



Construction and
Pre-operation
Compliance Report

Crookwell II Wind Farm

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Revisions

| Revision History | | | | | |
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| Rev | Date | Description | Prepared | Reviewed | Approved |
| A | 30/05/2018 | Issue for internal review | Owner's Engineer's Environmental Representative | Crookwell Development Pty Ltd | 07/06/2018 |
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| D | 04/06/2018 | Issue to DPE | Crookwell Development Pty Ltd | | |
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1. INTRODUCTION

1.1. Background

Crookwell Development Pty Ltd (CDPL) as the proponent for the Crookwell II Wind Farm has been issued with a Development Consent for the Development Application No.DA-176-8-2004-i, to construct and operate a wind farm consisting of up to 32 turbines, 4 of which will require further development consents before they may be constructed. The latest modification to the development consent was approved in October 2017.

The Development Consent was accompanied with a set of conditions that required to be complied with at various stages of the construction and operation of the wind farm (Conditions of Consent). This report demonstrates and summarises CDPL's compliance with those of the Conditions of Consent which must be complied with during construction (Construction Conditions) and prior to commissioning. These conditions fall under the areas of environmental management, community consultation, noise and vibration, traffic and road, heritage, flora and fauna, physical, and some miscellaneous. During operation, these conditions fall under the areas of environmental management, flora and fauna, etc.

1.2. Purpose

The main objective of this report is to meet Condition 18 of the Development Consent which requires the submission of a construction compliance report.

The Applicant must provide the Secretary with a Construction Compliance Report. The Environmental Representative must certify the adequacy of the report before it is submitted to the Secretary. The Construction Compliance Report must address the first six months of construction and be submitted within six weeks of the end of that reporting period (or at any other time interval agreed to by the Secretary).

The Construction Compliance Report must include information on:

- (a) compliance with the CEMP and the Conditions of Consent;*
- (b) compliance with any approvals or licences issued by relevant Government Agencies for Construction;*
- (c) the implementation and effectiveness of environmental controls. The assessment of effectiveness should be based on a comparison of actual impacts against performance criteria identified in the CEMP;*
- (d) a summary and analysis of environmental monitoring results;*

(e) the number and details of any complaints, including a summary of the main areas of complaint, action taken, response given and intended strategies to reduce recurring complaints;

(f) details of any review and amendments to the CEMP resulting from construction during the reporting period; and

(g) any other matter relating to compliance with the Conditions of Consent or as requested by the Secretary

1.3. Addressing the criteria of Condition 18

Each of the Conditions of Consent will be reviewed and an action or outcome based on its phase of development will be explained. For Conditions of Consent that relate to the subsequent phases of the development, the relevant Compliance Report will be identified (eg. Pre-Operation, Operation, etc) and the required action or outcome will be outlined, the details of the required action or outcome will be provided when the respective compliance report is due for submission to the Department of Planning.

The explanation will include how controls directed by the CEMP were implemented in relation to that condition, the effectiveness of those controls, and how compliance with performance criteria was monitored.

Point b is addressed in *2.11 Statutory Requirements*.

Points d, e, f and g are addressed as separate chapters.

2. GENERAL CONDITIONS

2.1. Obligation to Minimise Harm to the Environment

Obligation to Minimise Harm to the Environment – Condition 1

- (1) The Applicant must implement all practicable measures to prevent or minimise any harm to the environment that may result from the construction, commissioning, operation and decommissioning of the development.*

Development Phase: All Phases of the Development;

Compliance Report: All Phases of the Development;

Status: **Ongoing**

Summary: CDPL as the proponent of the Crookwell II wind farm is implementing all practicable measures to prevent or minimise any harm to the environment through out all the phases of the development;



2.2. Scope of Development

Scope of Development – Conditions 2, 3, 4, 5, 6, 7, and 8

- (2) The Applicant must carry out the development generally in accordance with the following documents:*

(a) Development Application No. DA-176-8-2004-j; lodged with the Department of Infrastructure, Planning and Natural Resources on 2 August 2004;

(b) Crookwell II Wind Farm Environmental Impact Statement (three volumes) prepared by URS, dated July 2004

(c) Proposed Crookwell II Wind Farm: Response to Department's Questions, URS, dated 25 October 2004;

(d) Crookwell II NIA Response to EPA Queries, Richard Heggie Associates, dated 1 September 2004;

(e) Crookwell II Response to EPA Queries and Concawe Verification Study, Richard Heggie Associates, dated 10 September 2004;

(f) Crookwell II NIA – Follow Up Response to EPA Queries, Richard Heggie Associates, 22 September 2004;

(g) Email and documentation from TME Australia, entitled Location A – Pejar Park Noise Acceptability Assessment Noise Agreement Turbines

Removed, and Location M – Normaroo, Noise Acceptability Assessment Noise Agreement Turbines Removed, dated 5 January 2005;

(h) Crookwell II Wind Farm Additional Raptor Survey Assessment, URS, 12 November 2004;

(i) Crookwell II Wind Farm 8 Part Test – Swift Parrot (Iathamus discolor), URS, 15 November 2004;

(j) Crookwell II Wind Farm Spring Reptiles Survey, URS, 22 December 2004;

(k) Results of an Early Summer Survey for Bats at the Proposed Crookwell 2 Wind Farm, Crookwell, NSW, Glen Hoyer, Fly By Night Bat Surveys Pty Ltd, January 2005;

(l) Memorandum from URS to Gamesa Energy Australia, Crookwell II Wind Farm Shadow Flicker Assessment, dated 16 December 2004;

(m) Email from Gamesa Energy Australia to the Department entitled Fire Risk Issues – Crookwell II, dated 22 December 2004;

(n) Memorandum from URS to Gamesa Energy Australia entitled Crookwell II – Aerial Spraying, dated 15 February 2005;

(o) Crookwell 2 Site Map, Revision 1, dated 03/03/05 by TME Australia Pty Ltd;

(p) Modification Application 176-8-2004-MOD1 including Crookwell II Wind Farm Part 1 – Statement of Environmental Effects and Crookwell II Wind Farm Part 2 – Appendices prepared by Tract Consultants, dated January 2009 and Response to Submissions Received prepared by Tract Consultants, dated April 2009;

(q) Application to modify the development consent (Mod 2), including the Environmental Assessment prepared by Mecone and dated September 2016, and the associated Response to Submissions, dated June 2017; and

(r) Conditions of this Consent.

If there is any inconsistency between the Conditions of this Consent and a document listed above, the Conditions of this Consent must prevail to the extent of the inconsistency. If there is any inconsistency between documents listed above (other than the Conditions of the Consent) then the most recent document must prevail to the extent of the inconsistency.

¹ Incorporates DEC General Terms of Approval (A1.1)

Construction Compliance Report
Crookwell II Wind Farm Project



Compliance Report: All Phases of the Development;

Status: **Ongoing**

Summary: CDPL is carrying out the development in accordance with Condition No. 2 of the Development Consent;

(2A) The Applicant must comply with any reasonable requirement(s) of the Secretary arising from the Department's assessment of:

- (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent;*
- (b) any reports, reviews or audits commissioned by the Department regarding compliance with this consent; and*
- (c) the implementation of any actions or measures contained in these documents.*

Development Phase: All Phases of the Development;

Compliance Report: All Phases of the Development;

Status: **Ongoing**

Summary: No such requirements have been issued by the Secretary yet, in the event of this, CDPL will carry out the development in accordance with Condition No. 2A of the Development Consent;

2.3. Wind Turbines

(3) The Applicant may construct, operate and replace or upgrade as necessary up to 32 wind turbines.

Notes:

- To avoid any doubt, the Applicant does not require additional consent to replace or upgrade wind turbines over time, as long as the replacement or upgrade is carried out in accordance with the conditions of this consent.*
- To identify the approved turbines, see the figure and corresponding GPS coordinates in Appendix 2.*

Development Phase: Construction;

Compliance Report: Prior to Commissioning;

Status: **Ongoing**

Summary: The current plans and construction progress are compliant with condition 3;



2.4. Wind Turbine Height

(4) No wind turbines may be greater than 160 metres in height (measured from above ground level to the blade tip).

Development Phase: Construction;

Compliance Report: Prior to Commissioning;

Status: **Compliant**

Summary: Planned turbine model is in compliance with condition 4;



2.5. Micro-Siting Restrictions

(5) The Applicant may micro-site the wind turbines and ancillary infrastructure without further approval provided:

(a) no wind turbine is moved more than 50 metres from the relevant GPS coordinates in Appendix 2;

(b) turbines F48 and F50 are not moved closer to the residence “Pejar Park” from the relevant GPS coordinates in Appendix 2;

(c) wind turbines F3 and F4 are not moved closer to the western project boundary and associated woodland vegetation;

(d) wind turbine F24 is not moved closer north towards the project boundary and associated woodland vegetation;

(e) wind turbine F31 is not moved to the south-east towards the threatened ecological community;

(f) the wind turbines and ancillary infrastructure do not result in any additional impacts to heritage items; and

(g) the revised location of the wind turbine and/or ancillary infrastructure would not result in any noncompliance with the conditions of this consent.

Development Phase: Construction;

Compliance Report: Construction;

Status: [Ongoing](#)

Summary: The current layout plans and construction progress are in compliance with condition 5. All micro-siting of ancillary infrastructure is risk assessed for environmental, amenity, and heritage impacts under an Ancillary Facilities Assessment or Micro-siting Assessment framework, requiring endorsement from the project Environmental Representative (ER) prior to construction;



2.6. Final Layout Plans

(6) Prior to the erection of any wind turbine, the Applicant must 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;

(b) identification of impacted vegetation communities;

(c) identification of impacted heritage items; and

(d) the GPS coordinates of the final wind turbine locations.

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

Development Phase: Prior to erection;

Compliance Report: Construction;

Status: **Compliant**

Summary: CDPL submitted the required detailed plans to the Secretary on 9 March 2018 prior to erection of any wind turbines. No vulnerable native vegetation communities have been impacted, as per pre-clearing assessments. Heritage impacts have been as per AHIP conditions. The final heritage impact inspection was undertaken on 7 May 2018 and impacts were compliant with AHIPS. Heritage Impact Report is pending;

2.7. Notification to Department

(7) Prior to the erection of any wind turbine, commencement of operation and/or decommissioning of any wind turbine, the Applicant must notify the Department in writing of the date of commencement. If the development is to be staged, then the Applicant must:

(a) 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; and

(b) inform the local community and the Community Consultation Committee about the proposed staging plans.

Development Phase: Staged Consent;

Compliance Report: Prior to erection;

Status: **Compliant**

Summary: Informed Community Consultation Committee at 28 March 2018 meeting, informed the Department of schedule prior to turbine erection;

2.8. Structural Adequacy

(8) The Applicant must ensure that:

(a) 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); and

(b) 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:

1 Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.

2 Part 8 of the EP&A Regulation sets out the requirements for the certification of the development..

Development Phase: Construction;

Compliance Report: Construction and Pre-operation;

Status: [Ongoing](#)

Summary: All works are currently compliant in accordance with Principal Certifying Authority (PCA) approvals;



(9) The Applicant must ensure that all demolition work on site is carried out in accordance with AS 2601-2001: The Demolition of Structures, or its latest version.

Development Phase: Construction;

Compliance Report: Construction and Pre-commissioning;

Status: [Ongoing](#)

Summary: No demolition of structures undertaken or planned;



2.9. Updating and Staging of Strategies, Plans or Programs

(10) With the approval of the Secretary, the Applicant may submit any strategy, plan or program required by this consent on a progressive basis. To ensure

the strategies, plans or programs under the conditions of this consent are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval. With agreement of the Secretary, the Applicant may prepare minor revisions to any strategy, plan or program without undertaking consultation with all the parties referred to under the relevant condition of this consent.

Notes:

- While any strategy, plan or program may be submitted on a progressive basis, the Applicant must ensure that the development being carried out on site is covered by suitable strategies, plans or programs at all times.*
- If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.*

Development Phase: All;

Compliance Report: All;

Status: **Ongoing**;

Summary; Stage 2 CEMP (Rev E V3-3) and associated management sub-plans were endorsed by Project Environmental Representative and submitted to The Department for approval on 13 June 2018.



2.10. Community Enhancement

(11) From the date of the commencement of construction of any wind turbine, unless the Secretary agrees otherwise, the Applicant must maintain the VPA executed with Upper Lachlan Shire Council.

Note: The Applicant and Upper Lachlan Shire Council have executed a VPA for the development in accordance with Division 6 of Part 4 of the EP&A Act, following exhibition of the VPA. A copy of the terms of the VPA is provided in Appendix 3.

Development Phase: Pre-Construction;

Compliance Report: Pre-Construction;

Status: **Compliant**;

Summary; VPA with Upper Lachlan Shire Council is in effect for the operational life of the project.



2.11. Statutory Requirements

Statutory Requirements

(12) The Applicant must ensure that all necessary licences, permits and approvals are obtained and kept up-to-date as required throughout the life of the development. No Condition of this Consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approvals.

Development Phase: All Phases of the Development;

Compliance Report: All Phases of the Development;

Status: [Ongoing](#)

Summary: Each relevant licence, permit and approval that been obtained from the appropriate Government authority as required. Refer to Table 1 below for the status of approvals, licenses and permits.

