

Overarching Environmental Management Strategy

Silverton Wind Farm





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Document revision history

Date	Version	Author	Comments
07/03/2017	Rev A	D. Wagner	Issued to DPE
17/4/2017	Rev B	D. Wagner	Minor amendments to Figure 1.
05/05/2017	Rev. 1	D. Wagner	Wind Farm Works EMS Approved
11/04/2019	Rev 1.1	D. Wagner / B. Lacey	Review and update of strategy. Renamed as Overarching Environmental Management Strategy
18/04/2019	Rev. 2	D.Wagner / B. Lacey	Review finalised and updated for submission to DPE and website upload.

Document Approval

This document has been reviewed and is approved by:

Name:	Adam Mackett
Position:	Project Manager
Signature:	

1. Introduction

1.1. Background

The Silverton Wind Farm is located in the Barrier Ranges of western New South Wales (NSW) approximately 5 km north of the Silverton township and 25km north-west of Broken Hill. Modification 3 of the Project Approval was approved by the Planning Assessment Commission of NSW (PAC) on 22 December 2016.

AGL Energy Limited (AGL) announced the 200MW Silverton Wind Farm had achieved financial close with the sale of the project to the Powering Australian Renewables Fund (PARF) on 19 January 2017. PARF is a partnership between AGL, QIC and Future Fund, which is targeting the development of approximately 1,000 MW of large-scale renewable energy projects.

The 200 MW Silverton Wind Farm (the Project) will consist of 58 x GE 3.43-130 wind turbines that will produce approximately 780,6000 MWh of renewable energy annually, which can power more than 137,000 average Australian homes. The renewable energy produced from the wind farm will reduce CO₂ emissions by 655,000 tonnes annually, which is the equivalent of taking 192,000 cars off the road each year.

1.2. Project Approval

The Silverton Wind Farm was approved by the by the then Minister for Planning on 24 May 2009 (the Approved Project) under Part 3A of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act). The project approval was modified by the PAC on 22 December 2016. Details of the project approval are available on the NSW Department of Planning & Environment (DPE) major project assessments website:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7834

Condition 1 of Schedule 4 of the project approval includes the requirement to develop and implement an approved Environmental Management Strategy (EMS):

Schedule 4, Condition 1: Environmental Management Strategy

1. *Prior to the commencement of construction, the Proponent must prepare an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:*
 - a. *provide the strategic framework for environmental management of the project;*
 - b. *identify the statutory approvals that apply to the project;*
 - c. *describe the role, responsibility, authority and accountability of all key personnel involved in the environment management of the project;*
 - d. *describe the procedures that would be implemented to:*
 - *keep the local community and relevant agencies informed about the operation and environmental performance of the project;*
 - *receive, handle, respond to, and record complaints;*
 - *resolve any disputes that may arise;*
 - *respond to any non-compliance;*
 - *respond to emergencies; and*
 - e. *include:*
 - *copies of any strategies, plans and programs approved under the conditions of this approval; and*
 - *a clear plan depicting all the monitoring to be carried out in relation to the project, including a table summarising all the monitoring and reporting obligations under the conditions of this approval.*

Following the Secretary's approval, the Proponent must implement the Environmental Management Strategy.

In accordance with Condition 17 in Schedule 2 of the project approval which allows for the staging of strategies, plans or programs, two separate EMS's have been prepared for each package of works (Wind Farm Works and Connection Works, detailed further below). This document therefore forms the Overarching Environmental Management Strategy (OEMS), providing a framework for the whole project.

1.3. Scope of Works

The Project consists of two main scopes of works:

- Wind Farm Works: 58 x wind turbines and associated infrastructure
- Connection Works: 220kV wind farm substation and transmission line

GE-CATCON has been engaged under an Engineer, Procure and Construct (EPC) Contract to deliver the wind farm works. TransGrid (Network Service Provider – NSW) has been engaged under their Project Agreement to deliver the connection works.

