GLEN INNES SEVERN COUNCIL ASSESSMENT REPORT

Panel Reference	PPSNTH-93	
DA Number	DA-56/20-21	
LGA	Glen Innes Severn Council	
Proposed Development	Construction and operation of a 5MW Solar Farm and associated infrastructure.	
Street Address	Tuttles Lane, Glen Innes NSW 2370	
Applicant/Owner	Applicant: NSW Community Renewables (Glen Innes) Pty Ltd C/- KDC Pty Ltd	
	Owner: Lyle Perkins and Elvessa Jennene Perkins	
Date of DA lodgement	19 January 2021	
Number of Submissions	2	
Recommendation	Approval with Conditions	
Regional Development Criteria (Schedule 7 of the SEPP (State and Regional Development) 2011	Private infrastructure for the purpose of electricity generating works with a capital investment value of more than \$5 million	
List of all relevant s4.15(1)(a) matters	 State Environmental Planning Policy (SEPP) (Koala Habitat Protection) 2019 SEPP No 55 – Remediation of Land; SEPP (Infrastructure) 2007; SEPP (Primary Production and Rural Development) 2019; SEPP (State and Regional Development) 2011; Glen Innes Severn Local Environmental Plan 2012; Glen Innes Development Control Plan 2015; The Application has been publicly notified and advertised for 28 days; 	
List all documents submitted with this report for the Panel's consideration	 Annexure A – Recommended Conditions of Consent Annexure B – Concept plans and assessments: Plans of the development by Providence Asset Group dated 8 December 2020 Stormwater Management Report, prepared by DRB Consulting Engineers, Ref: 200521, Revision B, dated 18 December 2020 Aboriginal Archaeological Assessment, prepared by Virtus Heritage, Final version 4, dated 4 December 2020 Traffic Impact Assessment prepared by Intersect Traffic Pty Ltd, project ref: 20/190, Issue D, dated 15 December 2020 Visual Assessment, Landscape Concept and Reflectivity Statement prepared by SLR Consulting, project ref: 631.00000.20401, Revision 2, dated December 2020 Noise Assessment, prepared by Muller Acoustic Consulting, project ref: MAC201186-01RP1, dated 14 December 2020. Waste Management Plan, prepared by KDC, project ref: 20401_WMP_Glen Innes_December2020, dated December 2020 Flora and Fauna Assessment Report, prepared by Kleinfelder, project ref: 20212718, Version 2, dated 14 December 2020 	

	 Statement of Environmental Effects, prepared by SLR consultancy, project ref: 20401_SEE_Glen Innes_December2020, dated December 2020. SLR Response to Request for Further Information 29 March 2021 Annexure C – Internal and Agency Referral Responses Annexure D - Submissions 	
Report prepared by	Keiley Hunter, Consultant Town Planner	
Report date	4 June 2021	

Summary of s4.15 matters

Have all recommendations in relation to relevant s4.15 matters been summarised in the Executive Summary	Yes
of the assessment report?	
Legislative clauses requiring consent authority satisfaction	
Have relevant clauses in all applicable environmental planning instruments where the consent authority must	Yes
be satisfied about a particular matter been listed, and relevant recommendations summarized, in the	
Executive Summary of the assessment report?	
Clause 4.6 Exceptions to development standards	
If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received,	Not Applicable
has it been attached to the assessment report?	
Special Infrastructure Contributions	
Does the DA require Special Infrastructure Contributions conditions (S7.24)?	No
Conditions	

Have draft conditions been provided to the applicant for comment?

Note: in order to reduce delays in determinations, the Panel prefer that draft conditions, notwithstanding Council's recommendation, be provided to the applicant to enable any comments to be considered as part of the assessment report

Further Application Details:

DA Lodgement Date: 19 January 2021	
Additional Information received?Response to Council's request for additional information received March 2021	
Capital Investment Value:	\$6,671.757 (estimated cost of works)

Yes

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Assessment Report and Recommendations DA-56-2020-21 / NRPP Ref - PPSNTH-93

1. EXECUTIVE SUMMARY

Reasons for consideration by Northern Regional Planning Panel:

The Northern Regional Planning Panel will be the determining authority for this DA pursuant to Clause 5(a), Schedule 7 of *State Environmental Planning Policy (State and Regional Development) 2011*, as the proposed development is for private infrastructure works, being electricity generating works, with a capital investment value (CIV) of more than \$5 Million and as such, is considered to be 'Regionally Significant Development' (RSD).

Description of the Proposal

The proposed development is for the construction and operation of a photovoltaic (PV) solar farm and associated infrastructure with a production capacity of 5MW located on approximately 14.8 hectares of rural land at Tuttles Lane approximately 2 kms west of the Glen Innes urban area.

Permissibility

The subject land is zoned RU1 Primary Production under the *Glen Innes Severn Local Environmental Plan 2012* (LEP). The proposed development is consistent with the zone objectives and is permitted with consent by virtue of the *State Environmental Planning Policy (Infrastructure) 2007*. Development for the purpose of *electricity generating works* on land within a prescribed rural zone, is permitted with consent under Clause 34(1)(b) of *State Environmental Planning Policy (Infrastructure) 2007*.

Key Issues:

Key issues for this project are balancing the main impacts of the development against the priorities identified in the **Glen Innes Severn Council** Local Strategic Planning Statement to prioritise renewable energy development.

Issues identified in this assessment are summarised as follows:

- Compatibility with the surrounding rural environment
- Visual impact
- Decommissioning waste management.

Consultation

The Application was notified for 14 days to adjoining property owners and was also advertised in the local newspaper from 4 February 2021 – 18 February 2021. At the conclusion of the notification period two (2) submissions were received by Council. The matters raised in the submissions have been addressed by both the Applicant and Council as a part of this assessment.

Recommendation

- (a) That having regard to the assessment of the Application, DA-56-20/21 (NRPP Ref: PPSNTH-93) be granted conditional consent in the terms set out in Annexure A to this report.
- (b) That those persons that made submissions in relation to the Application be notified of the determination in writing.

2. SUBJECT SITE AND LOCALITY

The subject land is described as Lot 32, 33, 34, 35 and 36 DP 1834 and Lot 1 DP 251457, and is located at Tuttles Lane, Glen Innes. The subject land has an approximate area of 53 hectares and is part of a larger agricultural property that is spatially separated into three farm holdings.

The site of the proposed solar farm is shown at Figure 1 below. The total lease area of the site is 14.8 hectares and spans across six lots.



Figure 1 – The Site

Source: Statement of Environmental Effects, SLR KDC December 2020

The site is approximately 1.2 kilometres west of Glen Innes and is accessed via Tuttles lane. The site has frontage to Gwydir Highway to the south and Tuttles Lane to the west. The land slopes from Chaffey's Hill in the north down towards the Gwydir Highway. The land is zoned RU1 Primary Production and is presently used for extensive agriculture. Part of the land is mapped as Strategic Agricultural Land – Biophysical.

Furracabad Creek runs east of the site and there is an unnamed water course running South of the site.

The Gwydir Highway is a classified state highway (SH12), Tuttles Lane is located off the Gwydir Highway and is a two lane unsealed rural road with all-weather gravel formation.

