure potentially affected by construction and operation shall be identified prior to construction to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the Project shall be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The cost of any such arrangements shall be borne by the Proponent.

## WASTE MANAGEMENT

B29 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 on 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.

B30 The Proponent shall maximise the reuse and/or recycling of waste materials generated on site by the Project, to minimise the need for treatment or disposal of those materials outside the site.

B31 The Proponent shall ensure that no green waste associated with the Project is burnt on site during the life of the Project.

B32 The Proponent shall ensure that all liquid and/or non-liquid waste generated on the site by the Project is assessed and classified in accordance with *Waste Classification Guidelines (DECC, 2008)*, or any future guideline that may supersede that document and where removed from the site is only directed to a waste management facility lawfully permitted to accept the materials.

## PROPERTY IMPACTS

### Crown Land

B33 Prior to the commencement of construction of the Project, the Proponent shall consult with and comply with the requirements of the NSW Crown Lands Division in relation to any Crown land affected by the Project to enable the lawful use of that land by the Project.

### Trigonometric Reserves

B34 Disturbance to Trigonometric Reserves shall be avoided during the life of the Project, unless otherwise approved by the Surveyor General and the relevant licence under the *Crown Lands Act 1989* is obtained by the Proponent.

### Mineral Resources

B35 Prior to the commencement of relevant construction works, the Proponent shall consult with the **Department of Industry (Resources and Energy Division)** and holders of mineral, mining and exploration titles or tenements, with respect to measures to be applied during construction and operation of the Project so as to minimise the potential for any sterilisation of resources on the tenement.

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## **PART C COMMUNITY INFORMATION, REPORTING AND AUDITING**

### **COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT**

#### **Community Consultative Committee**

C1 The Proponent shall continue operation of the **Community Consultative Committee** for the life of the Project, unless otherwise agreed by the **Secretary**. The Proponent shall ensure the Committee is in operation during construction, and operation, in a manner generally consistent with the requirements of *Appendix C: Guidelines for wind farm consultative committees*, as contained in the draft *NSW Planning Guidelines – Wind Farms* (December 2011), as updated, unless otherwise directed by the **Secretary**.

C2 Prior to the commencement of construction of the project, the Proponent shall submit to the **Secretary**, details for a **Community Enhancement Program**.

The Community Enhancement Program is to be managed by a legal entity such as an entity established in accordance with the *Associations Incorporation Act 2009*, the *Co-operatives Act 1992*, the *Corporations Act 2001* or the *Local Government Act 1993*.

The entity shall:

- a) comprise representatives from the local community, Council and the Proponent; and
- b) establish governance, administration and reporting procedures.

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.

#### **Complaints and Enquiries Procedure**

C3 Prior to the commencement of construction, or as otherwise agreed by the **Secretary**, the Proponent shall ensure that the following are available for community enquiries and complaints for the life of the Project (including construction and operation) or as otherwise agreed by the **Secretary**:

- (a) **an attended** 24 hour telephone number(s) on which complaints and enquiries about the Project may be registered;
- (b) a postal address to which written complaints and enquires may be sent;
- (c) an email address to which electronic complaints and enquiries may be transmitted; and
- (d) a complaints management and mediation system for complaints unable to be resolved.

The telephone number, the postal and email addresses shall be published in newspaper(s) circulating in the local area prior to the commencement of construction and prior to the commencement of operation. This information shall also be provided on the website (or dedicated pages) required by this Approval.

#### **Community Information Plan**

C4 Prior to the commencement of construction, the Proponent must prepare and implement a **Community Information Plan** which sets out the community communications and consultation processes to be undertaken during construction and operation of the project. The Plan must include but not be limited to:



- (a) procedures to inform the local community<sup>1</sup> of planned investigations and construction activities;
- (b) procedures to inform the affected community of construction traffic routes and any potential disruptions to traffic flows and amenity impacts; and
- (c) procedures to consult with local landowners with regard to construction traffic to ensure the safety of livestock and to limit disruption to livestock movements; and
- (d) procedures to inform the community where work has been approved to be undertaken outside the normal Construction hours, in particular noisy Activities.

- C5 Prior to the commencement of construction, or as otherwise agreed by the **Secretary**, the Proponent shall prepare and implement a **Complaints Management System** consistent with *AS 4269: Complaints Handling* and maintain the System for the life of the Project.

Information on all complaints received, including the means by which they were addressed and whether resolution was reached, with or without mediation, shall be maintained in a complaints register and included in the compliance reports required by this Approval. The information contained within the System shall be made available to the **Secretary** on request.

#### **Provision of Electronic Information**

- C6 Prior to the commencement of construction, or as otherwise agreed by the **Secretary**, the Proponent shall establish and maintain a new website, or dedicated pages within an existing website, for the provision of electronic information associated with the Project, for the life of the Project. The Proponent shall, subject to confidentiality, publish and maintain up-to-date information on the website or dedicated pages including, but not necessarily limited to:
- (a) information on the current implementation status of the Project;
  - (b) a copy of the documents referred to under condition A1 of this Approval, and any documentation supporting modifications to this Approval that may be granted;
  - (c) a copy of this Approval and any future modification to this Approval;
  - (d) a copy of each relevant environmental approval/approval, licence or permit required and obtained in relation to the Project;
  - (e) a copy of each current strategy, plan, program, review or other document required under this Approval;
  - (f) minutes of meetings held by the Community Consultative Committee;
  - (g) the outcomes of compliance tracking in accordance with condition C7 and the annual review in accordance with condition C10 of this Approval; and
  - (h) details of contact point(s) to which community complaints and inquiries may be directed, including a telephone number, postal and email addresses.

#### **Revision of Strategies, Plans and Programs**

C6A. Within 3 months of the submission of:

- (a) the submission of an incident report under condition C8 below;
- (b) the submission of an audit under condition C12 below; or
- (c) any modification to the conditions of this consent (unless the conditions require otherwise),
- (d) the Applicant shall review and, if necessary, revise the strategies, plans, and programs required under this consent to the satisfaction of the **Secretary**.



Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted to the Secretary for approval.

*Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.*

## COMPLIANCE MONITORING AND TRACKING

### Compliance Tracking Program

- C7 The Proponent shall develop and implement a **Compliance Tracking Program** to track compliance with the requirements of this Approval. The Program shall be submitted to the **Secretary** for approval prior to the commencement of construction and operate for the life of the Project. The Program shall include, but not necessarily be limited to:
- (a) provisions for the notification of the **Secretary** prior to the commencement of construction and prior to the commencement of operation of the Project (including prior to each stage, where works are being staged);
  - (b) provisions for periodic review of the compliance status of the Project against the requirements of this Approval;
  - (c) provisions for periodic reporting of compliance status to the **Secretary**, including a Pre-Construction Compliance Report, during construction reporting, and a Pre-Operation Compliance Report;
  - (d) a program for independent environmental auditing in accordance with ISO 19011:2003 - Guidelines for Quality and/ or Environmental Management Systems Auditing;
  - (e) mechanisms for recording environmental incidents during construction and actions taken in response to those incidents;
  - (f) provisions for reporting environmental incidents to the **Secretary** and relevant public authorities (including Upper Lachlan Shire Council) during construction and for the life of the Project;
  - (g) procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management; and
  - (h) 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.

### Incident Reporting

- C8 The Proponent shall notify the **Secretary** within 24 hours of becoming aware of any incident caused or contributed to by the Project with actual or potential significant off-site impacts on people or the biophysical environment. The Proponent shall provide full written details of the incident to the **Secretary** within seven days of the date on which the incident occurred.
- C9 The Proponent shall meet the requirements of the **Secretary** to address the cause(s) or impacts of any incident, as they relate to this Approval, reported in accordance with condition C8 of this Approval, within such period as the **Secretary** may require.
- C10 The Proponent must prepare and submit to the **Secretary**, an **Annual Environmental Management Report** (AEMR) throughout the life of the project, or as otherwise required by the **Secretary**. The AEMR must review the performance of the project against the Operation Environmental Management

Plan, the conditions of this approval and other licences and approvals relating to the project. The AEMR must include, but not necessarily be limited to:

- (a) details of compliance with the conditions of this approval;
- (b) a copy of the Complaints Register (referred to in Condition C5) for the preceding twelve-month period (exclusive of personal details), and details of how these complaints were addressed and resolved;
- (c) a comparison of the environmental impacts and performance of the project against the environmental impacts and performance predicted in those documents listed under Condition A1 of this approval;
- (d) results of all environmental monitoring required under this approval and others, including interpretations and discussion by a suitably qualified person;
- (e) a list of all occasions in the preceding twelve-month period when environmental performance goals for the project have not been achieved, indicating the reason for failure to meet the goals and the action taken to prevent recurrence of that type of incident;
- (f) identification of trends in monitoring data over the life of the project to date;
- (g) a list of variations obtained to approvals applicable to the project and to the site during the preceding twelve-month period; and;
- (h) environmental management targets and strategies for the following twelve-month period, taking into account identified trends in monitoring results.

*Note: It is not intended for this annual review to result in any additional review of plans, programs and strategies where those plans, programs and strategies also have a review component that addresses this condition.*

- C11 The Proponent must submit a copy of the AEMR to the **Secretary**:
- (a) within fourteen months of commencement of operation of the project;
  - (b) the second and subsequent AEMRs are to be submitted every twelve months thereafter; and
  - (c) the AEMR being made available to the Community Consultative Committee and be made available on the proponents website.

## **OPERATIONAL PERFORMANCE**

### **Operation Performance Audit Report**

- C12 Within fifteen months of the commencement of operation, and at any other time required by the **Secretary**, the Proponent shall commission an independent qualified person or team to undertake an **Operational Performance Audit** of the Project. The independent person or team shall be approved by the **Secretary** prior to the commencement of the Audit. The Operational Performance Audit Report shall be submitted to the **Secretary** within one month of the completion of the Audit, unless otherwise agreed by the **Secretary**. The Audit shall:
- (a) assess compliance with the requirements of this Approval, and other licences and approvals that apply to the Project;
  - (b) assess the operational performance of the Project against the aims and objectives for the Project specified in the documents referred to under condition A1 (a) - **A1(b)** of this Approval;
  - (c) assess the environmental performance of the Project against the predictions made and conclusions drawn in the documents referred to under condition A1 (a) - **A1(b)** of this Approval; and
  - (d) review the effectiveness of the environmental management of the Project, including any environmental impact mitigation works.

