

# Annual Environmental Management Report

GULLEN RANGE WIND FARM

MARCH 2016



## Document Verification



Job title: Gullen Range Wind Farm Annual Environmental Management Review

Document Title		Environmental Representative Annual Environmental Management Report					
File Name		AEMR_NGRWF_Final_220216.doc					
Revision	Date	Prepared by		Checked by		Approved by	
Final	23/03/16	name	Jonathon Dowling	name	Nicole Isles	name	Nick Graham-Higgs

nghenvironmental prints all documents on sugar cane paper made from 100% bagasse (a by-product of sugar production).

suite 1, 39 fitzmaurice st (po box 5464) wagga wagga nsw 2650 australia  
t 61 2 6971 9696 f 61 2 6971 9693

[www.nghenvironmental.com.au](http://www.nghenvironmental.com.au) e [ngh@nghenvironmental.com.au](mailto:ngh@nghenvironmental.com.au)

unit 17/27 yallourn st (po box 1037)  
fyshwick act 2609 australia  
t 61 2 6280 5053 f 61 2 6280 9387

18/21 mary st  
surry hills nsw 2010 australia  
t 61 2 8202 8333 f 61 2 6494 7773

suite 1, 216 carp st (po box 470)  
bega nsw 2550 australia  
t 61 2 6492 8333 f 61 2 6494 7773

suite 7, 5/18 griffin dr (po box 1037)  
dunsborough wa 6281 australia  
t 61 8 9759 1985 f 61 2 6494 7773

# Table of Contents

<b>1</b>	<b>INTRODUCTION AND PURPOSE OF THIS REPORT .....</b>	<b>1</b>
1.1	INTRODUCTION .....	1
1.2	PURPOSE OF THIS REPORT .....	2
1.3	STRUCTURE OF THIS REPORT.....	3
<b>2</b>	<b>INDEPENDENT ASSESSMENT OF COMPLIANCE .....</b>	<b>4</b>
2.1	OPERATION APPROVAL REQUIREMENTS .....	4
<b>3</b>	<b>CONCLUSION.....</b>	<b>28</b>

## TABLES

Table 2-1	Operational Compliance Table .....	4
-----------	------------------------------------	---

# 1 INTRODUCTION AND PURPOSE OF THIS REPORT

## 1.1 INTRODUCTION

*New Gullen Range Wind Farm Pty Ltd* operates Gullen Range Wind Farm, which is jointly owned by Beijing Jingneng Clean Energy (Hong Kong) Co., Limited (75%) and New Gullen Range Wind Farm (Holding) Pty Ltd (25%) a wholly owned subsidiary of Goldwind Capital (Australia) Pty Ltd.

The wind farm is located on a north-south running ridge system of the Great Dividing Range between Gunning, Crookwell and Goulburn in NSW's southern tablelands (Figure 1-1). The wind farm extends over a distance of about 25 kilometres from about 6 kilometres south of Crookwell to its southern extent about 10 kilometres north of Breadalbane. The Wind Farm is also about 20 kilometres west of Goulburn.

The wind farm became fully operational in December 2014 and includes the following project elements:

- 73 Goldwind turbines
  - 56 GW100-2.5MW – (100 metre rotor diameter)
  - 17 GW82-1.5MW – (82 metre rotor diameter)
- A 33kV/330kV substation for connection to the National Electricity Grid
  - 330kV switchyard owned and operated by TransGrid
  - A communications tower also owned and operated by TransGrid
  - 330kV/33kV Substation and 33kV switchyard

The wind farm comprises of 4 turbine groups, Kialla, Bannister, Pomeroy and Gurrundah. The 73 turbines are distributed as listed below:

- Kialla Group – 2 turbines
- Bannister Group – 30 turbines
- Pomeroy Group – 23 turbines
- Gurrundah Group – 18 turbines
- A 33kV/330kV substation is located between the northern and southern groups (between Bannister and Pomeroy)

The highest turbines are at elevations of about 1,000 metres above sea level. The rural land, where the project is located and in surrounding areas, is predominantly used for grazing of sheep and cattle but also includes elements of rural lifestyle living.

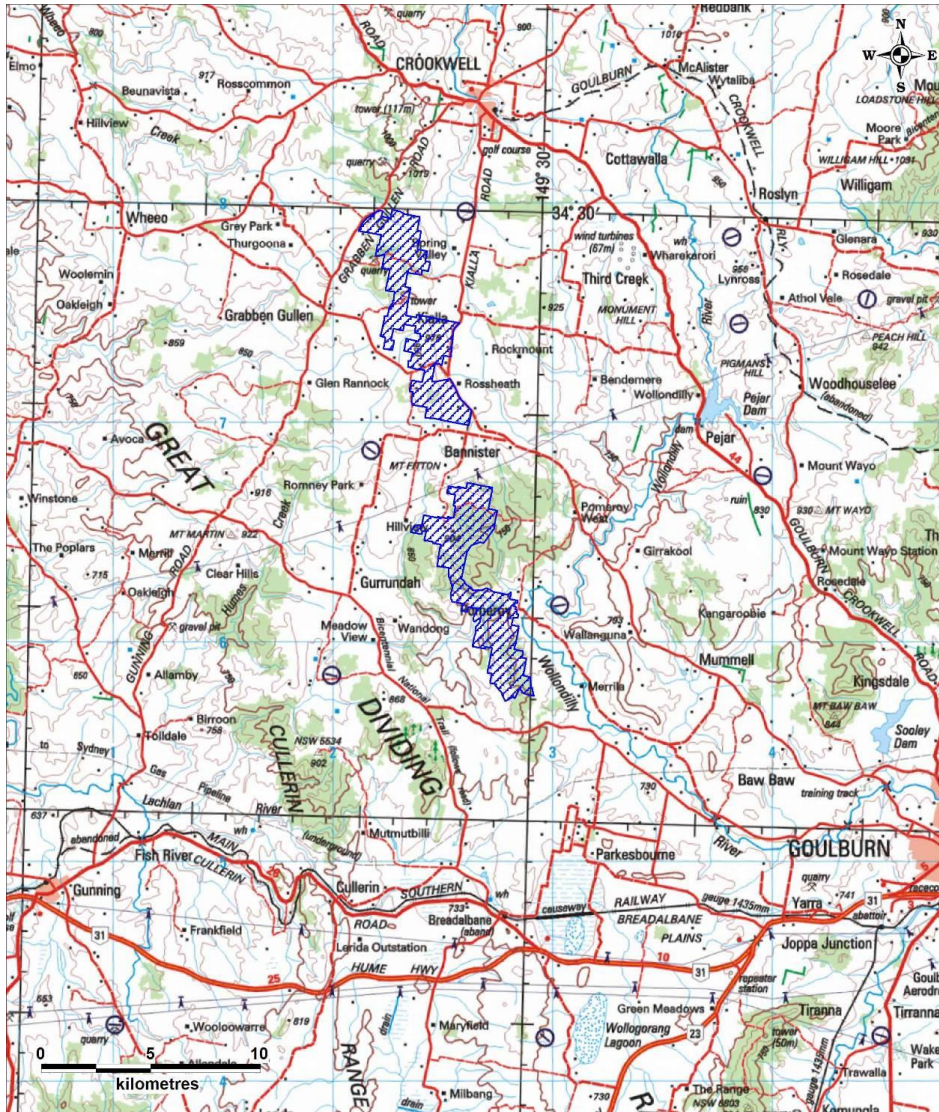


Figure 1-1: Site location (hatched in blue)

Gullen Range Wind Farm was approved as a Major Project under Part 3A of the NSW Environmental Planning & Assessment Act 1979 in August 2010. Wind Farms approved under Part 3A are required to hold an Environmental Protection Licence (EPL). An Environment Protection Licence was issued by the Environment Protection Authority (EPA) in October 2014. A modification application (Mod1) for adjustments to turbine locations was approved by the Planning Assessment Commission (PAC) in September 2015.

## 1.2 PURPOSE OF THIS REPORT

This Annual Environmental Management Report (AEMR) has been prepared by NGH Environmental to meet Condition 6.1(a) of the MOD1 project approval. The report covers the period of 23<sup>rd</sup> December 2014 to 22<sup>nd</sup> December 2015 and audits the wind farm's performance against the Operational Environmental Management Plan, the Environmental Protection Licence (EPL) and conditions of approval relating to operation including the Statement of Commitments.