1 x 132kv and 1 x 66kv powerlines traverse the site from north west to south west, connecting to a substation located on Ferguson Street approximately 450m south east of the development site.

The site is approximately 560m from the nearest dwelling located on the northern side of Chaffeys Hill, to the north of the site area. A Figure and table of surrounding dwellings is provided below.

Figure 2 – Locality Plan



Source: Visual Assessment, Landscape Concept and Reflectivity Statement, December 2020



Figure 3 – Zoning Map

A summary of adjoining land is as follows (refer to Figure 4 showing location of sensitive receptors):

Address	Receptor No	Lot/DP	Description
176 Tuttles Lane	R05	Lot 55 DP1834	Dwellings and outbuildings located 725m north- west of development site.
185 Strathbogie Road	R01	Lot 56 DP1834	Dwelling located 660m north of the development site.
123 Strathbogie Road	R02	Lot 349 DP753282	Dwelling and outbuildings located approximately 560m north-east of development site
2 Wellingrove Street	R24	Lot 3 DP758447	Dwelling and outbuildings 680m east of development site.
1 Wellingrove Street	R25	Lot A DP388731	Dwelling and outbuildings located approximately 660m east of development site
124 Abbotts Road	R11	Lot 26 DP751474	Dwelling located 950m north-west from development site.
Corner Abbotts Road/ Gwydir Highway	R14	Lot 12 DP1834	Dwelling and outbuildings located 930m south- west of development site





Source: Noise Assessment, Muller Acoustic Consulting, December 2020

3. PROPOSED DEVELOPMENT

The proposed development involves:

- 1. Installation and operation of a photovoltaic (PV) solar farm and associated infrastructure, with a 5MW grid connected solar PV installation.
- 2. Installation of 11,424 x 540W solar PV panels.
- 3. The PV arrangement will consist of 136 ground mounted single axis trackers. The PV arrays will have a clearance above the existing ground surface and extend to approximately 2.6m at maximum tilt when the array is fully tilted to 60 degrees from horizontal, i.e. early morning and late evening.
- 4. The PV mounting structure will comprise of steel posts driven to approximately 1.5m below ground using a small pile driver. Additional support structures will be attached to the piles, which would then support the PV panels.
- 5. A 5m wide access road off Tuttles Lane.
- 6. 2.3m high security fencing including barbed wire at the top.
- 7. A car parking area, off load area and temporary construction office.
- 8. A stormwater management system including an onsite detention basin holding a total volume of 210.21 m³ supported with a low flow outlet.
- 9. Earthworks for the internal access road, drainage swales and batters, laydown area, removal of a farm dam and the upgrade of an existing dam to on site water detention basin.
- 10. Tree removal three paddock trees (non-native)
- 11. Landscaping shrub planting to lease boundary.

The solar farm will be connected to Essential Energy's network via an 11 kV distribution line running adjacent to the eastern boundary of the site. A separate application process is being undertaken with Essential Energy for this connection.

Other electrical generation infrastructure is proposed on the site including a skid-mounted MV Power Station consisting of inverters, transformer, and switchgear. Due to the capacity of the inverter system, the proposed development will produce less than 5MW. Most of the infrastructure will be pre-fabricated off-site, delivered and assembled on-site.

Reticulated services are not required for the Solar Farm as there will be no permanent offices or amenities on site.

The applicant states that upon cessation of power generation operations, the solar panels and all supporting infrastructure will be removed and appropriately recycled or disposed to a licenced facility. Where landfilling is required licensed landfills outside of the Glen Innes region are preferred to reduce the strain on the capacity of local landfills. A condition of consent requires the submission of a decommissioning plan prior to the commencement of use.

Hours of operation

The solar PV farm will operate 24 hours a day, 7 days a week, with no permanent staff on site. Maintenance inspections will be undertaken on an as needs basis.

Staff

During the construction period there is estimated to be up to 30 personnel on site for up to 6 months. No permanent operational staff.

Landscaping

Landscaping comprises a 3 to 4 m wide buffer with shrub planning (native species) outside of the security fence and within the lease boundary to the eastern and southern sides of the lease boundary. A condition

of consent will require the implementation of the proposed landscaping to all sides of the lease boundary to screen the development from the Abbotts Road and Tuttles Lane areas. The proposed landscaping is shown on Page 27 of the Visual Assessment, Landscape Concept and Reflectivity Statement.





View from south (from Gwydir Highway)





Section Detail - Array

General Arrangement Source: Provident Asset Group, plan extracts, detailed drawings are provided.

Figure 6 – Trees to be removed



Source: GISC Town Planner, 15/2/21

4. DECOMMISSIONING

There is potential for waste management issues to arise in the event operations at the plant cease. Decommissioning of the plant may result in a significant quantity of waste to be disposed, potentially, in excess of the capacity of Council's waste management facility. This was raised with the proponents who provided the following clarification.

On cessation of power generation operations, the solar panels along with the supporting structures and associated infrastructure are to be removed from the site. The panels themselves are to be removed and directed to an appropriately licenced facility with recycling to be prioritised over landfill options subject to availability at the decommissioning stage. Surface infrastructure such as the array frames are readily recyclable and will be directed to appropriately licenced resource recovery facilities.

As the supporting solar panel structures are proposed to be driven into the ground rather than using earthworks, they are to be similarly lifted out of the ground with no or negligible earthworks required. This significantly reduces decommissioning time and retains the natural landform of the site.

The associated energy infrastructure is to be disconnected from the grid. Infrastructure may be reconditioned for reuse elsewhere or recycled offsite. Cabling is to be recovered and directed for recycling.

Site improvements such as driveway and stormwater management are to be returned to its state prior to development. The proposed boundary landscaping is to remain on the site.

Where landfilling is required there will be a preference to large scale and appropriately licenced landfills outside of the Glen Innes region. This will ensure the landfill capacity supporting Glen Innes and surrounding areas is reserved for the needs of the community and maintain its existing projected lifespan.

A condition of consent requires that within 18 months of the cessation of operations, unless Council agrees otherwise, the applicant shall rehabilitate the site to the satisfaction of Council.

5. EXTERNAL REFERRALS

Referral Agency:	Summary of Advice / Issues:
Natural Resources Access	The applicant identified the application is Integrated development under section 4.46 of the Act, advising Council that a Controlled Activity Approval section 91 of the <i>Water Management Act 2000</i> was required.

