Chris Smith & ASSOCIATES PTY LTD

- CIVIL ENGINEERS
- LAND SURVEYORS
- URBAN & REGIONAL PLANNERS
- PROJECT MANAGERS

ISO 9001 Certified Quality Management Systems
ISO 14001 Certified Environmental Management Systems
ISO 45001 Certified Occupational Health and Safety Management Systems

Statement of Environmental Effects

Electricity Generating System (Solar Farm & Battery Storage)

GREEN GOLD ENERGY

Gwydir Highway, Glen Innes (Lots 59-64, DP1834)

Ref: 24031

Ver. 1 | December 2024

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Contents

4.95 MW Solar Farm & BESS
Gwydir Highway, Glen Innes

Version Control

Version	Description	Author	Approver	Date
1	Final	DL	GS	11/12/2024
2				
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 "GGE". The proposal is for *electricity generating works* (a 15-hectare solar farm and ancillary battery energy storage system (BESS)) on a property with a total area of approximately 33 hectares.

The property is known as Gwydir Highway, Glen Innes, and is made up of six (6) adjacent lots that are collectively referred to as the "subject site" and are cadastrally defined as Lots 59–64 on DP1834.

The proposed facility is intended to supply the local distribution network with 4.95 megawatts (MW) of power. The proposal would occupy about 15 hectares of land (the eastern half) of the farmer's property to produce this electricity, retaining the rest of the farm for continued farming.

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 Glen Innes Severn Shire 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
- Pre-Application Preliminary Assessment
- Glen Innes Severn Local Environmental Plan 2012
- New England North West Regional Plan 2041

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

- **Certificate of Title**
  Fol. 15399-123
- **Proposed Development Plans**
  (Green Gold Energy Pty Ltd)
- **Visual Impact Assessment**
  (by EMM, Ref. E240278, Ver. 2.0)
- **Traffic Impact Assessment**
  (by Traffic Works, Proj. #: 230730)
- **Biodiversity Inspection Report**
  (by OzArk Environment & Heritage, Ref. 4372, Ver. 3.0)
- **Aboriginal Cultural Heritage Due Diligence Assessment**
  (by OzArk Environment & Heritage, Ref. 4372, Ver. 3.0)
- **Construction Environment Management Plan**
  (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.* The proposed solar farm and BESS has a CIV of $5.8 million and is therefore identified as **Regionally Significant Development**.

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

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 (GGE) is a South Australian-based company that takes a collaborative approach to renewable energy. GGE seek to partner with landowners to identify land that balances the farmer's needs with the requirements for Green Gold's solar farms.

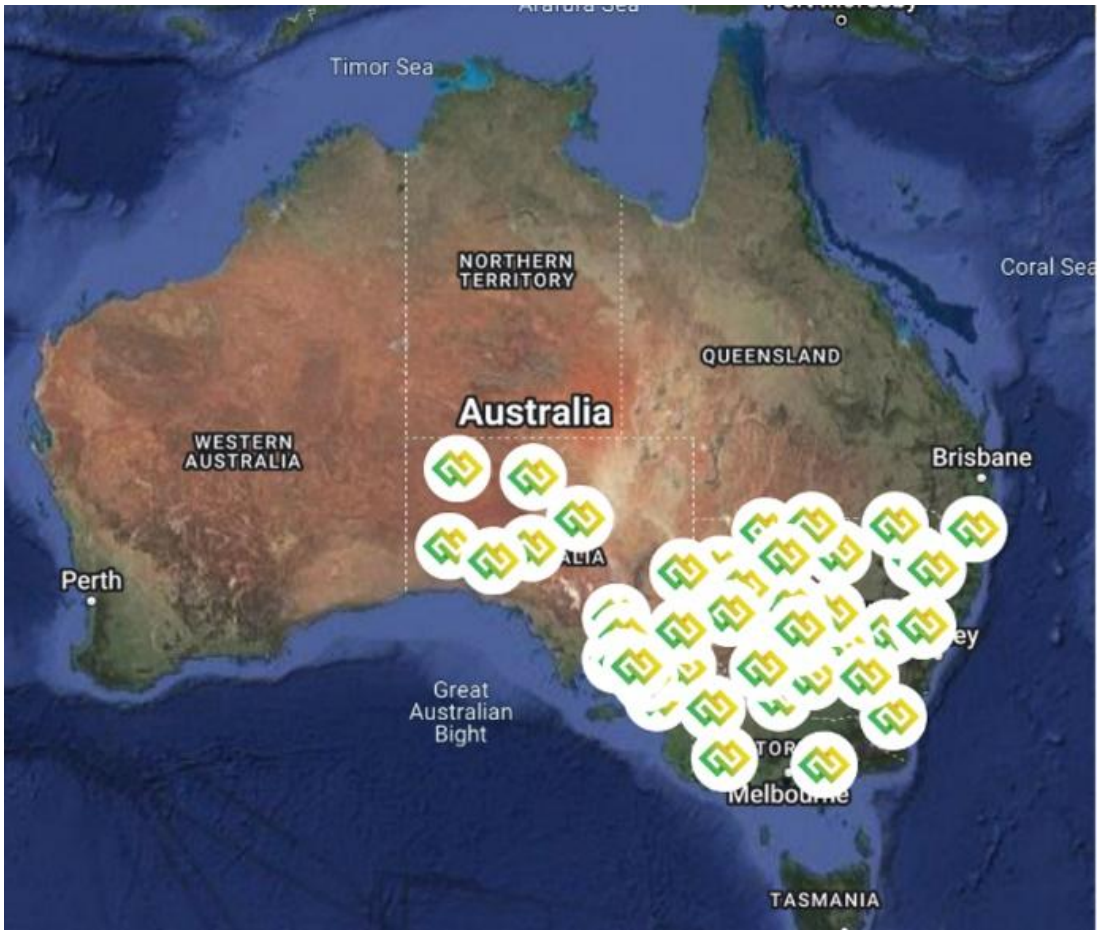
GGE's core business is centred around rural land that is typically no larger than 16 hectares (40 acres) that can support commercially viable Solar Energy Facilities with the necessary investment and infrastructure.

These solar farm projects are designed to export generated energy into the grid, enabling it to be sold on the National Electricity Market using the latest state-of-the-art PV technologies to ensure the most efficient, reliable power generation. GGE projects deliver:

- Long-term, secure supplementary income to landowners
- Access to the Australian renewable energy market to investors and shareholders
- Sustainable returns for investors

These projects also bring significant benefits to the regional communities they are located in, by creating jobs, providing local economies with the assets to improve energy infrastructure, and creating stronger, more sustainable communities.

GGE have successfully developed projects in South Australia, Victoria, New South Wales, and Queensland, as shown below. Fifteen of these projects are currently in operation, whilst the rest are under development. GGE 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 Energy to develop a solar energy facility in New South Wales was 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 land is largely flat and cleared with limited remnant vegetation, with very few remaining trees on the development site itself.

The subject site was secured by GGE because it provides attributes conducive for solar facilities, as well as being proximate to existing 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, the site is considered to be compatible with agriculture in the context of the development of a solar farm.