Condition 6.1:

- a) **provisions for an Annual Environmental Management Report (AEMR) that is to be prepared and submitted to the Secretary throughout the operational life of the project. The AEMR must review the performance of the project against the Operational Environmental management Plan, the conditions of this approval and other licences and approvals relating to the project.**
- b) provisions for periodic reporting of the compliance status to the Secretary including at least prior to the commencement of construction of the project, prior to the commencement of operation of the project, and prior to the commencement of decommissioning,
- c) a program for independent environmental auditing in accordance with AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing;
- d) procedures for rectifying any non-compliance identified during environmental auditing or review of compliance;
- e) mechanisms for recording environmental incidents and actions taken in response to those incidents;
- f) provisions for reporting environmental incidents to the Secretary during construction operation and decommissioning; and
- g) provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.

### 1.3 STRUCTURE OF THIS REPORT

The structure of this report is:

Section 1 – Introduction and Background

Section 2 – Independent assessment of Compliance

## 2 INDEPENDENT ASSESSMENT OF COMPLIANCE

### 2.1 OPERATION APPROVAL REQUIREMENTS

Operational conditions associated with the Gullen Range Wind Farm Project are analysed in the compliance table below.


Table 2-1 Operational Compliance Table

COA	Long Description	Compliance Status	Comments
1.1	The Proponent shall carry out the project: a) generally in accordance with the EA; b) the statement of commitments; and c) conditions of this approval (MOD1 consolidated conditions)	Ongoing	Project is generally being carried out in compliance with the EA, SoC and Conditions of Approval.
1.2	If there is any inconsistency between the documents referred to in condition 1.1, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Ongoing	Noted
1.3	The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: a) any strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with the requirements in this approval; b) any report, reviews or audits commissioned by the Department regarding compliance with this approval; and c) the implementation of any actions or measures contained in these documents.	Ongoing	Noted
1.7	The Proponent shall ensure that all licences, permits and approvals are obtained and maintained as required throughout the life of the project. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals. The Proponent shall ensure that a copy of this approval and all relevant environmental approvals are available on the site at all times during the project.	Compliant	EPL: variations to EPL issued on 21 April 2015 and 13 November 2015. Noise Assessment Report started on 26 September 2014 and Assessment of Tonal Reduction started on 14 September 2015. EPA website states that there are no non-compliances on the licence
1.8	The Proponent may elect to construct the project in stages. In this case, these conditions of approval may be complied with separately for each stage, as relevant.	N/A	Project was constructed in one stage.

COA	Long Description	Compliance Status	Comments
1.10	<p>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 the wind turbines for electricity generation. Copies of these records shall be provided to the Secretary upon request. The relevant wind turbine and any associated infrastructure is to be dismantled and removed from the site by the Proponent within 24 months from the date that the wind turbine was last used to generate electricity.</p>	Compliant	<p>All turbines are operational. One struck by lightning and out of action for 4 months – Secretary of DP&amp;E notified on 21 October 2015</p> <p>The SCADA system is used to keep continuous records of electricity generation and can be verified against tariff meters.</p>
2.2	<p>By December 2015, the Proponent shall notify in writing:</p> <p>a) all owners of existing or approved residential dwellings that are located within three kilometres of the project;</p> <p>b) all owners of approved subdivision allotment where there is an approved dwelling entitlement, where such subdivision allotments were approved by the date of approval of the project that are located within three kilometres of the project;</p> <p>c) the owners of Lot 55 of DP 754115;</p> <p>d) but excluding the owners of Lot 118 of DP 1116333 and Lot 121 of DP 754115 and the owners of Lots 143 and 303 of DP 754115, Lot 2 of DP 541500 and Lot 2 of DP 541499</p> <p>e) the owners of PW37</p> <p>that they are entitled to landscaping treatments on their property in order to minimise the visual impact of the project on their property</p>	Compliant	<p>GRWF Landscape Plan Register includes detail of all notifications, status, inspections and notes on any follow up maintenance required.</p>
2.3	<p>Upon receiving a written request from the landowner referred to in condition 2.2 to have landscaping treatments implemented on their property, the Proponent shall:</p> <p>a) within fourteen (14) days of receiving the request, commission a suitably qualified person approved by the Secretary, to investigate reasonable and feasible measures to minimise the visual impacts of the project on the landowner’s property using landscape treatments;</p> <p>b) ensure that the qualified person provides a landscaping plan detailing the matters investigated and consequential recommendations within twelve (12) weeks of receiving such request; and</p>	Compliant	<p>All landowners that responded had their properties assessed by Fresh Landscape Design. The report included:</p> <ul style="list-style-type: none"> <li>• Eligibility for landscape treatment and assessment of reasonable and feasible options</li> <li>• Proposed screening options</li> <li>• Specifications for landscape treatment including tree species, quantity, planting instructions, fence specifications</li> </ul>



COA	Long Description	Compliance Status	Comments
	<p>c) provide the landowner with a copy of the landscaping plan, including suggested landscape treatment measures, within fourteen (14) days of receiving the plan.</p> <p>If the parties agree on the landscaping plan, then the Proponent shall implement the agreed measures with all landscaping being completed within three months (where practical). The Proponent shall maintain these measures, at their cost, for a period of two years. Access and notification arrangements are to be negotiated between the parties. Landscape treatments shall include, but not be limited to, site preparation stock and rabbitproof fencing, selection and planting of appropriate species decided by both parties, watering, weed control and the replacement of failed plants.; If the parties are unable to agree on the landscaping plan within three months of the plan being provided to the landowner, or there is a dispute about the implementation of any agreed landscaping treatments, then either party may refer the matter to the Secretary for resolution. The Secretary's decision on such a referral shall be final and binding on the parties.</p>		<ul style="list-style-type: none"> <li>• Goldwind's commitment to maintenance for a two year period</li> <li>• Agreement sign off sheet</li> </ul>
2.3A	<p>By 31 December 2015, unless otherwise agreed by the Secretary, the Proponent shall implement:</p> <p>a) landscaping treatments to screen the substation and associated switching station for the project; and</p> <p>b) colour treatment to perimeter fencing for the substation and associated switching station for the project to minimise glare, to the satisfaction of the Secretary.</p> <p>The landscaping treatments referred to in 2.3A a) must employ all reasonable and feasible mitigation measures and utilise mature plantings to screen the substation and switching station from the surrounding non-associated property PW4. Following the installation of the landscaping treatments, the Proponent shall maintain them over the life of project.</p>	Compliant	Planting was completed prior to 31 December 2015 and PW4 plantings have been undertaken to screen substation (refer to photo below).

COA	Long Description	Compliance Status	Comments
			
2.7	Shadow flicker arising from operation of the project shall not exceed 30 hours/annum at any residence not being an associated residence.	Compliant	A shadow flicker report ( <i>Shadow Flicker Turbine Layout 6A Gullen Range Wind Farm</i> , Epuron 2014) has assessed that shadow-flicker from the final layout complies with this condition.
2.15	Subject to conditions 2.15 to 2.20 the Proponent shall design, operate and maintain the project to ensure that the equivalent noise level (LAeq (10-minute)) from the project does not exceed at each of the residential receiver locations identified in Section 5 of the Noise Impact Assessment prepared by Marshall Day Acoustics, dated 5 June 2008 (Section 3.2 of EA Attachments), or any other residential receiver in existence or the subject of a valid development consent at the date of this approval (but including PW37): a) 35 dB(A); or b) the existing background noise level (LA90 (10-minute)) correlated to the integer wind speed at hub height at the wind farm site by more than 5 dB(A), whichever is the greater, for each integer wind speed (measured at hub height) from cut-in to rated power of the wind turbine generator, when determined in accordance with the methodology provided in the Wind Farms: Environmental Noise Guidelines (SA EPA, 2003) ('SA Guidelines 2003') or as otherwise agreed with the EPA.	Compliant	An operational noise assessment ( <i>Gullen Range Wind Farm Assessment of Wind Farm Operational Noise</i> , Marshall Day Acoustics, 2015) was carried out. Criteria a) and b) are identified in section 3.2 of the report. The assessment found that noise levels comply with the criteria in CoA 2.15.