Regulator (NRAR)	NRAR confirmed on 2 March 2021 that the proposed works are not located on waterfront land as defined by the WM Act, and a Controlled Activity Approval was therefore not required.
Essential Energy	The application was referred to Essential Energy under Clause 45(1)(b) of State Environmental Planning Policy (Infrastructure) 2007.
	The agency responded 18 March 2021 with the following recommended condition of consent, included as a consent condition:
	Satisfactory ground clearance from high voltage overhead powerlines must be achieved at the entry into the solar farm as set out in AS/NZS 7000:2016.
	General comments have been included as advisory notes to the recommended consent conditions.
Department	The application was referred to DPIE for comment.
of Planning, Industry and Environment	The agency responded on 4 March 2021 confirming the impacts of the development does not trigger the Biodiversity Offset Scheme and hence a Biodiversity Development Assessment Report (BDAR) is not required.
- Biodiversity and	BCD recommends that there is consideration imposing conditions of consent requiring that:
Conservation (BCD)	 Active weed control be undertaken across the whole site on a regular basis. A vegetation rehabilitation and management plan be prepared and implemented on the south-eastern section of the site.
	Proponents' response:
	Weeds on site will be appropriately managed. Details regarding proposed Weed Management procedures can be provided to Council as a condition of consent. Details regarding proposed Vegetation Rehabilitation and Management can be provided to Council as a condition of consent.
	Council response:
	A consent condition has been included reflecting the above.
Transport for NSW	The application was referred to the TfNSW for comment. TfNSW reviewed the development and provided the following comments:
	 The supporting Traffic Impact Assessment (TIA) identifies that construction traffic demands will increase traffic along the identified access route and that these demands will reduce during the operational phase of the development. It is noted that these movements will occur on high-speed, rural roads typically supporting low traffic volumes. Peak construction traffic should be appropriately managed to ensure the safety of the travelling public.
	Proponents' response:
	It is noted that construction traffic is temporary in nature and will be managed through a future Construction Management Plan to be prepared by the appointed contractor.
	Council response:
	A condition of consent requires a Construction Management Plan and a Traffic Management Plan to be prepared by the proponent and approved by Council.

- Section 3.1 of the TIA provides a description of the Gwydir Highway and Tuttles Lane intersection. The description does not confirm the presence of minimum Austroads Basic (BA) turn treatments. In particular, the development proposes an increase in vehicles turning from the highway into Tuttles Lane.

Proponents' response:

As stated in the Traffic Impact Assessment, the combination of the two-way mid-block peak hour traffic data and traffic generation figures reported in Section 6.1 in the AM and PM peak hour traffic volumes on the local and state road network during construction of the Solar Farm will be well below the existing capacity thresholds determined above then the local and state road network has sufficient spare two-way mid-block capacity to cater for the construction and operation of the Solar Farm. BA treatment is not considered necessary in this instance, while the use is considered commercial, due to the nature of the solar farm it will generate minimal vehicle movements and access from Gwydir Highway will not cause safety issues or delays for other vehicles.

Council response:

Council's Director of Infrastructure raised no concerns regarding the intersection.

Images in the TIA suggest the abovementioned intersection does not meet the minimum geometry for an Austroads basic right-turn (BAR) treatment. The proposed increase in vehicles turning right from the Gwydir Highway into Tuttles Lane will increase the risk of rear-end crashes in the 100km/h speed environment.

Proponents' response:

The TIA projected a peak of peak of 18 vehicle trips per hour consisting of 10 light vehicles, 3 roadwork vehicles, and 2 delivery vehicles. It is noted, construction is not expected to exceed the capacity of either the roads or the intersection as they are currently designed. Based on the data collected, BAR treatment is not considered necessary in this instance, while the use is considered commercial, due to the nature of the solar farm, vehicles turning right from Gwydir Highway onto Tuttles Lane will not generate an increase in traffic or increase the risk of rear-end crashes in the 100km/h speed environment.

Council response:

The duration of construction traffic will be up to 6 months. Measures should be incorporated into the Traffic Management Plan to manage risk *of rear-end crashes in the 100km/h speed environment in vehicles turning right from the Gwydir Highway into Tuttles Lane.*

- The TIA should typically consider the Austroads warrants for BA, AU or CH turn treatments to address safety for through and turning traffic. Prior to determination it is recommended that Council identify the existence of minimum Austroads intersection treatments and condition any warranted intersection treatment. It is noted that construction traffic demands may be managed under temporary arrangements and that works should accommodate expected operational demands.

Proponents' response:

A traffic management plan will be prepared by the proponent for the PV Solar Farm during the construction phase to accommodate expected operational demands.

Council response:

It is considered that traffic safety measures incorporated into the Traffic Management Plan will be sufficient to manage temporary construction traffic demands.

- TfNSW suggests that the Consent Authority may wish to obtain swept path analysis to demonstrate that the largest design vehicle can negotiate the transport route in both directions, and enter and leave the site in a forward direction. The site access should be located, designed and constructed to Council's design requirements.

Proponents' response:

A Construction Management Plan will be prepared for the proposal within the provisions of Council's design requirements.

Council response:

The TIA concluded that the proposed site access is suitable for use for construction and operation of the development being compliant with Australian Standard and Austroads requirements. Whilst this does not specifically address forward in forward out heavy vehicle movements, Tuttles Lane is a long straight road with low traffic volumes. Council's engineer notes that the condition of Tuttles Lane is deemed acceptable to function as an access route to the site, given the road has already dealt with much larger wind farm traffic. On this basis, swept path analysis is not required.

- The TIA has considered one possible transport route to the site. It is noted that access may be obtained from alternate route/s. Access should be limited to the route identified in the TIA unless assessed otherwise. It is recommended that the daily and peak hourly vehicle movements be identified as a condition of consent to ensure the demand generated by the development is consistent with the assessment provided in the TIA.

Proponents' response:

A Traffic Management Plan will be prepared for the proposal. The above is requested to be conditioned.

Council response:

Included as consent condition.

- Section 9 of the TIA provides limited details of public bus services operating in the subject area. It is unclear whether development traffic will impact on public or school bus services along the identified transport route during the construction and/or operational phase of the development. TfNSW recommends that the Consent Authority seek clarification of any expected impact on bus services and consider measures where appropriate.

Proponents' response:

The TIA projected an average of 10 light vehicles per day of which will arrive between 6am and 7am then departing the site between 5pm and 6pm. Heavy vehicles are projected to be 5 per day spread out between 10 am and 4pm. Minimal impact on public or school bus services will be expected within the construction phase.

Council response:
A condition of consent requires the TMP to address impact on school bus services.
 It is recommended that the Consent Authority consider requiring the preparation of a Traffic Management Plan (TMP) inclusive of temporary and ongoing measures to be implemented during the construction and operational phases of the development. The TMP, inclusive of any temporary traffic control measures. should be prepared by a suitably qualified person and include a Driver Code of Conduct (COC) and details of to be implemented during peak construction and/or periodic operational maintenance activities.
Proponents' response:
A Traffic Management Plan will be prepared for the proposal. The above is requested to be conditioned.
Council response:
A condition of consent requires the TMP to address these matters.
- The National Heavy Vehicle Regulator will need to be consulted regarding the use of Tuttles Lane by B-Doubles.
Proponents' response:
Noted, The National Heavy Vehicle Regulator will be consulted in conjunction with the Construction Management Plan.
Council response:
A condition of consent requires the TMP to include consultation with The National Heavy Vehicle Regulator.

6. INTERNAL REFERRALS

The development was referred internally to Council Director Infrastructure Services who provided the following comments.

- The proposed development will not generate greater than 50 vehicle movements per hour and as such does not trigger a traffic generating development under the SEPP.
- The condition of Tuttles Lane is deemed acceptable to function as an access route to the site, given the road has already dealt with much larger wind farm traffic.
- Industrial development rates in the GISC DCP require 1 car parking space per 10m2 GFA (min. 2 spaces per singe occupation).
- During construction the development will generate up to an additional 18 vehicle movements to and from the site during the weekday AM and PM peak periods, but only 2 vtph during the operation of the Solar Farm.

Suggested engineering conditions were provided and have been included as consent conditions.

