Winton Energy Reserve 1 Facility Stage Two: Landscape Character and Visual Impact Assessment **FINAL**

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any convright





Hemisphere Design (Aust) Pty Ltd



Contents

2.1 Site visit and Photography	6 1
2.2 Consideration of the pre-determined viewpoints	1
3.0 Likely Visual Impact Assessment	1
3.1 Construction Phase	3
3.2 Likely Visual Impact at the Identified 'Sensitive Recentors' 2	ิว
5.2 Likely visual impact at the identified Sensitive Receptors	5
4.0 Summary and recommendations	0

ADVERTISED PLAN

About the author

Stuart Heseltine, Registered Landscape Architect, Principal of Hemisphere Design.

Stuart is acknowledged as a leading practitioner in the area of landscape character and visual impact assessment. In considering each visual impact assessment exercise Stuart undertakes a qualitative landscape character assessment consistent with best practice as prescribed by the Guidelines for Landscape and Visual Impact Assessment (third edition), the Landscape Institute (UK) and Institute of Environmental Management and Assessment (NSW) 2013.

Stuart has successfully applied this methodology to major projects across South Australia, the Northern Territories, New South Wales and Victoria. With relevance to this project Stuart has prepared assessments for the Adelaide, Kangaroo Island and Port Lincoln Desalination Plants, the Lincoln Gap (Stage 3) and Barn Hill Windfarm Developments, the Chaff Mill, Tailem Bend Stage two, Frasers Solar Farm (Glengarry North Victoria), Mid Murray and Berri Solar Farm developments, the Clements Gap BESS and the Torrens Island Gas Power Station Expansion.

In 2020 Stuart and staff at Hemisphere Design completed a Landscape Character and Visual Impact Assessment for the Environment Effects Statement (EES) for Stage 2 of the Yan Yean Road Upgrade, a significant outer Melbourne transport corridor on behalf of the Department of Environment, Land, Water and Planning (DELWP).

Stuart provides regular advice on the likely visual impact of numerous infrastructure developments undertaken by Electranet SA and visual assessment exercises pertaining to Development Applications lodged in a numerous Adelaide metropolitan and regional council areas.

Stuart's particular expertise in undertaking visual assessments is highly sought after for the provision of expert evidence for the Environment, Resources and Development Court (SA).

Note: This document is prepared to be printed and read in A3 format

Disclaimer: Stuart Heseltine, Principal Hemisphere Design is the sole author of this report; all changes implemented without the authors consent after the final report has been issued may warrant the intellectual property contained in the report wholly or partially invalid.

Document Control and Distribution Copies						
Revision Number	Date Issued	Author	Approved By	Date Approved	Revision Type	Issued to
N/A	8.12.21	Stuart Heseltine	Stuart Heseltine	8.12.21	Draft Final	C. Holmes
Rev. #01	12.08.22	Stuart Heseltine	Stuart Heseltine	16.08.22	Final	G. Beazley

Glossary of Terms

CL	Contextual Landscape
HD	Hemisphere Design
Locality	The position or site of something
Landscape Assessment	An assessment of the elements that collectively make up the landscape, such as landform, vegetation, land-use and cultural influences
Sensitive Receptor (SR)	Locations from where it was considered the desalination plant is likely to be wholly or partially visible and, in some instances, prominent
Sensitive Receptor Locality (SRL)	Where a number of collocated viewpoints, e.g., adjacent or nearby dwellings, would be subject to the same degree of visual exposure to the proposed development
Viewpoint (VP)	A position providing an appropriate view of the proposed desalination plant which has been assessed to consider landscape character and the likely potential of visual impacts which may result as a consequence
Viewpoint Locality (VPL)	Where a number of collocated viewpoints, e.g., adjacent or nearby dwellings, have been assessed to consider landscape character and the likely potential of visual impacts which may result as a consequence of the proposed development
Visibility shadow	Areas within the likely ZTVI where it is predicted that the proposed development will not be visible because there are a combination of ridgelines and depressions, specific blocks of vegetation and built form between the viewer and the proposed site that potentially blocks all views

Visual Exposure	A measure of the deg
	can see or potentially
	proposed developme
	classified as either no
Zone of Theoretical	The ZTVI is the define
Visual Influence (ZTVI)	contextual landscape
	development could b
	radius from the centr
	the likely furthest ext

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any convright

ADVERTISED PLAN

gree to which an observer at a location ly see the area to be affected by the ent. The visual exposure is subjectively one, low, moderate or high

ed area within which modification to the e as a result of the proposed be discernible to the naked eye. A 2 km tre of the proposed site was adopted as tent of the likely ZTVI



Executive Summary

Lochard Energy propose to develop an Energy Reserve 1 Facility (the Facility) at 386 Lee Road, between Nelson Road and the Hume Freeway, in the Winton North region of the Benalla Rural City Council, Victoria. The proposed Facility is within former agricultural land, 9 Km east of the township of Benalla in the Victoria Central North Renewable Energy Zone.

