
Landscape character & visual impact assessment

Lots 1 & 2 DP 1070081
361 Oxley Highway, Gilgandra, NSW

Gilgandra 1A Solar Farm



Zenith
TOWN PLANNING PTY LTD

0408 258 877 | PO Box 591 Moruya NSW 2537 Australia
zenithplan@bigpond.com | www.zenithplan.com.au


This page is left blank intentionally

TABLE OF CONTENTS

1.	Introduction	1
2.	Methodology	1
3.	Proposed works	4
4.	Description of the landscape	5
5.	Assessment of impacts on landscape character	7
6.	The visual catchment	7
7.	Assessment of visual impacts	9
8.	Assessment of heritage impact	11
9.	Assessment against planning principles	13
10.	Conclusion and recommendations	15

Attachment A: Site Photographs

Document Control

Project number	1321
Project title	Gilgandra 1A Solar Farm
Document title	Landscape character & visual impact assessment
Client	ITP (Development) Pty Ltd
Author	Allen Grimwood, Director Zenith Town Planning Pty Ltd PO Box 591 Moruya NSW 2537 www.zenithplan.com.au
ABN ACN	11 624 467 349 624 467 349
Qualifications	Bachelor of Arts (Honours) UNSW Master of Urban & Regional Planning, USyd  Planning Institute Australia
Version	Draft 15 November 2021
	Final 17 November 2021

Report title: This report should be cited as *Gilgandra 1A Solar Farm Landscape character & visual impact assessment*, prepared by Zenith Town Planning Pty Ltd, dated 17 November 2021.

Acknowledgements: This document has been prepared by Zenith Town Planning Pty Ltd with the assistance of ITP Development Pty Ltd.

Disclaimer: The contents of this report are Commercial in Confidence and are only to be used for the express purpose of supporting the respective project, planning proposal or development application described above. The contents are not to be reproduced or provided to any party other than in relation to the project or development application described above except with the prior written approval of Zenith Town Planning Pty Ltd and ITP Development Pty Ltd. The report has been prepared using information supplied by the client and other stakeholders. All care is taken to ensure the accuracy and veracity of this information, however, no responsibility is accepted for the interpretation of that information by end users.

1. Introduction

The purpose of this report is to assess the landscape character and visual impacts of a proposed solar farm at Gilgandra, located in Gilgandra local government area and to be known as the Gilgandra IA Solar Farm.

The scope of this report is to evaluate the potential impacts on landscape character and visual amenity. To achieve this end the report addresses:

- the location and physical characteristics of the site on which the works are proposed,
- the character of the surrounding landscape and the visual catchment within which the proposed works may be of significance,
- potential impacts on the landscape, viewpoints and receivers located within the visual catchment, and
- means to avoid or mitigate potential impacts.

A site visit was carried out on 12 October 2021 by Anthony Daintith Town Planning. Telephone discussions have been held with Gilgandra Shire Council planners during November 2021.

2. Methodology

Impacts on the visual and scenic amenity of the proposed Gilgandra Solar Farm have been assessed by Zenith Town Planning Pty Ltd using the RMS guideline *Environmental Impact Assessment Practice Note– Guideline for Landscape Character and Visual Impact Assessment* (EIA-N04 Version 2.1 released on 21 August 2020). Details of methodology are given below.

A site inspection of the location of the proposed works and the surrounding area has been carried out to identify the visual catchment, the context of the site of the proposed works and observation points. Land uses and characteristics of the environment such as topography, vegetation, architecture of neighbouring buildings and any heritage values of any significant sites in the vicinity of the proposed solar farm were noted and the capacity of the area to absorb physical change is assessed.

Development plans for the solar farm have been reviewed and the likely impacts on landscape character identified. This is determined by the sensitivity of the landscape to physical change and the magnitude, or relative size and scale, of the works.

The visual significance of the site to observation points and receivers within the visual catchment is described in terms of proximity to the site, landscape character, the composition of views and the sensitivity to change that will affect scenic values. The visual impacts that will be experienced by each observation point and receiver are identified and evaluated in terms of the sensitivity of each observation point and receiver to change and the magnitude of that change in terms of the proposed works. The impacts are calculated and ranked according to negligible, low, moderate or high impact based on the following matrix (Table 1).