7. ASSESSMENT - MATTERS FOR CONSIDERATION

The assessment of this Development Application has been undertaken in accordance with Section 4.15 (1) of the *Environmental Planning and Assessment Act 1979*, as amended. In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development application:

Section 4.15(1)(a) the provisions of the following that apply to the land to which the development application relates:

(i) the provisions of any environmental planning instrument

State Environmental Planning Policies (SEPPs):

The following SEPPs have been considered in connection with this development:

SEPP (State and Regional Development) 2011:

This Policy aims to identify development that is State and regionally significant, State significant infrastructure and critical State significant infrastructure. This proposal constitutes regionally significant development under Clause 5 of Schedule 7 of this Policy as it has a Capital Investment Value (CIV) of more than \$5 million, is private infrastructure and constitutes electricity generating works. In this regard, the Northern Regional Planning Panel are the consent authority for the proposed development.

State Environmental Planning Policy (Koala Habitat Protection) 2019

This policy applied at the date of lodgement. The SEPP aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for Koalas, to ensure a permanent free-living population are maintained over their present range and reverse the current trend of Koala population decline.

Clause	Subject	Comments
5	Land to which this Part applies	Glen Innes Severn Council LGA is listed under Schedule 1 of the SEPP.
9	Development assessment process—no approved koala plan of management for land	As there is no approved Koala Plan of Management for land and the subject land has an area of at least 1 Hectare, the provisions under Clause 9 of this Policy apply. Clause 9(2) states that, before Council may grant consent to a development application, Council must assess, in accordance with the Guideline, whether the development is likely to have any impact on koalas or koala habitat.
10	Development assessment process—other land	 A council is not prevented from granting consent to a development application for consent to carry out development on land if— (a) the land does not have an approved koala plan of management applying to the land, or (b) the council is satisfied that the land is not core koala habitat. The Flora and Fauna Assessment Report prepared by Kleinfelder is attached and determined that: An assessment of Koala habitat within the subject site determined that no Highly Suitable Koala Habitat, or Core Koala Habitat is present.

Council is satisfied that the land is not core koala habitat, therefore no
further action required under the SEPP.

SEPP No 55 – Remediation of Land:

SEPP 55 aims to promote remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment.

Clause	Subject	Comments			
7	Contamination and remediation to be considered in determining development application	Clause 7(1) states: (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 development site has been historically used for primary production, (extensive agriculture) and is currently used for the same purposes. A search of Council's records has not produced any approvals for activities listed under Table 1 of Planning Guidelines SEPP 55 – Remediation of Contaminated Land 1998. There are no known previous investigations about contamination on the subject land or land use restrictions issued by the NSW Environmental Protection Authority (EPA). A site inspection did not reveal any visual indications of contamination. The proposed development is not considered to be sensitive in nature and is considered to be appropriate for the site in its current state in accordance with SEPP55.			

SEPP (Infrastructure) 2007:

The aim of this Policy is to facilitate the effective delivery of infrastructure across the State.

Part 3 - Development Controls:

Division 4 - Electricity generating works or solar energy systems:

Clause	Subject	Comments			
34	Development permitted with consent	Clause 34(1)(b) of the ISEPP states that development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed rural use zone, which includes the RU1 Primary Production zone. The subject lands are zoned RU1 Primary Production and therefore the proposed development is permissible with consent under Clause 34(1)(b) of the ISEPP. Additionally, Clause 34(7) states: Development for the purpose of a solar energy system may be carried out by any person with consent on any land. The ISEPP defines a 'solar energy system' as follows:			

		solar energy system means any of the following systems— (a) a photovoltaic electricity generating system, (b) a solar hot water system, (c) a solar air heating system. The proposal is also considered to be permissible with consent under Clause 34(7)(a) of the ISEPP.
45	Determination of development applications— other development	In accordance with Clause 45(2), written notice has been provided to Essential Energy inviting their comments about potential safety risks. Essential Energy provided their response on 18 March 2021, which has been incorporated into the recommended terms of consent.

SEPP (Primary Production and Rural Development) 2019:

Subject	Comments				
ms of Policy	 The aims of this Policy are as follows— (a) to facilitate the orderly economic use and development of lands for primary production, The assessment of this application has been undertaken having regard to the aims of this Policy. The proposal is for a type of development other than for the purposes of primary production. Whilst the proposal will utilise agricultural land for the purposes of a photovoltaic electricity generating system, the site within and surrounding the development footprint can still be used for the stock grazing, and as such, can still be productive agricultural land. (b) to reduce land use conflict and sterilisation of rural land by balancing primary production, residential development (15ha), it is not expected that the proposal will result in any land use conflicts or sterilise the land for long term primary production purposes. Following any future decommissioning of the development, it is anticipated that the land would again be suitable for primary production purposes without any significant adverse impacts on its capacity. The development area on the site has been largely cleared of significant areas of native vegetation and has been extensively used for grazing purposes. (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, As shown below, the subject site contains Strategic Agricultural Land (high estimated fertility and capability) however this is clear of the development site. 				
	 ensuring the ongoing viability of agriculture on that land, having regard to social, economic and environmental considerations, As shown below, the subject site contains Strategic Agricultural Land (high estimated fertility and capability) however this is clear 				
	ms of Policy				

Image: second	Strategic Regional Land Use Policy (SRLUP) Strategic Regional Control (SRLUP) Strategic Regional Land Use Policy (SRLUP) Strategic Regional Control
	(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,
	 Not applicable to this proposal. (e) to encourage sustainable agriculture, including sustainable
	aquaculture,
	 The application is not for the purposes of agriculture. (f) to require consideration of the effects of all proposed development in the State on oyster aquaculture, Not applicable to this proposal.
	 (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. Not applicable to this proposal.

Local Environmental Plans (LEPs):

The following clauses of the Glen Innes Severn Local Environmental Plan (LEP) 2012 have been considered in connection with this development:

Clause	Subject	Comments			
1.2	Aims of Plan	Comments (1) This Plan aims to make local environmental planning provisions for land in Glen Innes Severn in accordance with the relevant standar environmental planning instrument under section 3.20 of the Act. (2) The particular aims of this Plan are as follows— (aa) to protect and promote the use and development of land for arts and cultural activity, including music and other performance arts, (a) to encourage the proper management, development and conservation of natural and human resources in Glen Innes Severn by protecting, enhancing and conserving the following— (i) land of significance to agricultural production,			

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	(ii) timber, minerals, soil, water and other natural resources,
	(iii) areas of significance for nature conservation,
	(iv) areas of high scenic or recreational value,
	(v) landscapes, places and buildings of archaeological or heritage significance, including aboriginal relics and places,
	(vi) communities and settlements,
	<i>(b) to facilitate growth and development that—</i>
	(i) minimises the cost to the community of fragmented and isolated development of rural land, and
	(ii) facilitates the efficient and effective delivery of amenities and services, and
	(iii) facilitates stimulation of demand for a range of residential, enterprise and employment opportunities and promotes agricultural diversity, and
	(iv) maximises the efficient use of existing infrastructure
	The assessment of this application has been undertaken having regard to the aims of the LEP, mainly to facilitate growth and development that promotes agricultural diversity without unreasonable impact to land of significance to agricultural production.
Land use zones	The land is zoned RU1 Primary Production.
Zone objectives	Zone RU1 Primary Production 1 Objectives of zone
Table.	 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. The proposed development is generally consistent with the objectives of the RU1 zone. The solar array infrastructure will occupy 14.8 ha of a 53 ha farming property and will have minimal impact on existing agricultural activities. Should the solar farm be decommissioned, it is possible to restore the site back to agricultural purposes, leaving roads and drainage infrastructure in place. The proposed development is identified as being 'electricity generating works' which is defined under the LEP as follows: electricity generating works means a building or place used for the purpose of— (a) making or generating electricity, or (b) electricity storage.
	Zone objectives and Land Use

