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ISO 9001 Certified Quality Management Systems
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Statement of Environmental Effects

Electricity Generating System (Solar Farm & Battery Storage)

GREEN GOLD ENERGY

821 Wallamore Road, Wallamore

Ref: 23202

Ver. 2 | February 2025

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Contents

5MW Solar Farm & BESS
821 Wallamore Road, Wallamore

Version Control

Version	Description	Author	Approver	Date
Draft	Initial Draft	CH	DL	-
1	Final	DL	DL	13/11/24
2	Access; Swept Paths & OSOM	DL	DL	06/05/25
3				

1 Introduction

1.1 Overview

This Statement of Environmental Effects (SEE) has been prepared by Chris Smith & Associates for Green Gold Energy – referred to herein as "Green Gold". The proposal is for *electricity generating works* (a 17-hectare solar farm and ancillary battery energy storage system (BESS)) on a property with a total area of approximately 53 hectares at 821 Wallamore Road, Wallamore. This proposal involves the development of a single transferrable parcel – referred to herein as "subject site".

The proposed facility is designed to provide approximately 5 MW (megawatts) of electricity to the local distribution network. To generate this electricity, the proposal would occupy approximately 17 hectares of land to the north of the farmer's property, while leaving the remainder of the farm as-is for ongoing agriculture.

The proposed development also seeks to use as much of the existing farming infrastructure (namely the existing accessways and creek crossing), to avoid unduly impact the existing farming operations on the property.

The subject site has been selected based on its suitable attributes, in accordance with the NSW Renewable Energy Action Plan 2018, in proximity to identified potential priority Energy Zones. Accordingly, this site represents an ideal connection opportunity to nearby transmission lines.

The Tamworth Regional Council is located within a region which presents an excellent opportunity for a regional municipality to capitalise upon and become a key player in the growth of the renewable energy industry due to its strategic geographical location and availability of grid connections.

This report is prepared in accordance with the various planning instruments and other planning controls that are relevant to the proposal. Consequently, this SEE provides an assessment and response under each of the respective sub-headings throughout the report. Key reference documents used to guide the site selection and design process for this proposal are:

- NSW Renewable Energy Action Plan 2018
- Tamworth Local Environmental Plan 2010
- Tamworth Development Control Plan 2010
- New England North West Regional Plan

The proposal is supported by the below-listed assessments, plans and documents:

- **Visual Impact Assessment**
  (by EMM, Ref. E221117, Ver. 3)
- **Bushfire Management & Emergency Response Plan**
  (by Harris Environmental Consulting, Ref: 6771BF)
- **Biodiversity Test of Significance Report**
  (by Red-Gum Consulting, Ver. 1)
- **Aboriginal Cultural Heritage Due Diligence Assessment**
  (by Red-Gum Consulting, Ver. 2)
- **Construction Environment Management Plan**
  (by Green Gold Energy)
- **Traffic Impact Assessment Report**
  (by Traffic Works)
- **Plans of Proposed Development**
  (by Green Gold Energy)

1.2 Development Classification under EP&A Act

Private infrastructure, including electricity generating facilities that have a capital investment value of over $5 million, is declared regionally significant in *SEPP (Planning Systems) 2021*

However, as the proposed solar farm and BESS has a *ESD of $4.829* million, it is therefore identified as **Local Development**.

This proposal *is not* classified as Designated Development under Section 4.10 of the Act.

As the proposed vehicle access to the site will use the existing concrete crossing over the Tangaratta Creek, the proposed development *is not* considered to be Integrated Development pursuant to the provisions of Section 4.46 of the EP&A Act and Section 91 of the Water Management Act 2000.

1.3 Scope of Statement of Environmental Effects

This Statement of Environmental Effects (SEE) accompanies a development application for the proposed development. On behalf of the applicant and includes the matters referred to in Section 4.15 of the *Environmental Planning and Assessment Act 1979,* and the matters required to be considered by the consent authority.

When considering the application, the consent authority will have regard to Section 4.2 of the Act which states:

"4.2 Development that needs consent

(1) General

If an environmental planning instrument provides that specified development may not be carried out except with development consent, a person must not carry the development out on land to which the provision applies unless:

(a) such a consent has been obtained and is in force, and
(b) *the development is carried out in accordance with the consent and the instrument."*

The purpose of this SEE is therefore to:

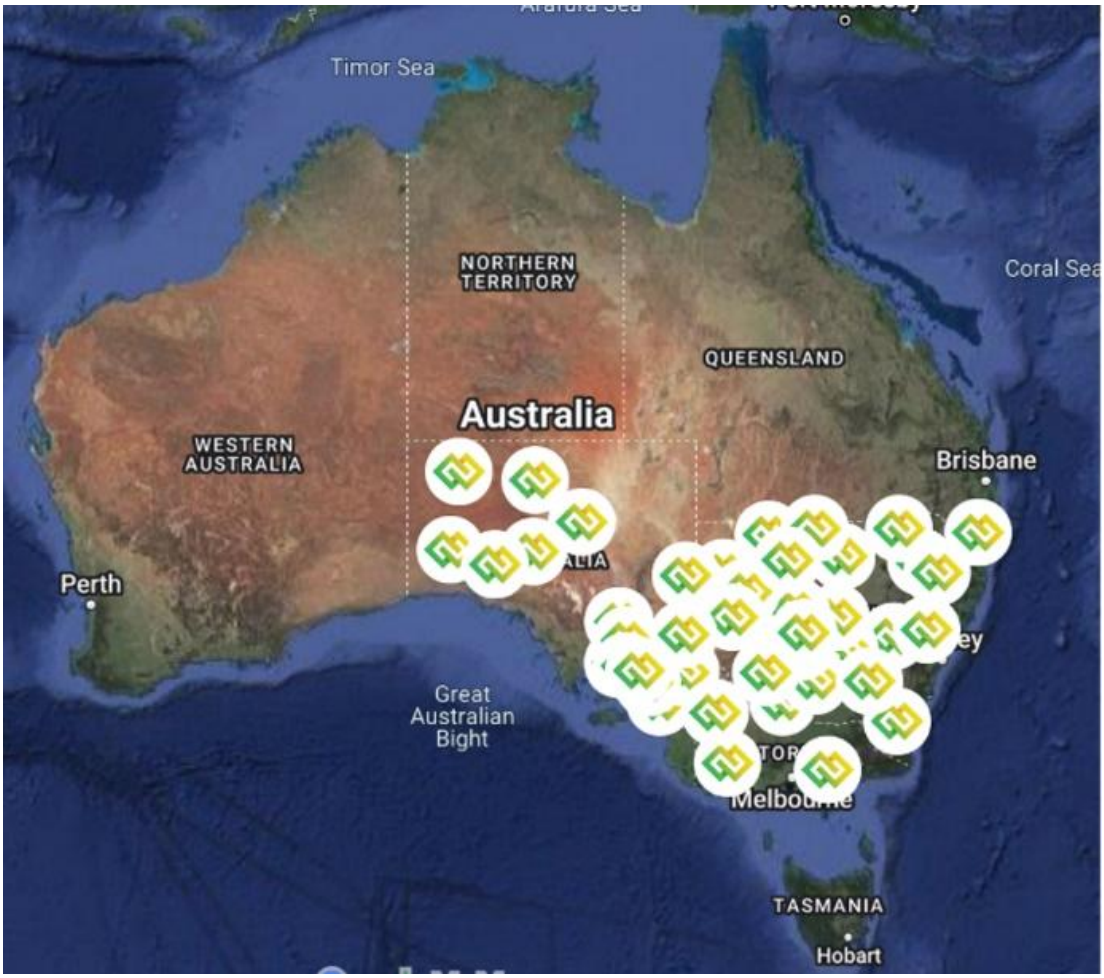
- Seek Development Consent from the relevant consent authority;
- Describe the land to which the DA relates and the character of the surrounding area;
- Outline the scope and intention of the proposed development;
- Define the statutory planning framework against which the DA is to be assessed and determined; and,
- Assess the proposed development in the light of all relevant heads of consideration.

2 Green Gold Energy – Company Profile

Green Gold Energy is an Australian company, based in Adelaide, that specialises in the development, construction, operation, and general contracting of renewable energy projects.

GGE have successfully developed projects in South Australia, Victoria and New South Wales, as shown below.

Fifteen of these projects are currently in operation, whilst the rest are under development. Green Gold has a current development pipeline of over 1.1 GW of solar and 1.2 GWh of Battery Energy Storage Systems.



Location of Green Gold Energy's solar farm and BESS projects

3 Application Details

The decision by Green Gold to develop any solar energy facility in New South Wales is based on a sound business model, including consideration of the region's solar access, its trunk electricity network infrastructure and the region's desire for clean, efficient, and affordable electricity.

The subject site was secured by Green Gold because it provides attributes conducive for solar facilities, as well as being proximate to existing 22kV powerlines and a farmer who wants to capitalise on the transition to solar energy. Given that the subject site and surrounding area is within the RU1 zone, the site is considered to be compatible with agriculture in the context of the development of a solar farm.

The site is considered to have the required physical and electricity network attributes – a flat open site, adjacent powerlines that have the capacity to accept electricity generated by the facility and that can feed into the nearby electrical substation for use by the community – an agreement to lease the site was entered into with the farmer.

Site visits and environmental assessments have confirmed the development site's suitability, including being cleared of any native vegetation and have mapped any areas of environmental sensitivity. Accordingly, it is submitted that a detailed and balanced

approach to all relevant site and planning considerations has been undertaken to provide a sound planning proposal, as set out in this report and supporting documents.

4 Strategic Context

Australia has the highest average solar radiation per square metre of any continent in the world. NSW has an abundance of excellent solar resources and established electricity infrastructure that, along with declining technology costs, that makes it an attractive location for solar energy development.

In the strategic context, solar energy projects provide an opportunity to:

- Contribute to NSW achieving net-zero emissions by 2050 as set out in the NSW Climate Change Policy Framework
- Deliver on commitments in the NSW Renewable Energy Action Plan
- Support Australia's commitments to reduce greenhouse gas emissions
- Contribute to any Commonwealth renewable energy targets
- Assist in meeting energy demand and improving energy security for NSW.

4.1 NSW Renewable Energy Action Plan 2018

The *NSW Renewable Energy Action Plan* outlines a comprehensive framework to achieve renewable energy targets by 2030 and details the opportunities and actions underway for renewable energy technologies in NSW.

The Plan also details three goals and 24 actions to facilitate the emergence of renewable energy generation most efficiently in NSW:

- Attract renewable energy investment and projects
- Build community support for renewable energy
- Attract and grow expertise in renewable energy technology

The Renewable Energy Plan identifies that NSW has a range of competitive advantages as a location for solar power investment, including excellent solar resources and world-class solar research institutions.

The proposed development represents a step for NSW towards a renewable energy future, on land that is currently used for moderate agricultural use and contains limited identifiable biodiversity value.

The development would not require removal of established native trees or significant habitat and would provide a regional municipality with access to affordable renewable energy.