Table 1: Landscape character and visual impact grading matrix. Source: RMS Guideline for Landscape Character and Visual Impact Assessment, 2018

Landscape character and visual impact grading matrix					
Sensitivity	Magnitude				
		High	Moderate	Low	Negligible
	High	High impact	High-moderate	Moderate	Negligible
	Moderate	High-moderate	Moderate	Moderate-low	Negligible
	Low	Moderate	Moderate-low	Low	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

An explanation of the rankings of impacts on landscape character and visual amenity are provided in Table 2, sourced from *Pacific Highway HW10 and Wyong Road MR335 intersection and approaches upgrade Tuggerah* by Peter Andrews & Associates Pty Ltd/Corkery Consulting Pty Ltd, September 2012.

Table 2: Explanation of rankings based on sensitivity and magnitude.

Rank	Landscape character	Visual amenity
High	The development would be the dominant feature in the landscape and would significantly affect and alter character	There is a substantial change to visual amenity or a total loss of view towards key features caused by the introduction of new elements that contrast with existing landscape character
Moderate	The development introduces a new element to the landscape and would form a significant and recognisable part of the landscape that alters character	There is partial loss or change of visual amenity towards key features caused by the introduction of new elements that may be prominent but not substantially in contrast with existing landscape character.
Low	The development constitutes a minor element of the wider view that merges with other land uses	There is a minor loss or change of visual amenity towards key features caused by the introduction of new elements that are consistent with existing landscape character

Negligible	The development is either not visible or only a small part is visible that due to distance separation does not alter character	There is very minor loss or change to visual amenity towards key features caused by the introduction of new elements that are consistent with existing landscape character approximating no change
------------	--	--

Where magnitude and sensitivity impacts differ, the ranking would be a hybrid of the two impacts, e.g. moderate-high. Such a ranking would combine elements of both the explanation of a moderate rank and that of a high rank.

The RMS methodology has been validated by the Land and Environment Court for uses other than roads and bridges. For example, in the case of *Houghton V Shoalhaven City Council* [2016] NSWLEC 1195 the commissioner upheld an appeal by the applicant and agreed with the findings of the visual assessment that was prepared using this methodology to consider the impact of tourist development.

The methodology of the guidelines addresses impacts in both qualitative and quantitative terms. The qualitative assessment involves the use of descriptive and conceptual data such as descriptions of landscape characteristics and the setting of the development or viewpoint. The quantitative assessment uses numbers and values such as the distance of a viewpoint from the development and the direction of the view towards the development. The purpose of the assessment is to identify impacts and to determine whether these impacts are acceptable given the benefits of the development to the community and economy.

Although the proposed development is not classified as a state significant project reference has been made to the Large-Scale Solar Energy Guideline during the preparation of plans, drawings and reports. The document provides the following guidance for assessing visual impacts:

The impacts on landscape character and values and the visual amenity of landholders and communities.

Using the RMS methodology, which is based on the magnitude (size and scale) of the development and the sensitivity of the landscape and visual receivers to change, ensures that an objective judgement of impacts is made by the assessor. The methodology prevents the assessor from making subjective judgements. Sensitivity is a measure of how sensitive the character of the setting is to the proposed change and its capacity to absorb the change. Magnitude refers to the scale, form and character of a development proposal.

Planning principles established by the NSW Land and Environment Court were also considered as a check on the findings of the landscape character and visual assessment. These principles are derived from the case *Tenacity Consulting v Warringah* [2004] NSWLEC 140 when considering the acceptability of the impact of a proposed development on views enjoyed from private property in the vicinity of that development, and from *Rose Bay Marina Pty Ltd V Woollahra Municipal Council and Anor* [2013] NSWLEC 1046 when assessing the impact of a development on the public domain.

THE RMS methodology has been compared with that required by government guidelines that apply in other states, i.e. South Australia, Victoria and Queensland. South Australia's guideline is silent on the issue of visual assessment and the Queensland guideline suggests that visual amenity and proximity to sensitive receptors should be investigated when assessing the feasibility and impacts of a project. The Victorian guideline includes advice on minimising impacts on landscape values and on providing screening to reduce visual impacts. It also recommends that design includes visual simulations (photomontages) to illustrate the development in the context of the surrounding area and key viewpoints, and that an assessment of the impacts have regard to the scale of the project, the sensitivity of the landscape to change, visibility to private property and public places, the locations and distances from which a facility may be seen, the significance of the landscape and landscape/environmental values. This assessment applies a methodology that would comply with the Victorian guidelines.

The findings of the landscape character and visual impact assessments are summarised in the conclusion. Recommendations as to refinements of the development plans to avoid or mitigate significant landscape and visual impacts are made if necessary.

