

Planning Report

5MW Solar Energy Facility & Utility Installations



Image: Mugga Lane Solar Park

4785 Western Highway, Ledcourt

August 2020

Ref: 20075

Applicant: Greentech 1 Pty. Ltd.

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1 Introduction

This report is provided in support of an application for a **5MW Solar Energy Facility** on an 82.26-hectare parcel (**Crown Allotment 259, Parish of Ledcourt**), being the north-eastern-most parcel that forms part of a 461-hectare property at **4785 Western Highway, Ledcourt**.

For the purpose of this planning permit application, only Crown Allotment 259 is considered as the 'subject land' – the other parcels that comprise the landholder's property *do not* form part of the planning permit application.

The proposed solar energy facility will have a total area of **approximately 16 hectares** – located in the north-eastern corner of the property – thereby providing for the continued agricultural use of the remaining 446 hectares. By leasing a small portion of the landholder's land, the applicant will provide the farmer with a means of diversifying their income and providing an added degree of resilience for their continued agricultural operation.

By reconfiguration the facility to incorporate tracking arrays, it will be possible for grazing to occur during the lease period – at the discretion of the landholder.

In considering the proposed facility from a holistic standpoint, ACENERGY typically provides rural communities with smaller, site-responsive solar energy facilities that will integrate into the existing Powercor power grid – with a focus on servicing the local community – **all electricity generated from this facility will remain within Western Victoria**. The subject site itself has been chosen due to its proximity to existing Powercor 22kV lines. Due to these existing transformers and power lines, the site requires limited connection to assets that service local population centres and commercial operators – ensuring electricity is most efficiently transferred from the source facility. The facility also includes battery storage containers (i.e. batteries) that will store excess energy generated by the facility for use at peak times, further contributing to affordability and local grid stability.

The proposal includes **landscaping of at least 2-metres-in-height** which will be used to screen the proposed solar panels – typically being no more than 2.5m from ground level at the highest point in their tracking cycle.



Figure 1. Typical solar tracking system and motor (equipment manufacturer subject to change)

The proposal will allow the current farmer to continue to farm over 96.5% of the property for the duration of the leasing period as well as providing a supplementary income to strengthen resilience of the existing property through diversification, as well as contributing to a net community benefit in the form of renewable energy.

The proposed solar energy facility allows for the existing farmer who owns and operates the land, to temporarily divest themselves of a less-productive portion of their land to be used for the period of the lease for renewable energy production – which will then be used to service the immediate community.

2 Executive Summary

The proposed use and development of land for a solar energy facility is in accordance with all relevant provisions of the Northern Grampians Planning Scheme and contributes to a net community benefit. The proposal:

- Provides for a renewable energy facility within the Northern Grampians municipality, consistent with federal, state and local policy which supports transition to a renewable energy economy;
- Creates affordable renewable energy option for western Victorian consumers – with the electricity generated by this facility to remain within the local power grid;
- Proposes a renewable energy facility in accordance with the Victorian State government’s *‘Solar Energy Facilities Design and Development Guidelines’*;
- Avoids land that is conducive to higher-productivity agriculture, as the facility:
 - Is outside any declared irrigation district; and
 - Comprises land that is considered to be of only moderate agricultural utility;
- Does not permanently remove agricultural land from circulation – allowing for full remediation and re-use of the proposed development site upon de-commissioning of the facility upon completion of leasing period:
 - Provides an option for continued grazing of the site for the duration of the lease period (agrophotovoltaics);
- Provides for co-location with established agricultural land – providing for diversification and directly strengthening the resilience of the current agricultural enterprise;
- Will have limited earthworks and would not involve an alteration to soil or require substantial footings for any part of the development;
- Will contain landscaping along the entirety of the facility’s perimeter – thereby limiting potential visibility from public spaces and nearby rural dwellings;
- Has been sited to capitalise upon existing topographical and physical features of the site – sitting below the highest topography of the site, which generally falls to the west of the proposed facility;
- Minimises the loss of native vegetation to a 6sqm area of native grass;
- The site is largely screened as a result of the substantial existing vegetation along the adjacent road frontages – effectively obscuring visibility of the site from adjoining landholders; and
- Does not create any significant adverse impacts, through noise, dust, reflectivity or otherwise.

3 Site & Context Analysis

3.1 Subject Land

Property Overview

The proposed development site forms part of a 461-hectare dryland property contained within four (4) separate titles – bisected by Mt Drummond Road and forming two (2) contiguous land masses.

The above parcels are addressed jointly as **4785 Western Highway, Ledcourt**, and are configured as outlined below:



Figure 2: 4785 Western Highway, Ledcourt (Source: VicPlan)

Parcel	Area	Parcel Features
Crown Allotment 259, Parish Ledcourt	82.3ha	Subject Site , north-east parcel containing existing dwelling and frontage to Western Highway and 22kV transmission lines.
Crown Allotment 258, Parish Ledcourt	129.6ha	Irregularly shaped, central parcel containing extensive pasture and 2 watercourses.
Crown Allotment 258A, Parish Ledcourt	31.5ha	Rectangular parcel in south-east corner of property, contains some tracts of remnant vegetation.
Crown Allotment 263, Parish Ledcourt	218ha	Western parcel – Irregularly-shaped lot located to west of Mt Drummond Road – contains a substantial amount of vegetation.

When all four (4) of the property's parcels are combined into a contiguous area, they form an irregular shape; the western portion of the property is largely rectangular, whilst the eastern portion of the property is vaguely triangular.

Other than a small portion of the north-west of the site, the property is entirely bounded by road reserves on all sides. However, only Mt Drummond Road and the Western Highway have been formed and used for the purpose of a road. The road reserves along the east, south and west boundaries effectively serve as tree belts between rural properties.



Figure 3. Unused road reserve along eastern boundary of property from Western Highway
Functioning as an informal tree belt/internal access track (photo: Google streetview)

Crown Allotment 259

The subject site, for the purpose of this application, is **Crown Allotment 259**, only. This parcel is north-east parcel of the farmer's property – with an area of approximately 82.3 hectares. The subject site generally slopes from the high point along the eastern boundary to the low-lying land to the west – characterised by the watercourse that is clearly visible from aerial imagery.

The site has been largely cleared for agricultural use and is currently used for dryland grazing and cropping. Consequently, the site has not been set out for any degree of modern irrigation and has limited access to rural water – other than a handful of existing farm dams.

There are two (2) prominent patches of remnant native vegetation on the site – which are located to the south-west and north-west of the proposed facility and will not be impacted by the proposed use and development. Further, there are established tree belts in close proximity to the proposed facility to the north and east, as well as a recently planted belt directly to the south. However, this tree will be retained and there will be no encroachment upon its TPZ as a result of the development.

3.2 Local Context

The surrounding area is a mix of flat, cleared agricultural land and some steeper, topographically undulating land that contains a degree of high-value environmental and scenic value.

As a rule-of-thumb, the north of the Western Highway is typically conventional dryland agricultural land on relatively flat, cleared land.

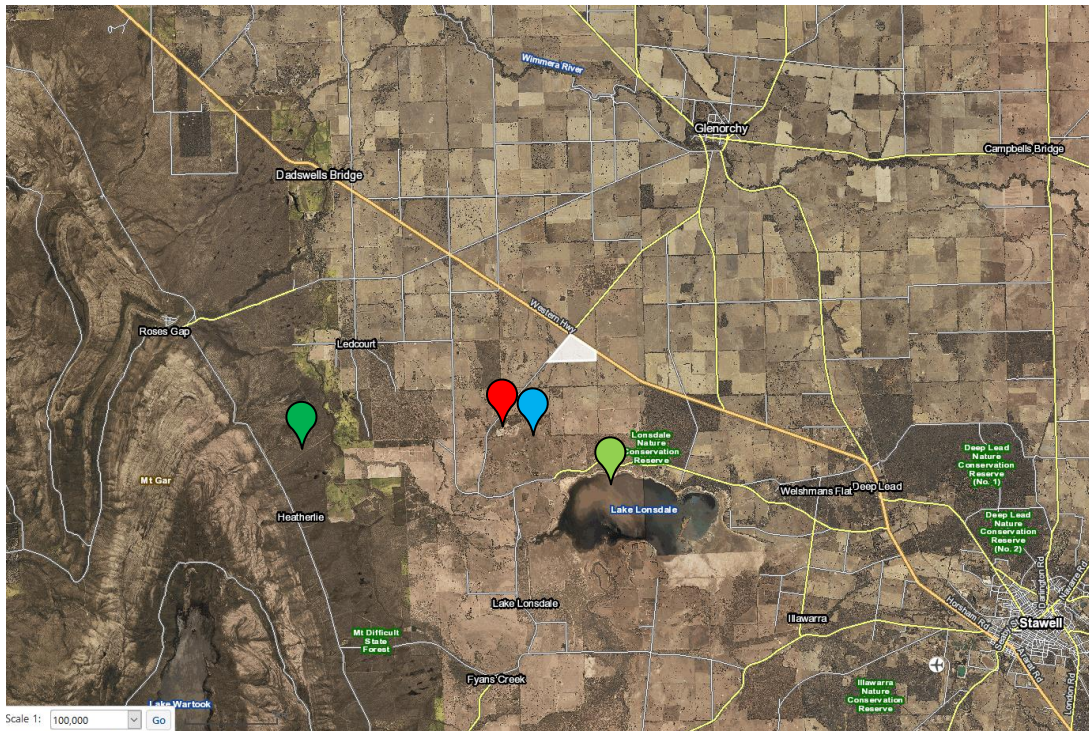


Figure 4. Ledcourt/Stawell/Glenorchy Locality Plan
Facility outlined in **white**; points of interest marked by pins as described below

Conversely, the land to the south of the Highway contains large tracts of agricultural land – however, there are also large areas of non-agricultural land namely:

- Lonsdale Nature Conservation Reserve, which includes Lake Lonsdale approximately 2.5km south of the site (**light green pin**),
- The Stawell Quarry is located along Mt Drummond Road, approximately 2.7km south east of the subject site (**red pin**),
- The summit of Mount Drummond is located to the east of the Stawell quarry – approximately 3km south of the subject site (**white pin**), and
- The Grampians National Park is located approximately 8.5km west of the site (**dark green pin**).

Due to the topography and tracts of mature vegetation in the area, visibility and site lines are generally limited. Accordingly, the site's visibility of the above points of interest is limited – if not non-existent.

The subject site is located **approximately 7.5km south-west of Glenorchy** and **approximately 16km north-west of Stawell** – defined by the land within the nearest urban zoned land in each respective settlement.

Visibility and sightlines between the site and the nearby locality are largely obscured by the fading topography in addition to the vegetation and tree belts along the existing roadsides and property boundaries.

The nearest dwelling (not-in-common-ownership) to the subject site is located approximately 150 metres north-east of the proposed facility – at 4730 Western Highway (Crown Allot. 256A, Parish of Ledcourt). The nearest panels will be approximately 165 metres from this dwelling, which will be screened by the proposed and existing landscaping along the northern frontage.

The Western Highway, along the northern boundary of the site provides a major vehicle and transportation corridor for western Victoria – serving as the major regional arterial between the regional centres of Stawell and Horsham (and ultimately Melbourne and Adelaide beyond). This provides excellent access to the site, particularly for construction and decommissioning.

4 Applicant & Application Details

This application has been prepared by Chris Smith & Associates on behalf of **Greentech 1 Pty. Ltd.**, as the applicant in this matter. Greentech 1 Pty. Ltd. is a subsidiary of **ACEnergy**.