Table 1:

| Approval Type | Relevant Legislation | Current Status |
|--|--|--|
| Construction Certificate | S 81A(2) of the Environmental Planning and Assessment Act 1979 (NSW) | CDPL have been submitted the wind farm engineering designs to a Principal Certifying Authority and all construction certificates have been issued prior to construction |
| Consents to Destroy / Salvage Aboriginal Relicts | Sections 87 and 90 of the National Parks and Wildlife Act 1974 (NSW) | Permit no 1101268 was issued on 6th February 2005. On 21st April 2009, the Department of Environment and Climate Change transferred the permit previously from the old name to the new name of CDPL. New Aboriginal Heritage Impact Permits (AHIP) C0002771 and C0002925 commenced 5 th September 2017, and all construction work has been in compliance the new AHIPs. |

| Approval Type | Relevant Legislation | Current Status |
|----------------------------------|--|--|
| Roads Act Approvals | Section 138 of the Roads Act 1993 (NSW) | CDPL has provided the requested information to the RTA and have received the Works Authorisation Deed to carry out the required works. CDPL has received approval from Crown Land division of the Department of Lands for a licence to cross any crown roads within the site boundary |
| Controlled Activity Approval | Part 3 of the Water Management Act 2000 (NSW) | CDPL has obtained controlled activity approval for water crossings |
| Infrastructure License | Rail Safety National Law (National Regulations) 2012 | CDPL is complying with all conditions of the license granted by the rail infrastructure manager for a private crossing of disused Goulburn – Crookwell rail line. A modification to the license has been submitted and is currently under review to allow an 11kV cable to be installed under the rail line in the vicinity of the level crossing. |
| Environmental Protection License | Protection of the Environment Operations Act (1997) | CDPL were issued an Environmental Protection License for the project on 7 April 2017. All license conditions are being complied-with. Modification to the license was granted to remove fee-based activities not needed for Stage 2 construction on 19 April 2018 |

2.12. Dispute Resolution

Dispute Resolution

(13) In the event that a dispute arises between the Applicant and Council or the Applicant and a public authority other than the Department, in relation to a specification or requirement applicable under this Consent, the matter must be referred by either part to the Secretary, or if not resolved, to the Minister, whose determination of the dispute must be final and binding on all parties. For the purpose of this condition, “public authority” has the same meaning as provided under Section 4 of the Act.

Note: Section 121 of the Environmental Planning and Assessment Act 1979 provides mechanisms for resolution of disputes between the Department, the Secretary, council and public authorities.

Development Phase: All Phases of the Development;

Compliance Report: All Phases of the Development;

Status: [Ongoing](#)

Summary: No disputes have arisen. This condition will be complied with in the event that such dispute arises;



2.13. Provision and Protection of Public Infrastructure

Provision and Protection of Public Infrastructure

(14) The Applicant must:

(a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and

(b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

Note: The Applicant must ensure that all works are carried out in accordance with the Environmental Planning and Assessment Act 1979 (the Act) and the Local Government Act 1993 (Approvals) Regulations and the Building Code of Australia.

Development Phase: All Phases of the Development;

Compliance Report: All Phases of the Development;

Status: [Ongoing](#)

Summary: No such damage to any public infrastructure has occurred. Any repair or costs associated with repairing, any public infrastructure that is damaged by the development; and relocating, or costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development will be paid by CDPL as the proponent of the wind farm development;



2.14. Compliance

General

(15) The Applicant must be responsible for environmental impacts resulting from the actions of all persons on site, including contractors, subcontractors and visitors.

Development Phase: All Phases of the Development;

Compliance Report: All Phases of the Development;

Status: **Ongoing**

Summary: CDPL are the responsible party for the environmental impacts resulting from the actions of all persons on site, including contractors, subcontractors and visitors (Excluding actions of the landowner(s) and third parties on matters not related to the development);

Pre-Construction Compliance Report

(16) The Applicant must submit a Pre-Construction Compliance Report to the Secretary at least two weeks prior to commencement of construction (or within a time agreed to by the Secretary). The Pre-Construction Compliance Report must include:

- (a) details of how the Conditions of Consent required to be addressed prior to construction have been complied with;*
- (b) details of when each relevant Conditions of Consent was complied with, including submission dates of any required report and/or approval dates; and*
- (c) details of any approvals or licences required to be issued by relevant Government Agencies prior to the commencement of construction.*

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**;

Summary; Report issued 3 June 2009

Pre-Operation Compliance Report

(17) The Applicant must submit a Pre-Operation Compliance Report to the Secretary at least two weeks prior to commencement of operation (or within a time agreed to by the Secretary). The Pre-Operation Compliance Report must include:

- (a) details of how the Conditions of Consent required to be addressed prior to commencement of operation have been complied with;*
- (b) details of when each relevant Conditions of Consent was complied with, including submission dates of any required report and/or approval dates; and*
- (c) details of any approvals or licences required to be issued by relevant Government Agencies prior to the commencement of operation.*

Development Phase: Operation;

Compliance Report: Pre-Operation Compliance Report;

Status: **Compliant**

Summary: This report satisfies the requirements of condition 17;

Construction Compliance Report

(18) The Applicant must provide the Secretary with a Construction Compliance Report. The Environmental Representative must certify the adequacy of the report before it is submitted to the Secretary. The Construction Compliance Report must address the first six months of construction and be submitted within six weeks of the end of that reporting period (or at any other time interval agreed to be the Secretary).

The Construction Compliance Report must include information on:

- (a) compliance with the CEMP and the Conditions of Consent;*
- (b) compliance with any approvals or licences issued by relevant Government Agencies for Construction;*
- (c) the implementation and effectiveness of environmental controls. The assessment of effectiveness should be based on a comparison of actual impacts against performance criteria identified in the CEMP;*
- (d) a summary and analysis of environmental monitoring results;*

- (e) the number and details of any complaints, including a summary of the main areas of complaint, action taken, response given and intended strategies to reduce recurring complaints;*
- (f) details of any review and amendments to the CEMP resulting from construction during the reporting period; and*
- (g) Any other matter relating to compliance with the Conditions of Consent or as requested by the Secretary.*

The Construction Compliance Report must be made publicly available.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Compliant**

Summary: This report satisfies the requirements of condition 18;

(19) The Secretary may require update report(s) on compliance with all, or any part, of the Conditions of Consent. The report (s) must meet the requirements of the Secretary and be submitted within such period as the Secretary may require.

Development Phase: All Phases of the Development;

Compliance Report: As per request of the Secretary;

Status: Not yet applicable

Summary: No such requests have yet been issued. In the event that the Secretary requires such an updated report it will be prepared as required by condition 19;

(20) The Applicant must meet the requirements of the Secretary in respect of the implementation of any measure necessary to ensure compliance with the Conditions of Consent, and general consistency with the documents listed under Condition No. 2 of this Consent. The Secretary may direct that such a measure be implemented in response to the information contained within any report, plan, correspondence or other document submitted in accordance with the Conditions of Consent, within such time as the Secretary may require.

Development Phase: All Phases of Development;

Compliance Report: All

Status: [Ongoing](#)

Summary: No such direction issued as of yet. CDPL will meet the requirements of the Secretary in respect of the implementation of any measure necessary to ensure compliance with the Conditions of Consent, and general consistency with the documents listed under Condition No. 2 of the development consent;

2.15. Environmental Monitoring

(21) The Applicant must undertake all monitoring, including recording and reporting of monitoring results, as required under this consent.

Development Phase: Construction and Operation;

Compliance Report: Construction and Operation Compliance Reports;

Status: [Ongoing](#)

Summary: No specific requirement for environmental monitoring has been triggered under the Environmental Protection License or Consent Conditions. Compliance with monitoring under CEMP protocols and sub-plans is addressed in the separate monitoring summary of this report.

(22) The results of any monitoring required under this consent must be recorded and maintained, as set out below. All records kept must be:

(a) in a legible form, or in a form which can be readily reduced to a legible form;

(b) kept for at least 4 years after the monitoring or event to which they relate took place; and

(c) produced in a legible form to the Secretary of the Department upon request.

Development Phase: Construction and Operation;

Compliance Report: Construction and Operation Compliance Reports;

Status: [Ongoing](#)

Summary: Bird and bat noise data gathered as baseline data for the Bird and Bat Adaptive Management Plan will be retained in accordance with the conditions. Summary and analysis of Environmental monitoring data required in the CEMP is addressed in a separate chapter of this report;

(23) The following records must be kept in respect of any samples required to be collected:

- (a) the date(s) on which the sample was taken;*
- (b) the time(s) at which the sample was taken;*
- (c) the location at which the sample was taken; and*
- (d) the name of the person who collected the sample.*

Development Phase: Construction and Operation;

Compliance Report: Construction and Operation Compliance Reports;

Status: **Ongoing**

Summary: No requirement for environmental testing/sampling has yet been triggered under the Environmental Protection License or Consent Conditions;

2.16. Environmental Impact Audits

Environmental Impact Audit Report – Construction

(24) An Environmental Impact Audit Report – Construction must be prepared and submitted to the Secretary within three months of construction completion, or at any other time interval agreed to by the Secretary. If requested, the Environmental Impact Audit Report – Construction must be provided to other relevant Government Agencies.

The Environmental Impact audit Report – Construction must:

- (a) identify the major environmental controls used during construction and assess their effectiveness;*
- (b) summarise the main environmental management plans and processes implemented during construction and assess their effectiveness;*
- (c) identify any innovation in construction methods used to improve environmental management; and*
- (d) discuss the lessons learnt during construction, including recommendations for future wind farm developments.*

Development Phase: Construction;

Compliance Report: Operation compliance report;

Status: Not yet applicable

Summary: This report will be prepared and submitted to the Secretary within three months of construction completion or within such other time agreed by the Secretary;

Environmental Impact Audit Report – Operation

(25) an Environmental Impact audit Report – Operation must be prepared and submitted to the Secretary within three (3) months after a 24 month period of operation and then at any additional periods requested by the Secretary. If requested, the Environmental Impact Audit Report – Operation must be provided to other relevant Government Agencies and Council.

The Environmental Impact audit Report – Operation must:

- (a) be certified by an independent person at the Applicant's expense. The certifier must be approved by the Secretary prior to the preparation of the Environmental Impact Audit Report – Operation;*
- (b) compare the operations impact predictions made in the EIS and documents identified in Condition 2;*
- (c) assess the effectiveness of implemented mitigation measures and safeguards;*
- (d) assess compliance with the systems for operation maintenance and monitoring; and*
- (e) discuss the results of consultation with the local community particularly any feedback or complaints*

The result of the Audit Report must be used to update the OEMP where necessary. The need or otherwise to update the OEMP must be certified by the Environmental Representative. The Applicant must notify the Secretary, Relevant Government Agencies and Council of any updates to the OEMP and provide a copy on request.

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Construction Compliance Report

Crookwell II Wind Farm Project



Summary: This report will be prepared and submitted to the Secretary within three (3) months after a 24 month period of operation and then at any additional periods requested by the Secretary.

3. ENVIRONMENTAL MANAGEMENT

3.1. Construction Environmental Management Plan (CEMP)

(26) The Applicant must prepare and implement a Construction Environmental Management Plan (CEMP) to outline environmental management practices and procedures to be followed during the construction of the development. The Plan must include, but not necessarily be limited to:

- (a) description of all activities associated with the development to be undertaken on the site during site preparation and construction activities, including an indication of stages of construction, where relevant;*
- (b) statutory and other obligations that the Applicant is required to fulfil during construction, including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;*
- (c) details of how the environmental performance of the site preparation and construction works associated with the development will be monitored, and what actions will be taken to address adverse identified environmental impacts;*
- (d) a description of the roles and responsibilities for all relevant employees involved in construction;*
- (e) specific consideration of measures to address any requirements raised by the Department and the EPA during construction, including a description of measures employed to ensure compliance with the Conditions of Consent relevant to construction;*
- (f) the plans required to be included in the CEMP as specified in the Conditions of Consent; and*
- (g) complaints handling procedures during construction.*

The CEMP must be certified by the Environmental Representative as being in accordance with the Conditions of Consent and be submitted for the approval of the Secretary at least one month prior to the commencement of construction of the development, or within such a period otherwise agreed by the Secretary. Site preparation and construction associated with the development must not commence until written approval for the CEMP has been received from the Secretary. Upon receipt of the Secretary's approval, the Applicant must supply a copy of the CEMP to the EPA and Council as soon as practicable.

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: The primary purpose of the CEMP is to provide documentation in a suitable framework to minimise environmental impacts associated with project activities in accordance with contract requirements, relevant legislation and the stated project objectives for the Crookwell II Wind Farm Project. To achieve this purpose the CEMP covers the following:

- Establish the specific procedures required for the environmental management system;
- Provide a consistent and uniform approach that assures the required standards of environmental protection are attained and maintained for the operation project works;
- Outline the actions to be carried out during the works, while ensuring acceptable environmental protection standards are maintained; and
- Provide Crookwell Development Pty Ltd with verification that the required environmental protection standards have been achieved.

The CEMP was separated into two stages, first the civil and electrical works, the second turbine delivery and installation. The CEMP Stage-1 was submitted to the Department of Planning and approved on 12th May 2009. This Stage-1 management plan outlines the different activities involved in the construction of the wind farm and their descriptions. The work under the Stage 1 Contract includes but is not limited to:

- Compliance with the Occupational Health and Safety, Environmental Protection and Quality System requirements of the Specifications and approvals.
- Permanent and temporary erosion and sedimentation controls.
- Clearing and grubbing.
- Protection of heritage items.
- Construction of access tracks, compound areas and work areas.
- Earthworks to provide footings for new structures and connection points.
- Construction of turbine foundations.
- Trenching and laying down of MV Cables.
- Construction of footings and connections for the new substation building.
- A new substation building and office area.