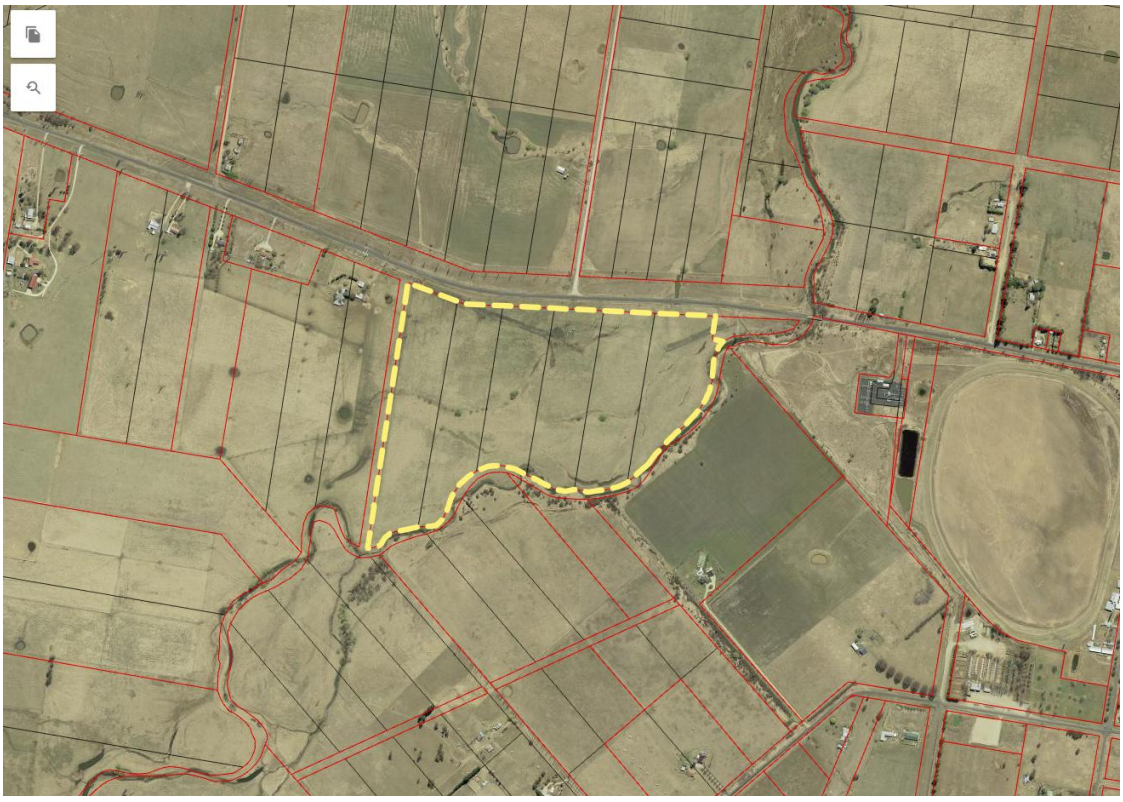
The site is considered to have the required physical and electricity network attributes – a flat open site, adjacent powerlines that have the capacity to accept electricity generated by the facility and that can feed into the nearby electrical substation for use by the community – an agreement to lease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

Site visits and environmental assessments have confirmed the development site's suitability, including being largely clear of native vegetation and 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 Site and Context Description

4.1 Surrounding Context

The surrounding area is predominantly use for primary industry production along with public recreation, residential and industrial purpose. The land surrounding is primarily used for conventional agriculture – with grazing and some cropping evidenced through historical imagery.



Locality Cadastre (Source: ePlanning Spatial Viewer)
Showing aerial context of the subject site incl. Cadastre, subject site outlined in yellow.

The notable land features surrounding the site are:

North: Immediately north of the site is the Gwydir Highway, which provides road connection to the Glenn Innes township. Beyond the immediate highway, the land to the north is consistently cleared for agriculture pursuits that incorporate irrigated agriculture; however, the prevailing agriculture use appears to be grazing, with some cropping properties.

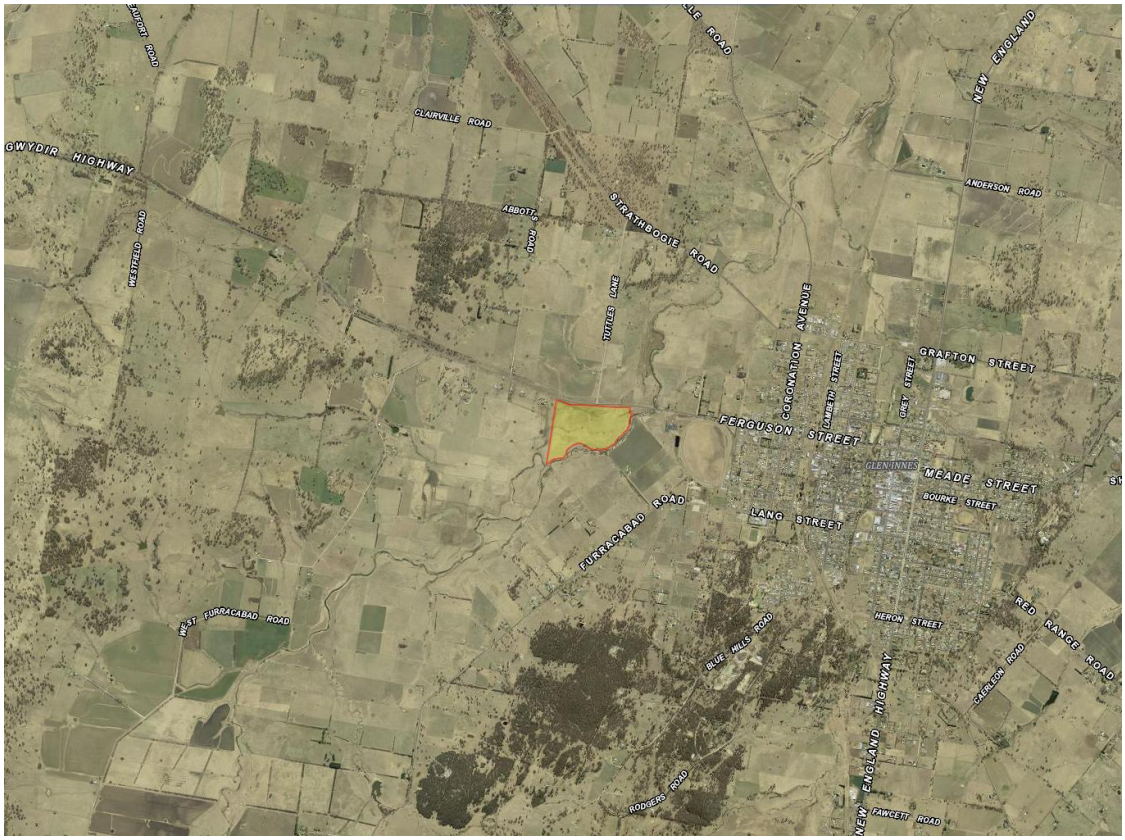
East: The Glenn Innes town centre is located approximately 3km east of the subject land. Between the site and township, there is a mix of land uses with the land east of the township containing the Glenn Innes Racecourse which is approximately 1 km from the site.