3. Proposed works

ITP (Development) Pty Ltd proposes to develop a solar farm and ancillary facilities with an AC output of 5.0MW at 361 Oxley Highway, Gilgandra, NSW. The site is located approximately 3 kilometres to the west of the town centre of Gilgandra and is an irregular shape with a total area of 133.2 hectares. The proposed development would occupy 11.3 hectares of the total site. The land is generally flat with a slight fall to the west and is sown with crops. The layout of the solar farm is shown on General Arrangement Plan (Drawing No GID1A-G-2100) prepared by ITP Renewables.

Components of the facility which may impact on the landscape and visual amenity are:

- 12,000 solar modules ranging in height from 1.5 metres to 2.75 metres installed in rows running north to south with approximately 6.25 metres centre to centre spacing between each row,

- An inverter station with two 3.4MW inverters that are 3 metres high and mounted on a 12.2 metre long skid,
- A battery storage system that is 12.2 metres long, 2.4 metres wide and 2.9 metres high,
- A temporary car parking and materials laydown area,
- A 2.5 metre high kiosk is to be located at the north-eastern corner of the array,
- A 1.8 metre high security fence topped with three rows of barbed wire to give a total height of 2.3 metres, and
- Perimeter landscaping within a 5 metre width on the outer side of the security fence along the northern side of the array, along the eastern boundary of the northern section, and along the western edge of the array for approximately 90 metres at the northern end and approximately 100 metres at the southern end. The plants will comprise shrubs that will grow to a maximum height of 3 metres and selected to provide a continuous screen upon maturity including at close to ground level.

4. Description of the landscape

The character of the landscape near the development site of the Gilgandra Solar Farm is summarized in Table 3 below.

Table 3: Landscape character in the vicinity of the development site

Item	Description
Land use	The development site is zoned RU1 Primary Production and is currently under a wheat crop. The closest part of the urban area of Gilgandra is on land to the north and north-east of the site with residential development on land zoned R1 General Residential. Land to the south and west of the site is used for agricultural purposes. Gilgandra State Forest occupies land to the south-east with vegetated private land holdings to the south
Structures	The parcel is currently vacant. Structures within the vicinity of the site comprise scattered farm houses and sheds on neighbouring agricultural land and dwellings to the north-east. The Gilgandra Shire Council works depot is located on the northern side of the Oxley Highway opposite the site. There are two heritage buildings in use in the Council depot – the Igloo and Butlers Airlines Hangar.
Topography	The topography of the development site is relatively flat with a slight fall towards the west. There are no watercourses running through the site

Item	Description
Vegetation	The property is generally cleared with a small number of isolated trees across the site and a couple of small clusters including eucalypt and pine species that run either side of the proposed footprint of the array in a north-south direction. There is a dense landscape screen within the southern side of the Oxley Highway road reserve that screens the site from the northern side of the Highway
Infrastructure	The Oxley Highway, a classified road, runs east to west along the northern boundary of the site. Aralee Road and other local roads provide access to neighbouring agricultural properties near the site. An 11kV power line within a 20 metre wide easement runs across the site from east to west which connects to the Essential Energy Gilgandra Zone Substation

Below is an aerial image of the development site sourced from SIX Maps. The date of the imagery is 6 June 2011.

Photographs of the landscape and surrounding development are appended as Attachment A. All photographs were taken by Anthony Daintith Town Planning Pty Ltd at the time of the site inspection.

