

8/11/18

OPERATION ENVIRONMENTAL MANAGEMENT PLAN.

**CROOKWELL 2 WIND FARM** 

(Global Power Generation Australia)

A subsidiary of Naturgy



# **Management Plan**

# **Operation Environmental Management Plan Crookwell 2 Wind Farm**

(Global Power Generation Australia)

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# **Operational Environmental Management Plan**

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#### **GLOSSARY**

AEMR Annual Environmental Management Plan.

BBAMP Bird and Bat Adaptive Management Plan.

CoC Conditions of Consent. The Consent granted by the Minister for Planning to the

development of Crookwell 2 Wind farm and its subsequent modifications.

CER Clean Energy Regulator

CEMP Construction Environmental Management Plan

C2WF Crookwell 2 Wind Farm.

DPE Department of Planning and Environment

EAM Annual Evaluation and Adaptive Management Report

EMS Environmental Management System.

EP&A Act Environmental Planning and Assessment Act, 1979.

EP&A Regulation Environmental Planning and Assessment Regulation, 2000.

EPA NSW Environmental protection Authority.

EPL Environment protection Licence issued under the Protection of the Environmental

Operations Act 1997.

EWMS Environmental Work Method Statement

GPG Global Power Generation

GNF Gas Natural Fenosa (Naturgy)

JSEA Job Safety and Environmental Analysis

NSW New South Wales

OEH Office of Environment and Heritage

OEMP Operational Environmental Management Plan

OSLP On-site Landscaping Plan

ONMP Operational Noise Management Plan

OFFMP Operation Flora and fauna Management Sub Plan

SWG Soil and Groundwater

PROSAFETY Software used by GPG for document management

RLMP Roadside Landscape Management Plan for Crookwell Plan

SCADA Supervisory Control and Data Acquisition (Turbine Control System)

SWMP Stormwater Management Plan

THEMIS Software used by GPG for environmental management

ULSC Upper Lachlan Shire Council



# 1. Introduction to the project

### 1.1. Background

The Crookwell 2 Wind Farm (C2WF) Project is located in the southern tablelands region of NSW, approximately 14km southeast of Crookwell, and approximately 30km northwest of Goulburn. The C2WF site covers an area of 2,088 hectares and is within the Upper Lachlan Shire Local Government Area and is surrounded by predominantly grazing properties. Operation of the C2WF is an important part of the Australian Capital Territory Government's 100% renewable energy commitment by 2020.

The Crookwell 1 Wind Farm (not belonging to GPG nor related to this project) is operational and located to the northwest of the C2WF Project area, with the proposed Crookwell 3 Wind Farm to the east and south. Other operational wind farms in the area include Gullen Range to the west, Gunning and Cullerin to the southwest, and Taralga to the northeast of the C2WF area.

On 16 February 2004, in accordance to section 76A of the Environmental Planning and Assessment Act, 1979 (the EP&A Act), the NSW Minister for Infrastructure and Planning declared that the proposal was to be assessed as State Significant (as a proposed wind farm of 60MW or greater capacity), by notice in the gazette

An Environmental Assessment (EA) to assess the potential environmental impacts of the wind farm was undertaken by URS in 2004. The Minister for Infrastructure and Planning, originally granted development consent in June 2005 for the Crookwell 2 Wind Farm (C2WF), with up to 46 wind turbines and associated infrastructures (DA 176-8-2004-i). The proposal was assessed, in accordance with the NSW Environmental Planning and Assessment Act 1979 (EP&A Act), under Part 4, Section 91.

In 2008, approval was sought to modify the development consent by substituting larger turbines for those previously approved, relocating 20 of the 46 turbines and providing an alternate access road via Woodhouselee Road (Mod-1). This modification to the development consent was subsequently approved in July 2009. Given subsequent further developments in wind turbine technology, Crookwell Development Pty Ltd — the proponent for the C2WF — sought approval to modify the Mod-1 development consent by further increasing the size of the proposed wind turbines. The revised proposal (Mod-2) also includes a reduction in the total number of turbines from 46 to 32, along with re-alignment of the access tracks and cabling to service the remaining turbines.

The Environmental Assessment for Mod-2 was prepared by Mecone in September 2016, as well as the associated Response to Submissions, dated June 2017. The final C2WF project has been granted development consent for its Mod-2 application (up to 32 wind turbines) on 31st October 2017.

C2WF will have a total wind farm generating capacity of 91MW (this generation capacity is maximum output at the connection point once electrical losses and additional curtailment are included, as set out in the Deed of Entitlement between the Australian Capital Territory and Crookwell Development Pty Ltd).

Modification-2 of the approval was granted on October 31 2017 and allows the following:

 Up to 32 wind turbines (the maximum allowed under the Modification Application (Modification-2) of the approved C2WF; however, according to the Deed of Entitlement mentioned above, a maximum of 28 wind turbines will be installed at the C2WF site for the ACT Feed-in Tariff contract). Each wind turbine comprising a steel tower of up to 95m in height, nacelle, and 3 fibreglass blades. The total height from ground to blade tip at its highest position will be 160m.

A network of site tracks to provide access to each turbine on the site and to the substation and a
network of underground electrical and communications cables. The electrical substation and
switchyard, connecting C2WF to TransGrid's electrical transmission system; and a site control
room / facility building.

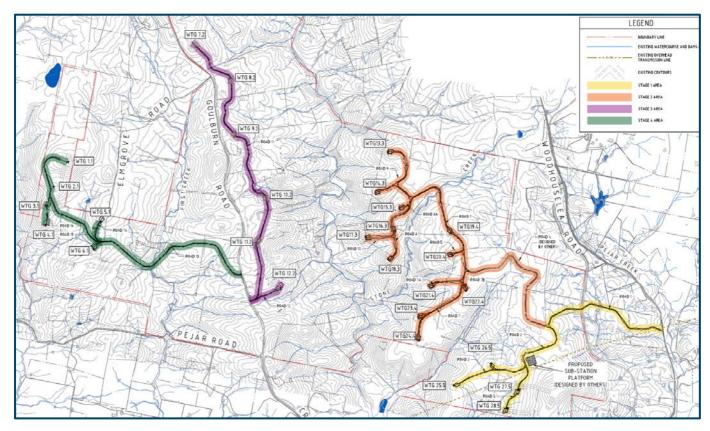


Figure 1 - Site Location

C2WF is due to enter operational phase on 19th November2018

The purpose of the Operational Environment Management Plan (OEMP) is to detail an environmental management framework, practices and procedures to be followed during operation.

This OEMP has been drawn up in accordance with the Conditions of Consent of 10 June 2005 and its subsequent modifications (September 2009 and October 2017).

# 1.2. Project Phases

The C2WF Project has three (3) main project phases;

- 1. Construction; which includes any activity requiring, and/or included in, a Construction Certificate, the laying of a slab or significant excavation work and/or earth moving works
- 2. Commissioning, which includes the commencement of testing and connection of any individual turbine(s) and may include concurrent ongoing construction activities
- 3. Operations; within three months of the commencement of commissioning, unless otherwise agreed to by the Secretary

# **1.3.** Relationship between Project Phases and Environmental Management Plans

During the construction phase of the project, the CEMP was the only environmental plan in effect. The CEMP has numerous sub-plans incorporated into it that were developed with assistance from third-party consultants. The CEMP was approved by the NSW Department of Planning on 12<sup>th</sup> of May 2009.

During the commissioning phase, the CEMP remained in effect. The document was reviewed for effectiveness.

For the Operations phase, the OEMP will take effect and begin to replace the CEMP. However, as there will be some limited residual activities associated with the conclusion of the construction phase, these activities have been identified and listed in Section 1.4 Residual Construction Activities and will be carried into the first 12-months of Operations. To ensure acceptable environmental protection standards are maintained during these activities, the respective elements of the CEMP will remain in effect for the duration of these specific activities.

#### 1.4. Residual Construction Activities

Residual construction activities and will be carried into the first 12-months of Operations are as follows (extracted from Section 2.6 of the CEMP);

- Earthworks to provide footings for new structures and connection points (Metmast only)
- Maintenance of permanent and temporary erosion and sedimentation controls.
- Trenching and laying down of Cables
- Revegetation and rehabilitation of laydown and compound areas and some landscaping works

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· Demobilisation, clean up and restoration of site

#### 1.5. Operational Activities

The Crookwell 2 Wind Farm is operated as a manned electricity generator providing up to 91 MW of renewable power at full capacity into the 330kV network owned by TransGrid.

The following activities are likely to occur during the operation of the Wind Farm:

- Generation of electricity
- Switching turbines on/off depending on the suitability of the wind resource in generating electricity
- Maintenance of turbines, nacelles, blades and towers
- Maintenance of substation (part of which will be owned and managed by TransGrid as a separate facility and will have its own OEMP which is developed in accordance with this OEMP)
- Maintenance of other electrical infrastructure, including underground cables
- Maintenance of access roads and other civil infrastructure

Additionally, a number of environmental obligations are relevant to the operational phase of the project. These obligations will be met by the implementation of specific sub-plans (discussed further).

Crookwell Development Pty Ltd. owns the wind farm. General Electric (GE) is contracted for the operation and integrated maintenance of the turbines and associated control infrastructure. It should be noted that GE supplied and installed the wind turbines and will operate under its own technical guidance's.

#### **1.6.** Scope

The OEMP is an overarching plan written to sit aside other management documents. It provides the environmental management details for the operational phase of C2WF project and applies to all activities including those undertaken by subcontractors.

The OEMP contains environmental detail sufficient to ascertain project:

- Governance the OEMP establishes a framework for management and control of activities with environmental aspects and key risks identified
- Assurance the OEMP is the key plan describing how the Wind Farm Owner and its contractors will control the environmental aspects of project operation and how appropriate reviews will be carried out
- Verification and validation the OEMP provides a framework to assure environmental quality and performance outcomes can be verified and validated

The **purpose** of this OEMP is to ensure that the potential environmental impacts associated with the operational phase of the C2WF are managed in accordance with statutory obligations and the Conditions of Consent (CoC).

#### The **objectives** of the OEMP are:

- To enable commercial operation of the C2WF in an environmentally responsible manner
- To provide operational staff with a clear, concise and practical environmental management plan
- To identify and detail monitoring requirements associated with operation
- To identify environmental management responsibilities and management structure
- Present the regulatory framework within which operation occurs
- To meet the Conditions of Consent in relation to the OEMP and ongoing environment monitoring requirements

The environmental management during the operation of the C2WF has two key aspects which could have environmental impact:

- Impacts from the operation of the wind farm for energy generation, including the need for any monitoring programs
- Impacts from maintenance activities including civil and structural works to maintain the wind farm infrastructure (routine and non-routine maintenance)

The scope of the OEMP coincides with the operational phase of the Crookwell 2 Wind Farm project. Operation includes the management of specific environmental components, as set out in the following management sub-plans that complement the OEMP:

The scope of this OEMP comprises all operational activities, including environmental management commitments, operation and maintenance of turbines, nacelles, towers, substation, other electrical infrastructure, access roads and other civil infrastructure.

The OEMP, sub-plans and work method statements will be applicable to all site workers throughout the entire operational phase. Copies of the OEMP will be made available to any member of the public, on request. The OEMP will also be available on the company's website (<a href="http://www.unionfenosa.com.au/nsw-crookwell-2-project-documents/">http://www.unionfenosa.com.au/nsw-crookwell-2-project-documents/</a>) after it has been approved by the Secretary.

# 2. Environmental Policies and Principles

GPG Australia Pty Ltd (GPG Australia) it's the Australian subsidiary of Global Power Generation (GPG), GPG Australia is the 100% owner of Crookwell Development Pty Ltd (CDPL), the company holding the rights for the 91 MW Crookwell 2 Wind Farm.

Gas Natural Fenosa (GNF, now Naturgy) is a global group of companies, within which GPG is responsible for the operation and maintenance of international generation assets, and guaranteeing the adoption of environmental Best Practice.

The GPG Policy establishes a common framework of action that steers the socially responsible conduct of the company. The main goal of this policy is to establish the action principles and commitments made to its stakeholders, in line with the company's corporate strategy, as well as determine the responsibilities and specific monitoring instruments for ensuring compliance. Furthermore, and in accordance with the recommendations of the Code of Good Governance for Listed Companies, it has been approved by the Board of Directors. The Corporate Responsibility Policy of GPG contains the eight commitments accepted by the company in this area. These commitments are:



For GPG, corporate responsibility comprises the actions taken to establish trusting, stable, solid and mutually beneficial relationships with its stakeholders. An appropriate relationship with the environment constitutes a top priority strategic issue for the company; It is essential for generating value and ensuring company sustainability in the long term.