COA	Long Description	Compliance Status	Comments
2.17	Where noise predictions are found to exceed the limits specified in condition 2.15 the Proponent shall develop and implement a Noise Operating Strategy that identifies specific methods of noise reductions to restore the levels back to the limits in Condition 2.15 at any receiver location for all wind directions including worst case-scenarios. The strategy shall include noise modelling verification that demonstrates the predicted noise reductions can be achieved.	Compliant	Noise Operating Strategy is contained in the Part A – Operational Noise Management Plan of the OEMP. The Operational Noise Assessment Report shows that noise levels at all locations are within the approved limits.
2.18	Noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 20 metres of the dwelling, where the dwelling is more than 20 metres from the boundary, to determine compliance with the noise level limits in conditions 2.15 and 2.16. Under this Condition “dwelling” means one in existence or the subject of a valid development consent at the date of this approval.	Compliant	Noise loggers were set up at the same location as used previously for the background noise monitoring. For background monitoring, loggers were placed on each property near the dwelling façade that was on-axis to the closest proposed turbine location.
2.19	For the purposes of conditions 2.15 and 2.16 of this approval, 5 dB(A) shall be applied to measured noise levels where tonality is present. The presence of tonality shall be determined using the methodology detailed in Wind Turbine Generator Systems- Part 11: Acoustic Noise Measurement Techniques IEC 61400-11:2002 or its latest edition or as otherwise agreed with the EPA.	Compliant	Tonality is assessed in section 7 and Appendix O of the Operational Noise Assessment Report in accordance with IEC 61400-11:2002. Tonality was found to not be a factor in determining the assessment of the wind farm’s compliance.
2.20	Notwithstanding conditions 2.15 and 2.16 of this approval, the noise limits specified under those conditions do not apply to any residence where a noise agreement is in place between the Proponent and the respective owner(s) of those residences in relation to noise impacts and/or noise limits. For this condition to take effect, the noise agreements shall satisfy the requirements of Guidelines for Community Noise (WHO, 1999) and Section 2.3 of the SA Guidelines 2003 or as otherwise agreed by the Secretary.	Not Audited	Noise agreements are known to be in place, however they were not audited as they were unable to be provided due to confidentiality reasons.
2.21	The Proponent shall prepare a Noise Compliance Plan which shall be submitted to the Secretary prior to commissioning of the wind turbines. The Noise Compliance Plan shall include, but not be limited to: a) an assessment of the performance of the project against the noise predictions contained in conditions 2.15 and 2.16; b) a commitment to operate the Project in accordance with any Noise Operating Strategy that is implemented in accordance with condition 2.17; c) a commitment that noise compliance monitoring will be undertaken within three months of the commissioning of the wind turbines. If prevailing	Compliant	A Noise Compliance Monitoring Plan was submitted to DP&E. DP&E accepted the plan, letter received from DP&E dated 8/9/15

COA	Long Description	Compliance Status	Comments
	<p>meteorological conditions do not allow the required monitoring to be undertaken in this period, the Secretary shall be notified and an extension of time may be sought; and</p> <p>d) a requirement that all noise compliance monitoring results are submitted to the Secretary within one month of completion of the monitoring. The Secretary may request that additional noise compliance monitoring be undertaken and completed within a specified timeframe.</p> <p>The Noise Compliance Assessment shall be undertaken generally in accordance with the procedures presented in SA Guidelines 2003, except that all sounds power levels and wind speeds shall be referenced to hub height unless otherwise agreed with the EPA.</p>		
2.22	<p>In the event that the Noise Compliance Plan indicates that noise from the wind turbines exceeds the noise limits specified under conditions 2.15 and 2.16, as relevant, the Proponent shall investigate and propose mitigation and management measures to achieve compliance with the noise limits. Details of the remedial measures and a timetable for implementation must be submitted to the Secretary for approval within such period as the Secretary may require. Remedial measures shall include, in the first instance, all reasonable and feasible measures to reduce noise from the project, including but not necessarily limited to reduced operation of wind turbines. Once all reasonable and feasible source controls are exhausted, remedial measures may include offering building acoustic treatments and/or noise screening to affected residences, but may only be used to address noise limit exceedances at the absolute discretion of the relevant landowner. The Proponent shall also demonstrate that the relevant landowner/resident has been made fully aware of the noise and other implications of making any agreement. If there is no such agreement with the relevant landowner, then the turbine(s) causing the exceedance(s) of the noise limits must be turned off until the turbine(s) can be operated in accordance with this approval.</p>	Compliant	<p>The Operational Noise Monitoring Assessment (<i>Gullen Range Wind Farm Assessment of Wind Farm Operational Noise</i>, Marshall Day Acoustics, 2015) found that noise levels at all sensitive receivers was below the approved limits</p>
2.23	<p>The Proponent shall provide written notice to all landowners that are entitled to rights under condition 2.22 within 21 days of determining the landholdings to which these rights apply. For the purpose of condition 2.22, this condition only applies where operational noise levels have been confirmed in accordance with the conditions 2.15 and 2.16.</p>	Compliant	<p>Operational noise monitoring (<i>Gullen Range Wind Farm Assessment of Wind Farm Operational Noise</i>, Marshall Day Acoustics, 2015) found no exceedances. No notices required.</p>

COA	Long Description	Compliance Status	Comments																																												
2.24	The Proponent shall bear the costs of any additional at-receiver mitigation measures implemented at an affected landowner or property.	Compliant	No mitigation required																																												
2.33	The Proponent shall not operate wind turbines POM_03, POM_04, POM_06 and POM_07 between one hour before sunset and one hour after sunrise during the period 30 November to 31 March, unless the Proponent demonstrates to the satisfaction of the Secretary that operation during these periods will not adversely impact on Powerful Owl juvenile dispersion. In undertaking such a demonstration the Proponent shall undertake the following: a) monitoring of the dispersion of Powerful Owl juveniles in and around the site, to be conducted by an independent specialist approved by the Secretary; b) preparation of a report to be submitted to the Secretary presenting the outcomes of monitoring and impacts to the Powerful Owl juvenile dispersion in and around the site; and c) conclusively demonstrating to the satisfaction of the Secretary that the dispersion of Powerful Owl juveniles in and around the site will not be adversely impacted by the project.	Compliant	<p>Checked SCADA system and compared 'actual electricity generated' to 'theoretical electricity generated' for each turbine on random dates:</p> <table border="1"> <thead> <tr> <th rowspan="2">Turbine ID</th> <th rowspan="2">Date</th> <th rowspan="2">Sunrise</th> <th rowspan="2">Sunset</th> <th colspan="2">SCADA Values</th> </tr> <tr> <th>Turbine Switch On</th> <th>Turbine Switch Off</th> </tr> </thead> <tbody> <tr> <td>POM3</td> <td>1/12/15</td> <td>5:43</td> <td>17:59</td> <td>5:52</td> <td>17:59</td> </tr> <tr> <td>POM4</td> <td>1/12/15</td> <td>5:43</td> <td>17:59</td> <td>5:57</td> <td>17:59</td> </tr> <tr> <td>POM6</td> <td>23/12/15</td> <td>5:47</td> <td>18:15</td> <td>5:53</td> <td>18:00</td> </tr> <tr> <td>POM7</td> <td>11/03/15</td> <td>6:57</td> <td>17:27</td> <td>7:13</td> <td>17:00</td> </tr> <tr> <td>POM7</td> <td>26/03/15</td> <td>7:09</td> <td>17:06</td> <td>7:13</td> <td>17:00</td> </tr> <tr> <td>POM7</td> <td>22/03/16</td> <td>7:07</td> <td>17:11</td> <td>7:14</td> <td>17:10</td> </tr> </tbody> </table> <p><a href="http://www.ga.gov.au/bin/geodesy/run/sunrisenset">http://www.ga.gov.au/bin/geodesy/run/sunrisenset</a> using EST for Bannister.</p>	Turbine ID	Date	Sunrise	Sunset	SCADA Values		Turbine Switch On	Turbine Switch Off	POM3	1/12/15	5:43	17:59	5:52	17:59	POM4	1/12/15	5:43	17:59	5:57	17:59	POM6	23/12/15	5:47	18:15	5:53	18:00	POM7	11/03/15	6:57	17:27	7:13	17:00	POM7	26/03/15	7:09	17:06	7:13	17:00	POM7	22/03/16	7:07	17:11	7:14	17:10
Turbine ID	Date	Sunrise	Sunset					SCADA Values																																							
				Turbine Switch On	Turbine Switch Off																																										
POM3	1/12/15	5:43	17:59	5:52	17:59																																										
POM4	1/12/15	5:43	17:59	5:57	17:59																																										
POM6	23/12/15	5:47	18:15	5:53	18:00																																										
POM7	11/03/15	6:57	17:27	7:13	17:00																																										
POM7	26/03/15	7:09	17:06	7:13	17:00																																										
POM7	22/03/16	7:07	17:11	7:14	17:10																																										
2.35	By the 31 December 2015, unless otherwise agreed with the Secretary, the Proponent shall revise the proposed compensatory habitat package to offset in perpetuity the value of habitat lost as a result of the project, in consultation with OEH, and to the satisfaction of the Secretary. Unless otherwise agreed to by the Secretary, the package shall comprise: a) a minimum of 2:1 'like for like' offset of the vegetation communities to be removed or otherwise disturbed on site utilising a "Worst Case Scenario" impact assessment; or b) the implementation of in kind management measures or funding for such measures as agreed to by OEH; or a combination of the measures specified in a) and b).	Compliant	Compensatory habitat package was revised in consultation with OEH Letter from DPE 24/07/15 & Gullen CHP Revised (GR-PM-PLN-0014) v6.1																																												
2.36	The Proponent shall make a financial contribution of \$1500.00 to the NSW Wildlife Information and Rescue Service for each death of a Powerful Owl that	Compliant	No powerful owl deaths																																												