4.2 Tamworth Blueprint 100

4.2.1 Our Community Plan 2023-2033

Tamworth Regional Council's Community Plan is the major strategic document to guide the delivery of services and facilities over the next decade. It contains several focus areas, each containing priorities, strategies, and measures of success.

Focus area six (6) is "Working with and protecting our environment", which contains a priority to *"Increase the take up and use of affordable and clean energy across the region."*

The proposal supports this priority by producing and storing renewable energy for use by the local community.

4.2.2 Part 1: Overall Strategy

The Tamworth Regional Blueprint 100 provides a roadmap to take the Tamworth Region towards its vision of a prosperous economy and high living standards with a population of 100,000 people.

The Blueprint encompasses the Local Strategic Planning Statement (Part 2) and the Growth Management Strategy (Part 3), as well as other council initiatives. The Local Strategic Planning Statement was published in 2020 and the Growth Management Strategy is currently under development.

Priority 3.4 of the Blueprint acknowledges that Tamworth is the centre for the production and processing of beef, lamb and poultry products for supply to the whole of New South Wales and that the presence of existing grain, livestock, feedlots, sale yards and processing facilities provides a competitive advantage to producers in the sector. It is also identified that the meat and food processing sector has significant potential to expand its meat processing capacity and increase its expertise in providing high-tech agribusiness solutions.

The proposal supports Tamworth's primary industries by generating and storing renewable energy to the local area via the existing transmission network. Thereby providing cheaper, locally generated electricity.

4.2.3 Part 2: Local Strategic Planning Statement (2020)

The Tamworth Local Strategic Planning Statement (LSPS) is the core strategic planning document for Council for the next 20 years. The strategy contains seven (7) themes, each of which contain actions:

1. Facilitate Smart Growth and Housing Choices
2. Create a Prosperous Region
3. Build Resilient Communities
4. Connect Our Region and its Citizens
5. Design with Nature
6. Celebrate our Culture and Heritage
7. Deliver Durable Infrastructure

One of the actions under theme five is to *"Complete and utilise mapping for flooding, bushfire hazards, vegetation and biodiversity and support renewable energy initiatives".*

The proposal is a renewable energy facility and is generally in accordance with the LSPS.

4.3 Tamworth Tomorrow Economic Development and Investment Strategy 2022-2026

Tamworth Regional Council's Economic Development and Investment Strategy is based around eight economic priorities, identified via stakeholder engagement and

economic research. One of the priorities is “The Renewable Economy”, which contains the following four strategies:

1. Promoting engagement with emerging 'renewable economy' trends, to facilitate local economic growth and diversification.
2. Facilitating the growth of renewable energy production and consumption in appropriate locations around the region.
3. Collaborating with other governments and the private sector to attract 'renewable economy' investment and jobs to the region.
4. Supporting growth and development of the region's 'circular economy'.

The proposal is generally in accordance with the priority and supporting strategies as it will produce renewable energy for use by the local community.

4.4 New England North West Regional Plan 2041 (2022)

The New England North West Regional Plan 2041 is a 20-year blueprint for the future of the region. The plan contains 22 objectives grouped under the following five broad themes:

- Part 1: Growth, change and opportunity
- Part 2: Productive and innovative
- Part 3: Sustainable and resilient
- Part 4: Housing and place
- Part 5: Connected and accessible

Objective 2: Protect the viability and integrity of rural land

The proposal is located on rural land which is currently used for grazing. After construction is complete, the landowner will be offered a lease option to use the land within the perimeter fence for grazing. If this occurs, the proposal will not remove agricultural land from production.

The facility will operate for about 30 years. After it has been decommissioned, the land will be able to be used for agriculture or another suitable land use, after the site has been fully remediated to pre-development conditions.

Objective 3: Expand agribusiness and food processing sectors

The proposal is located within an intensive poultry farming area, with dozens of significant sheds within the immediate vicinity of the site. The proposal will indirectly support local primary industries by generating renewable energy and exporting it to the local 22 kV grid.

Objective 9: Lead renewable energy technology and investment

The proposal is generally in accordance with Objective 9 as it provides a development opportunity for a renewable energy facility that is located in a low amenity area – characterised by poultry sheds and other typically bulky rural industries that would largely screen the proposal. Thus, the proposal represents an appropriate location that would not lead to undue cumulative impacts on the area.

Overall, the proposal is in accordance with the objectives of the New England North West Regional Plan.

5 Design Considerations

The Large-Scale Solar Energy Guideline (LSEG) was published in December 2018, in response to the NSW's transition to renewable solar energy sources. Although *these Guidelines apply to* ***State Significant Development****, only*. Nevertheless, the general themes of the Guidelines are useful for informing the site considerations and best practice design.

With many projects under way and many others being planned, the NSW Government has been proactive in providing a framework for the assessment, design, operation, and determination of State significant large-scale solar energy projects under the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This guideline aims to ensure that:

- impacts are assessed with best practice methods and in a consistent manner
- effective stakeholder engagement is undertaken that encourages community input on solar energy development
- there is a balance between attracting investment and considering the interests of the community.

These Guidelines set out best practice advice for developers of solar energy facilities in NSW, including recommendations for community consultation, design, consideration of off-site impacts, construction, operation, and decommissioning. In addition to the details throughout this report, the considerations and application requirements set out in the Guidelines have been grouped and responded to under the following sections.

5.1 Identifying Suitable Locations

New South Wales has excellent access to solar energy, and the New England North West region is a prime candidate to see local renewable electricity generation for the use and benefit of its local residents.

Accordingly, Green Gold has embarked on the process of securing a suitable site in NSW for the development of a solar farm. Factors such as land availability, proximity to the electricity network, accessibility, topography, and site constraints are all key considerations when first looking for potential sites.

5.2 Visual Impacts and Site Context

The proposal is for a 5 MW facility that will occupy approximately 17 hectares of the 53-hectare parcel. Aside from the 10-metre-wide accessway to Wallamore Road, the parcel is otherwise land locked and the development would be limited to only a proportion of the total property.

The closest parcel boundary to the development site is approximately 350 metres to the north of the subject site at **120 Byamee Lane, Wallamore**.

The closest road to the development site, being the Oxley Highway, is over 500 metres away and is shielded by vegetation belts and existing poultry farms.

Accordingly, in consideration of the nature of the proposed facility and physical separation to any nearby facilities, the development would not lead to any undue cumulative visual impact on the surrounding area as a result of the proposed solar panels.

The visual impact of the facility has the potential to be further softened through the use of landscape screening, as well as existing vegetation along active/visible frontages. However, given that the proposed solar farm will be sited in a central paddock, the visual impact will be distant to any neighbouring properties and roadside views.

Accordingly, it is submitted that when viewed in the context of their surrounds the cumulative impact of the approved and proposed solar facilities, in terms of both land use and visual impact, is minimal.

5.3 Traffic Management

The peak of construction activities will occur during the mechanical and electrical installation phases of construction. During these times, up to 20 workers could be on site during working hours. Workers will access the site in the morning and leave at the end of the working day in either their private car or work vehicle (ute or small truck). It is anticipated that there will be some car-pooling, therefore it is expectant that **up to 20 cars/utes** would be accessing the site during the height of the construction period.

A Construction and Environmental Management Plan has been prepared by Green Gold Energy. The direct road connection to the site is via Wallamore Road – a sealed road managed by the Tamworth Regional Council, which is accessed via a shared crossover and 10-metre-wide access.

Deliveries of components will be scheduled as required. Solar components (support system, trackers, panels and cabling) are delivered in pre-packed containers that are lifted from the delivery truck onto the lay-down area. The standardised nature of the equipment will mean that oversized transport vehicles are not required.

Outside of the construction period, the facility will be un-manned, other than intermittent periodical maintenance. The site will be remotely monitored in real time and local contractors would be rapidly deployed to deal with any fault or other matter, which provides the added benefit of local jobs for the local community.

6 Site and Context Description

6.1 Surrounding Context

The subject land is approximately 10.5 kilometres northwest of the Tamworth town centre – estimated by direct measurement from the property boundary via aerial imagery. The surrounding area is predominantly a mix of dryland and irrigated agriculture, public land, and non-agricultural rural land uses. The land surrounding is primarily used for conventional agriculture – with intensive livestock farming, grazing and some cropping evidenced through historical imagery.

In the immediate vicinity of the site there are several intensive poultry farms, along with the associated vegetation screening and security measures. The notable land features relative to the site are summarised below:

North and West:

The land to the north and west of the site is typified by a mix of agricultural properties, typically with limited dwellings. However, there is a notable cluster of half a dozen dwellings at the intersection of the Oxley Highway and Byamee Lane.

The Oxley Highway is approximately 500 metres west of the site, which serves as the principal arterial road between the Gunnedah and Tamworth regional centres. The

prevailing agricultural land use in the area is dryland grazing, however, there are some irrigated properties – particularly along the Peel River corridor – several kilometres north of the site.

Oxley Highway (Google Streetview)
Subject site in background of photo

South and East

Directly east of the subject site is the Tangaratta Stockfeeds feed mill – which is a major rural industry that directly supports local primary producers. Reflecting the scale of the facility, the site has vehicle access that supports large truck movements to and from Wallamore Road.

Existing property access from Wallamore Road
Tangaratta Stockfeeds silos visible on left

Wallamore Road is approximately 1.3km east of the proposed solar farm, whilst the Peel River is a further 700m east beyond Wallamore Road. The Peel River serves as a significant riparian corridor, and comprises significant tracts of established vegetation.

Beyond the Peel River, approximately 3.5km east of the proposal, there are a cluster a rural living and residential lifestyle properties settlements within the Hallsville locality.

To the south of the site, the Tamworth Regional Airport is the prominent land use, with the primary runway approximately 3km south of the proposed solar farm at the nearest point. Between the proposed development and the airport, there are several non-agricultural uses – notably the Oakburn Motorsports Complex and the Tamworth City Speedways, both of which are accompanied by substantial landscape screening.

There are also a range of rural industries to the south of the site, including a rendering plant as well as the Westdale industrial area along Goddard Lane.