The Corporate Responsibility Policy is detailed in APPENDIX 11.

# 2.1. Environmental Management System (EMS)

GPG manages a range of power generation facilities around the world in a manner that seeks to respond effectively to the needs of its customers with reliability, safety and sustainably. The generation networks are composed of electrical production facilities with diversified technologies and fuels that including combined cycle, hydro, thermal, solar and wind.

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The GPG Integrated Management System includes the processes and activities of all the Units, Facilities and Production centres for which GPG is responsible. The Integrate Management System of GPG is based on the standards and documents referenced in **NG.00002.GN-AD.25** *Manual of the Comprehensive Quality, Environment, Health and Safety Management System, and they are:* 

- ISO 9000: Quality management systems. Fundamentals and vocabulary.
- ISO 9001: Quality management systems. Requirements.
- ISO 14001: Environmental management systems. Requirements with guidance for use.
- OHSAS 18001: Occupational safety and health management systems.
- Mission, vision and values of Naturgy.
- Corporate Responsibility Policy.
- Code of Ethics of Naturgy.
- NG.00001.GN General Management Regulation for the body of rules of Naturgy.

The methodology used by GPG-Operations to identify and evaluate environmental aspects is defined by Naturgy in **PG.00004.GN** *Identification and Evaluation of Environmental Aspects. Environmental.* Environmental aspects will be evaluated according to the frequency set forth in PG.00004.GN.

**THEMIS** is a computer application used for recording, communicating and/or evaluating legal requirements in relation to international benchmarks and standards implemented. The CR2WF O&M Manager will be responsible for carrying out the evaluation of compliance with all the requirements applicable to the activity of the wind farm. When the CR2WF O&M Manager or the CR2WF Site Supervisor deems it necessary, they could propose new legislation in the corresponding area to evaluate its applicability.

The **PG.00003.GN** *Identification, evaluation and distribution of legal and other requirements of the integrated quality, environmental and health and safety management system* will be applied, which sets forth the responsibilities and method for identifying, recording, updating and distributing legislation, regulations and rules and the applicable requirements thereof, as well as for the periodic evaluation of compliance using the THEMIS corporate tool.

The method defined for identifying and responding to potential accidents and emergency situations, for the purpose of preventing and reducing the associated impacts and liabilities, is described in **PG.00010.GN** *Preparation for and response to emergencies*.

GPG's facilities have an Emergency/Self-protection Plan in the following cases:

- Facilities where the Basic Self-protection Regulation is applicable have a Self-protection Plan that must comply with the minimum requirements of this regulation.
- All other facilities will have an Emergency Plan with the minimum content established in the applicable regulations in the scope of Occupational Health and Safety.

In any event, the Emergency/Self-protection Plan will include action guidelines in the event of accidents with an environmental impact.

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All incidents, accidents and non-conformities are undesirable events that are proof of non-compliance with the Integrated Management System, wherefore actions must be taken in order to restore compliance as soon as possible so that any consequences are minimized and so that the causes can be analysed to prevent their repetition.

The basic action criteria for identifying, processing and investigating the causes of accidents, incidents and non-compliant products and/or services are defined in NT.00035.GN Process of communication, investigation and follow-up on accidents and incidents, in NT.00036.GN Classification of incidents, in PE.00010.GN-GA Environmental Accidents and Incidents and in PG.00007.GN Management of findings of the Integrated Quality, Environment, Health and Safety Management System

During the operation of the wind farm will apply **PG.00003.GN** *Identification, evaluation and distribution of legal requirements and other integrated quality management, environment and health and safety.* This procedure establishes the methodology to identify, register, update and distribute legislation, regulations and standards and the applicable requirements thereof, together with other requirements, as well as for the periodic evaluation of compliance using the THEMIS corporate.

In the event that a requirement is assessed as 'Non-Compliant', a non-conformity shall be opened as stipulated in document **PG.00007.GN** Management of findings of the Integrated Quality, Environment, Health and Safety Management System, and the status of the requirement should be changed to "In Progress".

All new or amended requirements than may involve changes to one or more procedures must be reported to all interested parties, for the purposes of evaluating whether they are applicable, and to evaluate compliance with said requirements.

# 3. Legal and Other Requirements

The Operation and Maintenance Manager (or delegate) monitors legislation and ensures that they are relevant and current as well as ensuring access to industry and government communication channels.

The Operation and Maintenance Manager is responsible for collecting and disseminating information on legislative changes, codes of practice and environmental best practice initiatives, as applicable to the project, through maintaining contacts with information sources from such organisations as local Councils, EPA, NSW and federal governments, construction related industry bodies.

A register of legal and other requirement (see Table 1) updates will be maintained by the Owner's management Team to detail actions required and how changes have been communicated.

Table 1 - Legal and other requirements, their associated application, and responsible administrator relevant to the project.

Legislation	Application	Responsible Department / Administrator
Acts & Regulations		
Biodiversity Conservation Act 2016	Provides protection and lists all threatened and endangered species, communities and threatening processes in NSW.	Office of Environment and Heritage (OEH)

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Legislation	Application	Responsible Department / Administrator
Biosecurity Act 2015	Provides a framework for the State-wide control of weeds through a catchment-management approach.	Department of Primary Industries (DPI) – Agriculture
Contaminated Land Management Act 1997	This Act enables the EPA to respond to contamination that is causing a significant risk of harm to human health or the environment and sets out criteria for determining whether such a risk exists.	Environmental Protection Authority (EPA)
Crown Lands Act 1989	Environmental protection principles be observed in relation to the management and administration of Crown land, that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible.	Department of Lands
Environmental Planning & Assessment Act 1979	To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources	Department of Planning and Environment NSW (formerly known as Department of Infrastructure, Planning & Natural Resources)
Environmentally Hazardous Chemicals Act 1985	Provides the framework for the management of environmentally hazardous chemicals.	Environmental Protection Authority (EPA)
Fisheries Management Act 1997	Provides protection and lists all threatened and endangered aquatic species, communities and threatening processes in NSW. Regulates works within waterways which impact on fish passage, dredging or reclamation works.	Department of Primary Industries (DPI) – Fisheries
Heritage Act 1977	Protects the State's natural and cultural heritage. Aboriginal places or objects that are recognized as having high cultural value are listed on the State Heritage Register.	Office of Environment and Heritage (OEH)
Local Land Services Act 2013	Deals with the conservation and management of native vegetation in rural areas.	Local Land Services (LLS) and Office of Environment (OEH)
National Parks and Wildlife Act 1974	Provides for the care, control and management of all national parks, historic sites, nature reserves, reserves, Aboriginal objects and places and state game reserves along with native species not listed under the TSC Act.	Office of Environment and Heritage (OEH)

Legislation	Application	Responsible Department / Administrator
Occupational Health and Safety Amendment (Dangerous Goods) Act 2003 No 38	Regulates dangerous goods in NSW by requiring the various activities, such as the keeping, conveyance, use and manufacture of certain dangerous goods to be licensed by Safework.	Safework NSW
Pesticides Act 1999	Controls and regulates the use of pesticides in New South Wales.	Environmental Protection Authority (EPA)
Protection of the Environment Operations Act 1997	The Act has a scheme for the making of policy instruments set environmental standards, goals, guidelines or protocols, issues EPL's and governs penalties relating to waste management and pollution of the environment.	Environmental Protection Authority (EPA)
Rivers and Foreshores Improvement Act 1938	Regulates works within 40m of waterways.	Department of Industry
Roads Act 1993	The Act aims to set out the rights of members of the public to pass along public roads, to set out the rights of persons who own land adjoining a public road to have access to the public road, and to regulate the carrying out of various activities on public roads.	Roads & Traffic Authority
Rural Fires Act 1997	To provide: for the prevention, mitigation and suppression of bush and other fires in local government areas (or parts of areas) and other parts of the State constituted as rural fire districts, and	Rural Fire Service (RFS)
	for the protection of persons from injury or death, and property from damage, arising from fires, and	
Waste Avoidance and Resource Recovery Act 2001	Promotes waste avoidance and resource recovery.	Environmental Protection Authority (EPA)
Water Management Act 2000	The objects of this Act are to provide for the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations.	Department of Primary Industries (Office of Water)
		(Formerly Department of Planning NSW)

Legislation	Application	Responsible Department / Administrator
Other Requirements (Australian Standards (AS), Codes of Practice, Licences, Approvals)		
AS 1940 – 2017 – Storage and Handling of Flammable and Combustible Liquids	Sets out requirements for design, construction and operations of installations for the storage and handling of flammable and combustible liquids.	Standards Australia
AS/NZS ISO 14001:2004	Environmental Management Systems	Standards Australia / Standards New Zealand
Environmental Noise Management Manual	Provides guidelines for Noise Management	RTA
Landcom (2004). Managing Urban Storm water: Soils and Construction ("Blue Book").	Sets out requirements for the design, construction and maintenance of Erosion and Sediment control measures and the management of soil and water on construction sites	Landcom
Large Scale Renewable Energy Target	The project will be a Large-Scale Generation facility under the national Renewable Energy Target (RET)	Clean Energy Regulator

# **3.1.** Licenses, Permits and Approvals

On 16 February 2004, in accordance to section 76A of the Environmental Planning and Assessment Act, 1979 (the EP&A Act), the NSW Minister for Infrastructure and Planning declared that the proposal was to be assessed as State Significant (as a proposed wind farm of 60MW or greater capacity), by notice in the gazette.

The proposal is classified as integrated development, under Section 91 of the EP&A Act, because it requires additional approvals from the Environment Protection Authority and the Office of Environment and Heritage under the Protection of the Environment Operations Act 1997 and the National Parks and Wildlife Act 1974, the Department of Planning and Environment under the Rivers and Foreshores Improvement Act 1948, the Roads and Maritime Services under the Roads Act 1993, and the Department of Industry, under the Roads Act 1993.

The proposal is classified as designated development, under Clause 18(1)(c) of Schedule 3 of the Environmental Planning & Assessment Regulation 2000, because it constitutes an electricity generating station which will supply or is capable of supplying more than 30MW of electrical power.

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The Development Consent for the C2WF (No. DA-176-8-2004-i) was granted by the Minister of Infrastructure and Planning under **Part 4 of the EP & A Law**, on June 10, 2005. This Consent has been modified in June 2009 and October 2017. For the elaboration of this OEMP, the latest version of the "Conditions of Consents" has been considered, which includes the aforementioned modifications.

An Environmental Protection License (EPL) is required for the operation of wind farms in NSW under Protection of the Environmental Operations Amendment (Scheduled Activities) Regulation 2013 which commenced on 10 April 2017. A license has been obtained by the Proponent (20911) and it will be maintained by the Owners Representative throughout the life of the project. Monitoring/compliance actions will be undertaken in accordance with the conditions of the EPL.

Table 2 - Summary of Licenses, Permits and Approvals

Authority	Act	Details
Department of Planning and Environment NSW (formerly known as Department of Infrastructure, Planning & Natural Resources)	Environmental Planning & Assessment Act 1979	Development Approval granted June 2005, Modification 2 approval granted 31 October 2017 (Ref: DA-176-8-2004-i)
Environmental Protection Authority (formerly known as Department of Environment & Climate Change)	Protection of Environment Operations Act 1997	Environmental Protection Licence granted 10 April 2017 Ref: 20911
Environmental Protection Authority (formerly known as Department of Environment & Climate Change)	National Parks and Wildlife Act 1974	Permit S90 granted
Department of Primary Industries (Office of Water) (Formerly Department of Planning NSW)	Water Management Act 2000	Controlled Activity Permit ERM2009/0595
Roads & Traffic Authority	Roads Act 1993	Road Occupancy License granted
Office of Environment and Heritage	National Parks and Wildlife Act 1974 and Biodiversity Conservation Act 2016	Licence to keep deceased wildlife for the purposes of scientific research (under application as at 02/07/2018)
Department of Lands	Crown Lands Act 1989	Crown Lands Crossing License

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# 3.2. Conditions of Consents During Operational Phase

The Minister for Infrastructure and Planning, originally granted development consent in June 2005 for the C2WF (DA 176-8-2004-i). The proposal was assessed, in accordance with the NSW Environmental Planning and Assessment Act 1979 (EP&A Act), under Part 4. A modification to the Project Approval (Modification 2) was granted on October 31 2017

It is important to define the different phases of the project included in the Consent:

- Commissioning: commencement of testing and connection of any individual turbine(s) and may include concurrent ongoing construction activities.
- Operation: Within three months of the commencement of commissioning, unless otherwise agreed to by the Secretary.
- Decommissioning: The removal of wind turbines and any associated above ground infrastructure.