ACEnergy has been in negotiations with the registered proprietor, who will lease the proposed area of the facility to enable ACEnergy to operate on part of the property under agreement for a 30-year lease.

4.1 ACEnergy – Company Overview

ACEnergy Pty. Ltd. (ACEnergy) specialises in renewable energy development, they have extensive experience with post renewable projects across most of Australia.

The most prominent of ACEnergy’s renewable energy projects has been the “micro solar farm” network that has been rolled out across northern and central Victoria, with an emphasis on co-locating and complementing existing farming operations.

ACEnergy has also been involved in other high-profile international renewable projects – this has included both solar and wind power stations across Asia, Europe and North America.

In addition to the micro solar farm network, ACEnergy has approval for a 100MW facility at Derby – 20 mins from Bendigo. This is anticipated to provide Bendigo and north-central Victoria with a secure renewable energy future.

The Micro Solar Farm Project

As touched upon above, this site forms part of the broader network of micro solar farms (each with a capacity of approximately 5MW) across northern and central Victoria.

The intention of this project is to functionally generate the equivalent output of the larger conventional farms, through a network of smaller facilities that can be rolled out in a site-sensitive manner and deliver renewable energy to northern and central Victoria. These micro sites can locate on rural land, without extensive land requirements and therefore can avoid the most productive agricultural land.

**Project Features:**

- Approximately 2.5m high tracking arrays when tilted to the maximum angle (which is only for a small portion of the day).
- Cutting edge mounting kits – environmentally-friendly, designed and supplied by world-leading manufacturers.
- The proposed arrays do not include any concrete works on farmland to allow for the PV panel installation. This ensures that decommissioning and recovery of the agricultural land will be a relatively simple transition once lifespan of the solar energy facility has been exhausted.
- Low-maintenance – the site will be unattended, periodical maintenance will be carried out by local contractors.
- Less construction traffic on road during construction when compared to conventional solar energy facilities which require bulkier equipment and a vastly larger number of contractors.

Benefit to Municipality, Ratepayers and Residents

- More employment opportunities: local electrical and construction companies will be hired for the installation and ongoing operation and maintenance jobs are required as well in the next 30 years.
- Reliable power supply to the local agricultural enterprises and households – each 5MW solar energy facility can supply local households.
- The proposal will place very little burden on the electricity network in the area – it would not require upgrading existing power assets such as poles, wires and substations. This will ultimately pass savings on to electricity consumers in costs. As such, with the installation of local electricity generation, the electricity price can remain affordable.

International Renewable Energy Experience

International projects that ACENERGY has been involved in include the following renewable energy projects:

- Mugga Lane Solar Park (ACT) – 13MW Solar Farm
- Cirrus, Texas (USA) - Installed capacity: 61.2 MW (17 x 3.6MW turbines)
- Minneapolis, Minnesota (USA) - 1.5MW (1 x 1.5MW turbine)
- Lubbock, Texas (USA) - 10MW (10 x 1MW turbine)
- Tooele, Utah in (USA) - 1MW (1 x 1MW turbine)
- Ralls, Texas (USA) - 10MW (5 x 2MW turbine)
- Bulgaria wind farm project - 4.5MW (3 x 1.5MW turbine)
- 12MW above-ground photovoltaic project in Essex (UK)
- 1.6MW shared photovoltaic project of the organ directly under People's Government of Inner Mongolia Autonomous Region.
- The photovoltaic power station project of Wuyuan County of Inner Mongolia – 25.5MW
- 33MW photovoltaic power station project in Alxa League, Inner Mongolia

5 Project Overview

ACEnergy has pioneered the ‘Micro Solar Farm’ project, which involves a series of small-scale 5MW Solar Energy Facilities that are intended to deliver renewable energy to regional Australia, where it is most needed – at a scale responsive to the surrounding environment – including nearby agriculture and sensitive uses.

Unlike larger facilities, which typically feed the resultant energy into major urban centres such as Melbourne or Victoria’s regional cities, the output of these facilities will generally stay within the locality in which it is generated.

The proposed facility at 4785 Western Highway, Ledcourt will contain the following specifications:

Fenced Compound Area	16 ha (approx.)
Proposed Tenure	30-year Lease
Project AC Size	Sub-5 MW
Total number panels	16,511 bi-facial panels
Connection Type	22 kV Tee (Powercor to extend into land)
Mounting Kit	Tracking array

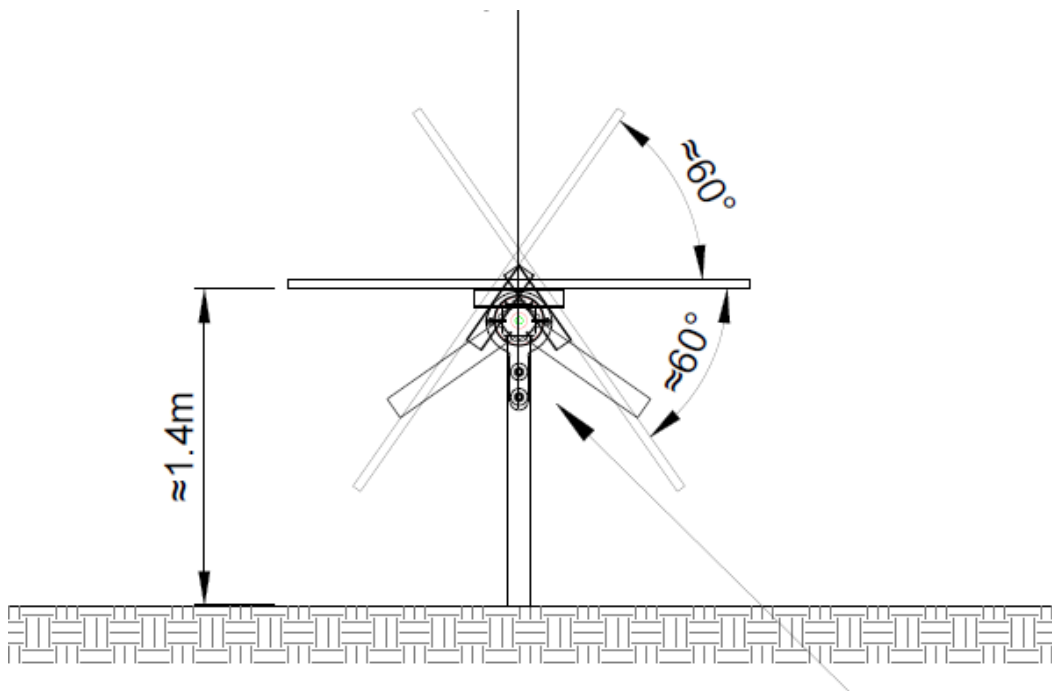


Figure 5. Cross-section of tracking solar panels

Relative to the larger, conventional solar energy facilities, the proposed 5MW facility is a significantly lesser installation – using a land mass significantly less than the aforementioned facilities.

The site has been deliberately located on a property that contains existing overhead Powercor lines, thereby ensuring that electricity is efficiently connected to the

surrounding grid and consistent with recent changes to planning policy by the Victorian state government.

The proposed equipment, including the panels and supports are prefabricated and would be transported to the proposed site, in batch loads for immediate installation.

Consequently, there would be very limited manufacture/assembly on the land – reducing the impact and potential degradation of agricultural land as part of the installation process.

5.1 General Project Considerations

To inform the design and locational considerations of the proposed facility, the provisions of **Clause 53.13** of the Planning Scheme provides the framework for facility design and site determination. The considerations of the site content are largely addressed within Section 3, above.

- ***Site plan, photographs or other techniques to accurately describe the site and the surrounding area.***

Provided as **Appendix E (Site Context Analysis)** and **Appendix H (Proposal Plans)**, respectively. Both have been prepared by ACENERGY to assist with assessment process

- ***Location plan showing the full site area, local electricity grid, access roads to the site and direction and distance to nearby accommodation, hospital or education centre.***

An Electrical Grid Overview has been incorporated into the locality plan prepared by ACENERGY. This plan provides a simple illustration of the proposal's immediate connection into the existing Powercor grid and servicing area.

This figure demonstrates the facility's intended catchment, *the generated electricity is to be directly fed into the adjacent 22kV lines that run along the northern periphery of the subject site.* The use of this existing infrastructure would then feed into nearest Powercor zone substation, which would ultimately feed regional consumers and directly service the local community.

Design Response

- ***"...the layout and height of the facility and associated building and works, materials, reflectivity, colour, lighting, landscaping, the electricity distribution starting point (where the electricity will enter the distribution system), access roads and parking areas."***

The proposed built form is illustrated in the plans prepared by ACENERGY that clearly dimensions and quantifies the physical extent of the development. This includes landscaping and materials to be used – which would be of muted, non-reflective colours.

The facility is intended to 'plug-in' to existing infrastructure immediately proximate to the facility – namely the local road network and the Powercor 22kV overhead power lines – thereby reducing the burden of extensive additional works to facilitate the proposal.

- ***...an accurate visual simulations illustrating the development in the context of the surrounding area and from key public view points.***

A site and context analysis of the surrounding area has been prepared by ACENERGY and provided as **Appendix E** to this report.

These photos provide a visual illustration of the site in the context of the surrounding area and illustrate the extent of the anticipated built form and visibility from surrounding points of interest.

The proposed facility will be screened from the arterial road network to mitigate visibility of the site and would not impact on any key “viewpoints” in the surrounding area.

- ***...the extent of vegetation removal and a rehabilitation plan for the site.***

The proposed development site is clear of native vegetation – as part of the initial site acquisition and feasibility investigations it was identified that a portion of the site is located within potential areas of mapped Ecological Vegetation Classes. However, in considering the site’s extensive history for agriculture most remnant vegetation has been removed to allow use of the land for farming, with the exception of some thin slivers in isolated portions of the site. Whilst there would be a requirement for a small 6sqm patch of native grass to be removed, the biodiversity of this grass is considered very low.

This is illustrated in the preliminary vegetation inspection by ACENERGY – see **Appendix G** and the Ecological Assessment prepared by White Gums Environmental Consultancy (**Appendix I**).

- ***...an explanation of how the proposed design derives from and responds to the site analysis.***

The proposed development site has been sited with a suitable separation distance from any nearby viewpoints and will sit within landscape – with the site typically falling to the west – see **Appendix D (Feature and Level Survey)**. The proposal has therefore ensured that any visual prominence on the surrounding area will be limited. Further, the equipment itself is quite low to the ground – being mounted approximately 1.5m from ground level.

- ***...a description of the proposal, including the types of process to be utilised, materials to be stored and the treatment of waste.***

The proposed facility will be static – no processes being carried out other than passive collection of solar energy and conversion into electricity. There will be no materials to be stored on site during operation.

The solar components largely consist of prefabricated equipment – the only construction to occur on the site is the assembly of the panels and the cabling connections. A works approval is not required for a solar energy facility. Any waste generated during construction (packaging, etc) will be managed by the respective waste management and construction management plans.

- ***...the potential amenity impacts such as noise, glint, light spill, emissions to air, land or water, vibration, smell and electromagnetic interference.***

The proposed facility will be an un-manned facility and will not include any light or noise emissions. There will be no moving parts within the facility and all panels are

designed to be non-reflective. Once operational, the facility will operate in compliance with NIRV, as it does not include any noise generating componentry or processes. NIRV does not apply to noise from construction or demolition activities; noise from these activities during construction and decommissioning of the facility is covered within other parts of this report.

From a glint and glare perspective, the panels are designed to be non-reflective – as any reflection of sunlight significantly impacts the production capacity of the facility through lost sunlight capture. Typically, any potential reflection would be from the metal framing. The tracking system used by ACEnergy contains aluminium framing, which it is our understanding does not reflect – as illustrated in the Glint and Glare report. It is our opinion that there would be no aviation infrastructure impacted by the proposal.