- Revegetation and rehabilitation of laydown and compound areas and some landscaping works.
- Provisions for property access.
- Demobilisation, clean up and restoration of site

A CEMP Stage-2 has been prepared and endorsed by the Project Environmental Representative and has been issued to DPE for comment;



3.2. Operation Environmental Management Plan

(27) The Applicant must prepare and implement an Operation Environmental Management Plan (OEMP) to detail an environmental management framework, practices and procedures to be followed during the operation of the development. The Plan must include, but not necessarily be limited to:

- (a) identification of all statutory and other obligations that the Applicant is required to fulfil in relation to operation of the development, including all consents, licences, approvals and consultations;*
- (b) a description of the roles and responsibilities for all relevant employees involved in the operation of the development;*
- (c) overall environmental policies and principles to be applied to the operation of the development;*
- (d) standards and performance measures to be applied to the development, and a means by which environmental performance can be periodically reviewed and improved;*
- (e) management policies to ensure that environmental performance goals are met and to comply with the Conditions of Consent; and*
- (f) the Management Plans required to be included in the OEMP as specified in the Conditions of Consent.*

The OEMP must be certified by the Environmental Representative that it is prepared in accordance with the Conditions of Consent. The OEMP is to be submitted for the approval of the Secretary no later than one month prior to the commencement of operation, or within such period otherwise agreed to by the Secretary. Operation must not commence until written approval has been received from the Secretary. Upon receipt of the Secretary's approval, the Applicant must supply a copy of the OEMP to the DEC and Council as soon as practicable.

Development Phase: Operation;

Construction Compliance Report

Crookwell II Wind Farm Project



Compliance Report: Pre-Operation Compliance Report;

Status: Not yet applicable

Summary: An Operational Environmental Management Plan has been drafted and is currently under review by the Project Environmental Representative prior to submission to DPE for review and acceptance at least 1 month prior to commissioning of the wind farm;



3.3. Environmental Representative

(28) Prior to the commencement of construction, the Applicant must nominate a suitably qualified and experienced Environmental Representative(s) whose appointment requires the approval of the Secretary. The Applicant must employ the Environmental Representative(s) on a full-time basis, or as otherwise agreed by the Secretary, during the construction, and commissioning. An Environmental Representative must also be employed during operation. The Environmental Representative must be:

- (a) the primary contact point in relation to the environmental performance of the development;*
- (b) responsible for all Management Plans and Monitoring Programs required under this consent;*
- (c) responsible for considering and advising on matters specified in the conditions of this consent, and all other licences and approvals related to the environmental performance and impacts of the development;*
- (d) responsible for receiving and responding to complaints in accordance with this consent; and*
- (e) given the authority and independence to require reasonable steps be taken to avoid or minimize unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur.*

The Applicant must obtain approval from the Secretary for changes to the appointment of the Environmental Representative during construction. The Applicant must notify the Secretary of any changes to the appointment during operation.

Development Phase: Construction and Operation;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: The Director General approved the appointment of Mr David Bone of On-Site Environmental Management Pty Ltd as the Environmental Management Representative for the Crookwell II Wind Farm project on 7th April 2009. Mr Bone reviewed and endorsed the CEMP Stage-1 on 5th May 2009 and the CEMP Stage-2 on 11 June 2018. Mr Bone has continued to act as the Environmental Representative for the period of construction to-date;

4. COMMUNICATION AND CONSULTATION

4.1. Advice of Construction Activities

(29) Subject to confidentiality, the Applicant must make all relevant documents required under this Consent available for public inspection upon request, including provision of all documents at the site for inspection by visitors. Copies of the current version of all approved management plans and sub-plans must be made publicly available via a website maintained by the Applicant.

Development Phase: Construction and Operation;

Compliance Report: All Phases of the Development;

Status: **Compliant**

Summary: Subject to confidentiality, all relevant documents required under this consent are available for public inspection upon request and copies of current versions of approved management plans and sub-plans are available at <http://www.unionfenosa.com.au>



4.2. Construction Complaints Management System

(30) Prior to the commencement of Construction of the development, the Applicant must ensure that the following are available for the community for the life of the development:

(a) a telephone number on which complaints about operations associated with the development on the site may be registered;

(b) a postal address to which written complaints may be sent; and

(c) an email address to which electronic complaints may be transmitted.

The telephone number, the postal address and the email address must be advertised prior to the commencement of construction and quarterly until construction is completed.

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: A Complaints Management System has been provided to allow the community to contact and register their concerns regarding the wind farm development. Sub Plan 2 of the approved CEMP describes this process.

The contact details are:

- Telephone: 1800 457 181 (Free Call)
- Postal Address: Suite 4, Level 3, 24 Marcus Clarke Street, Canberra ACT 2600
- Email: crookwell2@unionfenosa.com.au and
- Email: crookwell2windfarm@unionfenosa.com.au

CDPL's contact details were advertised in the Goulburn Post prior to the commencement of construction on Friday 5th June 2009, Monday 8th June 2009, and Wednesday 10th June 2009, and these details were provided in each CDPL newsletter. After change of address in 2017 the contact details were updated on the project's website and host landholders formally notified. During construction the contact details have been notified directly through the project newsletter;

(31) The Applicant must keep a legible record of all complaints received in an up-to-date Complaints Register. The Register must 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 Applicant in relation to the complaint, including any follow-up contact with the complainant; and*
- (f) if no action was taken by the Applicant in relation to the complaint, the reason(s) why no action was taken.*

The Complaints Register shall be made available for inspection on request of the Secretary or an authorised officer of the EPA. The record of a complaint must be kept for at least four years after the complaint was made.

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: The complaints register has been established and is operating in accordance with condition 31;

4.3. Community Information Plan (CIP)

Community Information Plan (CIP)

(32) A Community Information Plan (CIP) shall be prepared prior to the commencement of Construction. The CIP shall set out the community communications and consultation processes to be undertaken during the Construction period of the project. The Plan shall include but not be limited to:

- (a) procedures to inform the local community of planned investigations and construction activities, including planned construction activities outside standard construction hours;*
- (b) procedures to inform the relevant community of construction traffic routes and any likely disruptions to traffic flows and amenity impacts;*
- (c) procedures to consult with local landowners in regards to construction traffic to ensure safety of livestock and limited disruption to livestock movements;*
- (d) procedures to inform and consult with impacted residences entitled to visual impact mitigation measures;; and*
- (e) procedures to notify relevant properties of the processes available to review potential impacts on television and radio transmission.*

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: To ensure that the impact of the construction works on the local community is minimised and to ensure that the community are informed of construction activities and potential impacts, CDPL has developed a Community Information Plan. The plan aims to:

- inform the community of all construction activities that may impact on members of the community.
- seek the community's input into management practices that will minimise construction impacts.

- incorporate the community's input into management practices and continually review management practices over the construction period to meet community concerns as necessary.
- keep the community informed of construction progress and timing and where relevant inform the community about specific events (e.g. concrete pouring).
- inform and consult with residents in relation to landscaping and telecommunication.

The CIP was included as a sub-plan in approved CEMP Stage-1, and the Director General requested more information regarding livestock movement and notification to the relevant landowners, and also additional information regarding radio transmission.

A request and a letter was sent to the Tablelands Livestock Health and Pest Authority in Goulburn to identify any current livestock movement permits in the vicinity of the wind farm development. Tablelands Livestock Health and Pest Authority have identified 4 current livestock movement permits in the vicinity of the wind farm development, these permits are issued to:

- a participating landowner for activity across the Crookwell Road to and from the wind farm site boundaries;
- non-participating landowner, for movement between Middle Arm Road and Woodhouselee Road which is several kilometres north of the development travel route and hence the livestock movement will not be affected;
- non-participating landowner, for movement between Chinamans Lane and Crookwell Road which is not crossing the Crookwell Road and hence not directly in the development travel path, this landowner has been contacted and notified about the construction vehicle travel path along Crookwell Road;
- non-participating landowner, for movement between 631, 385 & 165 Woodhouselee Road which will be on route of the site access for East of Wollondilly River, this landowner has been contacted and notified of the travel route and kept updated on the construction vehicle movements along Woodhouselee Road;

The radio transmission has been conducted in conjunction with the television transmission survey;



4.4. Community Consultation Committee (CCC)

(33) The Applicant must operate a Community Consultative Committee for the development to the satisfaction of the Secretary, in accordance with the Community Consultative Committee Guidelines for State Significant Project (2016), or its latest version.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Compliant**

Summary: The community consultative committee has been established and is operating in accordance with the Community Consultative Committee Guidelines for State Significant Project (2016). Committee minutes available at; <http://www.unionfenosa.com.au/nsw-crookwell-2-project-documents/>



5. VISUAL AMENITY

5.1. Acquisition Upon Request

(34) For a period of 5 years from the commencement of erection of any of the applicable wind turbines, the owner of the land listed in Table 1 may request the Applicant to acquire their land. Upon receiving a written request from this owner, the Applicant must acquire the land in accordance with the procedures in conditions 1 and 2 of Appendix 4. However, this condition does not apply if the Applicant has an agreement with the owner of the relevant land in regard to the visual impacts associated with the development, and the Applicant has advised the Department in writing of the terms of this agreement.

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: This condition is effective for the first 5 years of operation;

5.2. Notification of Landholders

(35) Prior to the commencement of erection of any wind turbine, the Applicant must notify the owners of:

(a) the land listed in Table 1 of the conditions of this consent of their rights under condition 34; and

(b) any residence not associated with the development within 4 km of any approved wind turbine of their rights under condition 38 of this consent.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Compliant**

Summary: Notification letters issued to each property prior to erection of any turbines on 5–6 March 2018.

5.3. Landscaping Requirements

(36) Prior to the commencement of operation of the development, the Applicant must prepare an On-Site Landscaping Plan. The On-Site Landscaping Plan is to address the visual impacts of the development as far as is reasonable and feasible including the turbines, site access roads, the substation, and the control and facilities building. The On-Site Landscaping Plan is to include, but not limited to:

- (a) identification of locations for planting and landscaping;*
- (b) identification of species to be planted; and*
- (c) details of the maintenance program for on-site landscaping associated with the development*

The On-Site Landscaping Plan is to be implemented within six months of commencement of operation.

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: The On-Site Landscaping Plan will be prepared and implemented within six months of commencement of the operation phase;

(37) Prior to the commencement of operation, the Applicant must prepare a Roadside Landscape Management Plan for Crookwell Road. The Roadside Landscape Management Plan is to reasonably and feasibly screen the visual impact of the wind turbines located along Crookwell Road (between Pejar road and the northern boundary of the site). The Roadside Landscape Management Plan is to be developed in consultation with the RTA, Council and land owners abutting Crookwell Road as bounded by the site. The Roadside Landscape Management Plan must include, but not limited to:

- (a) identification of locations for plantings along Crookwell Road that will visually screen sections of the Crookwell II Wind Farm. Locations of plantings are not to compromise sight lines or clear zones, in accordance with the RTA Road Design Guide;*

(b) identification of species to be utilised that will provide effective screening from the road. Use of fast growing species is encouraged, where appropriate; and

(c) details of the maintenance program.

The Roadside Landscaping Management Plan is to be implemented within six months of commencement of operation.

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: The Roadside Landscaping Management Plan will be prepared and implemented within six months of commencement of the operation phase;

(38) For a period of 5 years from the commencement of the erection of any wind turbine, the owner of any non-associated residence within 4 km of any wind turbine may ask the Applicant to implement visual impact mitigation measures on their land to minimise the visual impacts of the development on their residence (including its curtilage).

Upon receiving such a written request from the owner of these residences, the Applicant must implement appropriate mitigation measures (such as landscaping and vegetation screening) in consultation with the owner.

These mitigation measures must be reasonable and feasible, aimed at reducing the visibility of the wind turbines from the residence and its curtilage, and commensurate with the level of visual impact on the residence.

All mitigation measures must be implemented within 12 months of receiving the written request, unless the Secretary agrees otherwise.

If the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

Notes:

- To avoid any doubt, mitigation measures are not required to be implemented to reduce the visibility of wind turbines from any other locations on the property other than the residence and its curtilage.*

- *The identification of appropriate visual impact mitigation measures will be more effective following the construction of the wind turbines. While owners may ask for the implementation of visual impact mitigation measures shortly after the commencement of the erection of the turbine, they should consider the merits of delaying this request until the relevant wind turbines are visible from their residence.*

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: This condition is in effect for the first 5 years after commissioning;

(39) The wind turbines must be painted matt off-white/grey. The blades are to be finished with a surface treatment that minimises any potential for glare or reflection.

Development Phase: Operation;

Compliance Report: Pre-Operation Compliance Report;

Status: **Compliant**

Summary: The wind turbines are painted matt off-white. The blades are finished with a surface treatment that minimises any potential for glare or reflection as per manufacturer's specifications;

(40) No advertising, signs or logos are to be mounted on the turbines, except where required for safety purposes.

Development Phase: Operation;

Compliance Report: Pre-Operation Compliance Report;

Status: **Compliant**

Summary: No advertising, signs or logos will be mounted on the turbines, except where required for safety purposes;

5.4. Lighting

(41) During construction, the Applicant must take all practicable measures to minimise any off-site lighting impacts from the development. In particular, the Applicant must ensure that no lights cause an adverse impact to any private residences or public roads.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Ongoing**

Summary: All practicable measures are being taken to minimise any off-site lighting impacts from the development. The normal hours of the construction work is as described in Section 2.8 of the approved CEMP Stage-1 and Stage-2. Out of hours work is minimised and undertaken after assessment of impacts, and in consultation with potentially affected stakeholders. All out of hours work is conducted in compliance with consent conditions and EPL conditions and subject to Out Of Hours Permit, neighbour notification, and where applicable, notification of EPA and approval of The Secretary.

(42) The Applicant must:

(a) minimise the off-site lighting impacts of the development;

(b) ensure that any aviation hazard lighting complies with CASA's requirements;

(c) ensure that all external lighting associated with the development (apart from any aviation hazard and construction lighting):

** is installed as low intensity lighting (except where required for safety or emergency purposes);*

** does not shine above the horizontal;*

** uses best management practice for bat deterrence; and*

** complies with Australian Standard AS 4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting, or its latest version.*

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: This condition will be complied with upon commissioning.