Conditions relating to decommissioning will become relevant at the end of the Operational phase of the wind farm. Arrangements for complying with these conditions will be stated under the Decommissioning Management Plan to be produced in accordance with conditions 9, 110, 111 and 112.

The following are the conditions included in the "Conditions of Consent" related to the pre-operation or commissioning and operation phase, which must be included in the preparation of the OEMP.

#### Compliance

Pre-Operation Compliance Report

**17** The Applicant must **submit a Pre-Operation Compliance Report to the Secretary at least two weeks prior to the 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 Condition 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.

#### **Environmental Monitoring**

General Monitoring Requirements

- **21** The Applicant must undertake all monitoring, including recording and reporting of monitoring results, as required under this consent.
- **22** The results of any monitoring required under this consent must be recorded and maintained, as set out below. All records 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 on request.
- 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.

#### **Environmental Impact Audits**

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 operation 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 also 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.

#### **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 EPA and Council as soon as practicable.

#### **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 licenses 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.

#### Consultation

**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.

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# **Landscaping Requirements**

36 Prior to the commencement of operation of the development, the Applicant must prepare an Onsite

**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 be 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.

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 RMS, Council and land owners abutting Crookwell Road as bounded by the site. The Roadside Landscape Management Plan must include, but not be 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 Austroads Guide to Road Design (as amended by RMS supplements), unless RMS agrees otherwise;
- (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.

**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.

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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:

$\square$ 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.

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

#### **Operational Noise Monitoring**

- **48** The Applicant must ensure that the noise generated by the operation of wind turbines does not exceed the relevant criteria.
- **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.
- **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.
- **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.
- **52** The Applicant must undertake further noise monitoring of the development if required by the Secretary.

#### **Road Dilapidation Report**

**59.** 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

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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.

#### **Crown Roads**

**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.

**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 measured from the edge of the Woodhouselee Road pavement.

## **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.

#### Flora and Fauna

**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
- (c) discussion about the stability and condition of any associated stream works.

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 the Department and OEH 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 replanting 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:
    - (a) minimising the availability of raptor perches modifying structures to prevent perching
    - (b) management of lambing
    - (c) swift carcass removal
    - (d) pest control, including rabbits
    - (e) management of stock (grain) feeding
    - (f) filling in of small dams that might attract insects and birds
    - (g) use of deterrents (eg. flags, marker balls)
    - (h) minimising external lighting
    - (i) turbine management, that might include the turning off of turbines that are predicted to cause unacceptable bird/bat mortality at identified times
    - (j) measures identified from research undertaken at other wind farms to reduce the incidence of bird/bat strike
    - (k) 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.

#### **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 behavior 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.

#### Soil and Water Management

**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.

**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.

#### 3.3. Conditions of Consents Vs OEMP

Table 3 - Conditions of Consent and OEMP Compliance

DESCRIPTION OF TOPIC	Conditions of Consents	Section of OEMP detailing compliance
Pre-Operation Compliance Report	17	12.3.1 C2WF Construction and Pre- Operation Compliance Report APPENDIX 10
General Monitoring Requirements	21	10. Environmental Monitoring, Controls and Actions Table 6

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		12.3 Reporting Table 7
General Monitoring Requirements	22	10. Environmental Monitoring, Controls and Actions Table 6 12.3 Reporting Table 7
General Monitoring Requirements	23	10. Environmental Monitoring, Controls and Actions Table 6 12.3 Reporting Table 7
Environmental Impact Audit Report – Operation	25	12.1 Environmental Audit
Operation Environmental Management Plan (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;	27(a)	3. Legal and Other Requirements. Table 1
(b) a description of the roles and responsibilities for all relevant employees involved in the operation of the development;	2(b)	4. Organizational accountability, responsibility and authority Table 4
(c) overall environmental policies and principles to be applied to the operation of the development;	27(c)	Environmental Policies and     Principles     1.1 Environmental Management     System (EMS)     APPENDIX 9
<ul> <li>(d) standards and performance measures to be applied to the development, and a means by which environmental performance can be periodically reviewed and improved;</li> </ul>	27(d)	2.1 Environmental Management System (EMS) 12.1 Environmental Audit 12.3.2 Annual Environmental Management Report
(e) management policies to ensure that environmental performance goals are met and to comply with the Conditions of Consent; and	27(e)	Environmental Policies and Principles     Environmental Management System (EMS)     APPENDIX 9
(f) the Management Plans required to be included in the OEMP as specified in the Conditions of Consent.	27(f)	7. Operational Environmental Management (Sub) Plans and Procedures
(g) The OEMP must be certified by the Environmental Representative that it is prepared in accordance with the Conditions of Consent.	27(g)	Letter of Endorsement (submitted to DPE with the OEMP)

(h) The OEMP is to be submitted for the	27(h)	(insert reference here once complete)
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.		
(i) Receipt of the Secretary's approval,	27(i)	To be submitted (insert reference
the Applicant must supply a copy of		here once complete)
the OEMP to EPA and Council as		
soon as practicable.		
Environmental Representative	28	4.2 Environmental Representative
Landscaping Requirements	36	7.2 On-Site Landscaping Plan
		APPENDIX 1
Landscaping Requirements	37	7.1 Roadside Landscape
		Management Plan
		APPENDIX 2
Landscaping Requirements	38	12.5 Community Complaints Protocol
Landscaping Requirements	39	Product Specification – not included
		in OEMP as prior to Operation
Landscaping Requirements	40	Product Specification – not included
		in OEMP as prior to Operation
Operational Noise	48	7.3 Noise Compliance Strategy
		APPENDIX 3
Operational Noise	49	7.3 Noise Compliance Strategy
		APPENDIX 3
Operational Noise	50	7.3 Noise Compliance Strategy
		APPENDIX 3
Operational Noise	51	7.3 Noise Compliance Strategy
		APPENDIX 3
Operational Noise	52	7.3 Noise Compliance Strategy
		APPENDIX 3
Road Dilapidation Report	59	Table 7
Crown Roads	68	7.1 Roadside Landscape
		Management Plan
		APPENDIX 2
Operational Traffic	70	Completed during construction phase
Road Safety	71	Table 6
Flora and Fauna	83	7.5 Operational Flora and Fauna
		Management Plan
		APPENDIX 4
Bird and bat Adaptive Management	84	7.6 Bird and Bat Adaptive
Program		Management Plan
		APPENDIX 5
Soil and Water Management	87	7.9 Stormwater Management Plan
		APPENDIX 7
Soil and Water Management	88	7.7 Vegetation Management Plan
		APPENDIX 8
		7.8 Soil and Ground Water

APPENDIX 6

# 3.4. Organizational Accountability, Responsibility and Authority

A range of personnel will be involved in the environmental management of the operation of the C2WF. All site staff have responsibilities and authorities in relation to environmental management including:

- The right to stop work or refuse to work in a situation that may cause environmental harm
- Duties and responsibilities to prevent pollution
- Obligations to respond to environmental incidents, including their prevention, clean-up and reporting.

Table 4 - Employees with specific environmental responsibility

PERSONNEL	RESPONSABILITY	AUTHORITY to
CR2WF O&M Manager (Located onsite and remotely)	<ul> <li>Ensure Environmental Policy is communicated throughout business.</li> <li>Responsible for providing the required resources to complete the required tasks and to facilitate company corporate support. (Resources financial, technical and management external resources).</li> <li>Develop and implement objectives and targets for environmental and safety management.</li> <li>Maintain the Integrated Management System.</li> <li>Oversee the implementation of all environmental management plans and monitoring programs required under the planning approval</li> <li>Determining sequence and interaction of staff, resources and processes</li> <li>Ensure communications and reporting framework in place</li> <li>Ensure the goals of the OEMP (and sub-plans) are achieved and maintained</li> <li>Report incidents to agencies</li> <li>Ensure mitigation plans are appropriate and resourced</li> <li>Reviews OEMP and, if it is necessary, make changes to OEMP and communicate to relevant stakeholders</li> <li>Communication with stakeholders including agencies, public and other identified stakeholders</li> <li>Manages environmental compliance obligations and any consultants required in relation to this work</li> <li>Designs and Implements environmental induction</li> <li>Approves maintenance programs and environmental controls</li> <li>Delegates to Site Supervisor</li> </ul>	All aspects of the environmental performance of the project.  To update OEMP and implement upon Department/Agency Approval Stop Work orders
CR2WF Site Supervisor (located on site full time)	<ul> <li>Responsible for delivery of operational and maintenance activities, including routine and non-routine maintenance works.</li> <li>Responsible for implementing the OEMP in relation to operate and maintenance activities</li> <li>Ensure all activities on site are undertaken in accordance with the OEMP, sub-plans and Safety Management Plan</li> <li>Reporting of environmental incidents</li> <li>Maintains relationships with the community and landowners</li> </ul>	Limit and Stop works

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	<ul> <li>Ensure management measures relating to wind farm performance are maintained</li> <li>Responsible for ensuring any subcontractors engaged in relation to this project are inducted and the OEMP (and subplans) are implemented.</li> <li>Identifies all environmental and safety risks associated with operate and maintenance works</li> <li>Creates /reviews EWMS and JSEAs for operational staff and contractors</li> <li>Reports incidents to agencies.</li> <li>Maintains site records</li> <li>Ensure inductions and training are completed in accordance with the OEMP and sub-plans</li> <li>Ensure environmental impacts are minimised and environmental obligations set out in the OEMP and subplans are met</li> <li>Ensures goals of Safety Management Plan are achieved</li> <li>Ensure that environmental auditing is undertaken in accordance with all relevant project Environmental Management Systems and Safety Management System and</li> </ul>	
	their associated ISO standards (where applicable)	
Environmental representative (Located remotely with regular site visits)	<ul> <li>Be the principal point of advice in relation to the environmental performance of the project</li> <li>Oversee the implementation of all environmental management plans and monitoring programs required under the planning approval, and the Proponent upon the achievement of these plans/programs</li> <li>Consider and advise the Proponent on its compliance obligations against all matters specified in the conditions of the planning approval and the Statement of Commitments and all other licenses and approvals related to the environmental performance and impacts of the project</li> <li>Ensure that environmental auditing is undertaken in accordance with all relevant project Environmental Management Systems</li> <li>Be 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.</li> </ul>	Require environmental actions to be undertaken

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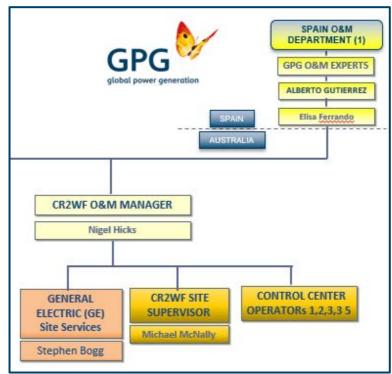


Figure 2 - Crookwell 2 Windfarm Operations and Management Structure

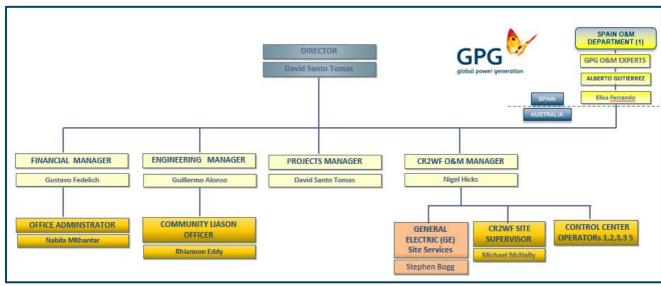


Figure 3 - GPG Australia Structure

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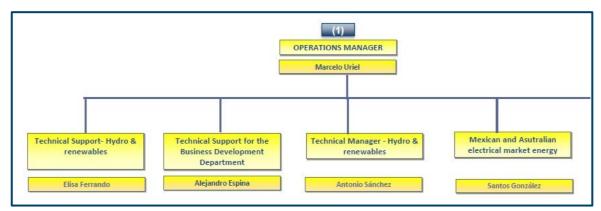


Figure 4 - GPG International Operations Structure

# 3.5. Duty to Report Incidents

A pollution incident is required to be notified if there is a risk of '<u>material</u> harm to the environment', which is defined in section 147 of the Protection of the Environment Operations Act 1997 (POEO Act).