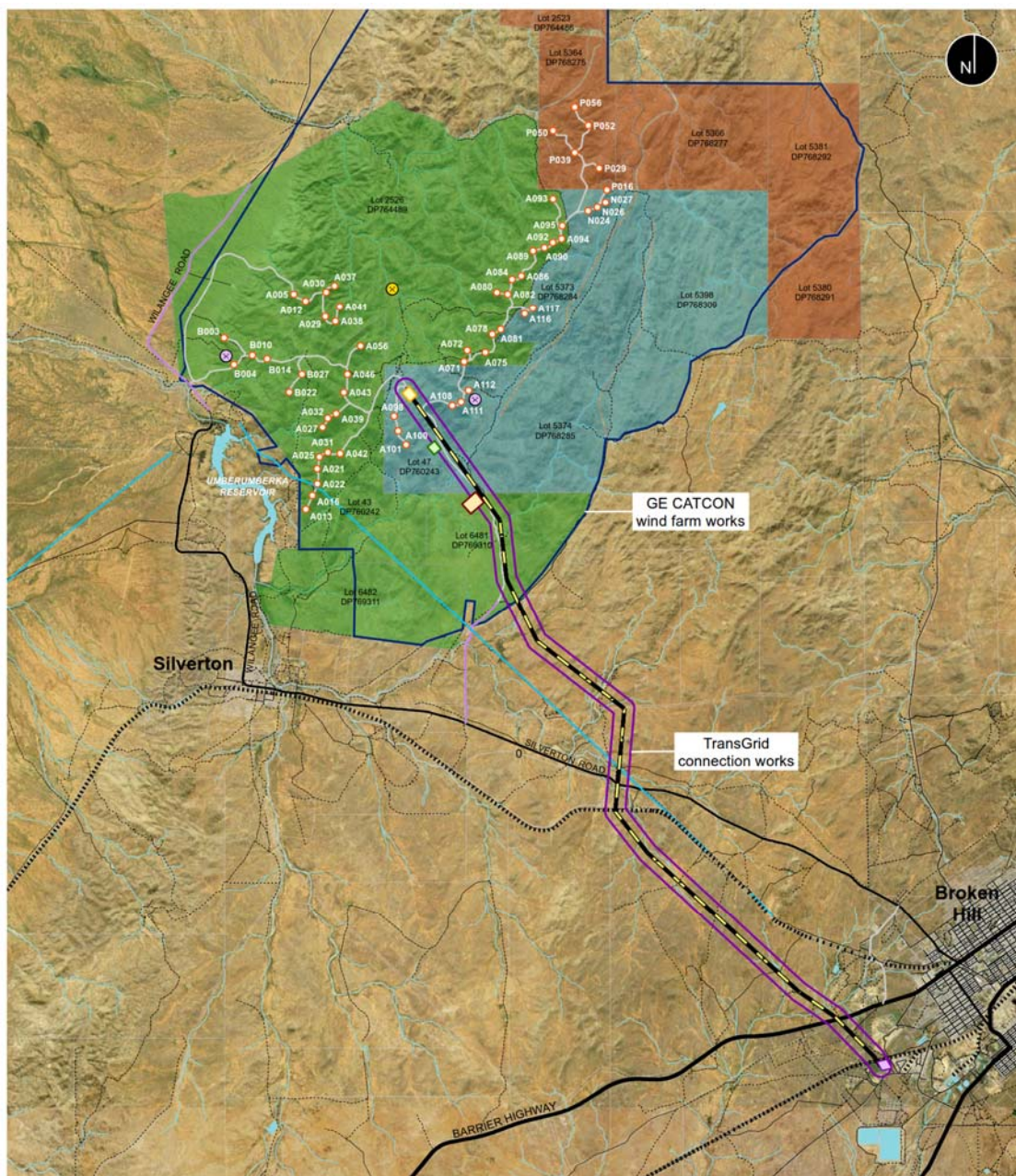
The wind farm will be constructed on NSW Crown Land which is also leased to pastoralists. A separate wind farm lease was assigned from Silverton Wind Farm Developments Pty Limited to PARF Company 8 Pty Ltd as part of financial close.

Figure 1 provides an overview of the Project and shows the two separate work packages being delivered by GE-CATCON and TransGrid for PARF.