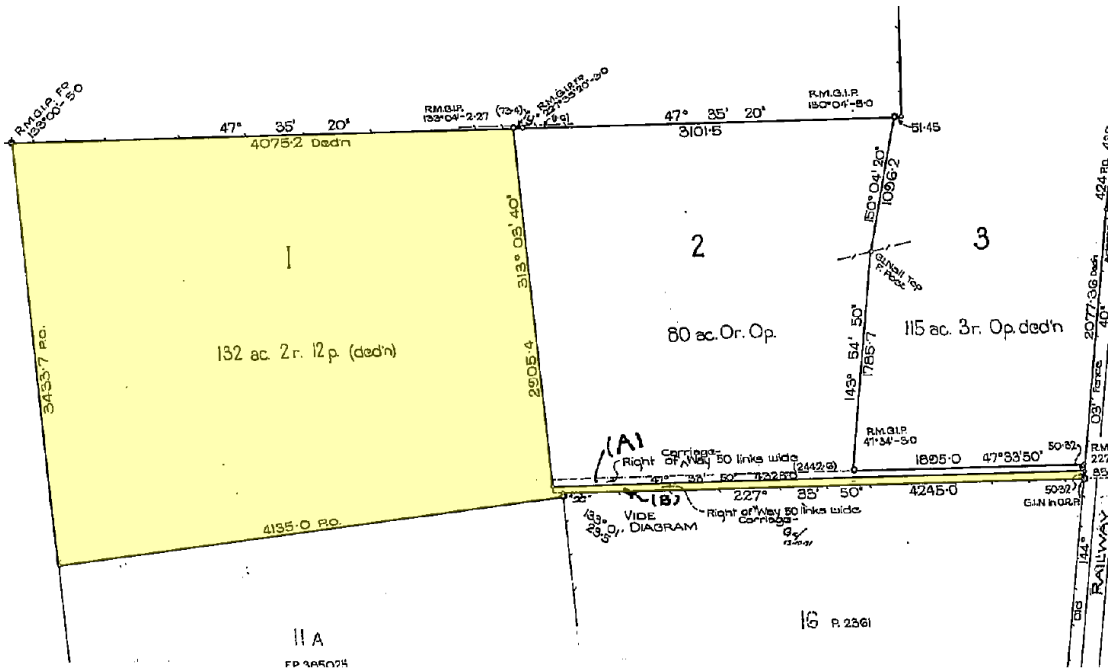
Tamworth locality (Source: SIXMaps)
Showing aerial context of the subject site, 821 Wallamore Rd, Wallamore, property shaded yellow.

The site is proximate to existing overhead powerlines which run within the existing property – to the west of the proposed facility – which will provide an immediate "plug-in" connection to the Essential Energy grid.

6.2 Subject Site

The proposed solar facility is to be built on an existing farming property addressed at 821 Wallamore Road, Wallamore. This property is on a single transferrable parcel with a total area of approximately 53 hectares. The subject site is largely cleared with some remnant vegetation around waterways, tracks, and paddock fence lines.

821 Wallamore Road, Wallamore (Source: ePlanning Spatial Viewer)
Extent of property outlined in red solid line, approximate development extents (including access) shaded yellow



Site Cadastral Context
Excerpt from DP552296 – Subject site shown as Lot 1

Green Gold has agreed to terms with the current farmer to lease a portion of the parcel to develop it for a solar farm (see below figure) – for a period of approximately thirty (30) years.

The site has several water courses including the Tangaratta Creek running north-east to southwest through the property which divides the property into two. Accordingly, this proposal relates to the balance of the property on the northern portion of the parcel. Existing vehicle access is available via an extended driveway on Wallamore Road.

The remaining area of the property are not considered to form part of this Development Application and will continue to be farmed in accordance with the existing rural uses.

The proposed facility will occupy approximately 17-ha of the 53-ha parcel – as illustrated in the above figures. The remaining land outside the facility's fence will remain "as is" and will be managed seasonally in accordance with the ongoing agricultural use of the farm.

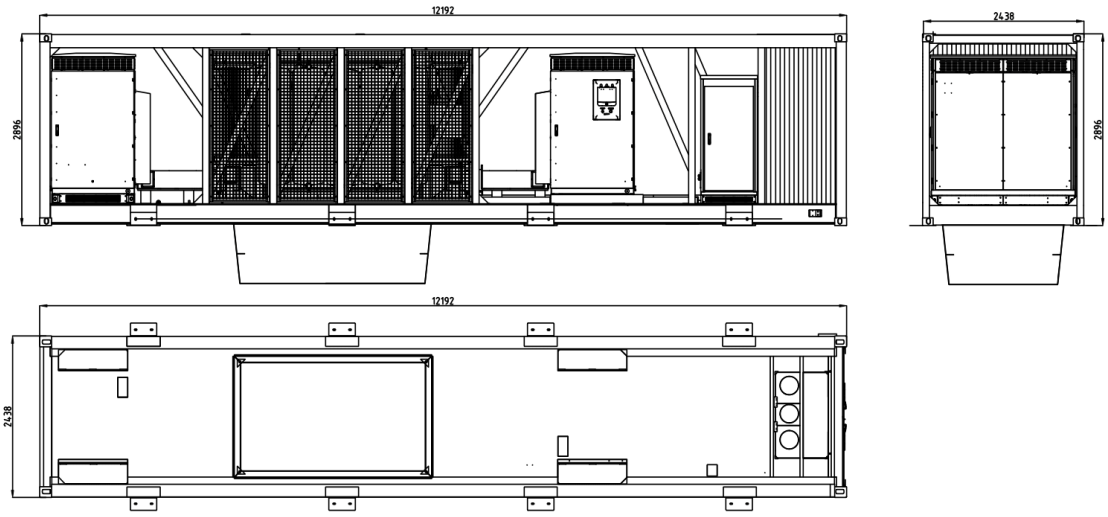
7 Proposal

7.1 Facility Equipment and Componentry

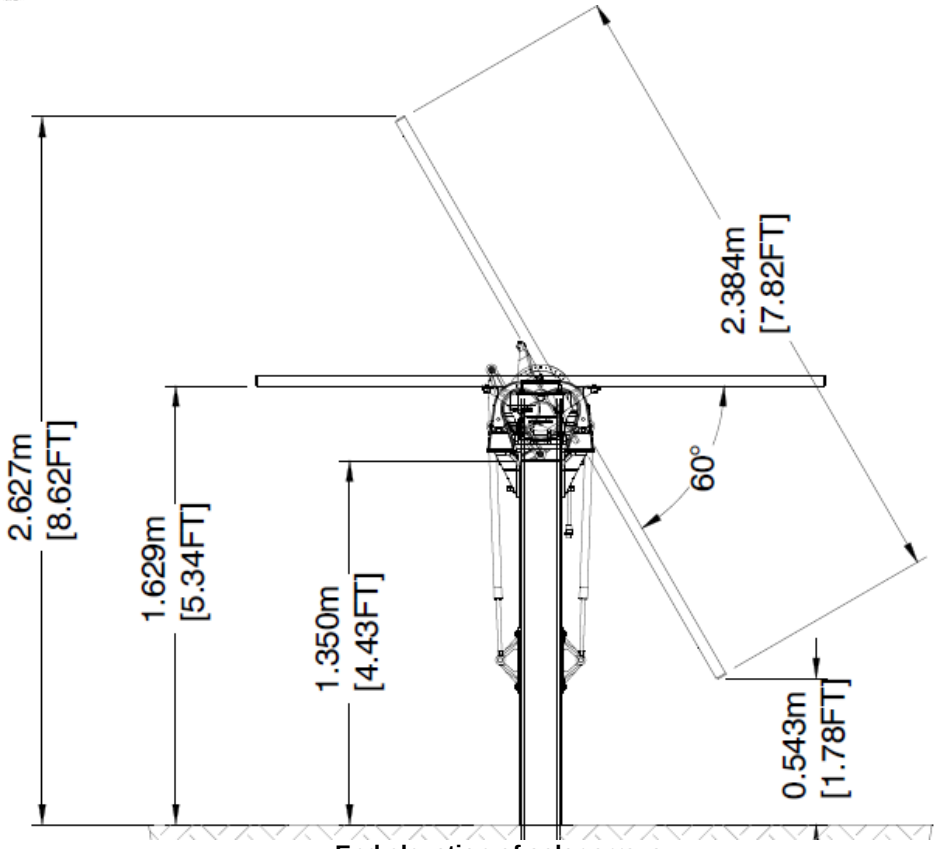
This application seeks Development Approval to develop approximately 17 hectares of land at 821 Wallamore Road, Wallamore for a **5 MW solar facility (including battery energy storage system)** – as shown on the below plans and figures.

Specifically, the solar farm will consist of:

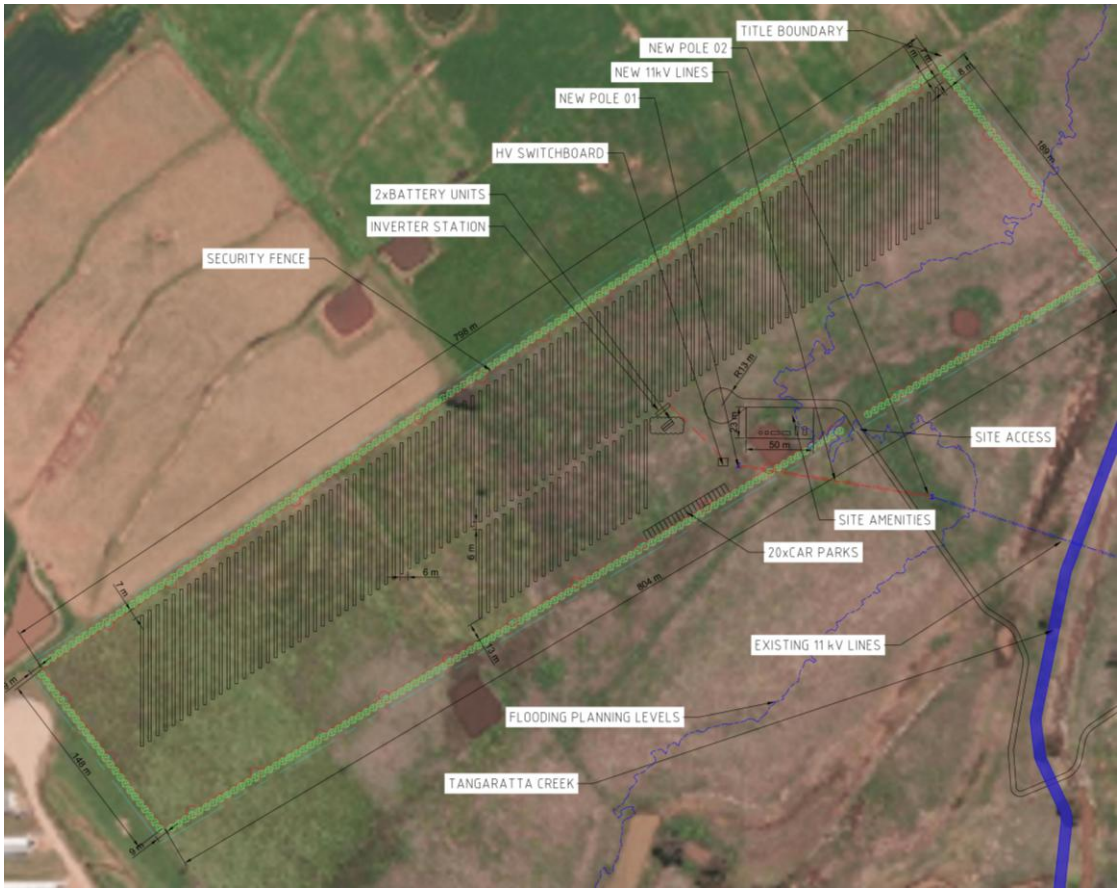
- **Approximately 12,000 solar panels**, mounted on single axis tracking arrays, each having the following specifications:
  - Nominal dimensions of 2.84m by 1.13m
  - Maximum height of 3.7m above ground (when at maximum rotation)
  - The panels will be arranged in **44 individual rows**
- **2.25m high chain mesh perimeter fence** around entire perimeter of facility, with two gates; one along the southern boundary and one to the northwest corner.
- **One (1) central inverter**
- **Two (2) battery energy storage system** (BESS) units
- **Two (2) power poles & overhead lines**
- **Upgrade/maintenance works to existing access track** and creek crossing