The Operational Performance Audit shall be made publically available on the website (in accordance with condition C6) and a copy provided to the Upper Lachlan Shire Council within two months of completion.

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## **PART D CONSTRUCTION ENVIRONMENTAL MANAGEMENT**

### **DUST GENERATION**

D1 The Proponent shall construct and operate the Project in a manner that minimises dust generation from the site, including wind-blown and traffic-generated dust as far as practicable. All Project related activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should visible dust emissions attributable to the Project occur during construction and operation, the Proponent shall identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.

### **HERITAGE**

D2 This approval does not allow the Proponent to destroy, modify or otherwise physically affect human remains as part of the project.

D3 In undertaking the Project, impacts to heritage, shall to the greatest extent practicable, be avoided and minimised. In particular the Proponent shall:

(a) clearly identify and avoid the following sites described in **the EA**:

- i. Survey Unit 29, Locale 1;
- ii. Survey Unit 37, Locale 1;
- iii. Survey Unit 37, Locale 2;
- iv. Survey Unit 42, Locale 1;
- v. Survey Unit 45, Locale 1;
- vi. **Survey Unit 1, Locale 1; and**
- vii. **Survey Unit 54, Locale 1;**

and include methods for restricting access to these sites as part of the Construction Heritage Management Plan required by condition D25(e); and

(b) Where the Project impacts on other heritage items, assessed in the EA as being unavoidable, works shall be undertaken in accordance with the strategy outlined in the Construction Heritage Management Plan required by condition D25(e).

D4 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) shall cease immediately and the OEH informed in accordance with section 89A of the National Parks and Wildlife Act 1974. Relevant works shall not recommence until written authorisation from the **Secretary** advising otherwise is received by the Proponent.

D5 If during the course of construction the Proponent becomes aware of any previously unidentified heritage object(s), all work likely to affect the object(s) shall cease immediately and the Heritage Branch of OEH shall be notified immediately in accordance with section 146 of the NSW *Heritage Act 1977*. Relevant works shall not recommence until written authorisation from the **Secretary** advising otherwise is received by the Proponent.

### **NOISE AND VIBRATION**

#### **Construction Hours**

D6 Construction activities associated with the Project shall be undertaken during the following standard construction hours:

- (a) 7:00am to 6:00pm Mondays to Fridays, inclusive; and
- (b) 8:00am to 1:00pm Saturdays; and
- (c) at no time on Sundays or public holidays.

- D7 Construction works outside of the standard construction hours identified in condition may be undertaken in the following circumstances:
- (a) construction works that generate noise that is:
    - i. no more than 5 dB(A) above rating background level at any residence in accordance with the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009); and
    - ii. no more than the noise management levels specified in Table 3 of the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009) at other sensitive receivers; or
  - (b) for the delivery of materials required outside those hours by the NSW Police Force or other authorities for safety reasons; or
  - (c) where it is required in an emergency to avoid the loss of life, property and/or to prevent environmental harm; or
  - (d) works approved through an EPL; or
  - (e) works as approved through the out-of-hours work protocol outlined in the Construction Noise and Vibration Management Plan required under condition D25(b).
- D8 Except as expressly permitted by the EPL, any activities resulting in impulsive or tonal noise emission (such as rock breaking, rock hammering, pile driving) shall only be undertaken:
- (a) between the hours of 8:00 am to 5:00 pm Mondays to Fridays;
  - (b) between the hours of 8:00 am to 1:00 pm Saturdays;
  - (c) at no time on Sundays or public holidays; and
  - (d) in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block.

For the purposes of this condition, 'continuous' includes any period during which there is less than a one hour respite between ceasing and recommencing any of the work the subject of this condition.

- D9 Except as expressly permitted by the EPL, blasting operations shall only be undertaken during the following standard construction hours:
- (a) 9:00am to 5:00pm Mondays to Fridays, inclusive; and
  - (b) 9:00am to 1:00pm Saturdays; and
  - (c) at no time on Sundays or public holidays.

Where compelling safety reasons exist, the EPA may permit a blast to occur outside the abovementioned hours. Prior written notification of any such blast must be made to the EPA.

### **Construction Noise and Vibration**

- D10 The Project shall be constructed with the aim of achieving the construction noise management levels detailed in the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009). All reasonable and feasible noise mitigation measures shall be implemented and any activities that could exceed the construction noise management levels shall be identified and managed in accordance with the Construction Noise and Vibration Management Plan required under condition D25(b).

*Note: The Interim Construction Noise Guideline identifies 'particularly annoying' activities that require the addition of 5dB(A) to the predicted level before comparing to the construction noise management levels.*

D11 The Project shall be constructed with the aim of achieving the following construction vibration goals:

- (a) for structural damage, the vibration limits set out in the German Standard *DIN 4150-3: Structural Vibration - effects of vibration on structures*; and
- (b) for human exposure, the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006).

D12 Airblast overpressure generated by blasting associated with the Project shall not exceed the criteria specified in Table 2 when measured at the most affected residence or other sensitive receiver.

**Table 2 - Airblast overpressure criteria**

Airblast overpressure (dB(Lin Peak))	Allowable exceedance
115	5% of total number of blasts over a 12 month period
120	0%

D13 Ground vibration generated by blasting associated with the Project shall not exceed the criteria specified in Table 3 when measured at the most affected residence or other sensitive receiver.

**Table 3 – Peak particle velocity criteria**

Receiver	Peak particle velocity (mm/s)	Allowable exceedance
Residence on privately owned land	5	5% of total number of blasts over a 12 month period
	10	0%
Historic heritage item	3	0%

D14 Wherever practical, piling activities shall be undertaken using quieter alternative methods than impact or percussion piling, such as bored piles or vibrated piles.

**PROPERTY IMPACTS**

D15 Access to property shall be maintained during construction unless otherwise agreed in advance with the affected property owner. Access that is physically affected by the Project shall be reinstated by the Proponent to at least an equivalent standard, in consultation with the affected property owner.

D16 Any damage caused to property as a result of the Project shall be rectified or the property owner compensated, within a reasonable timeframe, with the costs borne by the Proponent.

**SOIL, WATER QUALITY AND HYDROLOGY**

**Construction Soil and Water Management**

D17 Soil and water management measures consistent with *Managing Urban Stormwater - Soils and Construction Volumes 1 and 2, 4th Edition* (Landcom, 2004) shall be employed during the construction of the Project to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.

D18 Where available, and of appropriate chemical and biological quality, stormwater, recycled water or other water sources shall be used in preference to potable water for construction activities, including concrete mixing and dust control.

D19 Construction activities within 40 metres of any watercourses, shall be consistent with the *Controlled Activity Guidelines (NSW Office of Water, 2012)* including, but not limited to, ‘In-stream Works’, ‘Outlet Structures’, ‘Riparian Corridors’,



'Vegetation Management Plans', and 'Watercourse Crossings', or any guidelines which supersede these documents.

## TRANSPORT AND ACCESS

### Road Dilapidation

- D20 Unless otherwise agreed by the **Secretary**, the Proponent shall commission an independent, qualified person or team to undertake the following in consultation with the relevant road authority:
- (a) prior to the commencement of construction, review the proposed route and existing access provisions to the Wind Farm site to determine whether the route and existing provisions allow for safe access of construction and operational vehicles associated with the Project (including appropriate site distances and provisions for over-mass or over-dimensional transport and safety with other road users). Where improvements or changes (including consideration of speed limits) to the proposed route are required, the Proponent shall implement these in consultation with the relevant road authority, prior to the commencement of construction and at the full expense of the Proponent; and
  - (b) assess all roads proposed to be used for over-mass and / or over-dimensional transport (including intersections, bridges, culverts and other road features) prior to the commencement of construction to determine whether the existing road condition can accommodate the proposed over-mass and / or over-dimensional haulage. Where improvements are required, the Proponent shall implement these in consultation with the relevant road authority, prior to the commencement of construction and at the full expense of the Proponent.
  - (c) the review and assessment identified in (a) and (b) above is to include a list of comments received from the relevant roads authority and how these comments were addressed.

Upon determining the haulage route(s) for construction vehicles associated with the Project, and prior to construction, undertake a **Road Dilapidation Report using a method agreed to by the relevant road authority**. The Report shall assess the current condition of the road(s), predict likely damage resulting from construction activities and describe mechanisms to restore any damage that may result due to traffic and transport related to the construction of the Project. The Report shall be submitted to the relevant road authority for review prior to the commencement of haulage whether during pre-construction or construction.

Within three months of completion of construction, a subsequent Report shall be prepared to assess any damage that may have resulted from the construction of the Project (including mechanisms to restore any damage) and submitted to the relevant road authority for review.

Measures undertaken to restore or reinstate roads affected by the Project shall be undertaken in accordance with the reasonable requirements of the relevant road authority (including timing requirements), and at the full expense of the Proponent.

Measures undertaken to restore or reinstate roads damaged by the Project, including damage identified during construction, shall be undertaken in a timely manner, in accordance with the reasonable requirements of the relevant road authority, and at the full expense of the Proponent.



## Road Safety Upgrades

D20A Prior to the commencement of construction, the Proponent shall upgrade Lerida Road South to the satisfaction of Council. Unless otherwise agreed by Council, the upgrade works must include:

- (a) sealing and widening of Lerida Road South from the Hume Highway to a point 250 metres south of the southernmost site crossing point;
- (b) offset T-intersections at each of the site crossing points with Lerida Road South to ensure safety;
- (c) installing new fencing (or maintain the existing fencing) along both sides of Lerida Road South from the Hume Highway to a point approximately 250 m south of the southernmost crossing point to ensure safety; and
- (d) relocating the intersection of the access road between turbine 12 and 16 and between turbine 17 and 31 at least 125 m and up to 250 m away from Lerida Road South, if practicable.