COA	Long Description	Compliance Status	Comments
	has been reasonably attributed to the carrying out of the project. The financial contribution must be paid by the Proponent within one month of the Proponent becoming aware of the death. The contribution must be adjusted to take account of any increase in the Consumer Price Index (All Groups Index for Sydney) over time commencing at the September 2010 quarter.		
2.37	The Proponent shall make a financial contribution of \$1500.00 to the NSW Wildlife Information and Rescue Service for each death of the Wedge-tailed Eagle that has been reasonably attributed to the carrying out of the project. The financial contribution must be paid by the Proponent within one month of the Proponent becoming aware of the death. The contribution must be adjusted to take account of any increase in the Consumer Price Index (All Groups Index for Sydney) over time commencing at the September 2010 quarter.	Compliant	Receipt amounts and dates for payments to WIRES: 19/02/15 - \$1,665.33 17/04/15 - \$1,665.33 29/05/15 - \$1,665.33 29/05/15 - \$1,665.33 26/06/15 - \$1,665.33 13/11/15 - \$1,665.33 04/01/16 - \$1,665.33 04/02/15 - \$1,692 04/02/15 - \$1,692
2.42	The Proponent shall notify all known users of the Crookwell, Ashwel and Kings's Airstrips of the location of the wind turbines and any changes to operational procedures.	Compliant	No changes to operational procedures relevant to airstrips.
2.43	Throughout the life of the project, the Proponent shall regularly consult with the local RFS to ensure its familiarity with the project, including the construction timetable and the final location of all infrastructure on the site. The Proponent shall comply with any reasonable request of the local RFS to reduce the risk of bushfire and to enable fast access in emergencies.	Compliant	Consultation the RFS has occurred in the preparation of the Bushfire MP. An annual meeting was held on 26 <sup>th</sup> July 2015 and wind farm staff attended.
2.44	The Proponent shall: a) ensure there is appropriate fire-fighting equipment held on site to respond to any fires that may occur at the site during construction, operation and decommissioning of the project; and b) assist the RFS and emergency services as much as possible if there is a fire on-site during the project.	Compliant	The RFS informed Gullen Wind Farm that it is the RFS's responsibility to fight fires and not the wind farm operator. There are two water tanks that can be used to dampen areas where there is a threat of fire. There is also a stand pipe located near and access road and the substation that can be used by the RFS.
2.46	The Proponent shall store and handle all dangerous goods (as defined by the Australian Dangerous Goods Code) and combustible liquids, strictly in accordance with: a) all relevant Australian Standards; b) a minimum bund volume requirement of 110% of the volume of the largest single stored	Compliant	A Pollution Incident Response Management Plan contains the following: <ul style="list-style-type: none"> <li>• Inventory of chemicals</li> </ul>

COA	Long Description	Compliance Status	Comments
	<p>volume within the bund; and c) the EPA's Environment Protection Manual Technical Bulletin Bunding and Spill Management. In the event of an inconsistency between requirements listed from a) to c) above, the most stringent requirement shall prevail to the extent of the inconsistency.</p>		<ul style="list-style-type: none"> <li>• Quantities of chemicals</li> <li>• Locations of chemicals</li> <li>• Details of bunds</li> <li>• Risk assessment</li> <li>• Spill response procedure</li> <li>• Emergency contacts</li> <li>• Staff training</li> </ul> <p>All turbine transformers are internally banded and hold about 2,400 litres of insulating oil.</p> <p>There are two large transformers in the substation, containing about 46,000 litres of insulating oil each. Both transformers are banded separately. The bunds are precast concrete specifically designed for the Gullen Wind Farm and all comply with AS 1940.</p>
2.55	<p>The proponent shall undertake reasonable and feasible mitigation to rectify any television/radio transmission problems reasonably attributable to the project at any residential dwelling located within five kilometres of a wind turbine. Such measures may include: a) modification to or replacement of receiving antenna; b) installation and maintenance of a parasitic antenna system; c) provision of a land line between the affected receiver and an antenna located in an area of favourable reception; or d) other feasible measures; e) if interference cannot be overcome by the measures outlined in a) to d), the Proponent shall negotiate with the impacted landowner about installing and maintaining a satellite receiving antenna. Any requested works shall be completed within three months of the completion of the relevant television and/or radio reception assessment, unless otherwise agreed by the landowner. The Proponent shall be responsible for all reasonable costs associated with undertaking any mitigation measures.</p>	Compliant	<p>A pre-construction survey of television and radio frequencies at residences in the vicinity of the wind farm was carried out.</p> <p>Goldwind provided VAST satellite receivers at 102 properties. All property within 5 km of the wind farm that requested a receiver were provided with a receiver. Some residents outside the 5km radius were also provided with receivers.</p>
2.56	<p>In the event that any issue with radio communication service links (installed before construction of the project) arise as a result of the project (such as obstruction of transmission paths), the Proponent shall consult with the operator and undertaken appropriate remedial measures to rectify any issue.</p>	Compliant	No issues or complaints about radio communications

COA	Long Description	Compliance Status	Comments
	Such measures may include: a) modification to or relocation of the existing antennae; b) installation of a directional antennae; and/or c) installation of an amplifier to boost the signal strength.		
2.57	Except as may be expressively provided by an Environment Protection Licence for the project, the Proponent shall comply with section 120 of the Protection of the Environment Operations Act 1997 which prohibits the pollution of waters.	Compliant	No pollution incidents recorded during the reporting period. Incident register reviewed.
2.59	Soil disturbing activities of any nature are not permitted in the classified Crown Road reserve between Gurrundah Creek and ten metres upslope from the northern end of the abandoned sheep dip site located on the "Hillview" property, being Lot 206 DP750043, other than any soil sampling activities being carried out by a suitably qualified person to identify whether any soil contamination is present.	Compliant	No soil disturbing activities in the reporting period. The Gurrundah Creek is only accessed every 6 months to visually inspect the HV power line. Access to this area is restricted and this is covered in the site induction.
2.62	The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal or any waste generated on site to be disposed of at the site, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997, if such a licence is required in relation to that waste.	Compliant	No fill or other waste materials generated offsite has been accepted in on site.
2.63	The Proponent shall ensure that all liquid and/or non-liquid waste generated and/or stored on the site is assessed and classified in accordance with Waste Classification Guidelines Part 1: Classifying Waste (DECC, 2008), or any future guideline that may supersede that document.	Compliant	Compliance with Waste Classification Guideline. Waste receipts reviewed – 43074, 46042, 44967.
3.1	The Proponent shall prepare and implement a Bird and Bat Adaptive Management Program for the project to the satisfaction of the Secretary. This program must be submitted to the Secretary for approval prior to construction, and be updated by 31 December 2015, unless otherwise agreed by the Secretary. The program must be prepared in consultation with OEH, and take into account the bird/bat monitoring methods identified in the current editions of AusWEA Best Practice Guidelines for the Implementation of Wind Energy Projects in Australia and Wind Farm and Birds: Interim Standards for Risk Assessment. The Program shall be implemented by a suitably qualified expert, approved by the Secretary. The Program shall		Gullen Wind Farm submitted an updated Bird and Bat Adaptive Management Program to DP&E on 31/8/15. Gullen Wind Farm received feedback on the program from OEH in DP&E letter ref DOC15/423364 MP07_0118. Gullen Wind Farm provided a response to this letter on 11/12/15 (ref: NGRWF_DOPE_004).  The New BBAMP was not audited as it has not been formally approved by OEH yet.