To illustrate this point, the nearest airfield (being the Stawell Aerodrome) is approximately 14km from the site – it is therefore unlikely that any flight paths would be impacted by the proposal.

ACEnergy have provided an Acoustic Report by Watson Moss Growcott Acoustics Pty. Ltd. (**Appendix F**) and Glint and Glare Assessment by Vipac Pty. Ltd. (**Appendix C**) to model the potential for off-site amenity impacts.

- ***...the effect of traffic to be generated on roads.***

The anticipated traffic effects are addressed within this report and are deemed to be negligible – the facility will be un-manned and peak traffic will occur during construction. This can be suitably managed through appropriate construction management practices. A Traffic Impact Assessment has been prepared by Traffic Works and attached as **Appendix B**.

- ***...the impact upon Aboriginal or non-Aboriginal cultural heritage.***

Neither the site, nor any part of surrounding area are identified as being of potential Aboriginal Cultural Heritage Sensitivity.

In the unlikely event there should be any artefacts discovered at any stage, the applicant will uphold their legal obligations under the Aboriginal Heritage Act.

- ***...the impact of the proposal on any species listed under the Flora and Fauna Guarantee Act 1988 or Environment Protection and Biodiversity Conservation Act 1999.***

The proposed development site is currently a cleared agricultural paddock, which has largely been cleared of vegetation with the exception of several scattered trees. The facility is sited to retain all of these trees. There will be a 6sqm area of native grasses that will be required to be removed – however, an assessment of their biodiversity was assessed as 0 – see appended NVR report.

A detailed assessment of any biodiversity impacts is addressed in accordance with the provisions of Clause 52.17 within this report and **Appendices G and I**.

- ***...a statement of why the site is suitable for a renewable energy facility including, a calculation of the greenhouse benefits.***

The proposed 5MW facility is intended to contribute enough electricity to power approximately 1,000 dwellings and reduce reliance on conventional fossil fuel-driven energy.

- *...an environmental management plan including, a construction management plan, any rehabilitation and monitoring.*

In considering the relatively benign nature of the proposal, it is anticipated that any potential permit would include appropriate conditions relating to environmental and construction management.

5.2 Construction Schedule & Works

The proposed construction works will typically be as follows:

- There will be a comprehensive weed eradication program implemented for the proposed solar energy facility location – to ensure that noxious weeds are not present at installation.
- The proposed compound site will be cleared, levelled and resurfaced, with tractor and excavation machines – therefore there will be limited soil removed from site.
- All mounting kits for the solar panels will be installed by pneumatic driver only. This will involve hammering the steel pipe supports into the ground (with no concrete foundations).
- Installation of five (5) DC coupled energy storage containers (batteries) 300mm from ground level onto concrete footings to a depth of 1 metre. The containers will be powder coated in a neutral colour with dimensions of 13m(L)x2.5m(W)x3m(H).

TYPICAL DC COUPLED ENERGY STORAGE CONTAINER



Figure 6. DC-Coupled Energy Storage Container (dimensions of 13m x 3m x 2.5m)

- The construction traffic will be minimal, and works will typically occur in dry weather to ensure that vehicles do not damage the surrounding road network.
- The construction is expected to be completed within three (3) months from commencement – all works will be in accordance with a construction management plan, in accordance with Council and/or relevant authority

requirements and conditions. During the construction period, contractors will operate between 7am and 7pm, Monday to Sunday.

The proposed compound will be surrounded by a fully secured steel wire 1.8-metre-high chain mesh fence, which will be landscaped in accordance with the attached plans. The ongoing security of the compound, and identification of any issues will be managed by a local security company – providing additional employment within the region.

The facility contains a central power station, as illustrated above. This power station will comprise an inverter, transformers and switchgears. The proposed power station will be located within the compound and will be located as the primary conduit for electricity from the facility prior to being transferred via overhead lines into the nearby Powercor network.

The proposed solar energy facility will have remote monitoring in real-time, allowing for constant surveillance and monitoring of the facility without the requirement for ongoing staffing.

The compound contains key infrastructure that requires a high degree of security. Therefore, the abovementioned control centre will remotely monitor inverters in real-time to ensure that systems function as intended, and that security is not compromised. Upon identification of any potential issues, action can be taken indirectly from control centre or by deploying a local contractor to site.

5.3 Proposed Building Works

A detailed overview of the proposed building works associated with the proposed 5MW solar energy facility are listed thus:

Solar panels

- Construction of **16,511 solar panels**, on tracking mounting system, with the following specifications;
 - Each panel to have dimensions of approx. 2115mm by 1052 mm; with a width of 40 mm
 - Array axis' to be mounted at no more than 1.4 metres above ground level
 - Typical solar panel array to comprise **80-90 individual panels**, with some smaller arrays around the periphery of the facility;

Central Inverter

- Installation of **one (1) prefabricated central inverter** (13m long, 2.5m wide, 3m high).

Batteries

- Installation of **five (5) batteries** (DC-Coupled Energy Storage Containers) installed on concrete footings.
 - Physically, each battery will be a mounted shipping container (13m long, 3m wide and 3m high).
 - The batteries will be finished with a powder-coated grey.

Perimeter Fencing and Landscaping

- Proposed compound fence would be approximately 1.8-metres-high, with chain mesh fencing within the proposed landscaping.
- Landscaping will be provided with fast-growth indigenous trees planted in accordance with landscape plan permit condition/s.

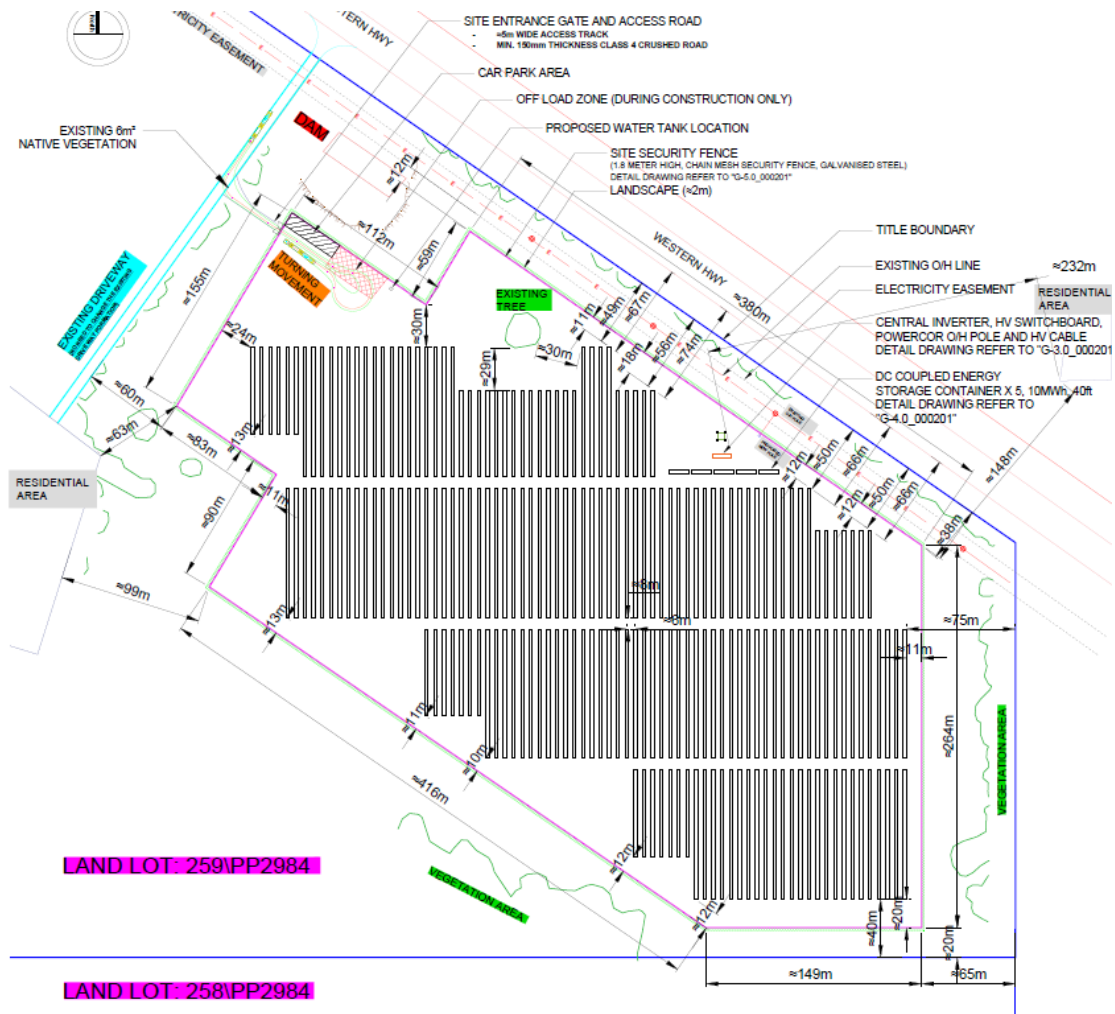


Figure 7: Extent of Proposed Building Works

Site Access and Connections

- Access gate with a width of 8m along north-western fence of the facility.
- All-weather 4-metre-wide internal accessway that will connect the facility to the Western Highway from the north.
- Alteration of the existing vehicle crossing from Western Highway to northern property boundary, to the requirements of the relevant road authority (Department of Transport)
- Approximately 65-metre-overhead-power line extending from the facility to connect to existing Powercor transformer.
- The proposed overhead power line will also include one (1) new power pole (within the proposed compound) at a height of approximately twelve (12) metres to support the overhead lines.

5.4 Proposed Landscaping

The proposed 5MW Solar Energy Facility has been designed to be of lesser visual impact than typical large-scale facilities which typically use tracking panels that span over much larger areas.



Figure 8. Illustration of Conceptual Landscaping at maturity; showing mature wattle trees

The development has been designed with intention that the facility will blend into the surrounding landscape.

The proposed facility will install solar tracking arrays that track the sun's movement to optimise the panels' output throughout the day. The panels are mounted perpendicular to the frame and are capable of rotating to approximately 60° on an east-west axis. As the panels' and mounting frames are non-reflective surfaces and considering the scale of the proposed facility, the need for extensive landscaping typically required for larger solar tracking facilities is limited.