## ANCILLARY FACILITIES

D21 Unless otherwise approved by the **Secretary**, the location of ancillary facilities associated with the construction of the Project shall:

- (a) be located more than 50 metres from a waterway;
- (b) be located within or adjacent to the Project;
- (c) have ready access to the road network;
- (d) be located to minimise the need for heavy vehicles to travel through residential areas;
- (e) be sited on relatively level land;
- (f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);
- (g) not require vegetation clearing beyond that already required by the Project;
- (h) not impact on heritage sites (including areas of archaeological sensitivity) beyond those already approved to be impacted by the Project;
- (i) not unreasonably affect the land use of adjacent properties;
- (j) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and
- (k) provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.

The location of the ancillary facilities shall be identified in the Construction Compound and Ancillary Facilities Management Plan required under condition D25(a) and include consideration of the above criteria. Where any of the above criteria cannot be met for any proposed ancillary facility, the Proponent shall demonstrate to the satisfaction of the **Secretary** that there will be no significant adverse impact from the ancillary facility's construction or operation. Such assessment(s) can be submitted separately or as part of the Construction Environmental Management Plan.

D22 All construction ancillary facility sites shall be rehabilitated to at least their pre-construction condition, unless otherwise agreed by the affected landowner.

## ENVIRONMENTAL REPRESENTATIVE

D23 Prior to the commencement of construction of the Project, or as otherwise agreed by the **Secretary**, the Proponent shall nominate for the approval of the **Secretary** a suitably qualified and experienced Environmental Representative(s) that is independent of the design, construction and operational personnel. The Proponent shall employ the Environmental Representative(s) for the duration of

construction, operation, and decommissioning or as otherwise agreed by the **Secretary**. The Environmental Representative(s) shall:

- (a) be the principal point of advice in relation to the environmental performance of the Project;
- (b) monitor the implementation of environmental management plans and monitoring programs required under this Approval and advise the Proponent upon the achievement of these plans/ programs;
- (c) have responsibility for considering and advising the Proponent on matters specified in the conditions of this Approval, and other licences and approvals related to the environmental performance and impacts of the Project;
- (d) ensure that environmental auditing is undertaken in accordance with the Proponent's Environmental Management System(s);
- (e) be given the authority to approve/ reject minor amendments to the Construction Environmental Management Plan. What constitutes a "minor" amendment shall be clearly explained in the Construction Environmental Management Plan required under condition D24;
- (f) be given the authority and independence to require reasonable and feasible steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur; and
- (g) be consulted in responding to the community concerning the environmental performance of the Project where the resolution of points of conflict between the Proponent and the community is required.

### **CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN**

D24 Prior to the commencement of construction including haulage of construction materials for improving road access, or as otherwise agreed by the **Secretary**, the Proponent shall prepare and implement (following approval) a **Construction Environmental Management Plan** for the Project. The Plan shall outline the environmental management practices and procedures that are to be followed during construction, and shall be prepared in consultation with the relevant agencies (including Upper Lachlan Shire Council) and in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004). The Plan shall include, but not necessarily be limited to:

- (a) a description of activities to be undertaken during construction of the Project (including staging and scheduling);
- (b) statutory and other obligations the Proponent is required to fulfil during construction, including approval/approvals, consultations and agreements required from authorities and other stakeholders under key legislation and policies;
- (c) a description of the roles and responsibilities for relevant employees involved in the construction of the Project, including relevant training and induction provisions for ensuring that employees, including contractors and sub-contractors are aware of their environmental and compliance obligations under these conditions of Approval;
- (d) an environmental risk analysis to identify the key environmental performance issues associated with the construction phase; and
- (e) details of how environmental performance will be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts (including any impacts arising from the staging of the construction of the Project). In

particular, the following environmental performance issues shall be addressed in the Plan:

- i. compounds and ancillary facilities management;
- ii. noise and vibration;
- iii. traffic and access;
- iv. soil and water quality and spoil management;
- v. air quality and dust management;
- vi. management of Aboriginal and historic heritage;
- vii. soil contamination, hazardous material and waste management;
- viii. management of ecological impacts; and
- ix. hazard and risk management, including bushfire risk.

The Plan shall be submitted for the approval of the **Secretary** no later than one month prior to the commencement of construction, or as otherwise agreed by the **Secretary**. The Plan may be prepared in stages, however, construction works shall not commence until written approval has been received from the **Secretary**.

*Note: The approval of a Construction Environmental Management Plan does not relieve the Proponent of any other requirement associated with this Project Approval. If there is an inconsistency with an approved Construction Environmental Management Plan and the conditions of this Project Approval, the requirements of this Project Approval prevail.*

D25 As part of the Construction Environmental Management Plan for the Project required under condition D24 the Proponent shall prepare and implement a:

(a) **Construction Compound and Ancillary Facilities Management Plan** to detail the management of site compounds associated with the Project. The Plan shall include but not necessarily be limited to:

- i. a description of the facility, its components and the surrounding environment;
- ii. details of the activities to be carried out at each facility, including the hours of use and the storage of dangerous and hazardous goods;
- iii. details of the mitigation and management procedures specific to the facility that would be implemented to minimise environmental and amenity impacts and an assessment of the adequacy of the mitigation or offsetting measures;
- iv. identification of the timing for the completion of activities at the facility and how the site will be decommissioned (including any necessary rehabilitation); and
- v. mechanisms for the monitoring, review and amendment of this Plan.

(b) **Construction Noise and Vibration Management Plan** to detail how construction noise and vibration impacts will be minimised and managed. The Plan shall be consistent with the guidelines contained in the *Interim Construction Noise Guidelines* (DECC, 2009) and shall include, but not be limited to:

- i. identification of sensitive receivers and relevant construction noise and vibration goals applicable to the Project stipulated in this Approval;
- ii. details of construction activities and an indicative schedule for construction works; including the identification of key noise and/or vibration generating construction activities (based on representative construction scenarios, including at ancillary facilities) that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers;

- iii. identification of reasonable and feasible measures proposed to be implemented to minimise and manage construction noise and vibration impacts (including construction traffic noise impacts);
  - iv. procedures and mitigation measures to ensure relevant vibration and blasting criteria are achieved, including a suitable blast management program, applicable buffer distances for vibration intensive works, use of low-vibration generating equipment/ vibration dampeners or alternative construction methodology, and pre- and post-construction dilapidation surveys of sensitive structures where blasting and/ or vibration is likely to result in damage to buildings and structures (including surveys being undertaken immediately following a monitored exceedance of the criteria);
  - v. a description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be conducted, the locations where monitoring would take place, how the results of this monitoring would be recorded and reported, and, if any exceedance is detected, how any non-compliance would be rectified;
  - vi. an out-of-hours work (OOHW) protocol for the assessment, management and approval of works outside of standard construction hours as defined in condition D6, including a risk assessment process under which an Environmental Representative may approve out-of-hour construction activities deemed to be of low environmental risk and refer high risk works for the **Secretary's** approval. The OOHW protocol shall detail standard assessment, mitigation and notification requirements for high and low risk out-of-hour works, and detail a standard protocol for referring applications to the **Secretary**; and
  - vii. mechanisms for the monitoring, review and amendment of this plan.
- (c) **Construction Traffic and Access Management Plan** to manage construction traffic and access impacts of the Project. The plan shall be developed in consultation with the relevant road authority and shall include, but not necessarily be limited:
- i. identification of construction traffic routes and construction traffic volumes (including heavy vehicle/ spoil haulage) on these routes;
  - ii. details of vehicle movements for construction sites and site compounds including parking, dedicated vehicle turning areas, and ingress and egress points;
  - iii. identification of construction impacts that could result in disruption of traffic, public transport, pedestrian and cycle access, property access, including details of oversize load movements;
  - iv. details of management measures to minimise traffic impacts, including temporary road work traffic control measures, onsite vehicle queuing and parking areas and management measures to minimise peak time congestion and measures to ensure safe pedestrian and cycle access;
  - v. a response plan which sets out a proposed response to any traffic, construction or other incident;
  - vi. mechanisms for the monitoring, review and amendment of this plan;
  - vii. clearly stating no construction traffic is permitted to access the project site via Lerida Road South from a southerly direction, Collector Road and Marked Tree Road;
  - viii. prohibiting heavy vehicle movements through the village of Collector during morning and afternoon school periods; **and**

- ix. prohibiting heavy vehicle right hand turns from Lerida Road South to the Hume Highway.
- (d) **Construction Soil and Water Quality Management Plan** to manage surface and groundwater impacts during construction of the Project. The plan shall be developed in consultation with **DPI-Water** and include, but not necessarily be limited to:
- i. details of construction activities and their locations, which have the potential to impact on water courses, storage facilities, stormwater flows, and groundwater;
  - ii. surface water and ground water impact assessment criteria consistent with *Australian and New Zealand Environment Conservation Council (ANZECC) guidelines*;
  - iii. management measures to be used to minimise surface and groundwater impacts, including details of how spoil and fill material required by the Project will be sourced, handled, stockpiled, reused and managed; erosion and sediment control measures; and the consideration of flood events;
  - iv. management measures for contaminated material and a contingency plan to be implemented in the case of unanticipated discovery of contaminated material during construction;
  - v. a description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be undertaken, the locations where monitoring would take place, how the results of the monitoring would be recorded and reported, and, if any exceedance of the criteria is detected how any non-compliance can be rectified; and
  - vi. mechanisms for the monitoring, review and amendment of this Plan.
- (e) **Construction Heritage Management Plan** to detail how construction impacts on Aboriginal and Historic heritage will be minimised and managed. The sub-plan shall be developed in consultation with the OEH and registered Aboriginal stakeholders (for Aboriginal heritage), and include, but not necessarily be limited to:
- i. In relation to Aboriginal Heritage:
    - a) details of further investigation and identification of Aboriginal cultural heritage sites within the Project area;
    - b) details of management measures to be carried out in relation to Aboriginal heritage, including a detailed methodology and strategies for protection, monitoring, salvage (including long term care e.g. care and control permit if applicable), and conservation, of sites and items associated with the Project;
    - c) procedures for dealing with previously unidentified Aboriginal objects (excluding human remains) including cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can re-commence by a suitably qualified archaeologist in consultation with the Department, OEH and registered Aboriginal stakeholders and assessment of the consistency of any new Aboriginal heritage impacts against the approved impacts of the Project, and registering of the new site in the OEH's Aboriginal Heritage Information Management System (AHIMS) register;
    - d) procedures for dealing with human remains, including cessation of works in the vicinity and notification of the