		'Electricity generating works' are permissible with development consent in the RU1 zone, however, the development is permissible by virtue of Clauses 34(1)(b) and 34(7) under the ISEPP, as discussed in an earlier in this assessment report.
7.1	Flood Planning	The site is not mapped as being liable to inundation by flooding under the LEP but is in proximity to the Furracabad Creek. The solar array area is located to avoid low lying land in the south eastern corner to the east of the creek riparian area.
7.3	Essential Services	Provision of services, including stormwater drainage and vehicular access suitable for the proposed development will be provided for the development.
7.4	Airspace operations	The land is approximately 4.8 kms south of the Glen Innes Aerodrome. Infrastructure for the proposal will not penetrate the Limitation or Operations Surface. Section 7.4.1. of the Reflectivity Statement by SLR considered Aviation- Related Glint & Glare. The assessment found that the development would have a low potential for after-image glare.* The assessment concluded there will be nil impact from the Project in relation to aviation- related glare. *"After Image" can occur for example when a photo with flash is taken in front of a person who then sees spots in front of their eyes for a few seconds. A more extreme example of "after-image" occurs when staring at the sun.

(ii) the provisions of any draft environmental planning instrument

There are not considered to be any draft instruments which would have any bearing upon this application.

(iii) the provisions of any development control plan

Development Control Plan

The *Glen Innes Development Control Plan (DCP) 2014* applies to the land. The following Table outlines the relevant Chapters / provisions of the DCP that have been considered in connection with this assessment.

Chapter	Comment				
4	Rural Development				
4.3 Aims and Objectives	 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. 				

 Does not fragment rural land and will not contribute to land use conflict. Does not involve high value native vegetation removal. The development is set back from riparian land. A vegetation management plan is required for the low lying area in the south-eastern corner of the lease area adjacent to the Furracabad Creek riparian area.
 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. Access to the site off Tuttles Lane is in a suitable location, does not require native vegetation clearance and will not conflict with neighbouring development.
• 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.
• 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.
A Traffic Impact Assessment and Stormwater Management Plan have been prepared for this proposal. Council's Development Engineer has reviewed the plans and provided conditions of consent.
• The developer will be responsible for construction or upgrading of any vehicle access in accordance with Council standards
All access works will be carried out at the applicant's expense. A condition of consent requires the work to be carried out in accordance with AS2890 and relevant Ausroads design standards for Council approval.
• Clearing of native vegetation – applications are to identify the area and number of trees to be cleared as part of the application.
No native trees will be required to be removed. Exotic grassland and planted non-native paddock trees will be removed.
The site is approximately 4.8 kms south of the Glen Innes Aerodrome. Section 7.4.1. of the Reflectivity Statement by SLR considered <i>Aviation-Related Glint & Glare</i> . The assessment found that the development would have a low potential for after-image glare. The assessment concluded there <i>will be nil impact from the Project in relation to aviation-related glare</i>
Electricity and Telecommunications Infrastructure
 Any structures associated with the provision of electricity and telecommunications to the development shall be sited to have minimal environmental impact including vegetation removal and visual impact. The proposed site has been previously cleared for agricultural purposes. Visual impacts were assessed in the Visual Impact Assessment. Council is satisfied that the development will have an acceptable visual impact provided landscaping measures are implemented and maintained.

4.11 Farm Dams	The proposed 210 m ³ onsite stormwater detention dam does not require licencing. The development involves the removal of two existing farm dams.			
7	Access and Parking			
7.4	A Traffic Impact Assessment has been prepared.			
Access and Traffic Generation	The development is not defined as <i>Traffic Generating Development</i> (Schedule 3 of SEPP Infrastructure 2007), however the site has frontage to a classified road, therefore the proposal was referred to Transport for NSW for comment.			
	A Traffic Management Plan is required to be submitted with the Construction Management Plan prior to the commencement of works.			
	A condition of consent requires the submission to Council of scale engineering plans of all proposed vehicle access, parking and manoeuvring areas demonstrating compliance with Australian Standard 2890: Off Street Parking, the Austroads Design Turning Path Templates and any other relevant Australian standards, for the types of vehicles expected to use the development.			
	On the basis of the above, the development will meet Council's DCP controls.			
7.6	Two onsite car parking spaces will be provided on-site.			
Parking Controls	Adequate parking spaces will be provided on the hardstand area for construction employees, with at least 10 on-site parks being provided.			
	All vehicle movements will be forward in / forward out.			

(iiia) the provisions of 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

Not applicable.

(iv) the provisions of the regulations

Relevant Clauses of the Regulations have been considered during the assessment of this proposal.

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

Visual Impacts:

A Visual Assessment, Landscape Concept and Reflectivity Statement, was submitted with the application and is attached to this assessment report. Five surrounding viewpoints were selected at various locations around Glen Innes to assess visual impact. As discussed at Section 5 of the Visual Assessment, Viewpoints 1, 2 and 3, located at Grafton Street, Derby Street and Ferguson Street indicate the greatest 'magnitude of landscape change'.

As indicated in the Figure below, the solar array will be visible from the public domain.









Source: Visual Assessment, Landscape Concept and Reflectivity Statement, SLR, December 2020

Council considers the Visual Impact Assessment and its recommendations to be generally acceptable, provided, landscaping to a maximum height of 3 m to the lease area boundary is implemented and *anti-reflective coatings* are used on the solar panels.

Context and Setting

The subject land is located in a rural setting on the western outskirts of the Glen Innes urban area. The solar farm will constitute a 'new' element in the landscape and will be visible from the public domain. Shrub planting is proposed to the eastern and southern side of the development area to mitigate visual impact from the Gwydir Highway and the Glen Innes town area. A condition of consent requires that the planted buffer is implemented to all sides of the lease boundary. The proposed shrub planting height will be 3 m when fully matured. The maximum height of the solar arrays is 2.575 m when tilted. The development will be an unusual element in the landscape, however, it will not result in unreasonable impact provided the landscaped buffer is implemented and maintained.

Any outdoor lighting must comply with AS4282 Control of Obtrusive Effects of Outdoor Lighting to maintain the amenity of the surrounding rural area.

Biodiversity:

The subject land is cleared farmland. A Flora and Fauna Assessment prepared by Kleinfelder found that:

- The grasslands within the subject site are dominated by exotic species and do not represent any TEC's.
- No threatened species were identified during the assessment.
- No Koala feed trees within the subject site.
- No evidence of a resident population of Koalas was detected during the assessment (i.e.
- No Koala individuals, scats or scratch marks were identified.
- Vegetation to be removed consists of exotic grasslands and planted non-native paddock trees, negligible amounts of native groundcover will be removed.
- The proposed development will not impact areas mapped as having 'high biodiversity value' as indicated by the NSW Biodiversity Values Map (BV Map).
- The proposed development is unlikely to cause a significant impact on a threatened species, population or ecological community, as listed under Schedules 1 and 2 of t NSW BC Act, as determined by application of a five-part-test of significance under Section 7.3 of the NSW BC Act.