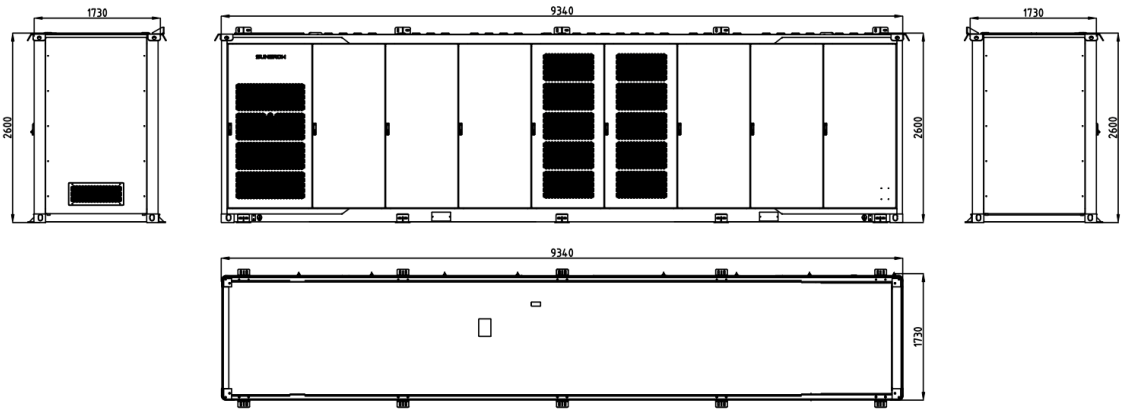
Proposed Inverter Dimensions
By Green Gold Energy



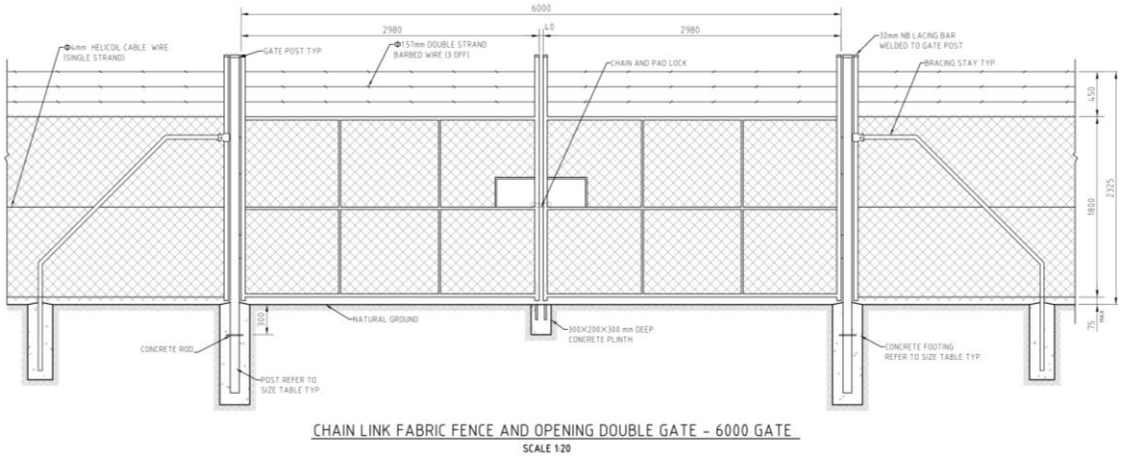
End elevation of solar arrays
Prepared by Green Gold Energy



Proposed Site Plan – 821 Wallamore Road, Wallamore
Solar farm location within green boundary



Proposed BESS Unit Dimensions
Green Gold Energy



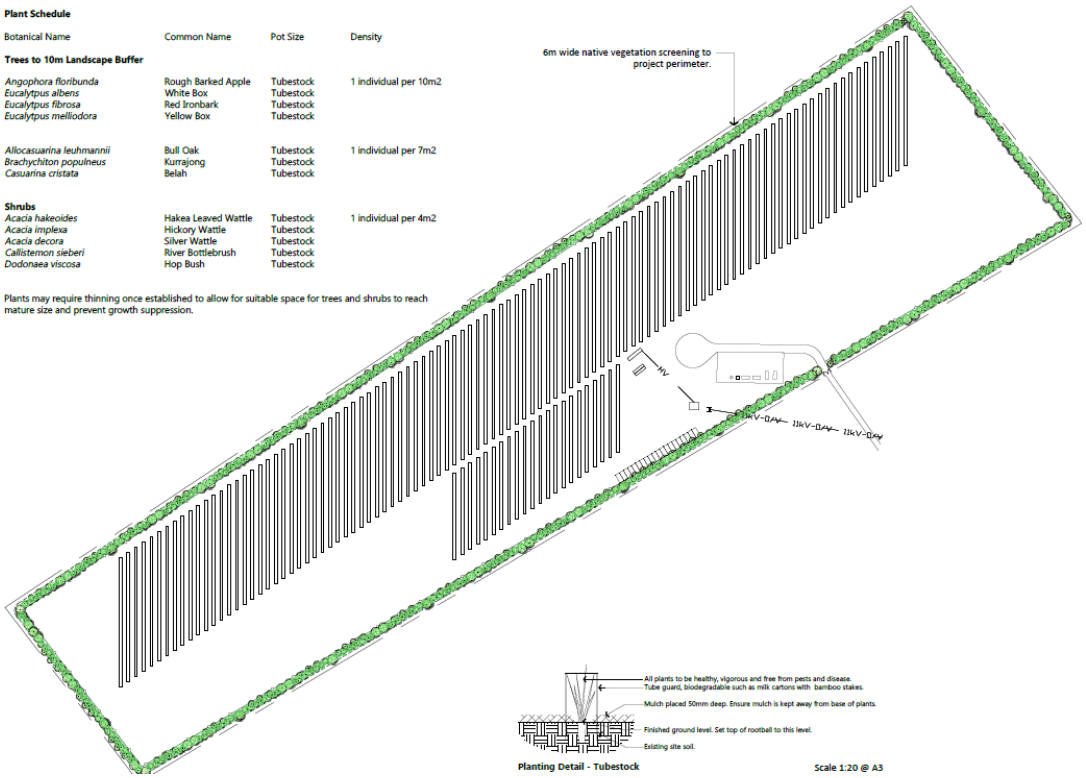
Fencing Elevations
By ACE Microgrid

7.2 Landscaping

The facility has several neighbouring agricultural properties adjoining to the proposed development area. It is considered this proposal is appropriate for the site and surrounding context as there are many intensive agricultural operations not in common ownership within the immediate surrounds.

Notwithstanding, a landscaping plan has been prepared with this application, expressly to demonstrate that the potential design allows for landscaping to occur – subject to negotiations between Green Gold and the landholder. The potential landscaping would use a fast-growing species indigenous – as outlined in the appended **landscape plan** prepared by EMM Consulting.

However, in considering the limited potential for visual impacts – due to the significant existing surrounding context – it is considered that this solar facility is sited in a location where limited landscaping is required, but can nevertheless be provided, subject to the discretion of the consent authority.



Proposed Extents of Landscaping
Landscaping shown relative to the solar farm

8 Development Details

8.1 Construction Phase

Once built, the facility will remain largely static (with the exception of tracking arrays) and largely unmanned. Accordingly, the construction period will be the most impactful period of the facility's lifespan. However, it is for a short finite period and – if managed appropriately – impacts can be controlled to an acceptable level.

The ***Construction Environmental Management Plan*** by Green Gold Energy Pty. Ltd. – attached herewith details the following expectant parameters:

> ***Stage 1 – Early works*** *consisting of piling tests, road construction and upgrades for site access, including road widening and paving. During this stage, the number of workers on site should be up to 10.*
>
> ***Stage 2 – Civil works*** *consisting of land clearing, levelling and earthworks, internal road construction, drainage installation, laydown area preparation, fencing installation, site establishment, preparation of delivery station and inverter station, and vegetation screening/landscaping. There should be 3-5 workers on site to carry out civil works.*
>
> ***Stage 3 – Mechanical works*** *consisting of foundation piling (ramming and auguring), tracker installation, module installation and delivery. There should be 10-15 workers on site to carry out mechanical works. Delivery of tracker piles and modules will be scheduled before piling and mechanical installation commences.*
>
> ***Stage 4 – Electrical works*** *consisting of solar cabling of aerials and conduits, DC main cabling via direct burial, MV cabling from inverter station to delivery station through direct buried, module connection, connection of junction boxes-inverters-*

delivery station, connection to grid and finally testing and commissioning. There should be 10-20 workers on site to carry out electrical works. Delivery of all electrical equipment including cables and accessories will be scheduled across this stage.

It is anticipated that all components will be delivered in containers – typically by semi-trailer trucks and B-doubles and deliveries will be scheduled across the nine-month project construction period. There would be no requirement for oversized vehicles to be used during construction.

The Construction Environmental Management Plan sets out how construction activities will be carried out, including site logistics, operations and equipment to be used, construction hours and site management.

The proposed solar array system requires minimal earthworks, limiting the propensity for environmental impacts.

Deliveries of components will be scheduled across Stages 2, 3 and 4, as required. Solar components (support system, trackers, panels and cabling) are delivered in pre-packed containers that are lifted from the delivery truck onto the lay-down area.

The local road network will ultimately connect to the state-managed arterial road network for traffic to and from the site.

8.1.1 Construction traffic management

The peak of construction activities will occur during the mechanical and electrical installation phases of construction. During these times, up to 20 workers could be on site during working hours. Workers will access the site in the morning (and leave at the end of the working day in either their private car or work vehicle (ute or small truck).

The standard hours of operation are:

- **6:00am** to **6:00pm** Monday to Friday
- **6:00am** to **2:00pm** Saturday; and

Work outside of these hours would only occur if:

- Agreed and approved by the proponent
- Activities do not cause a noise nuisance to any neighbouring residential buildings
- Emergency work to avoid loss of lives and/or property
- Delivery of materials which are outside of hours due to safety reasons and request by police or other authorities

Materials deliveries will also occur throughout the construction period, with most components coming in during the mechanical works phase. Deliveries will B-double or semi-trailer and will be scheduled throughout the working day, to ensure efficient unloading and handing. It is anticipated that there will **up to 6 truck deliveries** per day during the height of the construction period.

The road network surrounding are all-weather sealed roads, capable of heavy vehicle access. The proposed solar farm and battery storage equipment is pre-fabricated, and would be capable of shipping in standard freight. Consequently, there is no requirement for oversized vehicles at any stage of the construction lifecycle.

8.2 Operation Stage

Beyond the nine (9) month construction period, the facility will be largely unmanned, other than intermittent periodical maintenance. There is no intention to store any dangerous goods on site.