The project will utilise hybrid technology with Li-Ion batteries and fast-start highefficiency dual-fuel gas reciprocating engines and will comprise:

- A 200 MW GPG facility with a powerhouse of potentially up to 15 m high and with several stacks to a typical height of 25 m
- A ~200 m gas pipeline including metering station connecting the GPG facility to the APA gas pipeline
- A BESS facility where the array of transformers will be approximately 5 m high
- An electrical substation for both the GPG and BESS facility which will then feeds into the local network where infrastructure will be up to 8 m high
- A ~3 km 220 kV underground transmission line from the Glenrowan terminal Station (GTS) to the subject site. The transmission line will cross the Hume Freeway and follow the existing AusNet easement northwest from the GTS. It will then head east within the road reserve of Lee Road before entering the subject site.
- Auxiliary service buildings and services including: a workshop, administration buildings, lube oil and water tanks in the order of up to 5 m in height

ADVERTISED PLAN

- Internal access roads and vehicle turning areas, security fencing, Landscaping, earthworks and associated drainage works
- The Facility will require the removal of native vegetation

To assist in the submission of a Development Application conducted a two-stage Landscape Character and Visual Impact Assessment (LCVIA) had been undertaken.

As a consequence of Covid travel restrictions the Stage One LCVIA exercise comprised a desk top study with the aid of Google aerial mapping and 'street view' and conceptual layout images of the Facility provided by WSP. The Stage One Report:

- concluded that the existing landscape is of **low** to **moderate** scenic quality and has a low sensitivity to change, i.e., it can readily absorb a development of this nature
- identified seven potential locations or viewpoints from which potentially the Facility could be visible
- from the seven viewpoints identified five potential sensitive receptors

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any convright



Image: Township of Glenrowan, 12 km east of project site 'the Facility'.

The Stage One LCVIA report recommended that these findings should be corroborated through a detailed onsite assessment to further assess the likely visual impact of the Facility at the identified potential sensitive receptors.

The Stage One LCVIA Report is appended for consideration.

The findings of the on-site assessment are presented in this Stage Two LCVIA Report in written and illustrative form and with the aid of photomontage imagery.

The onsite assessment undertaken in the Stage Two LCVIA Report:

- confirmed the landscape is of low to moderate scenic quality and has a low sensitivity to change
- established that from the seven viewpoints only two are relevant as sensitive receptors
- concludes that in a landscape experiencing irrevocable change though the development of numerous solar farms located within a designated 'Renewable Energy Zone' the introduction of the Facility both singularly and cumulatively will result in a **no change** to a **slight** to **moderate adverse** visual impact on the two identified sensitive receptors.

The Facility will introduce a new visual element into the landscape which, from elevated vantage points to the east and the Mokoan Rest Area – southbound will evoke curiosity, becoming a prominent 'incidental' infrastructure feature of merit and a best practice example of progressive renewable energy delivery.



1.0 Introduction

The Stage Two Report provides a more detailed assessment of the likely visual impact of the Facility from the seven publicly accessible viewpoints identified in the Stage One Report.

The Stage Two Assessment;

- Verified the existing contextual landscape character identified in the Stage One Report.
- Visited and considered the seven pre-determined publicly accessible viewpoints within the wider contextual landscape to affirm which of the seven viewpoints are likely to be a sensitive receptor.
- The presence of more extensive tracts of mature vegetation affording a greater degree of informal screening subsequently revealed that only two only and not, as previously considered, five of the seven viewpoints were relevant sensitive receptors.
- Qualitatively assessed the likely visual impact of the Facility within the contextual landscape from the two identified sensitive receptors
- The degree of likely visual impact is presented in a tabulated form and supported by photomontage imagery.

Where relevant, the photomontage imagery provides guidance on the appearance, form, materiality and finishes of the proposed structure and other associated infrastructure.

2.0 Stage Two Considerations

2.1 Site Visit and Photography

A site visit was undertaken over the 29th and 30th November 2021, photographs were taken at the seven pre-determined viewpoints to assist in the more detailed assessment of the two identified sensitive receptors. Refer Map (HD_Y003_AD01 Sheet 4).