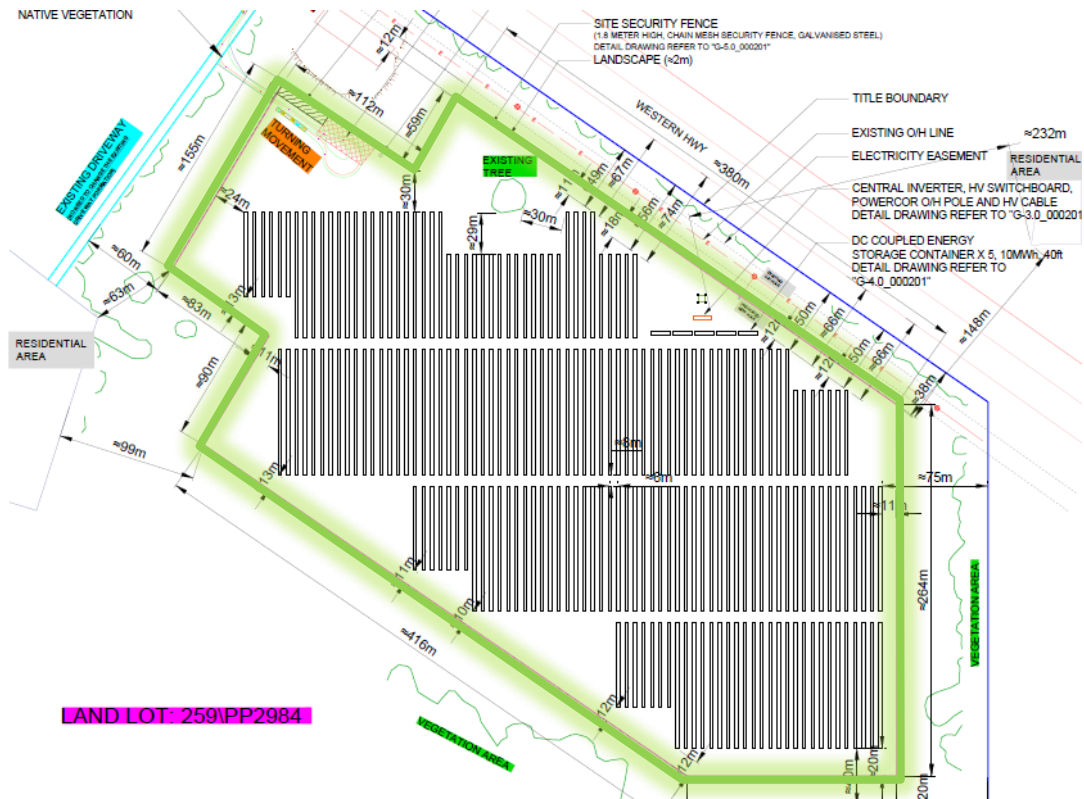


Figure 9. Landscaping Plan

It is considered that a **single-row landscaping buffer around the entirety of the compound perimeter** with small/medium indigenous trees and shrubs that would grow to an approximate height of 2 metres would be appropriate. The proponent would plant fast-growing indigenous species to the satisfaction of the respective authority. In past projects, this has typically included various Wattles due to their fast-growth and suitability of size.

It is assumed that a comprehensive landscape plan; including specific species to be planted, ongoing management and cross-sections would be a condition of the sought planning permit.

6 Solar Energy Facilities Guidelines

The Department of Environment, Land, Water and Planning (DELWP) released the Solar Energy Facilities Design & Development Guidelines in August 2019, which superseded the previous Draft Guidelines and outlines the key considerations for the use and development of solar facilities across Victoria.

Of particular note, these Guidelines clearly set out the best practice for proponents, and includes recommendations for community consultation, design, consideration of off-site impacts, construction, operation and decommissioning. For the sake of simplicity, a general overview of the proposal's considerations is provided in the below sub-sections. It is noted that these practices are recommended practice only and are not a mandatory requirement of the application process.

Additionally, the Guidelines encourage the co-location of solar energy facilities with existing agricultural enterprises, as is the case with this application, which will enable the existing farmer to continue agricultural operations on the balance of the property.

Design

The proposed facility has been designed to minimise potential impacts on the surrounding land uses – ensuring that productive agriculture is not unreasonably impeded. All sensitive interfaces are proposed be suitably landscaped where potential sensitive uses are proximate to the proposed facility.

Whilst much of the design has been informed by the considerations of bushfire, the proposed facility observes setbacks as per the recommendations of the Guidelines – including 30 metre setbacks from any property boundaries.

However, it should be noted that the actual solar panels mounted on a central axis 1.5m from ground level, with the compound fencing to be approximately 1.8 metres in height, with comparable landscaping along the perimeter of the solar energy facility compound (typically two metres and higher in height).

Off-site Impacts

The proposed facility will be an un-manned facility that will have a setback from the **nearest dwelling by approximately 150 metres** (from the compound's north-eastern boundary fence – beyond the Western Highway – see subject site and context assessments).

The most impactful period will be the construction and decommissioning phases of the solar energy facility's life.

In previous high-profile solar energy facility matters, community concern has centred around the potential heat generated by solar energy facilities leading to a ‘micro-climate’ in the immediate vicinity. In cases of significantly larger solar facilities of over 100 hectares, the impact of such an effect has been proven to be entirely negligible. In considering the significantly smaller size of the matter-at-hand, this is even more so.

Additionally, the impact of the ‘heat island’ affect from solar facilities has been repeatedly proven to be oversold and that there is very little evidence to support this assertion. Any ambient heat from panels would have wholly dissipated by the time it reaches the facility’s fence.

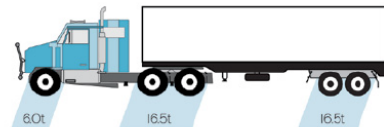
Subsequently, as touched on with the Design provisions; the Guidelines provide for 30-metre-setbacks from any property boundaries to completely remove any potential for off-site ambient heat.

Construction

The proposed solar energy facility is a largely prefabricated facility – with on-site construction largely limited to assembly and connection of components. The typical solar panel weighs 22.8 kg and is readily transportable via smaller, rigid-type trucks, as detailed in the below construction management guide.

The site is directly fronted by a sealed, major rural road, which is considered to have the capacity to accommodate expectant construction traffic and delivery trucks (i.e. typically a 3 or 4-axle rigid, with larger loads by semitrailer to be undertaken as outlined in the below construction schedule). It is assumed that suitable permit conditions would stipulate appropriate hours and conditions during construction, that would reduce off-site impacts such as noise, dust and damage to roads during this period.

Common 5 Axle Semitrailer



Type of Mass Limits	Maximum Length (metres)	Allowable CVM/CCM (tonnes)	Single Steer Axle (tonnes)	Twin Steer Axle Croup (tonnes)	Single Axle (tonnes)	Tandem Axle Croup (tonnes)	Tri-axle Croup (tonnes)
GML	19.0m	39.0t	6.0t*	N/A	N/A	16.5t per tandem axle group	N/A
CML	19.0m	40.0t	6.0t* ^a	N/A	N/A	17.0t per tandem axle group	N/A
HML	19.0m	40.0t	6.0t*	N/A	N/A	17.0t per tandem axle group	N/A

Common 3 Axle Rigid Truck



Type of Mass Limits	Maximum Length (metres)	Allowable CVM/CCM (tonnes)	Single Steer Axle (tonnes)	Twin Steer Axle Croup (tonnes)	Single Axle (tonnes)	Tandem Axle Croup (tonnes)	Tri-axle Croup (tonnes)
GML	12.5m	22.5t	6.0t*	N/A	N/A	16.5t	N/A
CML	12.5m	23.0t	6.0t* ^a	N/A	N/A	17.0t	N/A
HML	12.5m	23.0t	N/A	N/A	N/A	17.0t	N/A

Figure 10. Typical dimensions of proposed haul vehicles (Source: NHVR)



Traffic to the site during the construction site at peak times is anticipated to see **two (2) trucks per day**, in addition to a forecast of **eleven (11) light vehicles**. It is stressed that this is only anticipated during the absolute peak construction times.

Installation will involve relatively shallow earthworks, which would be limited to a site scrape of the proposed compound to remove weeds on the solar energy facility site – the balance of the land will remain untouched during this period.

For the most part, all equipment will be shipped to the site via smaller rigid trucks, with only the inverter / transformer / power station being required to be brought in by a semitrailer. This unit is designed to share dimensions with a shipping container and will be a standard cargo that will be readily be de-mounted and located on-site.

Construction Delivery Schedule

Construction will be undertaken over a twelve (12) week period. During this period, the hours of construction are to be between **7am to 7pm, Monday to Sunday**, which is considered as appropriate in a rural environment where agricultural activities are conducted seven-days-a-week

Site Works	Notes
Week 1	<ul style="list-style-type: none"> ▪ Site mobilisation: shed container storage ▪ Site Amenities will be delivered by single articulated truck within one day only
Weeks 2 – 3	<ul style="list-style-type: none"> ▪ Site Scrape ▪ Fencing and gate installation ▪ Trenching for underground cables (approx. 200 mm – 400 mm) ▪ Excavators will be delivered to site for the civil works. ▪ Materials to be delivered to site by small trucks
Weeks 4 – 9	<ul style="list-style-type: none"> ▪ Installation of solar array mounting kits & PV panels ▪ Installation of power station (transformers etc.) ▪ Installation of cables. ▪ Installation of Inverter and transformer ▪ Installed as delivered to site ▪ One day of delivery works for inverter & transformer by 5-axle semitrailer (below), the off-load will be undertaken on the same day by a crane. ▪ Smaller, 3-axle rigid trucks to be utilised for the delivery of PV panels once fortnightly
Week 10	<ul style="list-style-type: none"> ▪ Landscaping ▪ Rigid Truck – Approximately one day
Weeks 11 – 12	<ul style="list-style-type: none"> ▪ Site clean-up. ▪ Waste disposal ▪ Rigid Truck – Approximately one day

Operation

The operation and management of the proposed facility is detailed comprehensively throughout other sections of this report, thus, has not been repeated within this section.

Decommissioning

The proposed use is based on a thirty-year lease. Upon completion of this leasing period, assuming that the lease is not renewed, it will be incumbent upon the operator of the facility to decommission the facility, remove all installations, and remediate the site back to its pre-existing state.

Upon approval of this application, the responsible authority may stipulate a requirement for a decommissioning and rehabilitation plan to be submitted for endorsement.

6.1 Agriculture & Renewable Energy

6.1.1 Agricultural Considerations

The development site is non-irrigated and is not located within proximity to any nearby irrigation infrastructure that would be conducive to commercial-scale agricultural operations.

Contributory factors to 'highly-productive' agricultural land are outlined in the Solar Energy Guidelines; this includes a myriad of compounding assets such as water availability, land configuration, soil quality, rainfall and topography.

An **Agricultural Assessment (Appendix A)** of the site has been undertaken by Meridian Agriculture prior to preparation and submission of a planning permit application. The Assessment considered the agricultural potential of the site, including soils, rainfall and the surrounding agricultural uses in the surrounding area.

These factors have been used to determine the potential agricultural utility of the site, were it not used for a renewable energy facility. In considering the history of the site and the likely agricultural uses that the land would be likely to support.

From a case law perspective, **Croke v Moira SC (Corrected) [2019] VCAT 112 (23 January 2019)** provides an insight into the spectrum of agricultural land value considerations and the weighing of contributory factors. In this particular matter, the site was within the Goulburn Murray Irrigation District and whilst capable of irrigation, the inherent values of the land were conducive only to moderate agricultural pursuits at best, and therefore a solar energy facility was considered an appropriate use of the land.

Whilst the land holds a degree of agricultural utility, this value is considered to be only of moderate potential productivity.

In light of the above factors, the site is unlikely to be used for 'high-quality' agriculture as per the definition under the Solar Energy Facility Guidelines – the proposed use for a renewable energy facility is considered to be a suitable use of rural land.

6.1.2 Renewable Energy

Transition to a renewable energy society is supported at all levels of government through various schemes and government incentives, including explicit policies within the Northern Grampians Planning Scheme.

The micro solar farm model is considered to be a relatively non-invasive generator of energy. This is especially so when other conventional energy producing methods permanently impact / remove agriculturally productive land (i.e. coal mining / fracking).

The proposed solar energy facility will be for a 30-year lease, at which point it is anticipated that there will be strict conditions on the decommissioning of facilities – as outlined within the Victorian state government’s guidelines for Solar Energy Facilities.

The proposal retains as much of the site for continued dryland agriculture, with the land to be used for the solar energy facility to ultimately provide a supplementary income to the farmer – particular in the current environment for the local agricultural sector where diversification has become necessary for many farmers to remain viable.