The site is close to the existing Glen Innes substation which is around 400m to the east of the proposed facility – which will provide the destination for electricity – prior to being distributed the local Essential Energy grid for the Glen Innes community.

South: Furracabad Creek runs along the immediate south and south-east boundary of the property. The land beyond the creek site is used for a mix of agricultural pursuits. And rural lifestyle properties. There are some dwellings associated with the existing farms dispersed throughout the area.

The Glen Innes Pound and Glen Innes Regional Saleyards are located approximately 850 metres southeast of the site.

West: The prevailing land use to the west is agriculture, with a range of areas and ownerships. There are some dwellings associated with existing farms dispersed throughout the area; however, the nearest dwelling is approximately 500m west of the proposed facility.



Glen Innes locality (Source: SIXMaps)
Showing aerial context of the subject site, subject site outlined in yellow.

4.2 Subject Site

The proposed solar facility is to be built within the existing paddocks of a farming property at Gwydir Highway, Glenn Innes. This whole property consists of six (6) parcels in common ownership – with a total area of approximately 33 hectares.

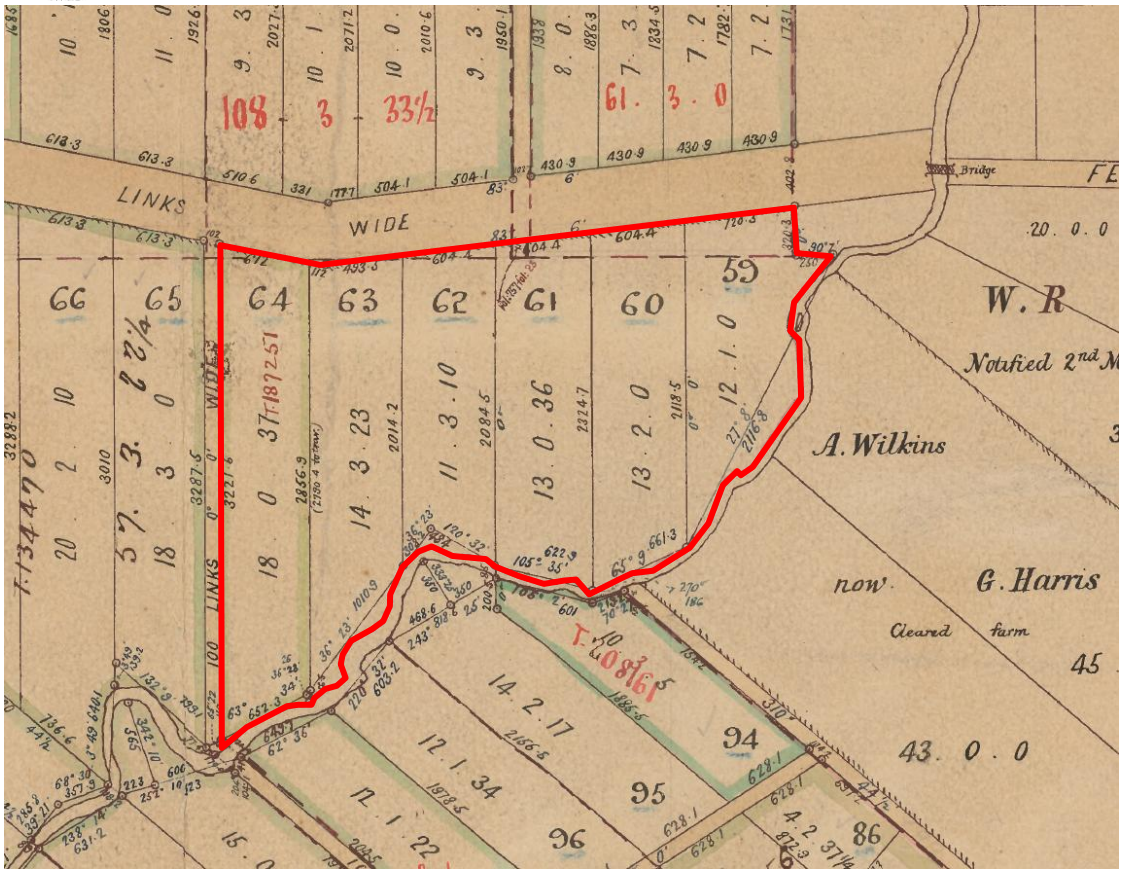
Subject Property – Gwydir Highway, Glen Innes (Source: NSW eSpatial Viewer)
Approximate development footprint shaded white

Green Gold Energy has agreed to terms with the current farmer to lease 5 of these lots (Lot 59, 60, 61, 62 and 63 on DP1834) (total area ~15 hectares) to develop it for a solar farm (see below figure) – for a period of approximately thirty (30) years. The approximate footprint of the proposed lease is shown relative to the property cadastre in the above figure.

The areas of the allotments comprising the property outside of the lease area are not considered to form part of this Development Application. These areas will continue to be managed seasonally in accordance with the ongoing agricultural use of the farm. The subject land is abutted by farming land on all sides, which will be unimpacted by the proposal.

The property has a road frontage of approximately 800m with the Gwydir Highway along the northern boundary. The proposed facility is accessible through an existing gate to the north-east of the property from the north frontage.

The property is largely open, cleared land, with some remnant vegetation around waterways, tracks, and paddock fence lines as well as 5 electric poles with overhead powerlines across the property.