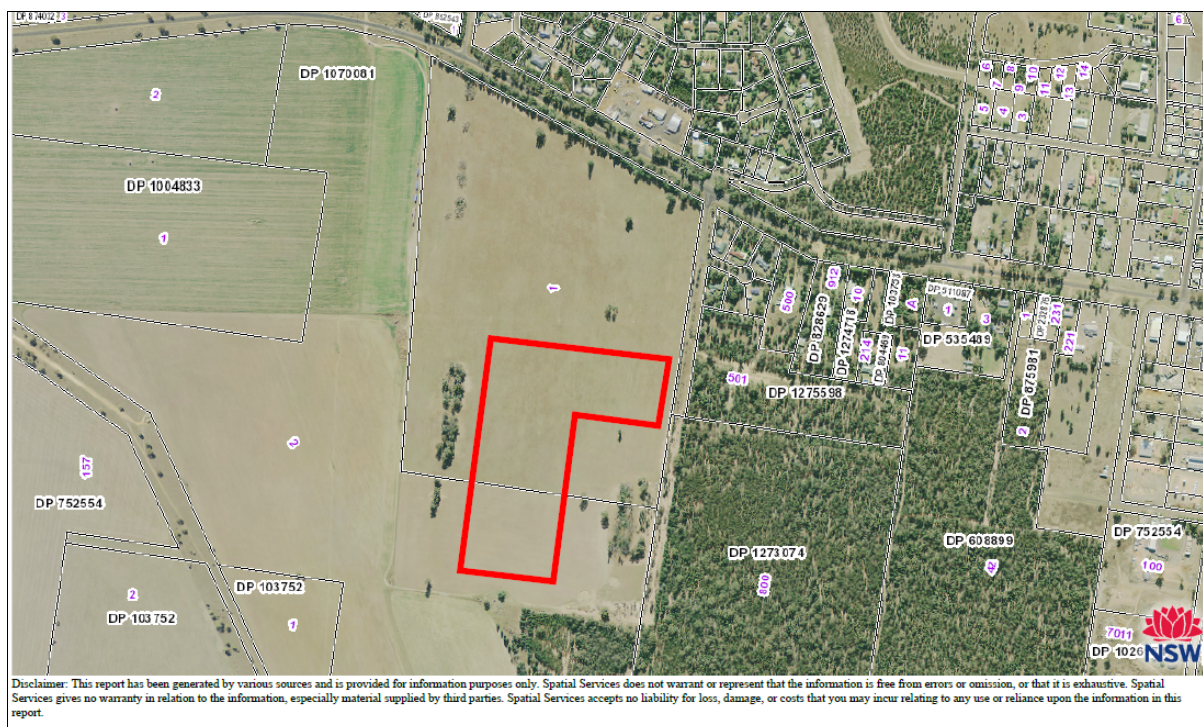


Figure 1: Aerial image of the development site. Source: SIX Maps 6 June 2011

5. Assessment of impacts on landscape character

The landscape near the site of the Gilgandra Solar Farm is characterised by cleared agricultural land and remnant or regrowth native vegetation that remains along boundaries, on private land to the south and on forestry land to the south-east. The landscape in the immediate vicinity of the development site is generally flat. Structures within the vicinity of the site comprise rural farm buildings, residential development to the north and north-east with native gardens, and the Council works depot north of the site. The works depot is occupied by two heritage buildings – the Igloo and the Butler Airlines Hangar. Both structures are in use by Council for maintenance and storage,

The sensitivity of private property in the vicinity of the site to landscape change is considered moderate, particularly for dwellings within the residential zones west of Gilgandra centre. The occupants of these dwellings would be accustomed to the open agricultural land to their west and south. The sensitivity of the Oxley Highway and other public roads to landscape change would be low due to the flat topography and vegetation within road reserves that screens the development site.

The size and scale, or magnitude, of the project relative to existing elements of the landscape is considered to be moderate. The solar farm will only occupy 8.3% of the total area of the development site and there are several existing solar farms in neighbouring areas of Dubbo and Narromine which have established a physical presence and have already altered the rural landscape in the Orana district.

The impact on the landscape is assessed to be moderate. The proposed landscape planting on the northern edge of the array and partially along the eastern and western sides of the array will assist to maintain the current rural landscape character. Along with the existing remnant vegetation in road reserves and within the development site either side of the array footprint, the facility will be effectively screened to all adjoining and adjacent properties and this screening will compensate for any change to rural character.

6. The visual catchment

The visual impact of solar farms depends on the scale and type of infrastructure, the prominence and topography of the site relative to the surrounding environment; vegetation; and any proposed screening measures to reduce visibility of the site. Some potential observation points may not have a clear line of sight towards the solar farm because of significant existing features such as built structures and vegetation. The greater the distance from the development site the less clear is the view of the solar

farm. The ability to distinguish the type of land use and the actual composition of materials diminishes with distance. For the purposes of this analysis the visual catchment of the proposed development is defined by an area within 2 kilometres of the centre of the development footprint as shown on the visual catchment map below (Figure 3). The visibility of the site from properties located beyond 2 kilometres would be negligible.

Observation sectors are also shown in Figure 3. These are directional viewpoints that contain one or more observation points. There are 8 sectors within the visual catchment. The sectors are taken to be representative of all observation points within each sector. Impacts on observation points beyond the 2 kilometre radius are considered negligible. Commercial or industrial properties are not considered sensitive receivers in terms of visual impact and consequently an impact rating is not assigned to these properties. A number of road routes are also within the 2 kilometre visual catchment. Only those with direct visual connection to the development footprint are considered in this analysis.