The site will be remotely monitored in real time and local contractors would be rapidly deployed to deal with any fault or other matter, which provides the added benefit of local jobs for the community.

Considering that the proposed facility will be unmanned, with limited moving componentry (other than the tracking arrays), it is considered that it will have a very minimal impact on the landscape and surrounding road network.

From past project experience, we are aware of community interest in the following matters in relation to solar facilities.

8.2.1 Electromagnetic Radiation (EMR)

Small amounts of electromagnetic radiation (EMR) can be produced (emitted) by electrical componentry associated with a solar facility such as inverter, transformers, and high voltage powerlines. However, the level of radiation dissipates quickly – becoming largely indistinguishable from background levels over distance from the componentry.

The electromagnetic field (EMF) produced around an electric installation is non-ionising, within a range that exists in our daily lives from natural sources (which are most noticeably manifested in lightning discharges) and from appliances and electrical devices that surround our daily lives.

EMR from these types of components dissipates to indistinguishable levels over about 5-to-10 metres. The inverter is centrally located within the facility.

8.2.2 Heat Island Effect

In some instances, the community has raised concern for the potential of a “heat island effect” being created by solar facilities. This is where ambient temperatures are artificially raised by reflective heat from the facility, which could have impact on adjacent sensitive vegetation or horticultural operations.

Various studies have been undertaken and assessments presented as evidence for other contested solar facility proposals. As a result of these investigations, it was determined that any discernible impacts would be unlikely and would be quickly dissipated over a relatively short separation distance. Further, the facility is in the Primary Production Zone and would not have any significant impact on the neighbouring agricultural operations.

The proposed layout achieves a significant setback from any nearby properties – even greater when considering properties in the same ownership. Any “heat island effect” created by the proposal would have no discernible effects over these distances.

8.2.3 Environmental, Risk and Emergency Management

There are substantial elements of environmental management provided within the Construction Environmental Management Plan (CEMP) prepared by Green Gold Energy Pty Ltd.

The CEMP sets out the matters, to be approved before construction begins, such as site management, dust and sediment control during construction.

The proposed facility will be under constant surveillance by remote monitor in real-time. In the event of a fault or potentially dangerous situation an alarm will automatically report to 'on-call' staff. There will be no audible alarm at the facility. The procedures and protocols for these operational arrangements will be set out in an operational management plan, that will be an integral part of the operation of the facility.

The site is subject to planning controls pertaining to ground water vulnerability; however, it is considered that the proposed solar facility development is unlikely to have negative impacts on the ground water resources.

8.2.4 Site Access and Traffic Management

As set out above, during operation, the facility will be monitored remotely; there will be no permanent workers on site. The facility will remain largely unattended, other than periodical visits by maintenance contractors or the instance of a fault that requires site attendance.

These contractors will carry out seasonal site maintenance (slashing and ground fuel control, etc), cleaning panels and periodical visual checks of componentry and equipment. Accordingly, it could be weeks between site visits and most visits would be no more than one or two contractors in a single vehicle (likely a work ute), carrying out visual checks.

As access to the facility during the operational period would be only by instruction or appointment, there would be no situation where emergency egress would be likely, as the site would not be patronised during dangerous events (i.e. flood or fire events).

8.3 Waste Management

While there is no demolition to occur on the site, the construction waste generated will be limited to hole boring for pad footings, wire cut-offs and packaging waste.

8.3.1 Construction Phase

A project of this size is expected to have a construction period of nine (9) months. It is anticipated that all components will be delivered by semi-trailer or B-double trucks scheduled across the project construction period.

Accordingly, GGE have advised that their sub-contractor agreements stipulate that each trade is to manage and remove their own waste. This agreement should also ensure that the waste is appropriately streamed, and materials recycled where possible to minimise waste going to landfill.

8.3.2 Operational Waste

Once the solar facility is up and running, it will be remotely monitored and will be unmanned, therefore the waste generated during operational phase will be relatively low.

There will be a need for panel cleaning 1-2 times a year, mowing/weed removal as well as any general maintenance to ensure continue operation. It is anticipated that any operational waste will be limited to lunch wrappers and drink containers and any

supplies required for maintenance or repair, all of which will be taken away with the contractor when they leave the site.

8.3.3 Site Decommissioning Waste

Most components of the proposal have a 30-year design life expectancy. If retrofit or upgrade is not proposed at the end of the proposal's useful life, the plant components would be decommissioned and removed from the site.

8.4 Noise

All construction work will be carried out during standard business hours. The impacts of noise are not anticipated beyond the immediate vicinity of the solar farm.

The subject site is surrounded by large farming lots with sparsely located farm dwellings, although the predominating land use is commercial chicken sheds, which are anticipated to generate noise well beyond what would be expected from our solar farm.

The closest dwelling to the proposed development is approximately 350m from the proposed development area.

8.4.1 Construction & Decommissioning Phase

The noise issues would primarily and almost exclusively be centered around the construction and de-commissioning of the site, which can be suitably implemented through a construction management plan via permit condition – to the satisfaction of the responsible authority. In addition, the Construction Environmental Management Plan prepared by Green Gold Energy Pty. Ltd. – submitted herewith, outlines noise and vibration mitigation measures, which shall ensure the impacts are minimised.

Though the work will occur during the approved operating hours, there will be significant noise generated during the installation of fences and solar panels. Noise of a minor nature will be generated by movement of heavy vehicles and other construction equipment.

8.4.2 Operational Phase

It is anticipated that the proposed facility will generate negligible noise once it is operational. The facility will be unmanned and would see only limited active work – generally when contractors are present on site for maintenance purposes.

8.5 Decommissioning

The majority of components of the proposed facility (including panels) have a thirty-year design life expectancy. At this stage, the intention is to maintain/upgrade the facility over its life, as components wear out and new technology becomes available. Accordingly, the facility is likely to remain functional and operating into the foreseeable future.

However, should the facility's useful life end – for any number of commercial or practical reasons – the site can easily be remediated and reverted back to agriculture or converted to another use, as allowable under the planning provisions of the time.

The non-invasive mounting system makes decommissioning and removal of all panels and componentry a relatively simple process and would allow for the full remediation of the subject site to pre-development condition.

9 Statutory Framework and Assessment

9.1 Environmental Planning & Assessment Act 1979

The proposal is subject to the provisions of the *Environmental Planning & Assessment Act 1979* No. 203 (*"the Act"* herein). Under the Act, the consent authority is required to consider the full range of matters listed under Division 4.3, Section 4.15 of the Act in its assessment of a development application. Each of the relevant matters are addressed below:

Matters for Consideration – General

The consent authority must take into consideration:

(a) the provisions of:

(i) any environmental planning instrument, and

(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and

(iii) any development control plan, and

(iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and

(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph),

that apply to the land to which the development application relates,

(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,

(c) the suitability of the site for the development,

(d) any submissions made in accordance with this Act or the regulations,

(e) the public interest.

Accordingly, the proposal and potential impacts are now considered – in accordance with the above provisions of Section 4.15, under the following headings:

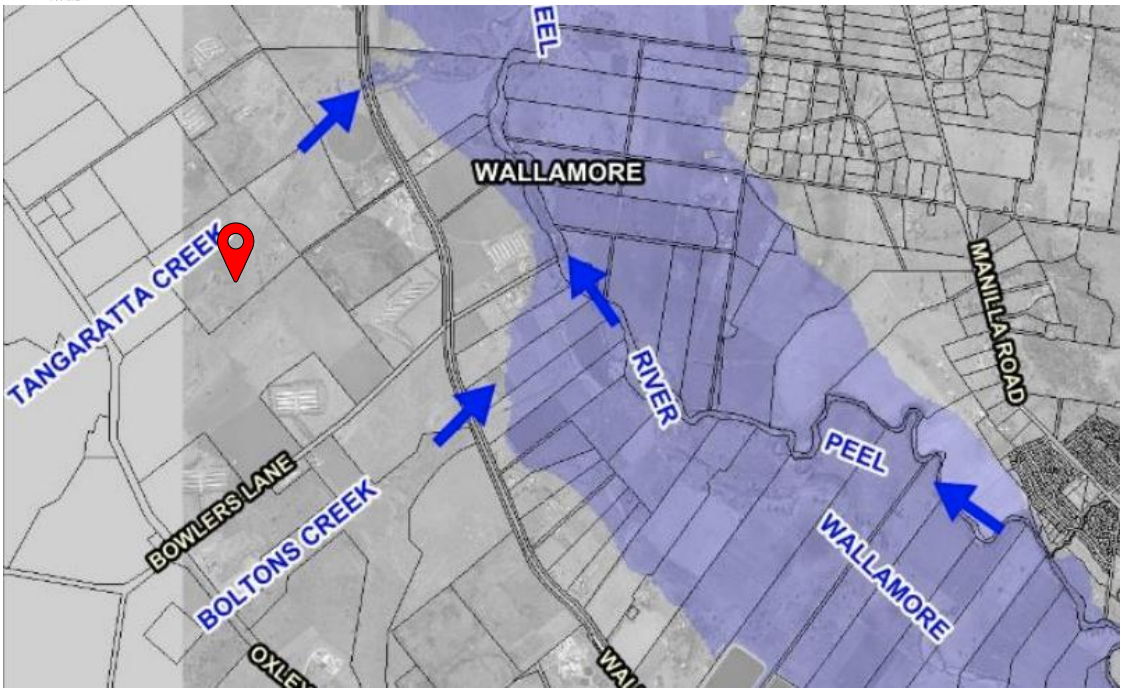
Impacts on the Natural Environment

The proposed development is to be undertaken on a property zoned RU1 for Primary Production, which consequently, is largely cleared for historical agricultural use. The proposal will therefore not require the removal of any significant vegetation.

The proposed development will seek to capitalise upon existing site disturbances and existing farming infrastructure (the existing concreate bride and farm access road) to minimise impacts to the Tangaratta Creek riparian corridor.

