

APPENDIX F: NOTICE OF MODIFICATION

Notice of Modification

Section 75W of the *Environmental Planning and Assessment Act 1979*

As delegate for the Minister for Planning, I modify the Project Approval referred to in Schedule 1, subject to the conditions in Schedule 2.

Member of Commission

Member of Commission

Member of Commission

Sydney

2016

SCHEDULE 1

The project approval (10_0156) for the Collector Wind Farm Project, granted by the Planning Assessment Commission as delegate of the Minister for Planning and Infrastructure on 2 December 2013.

SCHEDULE 2

1. Delete all references to:
 - "Director-General", and replace with "Secretary";
 - "Department of Planning and Infrastructure", and replace with "Department of Planning and Environment";
 - "Department of Trade & Investment, Regional Infrastructure & Services (Mineral Resources section)", and replace with "Department of Industry (Resources and Energy)"; and
 - "NOW", and replace with "DPI-Water".
2. In the Definitions in Schedule A, delete the definitions for "EA", "Micro-siting", "NOW" and "Submissions Report", and insert the following in alphabetical order:

DPI-Water	Department of Primary Industries – Water
EA	The environmental assessment titled Collector Wind Farm Environmental Assessment dated June 2012, as modified by: <ul style="list-style-type: none">• Collector Wind Farm Preferred Project and Submissions Report dated March 2013;• Collector Wind Farm Landscape and Visual Impact Assessment Addendum A dated 19 June 2013; and• Collector Wind Farm Modification Report dated September 2015, as modified by the Submissions Report dated December 2015 (MOD 1).
TSC Act	<i>Threatened Species Conservation Act 1995</i>
3. In the Definitions in Schedule A, in the definition of Site, insert the words ", as shown in Attachment 2" after the word "applies".
4. Delete condition A1 in Schedule B, and replace with:

A1	The Proponent shall carry out the Project: <ol style="list-style-type: none">(a) generally in accordance with the EA; and(b) in accordance with the statement of commitments and the conditions of this approval.
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Notes:

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

5. Delete condition A2 in Schedule B, and replace with:

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.

6. Insert the following conditions after condition A8 in Schedule B:

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) 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
- (c) 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.

7. In condition B1 in Schedule B:

- delete the words "and no more than the area specified in Table 1 is to be cleared, unless otherwise agreed by the Director-General in consultation with OEH"; and
- delete Table 1, and replace with the words "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".

8. In condition B2 in Schedule B:

- delete the word "trees" where it appears after the word "cleared", and replace with the word "areas";
- delete the word "in" where it appears before "derived"; and
- delete the words "included in", and replace with "contained within".

9. Delete conditions B3 to B5 in Schedule B.

10. Delete condition B7 in Schedule B, and replace with:

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

11. Insert the following condition after condition C6 in Schedule B:

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.

12. In condition C12 in Schedule B, replace "A1(e)" with "A1(b)".
13. In condition D3(a) in Schedule B:
- delete the words "Appendix H of the Environmental Assessment, Proposed Collector Wind Farm Aboriginal Cultural Heritage Assessment Report (January 2012)", and replace with the word "the EA";
 - insert the following after sub-condition v.:
 "vi. Survey Unit 1, Locale 1; and
 vii. Survey Unit 54, Locale 1;"

14. Insert the following condition after condition D20 in Schedule B:

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.

15. In condition D25(c) in Schedule B, insert the following after sub-condition viii:
- "ix. prohibiting heavy vehicle right hand turns from Lerida Road South to the Hume Highway."
16. Delete conditions E6 to E18 in Schedule B, and replace with:

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:
- (a) undertake noise monitoring to determine whether the project is complying with the relevant conditions of this approval; and
 - (b) 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.
17. In condition E20 in Schedule B, replace "E12" with "E7".
18. Delete Attachment 1, and replace with the following:

ATTACHMENT 1

Revised Statement of Commitments

1. Modification: Revised Statement of Commitments

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
1.0	Visual & Landscape				C O D
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	✓

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
2.0	Noise				C O D
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"> Weekdays – 7am to 6pm Saturdays – 8am to 1pm 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	✓

Item	Impact	Objectives	Mitigation Task	Project Phase	
				Responsibility	C O D
2.07	Construction and Operational Noise	Management of Noise Impacts	Establishment of a Project Hotline to allow affected residents to register noise concerns.	Proponent	✓ ✓ ✓
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 (35dBA (SA EPA)) criterion. If required, non-compliant turbines will be removed from the layout.	Proponent	✓ ✓ ✓
2.10	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"> using active noise control functions of turbines; 	Proponent	✓