5.5. Shadow Flicker

(43) The Applicant must ensure that shadow flicker from operational wind turbines does not exceed 30 hours per annum at any residence not associated with the development.

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: **Compliant**

Summary: Shadow flicker modelling shows that there are no non-host dwellings which will experience shadow flicker >30h per year.

6. NOISE AND VIBRATION

6.1. Construction Noise and Vibration Management Sub Plan

(44) As part of the CEMP for the development, the Applicant shall prepare and implement a Construction Noise and Vibration Management Plan. The Plan shall include, but not be limited to:

- (a) details of construction activities, including timing, duration and predicted noise levels;*
- (b) best management practices to minimise noise resulting from construction activities;*
- (c) reasonable and feasible noise mitigation measures;*
- (d) compliance monitoring methods and program;*
- (e) community consultation and a community information program to inform residents when they are likely to be affected by construction noise;*
- (f) a complaints handling and complaints monitoring program, including details of a contact person to follow up complaints; and*
- (g) contingency measures to deal with incidents when noise complaints have been received, including feedback on appropriate noise amelioration processes put in place in response to complaints and the timeframe for the introduction of these measures. The feedback must be provided to the complainant.*

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: [Ongoing](#)

Summary: The primary purpose of the Noise and Vibration Management Plan is to minimise noise impact of construction activities on nearby residences, and to minimise vibration impact of construction activities on nearby residences.

The Noise and Vibration Management Plan is the Sub-Plan 3 of the approved CEMP, this sub-plan outlines the construction activities, construction hours (as permitted by the Conditions of Consent and EPL), best management practices which describes the measures that were adopted to minimise noise from construction activities, compliance monitoring program, community consultation and complaints management in relation to noise management in accordance with Section 7.6 of the CEMP, and mitigation measures. As of yet, no complaints have been received regarding noise from the project;

6.2. Construction Hours

(45) Construction activities associated with the development, including heavy vehicles entering and exiting the site, may only be carried out between 7:00 am and 6:00 pm, Monday to Friday inclusive, and between 7:00 am and 1:00 pm on Saturdays. The following activities may be carried out in association with construction outside of these hours:

- (a) any works that do not cause noise emissions to be audible at any nearby residences not located on the site;*
- (b) the delivery of materials as requested by Police or other authorities for safety reasons; and*
- (c) emergency work to avoid the loss of lives, property and/or to prevent environmental harm.*

Any work undertaken outside the specified construction hours, other than those specified in (a) – (c) of this Condition, must not be undertaken without prior consent of the Secretary.

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: [Ongoing](#)

Summary: As stated in Section 2.8 of the approved CEMP, the construction activities associated with the development, will only be carried out between the following hours:

- Monday to Friday: 7:00 am and 6:00 pm
- Saturdays: 7:00 am and 1:00 pm.
- Sundays: Nil

The following activities may be carried out in association with construction outside of these hours:

- any works that do not cause noise emissions to be audible at any nearby residences not located on the site;
- the delivery of materials as requested by Police or other authorities for safety reasons; and
- emergency work to avoid the loss of lives, property and/or to prevent environmental harm.

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Works have been carried-out outside of hours, subject to prior assessment including noise level estimation for specific plant used, and distance of works from site boundaries, to ensure compliance with the above criteria. The assessments identified that the works met the requirements of COA 45 and were reviewed by the Project ER and endorsed prior to commencement.

In the event that it is required to undertake other works outside the above construction hours prior consent will be obtained from the Secretary, and EPA will be notified;



6.3. Construction Noise Mitigation

(46) The Applicant is required to inform in writing residences located on Woodhouselee Road between Crookwell Road and the access way to the site, of dates and times of concrete pours, at least two weeks prior to the concrete pours occurring. The Applicant is to inform residents of potential noise and amenity impacts associated with increased levels of traffic along this road.

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: Due to the frequency of concrete pours within a confined timeframe, a blanket written notification was issued to all residents on Woodhouselee Rd between Crookwell Rd and the site entrance for the construction period. No representations were made by residents in response to the notification and no noise complaints have yet been received. Written notification of increased traffic activity was also issued to all residents on Woodhouselee Rd prior to delivery of turbine components on 5-6 March 2018.

(47) The Applicant is to provide reasonable and feasible noise mitigation measures at the residences named as at the date of this Consent as “Meadowvale” and “Snowgums” during the construction period, to reduce noise from the construction vehicles. The noise mitigation measures shall be provided, prior to the commencement of Construction on the eastern side of the Wollondilly River, as agreed with by the owners of these dwellings. If an agreement between the Applicant and land owner(s) is unable to be reached, a report outlining proposed mitigation measures and the consultation process, is to be forwarded to the Director-General for review and determination, prior to the commencement of Construction on the eastern side of the Wollondilly River.

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: A letter was sent to the residence of “Meadowvale” and “Snowgums” regarding the noise mitigation measures during the construction period for the use

of the approved road as the site access point going past their dwellings. Mitigation measures were approved by the Department after the negotiation process and these measures were implemented by the builder during construction;

6.4. Operation Noise Criteria

(48) The Applicant must ensure that the noise generated by the operation of wind turbines does not exceed the relevant criteria in Table 2.

Table 2: Noise criteria dB(A)

| Residence | Criteria (dB(A)) Referenced to Hub Height Wind Speed (m/s) | | | | | | | | | |
|--|--|----|----|----|----|----|----|----|----|------------|
| | 3 or less | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 or more |
| R1, 1a, 8 | 35 | 35 | 35 | 35 | 35 | 35 | 36 | 38 | 41 | 45 |
| R19 | 35 | 35 | 35 | 35 | 35 | 35 | 37 | 38 | 41 | 43 |
| R20, 117, 118, 119 | 35 | 35 | 35 | 35 | 35 | 35 | 36 | 38 | 41 | 43 |
| R58, 59 | 35 | 35 | 35 | 35 | 35 | 36 | 38 | 39 | 41 | 42 |
| R60, 61, 62 | 35 | 35 | 35 | 35 | 35 | 36 | 38 | 40 | 43 | 45 |
| R64, 65 | 35 | 35 | 35 | 35 | 35 | 38 | 41 | 43 | 46 | 48 |
| R69, 70 | 35 | 35 | 35 | 35 | 35 | 35 | 38 | 40 | 44 | 46 |
| R71, 73 | 35 | 35 | 35 | 35 | 35 | 37 | 40 | 42 | 45 | 48 |
| R106 | 37 | 38 | 39 | 40 | 42 | 44 | 45 | 47 | 49 | 51 |
| R120, 123, 130, 131 | 35 | 35 | 35 | 36 | 37 | 38 | 39 | 41 | 42 | 44 |
| All other residences not associated with the development and wind speeds > 12m/s | The higher of 35 dB(A) or the existing background noise level plus 5 dB(A) | | | | | | | | | |

Note: To identify the residences referred to in Table 2, see the applicable figure in Appendix 2.

Noise generated by the operation of the wind turbines is to be measured in accordance with the relevant requirements of the Department's Wind Energy: Noise Assessment Bulletin (2016) (or its latest version) and the provisions in Appendix 5. 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.

However, these criteria do not apply if the Applicant has an agreement with the relevant owner/s of these residences to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: **Ongoing**

Summary: The noise compliance strategy for operation has been prepared and submitted to DPE for assessment on 22 June 2018;

6.5. Operational Noise Criteria – Ancillary Infrastructure

(49) The Applicant must ensure that the noise generated by the operation of ancillary infrastructure does not exceed 35 dB(A) LAeq(15 minute) at any residence not associated with the development. Noise generated by the operation of ancillary infrastructure is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy (or its equivalent).

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: The noise limits will be complied with and this will be verified by the Noise Compliance Assessment Plan;

6.6. Operational Noise Monitoring

(50) The Applicant must prepare a Noise Compliance Strategy which must be submitted to and approved by the Secretary prior to commissioning of the wind turbines. The Noise Compliance Strategy must describe the process by which any noise management modes or sector management can be verified and outline how the noise criteria will be achieved.

Development Phase: Operation;

Compliance Report: Pre-Operation Compliance Report;

Status: [Ongoing](#)

Summary: General Electric, on CDPL's behalf as the proponent has prepared a Noise Compliance Strategy prior to commissioning in accordance with condition 50. The noise compliance strategy for operation was submitted to DPE for assessment on 22 June 2018. Baseline noise monitoring at sensitive receivers has been undertaken;

(51) Within 3 months of the commencement of operations (or the commencement of operation of a cluster of turbines, if the development is to be staged), the Applicant must:

(a) undertake noise monitoring to determine whether the development is complying with the relevant conditions of this consent; and

(b) submit a copy of the monitoring results to the Department and the EPA..

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: Noise monitoring will be undertaken and results submitted to the Department and the EPA in accordance with condition 51;

(52) The Applicant must undertake further noise monitoring of the development if required by the Secretary.

Development Phase: Any;

Compliance Report: Any;

Status: Not yet applicable

Summary: Noise monitoring of the development will be undertaken upon the request of the Secretary in accordance with condition 52;



6.7. Blasting and Vibration

(53) The overpressure level from blasting operations associated with the development must not:

(a) exceed 115dB (Lin Peak) for more than five per cent of the total number of blasts; and

(b) exceed 120dB (Lin Peak) at any time. The overpressure level is to be measured at any point that is located at least 3.5 metres from any building or structure at any nearby residence not associated with the wind farm or other noise sensitive receiver location such as a school or hospital.

Development Phase: Construction;

Compliance Report: Construction Compliance Report, Pre-Operation Compliance Report;

Status: **Compliant**

Summary: One blast was undertaken on 14 February 2018 at WTG 1.1 (Monument Hill). A blast management plan was prepared to ensure compliance with condition 53, and noise and vibration monitoring recorded levels well below the criteria;



(54) Ground vibration (peak vector sum) from the blasting operations associated with the development must not:

(a) exceed 5mm/s for more than five percent of the total number of blasts during construction; and

(b) exceed 10 mm/s at any time.

Ground vibration is to be measured at any point that is located at least 3.5 metres from any building or structure at any nearby residence not associated

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Crookwell II Wind Farm Project



Development Phase: Construction;

Compliance Report: Construction Compliance Report, Pre-Operation Compliance Report;

Status: **Compliant**

Summary: One blast was undertaken, a blast management plan was prepared to ensure compliance with condition 54, and noise and vibration monitoring recorded levels well below the criteria;

(55) Blasting operations associated with the development may only take place:

(a) between 9.00am and 5.00pm Monday to Friday;

(b) between 9.00am to 12.00pm Saturday; and

(c) at such other times or frequency as may be approved by the Secretary.

Development Phase: Construction;

Compliance Report: Construction Compliance Report, Pre-Operation Compliance Report;

Status: **Compliant**

Summary: One blast was undertaken, a blast management plan was prepared to ensure compliance with condition 55, and the blast proceeded within the allotted timeframes

7. TRAFFIC

7.1. Traffic Management Plan

(56) As part of the CEMP, a Construction Traffic Management Plan must be prepared in consultation with Upper Lachlan and Goulburn Mulwaree Council, the RMS and NSW Police, to manage traffic related issues associated with the development during the construction period. The Plan must identify:

- (a) designated transport routes for heavy vehicles to the site, in consultation with relevant councils and the RMS;*
- (b) details of procedures to minimise traffic disruption including through Goulburn and in the vicinity of the site;*
- (c) procedures to minimise disturbance from traffic noise;*
- (d) procedures to manage construction traffic to ensure the safety of:*
 - livestock and limit disruption to livestock movement;*
 - school children and limit disruption to school bus timetables;*
- (e) a community information program to inform the community of traffic disruptions resulting from the construction program; and*
- (f) details of complaints management procedures for traffic impacts.*

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: [Ongoing](#)

Summary: The Construction Traffic Management Plan describes the traffic management practices to be implemented in order to provide a safe working environment for all site personnel and to ensure that the works are completed with minimal disruption to traffic flows.

A Stage 1 Construction Traffic Management Plan was included as Sub-Plan 4 of the approved CEMP Stage-1 for the traffic impacts associated with all construction phases other than those relating to turbine delivery and installation. A separate Construction Traffic Management Plan for the haulage of the wind towers, turbines and blades has been produced prior to the delivery of the turbines for inclusion in the Stage-2 CEMP.

The traffic management strategy for the Project is a tiered approach, with three basic requirements. In order of priority they are:

- To ensure the safety of road users and the construction workforce. This is the primary requirement and overrides all other considerations,
- To limit the impact of any delays and inconvenience to the travelling public, including buses to within the prescribed acceptable limits, and
- To permit the efficient and timely construction of the Works.

The Construction Traffic Management Plan (CTMP) is the first level and contains the guidelines, general requirements and procedures being used when activities or areas of work have a potential to impact on Crookwell Rd (State Road 54), Woodhouselee Road (Council Road) and local traffic, particularly through Goulburn

During upgrades to Woodhouselee Road South, and for the periods of time where speed reductions have been in force on Crookwell Road to facilitate deliveries, there have been no incidents or complaints received in regard to the operation of traffic control in accordance with the CTMP. There have been seven complaints lodged in regard to speed of construction trucks on Woodhouselee Road, and one regarding trucks parking at the bus stop at the corner of Woodhouselee Road and Crookwell Road outside of traffic controlled or speed limited areas. These complaints have been addressed to the satisfaction of the concerned parties.

7.2. Construction Transport Routes

(57) The Applicant must ensure that all heavy or over-dimensional vehicles entering or leaving the site use the designated heavy and over-dimensional vehicle routes for the development (see the figures in Appendix 8), unless the applicable roads authority agrees otherwise.

Note: The Applicant is required to obtain relevant permits under the Heavy Vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network.

Development Phase: Construction and Operation;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: Heavy haulage permits have been granted for the approved route from Port Kembla to site as per the route design study undertaken by the haulage contractor.