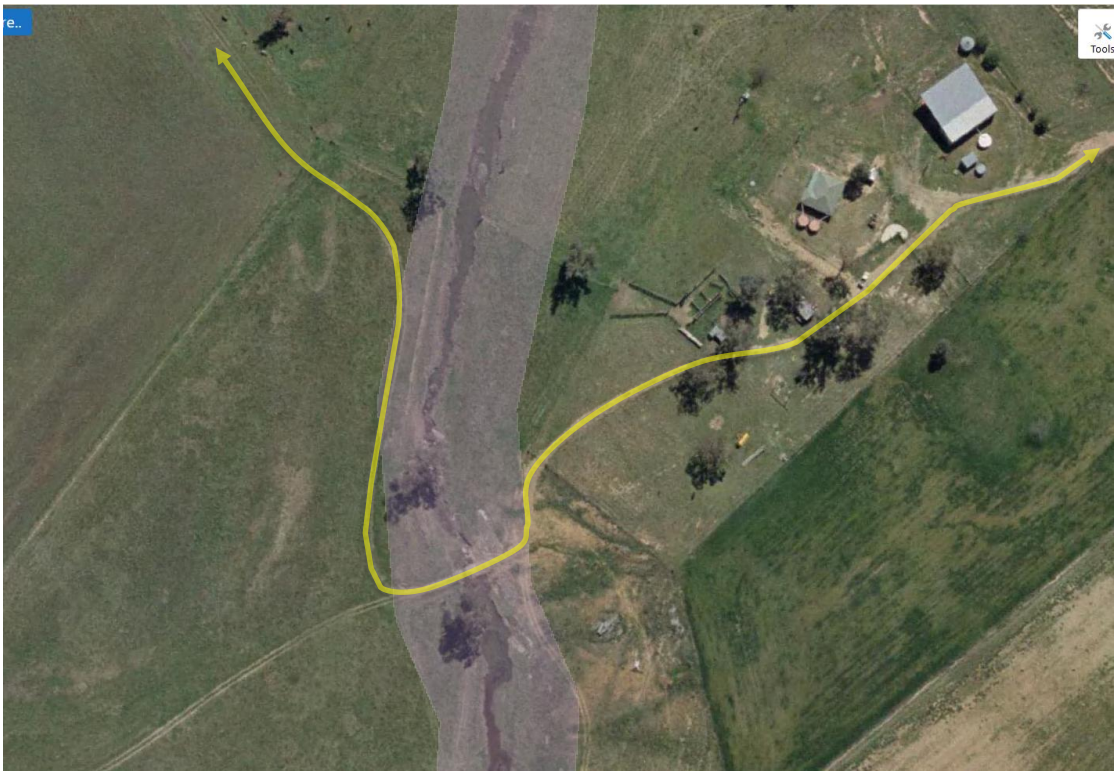
The current DA is accompanied by conceptual plans and relevant assessments to demonstrate that there will not be any undue detrimental impacts as a result of the proposal – either on-site or off-site. In considering the size and magnitude of the facility, as well as the flat topography of the site and the proposed built form, any adverse landscape impacts are considered to be unlikely

The site is not subject to any mapped Flooding. The below map of flood liable (extracted from Tamworth Development Control Plan) land within the Tamworth Regional Council.



Tamworth City-wide Flooding Investigation 2019
Subject Site identified by red pin – shown outside flood-liable land (shaded blue)

There are some scattered paddock trees on the outskirts of the development site, all of which will be retained. The proposed development site is not mapped as being subject to any endangered plant community types, and site inspection by an accredited ecological consultant confirmed that the development site is predominantly exotic pasture grasses. Further, the proposal seeks to re-purpose existing access tracks wherever possible to limit any need for additional works to provide access to the site, as illustrated in the below figure.



Biodiversity Mapping
Approximate access route shown by yellow arrow, reflecting existing farm tracks and bridge

Impacts on the Built Environment

In considering the existing built environment of the immediate locality, the prevailing land use is that of agriculture, which is undertaken at a range of scales and intensities. However, there are some non-agricultural rural land uses within the immediate vicinity of the subject site. This largely consists of dwellings associated with farming uses, while the Wallamore area and the Tamworth township are situated a significant distance to the southeast of the subject site.

However, the solar facility is situated in the centre of the property; most of the proximate dwellings are south-west of the site. Consequently, the nearest dwelling is located approximately 350m north of the site, which is considered to be a sufficient distance to prevent any visual, noise or related impacts to surrounding dwellings when factoring surrounding context and the proposed landscaping.

It should also be noted that all of the nearest dwellings are in the RU1 Zone, and are not considered to be sensitive uses for the purposes of planning, as they are used in conjunction with their respective farming uses.

Locality Plan/Sensitive Land Use Map
Nearest dwellings **circled red** (source: Nearmap)

The distance of the solar farm from Wallamore Road is also considered to eliminate any visual impacts to passersby; it will not be visible at all from these roads. The presence of the wetlands also creates a buffer to any potential conflicting land uses to the north and east.

The proposal also includes two (2) centrally located inverter stations, four (4) BESS units, and a switchboard within the compound at the electricity network connection point. None of these components are particularly large or visually intrusive and are considered comparable to a farm shed/shipping container.

It is submitted that the proposed development will have a negligible visual and noise impact on the locality, largely due to the significant distance from surrounding roads and buildings/dwellings. The site has been selected through a careful site selection and design process to ensure this. Additionally, the height and scale of the facility are such so as to further reduce any potential impacts.

There remains a possibility in the future to undertake perimeter landscaping; however, given the negligible impacts, it is considered that this will not be necessary.

Social and Economic Impacts

The proposed development will support the economic growth of Wallamore and the greater municipality of Tamworth Regional Council.

The proposed solar facility has been designed and located to maximise the electricity generation efficiency while limiting the use of rural land – retaining the majority of the broader farming property for continued agricultural use and ensuring that the farm continues to be economically liable for the landholder.

It is estimated that during construction, a large portion of the work will be undertaken by local contractors. Additional skilled workers from outside the region would need to be accommodated which will create an influx of spending within the area. The proposal will also have a positive effect on NSW's electricity prices and lead to affordable energy.

Further, the proposed development will remain under lease from the current farmer, providing for a supplemental income for the farmer and allowing for further investment in agricultural operations on the property, while also supporting the emergence of renewable energy.

The Suitability of the Site

The subject site is a largely cleared farming property that contains limited topographical or environmental constraints. The proposed development site is to be in a location that minimises impacts on surrounding farming uses, the natural environment, and the built environment alike.

The site is sited on a portion of the property that would prevent the fragmentation of farming land. With the immediately surrounding properties all being associated with intensive agriculture, the development of a solar farm is within the context of the surrounding land uses.

There are limited land use conflicts that would arise as a result of the proposal, and due to the location of the proposed site, the solar farm would be located a sufficient distance from all of the nearest surrounding dwellings and roads. Nevertheless, the relative proximity to the Tamworth township will ensure that a ready supply of workers/contractors is provided, as well as easy access to a range of services.

The site has also been deemed a suitable candidate because of the existing electricity network and its close proximity to the Tamworth Zone Substation.

The proposal is for a land use that will be fully contained within the subject land and has been designed in a site-responsive manner mindful of the context of the site (i.e. site constraints and existing servicing and public infrastructure assets in the vicinity).

Any submissions made in accordance with this Act or the Regulations

Any relevant representations will need to be considered by the Council in determination of the development application.

The public interest

The public interest is best served by the orderly and economic use of land for purposes permissible under the relevant context of the site within the Tamworth Regional Council and in accordance with the prevailing planning controls.

9.2 Water Management Act 2000

The proposed development seeks to use the existing Tangaratta Creek crossing on the property for use during the operational window of the solar farm. This concrete ford is shown in the below photograph.

Tangaratta Creek
Existing creek crossing shown

This crossing is considered to be fit-for-purpose for the operational life cycle of the solar farm, and potential impacts on Tangaratta creek would only be envisaged during the construction and decommissioning period – however, this could be readily managed through appropriate construction management plans and contractor briefing so as to limit any adverse impacts on the creek.

In light of the above, it is considered that there would not be any requirement for any upgrade works as part of this development approval.

Consequently, this application is not considered to be Integrated Development under the E&PA Act, as the proposed access does not seek to approved for a *controlled activity* (i.e. construction of a creek crossing) under the Water Management Act.

9.3 State Environmental Planning Policy (Transport and Infrastructure) 2021

Part 2 – Division 4 – Electricity generating works or solar energy systems

2.36 Development permitted with consent

(1) Development for the purpose of electricity generating works may be carried out by any person with consent on the following land

(b) any land in a prescribed non-residential zone.

In response to the above provision of the SEPP, the RU1 zone is a prescribed non-residential zone under the 2.35 definitions.

The proposed use of the land for an energy generating facility is considered to be compatible with adjoining agricultural land uses and respectful of the nearby terrestrial biodiversity and wetlands.

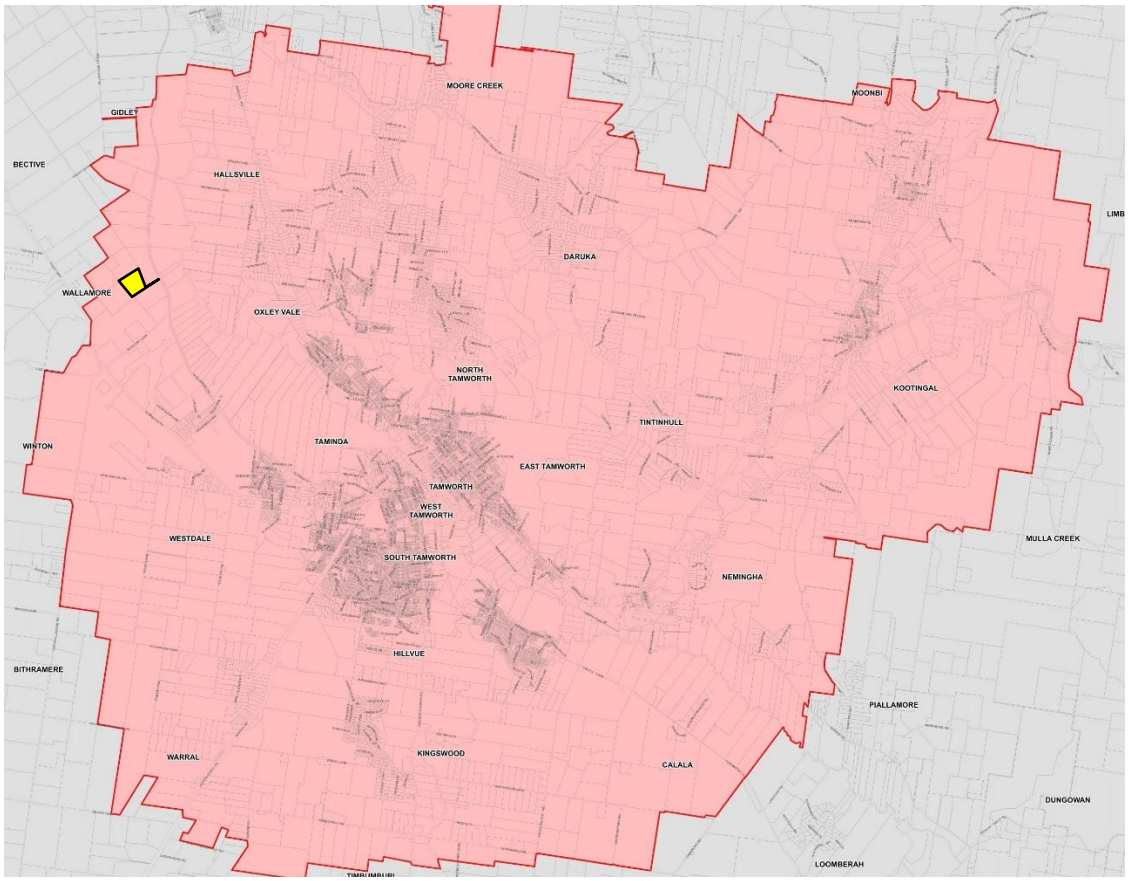
The use and development of land would generate negligible impacts on the surrounding area – the primary concern for solar energy facilities is the perceived visual impact that solar panels may have on surrounding amenity and the potential loss of agricultural utility. The proposed facility has been designed to minimise any negative amenity or utility impact.