Site Cadastre as shown on Title (DP1834)
Property boundary indicated by red line

Development Site from the North
Approximate image of subject site's terrain

5 Proposal

5.1 Facility Equipment and Componentry

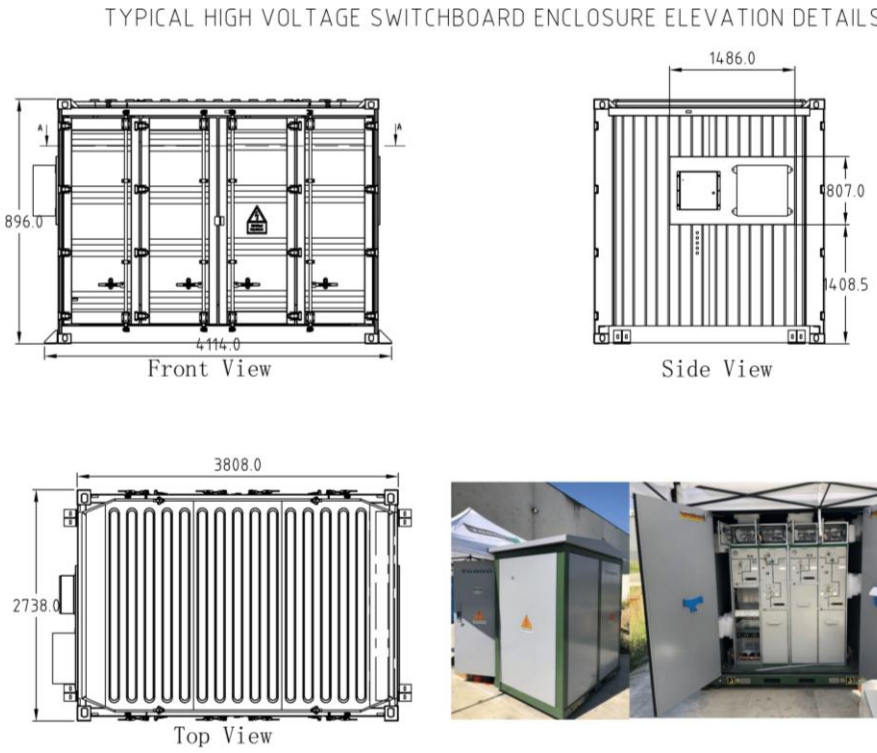
This application seeks Development Approval to develop approximately 15 hectares of land at Gwydir Highway, Glenn Innes for a **4.95 MW solar farm** – as shown on the attached plans and figures, below.

Proposed Development Plans
Solar farm perimeter shown in red line

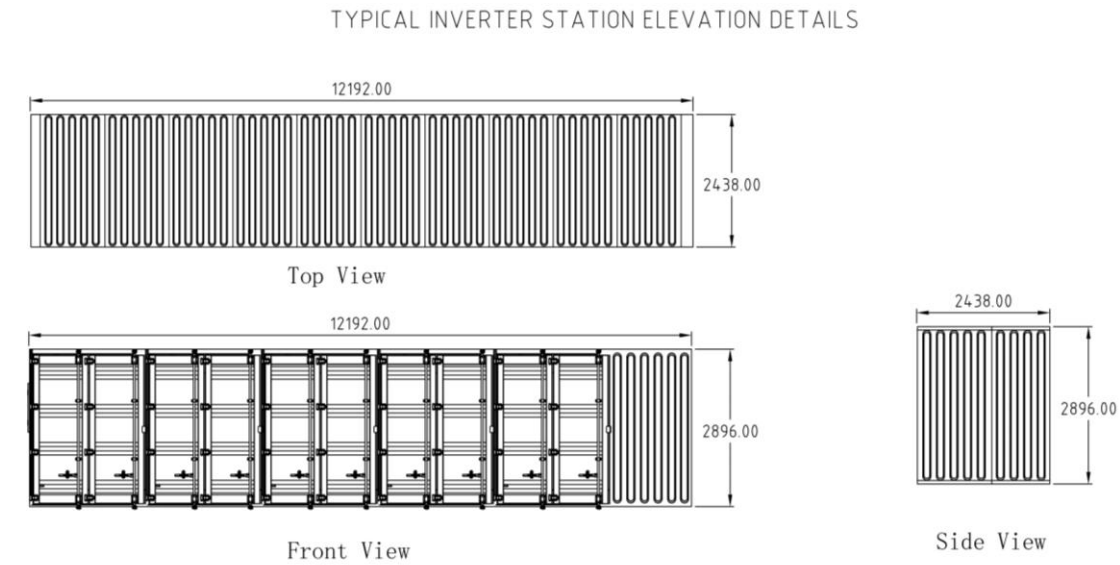
The proposed solar facility and associated works are to be as shown on the attached plans and supporting documents.

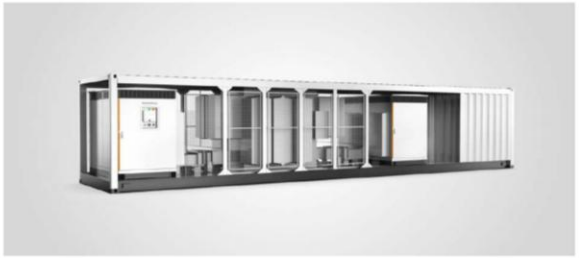
Specifically, it will consist of:

- **Approximately 10,004 solar panels**, mounted on single axis tracking arrays, each having the following specification:
  - Nominal dimensions of 2.8m by 1.1m
  - Maximum height of 2.8m above ground (when at maximum rotation)
  - The panels will be arranged in individual arrays, aligned north-south**.**
- **2.35m high chain mesh perimeter fence** around entire perimeter of facility, with one gate along the northern boundary.
- **One (1) central inverter.**
- **Eight (8) battery energy storage systems** (BESS).