Harm to the environment is material if:

- (a) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is **not trivial**, OR
- (b) It results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000AUD (or such other amount as is prescribed by the regulations), and

Loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment."

Under the POEO Act, the following people have a duty to notify a pollution incident occurring in the course of an activity that causes or threatens material harm to the environment

- the person carrying on the activity
- an employee or agent carrying on the activity
- an employer carrying on the activity
- the occupier of the premises where the incident occurs

Notification must be given immediately, i.e. promptly and without delay, after the person becomes aware of the incident.

If the incident presents an immediate threat to human health or property – call 000. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

If the incident does not require an initial combat agency, or once the 000-call has been made, notify the relevant authorities in the following order. The 24-hour hotline for each authority is given when available:

- the appropriate regulatory authority (ARA) for the activity under the POEO Act is NSW EPA 131
   555
- the Ministry of Health via the local Public Health Unit see www.health.nsw.gov.au/publichealth/infectious/phus.asp
- SafeWork NSW (formerly WorkCover) phone 13 10 50
- Fire and Rescue NSW phone 1300 729 579
- The land owner and affected neighbours

Note: If the situation warranted calling 000 as a first point of notification, you do not need to ring Fire and Rescue NSW again.

All personnel shall report all actual environmental incidents immediately to the Environmental Representative and/or CR2WF O&M Manager(GPG) or Site Services (GE). It is the responsibility of the Environmental Representative or nominated person(s) to fully investigate the occurrence with personnel involved in accordance with the 'Accident Investigation and Reporting' in PROSAFETY

In the event of an environmental incident on site, the CR2WF O&M Manager shall complete within 24 hours:

- Accident/Incident Report
- Accident Statement Report

For incidents where there is not *material harm to the environment*, notification to the relevant authorities is not required, as defined in **section 147 of the Protection of the Environment**Operations Act 1997, however application of internal document NT.00035.GN *Accident and incident communication, investigation and follow-up process* is required.

# 3.6. Environmental Representative

In accordance to condition 28 of the CoC, "an Environmental Representative must also be employed during operation. The Environmental Representative of C2WF is Mr. David Bone of On-Site Environmental Management.

# Personnel, Training and Induction

All employees shall receive appropriate environmental induction and training to ensure that they are aware of their responsibilities and are competent to carry out the work. Environmental requirements will be explained to employees during the site induction on on-going training via *tool box* meetings, briefings and notifications as required.

All employees (including subcontractors) shall receive induction/training in the following:

- GPG Environmental policy (Refer Appendix 16)
- This OEMP and its intended purpose, including its relationship to and the associated sub-plans.
   An outline of the OEMP structure.
- Site environmental risks
- Understanding individual authorities and responsibilities: The roles and responsibilities of staff, including contractors, in relation to environmental management
- Site environmental rules
- An outline of the environmental Incident Management Procedure

To demonstrate and foster a culture of commitment to the environment there will be:

- Participation of senior management to ensure the rationale, adoption and management of the OEMP has a clear line of commitment 'from top to bottom'
- Regular communication of project environmental performance
- · Sharing of environmental lessons
- Identification and management of environmental risks
- Incident investigation
- Closing out environmental actions and recommendations

# 4.1. Environmental Awareness

The awareness of environmentally sensitive areas in the site is established during the development of the bidding documents and communicated within specific work procedures. Environmental awareness is reinforced to workers during the site induction.

A set of toolbox topics will be developed to be used during the meetings. These topics will be developed progressively with the purpose of raising awareness about the current and changing environmental risks of the site.

Effective communication of the topics will be ensured by use of aids such as PowerPoint presentations, discussion sessions, information posters, videos or other media. The training will cover risks such as waste management, hydrocarbons, accidental spills, flora / fauna, especially birds and bats, management of environmental incidents and any other site-specific issues.

It is anticipated that a tool box talk would be held at the commencement of each day that contractors attend site, or at the commencement of new maintenance activities. Tool box talks will brief on the specific proposed work activities that are scheduled for that day and their possible impacts. In addition, the necessary work method statements and sub plans would be refreshed prior to the commencement of work.

- Site meetings would be held on a regular basis involving all site personnel. The objectives of the site meetings are to discuss the coming weeks proposed activities and identify the risks, work method statement requirements and sub plans.
- Any non-compliances will be discussed and actions to address and close issues will be developed, consulted and agreed upon.

At the beginning of the operation activity, the training sessions are given by the Site Supervisor (GPG) and the Service Site Manager (GE) lead the daily talks. If necessary, when an environmental risk has been identified the meeting will be led by the Environmental Representative or another appropriately qualified specialist.

#### 5. Documentation Control and Records Management

Document control is a fundamental aspect of an environmental management system. For this project, document control for the OEMP and sub-plans will be managed as indicated in **NG.00002.GN** *Manual of the Comprehensive Quality, Environment, Health and Safety Management System,* and specifically in the procedures: **PE.04950.GN-PG.SI** *Management of modifications in equipment and installations.* 

In accordance with Items 21, 22 and 23 of the CoC, all monitoring records will be kept in accordance with **PE.04951.GN-PG.SI** Document management at facilities.

In accordance with 22<sup>nd</sup> condition of Conditions of Consent, the results of any monitoring must be recorded and maintained in a legible form and kept for at least 4 years after the monitoring or event to which they relate took place

#### 6. Operational Environmental Management (Sub) Plans and Procedures

This section documents the background and broad-level strategic details of the management of operational environmental issues, whereby independent expertise has been engaged to assist.

It is important to understand that the development of sub-plans, are closely associated with their respective Conditions of Consent. Moreover, some CoC's are exclusive to the various phases of the project, while others carry across the various stages. Where a sub-plan and/or CoC is exclusive to Operations, they have been developed more recently with appropriate consultation and are introduced into the OEMP.

Where a sub-plan and/or CoC remains in effect during multiple stages of the project and was originally part of the approved CEMP, it has been again included into the OEMP. To help avoid any confusion, any actions or responsibilities from these sub-plans, that are valid during Operations, will be extracted and included in Section 9 of the OEMP (as part of Table 6).

The primary reason for their inclusion into the OEMP was that there are ongoing monitoring requirements of rehabilitation areas, erosion/scouring, etc, that carried into Operations for the first few years. They had previously been part of the approved CEMP, and to good effect throughout construction. As such, they are to be continued to be utilised and re-submitted as part of the OEMP. They were not modified as this would harm the integrity of the document.

The information provided below outlines the specific environmental management plan that will be used to manage key environment issues:

#### **6.1.** Roadside Landscape Management Plan (RSLMP)

Green Bean Design Pty Ltd (GBD) has been commissioned by Crookwell Development Pty Ltd (CDPL) to prepare the Crookwell Road Landscape Management Plan (Crookwell Road LMP) for the approved and constructed Crookwell 2 Wind Farm (C2WF). The Crookwell Road LMP has been prepared in response to, and addresses, the Crookwell 2 Wind Farm Project Approval, Conditions of Approval (CoA) and specifically Landscaping Requirements Condition C37 of the CoA. The approval process for the C2WF requires preparation of a landscape management plan 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 Crookwell Road LMP has been prepared with regard to the Roads and Maritime Services publication 'Landscape guideline' April 2008. All landscape works along the Crookwell Road corridor shall be installed in accordance with Austroads Guide to Road Design Part 6 Roadside Design, Safety and Barriers, and the RMS Landscape Guideline Section 3.3 Safety guidelines for clear zones and sight distances.

In accordance with Condition of Approval, the Crookwell Road LMP scope includes:

- Identification of the relevant Condition of Approval
- A description of the Condition of Approval inferred objectives
- A record of consultation undertaken by CDPL and GBD
- Identification of plant species and planting locations to address the Condition of Approval, including fast growing species where appropriate
- Preparation of planting plans
- Provision of a maintenance programme for the landscape works.

#### **6.2.** On-Site Landscaping Plan (OSLP)

Green Bean Design Pty Ltd (GBD) has been commissioned by Crookwell Development Pty Ltd (CDPL) to prepare an Onsite Landscaping Plan (OLP) for the approved and constructed Crookwell 2 Wind Farm (C2WF). This OLP has been prepared in response to, and addresses, the Crookwell 2 Wind Farm Project Approval, Conditions of Approval (CoA) and specifically Landscaping Requirements Condition C36 of the CoA. The approval process for the C2WF requires preparation of an OLP 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'. This OPL has been prepared with regard to the Roads and Maritime Services publication 'Landscape guideline' April 2008 as relevant to the on-site landscape works.

In accordance with Condition of Approval, the on-site landscaping plan scope includes:

- Identification of relevant Condition of Approval
- Description of the Condition of Approval inferred objectives
- Record of consultation undertaken by CDPL and GBD
- Identification of plant species and planting locations to address the Condition of Approval
- Preparation of planting plans
- Provision of a maintenance programme for the landscape works.

#### **6.3.** Noise Compliance Strategy (NCS)

The noise emitted by the 3.4-130 WTG is predominantly determined by the aerodynamic noise of the rotor blades, which is directly dependent on the circumferential or blade tip speed. The sound power level can be lowered by reducing the rotor speed and thus lowering and limiting the tip speed. The rated power level is reduced accordingly. In addition, the noise can be reduced by pitching the blade.

Due the proximity of the WTG's to noise receptors, the WTG's at Crookwell will operate in Noise Reduced Operation (NRO) in certain wind conditions. This will ensure that the noise limits set out in the Development Approval are met. These parameters were programmed into the GE SCADA Control System during the commissioning works and it is expected that these setting will achieve compliance. This performance will be evaluated during compliance testing. Further parameter changes will be developed if required.

Further information can be found in the referenced report (see APPENDIX 3).

#### **6.4.** Waste Management Plan (WMP)

Maintenance Superintendent or their nominee, in conjunction with the respective Supervisor, shall implement the agreed waste management control measures as stipulated in the waste management procedure.

The hierarchy for control and abatement of pollution identifies in order the most preferred to the least preferred options:

- Elimination
- Substitution
- Reduction
- Reuse
- Recycle
- Treatment
- Disposal

All Project Personnel to reduce the generation of waste by:

- Only ordering the amount you need
- Completely using a product wherever possible
- Re-using products on-site wherever possible
- Keeping work place tidy to prevent spillage and waste build up

As per the Protection of the Environment Operations (Waste) Regulation 2014, the following needs to be determined and provided to the controlled waste contractor:

Type of controlled waste: refer to Protection of the Environment Operations (Waste) Regulation 2014 Schedule 1,

- Amount of controlled waste
- Contaminant type (bulk/packaged)
- Approval from the appropriate waste destination based on level of contaminants

Further information can be found in the referenced Waste Management Procedure (see APPENDIX 12).

**6.5.** Each week, the Site Supervisor will undertake an inspection utilising the *Hazardous / Universal Waste Storage Inspection Form* (see APPENDIX 13). Operational Flora and Fauna Management Plan (OFFMP)

The overall aim of this OFFMP is to provide methods for managing the impacts on flora and fauna species (terrestrial and aquatic) and their habitats which may be affected by the impacts arising from the operation of C2WF. This is achieved by establishing monitoring and management procedures consistent with the methods outlined by the Australian Wind Energy Association (AusWEA 2005) and endorsed in the Clean Energy Council's Best Practice Guidelines (CEC 2013).

The OFFMP was prepared by a team from Brett Lane & Associates Pty Ltd including; Jackson Clerke (Zoologist), Brett Macdonald (Senior Ecologist), Alan Brennan (Senior Ecologist and Project Manager) and Brett Lane (Principal Consultant).

Further information can be found in the referenced report (see APPENDIX 4).

**6.6.** Bird and Bat Adaptive Management Plan (BBMP)

The overall aim of this BBAMP is to provide a program for monitoring the impacts on birds and bats from the C2WF and an overall strategy for managing and mitigating any significant bird and bat impacts arising from the operation of C2WF. This is achieved by establishing monitoring and management procedures consistent with the methods outlined by the Australian Wind Energy Association (AusWEA 2005) and endorsed in the Clean Energy Council's Best Practice Guidelines (CEC 2013).