The proposal has been carefully designed to ensure that it will not impede existing agriculture within the surrounding area. The use of land for a solar facility will be a low-impact use and has been carefully sited to avoid any adverse impact upon rural infrastructure, particularly the adjacent public roads, which are a sufficient distance from the development site.

The proposal is intended to facilitate the transition toward the State government's renewable energy target by 2020. To this end, the proposed facility will contribute approximately 5MW of renewable energy into the NSW electricity grid.

Furthermore, solar facilities are considered to be relatively benign in terms of their potential off-site impacts and it would be highly improbable that any existing and/or future farmers would be impacted by the proposal – including the landholder, with the vast majority of the farmland at the property being retained.

2.42 – Determination of development applications for solar or wind electricity generating works on certain land



State Environmental Planning Policy (Infrastructure) 2007 Regional Cities Map – Tamworth
Subject site marked yellow relative to the regional city extents

The development site is identified on the Tamworth Regional Cities Map. The SEPP states:

"(2) Development consent must not be granted unless the consent authority is satisfied that the development—

(a) is located to avoid significant conflict with existing or approved residential or commercial uses of land surrounding the development, and

(b) is unlikely to have a significant adverse impact on the regional city's—
(i) capacity for growth, or
(ii) scenic quality and landscape character."

In response to the above criteria, the proposal:

- Is in a rural area and is surrounded by intensive primary production industries and high-impact land uses that would conflict with residential amenity
- Is not close to any existing or approved residential or commercial land uses, and no land use conflicts are expected.
- Is not adjacent to any identified growth corridors and will not impact on Tamworth's capacity for growth.
- Will be surrounded by landscaping to screen it from view of nearby dwellings.

The location of the site relative to the regional cities maps is illustrated below.

Division 5 – Subdivision 2 – Development likely to affect an electricity transmission or distribution network

2.48 Determination of development applications—other development

The proposed development site has been selected due to its proximity to existing electrical infrastructure – which includes a substation along Gonn Road, and two distribution networks across the site which are encumbered and represented by easements.

(1) This clause applies to a development application (or an application for modification of a consent) for development comprising or involving any of the following—

(a) the penetration of ground within 2m of an underground electricity power line or an electricity distribution pole or within 10m of any part of an electricity tower,

(b) development carried out—

(i) within or immediately adjacent to an easement for electricity purposes (whether or not the electricity infrastructure exists), or

(ii) immediately adjacent to an electricity substation, or

(iii) within 5m of an exposed overhead electricity power line,

(d) development involving or requiring the placement of power lines underground, unless an agreement with respect to the placement underground of power lines is in force between the electricity supply authority and the council for the land concerned.

(2) Before determining a development application (or an application for modification of a consent) for development to which this clause applies, the consent authority must—

(a) give written notice to the electricity supply authority for the area in which the development is to be carried out, inviting comments about potential safety risks, and

(b) take into consideration any response to the notice that is received within 21 days after the notice is given.

The financial viability of a sub-5MW facility is dependent on the facility being within proximity to the distribution network, as beyond this, network augmentation costs become prohibitive. The subject site was initially selected for its proximity to a community zone substation, which feeds electricity for local consumption.

The facility design has considered all existing site conditions and features. It has been sited immediately adjacent to an easement for electricity purposes, to allow for effective transmission to the network. The facility location has also been chosen to limit the need for connection infrastructure. In this sense, the location is considered to be highly appropriate, in that it will increase the productivity of the facility.

Therefore, the siting of the facility in proximity to the existing transmission infrastructure will allow for the efficient transmission of the energy generated into the grid; and for a financially viable connection to be achieved.

9.4 State Environmental Planning Policy (Primary Production) 2021

Chapter 2 Primary production and rural development

Part 2.1 Preliminary

The aims of this Chapter are as follows—

(a) to facilitate the orderly economic use and development of lands for primary production,
(b) to reduce land use conflict and sterilisation of rural land by balancing primary production, residential development and the protection of native vegetation, biodiversity and water resources,
(c) to identify State significant agricultural land for the purpose of ensuring the ongoing viability of agriculture on that land, having regard to social, economic and environmental considerations,
(d) to simplify the regulatory process for smaller-scale low risk artificial waterbodies, and routine maintenance of artificial water supply or drainage, in irrigation areas and districts, and for routine and emergency work in irrigation areas and districts,
(e) to encourage sustainable agriculture, including sustainable aquaculture,
(f) to require consideration of the effects of all proposed development in the State on oyster aquaculture,
(g) to identify aquaculture that is to be treated as designated development using a well-defined and concise development assessment regime based on environment risks associated with site and operational factors.

In response to these aims, the *proposal is not designated development*, nor is it development that is considered to unduly impact the ongoing use of the surrounding land for primary production. The proposed development site is 15 hectares only, and the vast majority of the property will be retained for agriculture.

Additionally, while the land is mapped under the draft State Significant Agricultural Land mapping (SSAL). However, the proposed solar farm is considered to complement the productivity of the surrounding farmland, as it will provide the landholder with a supplementary income, which could be directed towards the ongoing agricultural use of the land.

Further, given the prevailing agricultural and rural pursuits in the local area, the development of a solar farm is unlikely to prejudice these ongoing uses (particularly with regard to the chicken farms).

9.5 State Environmental Planning Policy (Planning Systems) 2021

Schedule 6 – Regionally Significant Development

5 Private infrastructure and community facilities over $5 million

Development that has a capital investment value of more than $5 million for any of the following purposes—

(a) *air transport facilities, electricity generating works, port facilities, rail infrastructure facilities, road infrastructure facilities, sewerage systems, telecommunications facilities, waste or resource management facilities, water supply systems, or wharf or boating facilities,*

(b) affordable housing, child care centres, community facilities, correctional centres, educational establishments, group homes, health services facilities or places of public worship.

Development that is state and regionally significant is identified in *State Environmental Planning Policy (Planning Systems) 2021*.

Private infrastructure, including electricity generating stations, that have a capital investment value of over $5 million are declared regionally significant. The proposed Solar Facility development has a CIV of **$4.86 million** and is therefore identified as **Local Development**.

9.6 State Environmental Planning Policy (Resilience and Hazards) 2021

Chapter 3 – Hazardous and Offensive Development

Section 7.1 of the NSW Department of Planning's 'Hazardous and Offensive Development Application Guidelines – Applying SEPP 33' (DoP, 2011) details how to identify a potentially hazardous industry.

The proposal does not involve any of the hazardous materials listed in Table 1, Table 2 or Table 3 of the guidelines. Therefore, the proposal is not considered to be a potentially hazardous industry, and chapter 3 of the SEPP does not apply.

Chapter 4 – Remediation of Land

4 Objective of this Chapter

(1) The object of this Chapter is to provide for a Statewide planning approach to the remediation of contaminated land.

(2) In particular, this Chapter aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment—

(a) by specifying when consent is required, and when it is not required, for a remediation work, and

(b) by specifying certain considerations that are relevant in rezoning land and in determining development applications in general and development applications for consent to carry out a remediation work in particular, and

(c) by requiring that a remediation work meet certain standards and notification requirements.

4.6 Contamination and remediation to be considered in determining development application

(1) A consent authority must not consent to the carrying out of any development on land unless—

(a) it has considered whether the land is contaminated, and
(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and
(c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

The solar facility development is proposed on a site which has historically been used for dryland agricultural activities for an extended period of time; this may include cropping or grazing. There is no evidence to suggest that the site is or might be contaminated to a level that would impact on the proposed use.

Therefore, it is considered that the proposed development is compliant with the SEPP.

9.7 State Environmental Planning Policy (Biodiversity & Conservation) 2021

Chapter 3 – Koala habitat protection 2020

3.3 Land to which Chapter applies

*"(1) This Chapter applies to land in the following land use zones, or an equivalent land use zone, in a local government area specified in Schedule 1 of State Environmental Planning Policy (Koala Habitat Protection) 2021, but not if the local government area is marked with an * in that Schedule—*

(a) Zone RU1 Primary Production"

The proposal does not seek removal of any trees, native or otherwise, as the site has been previously cleared for agriculture. Further, there is extensive cleared land on all sides of the development site, which renders the site unlikely to be conducive to koala habitat.

Chapter 4 – Koala habitat protection 2021

Pursuant 4.4(d)(i), *"this Chapter does not apply to land in the Zone RU1 Primary Production".*

10 Tamworth Regional Local Environmental Plan 2010

10.1 Part 1 – Preliminary

Clause 1.9 Application of SEPPs

"(1) This Plan is subject to the provisions of any State environmental planning policy that prevails over this Plan as provided by section 3.28 of the Act"

Pursuant to the provisions of Clause 1.9 of the Tamworth Regional LEP, the applicable State Environmental Planning Policies have been considered in conjunction with the LEP.

In particular, the prevailing provisions of the Transport & Infrastructure SEPP with regard to the allowability of the development within the RU1 under the LEP.

10.2 Primary Production Zone

The subject property is zoned **RU1 – Primary Production** under the provisions of the Tamworth Regional LEP 2010; the below figure shows the subject site within the context of the LEP's zoning map.

Land zoning under the LEP
Extract from Zone Map 4B

The Primary Production Zone comprises the following objectives for development:

- *"To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To encourage diversity in primary industry enterprises and systems appropriate for the area.*
- *To minimise the fragmentation and alienation of resource lands.*
- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*
- *To promote the use of agricultural land for efficient and effective agricultural production without the encroachment of urban land uses.*
- *To allow the development of processing, service and value-adding industries related to agriculture and primary industry production.*
- *To allow the development of complementary non-agricultural land uses that are compatible with the character of the zone."*

Pursuant to the Dictionary of the Tamworth Regional LEP, the proposed development is considered to be "***electricity generating works**" which* is defined as "*a building or place used for the purpose of making or generating electricity."*

By default, this use is prohibited in zone RU1 under the LEP. However, the *SEPP (Transport & Infrastructure)* prevails over the LEP to this extent, in that the use of land

for ***electricity generating works*** is permitted with consent in the RU1 as a prescribed non-residential zone.

The proposed use and development of land for a solar energy system is considered to be broadly consistent with the RU1. In considering the nature of the proposed use, a solar facility is a land use that is compatible with surrounding agricultural uses and the intended purposes of the RU1 and would not result in a land use conflict.

The proposed development would have no adverse effects on the functioning of the broader property for farming, and is considered to be in a location where any potential fragmentation of resource lands is avoided. It would also provide the landholder with a supplementary income which could be used to make improvements to the farm.

10.3 Part 7 – Additional Local Provisions

Earthworks (Clause 7.1)

(1) The objectives of this clause are as follows—

(a) to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land,

(b) to allow earthworks of a minor nature without requiring separate development consent.