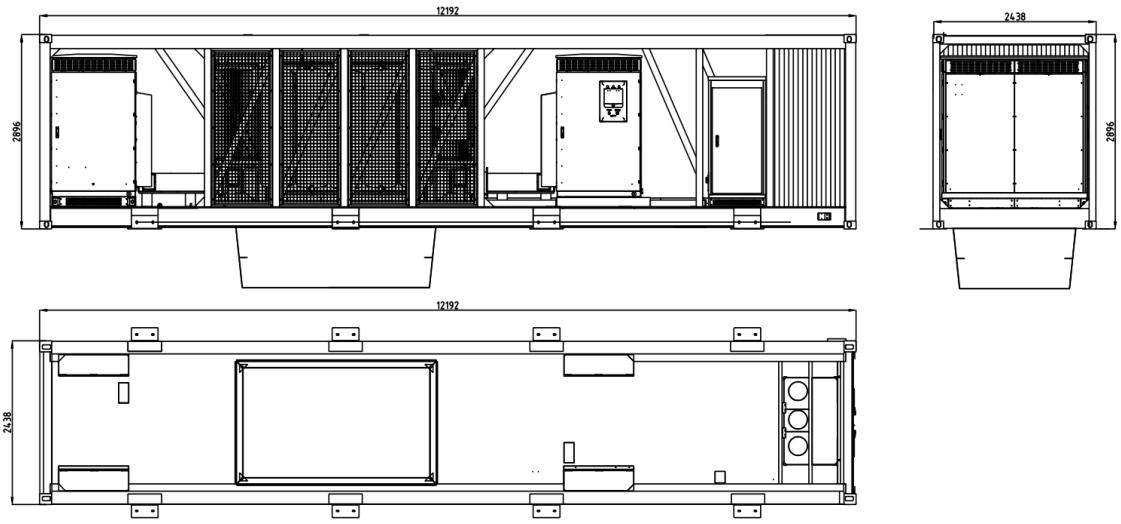


Proposed High Voltage Switchboard Plans

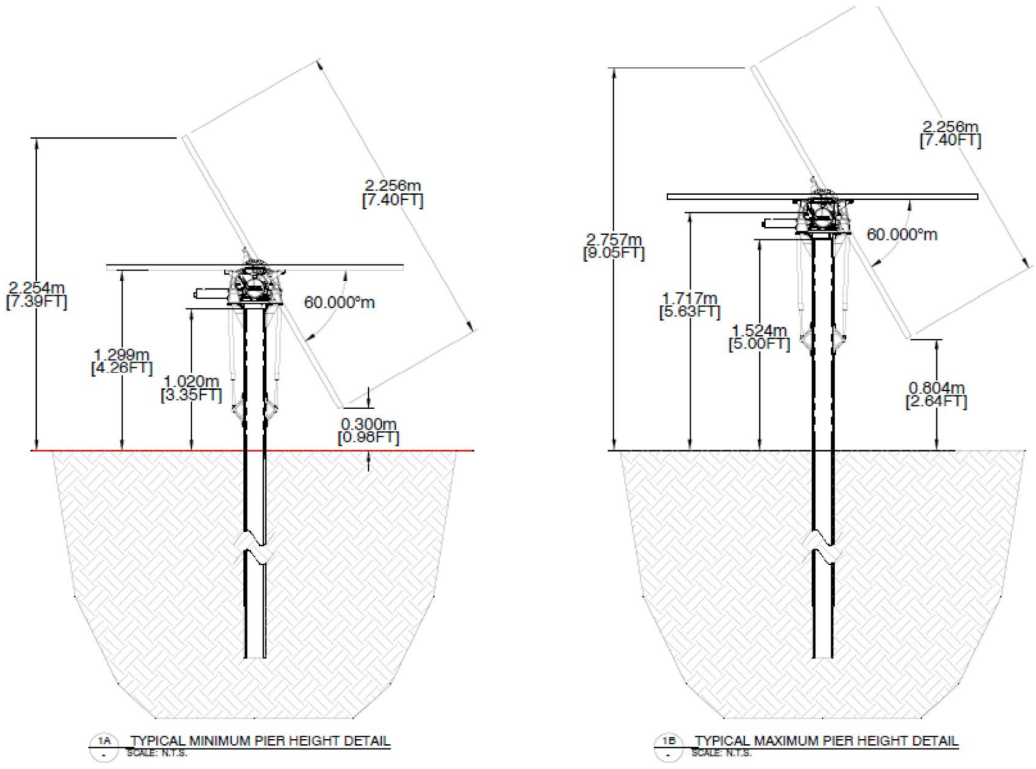




Proposed Inverter Elevations and 3D render



Proposed BESS Unit Plans



Indicative Solar Panel Elevations

6 Development Details

6.1 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 – attached herewith details the following expectant parameters:

Stage 1

- Site mobilisation including preparation of any civil/mechanical works;
- Electrical installation of the array including DC, AC, and medium voltage (MV) infrastructure;
- Grid interconnection activities;
- Installation commissioning, usually involving cold, warm, and hot commissioning stages.

Stage 2

- BESS system installation and commissioning.
- Demobilisation and site restoration

It is anticipated that all components will be delivered in containers by semi-trailer trucks and B-doubles and deliveries will be scheduled across the nine-month project construction period.

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.

6.1.1 Construction traffic management

The peak of construction activities will occur during the mechanical and electrical installation phases of construction. During these times, up to 22 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 **no more than 1 truck delivery** at any time during the height of the construction period.

The road network surrounding are all-weather sealed roads, capable of heavy vehicle access.

6.1 Operational Phase

Beyond the nine-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.

6.1.1 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.

6.1.2 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 has observed a ~500 metre separation distance between the solar farm and any private dwelling not in common ownership.

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.

6.1.3 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, which is to be approved before construction begins, sets out matters such as site management, dust and sediment control during construction.

A traffic management plan forms part of the CEMP, which includes an estimate of the traffic generation from the proposed development and determine the suitability of the proposed access.

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, which 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.

6.1.4 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.

6.2 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.

6.2.1 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.

Sub-contractor agreements will 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.

6.2.2 Operational Waste

Once the 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.

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.

6.2.3 Site Decommissioning Waste

Decommissioning works will be undertaken in accordance with the conditions of consent in the sought development consent.

6.3 Noise

All construction work will be carried out during the specified hours. It is submitted that impacts of noise will be negligible beyond the property of the solar farm – particularly when the surrounding context of the site – directly abutting the Gwydir Highway is considered.

The subject site is typically surrounded by large farming lots with sparsely located farm dwellings.

6.3.1 Construction & Decommissioning Phase:

Any potential noise issues would primarily and almost exclusively be centered around the construction and de-commissioning of the facility, which can be suitably managed through a construction management plan, which can be implemented by condition on the development approval – to the satisfaction of the responsible authority. In addition, the Construction Environmental Management Plan prepared by Green Gold Energy Pty. Ltd. – submitted herewith, outlines potential noise and vibration sources along with mitigation measures to ensure 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.

6.3.2 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.

6.4 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.

7 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. *These Guidelines apply to* ***State Significant Development****, only*. Nevertheless, the general themes of the Guidelines are useful for informing the site considerations.

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.

7.1 Identifying suitable locations

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

Accordingly, GGE 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.

7.2 Visual Impacts and Site Context

The proposal is for a 4.95 MW facility that will occupy approximately 15 hectares of the 33-hectare property.

The nearest solar panels are approximately 70 metres away from the nearest property boundary (not in common ownership) – being the northern frontage to the Gwydir Highway.

Accordingly, in consideration of the nature of the proposed facility, 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.

7.3 Traffic Management

During the peak of construction **up to 20 vehicles** would be accessing the site per day.

Deliveries of components will be scheduled throughout the workday 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.

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.

8 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, making 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.

8.1 NSW Renewable Energy Action Plan 2018

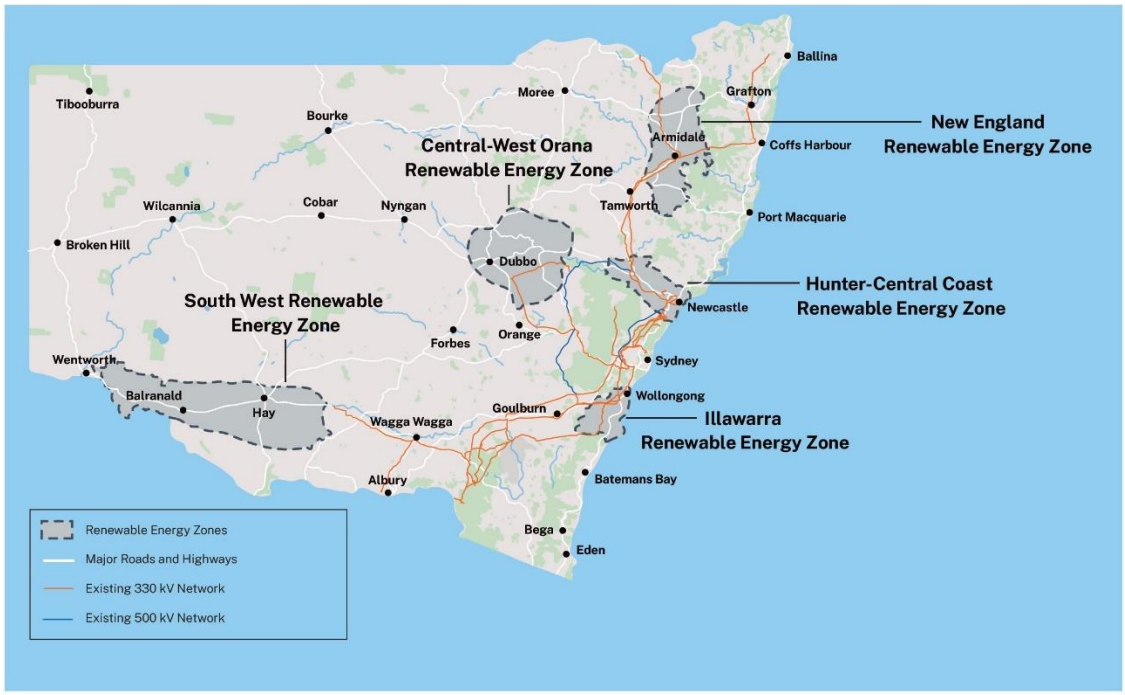
The *NSW Renewable Energy Action Plan* outlines a comprehensive framework to achieve renewable energy targets by 2030 and details the opportunities and actions underway for renewable energy technologies in NSW.