This BBAMP is based on the experience gained from the preparation and implementation of approved management plans to monitor and mitigate the impacts of wind farm operation on birds and bats at numerous wind farms in New South Wales and Victoria. At the time of writing, BL&A has prepared and/or implemented approved management plans for White Rock, Cullerin, Gullen Range, Taralga, Capital I and Woodlawn wind farms in NSW (BL&A 2011a & c, 2014, 2016), and Bald Hills, Macarthur, Berrybank, Crowlands, Hawkesdale, Lal Lal, Mt Gellibrand, Mt Mercer, Mortlake South and Ryan's Corner wind farms in Victoria (BL&A 2009, 2011b, 2012ad, 2013a-c).

During the pre-construction phase of the development, bird and bat investigations were undertaken at the C2WF site and the C3WF site. Bird utilisation surveys were conducted in in February and November 2017 and Bat surveys in March – April, and November to December by BL&A. These surveys establish a sufficient baseline of information on bird and bat usage of the site for later comparison once the development is operational.

Further information can be found in the referenced report (see APPENDIX 5).

#### **6.7.** Vegetation Management Plan (VMP)

The aims of the Vegetation Management Plan (VMP) are to provide;

- Guiding documentation toward revegetation and weed management in compliance with the relevant legislative framework (see Section 1.2)
- A rationale for the management actions recommended in the VMP
- Management strategies for the regeneration and revegetation of native vegetation
- The protection and stabilisation of soils from erosion and sedimentation
- A working document for practical implementation by an appropriately qualified bush regeneration contractor
- An ecologically sustainable outcome for the site through the provision of reconstructed native flora and fauna habitats
- Revegetation of the site will seek to replicate original plant communities in order to maintain ecosystem health (corridor and habitat).

Further information can be found in the referenced report (see APPENDIX 8).

#### **6.8.** Soil and Groundwater (SGW)

This Soil and Water Management Plan aims to:

- · Control sediment and erosion to an acceptable level
- Prevent dirty water discharges to the Wollondilly River catchment

The management plan has been reviewed following the completion of construction and is considered suitable for operational purposes.

The following mitigation measures would be implemented during Operations (extracted from Table 9-3 in the Sub-plan) and be detailed further in Section 9, Table 6 of the OEMP;

- Minimise on-site vehicle activity on disturbed surfaces during and after wet weather events
- Weekly inspection of erosion control structures and bunded areas, particularly after any rainfall event
- restricting traffic to defined access tracks and construction impact areas
- weekly inspections of the areas surrounding construction sites, and all access tracks to ensure no erosion features are developing
- spill kits provided on site to contain potential spills from equipment
- Refuelling would be restricted to areas equipped with spill containment

- Regular inspection around turbines and substation to check for erosion / scouring
- Spill kits to be located and maintained around the facility and refuelling only to take place where spill kits are available.
- Weekly inspection of roads and crossing to check for erosion / scouring
- Regular inspection of Rehabilitation areas to ensure no erosion features have developed
- Develop and implement an action plan in the event that erosion is detected during inspections
- In the event of a suspected spill or contamination of soil, samples and testing shall be implemented in the event of this occurring

Further information can be found in the referenced report (see APPENDIX 6).

#### **6.9.** Stormwater Management Plan (SMP)

This Stormwater Management Plan (SMP) has been prepared for the proposed Crookwell II Wind Farm located at Crookwell, NSW. The aim of the plan is to improve the management of stormwater within the project site.

The project site is located within the Upper Wollondilly River sub-catchment, part of the Warragamba Catchment. The plan is therefore consistent with the Integrated Catchment Management Plan for the Warragamba Catchment (NSW DLWC, 2003), also known as the Warragamba Catchment Blueprint (WCB).

#### The SMP:

- Describes the catchment of the site
- Identifies existing catchment conditions
- Establishes the values of the catchment
- States appropriate management objectives
- Identifies management issues
- Evaluates potential management practices
- Presents a performance monitoring program

Stormwater monitoring will be undertaken to determine the performance of implemented stormwater management practices. Monitoring of stormwater management will generally be observational at construction, operational and maintenances areas and involve the following regular inspections:

- Areas surrounding turbine sites
- Substation
- Access tracks
- Drainage trenches,

- Culverts
- Creek crossings including down slope environments
- Erosion control structures and bunded areas
- Rehabilitation sites and vegetated areas surrounding site works

The following mitigation measures would be implemented during Operations;

- Where practical, disturbed ground surfaces are to be rehabilitated with native vegetation. Rehabilitation to be regularly monitored
- Traffic to be restricted to defined access tracks, construction impact areas, and operational areas
- Minimise on-site vehicle use during and after wet weather events
- Installation of a dedicated material storage area in the facilities building, to provide containment for any spills during maintenance activities
- Spill kits to be provided on site, for both construction and operation phases.
   Refuelling will only be allowed in suitably controlled areas or areas where kits are stored
- Regular monitoring to be conducted to ensure all material handling and waste management procedures are being implemented and remain appropriate to the site activities being undertaken
- Establish a maintenance agreement with a licensed contractor (certified to ISO14000 standard requirements) to ensure the wastewater treatment systems meet design specifications
- Weed growth to be monitored as part of vegetation monitoring
- Regular monitoring to be undertaken to ensure effectiveness of erosion and sediment control measures
- Educational training of construction and operational site personnel aimed at erosion and sediment control, vegetation management, waste and spill management at the site during construction, operation and maintenance activities
- Inspection of storage and handling of waste materials
- In the event of a suspected spill contamination of watercourses, additional water quality testing may be required in order to ascertain appropriate corrective treatment measures. Samples and testing shall be implemented in the event of this occurring

Further information can be found in the referenced report (see APPENDIX 7).

#### 7. Maintenance Activities During Operation

Maintenance works during operation can be divided into two types:

- (a) Routine Maintenance
- (b) Non-routine Maintenance

#### 7.1. Routine Maintenance

Routine maintenance is to occur monthly during the life of the project and will be managed by the Operations Manager. Routine maintenance could include activities such as:

- Inspection of turbines
- Inspection of roads and pads
- Inspection of stormwater controls and erosion management
- Replacement of broken or faulty parts and equipment
- Minor cleaning and repairs
- Lubrication of components
- Oil/fluid changes to gear-drives, hydraulics, transformers and other miscellaneous systems

Risk assessments/ environmental analysis will take place prior to each maintenance task/ activity.

#### **7.2.** Non-Routine Maintenance

Some non-routine maintenance, civil and electrical works could be required during the operational phase of the project. Non-routine works would be undertaken by subcontractors and the operations team and supervised by the Services Manager (GE).

Such works could include:

- Civil works to correct failures/deficiencies in the road network, drainage or other infrastructure
- Electrical works, including trenching, re-cabling and testing
- Structural works on turbine towers, nacelles or blades, or other components of the wind turbines
- Maintenance such as replacing infrastructure, washing, painting, welding etc.

In all instances the management sub-plans included in this OEMP will be followed where applicable to manage anticipated environmental impacts from such activities. Additional environmental management measures for non-routine maintenance works may be required, and risk assessments/ environmental analysis will take place prior to each maintenance task/ activity.

#### 8. Risk Register and Assessment

The environmental risk register outlines minimum environmental operational controls to be implemented for each environmental aspect. The structure will be the same than the construction phase.

For each environmental aspect, there is a stated:

- Legal or other obligation including legislation, standards and contractual requirements
- Environmental impact

- Risk analysis (inherent risk) the likelihood and consequence of an environmental hazard/impact occurring in the absence of any control measures
- Objective and targets to be achieved
- Control measures (with assigned responsibility) to be implemented to meet management objectives
  - Monitoring (with assigned responsibility) includes relevant equipment, location of monitors, parameters, baseline monitoring, frequency of monitoring/inspections, recording of complaints and reporting of results (format/frequency)
- Level of residual risk the likelihood and consequence of an environmental hazard occurring following the implementation of control measures

The environmental aspects of being affected and the main associated risks are identified below:

Table 5 – Summary of Environmental Risk

Description of Hazard/Aspect	Risks/Opportunities/Impacts
Spillage or leakage of Hazardous Substances	Contamination of ground/ potential runoff to ground and waterways
Waste Generation and Disposal	Contamination of site environments. Affected livestock form waste digestion
Noise/Vibration in Excess of Legislative Requirements	Non-compliance with legal requirements and disturbance of neighbours and wildlife.
Fire	Fire damage to plant, persons, property, farmland and vegetation
Unauthorised Disturbance to Flora and Fauna	Non-compliance with legal requirements and harm to flora and fauna
Erosion and Sediment Discharges	Damage to heritage, sediment and erosion run off.
Introduction of Noxious Weeds	Biosecurity risks

The environmental risk register will identify key significant risks and provides details on the general management controls and monitoring measures to be implemented for each environmental aspect. From the identification of hazards generated through work activities on site, the contractor will develop Process Procedures to manage the hazards associated with those activities.

In order to evaluate the changing environmental needs through different areas of work, Risk Assessment or Job Hazard Analysis (JHA) will be conducted to assess the types of environmental hazards possible throughout the activity, the level of risk, and controls to reduce the risks for that activity. JHA's will be formulated following the procedures in the Project Occupational Health and Safety Management Plan and will be registered and reviewed as per the procedures in that plan.

#### **9.** Environmental Monitoring, Controls and Actions

A summary of the environmental controls and actions developed throughout this document, and from the various Sub-plans, Policies and Procedures can be found in Table 6. The numbering in the left-hand column relates to actions extracted from the various sub-plans and is consisted with terms used in the *Glossary*.

Where a sub-plan and/or CoC remains in effect during multiple stages of the project and was originally part of the approved CEMP, it has been again included into the OEMP. To help avoid confusion, key actions or responsibilities from these sub-plans, that are valid during Operations, have been extracted and included in Table 6. Notwithstanding, all persons with responsibilities listed in Table 6 shall have an understanding of the parent documents (sub-plans and CEMP).

Table 6 - Summary of Actions arising from Operational Environmental Management (Sub) Plans and Procedures

		-	
Environmental Aspect		Frequency and/or Timing	Responsible Persons
RSLMP and	Appoint Landscape Contractor and undertake the	January 2019	CR2WF O&M
OSLP-001	necessary preparation prior to planning		Manager
RSLMP and		Autumn 2019 – to	CR2WF O&M
OSLP-002	Complete landscape planting and fencing (tree	be adapted to	Manager
	protection)	avoid weather	
		extremes	
RSLMP and	Establish a monitoring program for planted trees using	January 2019	CR2WF O&M
OSLP-003	the drawings as an audit sheet to mark poor		Manager
	performance		
RSLMP and	Undertake quarterly audits of planted trees. Audit to	Every 3-months	CR2WF O&M
OSLP-004	include photographic records as a measure of success	after initial	Manager
	of the planting program. Record mortality (and	planting and for a	
	replacement) rates of planted trees.	period of not less	
		than 2-years	
RSLMP and	Replace dead or missing plants with equivalents	As needed after	CR2WF O&M
OSLP-005		each audit	Manager
RSLMP and	Check for any damage and/or missing stake or guards	Every 3-months	CR2WF O&M
OSLP-006		after initial	Manager
		planting and for a	
		period of not less	
		than 12-months	
RSLMP and	Make repairs and/or replace stakes / tree guards	As needed after	CR2WF O&M
OSLP-007	as necessary	each audit	Manager
RSLMP and	Remove stakes and tree guards once trees are self-	Approx. 12-	CR2WF O&M
OSLP-008	supporting	months after	Manager
		planting	
RSLMP and	Check planting area for weed growth and or infestation	Every 3-months	CR2WF O&M
OSLP-009		after initial	Manager
		planting and for a	
		period of not less	
		than 2-years	