As such, a BDAR is not required to be prepared for this proposal as the disturbance area is under the area clearing threshold under the *Biodiversity Conservation Act 2016*. Impacts to biodiversity are considered to be acceptable.

Aboriginal Cultural and Heritage Impacts

There are no known European heritage items located within or nearby the subject land. A Due Diligence Aboriginal Archaeological Assessment prepared by Virtus Heritage was submitted with the development application. The following main recommendations were provided:

- No Aboriginal objects were identified during the site inspection. No Aboriginal places are registered within the project area. One small area of potential sensitivity (sensitive landform; creek terrace) was identified during site inspection but could not be assessed as a Potential Archaeological Deposit due to site constraints.
- It is recommended that project impacts avoid the small area of sensitive landform (creek terrace) in the north west corner of the survey area based on the results of the assessment and known project impacts. PAG (the proponents for the development) have committed to avoidance of this area of sensitivity.

A condition of consent is provided to formalise this commitment.

Figure 9 – Area of Potential Sensitivity



Due Diligence Aboriginal Archaeological Assessment, Virtus Heritage, December 2020

Traffic impacts:

A Traffic Impact Assessment was prepared for the development. The development was referred to Transport for NSW for comment and was internally assessed by Council's Director of Infrastructure. These assessments are discussed in detail in Section 5 of this report.

Traffic impacts resulting from the development are summarised follows:

- Construction traffic generation will be 18 vehicle movements to and from the site per day (8 heavy and 10 light vehicles) for a 6 month construction period.
- Traffic volumes are well below the level of service for the Gwydir Highway and Tuttle Lane.
- The proposed site access is suitable for use for construction and operation of the development being compliant with Australian Standard and Austroads requirements.
- There is sufficient area on-site to accommodate the expected peak parking demand generated by the development during both construction and operation with the provision of an AS2890.1-2004 compliant car park within the construction laydown area for a minimum 10 spaces as well as the provision of numerous overflow parking areas on the site.

Heavy vehicle traffic in the area has been managed effectively in the recent past during the construction of the nearby windfarms involving transport of significantly larger infrastructure. Conditions of consent are recommended to provide for the safety and convenience of traffic on Council roads. A Traffic Management Plan must be prepared by the proponents and submitted to Council for approval prior to the issue of a construction Certificate.

Land Capability and Land Use conflicts

The proposed solar farm lease area will occupy 14.8 ha of a 53 ha grazing property. Minor agricultural pursuits, such as grazing of sheep as a form of vegetation management, may co-exist with the solar farm. The loss of the lease area from agricultural production is not considered significant in the landscape, noting that the particular property is held a spatially separated 275.42 ha holding (PN3744562).

Operation of the solar farm will not prevent the rest of the property holding or surrounding properties from continued agricultural land use.

The proposed Solar Farm has a relatively light footprint on the site, which can be readily removed and

reverted back to agricultural pursuits in the future without adversely impacting on the soil capability of the land.

On this basis, given the relatively small footprint of the proposal and the ability for complete decommissioning, it is considered that the development will not compromise or significantly diminish the availability of land for agricultural purposes within the region nor would it compromise the capability of any adjoining land uses.

Construction Impacts:

Construction impacts will be temporary and will occur over a 6 month period. A construction management plan (CMP) is required as a condition of the consent. Sediment and erosion controls measures are required to be implemented throughout the construction phase of the project.

A Waste Management Plan has been prepared for the construction and operational phase of the development.

Socioeconomic Impacts/Benefits:

The proposed development in consistent with the Glen Innes Severn Council Local Strategic Planning Statement (LSPS) which cites emerging renewable energy as a key driver of the LGAs economy and to assist in facilitating growth. The Glen Innes Severn LGA is included in the New England Energy Zone identified in the NSW Transmission Infrastructure Strategy, aimed at supporting investment and jobs in modern energy generation.

The social and economic benefits identified in Section 5.9 of the Statement of Environmental Effects are summarised as:

- The proposed solar farm has the potential to generate up to 5MW of electricity potentially powering 2,000 homes during daylight hours whilst reducing CO2 emissions by around 200,000 tonnes over the lifespan of the project.
- The proposal aligns with NSW State Government research findings that renewable energy projects are generally favourable within the North West Region.

Short term positive economic benefits will arise through the construction phase involving a workforce of up to 30 employees.

Developer contributions of \$66,717.57 will be payable under Councils Section 7.12 Contributions Plan of 1% of the development cost of \$6,671, 757. Developer contributions assist Council to provide public facilities.

Council therefore considers that, subject to conditions, the proposal would be acceptable in terms of socio economic impacts.

Cumulative Impacts

The Glen Innes Severn LGA is home to several state significant wind farm projects. Wind turbine infrastructure is highly visible in the landscape. The proposed solar farm will also be visible, however, will have significantly different characteristics to the existing wind turbines.

It is noted that the proponents for this development have several other projects either determined or under assessment in the New England North West region, and that solar farms of this magnitude will become more regular in the landscape. Landscape changes arising from the cumulative impact of this development and future infrastructure projects will be mitigated if future projects are spatially isolated.

The subject development has been assessed on its merits as a standalone development.

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

The subject site is considered suitable for the proposed development for the following reasons:

- The site is not subject to any significant land constraints, including bushfire or flood.
- The proposed lease area within the site has been located to avoid impacts on waterways and biodiversity.
- The site is located a satisfactory distance from non-related sensitive receivers and as such impacts from the development are expected to be adequately managed within the site with minimal impacts on adjoining properties.
- The site has frontage to a public road.
- The site will be suitable for extensive agriculture upon decommissioning of the solar farm and site rehabilitation.

4.15 (d) any submissions made in accordance with the Act or the Regulations

Public submissions

The submitted DA was publicly exhibited in accordance with Council's DCP 2014. The Application was notified for 14 days to adjoining property owners and was also advertised in the local newspaper from 4 February 2021 – 18 February 2021. At the conclusion of the notification period two (2) submissions were received and are summarised as follows, copies of submissions are provided at Annexure D.:

Submission 1

Glare from tracking solar panels. Assessment should have considered all of Abbotts Road and the residents.

Proponents response:

A Reflective Glare Assessment (RGA) has been undertaken by SLR Consulting to assess the potential for reflected light induced impacts on aviation, road operations, rail operations, industrial and heavy machinery operations, and residential amenity.

The proposed solar PV panels include solar trackers which results in minimal potential for horizontal reflectivity to occur as light is minimal in any case, due to the absorbent nature of the PV panels, coupled with the anti-reflective coating. As a result, impacts on residents, roadway operation, and on any surrounding mechanical operations is considered to be negligible at all times of the year.

Due to the use of high-quality solar tracking systems and site buffer distances to surrounding receivers and transport networks, potential for aviation related glare, rail traffic related glare and motorist related glare is considered negligible. Recommendations and mitigation measure have been included in the report to ensure that residential nuisance glare is avoided.