7.3. Site Access

(58) All vehicular traffic associated with the development must access the site at the 3 approved site entry points only (see the figures in Appendix 8).

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: During operation, all vehicles will access the site via the three approved site entry points.



7.4. Road Dilapidation Report

(59) Prior to the commencement of construction, the Applicant must undertake a 'before' road dilapidation report utilising the ARRB 'laser car', or an alternative method agreed with Council, to assess the existing condition of Woodhouselee Road between Crookwell Road and the site access point on Woodhouselee Road. The report must be undertaken in conjunction with Council's Director – Works.

Following completion of construction, and prior to the commencement of operation, an 'after' road dilapidation report utilising the ARRB 'laser car', or an alternative method agreed with Council, must be prepared in consultation with Council to determine the works required by the Applicant to restore the road to at least its pre-development condition.

The applicant must restore the road to a standard no less than recorded in the initial dilapidation report, unless the damage can be reasonably attributed to influences other than the development. The Applicant must restore the road to at least its pre-development condition, to the satisfaction of Council within three (3) months of the commencement of operation, unless otherwise agreed by Council.

Development Phase: Construction;

Compliance Report: Pre-Construction and Construction Compliance Report;

Status: **Compliant**

Summary: In consultation with the RTA, Upper Lachlan Shire Council and the Department of Planning, CDPL has approval utilise the accredited 'Laser Car' from

Fugro PMS to perform this task. Fugro PMS have carried out this road survey and collected the required data on Thursday 28th May 2009 and prepared their road dilapidation report. Prior to upgrade works to Woodhouselee Road South, the civil works contractor, BMD, prepared an updated Road Dilapidation report including video footage of the road surface. Upper Lachlan Shire Council met with CDPL and BMD representatives on 1 November 2017 to discuss ongoing maintenance of Woodhouselee Rd, and the parties have been working together to maintain the road to an acceptable standard where degradation has occurred. Another video dilapidation report has been prepared by CDPL prior to heavy haulage of components on Woodhouselee Rd to identify any damage caused by oversize/over-mass vehicles. Within 3 months after commissioning, the road will be repaired in accordance with condition 59;

7.5. Road Upgrades

(60) Prior to the commencement of heavy vehicle movements to and from the development on the western side of the Wollondilly River and to the satisfaction of the RMS, the Applicant must complete the construction of site access points along Crookwell Road to a minimum 'BAL', 'BAR' treatment in accordance with the Austroads Guide to Road Design (as amended by RMS supplements). Detailed drawings of the access points along Crookwell Road must be approved by the RMS prior to the commencement of these road works.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Compliant**

Summary: CDPL provided to the RMS (Formerly RTA) the requested information for execution of the RTA Works Authorisation Deed as a commencement of the road upgrade process. The RTA issued CDPL with a Works Authorisation Deed to commence the design and construction of the upgrade. As concrete trucks, gravel trucks and semi-trailers are required to bring materials and road making machinery to the site for the provisions of these road upgrades to satisfy this condition, it is assumed that they are not considered as 'heavy vehicle movements', and hence 'heavy vehicle movements' is then considered to be the turbine delivery (Nacelle, hub, 3x tower sections, 3x blades for each turbine) and the High Voltage Transformer delivery which require escorts, permits and special road signage.

The correct BAR and BAL treatments for site access on Crookwell Rd has been utilised, in accordance with Austroads Guide in accordance with condition 60;

(61) Prior to the commencement of heavy vehicle movements to and from the development east of the Wollondilly River, the Applicant must complete the following works at the intersection of Crookwell Road and Woodhouselee Road, to the satisfaction of the RMS and Council:

(a) upgrade the junction of Crookwell Road and Woodhouselee Road in order to provide a sheltered right turn bay (CHR) in accordance with the RMS Road Design Guide; and

(b) widen Woodhouselee Road at the junction of Crookwell Road in accordance with the RMS Road Design Guide

Detailed drawings of the upgraded intersection are to be approved by the RMS and Council prior to the commencement of these road works.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Compliant**

Summary: CDPL provided to the RMS (Formerly RTA) the requested information for execution of the RTA Works Authorisation Deed as a commencement of the road upgrade process. The RTA issued CDPL with a Works Authorisation Deed to commence the design and construction of the upgrade. As concrete trucks, gravel trucks and semi-trailers are required to bring materials and road making machinery to the site for the provisions of these road upgrades to satisfy this condition, it is assumed that they are not considered as 'heavy vehicle movements', and hence 'heavy vehicle movements' is then considered to be the turbine delivery (Nacelle, hub, 3x tower sections, 3x blades for each turbine) and the High Voltage Transformer delivery which require escorts, permits and special road signage.

The correct upgrades for the Woodhouselee Rd, Crookwell Rd intersection has been utilised, in accordance with Austroads Guide and the approved plans in accordance with condition 61;

(62) Prior to the commencement of heavy vehicle movements to and from the development east of the Wollondilly River, the Applicant must complete works along Woodhouselee Road, to the satisfaction of the Council. The works must comply with the following requirements unless otherwise agreed by Council:

- (a) construction of site access points and turning bay along Woodhouselee Road with a minimum of 180m stopping sight distance for approaching traffic;*
- (b) road realignment in both the vertical and horizontal axes to allow over-sized and over dimensioned vehicles to pass;*
- (c) construction of a temporary creek crossing at Pejar Creek (chainage 6.16km from Crookwell Road) and strengthening of one bridge (chainage 8.03km from Crookwell Road) by additional temporary supports for the duration of the construction period; and*
- (d) upgrading the bitumen sealing of Woodhouselee Road pavement between chainages 12.00 kilometres and 14.25 kilometres from Crookwell Road.*

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report, Construction compliance report;

Status: [Ongoing](#)

Summary: CDPL in consultation with the Upper Lachlan Council's Director of Works, identified the most appropriate site access point location which would provide a minimum 180m stopping sight distance for approaching traffic. The access point to the site was installed accordingly.

A bridge and culvert assessment has been carried out for the Pejar Creek Crossing based on the estimated weight of the equipment (largest weight is the High voltage transformer ~100t, 14t axle-loading) that needs to traverse this bridge. The assessment highlights that the bridge is structurally capable to withstand the proposed weights. A copy of this report has been forwarded to the Upper Lachlan Council's Director of Works.

The upgrading of the bitumen sealing of Woodhouselee Road pavement between chainage 12km and 14.25km from Crookwell Road has not yet taken place. CDPL will provide the necessary funds to ULSC to undertake the works as per their agreement. No abnormal wear of the unsealed section has taken place as a result of construction activities, as access to the site is via Woodhouselee Road South;

(63) All roadworks along Woodhouselee Road required under this Consent are to be designed and constructed to Council's version of AUS-SPEC Design and Construction specifications or alternative specifications that meet the minimum requirements of AUS-SPEC. detailed drawings of the access points along Woodhouselee Road must be approved by the Council prior to the commencement of these road works.

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: Upgrades to Woodhouselee Road South did not require any design change, as the scope of works was confined to seal rehabilitation. The works were routinely checked by Council's Surveillance Officer and a certificate of practical completion has been issued by Council.

(64) All works along Crookwell Road and Woodhouselee Road must be undertaken by a pre-qualified accredited contractor with the relevant road authority (ies).

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: In consultation with the RMS, Upper Lachlan Shire Council, CDPL appointed contractors who are qualified and accredited to carry out the required road works;

(65) Prior to the commencement of construction, all road work design and specification relating to the development must be completed and certified by an appropriately qualified person that all roads within the site are of an acceptable design standard for the traffic generating requirements of the development.

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Crookwell II Wind Farm Project



Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: All internal road work design and specification relating to the development has been certified by an appropriately qualified person prior to construction;



7.6. Crown Roads

(66) Elements of the development that impact upon Crown Public Roads, are to be dealt with in accordance with the provisions of the Roads Act 1993.

Development Phase: Construction and Operation;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: In consultation with the Crown Land division of the Department of Lands, CDPL has identified several locations where the wind farm development infrastructure crosses old crown roads within the site boundary. CDPL has acquired a licence to cross these locations;



(67) The Applicant must legalise any proposed works on the Crown Public Roads system within the site, by means of easements, licences and purchases.

Development Phase: Construction and Operation;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary; In consultation with the Crown Land division of the Department of Lands, CDPL has identified several locations where the wind farm development infrastructure crosses old crown roads within the site boundary. CDPL has acquired a licence to cross these locations;



(68) The Applicant is to undertake rehabilitation of disturbed areas within the Crown Public Roads system within two (2) years of completion of the construction as directed by the DPI – Lands and Forestry or any other authorised parties.

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: The required rehabilitation of disturbed areas (if any) will be addressed within two years of completion of the construction as directed by the Department of Lands or any other authorised parties;

(69) The Applicant must indemnify and keep indemnified the Crown and the Minister for Lands and Forestry against all claims arising out of the use and occupation of the Crown Public Roads in relation to works associated with this development.

Development Phase: Construction and Operation;

Compliance Report: Pre-Construction Compliance Report;

Status: **Ongoing**

CDPL as the proponent for the Crookwell II Wind Farm will indemnify and keep indemnified the Crown and the Minister for Lands against all claims arising out of the use and occupation of the Crown Public Roads in relation to works associated with this development within the site boundary;

7.7. Operational Traffic

(70) Prior to commencement of operation of the development, all works relating to permanent vehicle access to the site must be completed. Permanent access from Woodhouselee Road must be completed to the satisfaction of Council and comply with the following requirements unless otherwise agreed by Council:

- (a) access points must have an adequate sight stopping distance (180 metres minimum) available in both directions;*
- (b) any gate must be so located that there is sufficient distance for a vehicle (rigid truck) to stand clear of the road; and*
- (c) the driveway must be sealed for a minimum distance of 50 metres measures from the edge of the Woodhouselee Road pavement.*

Development Phase: Operation;

Compliance Report: Pre-Operation Compliance Report;

Status: **Compliant**

Summary: All works relating to the permanent vehicle access to the site have been completed to the satisfaction of Council prior to commencement of the operation phase. A Certificate of Practical Completion was issued by Upper Lachlan Shire Council on 8 May 2018;



7.8. Road Safety

(71) The Applicant must, in consultation with the RMS and Council, identify any road safety changes along Crookwell Road (between Pejar Road and the northern boundary of the site), that may have arisen during the first 12 months of operation. Road safety changes must include, but not be limited to, any change in accident rates. The Applicant must implement any reasonable and feasible mitigation measures as required by the RMS, to address any road safety impacts that could be attributable to the development.

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: **Ongoing**

Summary: Road safety changes (if any) arising during the first 12 months of operation will be identified and reasonable and feasible mitigation measures

implemented in consultation with the RMS and Upper Lachlan shire Council. Road accident data has been requested from RMS;

8. HERITAGE

8.1. Protection of Aboriginal Heritage Items

(72) The Applicant must:

(a) ensure the development does not cause any direct or indirect impacts on Aboriginal heritage items, unless otherwise authorised under the NP&W Act; and

(b) if impacts cannot be avoided, carry out detailed test excavations and recording of potential archaeological deposits at sites PJ60 and PJ61 and where ground disturbance will occur in the areas of moderate or high archaeological sensitivity identified in Figure 11 and Figures A-D in Appendix 7, that have not been subject to prior testwork.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: [Ongoing](#)

Summary: Biosis Research Pty Ltd was commissioned to carry out the archaeological sub-surface Testing Assessment Report. The report titled “Archaeological sub-surface testing at the proposed Crookwell II wind farm, New South Wales” was completed in June 2005 by Mr Jamie Reeves and one copy was issued to Department of Environment and Conservation for review on 20th July 2005 and the remaining two copies were sent on 14th November 2005. Further heritage assessment work under Mod 2 was undertaken by Bowen Heritage Management and Past Traces Pty Ltd. A new Aboriginal Heritage Impact Permit (AHIP) and associated conditions encompassing part b of this consent conditions were received from OEH on 6 September 2017 and ongoing surveillance of management actions has been undertaken by Registered Aboriginal Parties (RAP). The final Heritage Management Plan (HMP) was approved by OEH on 19 April 2018. To date, all works have been undertaken in compliance with the AHIP and HMP and no impact has been caused to heritage items outside of permitted impact areas, in accordance with condition 72. The project archaeologist undertook an impact inspection on 7 May 2018 and is preparing the final AHIP impact report. The project site induction makes clear all worker’s responsibilities in regard to protecting sensitive Aboriginal Heritage items, and responsibilities under unexpected finds protocol;

8.2. Historical Relics

(73) In the event that a non-indigenous heritage item is uncovered during the construction of the development, all construction work in the vicinity of the

object must cease and the Applicant must contact the NSW Heritage Council to determine an appropriate course of action prior to the recommencement of work in the vicinity of the item.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Ongoing**

Summary: The Heritage Management Plan aims to avoid unnecessary impacts on items of cultural heritage significance, and also to manage cultural heritage in accordance with legal requirements. The process is explained in Sub-Plan 8 of the approved CEMP. Condition 73 will be complied with in the event that a non-indigenous heritage item is uncovered during construction. As of yet, no unexpected finds of non-indigenous heritage items have been uncovered during the development.