COA	Long Description	Compliance Status	Comments
	<p>incorporate Monitoring, and a Decision Matrix that clearly sets out how the Proponent will respond to the outcomes of monitoring. It must:</p> <ul style="list-style-type: none"> <li>a) incorporate an ongoing role for the suitably qualified expert;</li> <li>b) set out monitoring requirements in order to assess the impact of the project on bird and bat populations, including details on survey locations, parameters to be measured, frequency of surveys and analyses and reporting. The monitoring program must be capable of detecting any changes to the population of birds and/ or bats that can reasonably be attributed to the operation of the project, that is, data may be required to be collected prior to the commencement of construction. The requirements must also account for natural and human changes to the surrounding environment that might influence bird and/ or bat behaviour such as changes in land use practices, and significant changes in water levels in nearby water bodies;</li> <li>c) incorporate a decision making framework that sets out specific actions and when they may be required to be implemented to reduce any impacts on bird and bat populations that have been identified as a result of the monitoring;</li> <li>d) identify 'at risk' bird and bat groups such as the Powerful Owl, the Little Eagle, the Common Bent-wing Bat, the Large-footed Myotis and the Eastern False Pipistrelle and include monthly mortality assessments and periodic local population censuses and bird utilisation surveys;</li> <li>e) identify potential mitigation measures and implementation strategies in order to reduce impacts on birds and bats such as minimising the availability of raptor perches, swift carcass removal, pest control including rabbits, use of deterrents, and sector management including switching off turbines that are predicted to or have had an unacceptable impact on bird/ bat mortality at certain times; and</li> <li>f) identify matters to be addressed in periodic reports in relation to the outcomes of monitoring, the application of the decision making framework, the need for mitigation measures, progress with implementation of such measures, and their success.</li> </ul> <p>The Reports referred to under part f) shall be submitted to the Secretary on an annual basis, from the commencement of operation, and shall be prepared</p>		

COA	Long Description	Compliance Status	Comments
	within two months of the end of the reporting period. The Secretary may vary the reporting requirement or period by notice in writing to the Proponent. The Proponent is required to implement reasonable and feasible mitigation measures as identified under part e) where the need for further action is identified through the Bird and Bat Adaptive Management Program, or as otherwise agreed with the Secretary.		
3.2	Noise compliance monitoring shall be conducted in accordance with the Noise Management Plan under conditions 7.3a), 7.5a) and 7.7a), or as directed by the Secretary in response to noise complaints.	Compliant	Noise Compliance Plan reviewed and monitoring according to the approved plan is being undertaken.
3.3	Within two years of the commencement of Operation of the project, and then as may be directed by the Secretary, the Proponent shall commission an independent person or team to undertake an environmental audit of the project. The independent person or team shall be approved by the Secretary prior to the commencement of the Audit. The Audit must: a) be carried out in accordance with ISO 19011:2002 – Guidelines for Quality and or Environmental Management Systems Auditing; b) assess compliance with the requirements of this approval, and other licences and approvals that apply to the project; c) assess the environmental performance of the project against the predictions made and conclusions drawn in the documents referred to under condition 1.1 of this approval; d) review the effectiveness of the environmental management of the project, including any environmental impact mitigation works; and e) review the adequacy of the Proponent’s response to any complaints made about the project through the Complaints Register required under condition 5.3. An Environmental Audit Report must be submitted for comment to the Secretary within two months of completion of the audit, detailing the findings and recommendations of the Audit and including a detailed response from the Proponent to any of the recommendations contained in the Report.	Not Audited	Audit not due in the reporting period
5.1	Subject to confidentiality, the Proponent shall make all documents required under this approval available for public inspection on request.	Compliant	No requests for documents have been received. Project documents are available on <a href="http://www.gullenrangewindfarm.com/">http://www.gullenrangewindfarm.com/</a>
5.2	The Proponent shall: a) make the following information publicly available on its website: • EA;	Compliant	The following were checked • EA – link to NSW Major Projects website checked on 25/02/16

COA	Long Description	Compliance Status	Comments
	<ul style="list-style-type: none"> <li>• current statutory approvals for the project, including this project approval and any environment protection licence;</li> <li>• approved plans or programs required under the conditions of this approval;</li> <li>• a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the requirements of the various plans and programs required under the conditions of this approval;</li> <li>• a complaints register, which is updated on a monthly basis;</li> <li>• any environmental audit of the project, including the Proponent’s response to the recommendations in any audit report; and</li> </ul> <p>b) keep this information up to date, to the satisfaction of the Secretary.</p>		<ul style="list-style-type: none"> <li>• Statutory approvals – link to Major Projects website for Project Approval documents (2008 to 2010) and to Modification Application (Mod1 – 2014), both links checked on 25/02/16</li> <li>• EPL – link licence on EPA website checked on 25/02/16</li> <li>• The following monitoring results are provided on the project website, checked on 25/02/16 <ul style="list-style-type: none"> <li>○ Noise testing report November 2015</li> <li>○ Operational Noise Assessment report</li> <li>○ Pre-operations compliance report</li> </ul> </li> <li>• Complaints register that is up to date within the reporting period, checked on 25/02/16</li> <li>• No audit reports required to be available</li> </ul>
5.3	<p>The Proponent shall prepare and implement a Community Information Plan to the satisfaction of the Secretary. This plan must set out the community communications and consultation processes to be undertaken during the construction, operation and decommissioning of the project. The Plan must include but not be limited to:</p> <ul style="list-style-type: none"> <li>a) procedures to inform the local community of planned investigations and Construction or decommissioning activities, including blasting works;</li> <li>b) procedures to inform the relevant community of Construction or decommissioning traffic routes and any potential disruptions to traffic flows and amenity impacts;</li> <li>c) procedures to consult with local landowners with regard to Construction or decommissioning traffic to ensure the safety of livestock and to limit disruption to livestock movements;</li> <li>d) procedures to inform the community where work has been approved to be undertaken outside the normal Construction or decommissioning hours, in particular noisy activities;</li> <li>e) procedures to inform and consult with those landowners who are eligible for landscaping on their property as determined under condition 2.2 of this approval; and</li> </ul>	Compliant	<p>The Community Information Plan is available on the project website. Section 6.3 of the plan identifies procedures for visual impact assessments and radio/television reception assessments</p>

COA	Long Description	Compliance Status	Comments
	f) procedures to notify relevant landowners of the process available to review potential impacts on radio and television transmission. Note: With the agreement of the Secretary, an update of the approved Community Information Plan (August 2012) can satisfy the requirements of this condition.		
5.5	The Proponent shall record details of all complaints received through the means listed under condition 5.4 of this approval in an up-to-date Complaints Register. The Register shall record, but not necessarily be limited to: a) the date and time, where relevant, of the complaint; b) the means by which the complaint was made (telephone, mail or email); c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect; d) the nature of the complaint; e) any action(s) taken by the proponent in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the Proponent in relation to the complaint, the reason(s) why no action was taken. The Complaints Register shall be made available for inspection by the Secretary upon request.	Compliant	Complaints register is available at <a href="http://www.gullenrangewindfarm.com/wp-content/uploads/2016/01/Register-to-Dec-15_1.pdf">http://www.gullenrangewindfarm.com/wp-content/uploads/2016/01/Register-to-Dec-15_1.pdf</a>  Consultation Manager is used to record all communication with stakeholders for internal purposes. Consultation Manager contains: <ul style="list-style-type: none"> <li>• The time and date</li> <li>• Method (email, phone etc)</li> <li>• Name, address</li> <li>• Nature of complaint</li> <li>• Actions and person responsible</li> </ul> The system was inspected on 12/02/16
5.6	Prior to the commencement of construction of the project, the proponent shall prepare and submit for the approval of the secretary, a community enhancement program, (as generally described in the environmental assessment referred to in condition 1.1a) of this approval, in so far as it is consistent with the terms contained in this condition) with the aim of funding community enhancement measures to the benefit of the local community that consists of the following components: 1. a Clean Energy Program to support the installation of residential clean energy improvements, (as generally described in the Environmental Assessment referred to in condition 1.1a) of this approval, in so far as it is consistent with the terms contained in this condition); and	Compliant	A Community Enhancement Plan is in place for the project.  It consists of a Clean Energy Program and a Community Fund.  NGH has not audited compliance the Community Enhancement Plan. However, NGH notes that the Community Fund is administered by ULSC and subject to external audit.  The CEP is also subject to external audit. NGRWF has advised that the funding for the CEP is available, but it has not been fully expended pending resolution of several issues which the NSW Department of Planning and Environment have been made aware of. Stage 1 of the CEP