- Department, NSW Police Force, OEH and registered Aboriginal stakeholders and not recommencing any works in the area unless authorised by the OEH and/ or the NSW Police Force;
- e) heritage training and induction processes for construction personnel (including procedures for keeping records of inductions) and obligations under the conditions of this Approval and National Parks and Wildlife Act 1974 (where relevant) including site identification, protection and conservation of Aboriginal cultural heritage; and
  - f) procedures for ongoing Aboriginal consultation and involvement for the duration of the Project, which includes a communication protocol and the identification of the roles and responsibilities for both parties; and
- ii. In relation to Historic Heritage:
    - a) identification of heritage items directly and indirectly affected by the Project;
    - b) details of management measures to be implemented to prevent and minimise impacts on heritage items (including further heritage investigations, archival recordings and/ or measures to protect unaffected sites during construction works in the vicinity);
    - c) procedures for dealing with previously unidentified heritage objects, (including cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can re-commence by a suitably qualified and experienced archaeologist in consultation with the Heritage Branch of OEH and the Department, and assessment of the consistency of any new heritage impacts against the approved impacts of the Project; and
    - d) heritage training and induction processes for construction personnel (including procedures for keeping records of inductions and obligations under the *Heritage Act 1977*) including site identification, protection and conservation of non-Aboriginal cultural heritage; and
  - iii. mechanisms for the monitoring, review and amendment of this plan.
- (f) **Construction Flora and Fauna Management Plan** to detail how construction impacts on ecology will be minimised and managed. The Plan shall be developed in consultation with the OEH and shall include, but not necessarily be limited to:
- i. plans for impacted and adjoining areas showing vegetation communities; important flora and fauna habitat areas; locations where threatened species, populations or ecological communities have been recorded; including pre-clearing surveys to confirm the location of threatened flora and fauna species and associated habitat features;
  - ii. the identification of areas to be cleared or considered to be temporarily impacted and details of management measures (such as fencing, clearing procedures, removal and relocation of fauna during clearing, habitat tree management and construction worker education) to avoid any residual habitat damage or loss and to minimise or eliminate time lags between the removal and subsequent replacement of habitat;

- iii. rehabilitation details, including identification of flora species and sources, the reuse of cleared flora, and measures for the management and maintenance of rehabilitated areas;
  - iv. weed management measures focusing on early identification of invasive weeds and effective management controls;
  - v. a description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be undertaken, the locations where monitoring would take place, how the results of the monitoring would be recorded and reported, and, if any exceedance of the criteria is detected how any non-compliance can be rectified;
  - vi. a procedure for dealing with unexpected EECs/threatened species identified during construction, including cessation of work and notification of the OEH, determination of appropriate mitigation measures in consultation with the OEH (including relevant re-location measures and micro-siting) and updating of ecological monitoring and/ or biodiversity offset requirements;
  - vii. mechanisms for the monitoring, review and amendment of this plan; and
  - viii. clear key milestones, performance indicators, proposed monitoring, corrective actions and timeframes for the completion of all actions outlined in the plan.
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## **PART E OPERATION ENVIRONMENTAL MANAGEMENT**

### **HAZARD AND RISK**

#### **Safety Management System**

- E1 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 relevant to ensuring the safe operation of the Project. The report shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. Records shall be kept at the site and shall be available for inspection by the Department upon request. The Safety Management System shall 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.

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

- E2 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 receivers located within five kilometres of any wind turbine.
- E3 In the event of a complaint from a receptor located within five kilometres of a wind turbine regarding television/radio transmission during the operation of the Project, the Proponent shall investigate the quality of transmission at the receptor compared with the pre-commissioning assessment and where any transmission problems can be reasonably attributable to the Project, rectify the problems within three months of the receipt of the complaint, through the implementation of measures including:
- (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 receptor and an antenna located in an area of favourable reception; and/or
  - (d) other feasible measures.

If interference cannot be overcome by the measures outlined in (a) to (d), the Proponent shall negotiate with the impacted landowner(s) about installing and maintaining a satellite receiving antenna or other agreed mitigation measures. The Proponent shall be responsible for all costs associated with any such mitigation measures.

### **REHABILITATION AND REVEGETATION**

- E4 Disturbance to watercourses and/or associated riparian vegetation shall be rehabilitated to a standard equal to or better than the existing condition in consultation with the **DPI-Water** and DPI (Fisheries) within six months of the cessation of construction activities at the relevant area. Any revegetation measures undertaken shall be monitored and maintained by the Proponent consistent with the requirements of condition E5.
- E5 The Proponent shall implement a revegetation and rehabilitation program for all areas of the Project footprint which are disturbed during the construction of the Project and which are not required for the ongoing operation of the Project, including temporary construction facility sites and sections of construction access roads. The Proponent shall ensure that all revegetation measures are

implemented progressively where possible and in all cases within six months of the cessation of construction activities at the relevant area. Unless otherwise agreed to by the **Secretary**, the Proponent shall monitor and maintain the health of all revegetated areas until such time that the plantings have been verified by an independent and suitably qualified expert (whose appointment has been agreed to by the **Secretary**) as being well established, in good health and self sustaining.

## NOISE

### Operational Noise Criteria – Wind Turbines

E6 The Proponent shall ensure that the noise generated by the operation of wind turbines does not exceed the relevant criteria in Table 4 at any non-associated residence.

**Table 4 – Noise Criteria dB(A)**

Residence	Criteria (dB(A)) with Reference to Hub Height Wind Speed (m/s)										
	3	4	5	6	7	8	9	10	11	12	13
FF	35	35	35	35	37	39	41	43	45	47	49
All other non-associated residences	The higher of 35 dB(A) or the existing background noise level (LA90 (10-minute)) plus 5 dB(A)										

Note: To identify the residences referred to in Table 4, see the figure in Attachment 2.

Noise generated by the operation of the wind turbines is to be measured in accordance with the relevant requirements of the South Australian Environment Protection Authority's *Wind Farms – Environmental Noise Guidelines 2009* (or its latest version), as modified by the provisions in Attachment 3. If this guideline is replaced by an equivalent NSW guideline, then the noise generated is to be measured in accordance with the requirements in the NSW guideline.

### Operational Noise Criteria – Ancillary Infrastructure

E7 The Proponent shall ensure that the noise generated by the operation of ancillary infrastructure does not exceed 35 dB(A)  $L_{Aeq}(15 \text{ minute})$  at any non-associated residence.

Noise generated by the project is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy* (or its equivalent) as modified by the provisions in Attachment 3.

### Noise Monitoring

E8 Within 3 months of the commencement of operations, the Proponent shall:

- undertake noise monitoring to determine whether the project is complying with the relevant conditions of this approval; and
- submit a copy of the monitoring results to the Department and the EPA.

E9 The Proponent shall undertake further noise monitoring of the project if required by the Secretary.

E10-E18 Deleted.

## OPERATIONAL ENVIRONMENTAL MANAGEMENT

E19 Prior to the commencement of operation, or as otherwise agreed by the **Secretary**, the Proponent shall prepare and implement (following approval) an **Operation Environmental Management Plan** for the Project. The Plan shall outline the environmental management practices and procedures that are to be followed during operation, and shall be prepared in consultation with relevant agencies and in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004). The Plan shall include, but not necessarily be limited to:

- (a) a description of activities to be undertaken during operation of the Project (including staging and scheduling);
- (b) statutory and other obligations that the Proponent is required to fulfil during operation, including approval/approvals, consultations and agreements required from authorities and other stakeholders under key legislation and policies;
- (c) overall environmental policies, guidelines and principles to be applied to the operation of the Project;
- (d) a description of the roles and responsibilities for relevant employees involved in the operation of the Project, including relevant training and induction provisions for ensuring that employees are aware of their environmental and compliance obligations under these conditions of approval;
- (e) an environmental risk analysis to identify the key environmental performance issues associated with the operation phase of the Project; and
- (f) details of how environmental performance would be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts, including those safeguards and mitigation measures detailed in the EA (and any impacts arising from the staging of the construction of the Project).

The Plan shall be submitted for the approval of the **Secretary** no later than one month prior to the commencement of operation, or as otherwise agreed by the **Secretary**. Operation shall 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.

*Note: The approval of an Operation Environmental Management Plan does not relieve the Proponent of any other requirement associated with this Project Approval. If there is an inconsistency with an approved Operation Environmental Management Plan and the conditions of this Project Approval, the requirements of this Project Approval prevail.*

E20 As part of the Operation Environmental Management Plan required under condition E19 the Proponent shall prepare and implement (but not be limited to) the following:

- (a) an **Operation Noise Management Plan** to outline measures to minimise noise emissions from the operation of the Project. The Plan shall include, but not necessarily be limited to:
  - i. details of procedures to ensure ongoing compliance with the operational noise limits specified in conditions E6 and E7 as they apply to identified receivers. 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. procedures and corrective actions to be undertaken if non-compliance is detected.
-

## PART F ADDITIONAL PROCEDURES

### DECOMMISSIONING

F1 Unless otherwise agreed by the **Secretary**, within 18 months of the cessation of operation of the Project, the site shall be decommissioned and returned by the Proponent, as far as practicable, to its condition prior to the commencement, in consultation with the relevant landowner(s) and to the satisfaction of the **Secretary** (and in accordance with the Decommissioning and Rehabilitation Plan included in the Collector Wind Farm Environmental Assessment (June 2012).