The ongoing maintenance of facility will ensure that any adverse impacts on nearby agricultural land are avoided.

The site has been selected by the proponent after extensive negotiations with the farmer, who has recommended the least agriculturally productive / useful tract of the property. The remainder of the subject site not within the proposed solar energy facility compound will continue to be used for productive agriculture – or at least continue the established land uses on the site.

In considering the trade-off between the use of agricultural land for renewable energy, planning has identified the need to balance the objectives of planning between community benefit, preservation of agricultural land and sustainable development.

In considering the community benefit as a result of the proposal, the use and development of only moderate-quality agricultural land for a renewable energy facility preserves the higher-quality agricultural land for agriculture, whilst also promoting and supporting the transition to renewable energy.

For these reasons the current farmer obtains only marginal agricultural utility from his land resource; *the leasing of this portion of the property for renewable energy is considered to be of greater community benefit than the current and continued use for dryland agriculture.*

6.2 Electromagnetic Radiation (EMR)

From an environmental health perspective, any potential EMR given off by solar panels and inverters is non-ionizing, i.e. the EMR produced is at a level highly unlikely to cause any adverse impacts to any cellular structures. Various studies have been undertaken into the impact of photovoltaic technology and potential impacts or health dangers to neighbours.

The scientific consensus and evidence overwhelmingly state that there is no reasonable risk as a result of either off-site or on-site radiation impacts, as per the below citations.

The intention of these facilities is to generate and convey electricity in the most efficient manner possible, therefore radiation will be absorbed by the panels, and will be contained within insulated cabling to maximise solar yield.

Electromagnetic Radiation from the proposed 22kV overhead line, pole and transformers will be in accordance with Powercor standards and requirements. All

proposed equipment will be consistent with installation works standards equivalent to residential subdivisions within the municipality.

The intention of the solar energy facility is not to 'emit' EMR, the levels of EMR generated by the proposed facility would be negligible, if not entirely unregistrable. See the below **references**:

- Moss, Coram, Blashki, (2014) '*Solar energy in Australia: health and environmental costs and benefits*', The Australian Institute. <http://www.tai.org.au/content/solar-energy-australia-health-and-environmental-costs-and-benefits>
- NCSU, (2017) '*Health and safety Impacts of Photovoltaics*', N.C. Clean Energy Technology Center at N.C. State University

6.3 Heat Island Effect

The heat island effect occurs where ambient temperatures around developments are higher than those of surrounding areas. This is similar to the urban heat island effect.

However, while the heat island effect is known to exist in large urban areas, there is little evidence of impacts on other land uses such as orchards due to heat dispersal from solar energy facilities.

This has been discussed and addressed as part of previous high-profile solar energy facility matters where members of the community have raised concern regarding the 'heat island effect' as a result of using land for the purpose of a solar energy facility – particularly around the potential off-site impacts.

In response to these concerns, specialist investigations by independent third-party consultants into sites within the Goulburn Valley have been undertaken to assess impacts on neighbours where solar energy facilities have been proposed adjacent to high-value agricultural land.

The outcome from these assessments determined that any off-site impacts would be unlikely – with even the temperatures within the solar energy facility unlikely to see a marked temperature increase

For reference, the above reports can be found within the Greater Shepparton Solar Panel Report documents via this link:

- <https://www.planning.vic.gov.au/project-panels/panels-and-committees/greater-shepparton-solar-farm-panel>

As touched upon in assessment of the proposal against the provisions of the Solar Energy Facilities Guidelines, any ambient temperatures from a solar facility would have wholly dissipated by the time it reached the property boundary – approximately 30 metres from the nearest panels. The proposal achieves (and significantly exceeds) this offset to any external site boundaries.

6.4 Bushfire Management

From previous projects, ACENERGY has discussed the expectations and appropriate standards for solar energy facilities with the Country Fire Authority (CFA). In particular, the “**Guidelines for Renewable Energy Installations**” which were released in February 2019, (the Guidelines, under this Section) which superseded the previous “*Emergency Management Guidelines for Wind Energy Facilities*” which served as the only framework for renewable energy facilities prior.

From past project experience with the CFA regarding other micro solar energy facilities across northern Victoria, the CFA have acknowledged that the Guidelines have been prepared with conventional solar energy facilities in mind – which are quite often in excess of several hundred hectares. As such, many of these standardised requirements are not necessarily appropriate for smaller facilities.

The requirements deemed to be inappropriate for smaller solar energy facilities have been ‘struck through’ to indicate their partial waiver as per CFA advice.

The proposed facility is considered to be fully compliant with all other provisions of the Guidelines, detailed below.

Risk and Emergency Management

- *The undertaking of a comprehensive risk management process, as per CFA’s Guidelines for Renewable Energy Installations 2018.*
- *The development of an Emergency Information Book, provided in an Emergency Information Container at site entrances, as per CFA’s Guidelines for Renewable Energy Installations 2018.*
- *If applicable to the installation, adherence to (DR) AS/NZS 5139-2017: Electrical installations – Safety of battery systems for use with power conversion equipment for any battery installations, and CFA’s Guidelines for Renewable Energy Installations 2018.*
- *If applicable to the installation, adherence to dangerous goods storage and handling requirements, as per the dangerous goods regulatory framework and any relevant Australian Standards.*

These guidelines include preventative measures associated with lightning protection, heat barriers, smoke detection and suppression systems.

Suitable permit conditions can be incorporated on the sought planning permit to ensure that construction and emergency protocols are consistent with CFA standards.

Access

- ~~*A four (4) metre perimeter road should be constructed within the ten (10) metre perimeter Fire Break.*~~
- *Roads are to be of all-weather construction and capable of accommodating a vehicle of fifteen (15) tonnes.*
- *Constructed roads should be a minimum of four (4) metres in trafficable width with a four (4) metre vertical clearance for the width of the formed road surface.*
- *The average grade should be no more than 1 in 7 (14.4% or 8.1°) with a maximum of no more than 1 in 5 (20% or 11.3°) for no more than fifty (50) metres.*
- *Dips in the road should have no more than a 1 in 8 (12.5% or 7.1°) entry and exit angle.*

- *Incorporate passing bays at least every 600 metres which must be at least 20 metres long and have a minimum trafficable width of 6 metres. Where roads are less than 600 metres long, at least one passing bay is to be incorporated.*
- *Road networks must enable responding emergency services to access all areas of the facility.*
- *Two but preferably more access points to the site, to ensure safe and efficient access to and egress from areas that may be impacted or involved in fire. The number of access points is to be informed through a risk management process.*

The proposed plans have made provision for a 10m firebreak in-line with CFA requirements; however, this **does not include an all-weather 4m perimeter access track.**

Further, the proposed primary power station, switchboard, inverters and transformer are all readily accessible from the compound entrance, to provide ease of access / control in fire events. The proposed facility provides suitable access and manoeuvring areas for CFA firefighting vehicles to access and traverse the site with relative freedom – compliant with the typical access requirements of the CFA.

Water Supply

On-site water supply is an important part of the fire suppression system which will assist in the safe, effective and timely fire suppression activities of responding brigades. Static water storage tank installations are to comply with AS 2419.1 and the following conditions:

- *The static water storage tank shall be of ~~not less than 45,000 litres effective capacity.~~*
- *The static water storage tank(s) must be an above-ground water tank constructed of concrete or steel. The location and number of tanks should be determined as part of the site's risk management process and in consultation with a CFA delegated officer.*
- *The static storage tanks shall be capable of being completely refilled automatically or manually within 24 hours.*
- *The hard-suction point shall be provided, with a 150mm full bore isolation valve equipped with a Storz connection, sized to comply with the required suction hydraulic performance. Adapters that may be required to match the connection are 125mm, 100mm, 90mm, 75mm, 65mm Storz tree adapters with a matching blank end cap to be provided.*
- *The hard-suction point shall be positioned within 4 metres to a hardstand area and provide clear access for fire personnel.*
- *An all-weather road access and hardstand shall be provided to the hard-suction point. The hardstand shall be maintained to a minimum of 15 tonne GVM, 8 metres long and 6 metres wide or to the satisfaction of the relevant fire authority.*
- *The road access and hardstand shall be kept clear at all times.*
- *The hard-suction point shall be protected from mechanical damage (i.e., bollards) where necessary.*
- *Where the access road has one entrance, a 10 metre radius-turning circle shall be provided at the tank.*
- *An external water level indicator is to be provided to the tank and be visible from the hardstand area.*
- *Signage shall be fixed to each tank.*

The proposed facility is capable of complying with all above requirements pertaining to water supply and vehicle turning. The CFA has previously accepted that **it is appropriate to reduce water supply to a 22,500L tank** for a solar energy facility of this scale.

Fuel/Vegetation Management

- *Grass is to be maintained at below 100mm in height during the declared Fire Danger Period.*
- *A fire break area of ten (10) metres width is to be maintained around the perimeter of the facilities, electricity compounds and substations. This area is to be of non-combustible mulch or mineral earth.*
- *The fire break area must commence from the boundary of the facility or from the vegetation screening (landscape buffer) inside the property boundary.*
- *The fire break must be constructed using either mineral earth or non-combustible mulch such as crushed rock.*
- *The fire break must be vegetation-free at all times.*
- *No obstructions are to be within fire break area (e.g., no stored materials of any kind).*
- *Adhere to restrictions and guidance during the Fire Danger Period, days of high fire danger and Total Fire Ban days (refer to www.cfa.vic.gov.au).*
- *All plant and heavy equipment is to carry at least a 9-litre water stored-pressure fire extinguisher with a minimum rating of 3A, or firefighting equipment as a minimum when on-site during the Fire Danger Period.*
- *There is to be no long grass or deep leaf litter in areas where plant and heavy equipment will be working.*

A 10-metre firebreak has been observed between the solar arrays and compound fencing on all sides, it is anticipated that suitable conditions will be implemented on the sought permit to govern all of the above points.

Conditions Specific to Solar Installations

- ~~*Solar facilities are to have a 6-metre separation between solar panel banks/rows. Where this cannot be achieved, advice is to be sought from CFA's State Infrastructure and Dangerous Goods Unit (sidgu@cfa.vic.gov.au).*~~
- *Solar farm operators must provide specifications for safe operating conditions for temperature and the safety issues related to electricity generation, including isolation and shut-down procedures, if solar panels are involved in fire. This information must be provided within the content of the Emergency Information Book at the main entrance of the facility.*
- *Solar arrays are to have grass or other vegetation maintained to 100mm under the array installation or mineral earth or non-combustible mulch such as stone.*
- *Where practicable, solar energy installations can be sited on grazed paddocks. In this case, vegetation is to be managed as per the requirements of this guideline, or as informed through a risk management process.*

Due to the small size of the proposed facility, a 'bank' of solar panels governed by the above provision is generally larger than the entirety of the proposed solar energy facility. Notwithstanding this, a six-metre separation is observed between solar tracking arrays blocks. The proposed facility will comply with all other requirements of the above solar energy facility-specific standards.

7 Proposal & Planning Permit Triggers

It is proposed to use and develop a portion of land at (Crown Allotment 259) 4785 Western Highway, Ledcourt for a 5MW **Solar Energy Facility and Utility Installations** in accordance with the provisions of Clause 53.13 of the Northern Grampians Planning Scheme.

Pursuant to amendment VC157, approval is sought for the proposed overhead lines that connect the facility to the existing 22kV transmission line. The proposal also includes five (5) batteries – which will be ancillary to the facilities and provide 10MWh storage for electricity generated by the facility. The batteries will not store any externally generated (i.e. off-site) electricity. Both of these uses fall under the land use umbrella of a **Utility Installation**.