COA	Long Description	Compliance Status	Comments
	<p>2. a Community Fund, to provide funds to undertake initiatives which provide a direct benefit to the local community.</p> <p>The Community Enhancement Program shall be developed in consultation with the Upper Lachlan Shire Council, the Goulburn Mulwaree Council and the local community and provide details of:</p> <ul style="list-style-type: none"> <li>a) the process by which the program's funds would be administered, including mechanisms for accounting and reporting;</li> <li>b) how measures and initiatives to be funded by the program would be identified, assessed, prioritised and implemented over the life of the project; and</li> <li>c) any other terms agreed to by the parties.</li> </ul> <p>The Proponent shall each year contribute the sum of \$1666 per constructed turbine to the Community Enhancement Program, commencing upon commissioning of the project until the end of its life. The contribution shall be adjusted to take account of any increase in the Consumer Price Index (All Groups Index for Sydney) over time, commencing at the September 2010 quarter.</p> <p>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.</p>		<p>scheme is underway with 39 energy efficiency audits completed in 2015.</p>
5.7	<p>The Proponent shall establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Secretary. The CCC must be operational by 31 December 2015, unless the Secretary agrees otherwise, and it must be operated generally in accordance with the guidance in Appendix C of the draft NSW Planning Guidelines Wind Farms (December 2011), or any equivalent guideline.</p>	Compliant	<p>Gullen Wind Farm advertised for the CCC in December 2015. Three responses were received but they were not acceptable to the DoPE. Proponent has readvertised.</p>

COA	Long Description	Compliance Status	Comments
	<p>Note: The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.</p>		
<p><b>6.1</b></p>	<p>Prior to the commencement of construction, the proponent shall develop and implement a compliance tracking program for the project, to track compliance with the requirements of this approval during the construction, operation or decommissioning of the project and shall include, but not necessarily limited to:</p> <ul style="list-style-type: none"> <li>a. Provisions for an annual environmental management report (AEMR) that is to be prepared and submitted to the secretary throughout the operational life of the project. The AEMR must review the performance of the project against the operational environmental management plan, the conditions of this approval and other licences and approvals relating to the project.</li> <li>b. Provisions for periodic reporting of the compliance status to the secretary including at least prior to the commencement of construction of the project, prior to the commencement of operation of the project, and prior to the commencement of decommissioning,</li> <li>c. A program for independent environmental auditing in accordance with as/nz iso 19011:2003 - guidelines for quality and/or environmental management systems auditing;</li> <li>d. Procedures for rectifying any non-compliance identified during environmental auditing or review of compliance;</li> <li>e. Mechanisms for recording environmental incidents and actions taken in response to those incidents;</li> <li>f. Provisions for reporting environmental incidents to the secretary during construction operation and decommissioning; and</li> <li>g. Provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.</li> </ul>	<p>Compliant</p>	<p>Section 9 of the OEMP details environmental compliance and reporting. The proponent has shown compliance with Section 9 of the OEMP.</p> <p>Incident reporting is as per the PIRMP and section 10 of the OEMP and has been complied with during the audit period.</p> <p>This AEMR reviews the operational compliance of the project and will be submitted to DoPI. This is the first AEMR for the project.</p>
<p><b>7.6</b></p>	<p>Within 3 years of the commencement of the operation of the project, or within 3 months of the approval of any modification to this approval, the Proponent shall review, and if necessary, revise the OEMP to the satisfaction</p>	<p>Compliant</p>	<p>Modification granted on 7 September. OEMP reviewed following approval of the modification. Review submitted on 7/12/15. Letter ref NGRWF_DOPE_002</p>

COA	Long Description	Compliance Status	Comments
	of the Secretary. Following approval, the Proponent shall implement the updated OEMP to the satisfaction of the Secretary.		
8.1	The Proponent shall notify the Secretary and any relevant Government authority of any incident with actual or potential significant off-site impacts on people or the biophysical environment as soon as practicable after the occurrence of the incident (“initial notification”). The Proponent must provide written details (“written report”) of the incident to the Secretary and any relevant Government authority within seven days of the date on which the incident occurred.	Compliant	No reportable incidents recorded during the reporting period. Four non-reportable incidents were recorded in the Incident Register.
8.2	The Proponent shall meet the requirements of the Secretary to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition 8.1 of this approval, within such period as the Director General may require.	Compliant	No reportable incidents recorded during the reporting period.

#### Statement of Commitments


COA	Long Description	Stage	Compliance Status	Comments
SoC1	The Proponent would determine the extent of planting with residents of properties within 3km of a wind turbine. This would include a site visit. Any such offer would remain in place for a period of 1 year after project construction. Screening options are detailed in Attachment 3. Landscaping will be provided as per the GRWFPL Landscaping Management Plan and in consultation with landowners.	During Construction and Operation	Compliant	All landowners within 3km that have potential to be impacted have been contacted. All landowners that responded were offered a landscape assessment and visual screening where recommended in the site specific Landscape Management Plan
SoC5a	An onsite representative to meet with residents at their property to discuss the noise issues experienced	Operation	Compliant	After the completion of the Operational Noise Assessment Gullen Wind Farm sent a letter to landowners known to have queries about noise levels to offer a meeting and explanation of the report. The newsletter was also made available on the project website. NGRWF and Marshall Day Acoustics met five residents in the week starting 2/11/15.
SoC9	Develop and implement an operational noise compliance testing program.	Operation	Compliant	Operational Noise Management Plan included in the OEMP


COA	Long Description		Compliance Status	Comments
SoC10	If operational monitoring identifies exceedances, the Proponent would give consideration to providing mechanical ventilation (to remove requirement for open windows), building acoustic treatments (improved glazing) or using turbine control features to manage excessive noise under particular conditions.	Operation	Compliant	The Operational Noise Assessment found that there are no exceedances
SoC22	Pest Animal Control Program - To reduce the attractiveness of the site to foraging raptors, rabbits would be controlled on the turbine ridges, carrion would be removed from the site as quickly as possible	During operation	Compliant	NGRWF put measures in place to clear animal carcasses from the site to make it less attractive to raptors. This measure was put in place in 2015 (expenditure request for clean-up of carcasses dated 7/7/15)
SoC23	Bird and Bat Monitoring Program <ul style="list-style-type: none"> <li>• Pre-construction surveying would be undertaken to assist in managing bird and bat impacts (Powerful Owl would be a key species in this Pre-construction surveying). Results would be incorporated into the ongoing monitoring program</li> <li>• A monitoring program would be designed to document mortalities, remove carcasses and assess the effectiveness of controls in accordance with Section 9.3.1</li> <li>• If mortalities exceed a pre-determined threshold (set out in the monitoring program), additional mitigation measures would be considered, such as diversion structures, turning off turbines at critical times, further habitat modification and enhancement of off-site habitats</li> </ul>	Designed prior to operation & Implemented during operation	Compliant	Monitoring plan and threshold for eagle strikes has been exceeded. OEH has been made aware of this and additional measures have been put in place. Main measures are removal of carcasses and monitoring of illegal kangaroo shooting
SoC35a	The Proponent would install a Radio/Television antennae in the vicinity of Crookwell which would improve the Radio/Television signal strength for the area surrounding the wind farm and for Crookwell. The commitment above has been modified after consultation with ULSC as follows: <ul style="list-style-type: none"> <li>• GRWFPL will provide funding for a suitable technical and commercial upgrade at an existing ULSC communications mast.</li> </ul>	Operation	Compliant	\$80,000 was put forward to install a new antenna at Crookwell and commissioned in Feb 2016