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.



NSW Renewable Energy Projects and Potential Priority Zones
The Energy Corporation of NSW (EnergyCo)

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

The *NSW Renewable Energy Action Plan 2018* identified Glen Innes **within the New England Renewable Energy Zone** (*see below figure*). There are opportunities around all the transmission lines, including the Transgrid line to the south of the Shire.

8.2 New England North West Regional Plan 2041

Glen Innes Severn is one of thirteen LGAs under the umbrella of the New England North West Regional Plan (NENWRP). The NENWRP sets out a regional framework that complements the state and local framework for the direction of planning and development across north-western NSW. Of direct relevance to this application, the forward to the NENWRP states:

> *"The future of energy is renewable, and the New England North West is already becoming a leader in sustainable and cost-effective electricity production with the building of Australia's largest hybrid solar farm in Uralla, but that's just the start. The NSW Government has set a clear objective of halving our emissions by 2030 and achieving net zero emissions by 2050. We are securing the economic prosperity of the region for the decades to come by putting it in a strong position to achieve net zero."*

8.2.1 Part 1 – Growth, Change and Opportunity

- *OBJECTIVE 1: Coordinate land use planning for future growth, community need and regional economic development*

The proposed development represents an opportunity to capitalise on the 4 key settlement principles of the Regional Plan, which seeks to:

1. Identify growth needs and opportunities
2. Identify and direct suitable land for planned growth
3. Determine the required structure for development, and
4. Encourage locally responsive, sustainable design.

The development of the site provides for investment within the local community as the energy economy transitions toward renewable energy. The nature of the development also avoids prejudicing future rural development of the site and would be unlikely to adversely impact surrounding rural land.

8.2.2 Part 2 – Productive and Innovative

- *OBJECTIVE 2: Protect the viability and integrity of rural land*

The proposal is tied to a 30-year-lease of the farmer's property, after which the property would be fully remediated to pre-development conditions. On the agricultural spectrum, the site is of moderate agricultural utility, capable of being grazed, though there is no formal irrigation infrastructure.

The level of ground disturbance would be limited to installation of shallow footings to support the solar panel arrays, and deeper footings for the central inverter and the eight (8) battery units.

8.2.3 Part 3 – Sustainable and Resilient

- *OBJECTIVE 8: Adapt to climate change and natural hazards and increase climate resilience*
- *OBJECTIVE 9: Lead renewable energy technology and investment*
- *OBJECTIVE 10: Support a circular economy*

The transition toward renewable energy must be balanced by appropriate measures to ensure that the development of renewable energy alongside diversification of farming incomes.

The Glen Innes Severn LGA is within the New England Renewable Zone, and is envisioned to provide a substantial contribution to the renewable energy transition. The site is well served by existing infrastructure and would allow for the continuation of existing rural uses in the immediate vicinity.

8.3 Glen Innes Severn Local Strategic Planning Statement

Our Local Advantages

Agriculture, Tourism, Affordable Living, Construction, Aged Care and Emerging Renewable Energy

Growth has been seen from 2012 to 2018 in Tourism to 5.5% when reported as a separate sector. Output in Education and Training and Rental, Hiring & Real Estate Services has likely been driven by the construction phases of White Rock and

Sapphire Wind and Solar Farms. In fact Renewable Energy is an emerging industry alongside established businesses…

Planning Priorities

Priority # 2 *Encourage diversification in agriculture, horticulture and agribusiness to grow these sectors and respond to domestic and international opportunities.*

Priority # 9 *Adapt to natural hazard and climate change*

Priority # 10 *Promote and support renewable energy production opportunities.*

The proposal presents an opportunity for farm diversification in a manner that retains the balance of the land for continued agricultural production, on a site with limited environmental risk.

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 has been largely cleared for agricultural use. The proposal will therefore not require the removal of any significant vegetation.

Aerial Imagery of Existing Site Vegetation

Photograph of Existing Site Vegetation
Photograph taken by Ozark, facing south of site toward Furracabad Creek

The current application 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.

The solar farm compound has been deliberately set back at least 40 metres from the nearest bank of the Furracabad Creek. 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 largely cleared of any trees; however, there are some isolated trees, and the overwhelming majority of ground cover is exotic pasture grasses. A site visit of the property identified some areas of native grass in seasonal wetlands that has regenerated across the site – though this is well below the BOS threshold and is considered to be of limited conservation value and its removal would not greatly impact biodiversity of the site.

Despite the presence of the wetlands, there are no flooding constraints that affect the land. Particularly in considering the nature of a solar facility – with the development comprising largely permeable fencing and ground-mounted installations – it would significantly impede natural flow paths and increase flood risk.

Impacts on the Built Environment

The existing built environment of the immediate locality is agriculture that is undertaken at a range of scales and intensities. There are no immediate non-agricultural uses nearby such as rural dwellings which may be impacted by this proposal.

The nearest dwelling is located approximately 500 metres west of the development site. It is also 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.

The distance of the solar farm from the Gwydir Highway, along with the proposed landscaping, is also considered to further soften any visual impacts to passersby from the road.

The proposal also includes one (1) centrally located inverter station, eight (8) 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 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 Glenn Innes and the broader municipality.

The proposed solar facility has been designed and located to maximise the electricity generation efficiency while limiting the use of rural land – retaining much 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. Where additional skilled workers from outside the region would

need to be accommodated, this 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 creek to the south and east, the site is located at the interface between farming and environmental uses, without adversely affecting either.

The solar farm would be located over 500 metres from the nearest dwelling, and the solar panels would be approximately 50 metres from the northern road frontage.

The site has also been deemed a suitable candidate because of the existing electricity network and its close proximity to the Glen Innes Zone Substation, which will allow for transmission to local community transmission network.

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 Glen Innes Severn LGA and in accordance with the prevailing planning instruments.

9.2 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 electricity generating facility is considered to be compatible with adjoining agricultural land uses and respectful of the nearby terrestrial biodiversity and creek corridor.

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 located to limit any impacts on 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 Gwydir Highway.