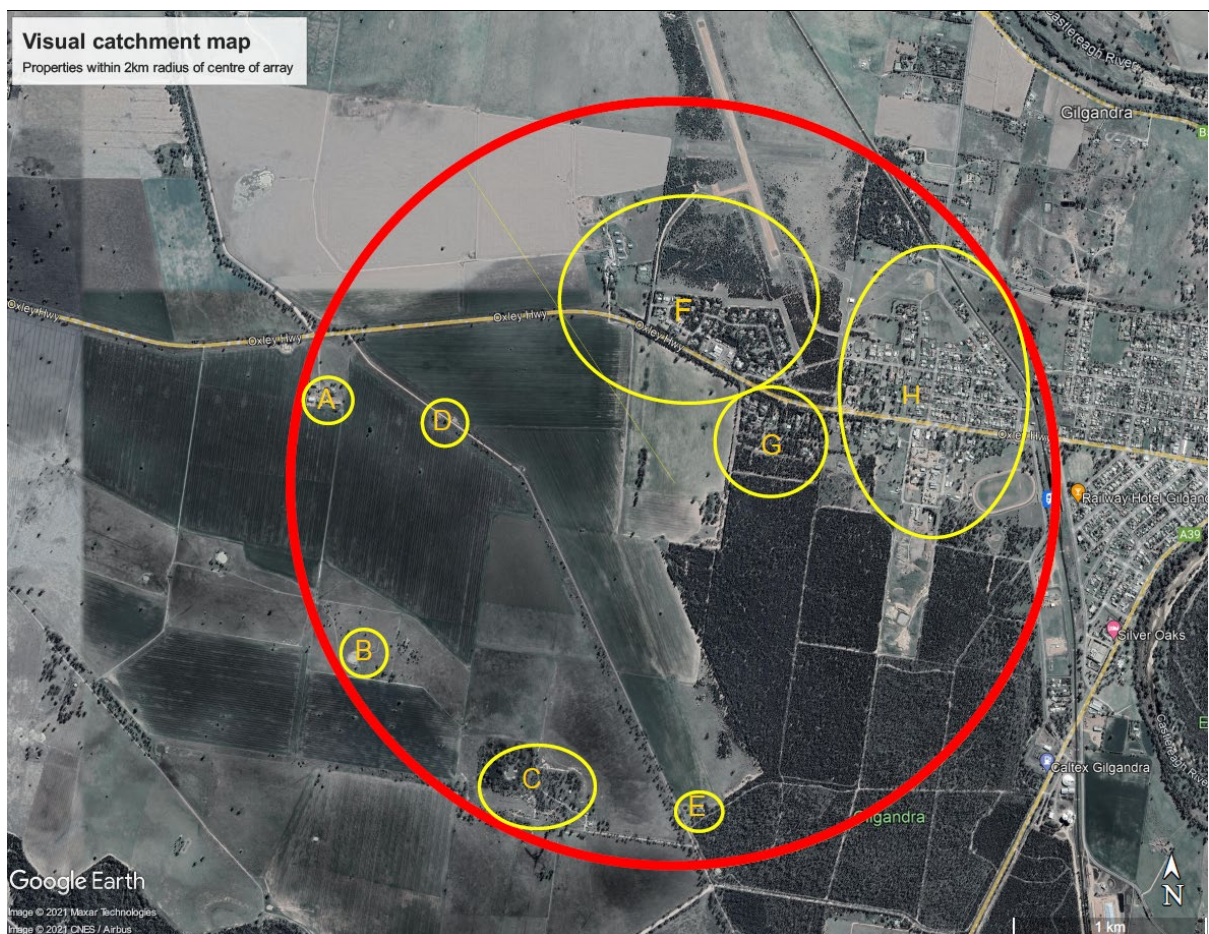


Figure 3: Map showing potential visual receivers within the visual catchment. Source: Google Earth

7. Assessment of visual impacts

The magnitude of the proposed solar farm in terms of the quantum of change to views and proximity to each observation sector, and the degree of sensitivity based on the quality of the view, is assessed in Table 4 below. The assessment takes into account whether the site is clearly visible or obscured by landform or vegetation, and the direction and composition of the view. An impact rating is then given based on magnitude and sensitivity using the landscape character and visual impact grading matrix provided in section 2 *Methodology*.

The direction indicates the location of each sector in relation to the development footprint. In the case of rural properties and whilst it is acknowledged that the array may be visible from unoccupied parts of a property, it is considered that the view from a dwelling is more critical than from yards and paddocks.