8.3. Heritage Management Plan

(74) Prior to the commencement of erection of any wind turbine, the Applicant must prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:

(a) be prepared by a suitably qualified and experienced person;

(b) be prepared in consultation with OEH and Aboriginal stakeholders;

(c) include updated baseline mapping of the heritage items within and adjoining the development disturbance area;

(d) include a description of the measures that would be implemented for:

** protecting Aboriginal heritage items outside the project disturbance area;*

** avoiding impacts on heritage items within the disturbance area through engineering solutions;*

** minimising and managing the impacts of the development on heritage items within the disturbance area, including:*

– test excavations and salvage (if required); and

– a strategy for the long term management of any Aboriginal heritage items or material collected during the test excavation or salvage works;

** implementing a test excavation and if required, salvage program;*

** a contingency plan and reporting procedure if:*

- *Aboriginal heritage items outside the approved disturbance area are damaged;*
- *previously unidentified Aboriginal heritage items are found; or*
- *Aboriginal skeletal material is discovered;*
- * *ensuring workers on site receive suitable heritage inductions prior to carrying out any development on site, and that records are kept of these inductions; and*
- * *ongoing consultation with Aboriginal stakeholders during the implementation of the plan;*
- (e) *a program to monitor and report on the effectiveness of these measures and any heritage impacts of the project.*

Following the Secretary's approval, the Applicant must implement the Heritage Management Plan.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Ongoing**

Summary: The Mod 2 Heritage Management Plan was submitted in advance of the erection of any turbines, in accordance with condition 74. Current construction work has been undertaken in compliance with the existing Heritage Management Plan and AHIPs. No impact to heritage items has been observed. The project site induction makes clear all worker's responsibilities in regard to protecting sensitive Aboriginal Heritage items, and responsibilities under unexpected finds protocol. All sensitive areas in proximity to work areas have been identified with flagging, the integrity of which has been monitored by the Principal Contractor, the Owners Engineer's on-site Environmental Representative (OE-ER) and Registered Aboriginal Parties (RAP's). Site foremen have undergone further detailed training in identifying possible Aboriginal Heritage artefacts.



9. FLORA AND FAUNA

9.1. Restrictions on Clearing and Habitat Impacts

(75) The Applicant must:

(a) ensure that no EEC is cleared for the development, unless the Secretary agrees otherwise;

(b) locate wind turbines as far as practicable away from woodland vegetation, rocky outcrops, farm dams and watercourses; and

(c) minimise:

** the impacts of the development on threatened bird and bat populations; and*

** the clearing of native woodland vegetation, scattered paddock trees and fauna habitat within the approved disturbance footprint.*

Note: The locations of the vegetation communities and scattered paddock trees referred to in this condition are shown on the figures in Appendix 6.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: [Ongoing](#)

Summary: A Flora and Fauna Management Plan is in Sub-Plan 6 of the approved CEMP. This sub-plan aims to ensure that construction activities do not impact on the flora and fauna within the development site. The sub-plan requires pre-clearing surveys, which were undertaken by the project ecologist for the areas of disturbance prior to clearing. To date, no habitat trees have been cleared without prior assessment, approval and supervision, and no clearing of EEC has occurred. Woody debris and surface boulders have been checked for fauna habitat prior to clearing, and where possible, have been relocated off the disturbed area without destruction. The practical entirety of clearing has been of modified pasture, apart from a few scattered trees on an edge of a non-endangered remnant forest stand, and some introduced windrow trees. Where practical, road alignments have been redesigned to avoid clearing isolated paddock trees.

Compliance has been monitored by the OE-ER and project ER in accordance with the sub-plan;

9.2. Construction

(76) A Construction Flora and Fauna Management Sub Plan must be prepared as part of the CEMP. The Sub Plan must be prepared in consultation with the Department and OEH and include:

(a) plans showing:

- *terrestrial vegetation communities; important flora and fauna habitat areas; habitat trees, locations where threatened species, populations or ecological communities were recorded; and areas to be cleared. The plans must also identify vegetation adjoining the development where this contains important habitat areas and/or threatened species, populations or ecological communities;*

(b) methods to manage impacts on flora and fauna species (terrestrial and aquatic) and their habitat which may be directly or indirectly affected by the development. These must include:

- *procedures for vegetation clearing, soil management and managing other habitat damage (terrestrial and aquatic) during construction;*
- *methods to protect vegetation both retained within, and also adjoining, the development from damage during construction;*
- *methods to protect rocky outcrops and other potential reptile habitat both retained within, and also adjoining, turbines and ancillary development from damage during construction;*
- *a habitat tree management program including fauna recovery procedures and habitat maintenance (e.g. relocating hollows or installing nesting boxes); and*
- *performance criteria against which to measure the success of the methods;*

(c) details of how structures associated with the development must be designed to reduce the risk of bird and bat strike;

(d) rehabilitation details including:

- *identification of locally native species to be used in rehabilitation and landscaping works, including flora species suitable as a food resource for threatened fauna species;*
- *the source of all seed or tube stock to be used in rehabilitation and landscaping works including the identification of seed sources within the site. Seed of locally native species should be collected before construction commences; and*

- *methods to re-use topsoil (and where relevant subsoils) and cleared vegetation;*
- (e) a Weed Management Strategy including:*
- *identification of weeds within the site and adjoining areas;*
 - *weed eradication methods and protocols for the use of herbicides;*
 - *strategies to control the spread of weeds during construction; and*
- (f) a program for reporting on the effectiveness of terrestrial and aquatic flora and fauna management measures against the identified performance criteria. Management methods must be reviewed where found to be ineffective.*

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: [Ongoing](#)

Summary:

a) A Flora and Fauna Management Plan is in Sub-Plan 6 of the approved CEMP. This sub-plan aims to ensure that construction activities do not impact on the flora and fauna within the development site. The plan describes terrestrial vegetation communities; important flora and fauna habitat areas; habitat trees, locations where threatened species, populations or ecological communities were recorded; and areas to be cleared. The plans identify vegetation adjoining the development where this contains important habitat areas and/or threatened species, populations or ecological communities.

b) During the project ecologists two site assessments, extents of weed infestations were observed and recorded. The ecologist flagged six habitat trees requiring management during pre-clearing assessment, the ecologist supervised the felling of those trees on 18 September, 2017.

Procedures for vegetation clearing, soil management and managing other habitat damage (terrestrial and aquatic) during construction were specified by the ecologist during site assessments and are in accordance with condition 76.

Sensitive ecological areas were recorded on Environmental Control Maps, and protected within exclusion zones by signage and bunting.

The metrics for performance mentioned within the sub-plan are monitored in the regular completion of site checklists (CEMP Appendix 12), monitored each month as part of the project Environmental Representatives (ER) audit, by the Principal

Contractor and OE-ER during weekly site environmental checks, and during quarterly ecologists site visits.

c) A bird and bat adaptive management plan will be in place prior to operation, baseline data is being gathered

d) No rehabilitation has been undertaken yet, other than seeding batters and road edges with a seed mix approved by the project ER and developed in consultation with landholders. Full rehabilitation after construction is finished will be in accordance with condition 76

e) Weed assessment was undertaken by the project ecologist at the same time as clearing assessments. Timing the land clearing to not coincide with seeding of serrated tussock, and removal of Illyrian Thistle biomass from topsoil before spreading and re-seeding were the recommended courses of action, in accordance with DPI guidelines.

f) Effectiveness of the flora and fauna management measures against the performance criteria will be evaluated in light of the next Ecologists site assessment.

(77) Prior to the commencement of any earthworks or any vegetation clearing associated with the development, vegetation and habitat to be protected is to be fenced off with clearly visible, durable and appropriately signposted exclusion fencing.

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: [Ongoing](#)

Summary: Sensitive vegetation and habitat within the vicinity of works has been protected in accordance with condition 77;

(78) Only certified weed free and contaminant free mulch is to be used on the site.

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Ongoing**

Summary: The principal contractor has engaged a reputable subcontractor to undertake spray seeding of disturbed areas with Hydromulch. The seeded areas are monitored during weekly site environmental inspections and since first application in early October 2017 and second applications in April 2018 there has been no evidence of weed colonisation in sprayed areas;

(79) Protected riparian zone(s) are to be established and maintained for all areas along edges of the protected waters impacted by the development. Zone(s) must consist of local native species, unless otherwise agreed by the Secretary and must be maintained and monitored for two years after planting. Maintenance must include erosion and sediment control, watering, weed control, replacement of plant losses and disease and insect control.

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Ongoing**

Summary: CDPL's consultant Biosis Research, in consultation with Department of Water and Energy, have identified the riparian zones that are impacted by the development. Sediment and erosion controls have been installed in Area 1, 3 and 4 as instructed in the VMP, and the controls are inspected at least weekly. The currently planned method for Area 2, the Wollondilly River cable crossing, is directional under-boring, which will bypass underneath the creek bed resulting in no impact to the riparian zone. If this method proves impossible due to rock extents, conventional trenching or aerial crossings as per the EA and approval, will be undertaken after an impact assessment, and under a location-specific detailed Sediment and Erosion Control Plan;

(80) A Riparian Vegetation Management Plan must be prepared in consultation with the Department prior to the issue of a Part 3A Permit. It is to be prepared in accordance with the guideline “How to Prepare a Vegetation Management Plan – Version 4” and is to outline details of the protected riparian zone(s) including, but not limited to:

- (a) drawing demonstrating the size and location of the areas to be protected and rehabilitated;*
- (b) plant species to be utilised;*
- (c) establishment methods and tasks to be undertaken to protect and rehabilitate the protected riparian zones; and*
- (d) maintenance and performance monitoring to be undertaken.*

Note: Consultation and reports on the protected riparian zones are to be referred to the section of the Department administering the Part 3A Permit.

Development Phase: Construction;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: CDPL’s consultant Biosis Research, in consultation with DPI – Water and Energy during April and May of 2009, have prepared a Riparian Vegetation Management Plan in accordance with condition 80;

(81) Any requirement for bushfire asset protection zones are not to compromise in any way the extent, for or function of the protected riparian zones. Fuel reduced areas are to be located outside the riparian zones.

Development Phase: Construction;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: CDPL will ensure that any requirement for bushfire asset protection zones do not compromise the function of the riparian zones;

(82) Maintenance reports about the rehabilitated riparian zones must be prepared and submitted to the Department after completion of planting, and every six months thereafter until the completion of the maintenance period. The report must include:

- (a) achievements of the performance criteria outlined in the VMP;*
- (b) identification of problems in implementing the VMP; and*
- (c) discussion about the stability and condition of any associated stream works.*

Development Phase: Construction;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: CDPL will prepare and submit to the Department of Water and Energy the maintenance reports of the rehabilitated riparian zones after completion of planting, and every six months thereafter until the completion of the maintenance period;



9.3. Operation

(83) An Operation Flora and fauna Management sub Plan must be prepared as part of the OEMP. The Sub Plan must be prepared in consultation with OEH and Council and include:

- (a) plans showing:*
 - terrestrial vegetation communities; important flora and fauna habitat areas; areas to be protected; and areas to be planted;*
- (b) methods to manage impacts on flora and fauna species (terrestrial and aquatic) and their habitats which may be directly or indirectly affected by the development. These must include:*
 - habitat management procedures including rehabilitation requirements and active re-planting of windrows;*
 - operation stage measures to minimise bird and bat disturbance, in particular reducing the incidence of bird/bat strike. Management measures that must be considered for areas near the turbines include:*
 - i. minimising the availability of raptor perches;*

- ii. modifying structures to prevent perching;*
 - iii. management of lambing;*
 - iv. swift carcass removal;*
 - v. pest control, including rabbits;*
 - vi. management of stock (grain) feeding;*
 - vii. filling in of small dams that might attract insects and birds;*
 - viii. use of deterrents (eg. Flags, marker balls);*
 - ix. minimising external lighting;*
 - x. turbine management, that might include the turning off of turbines that are predicted to cause unacceptable bird/bat mortality at identified times;*
 - xi. measures identified from research undertaken at other wind farms to reduce the incidence of bird/bat strike;*
- (c) performance criteria against which to measure the success of the methods; and a programme for reporting on the effectiveness of management measures against the identified performance criteria. Management methods must be reviewed where found to be ineffective.*

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: An Operation Flora and fauna Management Sub-Plan has been prepared and will be submitted as part of the OEMP, prior to the commence of the operation phase;



9.4. Bird and bat adaptive Management Program

Bird and bat adaptive Management Program

(84) A Bird and bat Adaptive Management Program must be prepared in consultation with OEH and submitted to the Secretary for approval prior to the commencement of operations, which takes account of bird/bat monitoring methods identified in the current editions of AusWEA Best Practice Guidelines for the Implementation of Wind Energy Projects in Australia and Assessing the Impacts of Windfarms on birds – Protocols and Data Set Standards.

The program must be undertaken by a suitably qualified expert, approved by the Secretary.

The Program must incorporate Monitoring, and a Decision Matrix that clearly sets out how the Applicant will respond to the outcomes of monitoring. It must:

- (a) include at least 12 months of current (or updated) baseline data on threatened and 'at risk' bird and bat species and populations in the locality that could potentially be affected by the development, including updated surveys for raptors and baseline mapping of any raptor nests identified on the site;*
- (b) incorporate an ongoing role for the suitably qualified expert;*
- (c) set out monitoring requirements. The requirements must 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;*
- (d) incorporate a decision making framework that sets out specific actions and when it may be required to reduce identified impacts on birds and bats;*
- (e) set out available mitigation measures;*
- (f) incorporate reporting requirements on the outcomes of monitoring, on the application of the decision making framework, the need for mitigation measures, progress with implementation of such measures, and their success. Reports must be prepared on an annual basis, from the commencement of operation, and must be prepared within 2 months of the end of the reporting period and be provided to the Secretary. The Secretary may vary the reporting requirement or period by notice in writing to the Applicant;*
- (g) identify any necessary mitigation measures and implementation strategy including, but not limited to, those referred in Condition 83.*

The Applicant is required to implement reasonable and feasible mitigation measures where the need for further action is identified through the Bird and Bat Adaptive Management Program.