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.

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 and distribution network in close proximity to the site.

(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 small solar 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 the Glen Innes 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 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.

9.3 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—

(i) to facilitate the orderly economic use and development of lands for primary production,
(ii) 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,
(iii) 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,
(iv) 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,
(v) to encourage sustainable agriculture, including sustainable aquaculture,
(vi) to require consideration of the effects of all proposed development in the State on oyster aquaculture,
(vii) 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 unused part of the farming property will be retained for ongoing 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.

9.4 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, which have a capital investment value of over $5 million are declared regionally significant. The proposed Solar Facility development has a CIV of **$5.8 million** and is therefore identified as a **Regionally Significant Development**.

9.5 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.

9.6 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 significant habitat, 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 Glen Innes Severn Local Environmental Plan 2012

10.1 2.3 Zone Objectives and Land Use Table – RU1 – Primary Production

1 Objectives of zone

- 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.*

10.2 7.7 Riparian Land and Watercourses

(1) The objective of this clause is to protect and maintain the following—
(a) water quality within watercourses,
(b) the stability of the bed and banks of watercourses,
(c) aquatic and riparian habitats,

(d) ecological processes within watercourses and riparian areas.

(2) This clause applies to the land shown as "Riparian Land" on the Riparian ands and Watercourses Map.

(3) In deciding whether to grant development consent for development on land to which this clause applies, the consent authority must consider—

(a) whether the development is likely to have an adverse impact on the following—

(i) the water quality and flows within the watercourse,

(ii) aquatic and riparian species, habitats and ecosystems of the watercourse,

(iii) the stability of the bed and banks of the watercourse,

(iv) the free passage of fish and other aquatic organisms within or along the watercourse,

(v) the future rehabilitation of the watercourse and riparian areas, and

(b) whether the development is likely to increase water extraction from the watercourse, and

(c) appropriate measures to avoid, minimise or mitigate the impacts of the development.

(4) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that—

(a) the development is designed, sited and will be managed to avoid a significant adverse environmental impact, or

(b) if a significant adverse environmental impact cannot be avoided—the development is designed, sited and will be managed to minimise the impact, or

(c) if a significant adverse environmental impact cannot be minimised—the development will be managed to mitigate the impact.

The design implements the recommendations of the preliminary ecological assessment of the site to setback all development at least 40 metres from the bank of Furracabad Creek (as a fourth order stream), to ensure that the development does not impact on the existing watercourse.

11 Glen Innes Severn Development Control Plan 2014

11.1 Rural Development – Chapter 4

This section refers to all development permitted in the Rural and Environmental Zones contained within Glen Innes Severn Local Environmental Plan 2012 and applies to all Rural, Rural Residential and Environmental zoned land (RU1, RU2, R5 and E3) subject to a development proposal. The stated aims of this chapter are:

- *To enhance the character of the rural areas.*
- *To encourage the use of existing or potentially productive land for agricultural purposes.*
- *To reduce potential for rural land use conflict.*
- *To protect old-growth, significant hollow-bearing trees and conservation significant vegetation through recognition of their ecological value and scarcity in the landscape.*
- *To improve the ecological function of riparian areas within the landscape.*
- *To improve the stability of the bed and banks of waterways through the management of riparian vegetation.*

In accordance with abovementioned aims, the proposed development is sited in a location that would require no removal of high value vegetation and would be co-located with existing electrical infrastructure (refer to attached plans). The development is a permeable development and would largely retain the pre-development levels of runoff. Nevertheless, there would be some increase to runoff, which would be readily addressed through the detailed design process as a condition of consent of the sought DA.

4.5 Vehicular Access Requirements *Where access from a public road to a private property is required:*	
Access to a development shall be located having regard to its potential impact on the landscape and native vegetation and shall be unobtrusive and sympathetic to the existing landform and neighbouring development.	✓ Complies This application has been designed around existing site conditions, with particular consideration given to the nearby Farracabad Creek.
All development is required to have coincidental legal and physical access from a public road to the development site. In this regard, Council may require evidence from a registered surveyor that this is the case.	✓ Complies
Where a part of any access is via an unformed Crown road, the road may first require dedication as a Council public road, and then construction to an appropriate standard once Council approval has been gained for the work. For a single residential dwelling, the minimum standard of construction where the owner will be responsible for ongoing track maintenance is in accordance with the former Department of Land and Water Conservation publication "Guidelines for the Planning, Construction and Maintenance of Tracks".	Not applicable. The proposal does not seek access via a crown road.
Road and drainage designs may need to be submitted to Council at the applicant's expense prior to approval of any roadworks within a Council public road reserve.	Suitable drainage requirements would be best imposed as a condition of consent should the consent authority deem it appropriate.
The developer will be responsible for construction or upgrading of any vehicle access in accordance with Council standards, including: ○ *A suitable width all-weather pavement from the road to the entrance gate or stock grid.* ○ *Where the access crosses a table drain, a minimum 375mm diameter pipe with headwalls, or concrete dish drain on the alignment of the table drain.* ○ *Any entrance gate or stock grid should be set back a minimum distance of 15 metres from the edge of the traffic lane*	It is assumed that this would be imposed by Council as a condition of consent should the development consent be granted.

for single unit truck access, or 22 metres for semi-trailer access. ○ *The access is to be located at where safe intersection sight distances can be achieved, including a minimum gap sight distance of 5 seconds.* ○ *A Council Road Opening Permit is required prior to performing any work within a public road reservation.*	
4.6 Environmental Considerations – Requirements	
Development shall not be carried out on slopes greater than 20%. If development on slopes greater than 20% is unavoidable, Council may require a geotechnical assessment.	✓ Complies
Clearing of native vegetation – applications are to identify the area and number of trees to be cleared as part of the application. Clearing which does not form part of a Development Application to Council must be approved by the relevant Local Land Services (LLS) (refer to Note below).	✓ Complies This application is accompanied by a biodiversity assessment by OzArk Consulting.
Where development is likely to have a significant impact on threatened species, populations or ecological communities, or their habitats within the meaning of the Threatened Species Conservation Act 1995, Environment Protection and Biodiversity Conservation Act (EPBC) Act 1999 and Fisheries Management Act 1994., Council will require the submission of the following: ○ *An ecological assessment prepared by a suitably qualified, experienced and independent person or persons; and/or* ○ *A preliminary Vegetation Management Plan (VMP) prepared by a suitably-qualified and experienced person such as an Ecologist, Bush Regenerator, Horticulturist or Landscape Architect with practical, demonstrated experience in bush regeneration., and/or* ○ *Compensatory planting prepared in accordance with Table 4.1.*	Not applicable. The proposal does not impact a level of vegetation that would warrant approval under either the EPBC or Fisheries Management Act. Refer to attached biodiversity assessment by Ozark for particulars of site vegetation.
Riparian lands within a subdivision are to be stabilised and revegetated according to stream order and buffer category. Water courses classified as stream order 3 or greater (Strahler method) require a riparian buffer of at least 40 m	✓ Complies The solar farm has been located to achieve compliance with this criterion.