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
			<ul style="list-style-type: none"> rectify any manufacturing defects or control settings so that noise can be reduced; or if excesses still occur, acoustic treatment of non-involved receiver dwellings. 		C O D
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	<p>At the design stage:</p> <ul style="list-style-type: none"> Infrastructure will be micro-sited with input from an ecologist. Location of infrastructure in areas of moderate to good condition EEC, forest, and woodland will be minimised. Clearing of overstorey and mature vegetation, specifically hollow-bearing trees, will be minimised. Cable routes will follow road corridors, as far as practicable, to minimise additional impacts. An offset plan will be finalised in consultation with OEH. 		✓
					Proponent

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
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: <ul style="list-style-type: none"> • Pre-clearing surveys to confirm locations of threatened flora and fauna species and associated habitats; • Management measures (e.g. clearing procedures, fauna handling and worker induction) to minimise habitat damage; • Delineation of work areas to avoid disturbance beyond construction footprints; • Weed management measures; • Rehabilitation procedures, including identification of seed sources; • Monitoring and review procedures; • any trench left open overnight would be inspected at first light for any trapped fauna; • materials laydown and stockpiling would make use of existing areas of disturbance or other areas of low biodiversity value, where possible; • all construction vehicles will be restricted within the construction zones; • work or vehicle tracking within tree drip lines is to be avoided; and • all onsite staff are to undergo a site induction on the ecological sensitivity of the site. 	Proponent and Contractor	C O D

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
3.03	Reduction in local biodiversity through loss of habitat	Retain habitat and biodiversity elements	Habitat elements and biodiversity will be retained through the following measures: <ul style="list-style-type: none"> • impacts to hollow-bearing trees that have not been specifically identified for removal would be avoided; • fallen timber would be left in place or moved to a nearby area to retain fauna habitat; • <u>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.</u> • <u>Remounted hollow trees or sections would be inspected annually to check the adequacy of the mounting. If inadequate, mountings would be corrected.</u> • where rocky outcrops could not be avoided, a preclearance survey would search and relocate captured reptiles; • rocks would be placed in nearby areas, in consultation with an ecologist; 	Proponent and Contractor	C O D

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
					C O D
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"> noxious weeds would be controlled according to a Weed Management Plan; 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; onsite staff and contractors will be educated on noxious weeds management; control of perennial weed grasses within the disturbance zone will be carried out 3 to 5 years after construction; and stock access during vegetation and soil disturbance will be managed in coordination with landowners. 	Proponent and Contractor	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
3.05	Reduction in biodiversity from construction activities	Progressively rehabilitate disturbed areas	<p>Rehabilitation would be undertaken progressively in all areas disturbed by the works.</p> <p>Where feasible, local province native species would be sourced for all revegetation works within native vegetation.</p>		<input checked="" type="checkbox"/>
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"> pre-clearance surveying and monitoring; 	Proponent and Contractor	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
3.07	Bird and Bat Strike	Monitoring of Bird and Bat Strike	<ul style="list-style-type: none"> handling and relocation of wildlife (if found); regular site inspections for injured wildlife; and rehabilitation of areas of high significance. <p>An adaptive management monitoring program for birds and bats would be prepared and implemented. <u>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.</u> This would include:</p> <ul style="list-style-type: none"> Intensive monitoring in the first six months of operation as birds and bats are in the process of habituating to the new development; Regular carcass searches, observation of bird avoidance/diversion behaviour and targeted surveys; The monitoring program will include identification of key at risk species including: <ul style="list-style-type: none"> Little Eagle searches for foraging activities at the project site; Eastern Bentwing Bat monitoring during high risk periods, when this species may be foraging in the area; The monitoring program will include a set of feasible management measures that can be implemented to reduce collision risks, if required. 	Proponent in consultation with technical specialists	C O D

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
					C O D

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
4.0	Indigenous Heritage				
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. <u>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 identified heritage items to ensure no access during construction.</u> Previously recorded Aboriginal objects listed on the NSW OEH AHMS will be avoided during construction, operation and decommissioning of the wind farm.	Proponent and contractor in consultation with Aboriginal Community	✓
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	✓

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
					C O D

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 ✓

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
					C O D

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	<p>Oversize loads would be transported in accordance with RMS requirements.</p>	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"> 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. 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; Speed limits would be enforced on Lerida Road South and internal access roads at all times during construction. 	Contractor	✓
5.03	Damage to existing road infrastructure	Protect existing road infrastructure	<ul style="list-style-type: none"> Regular road condition surveys will be carried out during construction, operation and decommissioning; 	Proponent and Contractor	✓