The proposed earthworks associated with the development comprise minor excavation, and all earthworks will be ancillary to the development of a solar farm and are not expected to impact adversely on the future rural use of the land, relics, the natural environment, or adjoining developments through the construction, use or decommissioning of the facility.

The proposal has been carefully designed to ensure that it will not impede existing agriculture within the surrounding area. The use of the land for a solar facility will be a low impact use and has been carefully sited to avoid any adverse impact upon rural infrastructure.

There will be no foreseeable impact on the amenity of surrounding properties, or on waterways by the earthworks on the site.

Development in flight path (Clause 7.6)

(1) The objectives of this clause are—

(a) to provide for the effective and on-going operation of the Tamworth Airport, and

(b) to ensure that any such operation is not compromised by proposed development in the flight path of that airport.

(2) Development consent must not be granted to erect a building on land in the flight path of the Tamworth Airport if the proposed height of the building would exceed the obstacle height limit determined by the relevant Commonwealth body.

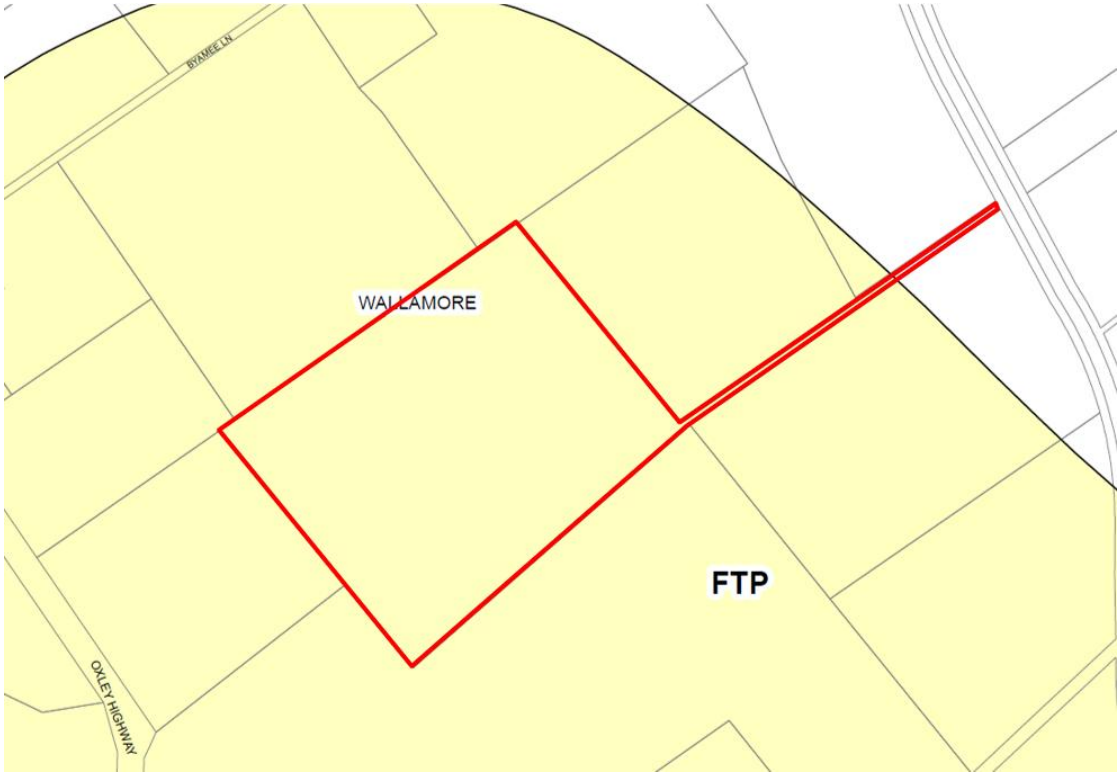
(3) Before granting development consent to the erection of a building in the flight path of the Tamworth Airport, the consent authority must—

(a) give notice of the proposed development to the relevant Commonwealth body, and

(b) consider any comment made by the relevant Commonwealth body within 28 days of the body having been given notice of the proposed development, and

(c) consider whether the proposed use of the building will be adversely affected by the exposure to aircraft noise.

(4) For the purposes of this clause, land is in the flight path of the Tamworth Airport if the relevant Commonwealth body has notified the consent authority that the land is in such a flight path



Flight Training Map
Map Extract from Tamworth Regional LEP

Despite being subject to the Flight Training Map under the Tamworth Regional LEP, the proposed development site would have a relatively low profile, with the BESS and inverter units generally being no more than the height of a shipping container.

The tallest physical feature of the solar farm would be the overhead power line connections, which would be no higher than the typical 22kV power poles – typically about 10 metres in height.

Consequently, no aspect of the built form of the solar farm would impact the flight paths.

Development in Areas Subject to Aircraft Noise (Clause 7.7)

(1) This clause applies to development that—
(a) is on land that—
(i) is near an airport, and
(ii) is in an ANEF contour of 20 or greater, and
(b) the consent authority considers is likely to be adversely affected by aircraft noise.

Pursuant to the above, this provision applies to any prospective development on the subject site. However, in considering the potential impacts as a consequence of the

proposed development of an unmanned facility, there would be no adverse noise impacts from aircraft noise.

(3) Before issuing a development consent to development on land identified as "Flight Training Path" on the Flight Training Path Map, the consent authority must consider measures for the insulation of any building on that land from aircraft noise.

The site is within the flight training path map; however, as a solar farm would be a non-habitable use, there would be no requirement for insulation for the purpose of noise mitigation.

11 Tamworth Regional Development Control Plan 2010

11.1 General Development Specifications – Other Types of Development Controls

Parking	
Parking must be provided as per the Schedule in Appendix 1.	No car parking is applicable for electricity generating systems.
Where calculation of parking spaces required results in a fraction of a space, the total required number of spaces will be the next highest whole number.	Not applicable.
Parking and traffic requirements will be based on consideration of: ○ *likely peak usage times;* ○ *the availability of public transport;* ○ *likely demand for off street parking generated by the development;* ○ *existing traffic volumes on the surrounding street network; and* ○ *efficiency of existing parking provision in the location.*	Refer to construction environmental management plan by GGE. There is adequately parking provision for use during construction, which would be the peak car parking demand period.
Comply with AS2890.1 Parking Facilities Off Street Car Parking and AS2890.6 Parking Facilities Off Street Parking for People with a Disability	The designated car parking area can ensure all car parks can readily achieve dimensions prescribed under the Australian Standards.
Manoeuvring areas within the development must be designed to accommodate a B99 vehicle under AS2890.1 Parking Facilities Off Street Parking.	There is significant cleared area adjacent to the permanent and temporary car parking spaces.
Landscaping	
• *Location and grouping of plant types shall be multi-functional providing privacy, security, shading and recreation functions.* • *Landscaping or shade structures shall be provided in outdoor car parking areas where >10 spaces are required, to provide*	✓ Complies A detailed landscaping plan has prepared by EMM Consulting in support of the proposed development.

shading and soften the visual impact of large hard surfaces. • *Landscaping shall comprise low maintenance, drought and frost tolerant species.*	
Bushfire Prone Land	
• *Details of the activities offered should accompany the Development Application which must include some farm related activities.* • *Guests are restricted a maximum of 14 days per visit.* • *The plans prepared to accompany a DA located in a bushfire prone area, being land that is identified on a map certified by the Rural Fire Service, must illustrate the required Asset Protection Zone (APZ).* • *DAs for development located in a bushfire prone area must be accompanied by either a Bushfire Attack Level Self Assessment (BAL) or a Bushfire Planning and Design Report (BPAD).* • *Where the DA is accompanied by a BPAD report, Council's bushfire assessment fee will not be applicable*.	This application is accompanied by a bushfire management and emergency response plan by Harris Environmental Consulting. The proposed solar farm would be a non-habitable use, reducing any risk to people on the site. Further, the facility incorporates a 10-metre-wide APZ around the extend of the site, as per RFS requirements.

11.2 General Development Specifications – Environmental Controls

This chapter prescribes general development standards for all development with the Tamworth Regional Council municipality.

Environmental effects	
The application documentation shall identify any potential environmental impacts of the development and demonstrate how they will be mitigated. These impacts may relate to: • *Traffic* • *Flood liability* • *Slope* • *Construction impacts* • *Solid and Liquid Waste* • *Air quality (odour and pollution)* • *Noise emissions* • *Water quality* • *Sustainability*	These requirements are addressed under the response to Section 4.15 of the EP&A Act.

Soil and Erosion Control	
• *Runoff shall be managed to prevent any land degradation including offsite sedimentation.* • *Reference shall be made to the NSW Governments Managing urban stormwater: soils and construction, Volume 1 (available from Landcom), commonly referred to as "The Blue Book".* • *Cut and fill will be minimised and the site stabilised during and after construction.* • *Arrangements in place to prompt revegetation of earthworks to minimise* erosion.	The proposed solar farm site is flat, and has been used extensively for agriculture. The transition to a solar farm is unlikely to create any risk of land degradation. Where possible, this proposed would rely on existing site features, particularly with regard to the existing internal road and creek crossing.
Vegetation	
Development design shall accommodate the retention of any significant trees and vegetation	The proposal has been located on a cleared area of agricultural land.
Waste Management	
General waste storage and collection arrangements shall be specified.	Suitable conditions would be imposed on the sought DA. Further GGE are bound under lease obligations to ensure that the site is suitable maintained and remediated.
Noise	
Where relevant, applications are to contain information about likely noise generation and the method of mitigation.	The surrounding area comprises significant rural industries that would generate noise levels well in excess of what would be expected for a solar and battery of this nature.

11.3 Discretionary Development Standards – Environmental Standards

1.44 Vegetation

a) Existing trees may be removed from the proposed building footprint where it can be shown there is no acceptable alternative design.

b) All trees removed must be replaced by comparable native and mature trees.

c) Non-native plants may be used where they are shown to be non-invasive and pivotal to the overall amenity of the development.

The proposed development site is largely clear of native vegetation – comprising mostly exotic pasture (as per the *Test of Significance* by Red-Gum Consulting). Consequently, the proposed development will result in only a very limited ecological impact.

12 Conclusion

The proposal is for a new solar facility within the municipality of Tamworth Regional Council that will provide affordable clean energy for the local community, including Wallamore and beyond, effectively contributing to the implementation of New South Wales's transition to renewable energy.

The proposal is supported by the ***NSW Regional Energy Action Plan 2018*** to Net Zero Emissions that sets out a broader framework for achieving the region's aspirations and expectations for renewable energy by providing regional opportunities for the benefit of the regional community.

The 5 MW output will supply local businesses, industry and houses and will produce enough energy to contribute to the transition of the Tamworth Regional Council into a renewable municipality.

The proposal will generate local employment opportunities for electrical and construction workers to build and install the facility; operations, maintenance and security jobs will be required ongoing.

The holistic considerations of the proposed solar farm and the primary considerations of the proposal, including the merits of both preserving agricultural land against promoting renewable energy have been addressed at length in the various sub-sections of this report and the appended documentation.

It is submitted that the information provided within this report and the various supporting documents demonstrate that the proposal warrants development approval.