Council response:

Residential Nuisance Glare was assessed in Section 7.6.6 of the Reflectivity Statement provide with the Statement of Environmental Effects. As shown on the plan extract below, six dwellings along Abbotts Road were assessed. The assessment found that for normal tracking mode the Ti (threshold increment) Values were NIL at all receivers.

As shown and discussed in the *Visual Assessment, Landscape Concept and Reflectivity Statement*, Viewpoint 4, provides a worst-case viewpoint which represents the residents looking east towards the solar site which, while located under one kilometre from the site, the rolling pastoral landscape and moderately vegetated hills absorb the solar arrays into the landscape resulting in an assessed visual impact of minor to negligible. SLR found glare condition Ti values would be minimal, however recommended the following mitigation measure, to be included as a consent condition: If panels need to be left in a horizontal or near horizontal position when not in normal tracking mode (eg for maintenance), it is recommended that panels be left with an eastwards tilt of at least 5°.

A condition of consent has been provided.

SLR visual assessment inadequate. Assessment should have considered all of Abbotts Road and the residents

Proponents Response:

The visual impact assessment (VIA) included consideration of all aspects of the solar PV farm including the viewpoints from Abbotts Road as shown within the VIA report. Viewpoint 4 provides a worst-case viewpoint which represents the residents looking east towards the solar site which, while located under one kilometre from the site, the rolling pastoral landscape and moderately vegetated hills absorb the solar arrays into the landscape resulting in an assessed visual impact of minor to negligible.

Council response:

As shown in the images below, Viewpoint 4 is located on Abbots Road. The visual assessment is considered to be adequate. A condition of consent requires a landscaped buffer to all sides of the solar farm, not just the east and southern boundaries as shown on the Landscape Plan.





Source: Visual Assessment, Landscape Concept and Reflectivity Statement

Noise from tracking movements

Proponents Response:

During operation, the PV panels would generate electricity which would be fed into the power grid via the adjacent existing powerline. Key noise emissions from the operation of the project are associated with the inverter and transformer(s). It is noted that emissions from these sources are anticipated to be acoustically insignificant compared to ambient background noise levels at assessed receivers. Noise from tracking system movements will emanate from approximately 136 (1 per tracker) small DC motors distributed throughout the site. As the system tracks the path of the sun, the motors activate approximately every 5 minutes, for a period of approximately 20 seconds. The noise level within the site from these motors when operating will be acoustically insignificant, and from outside the site will be inaudible.

Council response:

A Noise Assessment prepared by Muller Acoustic Consulting assessed construction and operational noise impact. Construction vibration was considered in the assessment and found not to be a significant issues. Noise impacts was assessed at 34 surrounding receivers. Results are summarised as:

- Construction Noise Noise levels are expected to satisfy the noise management levels at all receivers. Sleep disturbance was not assessed on the basis that construction would not occur at night.
- Operational Noise

Projected Intrusiveness Noise Levels for all residential receivers:

- Day 40 dB LAeq(15min)
- Evening and Night 35 dB LAeq (15min)

Sleep disturbance is not anticipated, as there are no operational noise sources that generate significant maximum noise events and noise emissions from the project are predicted to satisfy the EPA maximum noise criteria.

Noise impact is considered to be acceptable. Consent conditions have been provided to limit construction activities to daylight hours and that the solar farm must operate in compliance with the EPA maximum noise criteria.

Visual impact and loss of property value.

Proponents Response:

The establishment of the recommended trees and large shrubs provide a range of vertical canopy cover to provide visual screening to the surrounding area. Further mitigation measures include the use of anti-reflective coated solar panels and muted colours on supporting structures to blend into the surrounding environment. As such, the proposed development is considered to have minimal visual impact on surrounding residents with impact on property values expected to be low as a result.

Council response:

Visual impact is considered to be acceptable subject to carryout the development as proposed and as modified by recommended consent conditions. Impact to property value has not been assessed or considered in this assessment.

Submission 2

Higher elevation / north west of solar panels visual impact aggravated. Rural outlook jeopardised. Property devalued. Location close to town not suitable due to high number of residents.

Council response:

The matters raised in this submission are similar to submission one. Whilst the proposed solar farm will be overlooked or visible from surrounding property, the visual impact of the development was found to be acceptable in the assessments provided subject to mitigation measures, including the landscaped buffer and use of low reflective materials.

The 15 ha footprint to be occupied by the solar farm is relatively small in comparison to the surrounding property holding size and dispersed settlement pattern.

4.15(1)(e) The public interest

The proposed development has been assessed to be in the public interest as detailed throughout this Report, subject to the imposition of appropriate conditions of development consent. The proposed development is

not expected to have a negative impact on the health and safety of the public. Development for renewable energy meets the following exhibited plans and strategies:

State Plan 2010: The proposed development is consistent with Goal 22 of the State Plan – Protecting our Natural Environment – Increase Renewable Energy.

New England North-West Regional Plan 2036: The proposed development is consistent with Goal 1, Direction 5: Grow New England North West, as the Renewables Energy Hub of NSW.

- A strategic and integrated approach to renewable energy projects will leverage new opportunities and help meet the NSW Government's aspirations of being carbon-neutral NSW by 2050.
- Identify and promote wind, solar and other renewable energy production opportunities.

Glen Innes Severn Council Local Strategic Planning Statement (LSPS)

The LSPS cites emerging renewable energy as a key driver of the LGAs economy. Together with embracing developing technologies, attracting renewable energy infrastructure and building on the opportunities provided by adjoining regional cities will also assist in facilitating growth.

Glen Innes Severn's existing infrastructure endowments have also made it an attractive proposition for investment in renewable energy generation and transmission which may present infrastructure challenges as well as opportunities requiring further consideration

Planning Priority 10 – Promote and support renewable energy production opportunities.

Glen Innes Severn is ideally located for the construction and expansion of new facilities and delivery of dispatchable power to the system. The New England Tablelands is afforded with extensive wind and solar resources, and several advantageous sites are identified within the Glen Innes Severn LGA.

Reflecting this, Glen Innes Severn LGA is included in the New England Energy Zone, a key NSW priority energy zone identified in the NSW Transmission Infrastructure Strategy and will become a focus for investment and jobs in modern energy generation.

The New England region has been included as an energy zone due to its high energy potential where planned transmission infrastructure upgrades are able to connect multiple projects at a lower cost. Consideration of the impact on productive agricultural land and important view corridors will be key during the assessment of any future development applications.

Planning Priority 6 - Continue to develop service and logistics infrastructure on appropriate sites to encourage new industry opportunities and population growth.

Action 10.3 - Facilitate appropriate smaller scale renewable energy projects using bio-waste, solar, wind or other innovative storage technologies (short to medium term).

It is therefore within the public interest to support development for renewable energy provided such development is permissible and does not result in unacceptable impacts to the surrounding natural and built environment.

8. CONCLUSION

The proposed development is defined as an 'electricity generating works' and is permitted with consent in accordance with the provisions under *State Environmental Planning Policy (Infrastructure) 2007*. The subject application has been supported with several technical assessments that identify potential impacts and mitigation measures for the development, which have been conditioned within the recommended terms of consent.

Submissions from surrounding landowners concerned primarily with glare, visual and noise impact have been considered and addressed in this assessment report.