Photographs were taken using a Canon 35 mm Single Lens Reflex (SLR) camera with an approximate lens setting of 43 mm.

The site visit revealed that potentially there are commercial and residential properties (considered to be small in number) at elevated locations within wider the contextual landscape which are located some distance off publicly accessible roads. Viewpoints adjacent these properties have not been visited and likely impacts considered due to their relative seclusion and inaccessibility.

The site visit corroborated the findings of the Stage One LCVIA desk top study with regards to prevailing land use activities, the extent of the 'Zone of Theoretical Visual Influence' (ZTVI), the footprint of the 'visibility shadow' and the significance of existing vegetation within both the local and wider landscape in providing visual screening. Refer Maps (HD_Y003_AD01 Sheet 1) (HD_Y003_AD01 Sheet 2) (HD_Y003_AD01 Sheet 3) and (HD_Y003_AD01 Sheet 4).

The site assessment also reaffirmed that the landscape character is of one of a **low to moderate** scenic quality and has **a low sensitivity** to change i.e., it can readily absorb a development of this nature.

ADVERTISED PLAN



Image: View north east within contextual landscape from Day's Lookout. Winton Solar Farm is largely conspicuous, the colour of the PV panels blends in effortlessly with the surrounding landscape. The visual impact of the Facility is envisaged to be similar







WINTON ENERGY RESERVE 1 FACILITY

ADVERTISED PLAN

LEGEND	
A	Project site ' the Facility'
	Industrial
	Recreational
	Energy and utility
	Existing 220 kV transmission towers and lines
ZTVI	Zone of Theoretical Visual Influence

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any convright

DRAFT CONFIDENTIAL



Hemisphere Design (Aust) Pty Ltd PO BOX 858 MITCHAM CENTRE, TORRENS PARK SA 5062 P 08 8277 7640 E admin@hemispheredesign.com.au ACN 114 503 936





LEGEND



Project site 'the Facility' and notional concept site plan



Existing 220 kV transmission towers and lines

Existing screen planting

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any convright



Hemisphere Design (Aust) Pty Ltd PO BOX 858 MITCHAM CENTRE, TORRENS PARK SA 5062 P 08 8277 7640 E admin@hemispheredesign.com.au ACN 114 503 936





2.2 Consideration of the pre-determined viewpoints

Seven pre-determined viewpoints within the 2.0 km and 5.0 km ZTVI have been visited and consideration was given to all likely visual impacts to determine whether, and to what degree each viewpoint could be considered a sensitive receptor.

Viewpoint 01 (VP 01) – Little Cedar No. 21 Bowers Road – view west

Listed as a tourist retail outlet, café and residential dwelling. Access to the property was not obtained at the time of the site visit. The existing 220 kV transmission towers and powerlines are incongruous features within the immediate locality. The presence of mature, dense screen planting on all property boundaries suggests the proposal may be screened from views within the property. However, given the relative proximity this location is considered a sensitive receptor and considered further in this assessment.

No. 21 Bowers Road -Little Cedar Existing mature and dense screen planting on property boundaries conceal views to project site.

Project site 'the Facility'



Image: VP 01 Little Cedar No. 21 Bowers Road, view west

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any convright



PLAN

Viewpoint Locality 02 (VPL 02) – Mokoan Rest Area (Northbound and Southbound), Hume Freeway, Winton

Public car park, Mokoan Rest Area - northbound on Hume Freeway. The presence of mature, dense foreground vegetation largely conceals views to the proposed site. At the northbound rest area the visual impact will be no change where the eye of the observer is likely to be cast both forward to the south and the expansive alpine ranges and east towards the higher ground of the Rutherglen township enveloped buy an expanse of dense mature vegetation. The viewpoint was not considered a sensitive receptor.

Public car park at Mokoan Rest Area – southbound. Intermittent views are obtained through and under a sparse collection of mature tree canopies over grassed verges when exiting the rest area. The views received confirmed that this location is a sensitive receptor, considered further in this assessment.





Image: VPL 02 – Mokoan Rest Area Northbound entrance, view south

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any convright

Mature and dense foreground vegetation -



Image: VPL 02 – Mokoan Rest Area Northbound car park, view south



Image: VPL 02 – Mokoan Rest Area Northbound walking track, view north









Image: VPL 02 – Mokoan Rest Area Southbound exit, view north west



Image: VPL 02 – Mokoan Rest Area Southbound car park, view north west







Viewpoint Locality 03 (VPL 03) – A viewpoint centred on No. 42 Benalla-Yarrawonga Road and 270 Murray Road, Benalla



ADVERTISED PLAN

Viewpoint 04 (VP 04) – Greens Hill, Winton Wetlands

Greens Hill, Winton Wetland looking south. Mature dense vegetation around the swamp will likely conceal views of all proposed infrastructure and buildings. This viewpoint was not considered as a sensitive receptor.