Roads are to be located outside riparian buffer areas where possible. Where roads traverse the riparian buffer area, the road design is to minimise the area of disturbance and demonstrate minimal impact on the riparian function and integrity.	✓ Complies
Driveway/roadway crossings/other infrastructure located over waterways are to have regard to the requirements for fish passage in accordance with relevant NSW State Government requirements under the Fisheries Management Act 1994.	Not applicable. There are no crossings over waterways proposed.
4.7 Flooding	
In low-lying areas a flood study may be required to determine appropriate floor levels for habitable structures. Waterway crossings on any access roadways should be designed to permit two-wheel drive access from a public road to the residence during a critical one (1) in 100-year storm event.	Not applicable. There are no crossings over waterways proposed.
4.8 Land Use Buffers	
Buffers from development to rural land uses are to be established in accordance with the NSW DPI Land Use Conflict Risk Assessment Guide.	✓ Complies The proposal does not necessitate any formal buffers beyond the proposed landscaping that forms part of the solar farm proposal.
Where a proposed development for a dwelling or tourist accommodation will adjoin an agricultural enterprise on an adjoining property, a minimum 100m separation shall be provided. Where the 100m buffer cannot be achieved, Council will consider the use of vegetative buffers on the proposed development site	Not applicable.
Any new residence should be located a minimum distance of 2km from any active or proposed wind turbine, unless suitable measures are taken in the design and construction of the dwelling to ameliorate any noise or other impacts	Not applicable. Development does not include a dwelling.

11.2 Access and Parking – Chapter 7

To ensure that new development:

- *maintains or improves traffic safety and management;*
- *provides adequate provision for access and parking for people with disabilities;*
- *minimises the visual impact of on-site parking. and*

- *provides for the ongoing maintenance of on-site car parking and manoeuvring areas.*

There are no prescribed car parking rates that are relevant to electricity generating systems under the DCP. In the absence of a car parking requirement under the DCP, refer to construction environment management plan and traffic impact assessment for a modelling of the anticipated car parking requirement.

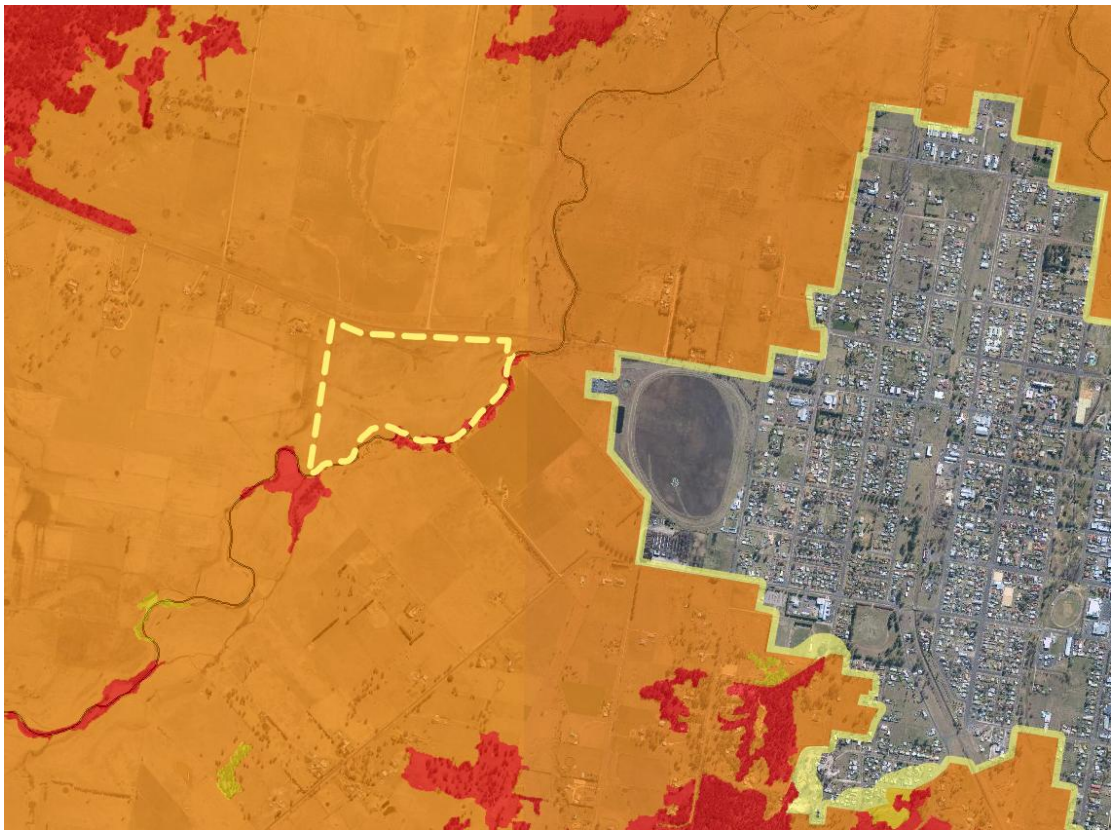
The development includes a mix of informal car parking, as well as a dedicated car parking area post-construction, which is anticipated to be no more than 1-2 standard vehicles at any given time.

12 Planning for Bushfire Protection 2019

Planning for Bush Fire Protection 2019 (PBP) provides development standards for designing and building on bush fire prone land in New South Wales.

The proposed development is identified under Bushfire prone area; accordingly, it considers Bushfire protections measures listed in the document, such as:

- Asset protection Zone (APZs)
- Access
- Construction, siting and design
- Services; and
- Emergency and evacuation planning.



Bushfire Prone Land

In considering the immediate landscape within the vicinity of the proposed solar farm (being managed grassland). Any fire in the area would be a grass fire, which can be managed through preventative measures. The proposed facility includes a 10-metre-wide asset protection zone around the entirety of the facility, which would serve to

prevent spread of fire from the site and/or conveyance of fire to the site from the surrounding area.

The proximity of the subject site to the Furracabad Creek along the eastern boundary is the primary fuel for the bushfire risk, though the trees along the riparian corridor are to the east of the creek. Consequently, the creek itself further prevents fire spread from the creek vegetation.

To mitigate any potential risks caused by grasslands from neighbouring paddocks following measures are undertaken:

- Appropriate location of access roads for the proposed development to enable safe egress for any individual attempting to leave the area at the same time that emergency service personnel are arriving to undertake firefighting operations.
- The existing road infrastructure shall provide sufficient width and other dimensions to ensure safe unobstructed access and allow firefighting crews to operate equipment around the vehicle.
- The subject site has access to all weather road and provision for water supply, thereby ensuring protection of human life and property.

From above it is anticipated that the subject site will be well protected by any event of bushfire.

13 Conclusion

The proposal is for a new solar facility within the Glen Innes Severn LGA that will provide affordable clean energy for the local community, including Glen Innes township and surrounding rural properties, 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 4.95 MW output will supply local businesses, industry and houses and will produce enough energy to support the Glen Innes Severn Council during the renewable energy transition.

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.