All generating facilities and associated infrastructure (including but not necessarily limited to the substations and transformers, switchyard, operation and maintenance facility, overhead transmission lines and access roads) shall be removed from the site unless otherwise agreed by the **Secretary**. Project related infrastructure (including access roads) may only be retained on site, where the Proponent has demonstrated to the satisfaction of the **Secretary** prior to the commencement of decommissioning, that these components: are permissible under the site's statutory landuse provisions in force upon commencement of the decommissioning; would not pose an ongoing impediment to permissible landuse at the properties; and their retention has been agreed to in writing (with evidence provided to the **Secretary**) by the relevant landowners.

This condition does not apply to any infrastructure which, as at the relevant date, is owned by a network operator under the *Electricity Supply Act 1995 (NSW)* (or any equivalent provisions which are in force as at the relevant date).

F2 The Proponent shall update the **Decommissioning and Rehabilitation Plan**, to the satisfaction of the **Secretary**, every five years from the date of preparation, until decommissioning and rehabilitation is completed, and a copy of the updated versions are to be made publicly available. The updated Plan shall be consistent with the requirements of the draft NSW Planning Guidelines – Wind Farms (December 2011), as updated. The updated Plan shall include estimated costs of and funding arrangements for decommissioning, including provision for a decommissioning bond or other funding mechanisms, where the Plan concludes that estimated costs and funding arrangements are inadequate.

F3 Any individual turbine that ceases operating for a period of more than 12 consecutive months shall be dismantled within 18 months after the 12 month period.

F4 Unless otherwise agreed by the **Secretary**, the Proponent shall commission an independent, qualified person or team to undertake the following in consultation with the relevant road authority:

(a) prior to the commencement of decommissioning, review the proposed route and existing access provisions to the Wind Farm Site to determine whether the route and existing provisions allow for safe access of decommissioning vehicles associated with the Project (including appropriate site distances and provisions for over-mass or over-dimensional transport and safety with other road users). Where improvements or changes to the proposed route are required, the Proponent shall implement these in consultation with the relevant road authority, prior to the commencement of decommissioning and at the full expense of the Proponent;

- (b) assess all roads proposed to be used for over-mass and/ or over-dimensional transport (including intersections, bridges, culverts and other road features) prior to the commencement of decommissioning to determine whether the existing road condition can accommodate the proposed over-mass and/ or over-dimensional haulage. Where improvements are required, the Proponent shall implement these in consultation with the relevant road authority, prior to the commencement of decommissioning and at the full expense of the Proponent.

Upon determining the haulage route(s) for decommissioning vehicles associated with the Project, and prior to decommissioning, an independent and qualified person or team shall undertake a **Road Dilapidation Report**. The report shall assess the current condition of the road(s) and describe mechanisms to restore any damage that may result due to traffic and transport related to the decommissioning of the Project. The Report shall be submitted to the relevant road authority for review prior to the commencement of haulage.

Within three months of completion of decommissioning, a subsequent Report shall be prepared to assess any damage that may have resulted from the construction of the Project (including mechanisms to restore any damage) and submitted to the relevant road authority for review.

Measures undertaken to restore or reinstate roads affected by the Project shall be undertaken in accordance with the reasonable requirements of the relevant road authority (including timing requirements), and at the full expense of the Proponent.

- F5 Prior to the commencement of decommissioning, or as otherwise agreed by the **Secretary**, the Proponent shall prepare and implement (following approval) a **Decommissioning Environmental Management Plan** for the Project. The Plan shall outline the environmental management practices and procedures that are to be followed during decommissioning, and shall be prepared in consultation with the relevant agencies and in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004). The Plan shall include, but not necessarily be limited to:
- (a) a description of activities to be undertaken during decommissioning of the Project (including staging and scheduling);
  - (b) statutory and other obligations the Proponent is required to fulfil during decommissioning, including approval/approvals, consultations and agreements required from authorities and other stakeholders under key legislation and policies;
  - (c) a description of the roles and responsibilities for relevant employees involved in the decommissioning of the Project, including relevant training and induction provisions for ensuring that employees, including contractors and sub-contractors are aware of their environmental and compliance obligations under these conditions of Approval;
  - (d) an environmental risk analysis to identify the key environmental performance issues associated with the decommissioning phase; and
  - (e) details of how environmental performance will be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts (including any impacts arising from the staging of the decommissioning of the Project). In particular, the following environmental performance issues shall be addressed in the Plan:
    - i. compounds and ancillary facilities management;

- ii. noise and vibration;
- iii. traffic and access;
- iv. soil and water quality and spoil management;
- v. air quality and dust management;
- vi. hazardous material and waste management; and
- vii. hazard and risk management, including bushfire risk.

The Plan shall be submitted for the approval of the **Secretary** no later than one month prior to the commencement of decommissioning, or as otherwise agreed by the **Secretary**. The Plan may be prepared in stages, however, decommissioning works shall not commence until written approval has been received from the **Secretary**.

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**ATTACHMENT 1**

**Revised Statement of Commitments**

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase		
					C	O	D
1.0	Visual & Landscape						
1.01	Visual impact from turbines	Reduce visual contrast	Wind turbine generators will be painted matt off-white or grey and blades finished with a low-reflection coating	Proponent		✓	
1.02	Visual impact from turbines	Reduce visual impact	Reasonable landscaping treatments will be provided, if requested, to dwelling owners subject to medium, medium to high or high visual impact (as defined in the LVIA).			✓	
1.03	Visual impact from construction activities	Reduce visibility of construction activities.	Safeguards will be enforced to minimise dust emissions during construction. Height of stockpiles will be restricted.	Contractor	✓		
1.04	Visual impact from night-time lighting	Reduce visual impact.	Low intensity lighting will be used to minimise light spill.	Proponent	✓	✓	
1.05	Visual impact from site infrastructure	Site infrastructure sympathetically	Substation and other ancillary infrastructure will be sited sympathetically to mitigate visual impact.	Proponent	✓	✓	
2.0	Noise						
2.01	Construction Noise	Minimise noise impact on receivers	Construction and decommissioning activities will be carried out within the following periods only: <ul style="list-style-type: none"> <li>Weekdays – 7am to 6pm</li> <li>Saturdays – 8am to 1pm</li> </ul> No work or deliveries will be carried out on Sundays and public holidays, unless previously approved. If any out of hours work is required the relevant permits would be obtained prior to commencement of work.	Contractor	✓		✓
2.02	Construction Noise	Minimise noise impact on receivers	All feasible and reasonable standard work practices specified in the <i>Interim Construction Noise Guidelines</i> (DECC, 2009) would be employed to minimise construction noise impacts	Contractor	✓		✓
2.03	Construction Noise	Minimise noise impact on receivers	Notification and ongoing consultation with potentially affected receivers will be carried out, especially where potentially noisy works are anticipated.	Proponent and Contractor	✓		✓
2.04	Noise from Construction Traffic	Minimise noise impact on receivers	Residents will be notified when deliveries of large loads are scheduled.	Proponent and Contractor	✓		✓
2.05	Construction Noise	Minimise noise impact on receivers	Construction plant will be selected on the basis of low inherent potential to generate noise and vibration.	Contractor	✓		✓
2.06	Construction Noise	Minimise construction noise	Construction vehicles will be fitted with mufflers and where possible non-tonal reversing alarms.	Contractor	✓		✓
2.07	Construction and Operational Noise	Management of Noise Impacts	Establishment of a Project Hotline to allow affected residents to register noise concerns.	Proponent	✓	✓	✓

Collector Wind Farm

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase		
					C	O	D
2.08	Construction Noise	Respond to noise complaints	If noise complaints are received, the affected resident will be contacted to identify the source of noise and suitable mitigation measures that may be required.	Proponent and Contractor	✓		✓
2.09	Operational Noise	Turbine model / layout noise assessment	A revised noise assessment will be prepared for the final turbine model and layout, prior to commissioning to the wind farm.			✓	
2.10	Operational Noise	Reduction of turbine numbers as required	The wind farm layout will be determined by compliance of the chosen turbine model with the noise criteria applicable to the development, as outlined in the conditions of approval. If required, non-compliant turbines will be removed from the layout.	Proponent	✓	✓	
2.10A	Operational Noise	Monitor compliance with noise criteria	Within three months of commissioning, noise compliance monitoring would be undertaken to assess compliance with noise criteria.	Proponent		✓	
2.11	Operational Noise	Address any non-compliance with noise criteria	Where operational noise monitoring indicates the Proposal exceeds noise limits set in the development approval conditions, the following noise mitigation measures shall be implemented to achieve compliance. <ul style="list-style-type: none"> <li>• using active noise control functions of turbines;</li> <li>• rectify any manufacturing defects or control settings so that noise can be reduced; or</li> <li>• if excesses still occur, acoustic treatment of non-involved receiver dwellings.</li> </ul>	Proponent		✓	
2.12	Operational Noise	Monitoring the effectiveness of operational noise mitigation measures	Should any of the measures in item 2.12 be adopted, their effectiveness will be verified through noise monitoring in the first 12 months following the implementation of mitigation measures.			✓	
3.0	Flora and Fauna						
3.01	Reduction in local biodiversity	Avoid areas of high conservation value	At the design stage: <ul style="list-style-type: none"> <li>• Infrastructure will be micro-sited with input from an ecologist.</li> <li>• Location of infrastructure in areas of moderate to good condition EEC, forest, and woodland will be minimised.</li> <li>• Clearing of overstorey and mature vegetation, specifically hollow-bearing trees, will be minimised.</li> <li>• Cable routes will follow road corridors, as far as practicable, to minimise additional impacts.</li> <li>• An offset plan will be finalised in consultation with OEH.</li> </ul>	Proponent	✓		
3.02	Reduction in local biodiversity from the construction footprint	Minimise construction impacts on biodiversity values	Develop a Construction Flora and Fauna Management Plan (CFFMP) to include the following measures:	Proponent and Contractor	✓		