RSLMP and OSLP-010	Undertake weed control as necessary	As needed after each audit and for a period of not less than 2-years	CR2WF O&M Manager
CoC-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.	Annual	CR2WF O&M Manager
CoC-28	Ensure contract to employ the Environmental Representative(s) on a full-time basis, or as otherwise agreed by the Secretary during operation is maintained	Annual	CR2WF O&M Manager
NCS-001	Background Noise Monitoring	Prior to Operation	GE
NCS-002	Program pre-determined noise management parameters into GE SCADA Control System	During commissioning	GE
NCS-003	Compliance Operational Noise Monitoring	Within 3-months of commencement of Operation of Wind-farm	GE
NCS-004	Implement additional noise management and turbine optimisation program based on monitoring results (if required)	Within 3-months of commencement of Operation of Wind-farm of (if required)	GE
NCS-005	Produce Compliance Noise Report	Within 3-months of commencement of Operation of Wind-farm	GE
WMP-001	Engage licensed waste contractors to collect waste	As needed	CR2WF O&M Manager
WMP-002	Identification of Controlled Waste [refer to Protection of the Environment Operations (Waste) Regulation 2014 Schedule 1	Monthly – review with Contractors	CR2WF Site Supervisor
WMP-003	Maintain copies of Controlled Waste Tracking Sheets for any waste considered Controlled Waste	As needed at time of disposal	CR2WF O&M Manager
WMP-004	Inspection utilising the Hazardous / Universal Waste Storage Inspection Form (see APPENDIX 13)	Weekly	CR2WF Site Supervisor
OFFMP-001	Monitor vegetation	Quarterly	CR2WF Site Supervisor
OFFMP-002	Monitor Weeds – undertake control with Contractor (complete Pesticide Application Record Sheet – see APPENDIX 14)	Quarterly	CR2WF Site Supervisor

OFFMP-003	Ecologist to undertake independent monitoring of rehabilitation	6-months for a minimum of 2-years	CR2WF O&M Manager
OFFMP-004	Carcass removal - stock or kangaroo carcasses (and any introduced or native animals) to be removed from within 200m of any turbine and disposed of. Utilise Site Monthly Environmental Checklist (see APPENDIX 15).	Monthly	CR2WF Site Supervisor
OFFMP-005	Liaise with Landowner to restrict lambing from within 200m of any turbine.	Seasonal (usually late autumn / winter)	CR2WF Site Supervisor
OFFMP-006	Liaise with Landowner to restrict grain feeding underneath turbines.	Monthly	CR2WF Site Supervisor
OFFMP-007	Light minimisation programs subject to any mortality rate monitoring requirements	As required from OEH	CR2WF O&M Manager
BBMP-001	Obtain (submit application and maintain) a permit from OEH under the National Parks and Wildlife Act 1974 to handle and keep native wildlife (even dead wildlife) as part of the monitoring program.	Prior to operation	CR2WF O&M Manager
BBMP-002	Implement and action Incidental Carcass Protocol	As needed	CR2WF O&M Manager and CR2WF Site Supervisor
BBMP-003	Implement <i>Injured Bird and Bat Protocol</i> and ensure all Crookwell 2 WF employees and contractors are familiar with this program.	As needed	CR2WF O&M Manager and CR2WF Site Supervisor
BBMP-004	Ensure a robust carcass—monitoring program (random or stratified random sampling design) to detect birds and bats that collide fatally with wind turbines is in place	Monthly inspections – for a minimum of 2-years.	CR2WF O&M Manager and CR2WF Site Supervisor
BBMP-005	Impact Trigger for Threatened Species. A threatened bird/bat species (or recognisable parts thereof) listed as threatened under the Commonwealth EPBC Act or NSW Threatened Species Conservation Act 1995, is found dead or injured under or close to a wind turbine. The Decision Making Framework (Figure 3 of the referenced BBMP) will be implemented.	As needed. Report to OEH within 5-business days.  Immediate investigation (to be completed within 10 days) by an appropriately qualified ecologist to determine the cause of death or injury	CR2WF O&M Manager and CR2WF Site Supervisor

BBMP-006	Impact Trigger for Non-Threatened Species: A total of four or more bird or bat carcasses, or parts thereof, of the same species in two successive searches at the same turbine of a non-threatened species (excluding Sulphur-crested Cockatoos, galahs, crows and ravens and introduced bird species). The <i>Decision Making Framework</i> (Figure 4 of the referenced BBMP) will be implemented.	OEH will be notified of the impact trigger within 7-days  Investigation (to be completed within 3-weeks) by an appropriately qualified ecologist to determine the cause of death or injury	CR2WF O&M Manager and CR2WF Site Supervisor
BBMP-007	Post-construction bird utilisation surveys by an appropriately qualified ecologist	For a minimum of 2-years post construction	
VMP-001	It is generally recommended that the minimum time frame required to restore a plant community is five years (DNR 2006). It is likely that ongoing, occasional maintenance after this period will be necessary, therefore it is recommended that the early involvement of a local "bush-care group" be actively encouraged.	As needed – on a 5-year basis, subject to results	CR2WF O&M Manager
VMP-002	Hand weeding, cut and paint and spot herbicide spraying will be undertaken, focussing on sections of the creek line where weedy forbs are well established. All weed waste will be bagged, removed and disposed of at an appropriate waste disposal depot	As needed (when weed removal takes place)	CR2WF Site Supervisor
VMP-003	Implement direct seeding and brush matting	Autumn 2019	
VMP-004	Approximately six months following direct seeding and brush matting, areas with no seedling germination will be subject to supplementary direct seeding and brush matting	6-months after direct seeding	CR2WF O&M Manager
VMP-005	During the second year of Operations, tube-stock will be installed in accordance with the prescribed planting scheme and planting densities	12-months to 24- months of commencement of Operations	CR2WF O&M Manager
VMP-006	Following plant installation and the application of seed and brush matting, the upper banks will be watered using a utility mounted tank approximately once a week for four weeks and then as required dependant on climatic conditions	Weekly for 4- weeks and then as required	CR2WF Site Supervisor
VMP-007	Undertake quarterly audits of planted trees. Audit to include photographic records as a measure of success of the planting program. Record mortality (and replacement) rates of planted trees.	Every 3-months after initial planting and for a	CR2WF O&M Manager

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Inspect areas surrounding construction sites, and all	Weekly	CR2WF Site
access tracks to ensure no erosion features are	-	Supervisor
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Inspection of Rehabilitation areas to ensure no erosion	Monthly	CR2WF Site
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Water Quality Sampling (in the event of a spill or incident)	As needed	CR2WF Site Supervisor
Environmental Inspection – to include status of flood-	Minimum weekly	CR2WF O&M
ways, erosion control structures, bunded areas, turbine	for Erosion and	Manager and
pads, scouring of disturbed / rehabilitated areas,	Sedimentation	CR2WF Site
diversion drains etc and flows in, creeks and channels	control, and	Supervisor
(action also included in the SGW sub-plan)	-	
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	access tracks to ensure no erosion features are developing Inspection of Rehabilitation areas to ensure no erosion features have developed Implement an action plan to remediate in the event that erosion is detected during inspections In the event of a suspected spill or contamination of soil, samples and testing shall be implemented in the event of this occurring Weather Forecasts – advise of adverse weather Water Quality Sampling (in the event of a spill or incident) Environmental Inspection – to include status of floodways, erosion control structures, bunded areas, turbine pads, scouring of disturbed / rehabilitated areas, diversion drains etc and flows in, creeks and channels (action also included in the SGW sub-plan)  Inspection for spillage or leakage of any stored waste materials (refer WMP-003) Vegetation Management (refer OFFMP-001 and OFFMP-002). Where practical, disturbed areas shall be rehabilitated and monitored Refuelling of assets (vehicles or machinery) will only be allowed in suitably controlled areas or areas where kits are stored (action also included in the SGW sub-plan)	Spill kits provided around the site and inspected to ensure equipment is functional in case of emergency (action also included in the SWP sub-plan)  Inspect areas around Substation bunding for erosion and any evidence of oil being discharged.  Inspect areas surrounding construction sites, and all access tracks to ensure no erosion features are developing  Inspection of Rehabilitation areas to ensure no erosion features have developed  Implement an action plan to remediate in the event that erosion is detected during inspections  In the event of a suspected spill or contamination of soil, samples and testing shall be implemented in the event of this occurring  Weather Forecasts – advise of adverse weather  Water Quality Sampling (in the event of a spill or incident)  Environmental Inspection – to include status of floodways, erosion control structures, bunded areas, diversion drains etc and flows in, creeks and channels (action also included in the SGW sub-plan)  Wegetation Management (refer OFFMP-001 and OFFMP-002). Where practical, disturbed areas shall be rehabilitated and monitored  Refuelling of assets (vehicles or machinery) will only be allowed in suitably controlled areas or areas where kits are stored (action also included in the SGW sub-plan)  Minimum weekly for Erosion and Sedimentation control, and directly after each major rainfall events  Monthly  As needed  Minimum weekly for Erosion and Sedimentation control, and directly after each major rainfall events  Monthly  As needed

SWP-008	Minimise on-site vehicle use during and after wet weather events (action also included in the SGW subplan)	As needed	CR2WF Site Supervisor
SWP-009	Educational training of construction and operational site personnel aimed at erosion and sediment control, vegetation management, waste and spill management at the site during construction, operation and maintenance activities	Monthly	CR2WF Site Supervisor
SWP-010	Inspect waste water treatment for signs of water pooling, liquid discharge, erosion and any other obvious visual defects	Minimum weekly for Erosion and Sedimentation control, and directly after major rainfall events	Operations and Maintenance Manager
SWP-011	Establish a maintenance agreement with a licensed contractor (certified to ISO14000 standard requirements) to ensure the treatment systems meet design specifications	Within first 3- months of Operations	CR2WF O&M Manager
SWP-012	Complete remaining earthworks and stabilisation of disturbed areas (from construction works)	Prior to March 2019	CR2WF O&M Manager
SWP-013	Undertake repairs arising from inspections to flood- ways, erosion control structures, bunded areas, turbine pads, scouring of disturbed / rehabilitated areas, diversion drains etc and flows in, creeks and channels	As needed – based on weekly inspections	CR2WF O&M Manager
SWP-014	Visual monitoring to be undertaken to ensure effectiveness of erosion and sediment control measures	Minimum weekly for Erosion and Sedimentation control, and directly after major rainfall events	CR2WF Site Supervisor
SWP-015	Implement appropriate mitigation measures in the event that erosion and sedimentation controls are found to be deficient	As needed – based on weekly inspections	CR2WF O&M Manager
SWP-016	In the event of a suspected spill contamination of watercourses, additional water quality testing may be required in order to ascertain appropriate corrective treatment measures. Samples and testing shall be implemented in the event of this occurring	As needed	CR2WF O&M Manager
CoC-70	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).	First 12-months of Operations	CR2WF O&M Manager

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#### 10. Communication

GPG's methods for effective communication are included within its corporate governance plans and documentation, which is available on the website <a href="http://www.globalpower-generation.com">http://www.globalpower-generation.com</a> and in **PG.0009.GN** Internal and external communication and consultation and participation.

#### 10.1. Internal Communication

The Operator (GE) will engage a number of subcontractors during the project. GPG has engaged an Environmental Representative for the operation of the project. To ensure that environmental requirements are met effective communication between all parties (*internal communications*) must be achieved, the CR2WF **O&M Manager** would act as the single point of contact between all parties identified for all matters relating to environmental performance, including roles and responsibilities. Effective dissemination of information would be provided by the CR2WF **Site Supervisor** (GPG) and the **Site Service Manager** (GE) to the identified points of contact.

#### 10.2. External Communications

The external communications strategy for the C2WF is built around the following fundamental principles:

- Provision of relevant information to specific stakeholder groups during operation (website, newsletters, local media, letter drops).
- Provision of a 24-hour complaints line during operation
- Operation of a Community Consultative Committee (CCC) in accordance with condition 33 of Conditions of Consent: "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".
- Quarterly meetings with host landowners

To this extent, local residents would have targeted access to information about the Wind Farm, including formal and informal opportunities to find out about operations, and to provide feedback to the Wind Farm operators.

Relationships with local residents have been established throughout the planning and development phases of the project. The relationships and communication methods used in the past would be continued throughout operation as appropriate and as needed.

The broader community will be kept informed of the project through general media, including newspaper advertisements and press releases, and through the local Council. The website will also be used to post information.

#### 11. Environmental Compliance and Reporting

Environmental compliance and reporting will be the responsibility of the Owner, with some supporting tasks being addressed by the Operator. The OEMP will be implemented on site during the entire operational period. The implementation of the OEMP will be reviewed and audited throughout the operation phase.

#### 11.1. Environmental Audit

In accordance to condition 25 of the CoC, an Environmental Impact Audit Report - Operation will be prepared and submitted to the Secretary within 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 will be provided to other relevant Government Agencies and Council.

An Environmental Audit Report will be submitted, detailing the findings and recommendations of the Audit. This Report will;

- (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 operation 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.

Audits will be conducted in accordance with ISO 19011:200 - Guidelines for Quality and/ or Environmental Management Systems Auditing.