1.4. Objectives of the Overarching Environmental Management Strategy

The key objectives of this OEMS are:

- provide the strategic framework for delivering environmental management during the delivery of the 220 MW Silverton Wind Farm;
- provide an overview for achieving compliance with the relevant legal, regulatory and stakeholder obligations of the Project; and
- provide guidance to Project personnel to ensure responsibilities are understood.



Legend

Proposed project infrastructure

- Proposed EPC turbine location
- Rock quarry
- Sand quarry
- Proposed transmission line
- Proposed Broken Hill substation works
- Proposed batch plant (new alternate location)
- Proposed construction compound (relocated)
- Proposed Silverton substation

Contractor work areas

- TransGrid
 - GE CATCON
- Landholders**
- Biore
 - Langford
 - Lawrence

Proposed road

- External RMS road (potentially requiring upgrade works)
- EPC design road

Existing feature

- Existing water supply pipeline
- Existing major road
- Existing secondary road
- Existing minor road
- Existing track
- Existing railway
- Water body
- Watercourse
- Cadastre

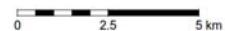


Figure 1: Overview of Silverton Wind Farm and contractors work areas

2. Project Overview

2.1. Delivery of Works

The 200MW Silverton Wind Farm is being delivered by the two separate work packages outlined below:

- Wind Farm Works (by GE-CATCON) involves the construction of 58 x GE 3.43-130 wind turbines, access roads, 33kV electrical reticulation, 33kV substation and associated infrastructure.
- Connection Works (by TransGrid) involves the construction of the 220kV wind farm substation, 220kV transmission line, new 220kV connection at TransGrid's existing 220kV Broken Hill substation and associated infrastructure.

GE-CATCON and TransGrid have been engaged by PARF as the Principal Contractor for their respective work packages and the purposes of the Work Health and Safety Regulation 2011 (NSW).

Figure 2 provides an overview of the key parties of the Project highlighting the wind farm works (GE-CATCON) and connection works (TransGrid).

2.2. Project Partners

Summarised below are the key Project partners for the Project:

- **PARF** – asset owner;
- **AGL** – owner's representative (on behalf of PARF);
- **Jacobs** – Project manager and owners engineer (on behalf of AGL);
- **GE Catcon** – a joint venture providing engineering, procurement and construction services for the wind farm works;
- **TransGrid** – network service provider constructing the 220kV transmission line and substation.

Figure 2 below provides a high-level summary of the key commercial entities and reporting structures for delivering the Project.

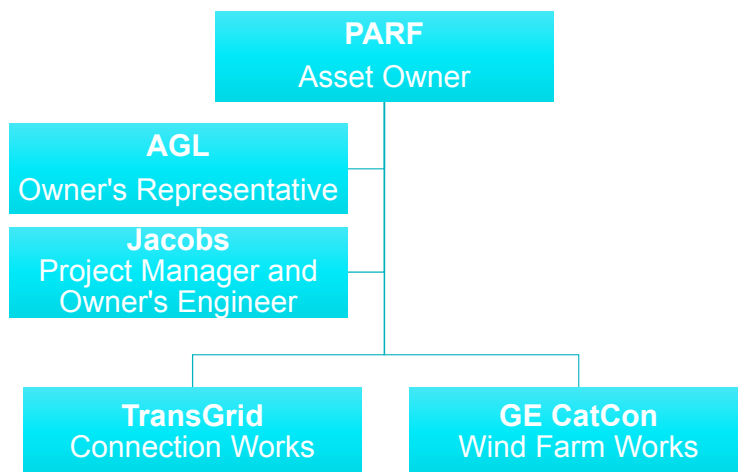


Figure 2 – Commercial Entities and Roles - Silverton Wind Farm Project

3. Environmental Management Activities

3.1. Overview of activities

This EMS explains that the 200MW Silverton Wind Farm will be delivered through two separate environmental management strategies. There are certain activities that will be undertaken by AGL that cover the entire Project. These environmental management activities are outlined below.

3.1.1. Community Enhancement

AGL on behalf of PARF will be responsible for the preparation and implementation of the Community Enhancement Program in accordance with Schedule 2, Condition 18 of the Project Approval. Appendix 3 of the Project Approval notes that community enhancement commitments.