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase		
					C	O	D
			<ul style="list-style-type: none"> <li>Pre-clearing surveys to confirm locations of threatened flora and fauna species and associated habitats;</li> <li>Management measures (e.g. clearing procedures, fauna handling and worker induction) to minimise habitat damage;</li> <li>Delineation of work areas to avoid disturbance beyond construction footprints;</li> <li>Weed management measures;</li> <li>Rehabilitation procedures, including identification of seed sources;</li> <li>Monitoring and review procedures;</li> <li>any trench left open overnight would be inspected at first light for any trapped fauna;</li> <li>materials laydown and stockpiling would make use of existing areas of disturbance or other areas of low biodiversity value, where possible;</li> <li>all construction vehicles will be restricted within the construction zones;</li> <li>work or vehicle tracking within tree drip lines is to be avoided; and</li> <li>all onsite staff are to undergo a site induction on the ecological sensitivity of the site.</li> </ul>				
3.03	Reduction in local biodiversity through loss of habitat	Retain habitat and biodiversity elements	<p>Habitat elements and biodiversity will be retained through the following measures:</p> <ul style="list-style-type: none"> <li>impacts to hollow-bearing trees that have not been specifically identified for removal would be avoided;</li> <li>fallen timber would be left in place or moved to a nearby area to retain fauna habitat;</li> <li>Where practical, removed hollow-bearing trees or individual hollow-bearing sections (whichever is most suitable or achievable) will be remounted in retained areas. The locations of remounted hollows will be undertaken with the assistance of an ecologist and documented, and will not be placed within 100 metres of turbines.</li> <li>Remounted hollow trees or sections would be inspected annually to check the adequacy of the mounting. If inadequate, mountings would be corrected.</li> <li>where rocky outcrops could not be avoided, a preclearance survey would search and relocate captured reptiles;</li> </ul>	Proponent and Contractor	✓	✓	✓

Collector Wind Farm

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase		
					C	O	D
			<ul style="list-style-type: none"> <li>rocks would be placed in nearby areas, in consultation with an ecologist;</li> </ul>				
3.04	Reduction in local biodiversity through introduction and spread of noxious weeds	Control the introduction and/or spread of noxious weeds	<p>Introduction and/or spread of noxious weeds would be controlled through the following measures:</p> <ul style="list-style-type: none"> <li>noxious weeds would be controlled according to a Weed Management Plan;</li> <li>where a specific weed risk has been identified, all machinery, equipment and vehicles are to be washed down before entering and leaving the project site;</li> <li>onsite staff and contractors will be educated on noxious weeds management;</li> <li>control of perennial weed grasses within the disturbance zone will be carried out 3 to 5 years after construction; and</li> <li>stock access during vegetation and soil disturbance will be managed in coordination with landowners.</li> </ul>	Proponent and Contractor	✓	✓	✓
3.05	Reduction in biodiversity from construction activities	Progressively rehabilitate disturbed areas	Rehabilitation would be undertaken progressively in all areas disturbed by the works. Where feasible, local province native species would be sourced for all revegetation works within native vegetation.		✓		
3.06	Reduction in regionally and nationally significant species	Threatened Species Management	<p>A Threatened Species Management Plan (TSMP) will be prepared to minimise impacts on threatened species, including:</p> <ul style="list-style-type: none"> <li>pre-clearance surveying and monitoring;</li> <li>handling and relocation of wildlife (if found);</li> <li>regular site inspections for injured wildlife; and</li> <li>rehabilitation of areas of high significance.</li> </ul>	Proponent and Contractor	✓	✓	✓
3.07	Bird and Bat Strike	Monitoring of Bird and Bat Strike	An adaptive management monitoring program for birds and bats would be prepared and implemented. The Proponent will continue to liaise with OEH to finalise the draft BBAMP included with the Modification Report and will submit this to the Secretary for approval.	Proponent in consultation with technical specialists		✓	
4.0	<b>Indigenous Heritage</b>						
4.01	Damage or disturbance to sites or items of Indigenous heritage significance	Minimisation of potential impacts on sites or items of potential indigenous heritage significance	An avoidance strategy will be adopted for recorded trees with possible Aboriginal scars. A strategy of impact avoidance and minimisation (to the greatest extent practicable) would be employed in relation to any identified artefact locales. Wherever practical, an exclusion zone of approximately 20-25m would be placed around	Proponent and contractor in consultation with Aboriginal Community	✓		

Collector Wind Farm

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase		
					C	O	D
			identified heritage items to ensure no access during construction.				
4.02	Damage or disturbance to sites or items of Indigenous heritage significance	Assess the potential Indigenous heritage impacts in development areas which have not been previously assessed	Additional archaeological assessment will be conducted in any areas proposed to be disturbed which have not been surveyed during the assessment completed to date prior to work commencing.	Proponent in consultation with Technical Specialists	✓		
4.03	Damage or disturbance to sites or items of Indigenous heritage significance	Minimisation of potential impacts on sites or items of potential indigenous heritage significance	An Indigenous Heritage Management Plan (IHMP) will be prepared In consultation with an archaeologist, Aboriginal communities and OEH, to document procedures for impact avoidance.	Proponent in consultation with Technical Specialists	✓	✓	
4.04	Damage or disturb areas/items of Indigenous Heritage	Management of undiscovered items of Aboriginal and/or archaeological significance	Any items of aboriginal cultural heritage significance (i.e. archaeological items) uncovered during construction will be salvaged prior to the recommencement of construction works. Should human remains be found during the proposed earthworks works will cease and the police notified immediately.	Contractor in consultation with the Proponent and OEH	✓		✓
4.05	Damage or disturbance to sites or items of Indigenous heritage significance	Minimisation of potential impacts on sites or items of potential indigenous heritage significance	A draft Construction Heritage Management Plan (CHMP) will be prepared and utilised by all persons carrying out pre-construction or site preparation activities. The Draft CHMP would include maps that clearly show location of all recorded Aboriginal Heritage locales, and a requirement to install protective fencing around the sites.	Proponent and contractor in consultation where required with Aboriginal Community	✓		
5.0	Traffic and Transport						
5.01	Adverse impact on traffic during the construction and decommissioning phases	Minimisation of impact to local and regional traffic	Oversize loads would be transported in accordance with RMS requirements.	Contractor in consultation with RMS	✓		✓
5.02	Traffic safety risks from construction vehicles	Minimise traffic safety risks from movement of construction vehicles	<ul style="list-style-type: none"> <li>The relevant approvals will be sought post EA approval to enable upgrading of Lerida Road South entry and exit to accommodate oversize vehicles during the construction phase.</li> <li>Traffic controllers on Hume Highway will be provided to help assist large trucks exiting the site from Lerida Road South and manage any safety risks;</li> <li>Speed limits would be enforced on Lerida Road South and internal access roads at all times during construction.</li> </ul>	Contractor	✓		
5.03	Damage to existing road infrastructure	Protect existing road infrastructure	<ul style="list-style-type: none"> <li>Regular road condition surveys will be carried out during construction, operation and decommissioning;</li> <li>A procedure will be established to ensure the ongoing maintenance of access</li> </ul>	Proponent and Contractor	✓	✓	✓

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Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase		
					C	O	D
			roads during the operation phase.				
5.04	Amenity impacts from construction and operation traffic	Minimise potential amenity impacts from traffic from the Proposal	Procedures will be established to monitor traffic impacts on public roads.	Proponent, Contractor and Technical Specialists	✓	✓	✓
5.05	Lerida Rd South	Manage risks of unsealed public road	The Proponent will undertake upgrade works for the length of road between the Hume Highway and a point approximately 250m beyond the southernmost intersection of site roads with the Lerida Rd South. The upgrade works will include widening and asphalt sealing for the length of public road between the Hume Highway and the main site entry/exit point (approximately 1.9km along Lerida Rd South). The upgrade works will include asphalt sealing for the length of road beyond the main entry/exit point.	Proponent	✓		
5.06	Lerida Rd South	Finalise design of intersections with site roads	The Proponent will determine the appropriate location and design for the intersections in consultation with ULSC.	Proponent	✓		
5.07	Lerida Rd South	Reduce risks associated with unfenced sections of road	The Proponent will install new fencing (or maintain the existing fencing) along both sides of Lerida Rd South from the Hume Highway to a point approximately 250m south of the southern-most intersection between Lerida Rd South and the site roads.		✓		
5.08	Lerida Rd South	Increase separation of site road intersection from public road	The intersection of the access roads between WTG's 12/16 and WTG's 17/31 will be located at least 125m and up to 250m away from the public road, with the final location to be determined based on a detailed engineering design.	Proponent	✓		
6.0	<b>Aeronautical</b>						
6.01	Disruption of flight paths and local aeronautical activities	Minimise risk to aviation	The following information shall be provided to the CASA, AAAA and DoD: <ul style="list-style-type: none"> <li>as constructed coordinates in latitude and longitude of each WTG;</li> <li>final height of each WTG in mAHD; and</li> <li>elevation at the base of each WTG in mAHD.</li> </ul>	Proponent in consultation with technical specialists	✓		
6.02	Potential interference	Avoid interference with operational range of the Primary Surveillance Radar (PSR) at Mt Majura	Radar modelling will be undertaken as part of an electromagnetic compatibility study to determine the impact of the Proposal on the PSR at Mt Majura. This will be undertaken prior to construction.	Proponent	✓		
7.0	<b>Telecommunications</b>						
7.01	Potential interference	Avoid interference with existing telecommunications facilities	Locations of communications towers and requirements of licence holders will be confirmed and input into the micro-siting of individual turbines.	Proponent and Contractor	✓		