Image: VP 04 – Greens Hill, view south west

ADVERTISED PLAN





Viewpoint 05 (VP 05) - Baileys of Glenrowan No. 779 Taminick Gap Road, Taminick

No. 779 Taminick Gap Road, a popular and well patronised winery and functions centre. The presence of evergreen vegetation plays a significant role in screening views of the proposed Facility within the contextual landscape. This viewpoint was not considered as a sensitive receptor.



Image: VP 05 – Entrance of Baileys of Glenrowan, view south west



Image: VP 05 – Intersection of Taminick Gap Road and Upper Taminick Road, view south west

This copied document to be made available

Viewpoint 06 (VP 06) – Locations along Booth Road, Taminick

Includes No. 298 Booth Road Auldstone Farm, a bed and breakfast accommodation, No. 339 Booth Road, comprising of Taminick Cellars, a cellar door winery and Black Dog Brewery Bar. The viewpoint on foothill of Warby-Ovens National Park is afforded elevated views south west. The presence of evergreen vegetation plays a significant role in screening views of the proposed Facility within the contextual landscape. This viewpoint was not considered as a sensitive receptor.



Image: VP 06 – Taminick Cellars, view south west

ADVERTISED PLAN

sensitive receptor.



Image: VP07 - Winton Wetlands trailhead, view south



Likely Visual Impact Assessment 3.0

Of the seven viewpoints visited the on-site assessment has identified two Sensitive Receptors:

- Viewpoint 01: Little Cedar No. 21 Bowers Road Sensitive Receptor SR 01
- Viewpoint 02: Mokoan Rest Area (Southbound), Hume Freeway, Winton -**Sensitive Receptor SR 02**

The sensitive receptors are identified on drawing HD_Y003_AD01 Sheet 4.

The assessment of the likely visual impact of the Facility has been confined to the two identified sensitive receptors.

For each sensitive receptor the likely visual impact of the proposed development is described considering factors which may include:

- The visual qualities of the view and the duration and angle of the view in ٠ relation to the main activity of the viewer
- The distance of the viewpoint from the proposed development •
- The extent of the area over which the changes would be visible and the scale • of the change in the view (loss or addition of features, changes in composition, proportion of view affected)
- The degree of contrast in form, scale, mass, line, height, colour and texture • introduced into the view by the Facility
- The duration and nature of the effect (temporary, permanent, intermittent) ٠
- The numbers and types of viewers affected •







3.1 Construction Phase

During the construction phase temporary changes to visual amenity will occur as a result of earthworks at all sensitive receptors. These changes will be due mainly, but not limited to the presence of construction equipment, earthworks and excavation activities and an overall increase in the number of people and vehicles at each site and at roadside locations.

All potential loss of vegetation will be minimised though sympathetic excavation works and where necessary new native plantings will be introduced to replace all potential losses.

The changing visual environment and activity during construction will be temporary, therefore is not considered in detail in the visual impact assessment.

3.2 Likely Visual Impact at the Identified 'Sensitive Receptors'

The likely impacts at SR 01 and SR 02 are described using the following definitions:

Substantial adverse impact	where the so
	deterioration
Moderate adverse impact	where the so
	deterioration
Slight adverse impact	where the so
	perceptible o
Slight beneficial impact	where the so
	perceptible i
Moderate beneficial impact	where the so
	improvemen
Substantial beneficial impact	where the so
	improvemen
No change	No discernib
	the existing



This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any convright cheme would cause a significant n in the existing view

cheme would cause a noticeable n in the existing view

cheme would cause a barely deterioration in the existing view

cheme would cause a barely improvement in the existing view

cheme would cause a noticeable nt in the existing view

cheme would cause a significant nt in the existing view

ble deterioration or improvement in view



Sensitive Receptor 01 (SR 01) – No. 21 Bowers Road - Little Cedar



Image: Sensitive Receptor 01 – Little Cedar, view west

Location	No. 21 Bowers Road a retail outlet, cafe and residential dwelling.			
	West of the site eastern boundary. The eastern boundary is the longest boundary of a site which appears on			
	diminshing width as it extends west.			
View directions	West.			
Landscape and setting	Where the eye of the observer is drawn across a planar landscape dissected by the heavily trafficked Hume F			
	10 metres.			
	The ordered form and appearance of the surrounding pastural fields create a sprawling patchwork of green h			
	comprising copses of evergreen trees and shrubs. The 220 kV transmission towers are prominent visual featu			
	the expansive vista.			
Distance from Project Site(s)	Approximately 1.5 Kilometres.			
Visual exposure at receptor	Refer to HD Drawing: HD_Y003_section_SR01			
	Low, the mature planting boundary plantings between the site and this receptor at the eye of the observer cr			
	precluding views of the introduced infrastructure including the proposed, up to 25 m high, gas stacks refer D			
	(SR 01) Hd_Y003_section.			