Table 4: Visual impacts on observation points

Observation sector	Land use	Direction	Magnitude	Sensitivity	Impact rating
A	Rural	West	Low	Low	Low
B	Rural	South-west	Low	Low	Low
C	Rural	South	Low	Low	Low
D	Rural	West	Low	Low	Low
E	Rural	South	Negligible	Negligible	Negligible
F	Residential	North	Moderate	Moderate	Moderate
G	Residential	North-east	High	High	High
H	Residential	North-east	Negligible	Negligible	Negligible
Oxley Highway	Public road	North	Moderate	Moderate	Moderate
Thompsons Lane	Public road	West and south	Moderate-high	Moderate-high	Moderate-high

Observation sector	Land use	Direction	Magnitude	Sensitivity	Impact rating
Aralee Road	Public road	East, adjacent	High	High	High
Howard Place	Public road	North	Negligible	Negligible	Negligible
Middleton Memorial Drive	Public road	North-west	Low	Low	Low

The impact on dwellings located in sectors A, B, C and D which are located close to the edge of the 2 kilometre radius visual catchment is assessed to be low. Distance separation and the screening afforded by intervening vegetation and the proposed landscaping around the array will provide adequate screening of the array to properties in these sectors.

The impact on sectors E and H is assessed to be negligible. Relatively dense vegetation fully screens the development footprint from the dwelling at E and the urban areas of Gilgandra within sector H will have nil visual connection due to existing urban development on intervening land.

Dwellings within sectors F and G are the closest to the development footprint and those that front Aralee Road and the Oxley Highway would have a direct visual connection with the site. The impact on these sectors is assessed to be moderate and high respectively. However, to some extent, the flat topography and existing roadside vegetation reduces visibility of the facility from residential dwellings to the north and north-east. The proposed landscaping screening will break the visual link and protect the visual outlook from these properties.

Impacts on users of public roads are assessed to vary from negligible for Howard Place which does not afford motorists, cyclists or pedestrians views over the development footprint to high for Aralee Road where users can look directly across the site. Aralee Road would experience very little traffic so the number of users affected would be low.

Impacts on the users of the Oxley Highway section that runs along the northern boundary of the development site may get glimpses through roadside vegetation and this impact is assessed to be moderate. Vehicular speed is limited to 80km/hr along the adjoining stretch of the Oxley Highway which would reduce the visual impact as occupants of motor vehicles approach the urban area of Gilgandra or as accelerating as they depart Gilgandra. The security fence is to be approximately 264 metres south of the road reserve further reducing visual impacts.

There would be no direct line of sight to the development from other local roads due to trees and structures on intervening land and topography. The development would not be visible from any other public place.

The proposed landscaping along the northern boundary of the array will provide additional screening once mature to the Oxley Highway, along the northern boundary for the north-eastern section would effectively screen the facility to Aralee Road and the existing vegetation coupled with landscaping would screen the facility to Thompsons Lane.

8. Assessment of heritage impact

Although not normally considered within a visual assessment due to being a commercial/institutional use, the Gilgandra Shire Council works depot (Lot 29, DP 260623) on the northern side of the Oxley Highway requires special attention due to the presence of two structures that are listed in *Schedule 5 Environmental heritage* in *Gilgandra LEP 2011* – the Igloo (Item 53) and Butlers Airline Hangar (Item 26).

Both the Igloo and Butlers Airline Hangar are listed in *Gilgandra LEP 2011* as having local heritage significance. The information provided below has been sourced from the State Heritage Inventory.

Heritage Item ID 1590030 The Igloo

Description

The Igloo is a pair of Nissen huts linked together to form one building. The two huts appear to be standard Nissen huts with timber purlins attached to a steel frame. Both huts appear to have their original roof cladding. The huts have a concrete floor.

Statement of significance

The Igloo has been used by Gilgandra Shire Council since at least the 1950s. It is also a relic of the massive home-front effort made by Australia during World War II. The Igloo has the potential to provide information on the construction of Nissen huts. The building has local historical and technical/research significance, representativeness and a moderate degree of integrity.

The Igloo has historical and technical/research significance. It is representative of development of Gilgandra in the mid 20th century and has a moderate degree of integrity.

Heritage Item ID 1590117 Butlers Airlines Hangar

Description

The former Butler Airlines hangar forms the core of a large workshop/store used by Gilgandra Shire Council. The hangar appears to be a fairly typical military structure from World War II and has some characteristics similar to RAF Bellman hangars, including elliptical roof trusses.