3.1.2. Community Consultative Committee

Following AGL's acquisition of the Silverton Wind Farm development rights in May 2012, AGL engaged with the Silverton community by establishing the Silverton Wind Farm Community Consultative Committee (CCC). Consultation with the CCC has been undertaken in accordance with the Department of Planning and Environment's Community Consultative Committee Guidelines. AGL on behalf of PARF will continue to operate the CCC in accordance with Condition 4 of Schedule 4. This CCC will cover both the wind farm works and connection works and will involve the respective contractors as required.

Details on the Silverton Wind Farm CCC will be provided on the project website located here:

<https://www.agl.com.au/about-agl/how-we-source-energy/renewable-energy/silverton-wind-farm/community-matters>

3.1.3. Project Website

AGL on behalf of PARF will continue to update the project website for the Silverton Wind Farm.

<https://www.agl.com.au/about-agl/how-we-source-energy/renewable-energy/silverton-wind-farm>

The project website will provide information on the project, including the following:

- Regular reporting on environmental performance (refer Condition 6 of Schedule 4 copied below);
- Access to information (refer Condition 9 of Schedule 4 copied below)

Schedule 4, Condition 6 – Regular reporting

“The proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangement in any plans or programs approved under the conditions of this approval”.

Schedule 4, Condition 9 – Access to information

“The proponent must:

- a) *make the following information publicly available on its website as relevant to the stage of the project:*
- *the EA;*
 - *the final layout plans for the project;*
 - *current statutory approvals for the project;*
 - *approved strategies, plans or programs required under the conditions of this approval;*
 - *the proposed staging plans for the project if the construction, operation and/or decommissioning of the project is to be staged;*
 - *a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;*
 - *a complaints register, which is to be updated on a monthly basis;*
 - *minutes of CCC meetings;*
 - *the annual Statement of Compliance with the EPL;*
 - *any independent environmental audit, and the Proponent’s response to the recommendations in any audit; and*
 - *any other matter required by the Secretary; and*
- b) *keep this information up to date, to the satisfaction of the Secretary”.*

AGL provide regular reporting and access to information on the project website. A report detailing environmental performance reporting requirements detailed in Table 1 below is updated on the website and environmental performance reporting is also covered at CCC meetings.

Table 1. Summary of environmental performance reporting requirements based on the obligations detailed in the Wind Farm Works management plans.

Aspect	Wind Farm Works Performance target
Visual	Complaints received about visual impacts during construction are minimal
Noise	Complaints received about noise during construction are minimal
Blasting	Complaints received about blasting during construction are minimal
Air	Complaints received about dust emissions are minimal
Soil and Water	No construction related soil or water pollution incidents that cause material harm to the environment
Biodiversity	No more than 6.81 ha of Porcupine Grass Sparse Woodland is cleared No more than 0.54 of Mulga/Red Mallee Shrubland is cleared No construction in mapped Barrier Range Dragon habitat hotspots
Bird and Bat	Wind turbines erected at least 200m away from raptor nests
Heritage	No direct disturbance to the five heritage items tabled in the MOD 3 project approval No indirect disturbance to the five heritage items tabled in the MOD 3 project approval
Bushfire	No bushfire triggered from construction activities

Waste The quantity of waste recycled is greater than the quantity of waste sent to landfill

Rehabilitation Areas of disturbed ground exposed for a minimal amount of time

3.1.4. Community Updates

AGL has a dedicated Community Relations Manager for the Silverton Wind Farm who will coordinate and respond to any project enquiries. Phone and e-mail details are available on the project website and are also copied below:

AGL Community Complaints & Enquiries Hotline: [1800 039 600](tel:1800039600)

Email: AGLCommunity@agl.com.au

Mail: AGL Community Complaints & Enquiries, Locked Bag 3013, Australia Square NSW 1215

The community complaints register is updated monthly and a link to this register is maintained on the project site.

4. Project Licencing

4.1. Environmental Protection Licence

The NSW Environmental Protection Authority (EPA) issued Environment Protection Licence (EPL) No.20882 to Silverton Wind Farm Developments Pty Limited on 11 January 2017 for the construction of 58 wind turbines and associated infrastructure (wind farm works).