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Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase		
					C	O	D
7.02	Prolonged Interference or disturbance of communication links	Manage and minimise impacts	At the commencement of operation, the Proponent shall offer to undertake a monitoring program of houses within 5km of the wind farm to determine any loss in television signal strength.	Proponent		✓	
8.0	<b>Fire and Bushfire</b>						
8.01	Bushfire risk during construction	Manage bushfire risk	A Bushfire Risk Management Plan (BRMP) will be prepared in consultation with the RFS and NSW Fire Brigade. The mitigation measures will include: <ul style="list-style-type: none"> <li>Construction personnel will be inducted on fire risks;</li> <li>On total fire ban days, restrictions will be placed on certain activities with the potential to cause fires; and</li> <li>Basic fire fighting equipment at each active site will be provided, including fire extinguishers, knapsacks.</li> </ul>	Contractor	✓	✓	✓
8.02	Ignition of fire due to mechanical malfunction	Minimise risk	Dedicated monitoring systems (e.g. SCADA) enable wind turbines to be automatically shut down if ambient temperatures exceed the safe operating range.	Turbine Manufacturer		✓	
8.03	Ignition of fire	Minimise risk	Wind turbines will be shut down if directed by the RFS in the event of nearby wildfire.	Proponent		✓	
8.04	Spreading of fire away from wind farm infrastructure	Minimise risk	The substation would be surrounded by a gravel and area to prevent the spread of fire from the substation and to reduce any bushfire impacts. An Asset Protection Zone (APZ) would be maintained around the control room and substation buildings, compliant with the RFS guidelines.	Proponent and Contractor		✓	
8.05	Fire due to lightning strike on turbines	Minimise risk	Lightening conductors will be built into each of the turbines.	Turbine Manufacture		✓	
9.0	<b>Health and Safety</b>						
9.01	Wind farm noise	Manage community concerns with respect to wind farm noise	The Proponent will establish a complaints management system to respond to noise complaints from the community.	Proponent		✓	
10.0	<b>Electromagnetic Fields</b>						
10.01	Exposure to EMF	Minimise unnecessary exposure to EMF	The following mitigation and management measures will be implemented: <ul style="list-style-type: none"> <li>where feasible, electrical cables will be placed below ground; and</li> <li>fencing around structures (e.g. substation) to restrict public access.</li> </ul>	Proponent and Contractor		✓	
11.0	<b>Water Quality</b>						
11.01	Pollution of waters	Minimisation of pollution risk to surface and ground water.	A Soil and Water Management Plan (SWMP) will be prepared, in accordance with the <i>Blue Book</i> (Landcom, 2004) and the NOW <i>Guidelines for Controlled Activities on Waterfront Land</i> , to address:	Proponent and Contractor	✓		

Collector Wind Farm

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase		
					C	O	D
			<ul style="list-style-type: none"> <li>water retardation and diversion devices around construction areas;</li> <li>monitoring and maintenance procedures for erosion and sediment control structures; and</li> <li>suitable perimeter protection and bunding will be provided to the substation transformers to minimise the risk of transformer oil leaks or spills during operation and maintenance.</li> </ul>				
11.02	Pollution of local water ways and aquifers	Minimising risk to water quality	<ul style="list-style-type: none"> <li>Spill kits will be provided at oil and fuel storages and on vehicles.</li> <li>Hazardous material, waste and sewage will be managed in accordance with regulatory requirements.</li> </ul>	Contractor and Proponent	✓	✓	✓
11.03	Alteration to local hydrology	Minimising adverse impacts on local hydrology	Appropriate drainage structures and erosion controls will be incorporated in hardstands, access roads and tracks to manage run-off and reduce the risk erosion and scour from concentrated flows.	Proponent, designers and Contractor	✓	✓	✓
11.04	Pollution or contamination of local water ways	Minimising pollution of surface water	<ul style="list-style-type: none"> <li>Storages of oils, fuels and other hazardous chemicals will be appropriately bunded.</li> <li>All trenching works within drainage lines will be rehabilitated immediately.</li> <li>Any spoil stockpiles from foundation excavation and access road construction will be located away from drainage lines.</li> </ul>	Contractor	✓	✓	✓
11.05	Existing groundwater users and groundwater dependent ecosystems	Minimise groundwater impact	<ul style="list-style-type: none"> <li>Undertake groundwater assessment prior to construction for NOW endorsement.</li> </ul>		✓	✓	✓
12.0	Soils and Landform						
12.01	Ground disturbance	Minimise alteration to soils and landform	<ul style="list-style-type: none"> <li>Detailed geotechnical investigations would be undertaken to assess ground conditions and determine the most suitable foundation design for the turbine sites;</li> <li>Soil compaction resulting from vehicle access and laying of materials will be remediated after construction activities; and</li> <li>Where possible, access routes and tracks would be confined to already disturbed areas.</li> </ul>	Proponent and Contractor	✓		✓
13.0	Waste						
13.01	Inefficient resource use and waste generation	Promote waste hierarchy	<p>Waste will be managed according to a Waste Management Plan (WMP) as follows:</p> <ul style="list-style-type: none"> <li>unnecessary resource consumption will be avoided;</li> <li>resource recovery (including reuse of materials, reprocessing, recycling, and energy recovery); and</li> </ul>	Contractor and Proponent	✓	✓	

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Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase		
					C	O	D
			<ul style="list-style-type: none"> <li>disposal as a last resort.</li> </ul>				
13.02	Inefficient resource use	Promote efficient use of water and energy	Energy and water conservation will be promoted through training and signage.	Contractor and Proponent	✓	✓	
13.03	Missed opportunities for recycling and reuse	Maximise opportunities for recycling and reuse	<ul style="list-style-type: none"> <li>Purchasing decisions will be made in consideration of recycled content and opportunities for reuse;</li> <li>Cleared vegetation will be chipped and used as mulch for revegetation works; and</li> <li>Bins will be provided in construction and office areas for segregation of waste and recyclables.</li> </ul>	Contractor and Proponent	✓	✓	
13.04	Loss of amenity and potential contamination from waste generation	Minimise risks from waste generation and waste handling	<ul style="list-style-type: none"> <li>All working areas will be kept free of rubbish and cleaned up at the end of each work day.</li> <li>Any contaminated waste will be contained then disposed of according to regulatory requirements.</li> </ul>	Proponent and Contractor	✓	✓	
14.0	<b>Community</b>						
14.01	Regional community impacts	Community enhancement and benefit	The Proponent is proposing to establish a Community Investment Fund and contribute \$200,000 to the fund each year, increased annually at CPI with the first increase applying on the first anniversary of the Project Approval.	Proponent		✓	
14.02	Community information	Dissemination of project information	A dedicated project website shall be maintained and updated to include relevant project information.	Proponent	✓	✓	✓
14.03	Community information	Complaint handling and management	In addition to the wind farm website, a 24-hour hotline will be established. Calls will be logged and responded to by CoB of the following working day. The hotline and logging of calls will be managed by or on behalf of the Proponent during the different project phases.	Proponent	✓	✓	✓
14.04	Community information	Dissemination of project information	The Proponent will issue newsletters on a regular basis during the construction phase providing information on the project.	Proponent	✓		
14.05	Property Z as per figure 1 within 2km of WTG	Negotiate management and mitigation measures	The Proponent will carry out discussions with the property owner of 'property Z as per figure 1' toward an agreement.	Proponent	✓		
15.0	<b>Land Use</b>						
15.01	Access restriction and safety risks to users of public roads and the Bicentennial National Trail	Minimise access restriction and safety risks	Where sections of the Bicentennial National Trail and other public roads approach operational areas, safety and directional signage will be erected to guide vehicle and pedestrian traffic.	Proponent in consultation with ULSC	✓	✓	
16.0	<b>Air Quality</b>						
16.01	Generation of fugitive dust	Monitor and minimise the generation of dust from ground disturbance, spoil stockpiles and construction traffic	<p>A Construction Dust Management Plan (CDMP) will be prepared as part of the CEMP and will include:</p> <ul style="list-style-type: none"> <li>Dust levels will be visually monitored and dust</li> </ul>	Proponent and Contractor	✓		✓

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Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase		
					C	O	D
			suppression (e.g., water sprays) implemented if required. <ul style="list-style-type: none"> <li>• A water cart will be made available and applied to access tracks and ground disturbance areas.</li> <li>• Set appropriate speed limits for construction traffic on internal roads.</li> </ul>				