Statement of significance

The former Butler Airlines hangar holds a unique place in the history of commercial aviation in New South Wales. It was part of the infrastructure established at Yeo Airport, Tooraweenah to support the operations of the airline from 1948 until its demise in 1957. The building has direct associations with Arthur Butler OBE, founder of Butler Air Transport Company and Butler Air Services Pty Ltd, pioneer Australian aviator and holder of the record for a solo flight between England and Australia. The former Butler Airlines hangar appears to be a military structure from World War II. Its elliptical roof truss arrangement is similar to that used in Bellman hangars constructed for the Royal Air Force. The hangar is one of the few surviving buildings associated with Butler Airlines and is representative of the work of Arthur Butler and his contribution to the development of civil aviation in Australia. The hangar has state historical association significance and local historical and technical/research significance, rarity and representativeness. It has a moderate degree of integrity.

Butlers airlines hangar has historical, state historical association and technical/research significance. It has local significance in relation to rarity, is representative of the work of Arthur Butler and has a moderate degree of integrity.

Assessment

There is significant vegetation on either side of the road reserve of the Oxley Highway to obstruct any visual connection with the proposed solar farm which is located approximately 320 metres to the south of the depot at the nearest point. This distance separation and the additional vegetation screening to be placed along the northern side of the array further negates any impact on the values of these heritage items or their setting.

Further, both the Igloo and Butlers Airlines Hangar have been relocated from their original location in Tooraweenah to the current site for use by Gilgandra Shire Council for workshops and storage. Both structures are being actively maintained through this adaptive re-use and their integrity is secured through ownership by Council and ongoing maintenance.

9. Assessment against planning principles

The Land and Environment Court consistently applies a set of planning principles derived from the case *Tenacity Consulting v Warringah* [2004] NSWLEC 140 when considering the acceptability of the impact of a proposed development on views enjoyed from private property in the vicinity of that development. These planning principles are addressed below in relation to the proposed solar farm.

The planning principles are not predicated on a position that a landowner or occupant has a proprietary right to retain all or part of the views enjoyed from their land. The Court has acknowledged that even entire view loss is reasonable in certain circumstances (Lindsay Taylor Lawyers, November 2015).

Impact on private property

Step 1: The views to be affected

The solar farm would be directly visible to any dwellings in close proximity to the facility and visible in the distance from rural dwellings to the west and south-west. The view enjoyed from rural properties is one of flat cultivated land interspersed with vegetation. The farmland views enjoyed from urban residential properties is filtered by garden vegetation and roadside vegetation.

Step 2: From what part of the property the views are obtained

Views across the development site are available from property entrances, dwellings and yards/paddocks.

Step 3: The extent of the impact

The array will occupy 11.3 hectares of the 133 hectare property, i.e. covering only 8.3% of the property. The topography is flat. The extent of the impact for dwellings in close proximity is not significant as existing vegetation and proposed landscape screening will mitigate impacts to these properties.

Step 4: The reasonableness of the proposal that is causing the impact

The proposed solar farm is a project that is suited to a rural location. The property is currently a working farm. The production of solar energy is an activity that is mandated by *SEPP (Infrastructure)* as permissible in a rural zone and the land owner has a reasonable expectation to develop a use that is permissible subject to the implementation of safeguards to prevent or mitigate adverse impacts on the environment and amenity.

Impact on the public domain

The case *Rose Bay Marina Pty Ltd V Woollahra Municipal Council and Anor* [2013] NSWLEC 1046 established planning principles to be considered when assessing the impact of a development on the public domain. The process must account for reasonable development expectations as well as the enjoyment of members of the public of outlooks from public places.

Step 1: The nature and scope of existing views

Views from the public domain towards the development site are from the Oxley Highway, Aralee Road and Thompsons Lane. Views over the development site consist of flat open fields sown with crops. The backdrop comprises bushland on private freehold land to the south and state forest to the south-east. Views towards the site from the Oxley Highway are broken by roadside vegetation.

Step 2: The locations from which the potentially interrupted view is enjoyed

The section of the Oxley Highway that adjoins the northern boundary of the development site would be affected although there is roadside vegetation that currently breaks direct views. Speed is limited to 80km/hr which is transitional between the urban area of Gilgandra to the east and the higher speed environment to the west. This speed is sufficient to also affect visibility across the site, noting that the facility is to be located 264 metres south of the road reserve boundary.

Users of the northern formed section of Aralee Road to access dwellings would look across the array to the south-west. Users of the middle section of Thompsons Lane would look east-north-east across the site and have uninterrupted views of the array.