COA	Long Description		Compliance Status	Comments
	<ul style="list-style-type: none"> <li>The funding may up to \$100,000. The funding will independent of contributions to the Community Enhancement Fund.</li> <li>ULSC will be responsible for the construction, operation and maintenance of the new antennae facility.</li> </ul>			
<b>SoC38a</b>	GRWFPL provided additional assessment of potential for impacts to point to point services to relevant stakeholders and will consult further with RFS in respect of its service between Mt Mary and Mt Gray.	Ongoing	Complaint	Addressed at annual meetings with RFS An annual meeting was held on 26 <sup>th</sup> July 2015.
<b>SoC39a</b>	Where suitable guidelines exist, a report studying the EMF output of the Substation and facility would be undertaken and the results made publicly available.	Operation	Compliant	No study has currently been undertaken and there does not appear to suitable guidelines available to date.
<b>SoC61</b>	Range Road <ul style="list-style-type: none"> <li>The shadow flicker effects would be monitored following commissioning and any remedial measures to address concerns would be developed in consultation with the RTA and the Department of Planning</li> </ul>	Operation	Compliant	Informally monitored by site staff and no shadow flicker has been observed. No shadow flicker associated with Range Road has been reported by members of the public. Shadow flicker monitoring is presented in the shadow flicker report ( <i>Shadow Flicker Turbine Layout 6A Gullen Range Wind Farm</i> , Epuron 2014). The report indicates that shadow-flicker from the final layout complies with this condition.
<b>SoC65a</b>	The Proponent would investigate the potential to house an RFS hall within the Wind Farm or at a suitable location identified in consultation with RFS near to the wind farm. This facility could also be used as a community hall. <ul style="list-style-type: none"> <li>The Proponent would offer the land to the RFS in perpetuity.</li> <li>The construction, operation and maintenance of the RFS station would be the responsibility of the RFS</li> </ul>	Operation	Compliant	Purchased local community hall. Can be used by RFS. Deed of Capital Contribution and option to purchase between Goulburn Land Pty Ltd (Goldwind) and Bannister District Hall Association Incorporated (signed)
<b>SoC72</b>	Shut down of turbines would commence if components reach critical temperatures or if directed by the RFS in the case of a nearby wildfire being declared (an all hours contact point would be available to the RFS during the bushfire	Operation	Compliant	Never been shut down by RFS. The turbines do shut down if high temperature alarms are activated for various components.

COA	Long Description		Compliance Status	Comments
	period). Remote alarming and maintenance procedures would also be used to minimise risks			
<b>SoC73</b>	Overhead transmission easements would be periodically inspected to monitor regrowth of encroaching vegetation	Operation	<b>Non-Compliant</b>	One overhead line exists on site. Inspections are undertaken annually, however no documentation for these inspections were available.. Update management system to document inspection.
<b>SoC75</b>	All vehicles onsite would follow established trails and minimise onsite movements	Construction and operation	Compliant	Monitored through environmental inspections. Checklists and inspections reviewed – 150501
<b>SoC76</b>	Machinery would be operated and maintained in a manner that minimises risk of hydrocarbon spills	Construction and operation	Compliant	Monitored through routine maintenance environmental checklist, vehicle condition checklist and plant inspections Checklists and inspections reviewed – 140909, 150326, 150409, 151066, 160127, 160914
<b>SoC77</b>	Maintenance or re-fuelling of machinery would be carried out on hard-stand areas (i.e. existing or proposed road surface or hard-stand areas beneath turbines). Where possible, maintenance and re-fuelling would not occur on areas that either contain native vegetation, or would be revegetated	Construction and operation	Compliant	Monitored through routine maintenance environmental checklist, vehicle condition checklist and plant inspections Checklists and inspections reviewed – 140909, 150326, 150409, 151066, 160127, 160914.
<b>SoC86</b>	Infrastructure would be bunded to ensure that the amounts of oil could be fully contained in the event of a leak. Bunding provisions would be regularly inspected	Operation		Infrastructure is adequately bunded. See photo below:

COA	Long Description		Compliance Status	Comments
				
SoC94	Monitoring information collected during the operation of the wind farm would be made publicly available	Operation		Noise & supplementary noise and pre-op compliance report are available on website BBAMP Annual Monitoring was undertaken in 2015 and is awaiting review by OEH prior to upload to website
SoC95b	The Proponent would provide a community education program for local schools which would include: <ul style="list-style-type: none"> <li>• Visits to the wind farm</li> <li>• Information on renewable energy</li> <li>• Information on climate change issues</li> </ul>	Operation	Compliant	Community enhancement program developed and approved by Upper Lachlan Shire Council, Goulburn Mulwaree Council and DoPI
SoC95c	The Proponent would hold an annual 'open day' at the wind farm to allow the public to visit the facility	Operation	Compliant	Community open day held on 18 <sup>th</sup> April 2015
SoC95d	The proponent will strengthen its relationship with the community by improving its consultation efforts and undertaking regular interface with neighbours within 2km of the wind farm.			

COA	Long Description		Compliance Status	Comments
SoC95e	The proponent would provide an annual public report on the environmental and social performance of the wind farm and the consultation activities undertaken for the year	Operation	Not Audited	This AEMR will go on website and will be first report
SoC97	The Proponent would work with the involved landowners, the community and Upper Lachlan Shire Council to allow for the development of the wind farm as a tourist attraction, if this option becomes desirable to these three parties.	Operation	Compliant	Spoke to people in Canberra about wind farm trail. Crookwell wind farm has viewing platform. No party has shown great interest.
SoC108	Employee safety would be managed through the application a Health and Safety Plan	Operation	Compliant	Safety plan part of OEMP
SoC109	If shadow flicker is found to be a nuisance to residents, conditions would be pre-programmed into the control system and individual wind turbines automatically shut down whenever these conditions are present	Operation	Compliant	Two complaints related to shadow flicker - #16 and #11 Upon investigation shadow flicker did not exceed 30hours a year, as per Condition 2.7.
SoC110	Shadow flicker effects on motorists using Range Road would be monitored following commissioning and any remedial measures to address concerns would be developed in consultation with the RTA and the Department of Planning	Operation	Compliant	Refer to SoC61.
SoC128	Waste would be reused or recycled whenever possible. Separate recyclable materials receptacles would be provided (eg. For glass, plastics and aluminium)	Construction and operation		Recycling bin located on site. 

COA	Long Description		Compliance Status	Comments
SoC129	Packaging materials and general construction wastes would be disposed of, with Council's approval, at Council operated waste disposal centres	Construction and operation		Refuse bins located on site 
SoC130	Toilet facilities would be provided for onsite workers and sullage from contractor's pump out toilet facilities would be disposed at the local sewage treatment plants or other suitable facility agreed to by Council	Construction and operation	Not Audited	N/A
SoC133	Risk of chemical spills would be minimised and protocols would be in place to ensure prompt and effective clean-up of any accidental spills	Construction and operation	Compliant	Spill response procedure. Spill kits on vehicles
SoC134	No permanent waste disposal would be utilised onsite	Construction and operation	Compliant	No waste is permanently stored on site
SoC135	The contractor would implement a Spill Control Plan as part of its Erosion and Sediment Control Plan. Spill Control Plans would identify persons responsible for implementing the plan if a spill of a dangerous or hazardous waste should occur. Any spill that occurs, regardless of size or type of spill, would be reported to the Construction Manager. The event and clean up processes would be recorded. Spill protocols in the plan would dictate when the EPA should be notified	Construction and operation	Compliant	PIRMP implemented and approved by EPA
SoC138	Economic	Construction and operation	Compliant	Landscaping done by local contractors. Most staff are local. 8 people live locally.

COA	Long Description	Compliance Status	Comments
	<ul style="list-style-type: none"> <li>Liaison would continue with local economic development bodies to ensure the potential for local skill use and manufacturing is maximised</li> </ul>		
<b>SoC139</b>	<p>Future Rural Subdivisions</p> <p>The Proponent will provide reasonable and feasible noise mitigation measures to achieve a noise criterion (LAeq (10-minute) of 30dB(A) inside bedrooms (as outlined in the Guidelines for Community Noise (WHO, 1999) for no more than one dwelling on each parcel of land that:</p> <ul style="list-style-type: none"> <li>Is not associated with the project;</li> <li>Was lawfully in existence at the date of the approval;</li> <li>Was lawfully permitted to be developed for the purpose of a residential dwelling at the date of the approval;</li> <li>Is or was the subject of a valid construction certificate for a residential dwelling, lodged with the consent or a certifying authority within three years of the date of approval; and</li> </ul> <p>Would, but for the requirements of this condition, experience noise contributions from the project at the approved location of the residential dwelling in excess of the noise limits recommended in the SA EPA guidelines.</p>	Operation & Post-Operation	Not Audited  No subdivision has occurred to date

### 3 CONCLUSION

This independent Annual Environmental Management Review has assessed GRWF's compliance against the Operational Environmental Management Plan, the Environmental Protection Licence (EPL) and conditions of approval relating to operation and Statement of Commitments.

Based on the assessment completed, it is concluded the GRWF have generally complied with all relevant operational conditions of approval. One non-compliance was found and this related to inadequate documentation on overhead transmission easement inspections. Refer to SoC73 in the compliance table include as Appendix A for more detail.