The proposal does not propose to erect advertising signage (Clause 52.05), remove native vegetation (Clause 52.17) or any other matter that requires planning approval.

7.1 Existing Planning Controls

The subject land, along with the majority of the surrounding area, is within the **Farming Zone**.

The site is partially affected by the **Floodway** and **Land Subject to Inundation Overlay** – corresponding to the existing watercourse that runs through the western portion of the subject land.

The Western Highway, which runs along the northern frontage of the site – is within the **Road Zone – Category 1**. This designates the Western Highway as a primary arterial road managed by the Department of Transport (formerly Regional Roads Victoria).

The extent of the proposed use and development will occur on land unaffected by any Overlays.

7.2 Other Statutory Controls

The subject land, in addition to the surrounding area is wholly within the **Bushfire Prone Areas** mapping, which applies the provisions of the Building Regulation 2018 to development.

In response, the proposal has been designed in accordance with the CFA's Guidelines for solar energy facilities to ensure that bushfire risk is managed. This is addressed within the relevant sections of this report.

7.3 Planning Permit Triggers

Under the Northern Grampians Planning Scheme, a planning permit is triggered for the proposal pursuant to the following Clauses:

Farming Zone

- 35.07-1 – To Use land for a Solar Energy Facility (in accordance with the requirements of Clause 53.13) and Utility Installations.
- 35.07-4 – Building and Works...
 - ... associated with a Section 2 Use (Solar Energy Facility and Utility Installations); and
 - ... within 100 metres of a Road Zone Category 1

Land Adjacent to a Road Zone Category 1

- 52.29-2 – To Alter Access to a road in a Road Zone, Category 1

Native Vegetation

- 52.17-1 – To Remove, destroy or lop native vegetation, including dead native vegetation

8 Northern Grampians Planning Scheme

The proposed development has been assessed against the relevant Clauses of the Northern Grampians Planning Scheme, specifically:

11	Settlement
13	Environmental Risks
14	Natural Resource Management
15	Built Environment and Heritage
17	Economic Development
19	Infrastructure
21.01	Northern Grampians Shire Strategic Themes and Vision
21.02	Settlement, Housing, Built Environment and Heritage
21.03	Environmental Risk and Landscape Values
21.04	Economic Development
21.05	Infrastructure and Community Development
21.06	Transport
35.07	Farming Zone
44.03	Floodway Overlay
44.04	Land Subject to Inundation Overlay
52.06	Car Parking
52.17	Native Vegetation
52.29	Land Adjacent to a Road Zone
53.13	Renewable Energy Facilities
65	Decision Guidelines

8.1 Planning Policy Framework

11.01-1 Settlement

Planning is to anticipate and respond to the needs of existing and future communities through provision of zoned and serviced land for housing, employment, recreation and open space, commercial and community facilities and infrastructure.

Planning is to recognise the need for, and as far as practicable contribute towards [relevant matters included below]:

- *Health and safety.*
- *Diversity of choice.*
- *Adaptation in response to changing technology.*
- *Economic viability.*
- *A high standard of urban design and amenity.*
- *Energy efficiency.*
- *Accessibility.*
- *Land use and transport integration.*

Planning is to:

- *prevent environmental problems created by siting incompatible land uses close together; and*
- *facilitate sustainable development that takes full advantage of existing settlement patterns, and investment in transport and communication, water and sewerage and social facilities*

The proposed use of the land for a 16-hectare solar energy facility is compatible with adjoining agricultural land uses. The use and development of land would generate negligible impacts on the surrounding area – in considering the impact that solar panels may have on surrounding amenity and/or utility – **VCAT precedent has established that the visual impact of solar energy facilities is largely benign** – accordingly, the potential for adverse impact on surrounding landholders as a result of visual impacts are unlikely.

13.02-1S Bushfire

- *To strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.*

The subject site is within the Bushfire-Prone Areas mapping. A detailed assessment against bushfire risk is undertaken against the CFA's Guidelines for Renewable Energy Facilities elsewhere within this report.

13.05-1S Noise Abatement

- *To assist the control of noise effects on sensitive land uses.*

The facility will be an un-manned facility that would see only limited active work – generally when periodic maintenance contractors are present on site.

The noise issues would primarily and almost exclusively be centered around the construction and de-commissioning of the site, which can be suitably managed

through a construction management plan via suitable permit condition/s – to the satisfaction of the responsible authority.

14.01-1S Protection of Agricultural Land

- *To protect the state’s agricultural base by preserving productive farmland.*

The proposed micro solar energy facility would be located on approximately **16 ha** of farmland, on a parcel of land which has a total area of approximately 82 hectares.

However, the farmer’s actual holdings are substantially larger – with surrounding parcels in common ownership representing the **461-hectare property**. In considering the site of the facility in relation to the farmer’s commonly-owned land – the proposal represents **approximately 3.5% of the total area of the property** – thereby providing for co-location consistent with the Solar Energy Facility Guidelines.

The proposed use of the site for a renewable energy facility is a temporary use and the site will be fully capable of re-integration back to agricultural use once the tenure period expires.

14.01-2S Sustainable Agricultural Land Use

- *To encourage sustainable agricultural land use.*

The proposed 5MW solar energy facility will be developed in conjunction with an existing farming enterprise, retaining the majority of the subject land for continued agricultural production.

The additional income from the leasing arrangements provides an opportunity for the existing operator to diversify their enterprise and provide for the flexibility of operations responsive to market changes and the current economic environment for primary producers.

15.02-1S Energy and Resource Efficiency

- *To encourage land use and development that is energy and resource efficient, supports a cooler environment and minimises greenhouse gas emissions.*

The intention of solar energy facilities is to generate electricity that has significantly less greenhouse emissions than conventional fossil fuel sources.

Additionally, the development itself has sought to minimise as far as possible the removal of any indigenous vegetation that would contribute to a net increase in carbon, pursuant to the following strategies, whereby planning is to:

- *Improve efficiency in energy use through greater use of renewable energy technologies and other energy efficiency upgrades.*
- *Encourage retention of existing vegetation and planting of new vegetation as part of development and subdivision proposals.*

17.01-1S Diversified Economy

- *To strengthen and diversify the economy.*

The use and development of land is supported by planning policy that promotes the diversification of the economy, specifically to:

- *Protect and strengthen existing and planned employment areas and plan for new employment areas.*
- *Facilitate regional, cross-border and inter-regional relationships to harness emerging economic opportunities.*
- *Facilitate growth in a range of employment sectors, including health, education, retail, tourism, knowledge industries and professional and technical services based on the emerging and existing strengths of each region.*
- *Improve access to jobs closer to where people live. Support rural economies to grow and diversify.*

The use and development of a renewable energy facility within the Northern Grampians Shire will promote an opportunity for a regional municipality to become a municipality that is providing for sustainable, renewable future – consistent with state and regional policy.

17.01-1R Diversified Economy – Wimmera Southern Mallee

Regional policy for a diversified economy is very clear that planning should:

*“Capitalise on economic development opportunities through building on the region’s assets, particularly agriculture, **energy**, mining and tourism.”*

The selected site is ideally located – being a suitable distance from the nearest township (**Stawell**) approximately 15.5km south-east of the site to the nearest ‘urban zoned’ land along the Western Highway.

Therefore, the proposal is considered to be suitably-separated from the urban areas to ensure encroachment is not an issue.

17.01-2S Innovation and Research

- *To create opportunities for innovation and the knowledge economy within existing and emerging industries, research and education.*

The proposal represents a significant opportunity for a low-impact, sustainable diversification of the municipality’s economic base, by supporting a new, emerging industry.

19.01-1S Energy Supply

- *To facilitate appropriate development of energy supply infrastructure.*

The proposed site has been selected as it is a suitable distance from the nearest Powercor substation; the proposed facility represents an efficient generator of low-carbon electricity into the immediately adjacent electricity network.

Thus, the proposed facility provides an excellent location for essential infrastructure to provide a significant proportion of the local population and economic base with a low-carbon energy source. This is supported by the following strategies to:

- *Support the development of energy facilities in appropriate locations where they take advantage of existing infrastructure and provide benefits to industry and the community.*
- *Support transition to a low-carbon economy with renewable energy and greenhouse emission reductions including geothermal, clean coal processing and carbon capture and storage.*



- *Facilitate local energy generation to help diversify the local economy and improve sustainability outcomes.*

19.01-2S Renewable Energy

- *To promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met.*

State planning policy seeks to support renewable energy in appropriate locations. The proposed facility is a result of months of planning and assessment of potential candidate sites. A detailed overview of the selection process by ACENERGY is contained elsewhere in this report.

The proposed facility will provide approximately 5MW of electricity directly to the Northern Grampians municipality and surrounding LGA's, increasing the efficiency of electricity conveyance directly to the consumer, and where it is needed.

The proposed development site is not considered to be highly-productive agricultural land – as defined by the Solar Energy Facilities Guidelines.

Further, the regional policy for renewable energy with the **Wimmera Southern North** region, Clause **19.01-2R**, stipulates that planning should:

- *Support the development of locally generated renewable energy, including bioenergy clusters.*

8.2 Local Planning Policy Framework

21.01-03 Northern Grampians Shire Strategic Vision

The overarching objective of planning for the Northern Grampians municipality is to “improve the social and economic viability of the shire. Deliver targeted projects and core services.”

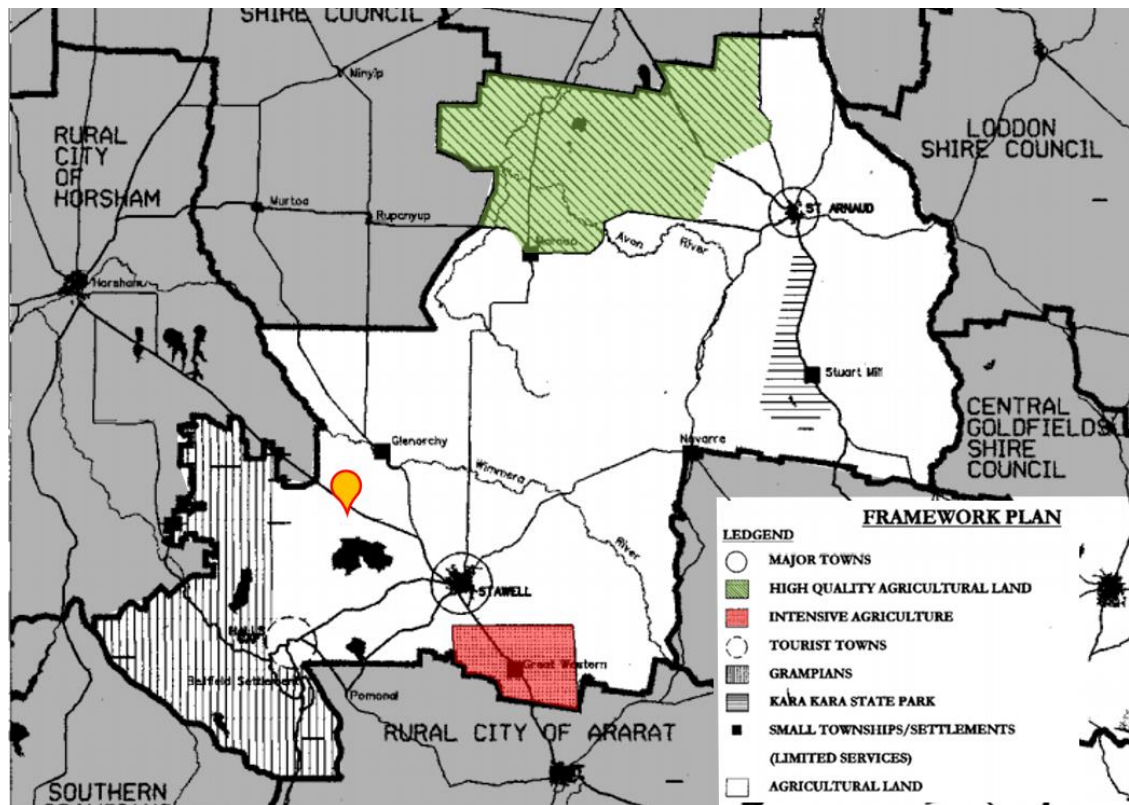


Figure 11. Northern Grampians Shire Strategic Framework Plan
Framework Plan has been colourised for emphasis – subject site denoted by orange pin

Additionally, Clause 21.01 identifies five key planning themes to promote the Shire’s strategic vision, which are centred around:

- “Settlement, housing, built environment and heritage
- Environmental risk and landscape values
- Economic development
- Infrastructure and community development
- Transport”

The proposed solar energy facility is a substantial infrastructure project that will provide a major economic, environmental and community stimulus for the Northern Grampians municipality. The proposal will provide jobs during the construction period as well as ongoing maintenance and support an established agricultural operator.