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: A Bird and bat adaptive Management Program is in preparation and will be provided to the Secretary for approval as a sub-plan to the OEMP prior to commencement of the operation phase;

10. PHYSICAL ISSUES

10.1. Soil and Water Management

(85) Prior to commencement of construction and operation, a Soil and Water Management Plan must be prepared and implemented in consultation with Water NSW and EPA, in accordance with Landcom's guideline Managing Urban Stormwater: Soils and Construction (or its latest version) and the RMS's Guideline for the Control of Erosion and Sedimentation in Roadworks (or its latest version). The Plan is to outline soil and water management measures to be implemented during construction and operation to minimise impacts to soil and vegetation, including but not limited to:

- (a) water quality safeguards to be implemented, as outlined in Chapter 9 and Table 21-2 of the EIS;*
- (b) practices to manage soil and water where tracks and electrical cables cross water courses and drainage depressions;*
- (c) inspection, maintenance and monitoring programs; and*
- (d) practices proposed to be used in the event of accidental spills.*

Development Phase: Construction and Operation;

Compliance Report: Pre-Construction Compliance Report;

Status: [Ongoing](#)

Summary: A Soil and Water Management Plan is included as Sub-Plan 7 of the approved CEMP. This management plan aims to:

- Control sediment and erosion to an acceptable level;
- Prevent erosion from developing as a result of construction;
- Prevent dirty water discharges to the Wollondilly River catchment;

The management plan will be revised following the completion of construction to ongoing suitability for operational purposes

The projects drainage, and sediment and erosion controls, are inspected at least weekly by the OE-ER and the principal contractor. This is documented in regular inspection reports, and on the CEMP site checklist (CEMP), any outstanding issues are placed on a project environmental construction issues register for the Principal Contractor to address, which are closed out by the OE-ER upon compliance. The status of the site is also monitored by the project ER during monthly audits, and issues placed on an action tracker, similar to the environmental construction issues register.

Prior to works in sensitive areas, such as creek crossings, a location-specific sediment and erosion control plan is prepared and submitted to the Project ER for endorsement. Compliance is checked against the plans by the OE-ER and the project ER.

All spills are being managed in accordance with the plan and there have not yet been any spills over 10L of volume. One reportable incident occurred during February when sediment-laden water left the site boundary as a result of an abnormally large rainfall event. EPA officers visited site and were satisfied that the discharge was managed appropriately and did not enter any waterways or cause material harm to the environment. No further action was taken.

Spills are reported by site staff and monitored by the OE-ER. A monthly reward and recognition program has been implemented to encourage workers to report environmental hazards such as spills, dust generation or failures in sediment and erosion controls. Availability of spill-kits is regularly audited by the OE-ER;



(86) An Erosion and Sediment Control Plan must be prepared and implemented in consultation with Water NSW and EPA. The Plan is to outline the design of storm water outlets and scour protection works to be utilised during construction and be developed in accordance with the Department's guideline Stormwater Outlet Structures to Streams (for pipes, culverts, drains and spillways) Version 1 (or its latest version). The plan must include, but not be limited to:

- (a) representative survey cross sections and a long section showing the existing and proposed bed and bank profile and water levels at the outlet points;*
- (b) design of scour protection works based on predicted velocities, scour potential and associated methods of construction;*
- (c) details of a monitoring program to ensure effectiveness; and*
- (d) details of decommissioning.*

Note: Consultation on the Plan is to be undertaken with the section of the Department administering the Part 3A Permits.

Development Phase: Construction and Operation;

Compliance Report: Pre-Construction Compliance Report;

Status: **Ongoing**

Summary: An Erosion and Sediment Control Plan was prepared and implemented in consultation with the former Department of Water and Energy. This plan outlines the design of storm water outlets and scour protection works required during construction. A detailed drainage design package was provided by Northrop.

The projects drainage, and sediment and erosion controls, are inspected at least weekly by the Owners Engineer's on-site environmental representative and the principal contractor. This is documented in weekly inspection reports, and on the regular CEMP site checklist (CEMP Appendix 12), any outstanding issues are placed on a project environmental construction issues register for the Principal Contractor to address, which are closed out by the OE-ER upon compliance. The status of the site is also monitored by the project ER during monthly audits, and issues placed on an action tracker, similar to the environmental construction issues register.

Compliance with the drainage design package is monitored by the Owners Engineer's on-site Civil QA representative.

Some scouring in longitudinal drains in non-sensitive areas was observed due to incorrect bank profiles, inadequate volume in relation to catchment size, and

unsuitable material use. The affected drains were re-shaped and lined with rip-rap or jute mesh for stabilisation.

Prior to works in sensitive areas, for example waterway crossings, a location-specific sediment and erosion control plan is prepared and submitted to the Project ER for endorsement. Sensitive areas are marked on Environmental Control Maps;

(87) Prior to the commencement of operation, a Stormwater Management Plan must be prepared and implemented. The Plan must detail measures to mitigate the impacts of stormwater run-off from the development during operation. The Plan must be consistent with Managing Urban Stormwater: Council Handbook (or its latest version) and where relevant, consistent with a catchment wide stormwater management plan.

Development Phase: Operation;

Compliance Report: Pre-Operation Compliance Report;

Status: **Compliant**

Summary: A Stormwater Management Plan has been prepared prior to the operation phase and will be provided to DPE as a sub plan of the OEMP;

(88) All works associated with the development must be designed, constructed and operated so that they do not cause harm to aquatic and riparian environments and do not cause erosion, sedimentation, or increase flood levels of protected waters.

Development Phase: Construction and Operation;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: A detailed drainage design package was provided by Northrop.

Compliance with the drainage design package was monitored by the Owners Engineer's on-site Civil QA Representative.

Prior to works in sensitive areas including creek crossings, location-specific sediment and erosion control plans is prepared and submitted to the Project ER for endorsement. Sensitive areas are marked on Environmental Control Maps.



(89) Points of construction, such as creek crossings, or any other places where scour is likely within or near any protected waters or any part of the riparian zones on the site impacted by the development, are to be suitably protected against scour.

Development Phase: Construction and Operation;

Compliance Report: Construction Compliance Report;

Status: **Compliant**

A detailed drainage design package was provided by Northrop.

Prior to works in creek crossings, location-specific sediment and erosion control plans were prepared and submitted to the Project ER for endorsement. Sensitive areas are marked on Environmental Control Maps. Scouring is monitored at least weekly during Environmental inspections. No new scouring has been observed within or near riparian zones or creek crossings;



(90) Waterway crossings associated with the development are to be designed and constructed in accordance with the relevant Water Guidelines for Controlled Activities on Waterfront Land (2012), or their latest version.

Construction Compliance Report
Crookwell II Wind Farm Project

Development Phase: Construction and Operation;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: The designs of the waterway crossings are in accordance with the relevant Guidelines for Controlled Activities on Waterfront Land (2012).

(91) All works associated with the development are to be monitored after each major storm event during construction. Necessary stabilisation works are to be undertaken if there are any signs of erosion or instability of protected waters, to the satisfaction of the Secretary.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Ongoing**

Summary: All works associated with the development are monitored by the civil works contractor and the OE-ER after each major storm event during construction as per Section 3.5 of Soil and Water Management Plan in Sub-Plan 7 of the approved CEMP. Necessary stabilisation works are undertaken if there are any signs of erosion or instability of protected waters.

(92) Except as may be expressly provided by a licence under the POEO Act in relation to the development, the Applicant must comply with Section 120 of the POEO Act (prohibition of the pollution of waters), which prohibits pollution of waters.

Development Phase: Construction and Operation;

Compliance Report: Construction and Operation Compliance Report;

Status: **Ongoing**

Summary: No pollution of waters has occurred;

10.2. Air Quality

(93) The Applicant must design, construct, operate and maintain the development in a manner that minimises dust emissions from the site.

Development Phase: Construction and Operation;

Compliance Report: Construction Compliance Report;

Status: [Ongoing](#)

Summary: The Air Quality Management Plan aims to ensure construction activities do not impact on air quality outside of the site boundary, this management plan is the Sub-Plan 9 of the approved CEMP. The works comply with the sub-plan, with compliance being monitored daily by the OE-ER, and as needed by the project ER;

(94) The Applicant must take all practicable measures to ensure that all vehicles associated with the development entering or leaving the site and carrying a load that may generate dust, are covered at all times, except during loading and unloading. Any such vehicles must be covered or enclosed in a manner that prevents emissions from the vehicle at all times.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: [Ongoing](#)

Summary: The management plan in Section 3.1 of the Air Quality Management Plan in Sub-Plan 9 of the approved CEMP, will ensure that all vehicles carrying loads which may generate dust will be covered or enclosed at all times whilst on public roads. The load will not be uncovered except during loading or unloading operations. The civil works contractor appointed a worker as a gatekeeper at site entrances, with checking covering of loads as one of their responsibilities. Compliance is monitored by the OE-ER and the civil works contractor's on-site safety advisor ad-hoc and during the weekly environment and safety site inspections;

(95) The Applicant is required to construct, operate and maintain the access way from the site to Woodhouselee Road, in a manner that minimises dust generation.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Ongoing**

Summary: The management plan in Section 3.2 of the Air Quality Management Plan in Sub-Plan 9 of the approved CEMP, explains that there is potential for dust to be generated from vehicle movements over site access roads and internal site roads. The internal access roads were paved with compacted gravel as early as practical, to minimise time of exposure of un-stabilised ground. Water sprays are utilised to minimise dust generation from these roads from construction vehicle movements, and a polymer dust suppressant was trialled to fortify the road pavement against dust generation and minimise water usage. An internal speed limit of 40k/h is enforced. Compliance is monitored daily by the OE-ER and site foremen.

10.3. Spoil and Fill Management

(96) For the purposes of the development, imported fill must be Virgin Excavated Natural Material as defined in the Environmental Protection Authority's guideline Assessment, Classification and Management of Liquid and Non-Liquid Wastes.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Compliant**

Summary: No imported fill was used during earthworks, all fill material was won locally on-site.

11. MISCELLANEOUS REQUIREMENTS

11.1. Aviation

(97) Prior to the commencement of construction, details of the construction timetable are to be submitted to CASA.

Development Phase: Construction;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: CASA notified of construction timetable.

(98) Prior to the erection of any wind turbine, the following details are to be submitted to CASA:

(a) 'as constructed' coordinates of the wind turbines in latitude and longitude;

(b) final height of the wind turbines as per AHD; and

(c) ground level at the base of each of the wind turbines as per AHD; and

(d) details of any proposed aviation hazard lighting.

Development Phase: Operation;

Compliance Report: Pre-Operation Compliance Report;

Status: **Compliant**

Summary: Prior to the erection of any wind turbine, the 'as constructed' coordinates of the wind turbines in latitude and longitude, the final height of the wind turbine as per AHD, and the ground level at the base of each wind turbines as per AHD, and details of any proposed aviation hazard lighting were provided to CASA on 7 March 2018, and updated on 20 June 2018;

(98a) Within 30 days of the practical completion of the erection of any wind turbine, the Applicant must:

(a) provide confirmation to the authorities that the information that was previously provided remains accurate; or

(b) update the information previously provided.

Development Phase: Operation;

Compliance Report: Pre-Operation Compliance Report;

Status: **Compliant**

Summary: Updated information was sent to CASA on 20 June 2018 in response to addition of two met masts to Aviation Hazard Lighting locations and alteration of lighting of two turbines;

(99) In the event that required aerial weed control is restricted on any property surrounding the site due to the location of turbines, the Applicant must fully fund the cost difference between aerial weed spraying and a reasonable alternative weed control method in the restricted area.

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: CDPL will fully fund the cost difference between aerial weed spraying and a reasonable alternative weed control method, in the event that required aerial weed control is restricted on any property surrounding the site due to the location of turbines;

11.2. Hazards – Bush Fire Fighting

(100) During construction, the Applicant is to consult with the local RFS in periods of high fire danger, to verify that proposed activities to be undertaken during this period, will not adversely increase the risk of bushfire. The Applicant must comply with any reasonable request of the local RFS.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Compliant**

Summary: RFS Crookwell consulted during times of high fire danger, recommendations complied with including grinders only to be used on concrete hard-stand areas with no flammables present, no smoking outside of approved

areas, light vehicles to keep to roadways, and trenching activities to be accompanied by a water cart at all times;

(101) The Applicant must consult with the local RFS after the commencement of operation and any other time thereafter as required by the RFS, to ensure that the local RFS is familiar with the development, including location and identification of wind turbines for the purpose of fast access in emergencies.

Development Phase: Operation;

Compliance Report: Pre-Operation Compliance Report;

Status: **Ongoing**

Summary: Rural Fire Service (RFS) Crookwell has undertaken site visit to familiarise with the site prior to commissioning of turbines. After the commencement of the operation phase and also at any other time thereafter as required by the RFS, to ensure that the local RFS is familiar with the development, including location and identification of wind turbines RFS Crookwell will undertake an emergency response drill. As a basis for identification, a map of the site has been provided to the local RFS that includes all the turbines clearly identified and all the access tracks clearly marked. A Local Emergency Management Committee meeting is scheduled to be undertaken at Crookwell 2 Wind Farm in July 2018 for familiarisation of the project and activities with interested emergency management parties.

11.3. Hazards – Safety Management System

(102) At least two month prior to the commencement of commissioning, the Applicant must prepare a report outlining a comprehensive Safety Management System, covering all on-site systems related to ensuring the safe operation of the development. The report must clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. Records must be kept on-site and must be available for inspection by the Department upon request. The Safety Management System must be developed in accordance with the Department's Hazardous Industry Planning advisory Paper No. 9, 'Safety Management', and should include:

- (a) procedures and programs for the maintenance and testing of the safety related equipment to ensure its integrity over the life of the wind farm;*
- (b) an outline of a documented procedure for the management of change;*
- (c) procedures and programs for liaison and regular drills with the local RFS; and*
- (d) procedures for regular fire prevention inspections by the local RFS and implementation of recommendations.*

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Compliant**

Summary: A Safety Management System has been prepared in preparation for commissioning.