Other local roads in the vicinity of the site would not be affected.

Step 3: The extent of the obstruction at each relevant location

The extent of obstruction of views from the Oxley Highway is considered moderate given the vegetation that is present along the road reserve. The extent of interference with views to users of Aralee Road and Thompsons Lane would be high and moderate-high respectively.

Step 4: The intensity of public use of those locations where that enjoyment will be obscured

The Oxley Highway is a classified road. There may be a relatively high traffic count along the highway as it carries vehicles to and from western NSW and between townships. Low to very low usage of Aralee Road and Thompsons Lane would mean that only a relatively small number of users of these roads would be affected.

Step 5: Whether or not there is any document that identifies the importance of the view

There is no strategic plan of Gilgandra Shire Council or the NSW Government that identifies the importance of any views in the vicinity of Gilgandra. It is not mapped as a scenic landscape or as visually sensitive land in *Gilgandra LEP 2011*.

In summary, assessment against the planning principles established by the NSW Land and Environment Court finds that the potential impacts of the proposed solar farm on views from both private property and the public domain are acceptable. It is important to note that all development has a visual impact, irrespective of the size or scale of that development.

10. Conclusion and recommendations

The landscape near the site of the Gilgandra Solar Farm is characterised by cleared agricultural land and remnant or regrowth native vegetation that remains along boundaries, on private land to the south and on forestry land to the south-east. The landscape in the immediate vicinity of the development site is generally flat. The facility will be partially visible to a number of dwellings and public roads within the vicinity of the site.

The findings of the assessment acknowledge that there will be moderate impacts on the landscape and impacts on visual amenity ranging from negligible to high. However, there is no view loss; the impact is a change to the view – a new element within the landscape. Impacts are greatest in close proximity to the solar farm as the further the distance a viewpoint is from the site the less the overall visual impact

as the development occupies a lesser proportion of the total view. These impacts are considered reasonable and acceptable given the proposed use to generate energy to benefit the local community and the fact that the land use is permitted in the rural zone.

The proposed landscape planting on the northern edge of the array and partially along the eastern and western sides of the array will assist to maintain the current rural landscape character. Along with the existing remnant vegetation in road reserves and within the development site either side of the array footprint, visual links to the facility will be effectively mitigated for adjoining and adjacent properties and this screening will compensate for any change to rural character. This landscaping will shield visibility not just to the array but will also screen ancillary items including the inverters, the BESS and the kiosk which are all beneath 3 metres in height.

It is recommended that Gilgandra Shire Council be consulted to determine appropriate plant species for the landscape screen and that plantings be staggered to avoid the appearance of a hedge which is not characteristic of the rural landscape of Gilgandra.

On balance and having regard to other matters for consideration under section 4.15 *Evaluation of the Environmental Planning and Assessment Act 1979*, the impacts are considered acceptable given that:

- the solar farm will contribute to renewable energy generation and provide a source of electricity for local domestic and commercial use whilst at the same time assisting to reduce greenhouse gas emissions and our reliance on fossil fuels,
- It will also generate employment opportunities during the construction phase and once operational will provide employment for maintenance crews,
- The placement of the array within the property has been chosen to maximise distance separation from dwellings and public roads,
- Existing vegetation along road reserves and within the development site is to be maintained,
- Along with existing vegetation along roadsides and on private property, the proposed landscaping will grow to a height that will effectively screen the facility from observation points including public roads.

Attachment A

Site photographs



Photo direction references



Direction 1: Looking from the south-east corner of the property



Direction 2: Looking across the property from hallway along Aralee Road



Direction 3: Looking towards the property from part way along Aralee Road



Direction 4: Looking towards the property from Timbarra Place off Aralee Road



Direction 5: Looking from the intersection of Aralee Road and the Oxley Highway



Direction 6: Looking toward the site from Howard Place



Direction 7: Gilgandra Shire Council works depot, Oxley Highway



Direction 8: Looking from the intersection of Middleton Memorial Drive and Oxley Highway



Direction 9: The entrance to and view from 362 Oxley Highway



Direction 9a: Looking towards the site from the Oxley Highway halfway between Middleton Memorial Drive and Thompsons Lane



Direction 10: Looking east and south-east from intersection of Thompsons Lane/Oxley Hwy



Direction 11: Abandoned house and view to the south-east



Direction 12: Part way down Thompsons Lane



Direction 13: Looking east from water infrastructure on Thompsons Lane



Direction 14: Looking along the southern end of Thompsons Lane