Jayne L Apps "Monwonga" [REDACTED] Plains Road RYE PARK NSW 2586

Email: [REDACTED] Phone: [REDACTED]

Independent Planning Commission  
Level 3, 201 Elizabeth Street  
SYDNEY NSW 2000

29<sup>th</sup> March 2018

Attention: Mr John Hann, Ms Carol Austin, Mr Paul Forward.  
Re: Bango Wind Farm D502-18

I am writing in relation to the proposed Bango Wind Farm, located south of Boorowa and east of Rye Park, and in the localities of Kangiara and Tangmangaroo (not Bango). Thank you for your time and the opportunity to make this submission.

After attending the Planning Assessment Commission meeting held by you in Boorowa on 22<sup>nd</sup> March 2018 I feel I need to make further comment.

I have no doubt that you have read the copious amount of information, studies and technical data supplied to you by the NSW Department of Planning and the developer Bango Wind Farm Pty Ltd in great detail, along with the many submissions for and against the proposal. I will not pretend I understand it all and would just like to give you a matter of fact opinion from someone who has lived on the land for most of her life and has been dealing with the trauma from the community that wind farm development in this area has caused.

You will have noted that at the meeting the majority of supporters of the project were outnumbered by genuine objectors, which was also the case in the submissions to the Department of Planning during the Public Consultation period. Even though the proponent and proposed hosts would like you to think they are well supported it is not the case. The population density of the area needs to be taken seriously, not just the current residents, but also the potential residents. The areas from Yass to Boorowa, including the village of Rye Park and the Kangiara and Tangmangaroo areas have become popular with those seeking respite from city living, and have the potential to relieve the urban sprawl of the larger cities. This needs to be an important consideration in your decision as these people will not want to, or be able to, live amidst the 200 metre tall wind turbines proposed for this development. Also taking into consideration the already approved Rye Park and Coppabella Wind Farms the area will be turned into a landscape sterile of humans, and of course bird life, and the planting and regeneration of the natural landscape will cease.

Those people who are looking for an alternative lifestyle are a valuable resource to the landscape as most of them undertake large scale vegetation plantings, are much needed supporters of Community and Landcare groups and of course contribute to the local economy. This should not be ignored.

The cluster of turbines have been removed from the northern end of the development, as I understand due to the Department of Environment being concerned about the feeding grounds of the Superb Parrot. The proponent would like us to think that they have done us all a favour by doing this, however the breeding, flight and feeding habits of the Superb Parrot as well as all other birds in the area are not just limited to this one area. The entire area between Boorowa and Yass, and extending east to Rye Park has been identified as a critical area for the Superb Parrot, and many thousands of dollars and man-hours have been spent in preserving and developing these habitats. This will all



have been a waste on a massive scale if the development is approved as birds will be deterred by the structures and related infrastructure.

I include in my submission a document relating to the Gullen Range Wind Farm that states that 9 eagles were found killed in the first year of operation and a further 3 in the second year of operation, along with details on all other bird life found dead. In our area the Superb Parrot will also be added as a casualty. Will it be worth the cost?

I challenge the arguments from supports at the meeting last week who stated wind power is needed to save our Earth from carbon emissions. In fact it will take many years for this development to become carbon neutral. Take into consideration, the ore etc is mined in Australia, shipped to China, made into steel and fibreglass using coal that has been purchased cheaply from Australia, shipped to the country of manufacture and then transported back to Australia. All of the components are then trucked to Boorowa along roads that will need major upgrading and continuous repair, using many hundreds of litres of fuel. Many kilometres of cable will need to be laid in trenches that have been dug into the ground by large machines, roads will be carved into the earth, new electricity poles and lines, and a large substation. I was not able to find in the application for approval where all of this mass injection of carbon into our atmosphere has been taken into consideration.

Surely you can see that it would be far better for our Earth if the local landholders and landcarers were able to continue the great work they are currently doing and plant more trees, preserve and expand the remaining remnant vegetation and encourage better ground cover to sequester carbon back into the ground, and prevent dust storms, which seemed to be a convenient argument for supports last week.

As a member of the Bango Wind Farm Community Consultation Committee I would also like to support the comment from Mr Andrew Winterflood that the CCC meetings have not been a source of consultation with the community. We arrive at the meetings and are given an update on the latest progress of the development. There is never any consultation with members, and leading up to any changes there is never any public consultation. All consultation appears to be between the proponent and the Department of Planning, and changes made accordingly. True public consultation has been non-existent, newsletters to the community have been few, and information sessions have been in the form of a couple of static displays. There has never been a true public meeting held by the proponent where information can be relayed and questions can be answered. The planning of the development and the signing up of hosts etc was completed before neighbouring residents and the local communities were notified of the proposed industrial development.

To this day the majority of the local communities know very little of the Bango Wind Farm development, and if you had taken the time last week to walk the streets of Boorowa, or visited the villages of Kangiara and Rye Park, and spoken to people you would have realised this. The majority of those who do know of it have been told by organisations such as the Boorowa Landscape Guardians and the Rye Park Action Group, not the proponents.

I would also like to make comment on a couple of the verbal submission given at last week's meeting as they were misleading, and sometimes untrue. It does not sit well with me to make personal criticisms publicly but as these comments were made to NSW Commissioners in a public forum then I feel I need to.

Mrs Linda Cavanagh, a host of several wind turbines in the approved Rye Park Wind Farm, led you to believe that she has been farming in the area for many years. In fact Mrs Cavanagh and her family live approximately 60kms away in the Young area, and her children are also schooled elsewhere. They do not have a residence on the land they own at Rye Park. She stated the objectors are a minority, which is untrue, and she would know this if she lived locally. She also commented that she would prefer wind turbines than a coal mine. This argument, often cited by turbine hosts, is not a consideration as we don't have coal in the Boorowa area, and most people would put the same effort into objecting to a coal mine if one were proposed! Mrs Cavanagh also made the comment that hosts of wind turbines would be able to use the money locally for things such as 'getting mechanics to service their cars'. Surely this is clutching at straws, as I am sure they would already be servicing their cars. I feel this comment was a personal attack on myself. I live very close to the turbines that are to be built on Mrs Cavanagh's land, have voiced my concerns about the probable impacts of those turbines, and both of my sons are mechanics, with their business being in Boorowa.

I would also like to note that Mrs Cavanagh has a position as Landcare Co-Ordinator for the Boorowa Community Landcare Group and her support of wind power development in the Boorowa area may be contradictory to her role in seeking and distributing funding for the planting of trees and preservation of Superb Parrots and other endangered flora and fauna. We can't have both.

I also have concerns about comments by Mr Charlie Prell of the Australian Wind Alliance and would like you to carefully consider the relevance of his comments to the Bango Wind Farm and the local community. Mr Prell stated that he is the host of a development which has recently started construction between Goulburn and Crookwell and for a long period of time has had '150 local workers' working on the project. I often drive past his property on my way to visit family in Goulburn and work on construction, engaging the 150 workers, would not have been going for any longer than 6 months. This project would be a good one for you to visit to see the destruction of the landscape needed to erect wind turbines. I am sure Mr Prell would be only too happy to have you visit, and you can then get a feel for what this would do to the critical habitat in the Boorowa/Rye Park area. I also understand Mr Prell does not live on his property, and his comment that his position with the Australian Wind Alliance is 'independent of the industry' should be investigate.

As a farmer I, along with all other farmers in the room last week, took offence to Mr Prell's derogatory comment about the way all farmers run their farms and the implication that the only way they can be successful is to have wind turbines, and as for the comment that the money paid to farmers will create a new 'wool boom'! As you would have gathered it was laughable, and brings to question Mr Prells, and the Australian Wind Alliances' credibility as a supporter of farmers.

I again ask you to carefully consider the inadequacy of this application, the lack of community consultation, the gross negligence in consideration of the local aboriginal communities past and present, and the considerable impact this development will have on the people, landscape, animals and birds in this environment.

The main drivers of wind power development does not appear to be about building alternative sources of electricity generation and saving our Earth. This can be done in the cities where the majority of electricity is used by using solar panels and building wind turbines in already industrialised areas. As noted by the majority of the supporting speakers last week it is all about money. On your inspections of the area you would have noted that most of the properties of host landholders have not made much of an effort to increase habitat for wildlife and birds, and this is something I have noted on many of the wind farm developments around the country. Lack of trees and groundcover is what causes dust storms such as the one noted by supporters last week. The building of wind turbines gives them an excuse never to plant trees in the future as they will not be permitted to.

Thank you again for your time.

Jayne Apps

"Monwonga"

██████████ Plains Road

RYE PARK NSW 2586