Predicted visual impact	Dense evergreen trees and shrubs create a visual screen between the property's western boundary approx. 3				
	retail outlet and the sites eastern boundary 1200 meters west adjacent Lee Road. Mature plantings around t will further restrict all direct views into the south eastern corner of the site.				
	Singularly the visual impact of the proposal will be no change . In considering the likely future cumulative visu in the wider contextual landscape could envelope the Facility, the predicted visual impact will be no change.				
Mitigation	Not required where there are extensive tracts of dense mature vegetation.				

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any convright

> ADVERTISED PLAN

300 meters from the dwelling and the Mokoan Rest Area Northbound

ual impact where several solar farms



Based on previous concept design



This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any convright

TITLE	Section -	Sensitive	Recentor	01	(SR 01)
- F F F Labor	occuon-	OCHOILING	ILCCPLOT		JIL VL

PROJECT Winton	Energy Reserve	1 Facility		
DWG NO HD_Y003_section	SCALE -	SHEET NO	REVISION	-
DRAWN SW	CHECKED SRH	DATE 12/21		



TORRENS PARK SA 3062 P 08 8277 7640 E admin@hemispheredesign.com.au ACN 114 503 936



Sensitive Receptor 02 (SR 02) – Hume Freeway - Mokoan southern rest area



Location	Mokoan southern rest area located off southbound carriageway of Hume Freeway, a publicly accessible veh
View directions	North west.
Landscape and setting	A traveller rest stop with WC facilities interpretive signage and walking trail immediately adjacent the Hume
Distance from Project Site(s)	Approximately 300 metres.
Visual exposure at receptor	Refer to HD Drawing: HD_Y003_photomontage_SR02.
	High, with open views punctuated by only the occasional stand of sparsely vegetated trees. Infrastructure ar discernible from such a short distance away. However, the observer will be a traveller who is likely making a respite from travelling along a busy freeway.
Predicted visual impact	Singularly the predicted likely visual impact at the south bound rest area will be slight to moderate adverse constant traffic along the freeway is a notable visual intrusion in the immediate locality.
	In a locality overwhelmed by the movement of large volumes of vehicles along the freeway and a contextua of an expansive array of solar panels visible for long stretches in both directions along the freeway, the cum adverse.

	This copied document to be ma for the sole purpose of en its consideration and rev part of a planning process u <u>Planning and Environment</u> The document must not be us <u>purpose which may breat</u> <u>convright</u>	de available abling iew as inder the Act 1987. ed for any ch any
icle layby and	rest area.	
Freeway.		
nd built form an infrequent	would be clearly visit only to enjoy a brief	
where the da	ylight frequency of	
l landscape so ulative visual	oon to be the location impact will be slight	
	27	

	From elevated vantage points along the Days Lookout walking trail the Facility will be largely anonymous, ho
	will be afforded of the taller elements of proposed infrastructure including the 25 m high stacks. Notwithstar
	landscape where 220 kV transmission towers march across the contextual landscape will be largely inconseq
Mitigation	Not required in a landscape where transport high volumes of vehicular movement dominate the vista.

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any convright



owever the occasional glimpsed view nding he impact within a contextual quential .





Summary and recommendations 4.0

Within a locality and landscape of **low scenic quality** the visual impact that is likely to be experienced by the Facility will be;

- Sensitive receptor SR 01 Singularly and cumulatively no change
- Sensitive receptor SR 02 **Singularly slight adverse to moderate adverse** whilst cumulatively slight adverse

Whilst mitigation through the introduction of screen planting is considered unnecessary consideration may be given in the design and construction of the Facility to the use of muted colours in material and finishes, for example Notre Dam grey to complement the colours and hues of the vegetation within the locality and wider contextual landscape

The Facility will introduce a new visual element into the landscape which, from elevated vantage points to the east and the Mokoan Rest Area – southbound will evoke curiosity, becoming a prominent 'incidental' infrastructure feature of merit and a best practice example of progressive renewable energy delivery.

ADVERTISED PLAN