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
					C O D

- A procedure will be established to ensure the ongoing maintenance of access 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	<u>Manage risks of unsealed public road</u>	<u>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.</u>	Proponent	✓
5.06	Lerida Rd South	<u>Finalise design of intersections with site roads</u>	<u>The Proponent will determine the appropriate location and design for the intersections in consultation with ULSC.</u>	Proponent	✓

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
5.07	<u>Lerida Rd South</u>	<u>Reduce risks associated with unfenced sections of road</u>	<u>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.</u>	✓	C O D
5.08	<u>Lerida Rd South</u>	<u>Increase separation of site road intersection from public road</u>	<u>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.</u>	✓	
6.0	Aeronautical				
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"> as constructed coordinates in latitude and longitude of each WTG; final height of each WTG in mAHD; and elevation at the base of each WTG in mAHD. 	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	✓

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
					C O D
7.0	Telecommunications				
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 ✓	
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	Fire and Bushfire				
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"> Construction personnel will be inducted on fire risks; On total fire ban days, restrictions will be placed on certain activities with the potential to cause fires; and Basic fire fighting equipment at each active site will be provided, including fire extinguishers, knapsacks. 	Contractor ✓ ✓ ✓	

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
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 Manufacturer	✓
9.0	Health and Safety				
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	Electromagnetic Fields				
10.01	Exposure to EMF	Minimise unnecessary exposure to EMF	The following mitigation and management measures will be implemented:	Proponent and Contractor	✓

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
			<ul style="list-style-type: none"> where feasible, electrical cables will be placed below ground; and fencing around structures (e.g. substation) to restrict public access. 		C O D
11.0	Water Quality				
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: <ul style="list-style-type: none"> water retardation and diversion devices around construction areas; monitoring and maintenance procedures for erosion and sediment control structures; and 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. 	Proponent and Contractor	✓
11.02	Pollution of local water ways and aquifers	Minimising risk to water quality	<ul style="list-style-type: none"> Spill kits will be provided at oil and fuel storages and on vehicles. Hazardous material, waste and sewage will be managed in accordance with regulatory requirements. 	Contractor and Proponent	✓ ✓

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
					C O D
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"> Storages of oils, fuels and other hazardous chemicals will be appropriately bunded. All trenching works within drainage lines will be rehabilitated immediately. Any spoil stockpiles from foundation excavation and access road construction will be located away from drainage lines. 	Contractor	✓ ✓ ✓
11.05	Existing groundwater users and groundwater dependent ecosystems	Minimise groundwater impact	<ul style="list-style-type: none"> Undertake groundwater assessment prior to construction for NOW endorsement. 		✓ ✓ ✓
12.0	Soils and Landform				
12.01	Ground disturbance	Minimise alteration to soils and landform	<ul style="list-style-type: none"> Detailed geotechnical investigations would be undertaken to assess ground conditions and determine the most suitable foundation design for the turbine sites; 	Proponent and Contractor	✓ ✓

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
			<ul style="list-style-type: none"> • Soil compaction resulting from vehicle access and laying of materials will be remediated after construction activities; and • Where possible, access routes and tracks would be confined to already disturbed areas. 	C O D	
13.0	Waste				
13.01	Inefficient resource use and waste generation	Promote waste hierarchy	Waste will be managed according to a Waste Management Plan (WMP) as follows: <ul style="list-style-type: none"> • unnecessary resource consumption will be avoided; • resource recovery (including reuse of materials, reprocessing, recycling, and energy recovery); and • disposal as a last resort. 	Contractor and Proponent	✓ ✓
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"> • Purchasing decisions will be made in consideration of recycled content and opportunities for reuse; • Cleared vegetation will be chipped and used as mulch for revegetation works; and • Bins will be provided in construction and office areas for segregation of waste and recyclables. 	Contractor and Proponent	✓ ✓

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
					C O D
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"> All working areas will be kept free of rubbish and cleaned up at the end of each work day. Any contaminated waste will be contained then disposed of according to regulatory requirements. 	Proponent and Contractor	✓
14.0	Community				
14.01	Regional community impacts	Community enhancement and benefit	The Proponent is proposing to establish a Community Investment Fund and contribute <u>approximately \$200,000</u> to the fund each year, <u>increased annually at CPI with the first increase applying on the first anniversary of the Project Approval.</u>	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	✓

Item	Impact	Objectives	Mitigation Task	Responsibility	Project Phase
					C O D
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	Land Use				
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	Air Quality				
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"> Dust levels will be visually monitored and dust suppression (e.g., water sprays) implemented if required. A water cart will be made available and applied to access tracks and ground disturbance areas. Set appropriate speed limits for construction traffic on internal roads. 	Proponent and Contractor	✓

19. In Attachment 2:
- insert the words "Figure 1:" before the word "Deleted"; and
 - insert the following figure after Figure 1.