Audits to comply with both the OEMP and the CoC will be carried out using the same scope and focus as outlined below unless a specific non-conformance is identified. Audits will;

- Assess compliance with the requirements of the CoC, and other licenses and approvals that apply to the project
- Assess the environmental performance of the project against the predictions made and conclusions drawn in the environmental assessment documents
- Review the effectiveness of the environmental management of the project, including any environmental impact mitigation works

Review the adequacy of the Proponent's response to any complaints made about the project through the Complaints Register.

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The monitoring of Compliance with legal requirements will be undertaken on a yearly basis during operation and will be formally reported through the Annual Environmental Management Report (AEMR). An electronic compliance management system has been established (The THEMIS Tool). The

compliance management system allows for tracking of compliance during distinct phases of the project. A summary report can be prepared at any time upon request.

Additionally, at GPG, periodic audits of the Integrated Management System are carried out in accordance with the provisions set forth in **PG.00006.GN** *Internal audits of the Integrated Management System for Quality, Environment, Health and Safety*, where it establishes the methodology, responsibilities and criteria for qualifying and assigning auditors, as well as the frequency, responsibilities and associated records.

#### 11.2. OEMP Review

The OEMP will be formally reviewed annually.

The review will ensure the OEMP is up to date and all changes to procedures and practices since the previous review have been fully incorporated into the plan. The OEMP will be amended, as required, based on the outcomes of audits and any other matters requiring review.

Any updates to the OEMP will be endorsed by the Environmental Representative. The Wind farm owner shall seek approval of the Secretary, relevant Government Agencies when updating the OEMP. All changes made to the OEMP will be controlled, complying with the procedure **PE.04951.GN-PG.SI** Document management at facilities.

Review of the OEMP may occur in response to;

- · Response to incidents
- Changes in staffing structures
- Changes in applicable legislations
- Changes in Project Scope
- · Changes in construction methods
- Changes in site conditions
- Changes in work environment
- Findings of inspections and audits
- Monitoring results
- Community complaints
- Management reviews

#### 11.3. Reporting

The reasons for, and recipients are both numerous and varied. For ease of reading, a summary of reporting requirements can be seen in Table 7. Other key requirements (with specific detail) are outlined elsewhere in this section of the OEMP

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Table 7 - Summary of Reporting Requirements

Description	Frequency and/or Timing	Responsible Person	Recipient
Pre-Operation Compliance Report (CoC 17)	2-weeks prior to the Commencement of operation (or within a time agreed to by the Secretary	Director GPG Australia	Secretary of DPE
Pollution incident is required to be notified if there is a risk of 'material harm to the environment', which is defined in section 147 of the Protection of the Environment Act 1997 (POEO Act).	As needed – immediately	Operations Maintenance Manager	EPA
The National Greenhouse and Energy Reporting (NGER) scheme, established by the National Greenhouse and Energy Reporting Act 2007	Annual – 31 <sup>st</sup> October	Operations Maintenance Manager	CER
Annual Environmental Management Report	Annual. 12-months from the commencement of Operation	Operations and Maintenance Manager	Internal GPG
Evaluation and Adaptive Management Reports	6-month intervals from the commencement of operational monitoring	Operations and Maintenance Manager	Secretary of DPE
Environmental Impact Audit Report - Operation	3-months, after a 24-month period of operation and then at any additional periods requested by the Secretary	Operations and Maintenance Manager	Secretary of DPE
Environmental Protection Licencing Requirements	60-days after the end of the licence reporting period (Note: Licence period for Crookwell 2 is 6 <sup>th</sup> April each year)	Operations and Maintenance Manager	EPA
Operational Flora and Fauna Report and Bird and Bat Adaptive Management Program	Annual. Within 3- months of completion of 1 <sup>st</sup> and 2 <sup>nd</sup> years of operation	Operations and Maintenance Manager	Secretary of DPE and OEH

Description	Frequency and/or Timing	Responsible Person	Recipient
Impact Trigger for Threatened Species. A threatened bird/bat species (or recognisable parts thereof) listed as threatened under the Commonwealth EPBC Act or NSW Threatened Species Conservation Act 1995, is found dead or injured under or close to a wind turbine	Report to OEH within 5-business days.  Investigation (to be completed within 10 days) by an appropriately qualified ecologist to determine the cause of death or injury.	Operations and Maintenance Manager	Statutory planner at OEH
Impact Trigger for Non-threatened Species: A total of four or more bird or bat carcasses, or parts thereof, of the same species in two successive searches at the same turbine of a non-threatened species (excluding Sulphur-crested Cockatoos, galahs, crows and ravens and introduced bird species).	Report to OEH within 7-days.  Investigation (to be completed within 3-weeks) by an appropriately qualified ecologist to determine the cause of death or injury.	Operations and Maintenance Manager	Statutory planner at OEH
Noise monitoring to determine whether the facility complying with the relevant conditions of this consent	Within 3-months of the commencement of operations	Operations and Maintenance Manager	Secretary of DPE and the EPA.
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	At completion of planting and every 6-months after	Operations and Maintenance Manager	Secretary of DPE
Maintenance reports from landscaping plans must be prepared and submitted to the Department after completion of planting, and every six months thereafter until the completion of the maintenance period	At completion of planting and every 6-months after	Operations and Maintenance Manager	Secretary of DPE
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.	Prior to the commencement of construction	Projects Manager	ULSC – Director of Works

Description	Frequency and/or Timing	Responsible Person	Recipient
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.	Prior to Operation	Projects Manager	ULSC – Director of Works

#### 11.3.1. Pre-Operation Compliance Report

The main objective of this report is to meet Condition 17 of the Development Consent which requires the submission of a construction compliance report.

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.

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.

Further information can be found in the referenced C2WF Construction and Pre-Operation Compliance Report v4 (see APPENDIX 10).

#### 11.3.2. Annual Environmental Management Report

An Annual Environmental Management Report (hereinafter, AEMR) will be prepared through the operational life of the Wind Farm.

The AEMR will review the performance of the C2WF against the OEMP, the conditions of consent and other licences and approvals relating to the Wind Farm project. The AEMR anniversary date will be 12 months from the commencement of Operation.

The AEMR will report on each 12-month period of operation within two months of the finish of that 12-month period. As a minimum it will include;

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- Evolution of the implemented measures of the onsite Landscaping Plan.
- Results of any monitoring required under the Conditions of Consent.
- If required by the landowners, the mitigation measures that the Crookwell Development Pty Ltd. must implement to reduce the visibility of wind turbines from the residence of the owners.
- Results of operational noise Monitoring.
- · Results of the other management plans include in this OEMP
- Waste management.
- Compilation of environmental incidents and / or accidents that occurred and the status of corrective and / or preventive actions implemented.

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#### 11.3.3. Environmental Protection Licencing Requirements

Licensees are required to submit an annual return form. The annual return is a statement of compliance with the licence conditions and reports the pollutant loads generated by the premises. Administrative fees for the coming 12 months and load-based fees for the preceding 12 months are due at the same time as the annual return.

The annual return form must be completed and submitted on the proforma provided by the EPA to all licensees.

Annual Returns contain the following sections:

- (a) Statement of Compliance Licence details (this is pre-populated with your licence details and the relevant reporting period)
- (b) Monitoring and Complaints Summary (to be completed in accordance with your licence conditions)
- (c) Statement of Compliance Licence conditions
- (d) Statement of Compliance Load-based fee calculation worksheets (if applicable)
- (e) Statement of Compliance Requirements to Prepare a Pollution Incident Response Management Plan (PIRMP) Under Section 153A of the POEO Act 1997
- (f) Statement of Compliance Requirements to Publish Pollution Monitoring Data Under Section 66(6) of the POEO Act 1997
- (g) Statement of Compliance Environmental Management Systems and Practices
- (h) Signature and Certification

The Annual Return must be lodged with the EPA within 60-days after the end of the licence reporting period. If the licence has been transferred during the licence reporting period, each person that held the licence during the licence reporting period must submit an Annual Return for the part of the licence reporting period for which each held the licence. If your Annual Return has not been lodged within the required time, you will have breached your licence conditions and may be subject to regulatory action by the EPA.

#### 11.3.4. National Greenhouse and Energy Reporting (NGER)

The National Greenhouse and Energy Reporting (NGER) scheme, established by the National Greenhouse and Energy Reporting Act 2007 (NGER Act), is a single national framework for reporting and disseminating company information about greenhouse gas emissions, energy production, energy consumption and other information specified under NGER legislation.

The objectives of the NGER scheme are to:

- inform government policy
- inform the Australian public
- help meet Australia's international reporting obligations
- assist Commonwealth, state and territory government programmes and activities, and
- avoid duplication of similar reporting requirements in the states and territories.

Table 8 - Important dates in the NGER cycle

	Start of the reporting year.
1 July	National facility nominations for transport facilities are due under the safeguard mechanism.
31 July	Applications for calculated baselines are due, if production levels are expected to peak in the current financial year, rather than in future years.  Requests for 'opt-in' reported baselines are due.
31 August	National Greenhouse and Energy Register registration applications (corporations only need to register once, for the first year they trigger a threshold) and nominations of operational control are due.
1 September	Clean Energy Regulator to set reported baselines by this date.
31 October	National Greenhouse and Energy Register reports are due.
28 February	Extract of the National Greenhouse and Energy Register and data for the previous (financial year) reporting period is published.
	Publication of aggregated scope 1 emissions from grid connected electricity generators.
30 June	End of the reporting year. Section 22X agreements due.

#### 11.3.5. Annual Evaluation and Adaptive Management (EAM) Reports

The EAM reports are used to identify matters to be addressed in relation to the outcomes of bird and bat monitoring, including implementation of mitigation measures and their success.

The EAM report would be provided by expert consultants to the Operator at 6-month intervals from the commencement of operational monitoring. The EAM reports would provide the basis for the Annual reports that would be prepared by the Expert. The annual report will be submitted to the Secretary by the Operator within 2-months of the end of the reporting period. Refer to the Operational Flora and Fauna Management Plant (APPENDIX 4) and the Bird and Bat Management Plan for further details (See APPENDIX 5).

#### 11.3.6. Bird and Bat Impact Triggers (Unacceptable Impact)

Definition of Impact Trigger and Unacceptable Impact Generally, an impact trigger is where there is evidence of death or injury to birds and/or bats by collision or other interaction with turbines. Under this program, the circumstances that define an impact trigger and unacceptable impact for threatened birds and/or bats are detailed below.

Impact Trigger for Threatened Species: A threatened bird/bat species (or recognisable parts thereof) <a href="listed as threatened">listed as threatened</a> under the Commonwealth EPBC Act or NSW Threatened Species Conservation Act 1995, is <a href="found dead or injured under or close to a wind turbine">found dead or injured under or close to a wind turbine</a> during any <a href="mailto:mortality">mortality search or incidentally</a> by wind farm personnel.

- Immediate reporting of the occurrence of an impact trigger to C2WF's responsible manager, who will report it to the relevant statutory planner at <u>OEH within five business days</u> of it being recorded;
- <u>Immediate investigation (to be completed within 10-days)</u> by an appropriately qualified ecologist to determine the cause of death or injury. If the cause of death is considered to be due to turbine collision, an investigation will be undertaken to identify any particular risk behaviours that could have led to the collision and an evaluation of the likelihood of further occurrences.

**Impact Trigger for Non-threatened Species**: A total of <u>four or more bird or bat carcasses</u>, or parts thereof, of the <u>same species</u> in <u>two successive searches at the same turbine</u> of a non-threatened species (excluding Sulphur-crested Cockatoos, galahs, crows and ravens and introduced bird species).

Note: Although the impact trigger does not include ravens, magpies, White Cockatoos, corellas, pipits and introduced species, detected mortalities for these species will still be reported as part of the annual reporting process.

- OEH will be notified of the impact trigger within 7-days of recording the event. An appropriate
  scale to consider population effects of the impact trigger will be agreed between OEH and the
  proponent on a case-by-case basis with consideration given to the species in question.
- A report on the investigation will be delivered to the relevant statutory personnel at OEH within <u>3-weeks</u>.

#### **11.4.** Non-conformance, Corrective and Preventative Action

Any environmental non-conformance (e.g. breach of legal or contract requirements or audit-related non-conformance) is to be reported in accordance with the **PG.0007.GN** *Non-conformance and Corrective Action* and **PE.04933.GN-PG.SI** *Management of non-conformities, corrective actions, preventive actions and improvement actions at the GPG* procedures.