21.02-1 Settlement

The stated key issues facing the Northern Grampians municipality are:

- “Promoting the growth of Stawell as the shire’s largest town.

- *Managing the development of Halls Gap whilst protecting its environmental and tourism values.*
- *The need to maximise the use of existing infrastructure.”*

The proposal is adjacent to existing 22kV power lines that run through the subject site – parallel to the Western Highway. These power lines provide electricity to regional centres. By locating the facility directly adjacent to existing infrastructure, the proposal limits any requirements for extensive construction of additional infrastructure to “plug in” the facility to the existing grid.

21.03-1 Environment, landscape values and risk

In considering the proximity of the subject site to notable environmental features within the Northern Grampians, Lake Lonsdale and nearby watercourses and vegetation, the proposal upholds the relevant objectives:

- *“To ensure land use and development does not increase the level of bush fire risk and includes adequate fire protection measures.*
- *To protect local flora and fauna.*
- *To recognise areas in the shire that are liable to flooding and inundation and minimise potential risk to life, property and the environment.*
- *To protect the environmental and landscape values of the Grampians National Park.”*

The proposal is located on a site that is well-screened from prominent vistas of significant landscapes and is suitably well set back from any areas of environmental value or native vegetation subject to planning approval are not impacted.

21.04-1 Agriculture

Clause 21.04-1 identifies agriculture as the dominant industry within the Northern Grampians municipality, noting that the Key Issues facing the municipality are:

- *“The importance of agriculture to the shire’s economy.*
- *Protecting high quality agricultural land.*
- ***Supporting the diversification of rural land use through expansion of renewable energy generation in appropriate locations.”***

The proposal allows an established farmer – who operates a substantial rural holding – to diversify their operations, as well as enabling the municipality to expand its renewable energy capability.

In considering the relevant Objective of Clause 21.04-1, the proposal is consistent with the intention of planning for agriculture:

- *“To support the development of sustainable agriculture and horticultural industries, as the foundation to a strong and prosperous economy.”*

21.05-1 Electricity generation and distribution

There is very explicit local policy that supports the transition to renewable energy within the Northern Grampians Shire, notably the Objective:

- *“To reduce the municipality’s reliance on non-renewable energy.”*

Further, provision is made whereby planning “is to encourage renewable electricity generation and distribution in the shire”. Accordingly, the current application is overwhelmingly supported by local policy.

21.06-2 Western Highway

Owing to the site’s proximity to Western Highway, the application has been considered against local policy for the protection of the Highway as the primary arterial within the Northern Grampians Shire. Accordingly, the Planning Scheme sets out the Objectives:

- *“To ensure that the use and development of land does not prejudice the levels of service, safety and amenity of the Western Highway.*
- *To minimise any adverse effects of noise from traffic using the highway, particularly where the highway passes through Stawell and Great Western.”*

21.06-3 Stawell Aerodrome

A key consideration of the Solar Energy Facility Guidelines is the potential impact of any facility on nearby transport infrastructure – this extends to aviation infrastructure. Further, the Northern Grampians Planning Scheme seeks to preserve the ongoing operation and expansion of the Stawell Aerodrome as a key Issue for the municipality.

Despite the significant distance between the facility and the Stawell Aerodrome, the applicant has undertaken a Glint and Glare assessment. This assessment has considered the potential impact of the facility on the Stawell Aerodrome and any potential offsite amenity impacts.

The outcome of this assessment was that it was considered to be highly unlikely that there would be any impact on the Aerodrome as a result of the proposed solar energy facility.

8.3 Farming Zone

The subject site, at 4785 Western Highway, Ledcourt is wholly within the Farming Zone. The relevant objectives of the Farming Zone are:

- To provide for the use of land for agriculture.
- To encourage the retention of productive agricultural land.
- To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture.
- To encourage the retention of employment and population to support rural communities.
- To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision



Zone Map 1
Farming Zone

Whilst the proposed land use and development is for a “Solar Energy Facility”, which requires a permit within the Farming Zone, the use of the land for renewable energy production is consistent with **Agricultural production** – as defined under Clause 73.01 of the VPPs as:

- “**any form of primary production of renewable commodities.** It does not include stone extraction, mineral extraction, or timber production from native forest.”

The above definition is quite explicit as to what does and does not constitute agricultural production, with the operative wording being renewable commodities (as highlighted above) which includes electricity from renewable sources. Accordingly, the Farming Zone quite clearly supports the proposed use – subject to consideration of the relevant Decision Guidelines of the Farming Zone.

Mindful of the purpose of the Farming Zone, the proposal has been assessed favourably against each of the relevant decision guidelines of the Farming Zone, as set out within the provisions Clause 35.07-6 of the Northern Grampians Planning Scheme.

While the proposed setback of 49 metres from the panels to the Western Highway triggers a planning permit under the Zone, the setback is considered to be appropriate in the context of the site and the surrounding area, as the surrounding area contains established tree belts and plantings that would ensure the development of the site will not impact any prominent or sensitive vistas.

Clause 35.07 sets out the decision guidelines for applications within the Farming Zone – which are set out and responded to below:

General issues

- *Any Regional Catchment Strategy and associated plan applying to the land.*
- *The capability of the land to accommodate the proposed use or development, including the disposal of effluent.*
- *How the use or development relates to sustainable land management.*
- *Whether the site is suitable for the use or development and whether the proposal is compatible with adjoining and nearby land uses.*
- *How the use and development makes use of existing infrastructure and services.*

While the western portion of the subject site is within an identified flood path under the Planning Scheme, the proposed development area is unaffected by any mapped flood-prone land. Accordingly, the use and development is unlikely to have any adverse impact on floodplain management.

The use and development will not generate any effluent – as there will be no permanent staffing facilities on-site.

The site is located on land directly adjacent to existing Powercor infrastructure that will provide for efficient distribution of generated electricity. By siting the facility in close proximity to existing infrastructure, the proposal reduces the requirement for extensive overhead lines that could impact productive agricultural uses or landscape amenity, either on the subject land or off-site – consistent with recent changes to the Planning Scheme (namely VC157).

Agricultural issues and the impacts from non-agricultural uses

- *Whether the use or development will support and enhance agricultural production.*
- *Whether the use or development will adversely affect soil quality or permanently remove land from agricultural production.*
- *The potential for the use or development to limit the operation and expansion of adjoining and nearby agricultural uses.*
- *The capacity of the site to sustain the agricultural use.*
- *The agricultural qualities of the land, such as soil quality, access to water and access to rural infrastructure.*
- *Any integrated land management plan prepared for the site.*

The proposal has been carefully designed to ensure that it will complement existing agriculture within reason. The use of the land for a solar energy facility will be a low-

impact use and has been carefully sited to avoid any adverse impact upon rural infrastructure or productivity.

Environmental issues

- *The impact of the proposal on the natural physical features and resources of the area, in particular on soil and water quality.*
- *The impact of the use or development on the flora and fauna on the site and its surrounds.*
- *The need to protect and enhance the biodiversity of the area, including the retention of vegetation and faunal habitat and the need to revegetate land including riparian buffers along waterways, gullies, ridgelines, property boundaries and saline discharge and recharge area.*
- *The location of on-site effluent disposal areas to minimise the impact of nutrient loads on waterways and native vegetation.*

Renewable energy represents the major challenge to the Victorian economy, with the State government setting a target of 25% renewable energy by 2020, which it is yet to achieve. The proposed facility will inject approximately 5MW of renewable energy into the Victorian grid.

The proposed compound site has minimised the removal of any native vegetation – with any vegetation to be impacted being exempt from the considerations of planning. Significant earthworks are also avoided – other than an initial scrape to cleanse topsoil (which would be retained on-site).

Design and siting issues

- *The need to locate buildings in one area to avoid any adverse impacts on surrounding agricultural uses and to minimise the loss of productive agricultural land.*
- *The impact of the siting, design, height, bulk, colours and materials to be used, on the natural environment, major roads, vistas and water features and the measures to be undertaken to minimise any adverse impacts.*
- *The impact on the character and appearance of the area or features of architectural, historic or scientific significance or of natural scenic beauty or importance.*
- *The location and design of existing and proposed infrastructure including roads, gas, water, drainage, telecommunications and sewerage facilities.*
- *Whether the use and development will require traffic management measures.*

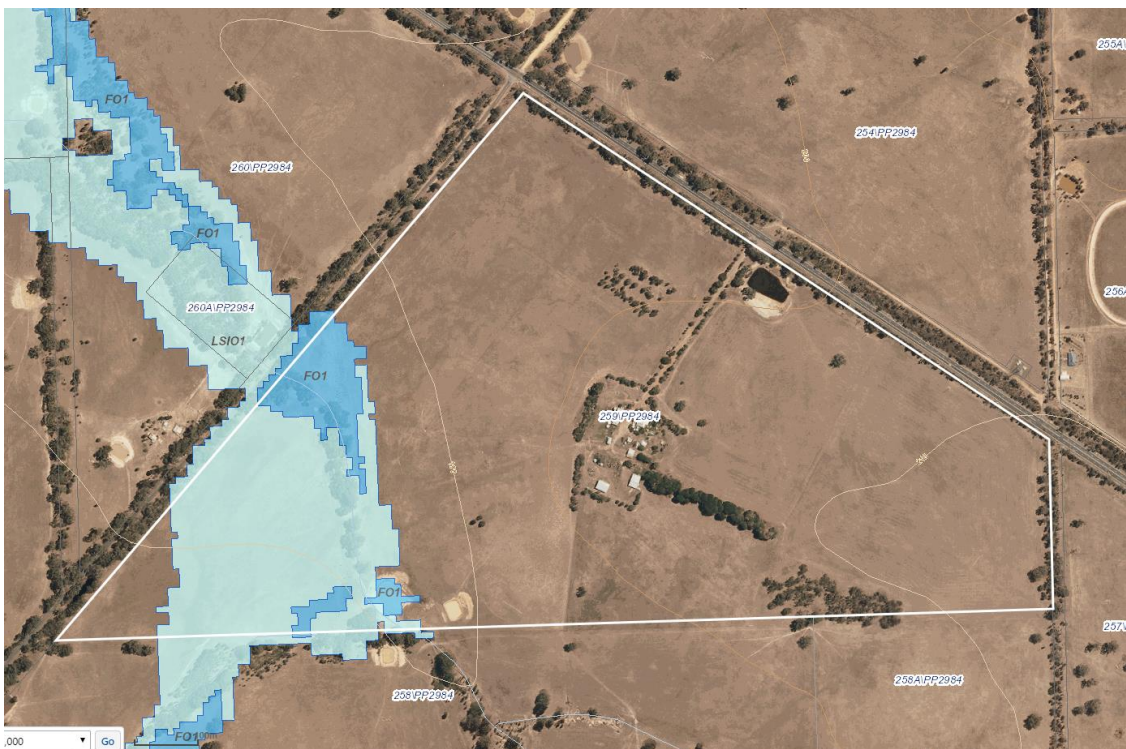
The facility is to be landscaped around its perimeter, rendering any potential visual impact to be negligible at best. Visibility of the site from the public realm will be heavily screened via landscaping. Further, all equipment will be located within the compound.