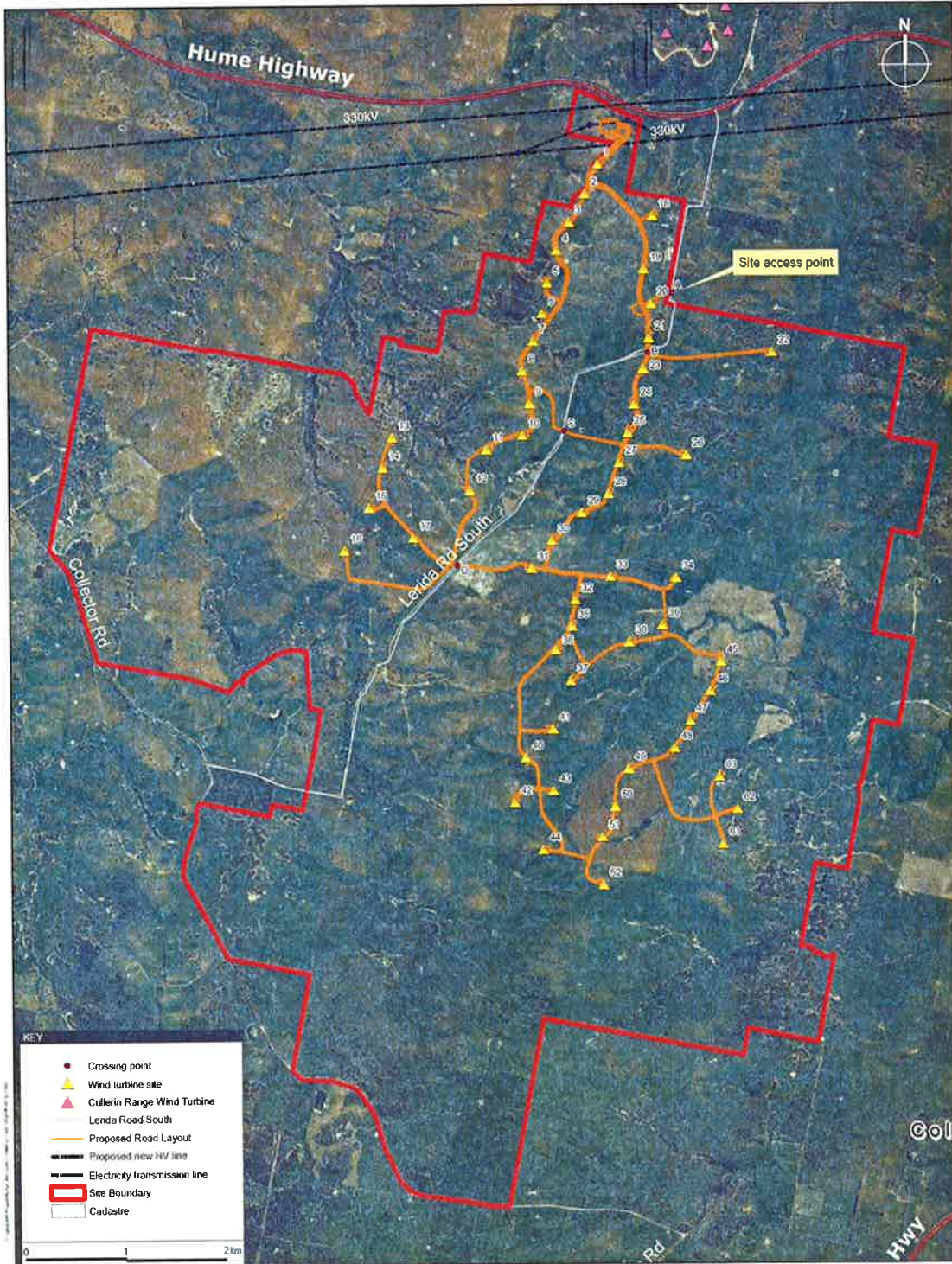


Figure 2: Project layout

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

20. Insert the following attachment after Attachment 2:

**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.