ATTACHMENT 2

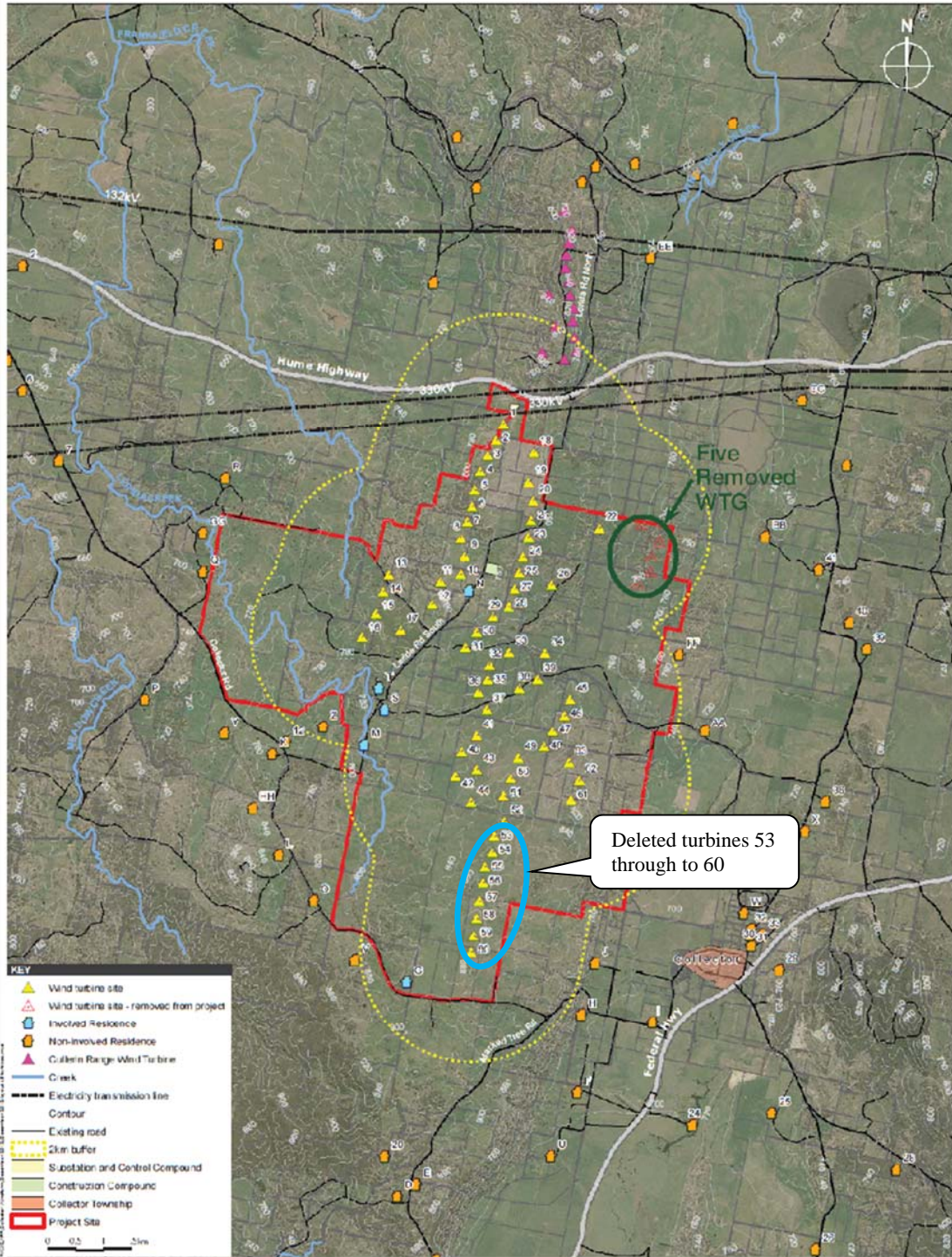


Figure 1. Preferred Project Layout

Figure 1: Deleted turbines (53 -60) indicated by blue oval



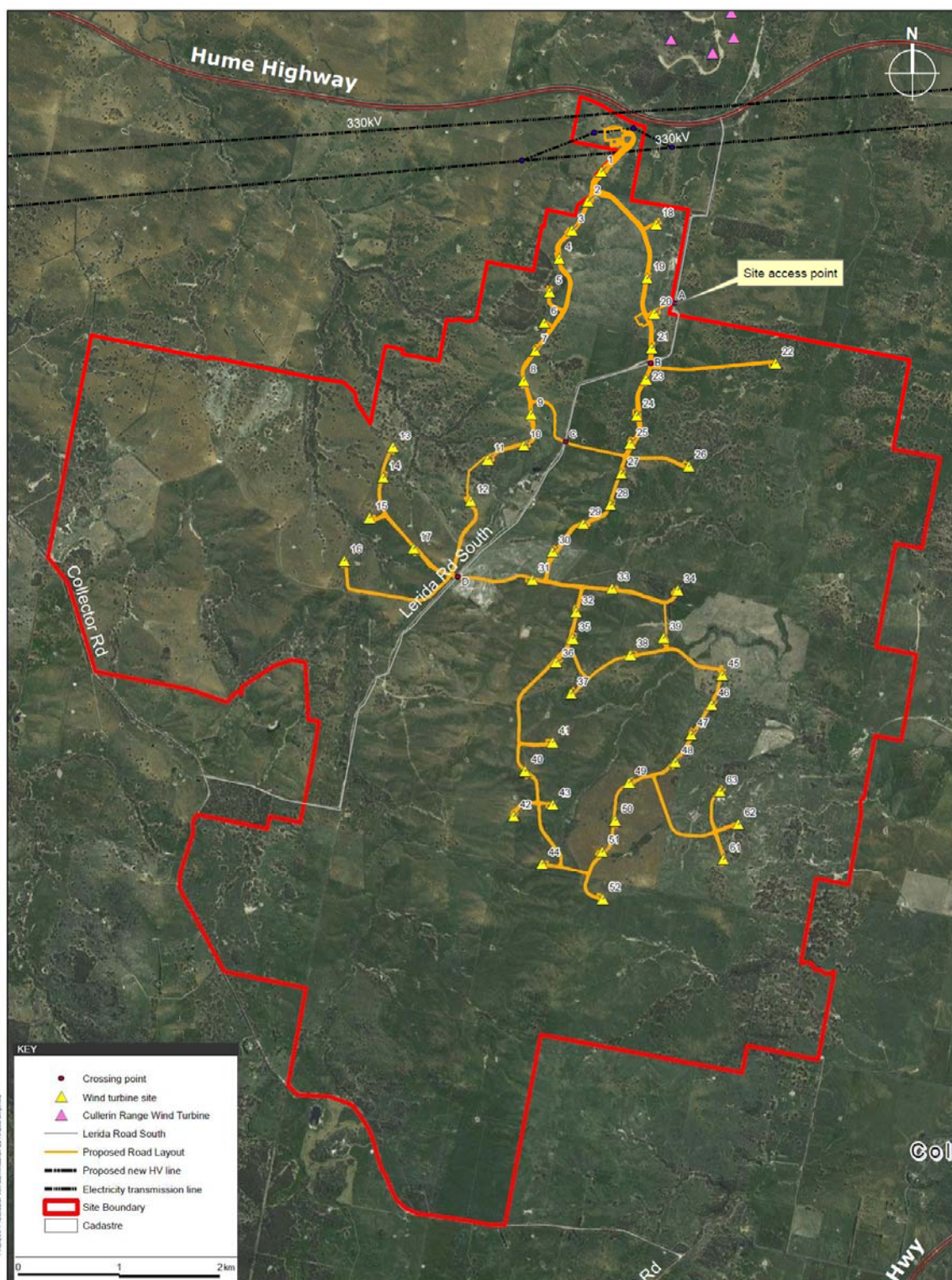


Figure 2: Project layout



Table 2.1 GIS Coordinates

No.	Easting*	Northing*		No.	Easting*	Northing*
1	718433	6143522		33	718539	6139389
2	718303	6143229		34	719192	6139375
3	718143	6142944		35	718149	6138894
4	718016	6142661		36	717986	6138660
5	717920	6142333		37	718135	6138349
6	717869	6142028		38	718725	6138734
7	717778	6141753		39	719054	6138902
8	717667	6141456		40	717678	6137581
9	717737	6141127		41	717952	6137867
10	717665	6140808		42	717564	6137136
11	717307	6140667		43	717954	6137251
12	717140	6140259		44	717848	6136663
13	716368	6140791		45	719633	6138534
14	716269	6140490		46	719531	6138241
15	716134	6140091		47	719325	6137942
16	715885	6139665		48	719170	6137671
17	716574	6139788		49	718708	6137467
18	718978	6143004		50	718574	6137092
19	718891	6142467		51	718443	6136785
20	718960	6142121		52	718448	6136312
21	718935	6141776		61	719646	6136708
22	720164	6141628		62	719793	6137054
23	718878	6141471		63	719612	6137380
24	718785	6141111				
25	718721	6140828				
26	719303	6140601				
27	718632	6140529				
28	718527	6140218				
29	718256	6140030				
30	717952	6139751				
31	717751	6139480				
32	718184	6139157				

\*MGA 94 Projection

## **ATTACHMENT 3 NOISE COMPLIANCE ASSESSMENT**

### **PART A: SOUTH AUSTRALIAN WIND FARMS: ENVIRONMENTAL NOISE GUIDELINES 2009 (MODIFIED)**

South Australian *Wind Farms: Environmental Noise Guidelines 2009* (Modified) refers to the South Australian EPA document modified for use in NSW.

The modifications are as follows:

#### **Tonality**

The presence of excessive tonality (a special noise characteristic) is consistent with that described in *ISO 1996.2: 2007 Acoustics — Description, measurement and assessment of environmental noise – Determination of environmental noise levels* and is defined as when the level of one-third octave band measured in the equivalent noise level  $L_{eq(10\text{minute})}$  exceeds the level of the adjacent bands on both sides by:

- 5dB or more if the centre frequency of the band containing the tone is in the range 500Hz to 10,000Hz;
- 8dB or more if the centre frequency of the band containing the tone is in the range 160 to 400Hz; and/or
- 15dB or more if the centre frequency of the band containing the tone is in the range 25Hz to 125Hz.

If tonality is found to be a repeated characteristic of the wind turbine noise, 5 dB(A) should be added to measured noise levels from the wind farm. If tonality is only identified for certain wind directions and speeds, the penalty is only applicable under these conditions. The tonal characteristic penalty applies only if the tone from the wind turbine is audible at the relevant receiver. Absence of tone in noise emissions measured at an intermediate location is sufficient proof that the tone at the receiver is not associated with the wind farm's operation. The assessment for tonality should only be made for frequencies of concern from 25 Hz to 10 KHz and for sound pressure levels above the threshold of hearing (as defined in *ISO 389.7: 2005 Acoustics - Reference zero for the calibration of audiometric equipment - Part 7: Reference threshold of hearing under free-field and diffuse-field listening conditions*).

#### **Low Frequency Noise**

The presence of excessive low frequency noise (a special noise characteristic) [i.e. noise from the wind farm that is repeatedly greater than 65 dB(C) during the day time or 60 dB(C) during the night time at any relevant receiver] will incur a 5 dB(A) penalty, to be added to the measured noise level for the wind farm, unless a detailed internal low frequency noise assessment demonstrates compliance with the proposed criteria for the assessment of low frequency noise disturbance (UK Department for Environment, Food and Rural Affairs (DEFRA, 2005)) for a steady state noise source.

Notes:

- *For the purposes of these conditions, a special noise characteristic is defined as a repeated characteristic if it occurs for more than 10% of an assessment period. This equates to being identified for more than 144 minutes during any 24 hour period. This definition refers to verified wind farm noise only.*
- *The maximum penalty to be added to the measured noise level from the wind farm for any special noise characteristic individually or cumulatively is 5 dB(A).*

### **PART B: NOISE COMPLIANCE ASSESSMENT**

#### **Applicable Meteorological Conditions – Wind Turbines**

1. The noise criteria in Table 4 of the conditions are to apply under all meteorological conditions.

#### **Applicable Meteorological Conditions – Other Facilities**

2. The noise criteria in Condition E7 are to apply under all meteorological conditions except the following:
  - a) wind speeds greater than 3 m/s at 10 m above ground level; or
  - b) temperature inversion conditions between 1.5 °C and 3°C/100m and wind speeds greater than 2 m/s at 10 m above ground level; or
  - c) temperature inversion conditions greater than 3°C/100m.