11.4. Telecommunications

- (103) Prior to the commencement of erection of any wind turbine, the Applicant must undertake a baseline assessment of radiocommunication services to assess the pre-existing signal strength at any residence within 5 kilometres of a wind turbine, in consultation with registered service providers (including emergency services).*

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Compliant**

Summary: The consultation and the assessment of the television and radio transmission of the impacted residence is described in Section 3.6 of the Community Information Plan in Sub-Plan 1 of the approved CEMP;

Prior to the erection of any wind turbines on site, CDPL undertook an assessment of the existing quality of the radio communication services available at all potentially impacted residences as identified in Figure 19-3 of the EIS;

(103) If the development results in the disruption to any radio communications services (including point-to-point microwave links) in the area, then the Applicant must make good any disruption to these services as soon as possible following the disruption, but no later than 1 month following the identified cause of the disruption of the service unless the relevant service provider or user or Secretary agrees otherwise. If there is a dispute about the mitigation measures to be implemented or the implementation of these mitigation measures, then either party may refer the matter to the Secretary for resolution.

Development Phase: Operation;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: If the development results in the disruption to any radio communications services (including point-to-point microwave links) in the area, CDPL will make good any disruption to these services as soon as possible following the disruption, but no later than 1 month following the identified cause of the disruption of the service unless the relevant service provider or user or Secretary agrees otherwise.



11.5. Waste Generation and Management

(105) Any Vegetation or other material removed from construction areas must be disposed of lawfully to an appropriate site where the material cannot be swept into protected waters during a flood. Burning of the vegetation must not be undertaken unless an approval has been obtained from the relevant authority(ies).

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: [Ongoing](#)

Summary: The Waste Management Procedures are explained in Appendix 10 of the approved CEMP. All mulch from tree removal has been retained on-site by landholders for use in agricultural activities, no other green waste has been generated;

(106) The Applicant must not receive waste for storage, treatment, processing or reprocessing and must not dispose of waste generated by the development on the site, except as may be expressly permitted by an Environment Protection Licence for the development under the POEO Act.

Note: The above condition only applies to the storage, treatment, processing and reprocessing or disposal of waste at the site if it requires an Environmental Protection Licence under the Protection of the Environment Operations Act 1997.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: [Ongoing](#)

Summary: The Waste Management Procedures are explained in Appendix 10 of the approved CEMP. No waste has been received on-site, and no site-generated waste has been disposed-of on-site in accordance with the EPL and POEO (1997);

(107) The human wastewater management system is to be designed in consultation with EPA and Council, in accordance with the principles contained with the guidelines On-Site Sewage Management for Single Households, and the AS/NZS 1547-2000 On-Site Domestic Wastewater Management. The human wastewater management system including any effluent management area, is to be located at least 100 metres from watercourses and 40 metres from drainage depressions. The human wastewater management system is to be maintained according to Section 5 of the guidelines On-site Sewage Management for Single Households.

Development Phase: Construction;

Compliance Report: Construction Compliance Report;

Status: **Ongoing**

Summary: The human wastewater management system has been designed in consultation with the EPA and Council, in accordance with the principles contained with the guidelines On-Site Sewage Management for Single Households, and the AS/NZS 1547-2000 On-Site Domestic Wastewater Management;

Portable toilet facilities have been provided during the construction phase. Management of these facilities includes:

- use of a licenced supply and disposal contractor to manage and dispose of all wastewater; and
- all facilities to be located a minimum of 100 metres from any permanent creek or river and 40 metres from any drainage depression.

(108) AAA-rated water conservation devices are to be installed in the site control room/facilities building to minimise the volume of wastewater produced.

Development Phase: Construction and Operation;

Compliance Report: Construction Compliance Report;

Status: **Ongoing**

Summary: AAA-rated water conservation devices are specified to be installed in the site control room/facilities building to minimise the volume of wastewater produced;

(109) All stormwater is to be diverted away from any effluent management area associated with the development.

Development Phase: Construction and Operation;

Compliance Report: Construction Compliance Report;

Status: **Compliant**

Summary: Effluent management area including absorption trench for onsite wastewater management system has been designed to remain separated from stormwater drainage areas;



11.6. Decommissioning

(110) Within one year of decommissioning, the site must be returned, as far as practicable, to its condition prior to the commencement of construction. All turbines and associated above ground structures including but not limited to, the substation, the control and facilities building and electrical infrastructure must be removed from the site unless otherwise agreed by the Secretary. All other elements associated with the development, including site roads, must be removed unless otherwise agreed to by the site owner(s).

Development Phase: Decommissioning;

Compliance Report: Decommissioning Compliance Report;

Status: Not yet applicable

Summary: Within one year of decommissioning, the site will be returned, as far as practicable, to its condition prior to the commencement of construction. All turbines and associated above ground structures including but not limited to, the wind farm substation (excluding the High Voltage Switchyard and Control Room that will belong to TransGrid), the wind farm control and facilities building and electrical infrastructure must be removed from the site unless otherwise agreed by the Secretary. All other elements associated with the development, including site roads, will be removed unless otherwise agreed to by the landowner(s).



(111) If any wind turbine is not used for the generation of electricity for a continuous period of 12 months, it must be decommissioned unless otherwise agreed to by the Secretary. The Applicant must keep independently verified annual records of the use of turbines for electricity generation. These records must be provided to the Secretary upon request. The relevant wind turbine and any associated infrastructure is to be dismantled and removed from the site within 18 months from the date that the turbine was last used to generate electricity.

Development Phase: Operation and Decommissioning;

Compliance Report: Operation Compliance Report;

Status: Not yet applicable

Summary: Annual records of the use of all turbines for the purpose of electricity generation will be kept and these records will be provided to the Secretary upon request. Decommissioning will occur in the event that turbines are not used to generate electricity for a period exceeding 18 months;

(112) Prior to the commencement of construction, the Applicant must provide evidence to the satisfaction of the Secretary, that the lease agreements with the site landowners have adequate provisions to require that decommissioning occurs in accordance with this Consent.

Development Phase: Decommissioning;

Compliance Report: Pre-Construction Compliance Report;

Status: **Compliant**

Summary: The Lease Agreements with the landowners each contain the following provisions:

Clause 5.2 Lessee must observe law and rules:

The Lessee must comply with the law, any Authorisation and any notice from any authority that requires the Lessee to do or not do anything concerning the Premises, the Lessee's use of the Premises, or this lease (for example, laws relating to occupational health and safety and environmental matters).

Clause 10.4 Consequences of termination or expiry:

(a) If the Lessee serves a notice of termination under clause 10.1(a) as a consequence of a default arising under clause 9.1(a) or 9.1(b), the Lessee

may, at the same time, serve notice on the Lessor electing to remove all or part of the Improvements from the Land provided that the Lessee must repair any damage caused by the removal.

(b) If:

- (1) the Lessee serves a notice of termination under clause 10.2; or
- (2) the Lessor serves a termination notice under clause 10.1(a) or under clause 10.1(a) as a consequence of a default arising under 9.1(c); or
- (3) this lease expires through the effluxion of time,
- then the Lessee must promptly remove all of the Improvements from the Premises and reinstate the Premises to the standard referred to in clause 10.5.

(c) Without prejudice to any obligations under clause 10.4(a), 10.4(b) or 10.6, once this lease has been terminated the Lessee is absolutely discharged from its future obligations under this lease provided that, if the Lessee has an obligation under clause 10.4(b) to remove all Improvements from the Land and repair any damage caused by that removal, or the Lessee elects to remove Improvements from the Land under clause 10.4(a), then the Lessee must continue to pay Rent until the relevant Improvements have been removed and the Land has been repaired.

Clause 10.5 Handing back Premises:

In addition to any obligations the Lessee may have under clause 10.4, when this lease ends, the Lessee must:

(a) give back the Premises to the Lessor in a condition consistent with the Lessee's obligations under this lease, to the reasonable satisfaction of the Lessor, except for fair wear and tear; and

(b) remove any sign or advertisement installed inside or outside the Premises and repair any damage caused by that removal.

12. SUMMARY AND ANALYSIS OF ENVIRONMENTAL MONITORING RESULTS

12.1. Construction waste generation

Status: [Ongoing](#)

Summary: Waste has been tracked for the entirety of the project, with 49t of general solid waste sent to landfill during Phase 1 construction.

Waste has been minimised where necessary; All green waste from tree removal has been retained as clean mulch by landholders to be used in agricultural activities. No excess concrete from foundation and blinding pours has been removed from the site, as it has been crushed and used as an engineering material in road building in accordance with the recovered aggregates general exemption. Excess un-used reinforcing steel was removed for recycling.

12.2. Construction Noise Compliance Monitoring

Status: **Compliant**

Summary: Construction noise level monitoring was undertaken under worst-case conditions and demonstrated compliance with criteria in the CEMP noise management sub-plan. No noise complaints have yet been received for the project. Noise observations and predictions based on machinery manufacturer's specifications were also undertaken for assessment of Out Of Hours works permits. Noise of the plant and machinery was modelled and observed as being inaudible at nearest site boundaries under the applicable operating conditions.

12.3. Bird and Bat Adaptive Management Plan

Status: **Ongoing**

Summary: Bird and bat noise data has been gathered in accordance with survey criteria in the Bird and Bat Adaptive Management Plan.

13. COMPLAINTS MANAGEMENT SUMMARY

13.1. Summary of Complaints and Corrective Actions

There have been 22 unique complaints received by CDPL and the Principal Contractor regarding the project;

- 1 complaint, pre-construction, regarding a surveyor accessing neighbouring land without prior notification. Workers notified, no repeat occurrence.
- 3 complaints from landholders regarding internal farm gates being left open by workers or subcontractors. Item included in toolbox talks, and direct lines of communication between foremen and landholders established.
- 1 complaint from landholder about a farm fence not being replaced appropriately after trenching and allowing stock between paddocks. Fence was fixed by the trenching contractor.
- 1 complaint regarding mismatch between level of Woodhouselee Road South upgrades and a private driveway. Grader dispatched, rectified to neighbours satisfaction within hours.
- 7 complaints received about conduct of delivery drivers along Woodhouselee Road in regard to speed and road sharing, one complaint including allegedly damaged windscreen. Toolbox talks administered to materials haulage contractors, driver behaviour monitored by principal contractor. Windscreen repaired by Principal Contractor, and affected parties encouraged to report specific times/dates of observed poor driving, as contractors use GPS tracking and the events can be correlated with a driver and disciplinary action taken.
- 1 complaint regarding parking of work vehicles in the lay-by across the road from the bus stop at the corner of Woodhouselee and Crookwell Roads. Responsible contractor notified, no repeat occurrence.
- 1 complaint about lights being left on at the site compound which is believed to have been erroneous, due to the compound running on a generator with no batteries. Issue discussed with concerned party, no repeat occurrence.
- 1 complaint encompassing multiple points regarding the suitability of the project rather than construction or compliance issues. Meeting between CDPL and concerned party on 23 August 2017 to discuss the issues

and how they will be controlled. A neighbour agreement was issued to the concerned party on 30 August 2017 for their consideration.

- 1 complaint about unsuitability of deliveries of components in foggy weather causing a hazard on Crookwell Rd. Deliveries are under pilot vehicle and police escort and the decision to transport is based on the conditions in Goulburn prior to travelling to site. Concerned party was instructed to raise the issue with Goulburn Police if the problem continues. Goulburn Police instructed by haulage contractor to properly control traffic and leave a buffer between haulage vehicles and traffic, and to ensure escort remains in force until components are fully within site boundaries.
- 1 complaint about road signs removed in Goulburn to facilitate heavy haulage and not replaced immediately after transporting. Haulage contractor reminded to replace signs immediately, and no repeat occurrences since.
- 1 complaint about potholing/shoving on road shoulder causing a hazard for neighbour entering/exiting their driveway. Road was repaired as part of defects rectification process.
- 1 complaint about a pothole forming at an intersection of a side-road on Woodhouselee Rd. Pothole repaired.
- 1 complaint about a driver on Crookwell Rd near Pejar Dam suffering a stone chip in their windscreen from a truck-and-dog. Concerned party able to describe colouration of the truck but unable to give a time or registration number. It is inconclusive if this truck had come from the site. This is a traffic matter that is unrelated to the worksite, and occurred some distance from the entrance. Advised the concerned party that if details of the vehicle can be provided they could be matched to GPS records. Advised them to contact the subcontractor with subcontractor whose colours match the truck, or the police.
- 1 complaint from landholder regarding a gate not being replaced correctly after widening, causing sheep to escape onto Crookwell Rd, resulting in death of two sheep. The remainder of the sheep were corralled and the gate fixed, the landholder is to invoice the proponent for replacement of the stock.

13.2. Compliance with the Complaints Management CEMP sub-plan

Status: [Ongoing](#)

Summary:

There have been relatively few complaints, averaging approximately 2 per month. Complaints have generally been typical of those associated with a civil earthworks construction project, centred around use of local roads by heavy vehicles. No complaint received has been closed out until satisfaction of the affected party has been confirmed or no other available remedial actions are present. All complaints have been actioned and followed up on. Repeat issues are being monitored at a practical level by project foremen, and administratively by CDPL staff.

Complaints management has been compliant with the complaints management sub-plan of the CEMP.



14. REVIEW AND AMENDMENTS TO THE CEMP RESULTING FROM CONSTRUCTION DURING THE REPORTING PERIOD

No amendments have yet been made to the CEMP resulting from construction during the reporting period. A revised CEMP has been produced for Stage 2 turbine installation works.

15. OTHER MATTERS RELATING TO COMPLIANCE WITH THE CONDITIONS OF CONSENT OR AS REQUESTED BY THE SECRETARY

There have been no other matters relating to compliance with the conditions of consent or as requested by the secretary.