<http://www.epa.nsw.gov.au/prpoeoapp/>

The EPL authorises the carrying out of the schedule activities for the construction of the Silverton Wind Farm, however, it does not permit the operation of any wind turbine.

This EPL was initially issued to Silverton Windfarm Developments Pty Limited and was transferred to CATCON as the Principal Contractor for the construction of the wind farm works on 29 May 2017.

A licence variation to allow for electricity generation was approved on 29 January 2018, and on 23 January 2019 another licence transfer was submitted, with CATCON transferring the licence to General Electric International Inc (GE) on 23 January 2019. This will be the last transfer of the licence, as the project makes the transition from a construction project to an operational wind farm.

The NSW EPA at time of development confirmed that the construction of the connection works by TransGrid did not require an EPL.





Appendix A – Planning Approvals Summary

Table A1: Planning Approvals Summary of Silverton Wind Farm

Document	Scope	Approval Pathway	Approval Date / Determining Authority/ Comments
Silverton Wind Farm Environmental Assessment (NGH Environmental, May 2008)	Construction and operation of 282 wind turbines, and associated infrastructure (Stage 1)	Part 3A of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act)	Refer to below
Preferred Project and Submissions Report (Silverton Wind Farm Developments, with assistance from NGH Environmental, January 2009)	Address community and stakeholder comments	Part 3A of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act)	24 May 2009 - NSW Government Department of Planning Project Approval for the Silverton Wind Farm was granted to Silverton Wind Farm Developments Proprietary Limited (SWDPL), which included the construction and operation of 282 wind turbines, and associated infrastructure including a 24km transmission line from the site to Broken Hill -the Approved Project.
Modification Report 1 (NGH Environmental, 2013)	Extended the commencement date of construction	Clause 8J(8) of the Environmental Planning and Assessment Regulation 2000 and transitional arrangements of Schedule 6A of the EP&A Act, Section 75W of the EP&A Act	11 April 2014 - NSW Government Department of Planning No other elements of the Approved Project were changed as a result of approval of Mod 1, although several conditions in the approval were amended.
Modification Report 2 (AGL 2016)	This extended the approval, stating that it shall lapse nine years after the date on which approval was granted (revised lapse date, 24 May 2018).	Clause 8J(8) of the Environmental Planning and Assessment Regulation 2000 and transitional arrangements of Schedule 6A of the EP&A Act, Section 75W of the EP&A Act	3rd June 2016 - NSW Government Department of Planning and Environment No other elements of the Approved Project were changed as a result of approval of this modification. Minor

Document	Scope	Approval Pathway	Approval Date / Determining Authority/ Comments
			changes were made to conditions in the approval.
Modification Report 3 (NGH Environmental, July 2016)	<ul style="list-style-type: none"> • Reduce the maximum number of turbines in Stage 1 from 282 to 172 • Increase the maximum turbine tip height from 155 to 180 metres and rotor diameter from 110 to 140 meters • Increase the maximum individual turbine generation capacity from 3.6 to 5 MW to produce approximately 700,000 MWH or renewable electricity per year • Take water for construction from an existing pipeline between the Stephens Creek and to the Umberumberka Reservoir (instead of a temporary pipeline to the Umberumberka Reservoir) <p>Remove Stage 2 of the Project for the construction of a further 316 turbines and the associated 305 kilometre transmission line infrastructure</p>	Clause 8J(8) of the Environmental Planning and Assessment Regulation 2000 and transitional arrangements of Schedule 6A of the EP&A Act, Section 75W of the EP&A Act	Refer to below
Submissions Report Modification 3 (NGH Environmental, July 2016)	Address community and stakeholder comments	Clause 8J(8) of the Environmental Planning and Assessment Regulation 2000 and transitional arrangements of Schedule 6A of the EP&A Act, Section 75W of the EP&A Act,	22nd December 2016 - NSW Planning Assessment Commission (Determination Report) AGL removed a further two turbines (B009 and B013) from the proposed layout to reduce visual impacts on the caretakers residence at the Umberumberka Reservoir (VL6) and the public viewpoint at VL8. As a result of



Document	Scope	Approval Pathway	Approval Date / Determining Authority/ Comments
			these changes, the total number of turbines proposed is 170.