The Operations and Maintenance Manager shall be responsible for the management of the corrective action report. Any item that has been entered onto the action register will remain an action item until it has been addressed to the satisfaction of the Plant Manager.

#### 11.5. Community Complaints Protocol

#### 11.5.1. Objectives

CDPL is committed to minimising the impact of the operations on the local community. To ensure that the community have the opportunity to provide feedback on any issues they may be experiencing, CDPL have developed a Complaints Management Plan.

#### The plan aims to:

- Provide a variety of communication channels to enable members of the community to comment and lodge complaints regarding operational impacts at all times during the construction period.
- Ensure timely response to complaints and implementation of any appropriate corrective/preventative actions.

The management plan will be revised following the completion of construction to ensure the system's ongoing suitability for operational purposes.

#### 11.5.2. Management Plan

Table 9 - Contact Details

Method	Details
Telephone <sup>1</sup>	1800 457 181 (Free Call) or +61 02 6274 3200
Postal	Suite 4, Level 3, 24 Marcus Clarke Street, Canberra ACT 2601
Email	info@unionfenosa.com.au

Note 1: This number may be directed to a message bank system if the Environmental Representative is not able to take the call (including out of hours). All messages left will be responded to within 24 hours.

These contact details may change through the life of the project, in which case the CDPL will ensure that the community are advised of the new contact details.

#### **Complaints Register**

All complaints received will be recorded on Community Complaints Form (refer over page) and also summarised in the Complaints Register. This Community Complaints Form is the input form for the complaints register which is an Excel Database.

The records of the complaint will be maintained for at least four years following the date of the complaint.

#### **Procedure**

All complaints will initially be received by the Environmental Representative. On receipt of a complaint the Environmental Representative will:

- Contact the complainant (ie if a message/email etc has been left).
- Complete a Community Complaints form to record:
  - (a) the date and time, where relevant, of the complaint.
  - (b) the means by which the complaint was made (telephone, mail or email).

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- (c) any personal details of the complainant that were provided, or if no details were provided, note to that effect.
- (d) the nature of the complaint.
- Co-ordinate with the Site Manager/relevant contractors to determine and implement appropriate corrective actions if possible.
- Advise the complainant of the corrective actions and record these on the Community Complaints Form.
- Complete the Community Complaints Register.
- If corrective actions cannot be implemented immediately, an incident report will be raised to manage the process.
- If appropriate, follow up with complainant to review outcome of implemented corrective actions.

#### Responsibilities

The Environmental Representative will be responsible for the management of all complaints received. This includes:

- Responding to the calls of the 1800 phone number and following up any messages left with community members.
- Responding to any email complaints received.
- Responding to any postal complaints received.
- Co-ordination of appropriate corrective actions in response to the complaint.
- Completion of the Community Complaints Form and updating of the Complaints Register.
- The Operations and Maintenance Manager has overall responsibility to ensure corrective actions are implemented for issues raised and all Community Complaints are closed out.

#### 12. Referenced Documents

Table 10 - Supporting Documentation Referenced in the OEMP

Document Title	Document Code / File Name and Location	Developed by	Document Location	
Bird and Bat Adaptive Management Plan	Report 8172 (8.3) C2WF BBAMP	Brett Lane & Associates Pty Ltd	Appendix 5 of this document	
C2WF Construction and Pre-Operation Compliance Report	Construction and Pre- Operation Compliance Report	GPG	APPENDIX 10: of this document	
Gas Natural Fenosa (Naturgy) Corporate Responsibility Policy	politicarsc_EN_accesible	GNF	Appendix 11: of this document	
NG.00002.GN-AD.25 Manual of the comprehensive quality, environment, health and safety management system	NG.00002.GN-AD.25	GPG	APPENDIX 9: of this document	

Addendum for Global Power Generation - Operations Management			
Noise Compliance Strategy	Crookwell 2 Noise Compliance Strategy (002)	GE	APPENDIX 3: of this document
NT.00035.GN Process of communication, investigation and follow-up on accidents and incidents	NT.00035.GN	GPG	Internal GPG Policy (stored in PROSAFETY) – available upon request
NT.00036.GN Classification of incidents	NT.00036.GN	GPG	Internal GPG Policy (stored in PROSAFETY) – available upon request
On-site Landscaping Plan	Crookwell 2 WF On-site landscaping plan v2 7 <sup>th</sup> November 2018	Breen Bean Design – Landscape Architects	APPENDIX 1: of this document
Operation Flora and Fauna Management Plan (OFFMP)	Report 8172 (12.2) C2WF OFFMP	Brett Lane & Associates Pty Ltd	APPENDIX 4: of this document
PE.00010.GN-GA Environmental Accidents and Incidents	PE.00010.GN-GA	GPG	Internal GPG Policy (stored in PROSAFETY) – available upon request
PE.04950.GN-PG.SI Management of modifications in equipment and installations	PE.04950.GN-PG.SI	GPG	Internal GPG Policy (stored in PROSAFETY) – available upon request
PE.04951.GN-PG.SI Document management at facilities	PE.04951.GN-PG.SI	GPG	Internal GPG Policy (stored in PROSAFETY) – available upon request
PG.00003.GN Identification, evaluation and distribution of legal requirements and other integrated quality management, environment and health and safety	PG.00003.GN	GPG	Internal GPG Policy (stored in PROSAFETY) – available upon request
PG.00004.GN Identification and Evaluation of Environmental Aspects. Environmental	PG.00004.GN	GPG	Internal GPG Policy (stored in PROSAFETY) – available upon request
PG.00006.GN Internal audits of the Integrated Management System for Quality, Environment, Health and Safety	PG.00006.GN	GPG	Internal GPG Policy (stored in PROSAFETY) – available upon request
PG.00007.GN Management of findings of the Integrated Quality, Environment,	PG.00007.GN	GPG	Internal GPG Policy (stored in PROSAFETY) – available upon request

Health and Safety Management System			
PG.00009.GN Internal and external communication and consultation and participation	PG.00009.GN	GPG	Internal GPG Policy (stored in PROSAFETY) – available upon request
PG.00010.GN Preparation for and response to emergencies	PG.00010.GN	GPG	Internal GPG Policy (stored in PROSAFETY) – available upon request
Roadside Landscape Management Plan	Crookwell 2 WF CR LMP v2 7 <sup>th</sup> November 2018	Breen Bean Design – Landscape Architects	APPENDIX 2: of this document
Stormwater Management Plan	20090817 - C2WF Stormwater Management Plan Report	URS Australia Pty Ltd	APPENDIX 7: of this document
Vegetation Management Plan	28994 - C2WF Vegetation Management Plan Report FIN5	BIOSIS RESEARCH Pty. Ltd. A.C.N. 006 075 197 Natural & Cultural Heritage Consultants	APPENDIX 8: of this document

## **APPENDIX 1:** On-site Landscaping Management Plan



## **APPENDIX 2:** Roadside Landscaping Management Plan



#### **APPENDIX 3:** Noise Compliance Strategy



## **APPENDIX 4:** Operation Flora and Fauna Management



## APPENDIX 5: Bird and Bat Adaptive Management Program



## APPENDIX 6: Soil and Water Management Plan

Refer to SP7. SOIL AND WATER MANAGEMENT PLAN of the CEMP (extract below)



### **APPENDIX 7**: Stormwater Management Plan





20090817 - C2WF 180515 Operational Stormwater Managen Stormwater Managen

#### **APPENDIX 8: Vegetation Management Plan**



28994.VMP.Crookwel I.FIN5.181107.pdf

## **APPENDIX 9:** Manual of the comprehensive quality, environment, health and safety management system



# **APPENDIX 10:** C2WF Construction and Pre-Operation Compliance Report



C2WF Construction and Pre Operation Co

## **APPENDIX 11:** Corporate Responsibility Policy



## **APPENDIX 12:** Waste Management Procedure



## **APPENDIX 13:** Waste Storage Inspection Form



Waste Storage Inspection Form.pdf

## **APPENDIX 14:** Pesticide Application Record Sheet

## **Pesticide Application Record Sheet**

Property/Holding: (residential address)					Date:				Date:
Applicator's Full Name:				Owner (if not applicator):					
Address:					Address:				
			Phone:						Phone:
	1-						-		
Mobile:	Fax:		Email:		Mobile:		Fax:		Email:
Sensitive Areas	(including d N W Treate Area	d r	uffers):		Comments areas):	s (inclus	ding risk co	ontrol me	asures for sensitive
lost/Pest	2.1		Is						
Paddock Numb	er/Name:		Paddock A	trea:		Oi	rder of Pad	docks Spi	rayed:
Crop/Situation:					Type of A				
Crop/Pasture V	ariety:				Age/Grow				
Growth Stage:					Mob/Padd				
Pest/Disease/Weed:			Animals — Number Treated:						
					Pest Densi	ty/Incid	lence: Hea	vy 🔲 Me	dium 🔲 Light 🔲
application Da	ata				Pest Densi	ty/Incid	lence: Hea	vy 🔲 Me	dium 🔲 Light 🔲
					Pest Densi	•	lence: Hea	vy 🔲 Me Water Ra	
Full Label Produ		Expiry l	Date:						
Pull Label Produ Permit No.:		Expiry I	Date:	ESI*:	Rate/Dose:	Wetters		Water Ra	
Full Label Produ Permit No.: Total L or kg:	uct Name:	<del></del>	Date:	ESI*: Nozzle T	Rate/Dose:	Wetters:		Water Ra	
Full Label Produ Permit No.: Total L or kg: Equipment Typ	uct Name: e:	WHP:	Date: ter Quality (	Nozzle T	Rate/Dose:	Wetters:	uitable for	Water Ra	ste L/ha:
Full Label Produ Permit No.: Total L or kg: Equipment Typ Date Last Calibr	uct Name: e:	WHP:		Nozzle T	Rate/Dose:	Wetters:	uitable for	Water Ra	ste L/ha:
Full Label Produ Permit No.: Total L or kg: Equipment Typ Date Last Calibo	uct Name: e: rated:	WHP:	ter Quality (	Nozzle T	Rate/Dose:	Wetters:	uitable for	Water Ra	ste L/ha:
Full Label Produ Permit No.: Total L or kg: Equipment Typ Date Last Calibe Weather Showers Over	e: rated:	WHP:	ter Quality (	Nozzle T	Rate/Dose:	Wetters:	uitable for	Water Ra	ste L/ha:
Full Label Produ Permit No.: Total L or kg: Equipment Typ Date Last Calibe Weather Showers Over Rainfall (24 hor	e: rated:	WHP:	ter Quality (	Nozzle T	Rate/Dose: Additives/ Type: scription):	Wetters:	uitable for Nozzle Ang	Water Ra	ste L/ha:
Full Label Produ Permit No.: Total L or kg: Equipment Typ Date Last Calibe Weather Showers Over Rainfall (24 hor	e: rated: Ligl urs before and	WHP:	ter Quality (	Nozzle T	Rate/Dose: Additives/ Type: scription):	Wetters: Date St	uitable for Nozzle Ang	Water Ra Sale:	ste L/ha:
Pull Label Produ Permit No.: Total L or kg: Equipment Typ Date Last Calib  Weather Showers Over Rainfall (24 hou Before:	e: rated:  ercast Light urs before and mm  ne Tempe	WHP:	ter Quality (  Clear Sky  During:	Nozzle TepH or de	Rate/Dose: Additives/	Wetters: Date St	uitable for Nozzle Ang	Water Ra Sale: gle: mm	Pressure:
Permit No.: Total L or kg: Equipment Typ Date Last Calibe  Weather Showers Over Rainfall (24 hour Before:	e: rated:  ercast Light urs before and mm  ne Tempe	WHP:	Clear Sky  During:	Nozzle TepH or de	Rate/Dose: Additives/	Wetters: Date St	uitable for Nozzle Ang	Water Ra Sale: gle: mm	Pressure:
Full Label Produ Permit No.: Total L or kg: Equipment Typ Date Last Calib  Weather Showers Over Rainfall (24 hours) Before: Time (show tire in this column	e: rated:  ercast Light urs before and mm  ne Tempe	WHP:	Clear Sky  During:	Nozzle TepH or de	Rate/Dose: Additives/	Wetters: Date St	uitable for Nozzle Ang	Water Ra Sale: gle: mm	Pressure:

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## **APPENDIX 15:** Site Monthly Environmental Checklist



A subsidiary of Naturgy