The site will be accessed from the northern boundary and will provide ready access to transformers, inverters and switchgears for maintenance and emergency purposes.

8.4 Floodway & Land Subject to Inundation Overlays

The western portion of the subject site is affected by both the Floodway and Land Subject to Inundation Overlays – these overlays pertain to the seasonal watercourse that falls to the north-west of the site. The overlays are approximately 550 metres west of the proposed facility and therefore do not trigger a planning permit under the Planning Scheme.

Further, these areas are approximately 15m to 20m below the surface level of the facility and are unlikely the impact or be impacted by the proposed development. See the appended feature and level survey, as well as the State Government’s publicly available contour mapping database (VicPlan).



Overlay Map 1

Floodway and Land Subject to Inundation Overlays; including contours and watercourses

8.5 Particular Provisions

8.5.1 Car Parking (Clause 52.06)

Pursuant to Clause 52.06-1, planning must consider the provision of car parking for all new land uses. The relevant purposes of this provision of the Scheme is:

- *To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.*
- *To support sustainable transport alternatives to the motor car.*
- *To promote the efficient use of car parking spaces through the consolidation of car parking facilities.*
- *To ensure that car parking does not adversely affect the amenity of the locality.*
- *To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.*

The provisions of Clause 52.06 do not prescribe a standardised car parking requirement for renewable energy facilities. Therefore, pursuant to Clause 52.06-6, car parking must be provided to the satisfaction of the responsible authority.

The proposed solar energy facility will be largely un-manned – capable of operating with irregular staffing that would be largely limited to maintenance and site inspections.

The highest staffing of the site will be during the construction phase – where various contractors and machinery will be required for duration of approximately three (3) months.

Upon completion and establishment of the facility, persons accessing the site will typically be contractors with purpose-built vehicles and equipment, which would be driven directly to the point of work, rather than being parked in a designated space and the contractors walking to the work site.

In considering, the infrequent and inconsistent requirements of car parking on the site, the proponent has nominated a 40-metre-by-10-metre area reserved for car parking purposes during the construction period (see attached site plan), this is considered more than adequate for the proposed use.

This provision of car parking spaces would provide adequate car parking in scenarios where multiple contractors are required on the site concurrently. However, during the operation of the solar energy facility, the demand for car parking spaces would be zero.

In considering the relevant Decision Guidelines of Clause 52.06-10, and the information provided in this report, the proposed 400m² of car parking is comfortably in excess of what would reasonably be required for an un-manned facility.

8.5.2 Native Vegetation (Clause 52.17)

ACEnergy have engaged White Gums Environmental Consultancy to undertake an Ecological Assessment (**Appendix I**) of the subject site to identify and list any native vegetation that may be impacted by the proposal.

Whilst the area of the proposed facility does not require removal of any native vegetation, there is a 6sqm small patch of native grass that would need to be removed to provide access to the facility. This patch is located along the eastern shoulder of the existing driveway and is illustrated in the proposed development plans and the below Figure.

Pursuant to Clause 52.17-1, we hereby seek planning approval for the removal of native vegetation – being the removal of the aforementioned native grasses, only.



Figure 12. Grass to be removed

Approximate 6sqm area of vegetation to be removed marked by red circle

Pursuant to the Clause 52.17-2 Application Requirements, all planning permit applications that propose remove, destroy or lop native vegetation must comply with the application requirements specified in the “Guidelines for the removal, destruction or lopping of native vegetation” (the ‘Guidelines’).

In accordance with the Guidelines, this application hereby outlines the three-step approach to vegetation removal, which sets out that planning should:

1. **Avoid** the removal, destruction or lopping of native vegetation.
2. **Minimise** impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.

3. Provide an **Offset** to compensate for the biodiversity impact if a permit is granted to remove, destroy or lop native vegetation.

The facility itself is located on land that is currently agricultural land, and therefore contains limited biodiversity and avoids the requirement for extensive vegetation removal – the only exception to this is the access which is provided from the existing driveway and is therefore **unavoidable**.

As vegetation removal is unavoidable, the proposal has ensured that loss of native vegetation has been **minimised** to the fullest extent to preserve the greatest level of biodiversity. In response, the proposed vegetation removal will be 4 metres wide – being the carriageway width, only – where the access traverses a 1.5m deep patch of remnant grass. This loss of vegetation is the absolute minimum that can be achieved whilst still providing practical access to the facility.

Pursuant to the application requirements of Clause 52.17, an assessment has been undertaken through the DELWP Native Vegetation Information Management system online, which determined that the proposed removal of a 6sqm patch of native grasses trees can be undertaken through the intermediate assessment pathway (**Appendix J – NVR Report**) and would require **0 offset** to replace the lost vegetation.

As vegetation removal cannot be reasonably avoided, it is submitted that suitable offsets represent an appropriate outcome to the proposed vegetation removal.

Further, our office has been provided with some initial comments seeking clarification from DELWP’s Grampians regional office – with regard to potential native vegetation impacts for the access to the site.

- ***“... the planning application does not currently mention native vegetation removal”***

The proposal has been sited to minimise the loss of native vegetation. As detailed in the below sections, the only requirement for removal of native vegetation under the provisions of the Planning Scheme is for the aforementioned grass.

Any potential upgrade work to the crossover would not encroach further into the TPZ as the existing crossover would not be widened. Further, an increase to the carriageway width would be less than 6 metres and would therefore meet the exemption for maintenance under 52.17-7 for Vehicle access from public roads. The existing crossover contains dimensions that are consistent with the standard VicRoads crossover that would be required for this facility – therefore, there would be no additional requirement for widening that would impact existing roadside vegetation.

- ***“... the proponent should consider if native vegetation removal will be necessary within the road reserve to create a left turning lane and access from the Western Hwy (including potential impacts to understorey and tree root zones).”***

The proposal does not warrant a left-turning lane. This is demonstrated through the Traffic Impact Assessment prepared by Traffic Works and seconded by the Department of Transport’s referral response.

The access will be a crossover to the Department of Transport’s standard (Standard SD 2064A) which will be no more than 6 metres wide and will involve the sealing of the existing gravel crossover, only (Figure 13 illustrates existing crossover conditions).

- ***“... the proponent should consider if native vegetation removal will be needed from road reserves to transport materials to the site (this has sometimes been required in other projects where large components were transported on smaller roads)”***

The proposal is for a solar energy facility, all components will be transported to the site within standard shipping containers.

It should be noted that the solar facility is not like a wind energy facility – which requires quite a detailed traffic management plan due to the sheer size of componentry.

- ***“...the proponent should consider if any native vegetation removal will be required on the access driveway at the site (from the photograph it is not clear to us if this area supports native vegetation or not).”***

The access to the site will be via the existing crossover to the property. Once inside the property it will then “hook left” in an opening along the internal driveway – the appended *Feature and Level Survey clearly illustrates the proposed access route’s separation from any established trees internal to the site.*

The proposed development is to occur on land that has been extensively cultivated for continued agricultural uses – most recently cropping – as shown on the below photograph taken in April 2020. Accordingly, the site is largely cleared of vegetation.

To confirm this, ACEnergy have undertaken a site inspection of the subject areas, and we hereby attach a photographic compilation of this site inspection which clearly illustrates the absence of any further native vegetation and complements the more nuanced ecological assessment undertaken by White Gums Ecological Consultancy.



Figure 13. Proposed Site – from north west corner of proposed facility
Cleared of native vegetation

8.5.3 Land Adjacent to a Road Zone (Clause 52.29)

Pursuant to Clause 52.29-2 of the Northern Grampians Planning Scheme, a permit is required to create or alter access to a road in a Road Zone, Category 1.

Whilst the proposal does not seek to physically alter the existing access, established VCAT case law has established that a change of land use on a property requiring access to a RDZ1 constitutes a variation of access via the planning process.



Figure 14. Existing Site Access to RDZ1 – Western Highway



Figure 15. Existing Road Conditions – 4785 Western Highway

As a result of the above permit trigger, ACEnergy engaged Traffic Works to undertake a Traffic Impact Assessment (TIA) of the proposal, which has been attached as **Appendix B** to this report.



In noting the proposed use and development would be an un-manned facility, the outcome of the TIA included two (2) **recommendations**:

- ... that detailed design of the driveway include the DoT requirements as set out in VicRoads standard drawing SD 2065.
- ... that a traffic management plan be prepared covering the key delivery phase, to include the use of a VMS on the southeast approach to the site access.

Owing to the un-manned nature of the solar energy facility, peak traffic would be generated during the three-month construction period. Accordingly, permanent turning lane upgrades or treatments are not considered to be appropriate and would amount to overinvestment that would serve limited benefit.

Consequently, as per the recommendations of the Traffic Impact Assessment, it is considered that the effect of the proposal on the operation of the road and on public safety would be negligible – subject to the above recommendations being implemented.

8.5.4 Renewable Energy Facility (Clause 53.13)

The relevant application requirements of Clause 53.13 are addressed at length within the relevant Sections of this report – most of which are contained within Section 5 to inform the “General Project Considerations” and provide clarity around the considerations of the proposal.

8.6 General Provisions

8.6.1 Decision Guidelines (Clause 65)

The matters set out at Section 65 of the Northern Grampians Planning Scheme are addressed in various sections of this report. The proposal has been assessed to be in accordance with all relevant guidelines.

The holistic considerations of the proposed renewable energy facility; primarily the weighing of the competing objectives of preserving agricultural land and promoting renewable energy have been addressed in detail within the various sections of this report.

It is considered that the proposal represents a net community benefit through usage of marginal value agricultural land for the purpose of a renewable energy facility in a location that would have limited impact on the surrounding area.

8.7 Recent Changes to Planning Policy

8.7.1 VC157 Utility Installation Changes

In March 2019, the Victorian State government introduced Amendment VC157 to the Victoria Planning Provisions (VPPs) to provide additional consideration to the planning process for renewable energy facilities.

Specifically, the stated intention of VC157 was *“to require planning approval for power lines to connect new large-scale electricity generation facilities to the electricity network”*.

Functionally, this amendment removed the exemption for power lines as ‘**Minor Utility Installations**’ where they are *“directly associated with an Energy Generation Facility”*. However, the proposed power lines in the application-at-hand remain under the umbrella of the renewable energy facility as the activity area remains on land within common ownership and is therefore consistent with the definition of a **Renewable Energy Facility** as:

- *“Land used to generate energy using resources that can be rapidly replaced by an ongoing natural process... It includes any building or other structure or thing used in or in connection with the generation of energy by a renewable resource”*

8.7.2 VC161 Responsible Authority Changes

As of September 2019, Amendment VC161 changed the responsible authority for solar energy facilities greater than 1MW from the local Council to the Minister for Planning.

Consequently, in accordance with Clause 72.01 of the VPP’s, we hereby make application to the Minister for Planning as the responsible authority.