The proposed development in consistent with the Glen Innes Severn Council Local Strategic Planning Statement (LSPS) which cites emerging renewable energy as a key driver of the LGAs economy and to assist in facilitating growth. The proposed development is consistent with the NSW Government's

Electricity Strategy and Electricity Infrastructure Roadmap and is located in the New England Renewable Energy Zone.

9. RECOMMENDATION

- (a) That having regard to the assessment of the Application, DA-56/20-21 (NRPP ref PPSNTH-93) be granted conditional consent in the terms set out in Annexure 1 to this report.
- (b) That those persons that made submissions in relation to the Application be notified of the determination in writing.

ANNEXURE A RECOMMENDED CONSENT CONDITIONS

PART	A – GENEF	RAL COND	ITIONS					
	Developm	ent Descri	ption			Reason		
1.	developme	ent describe	nt is granted ed in detail below: nt and operation		-	To accurately describe the development.		
	Pho ass Prescribe							
2.	The proponent shall comply with the prescribed conditions of development approval under Clauses 97A, 98, 98A - E of <i>Environmental Planning and Assessment Regulation 2000</i> as are of relevance to this development.					To meet statutory requirements.		
	Approved	plans and	supporting doc	umentation				
3.	approved p	plans and s except wher	e carried out in ac upporting docum re the conditions o	entation (stamp	ed by	To ensure all parties are aware of the approved plans and supporting		
	Plan No.	Revision No.	Plan Title	Prepared by	Dated	documentation that applies to the development		
	10030- G-GAD- 01-1	С	Location Detail	Providence Asset Group	09/12/2021	uovolopinon.		
	10030- G-GAD- 02-01	D	General Arrangement Overview	Providence Asset Group	09/12/2021			
	10030- G-GAD- 02-02	D	System Detail	Providence Asset Group	09/12/2021			
	10030- C-DET- 01-01	A	Civil Detail	Providence Asset Group	10/12/2021			
	10030- C-DET- 06-01	A	Road Section Detail Typical	Providence Asset Group	09/12/2021			
	10030- G-DET- 01-01	С	Site Elevation Detail	Providence Asset Group	09/12/2021			
	10030- C-DET- 02-01	С	Security Fencing Detail Typical	Providence Asset Group	09/12/2021			
	10030- E-DET- 01-01	D	PV Mounting Systems Detail	Providence Asset Group	09/12/2021			

10030- E-DET- 02-01	С	Power Conversion Station Detail Sheet 1	Providence Asset Group	09/12/2021
10030- E-DET- 02-02	С	Power Conversion Station Detail Sheet 2	Providence Asset Group	09/12/2021
10030- C-DET- 05-01	С	Shed Detail Typical	Providence Asset Group	09/12/2021
CIV01	В	Stormwater Management Plan	DRB Consulting Engineers	08/12/2021
CIV02	В	Proposed Basin Plan	DRB Consulting Engineers	08/12/2021
Page 27	V0.2	Landscape Plan	Visual Assessment, Landscape Concept and Reflectivity Statement	December 2020
Documer	nt Title	Version/Ref No.	Prepared by	Dated
		631.00000-	SLR	December 2020
Statemer Environm Effects -		20401	SLR	December 2020
Establish Solar PV Generatio				
Solar PV Generatio	on Plant	20/190 Issue D	Intersect Traffic Pty Ltd	December 2020
Solar PV Generatio	on Plant pact ent ence al ogical		Traffic Pty	
Solar PV Generation Traffic Im Assessm Due Dilig Aborigina Archaeolo Assessm	on Plant pact ent ence al ogical	Issue D	Traffic Pty Ltd Virtus	2020 4 December

event of any inconsistency between the approved plans and a condition of this consent, the condition prevails. Note: an inconsistency occurs between an approved plan and supporting documentation or between an approved plan and a condition when it is not possible to comply with both at the relevant time.	
Sensitive Area (Aboriginal cultural item/place)	
In accordance with the recommendations of the Due Diligence Aboriginal Archaeological Assessment, the project lease area boundary must be adjusted to exclude the small area of sensitive landform (creek terrace) in the north west corner of the survey area.	To reduce the risk of harm to Aboriginal cultural heritage items or places.
B – BEFORE THE ISSUE OF A CONSTRUCTION CERTIFICATE	
Waste Management Plan	
 A Waste Management Plan is to be provided to and approved by Council Prior to Construction commencing. The Waste Management Plan must address the following matters: a. Minimise the waste generated by the development; b. Sort and separate all waste to optimise recycling of materials generated from the site; c. Classify all waste generated on site in accordance with the EPA's waste Classification Guidelines; 	To maintain the amenity of the area.
 d. Store and handle all waste on site in accordance with its classification; e. Not receive or dispose of any waste on site; and f. Remove all waste from the site as soon as practicable, and 	
ensure it is sent to an appropriately licensed waste facility for disposal.	
Construction Certificate	
No building work is to commence on site until a Construction Certificate has been issued for the work and Council has been notified that a Principal Certifying Authority has been appointed.	To meet statutory requirements.
Construction Management Plan	
approved by Council prior to the commencement of works. The plan must document the proposed method of work within the construction site boundaries with regard to the health and safety of the public and effect on the road reserve. If any part of the road reserve or public land is proposed for long term (exceeding 24 hours) inclusion in the construction site boundaries this area must be identified in the CMP.	To maintain construction safety.
Traffic Management Plan:	
Construction Management Plan for approval by Council prior to the commencement of works. The Plan must:	To maintain traffic safety.
site on the adjacent traffic network.b) Include traffic management of short term activities such as delivery of materials; accessing, exiting and parking in and near the work site by cranes, concrete agitator trucks; tradesmen	
	 condition of this consent, the condition prevails. Note: an inconsistency occurs between an approved plan and a condition when it is not possible to comply with both at the relevant time. Sensitive Area (Aboriginal cultural item/place) In accordance with the recommendations of the Due Diligence Aboriginal Archaeological Assessment, the project lease area boundary must be adjusted to exclude the small area of sensitive landform (creek terrace) in the north west corner of the survey area. B – BEFORE THE ISSUE OF A CONSTRUCTION CERTIFICATE Waste Management Plan A Waste Management Plan is to be provided to and approved by Council Prior to Construction commencing. The Waste Management Plan must address the following matters: a. Minimise the waste generated by the development; b. Sort and separate all waste to optimise recycling of materials generated from the site; c. Classify all waste generated on site in accordance with the EPA's waste Classification Guidelines; d. Store and handle all waste on site in accordance with its classification; e. Not receive or dispose of any waste on site; and f. Remove all waste from the site as soon as practicable, and ensure it is sent to an appropriately licensed waste facility for disposal. Construction Cartificate No building work is to commence on site until a Construction Certificate has been issued for the work and Council has been notified that a Principal Certifying Authority has been appointed. Construction Management Plan (CMP) must be submitted to and approved by Council prior to the commencement of works. The plan must document the proposed for long term (exceeding 24 hours) includer in the CMP. Traffic Management Plan (TMP) must be submitted with the Construction Management

	Lighting	
11	Materials and their finishes/colours of any proposed or future buildings, security fencing or structures are to be selected to be of a natural colour palette and low reflectivity.	To maintain the amenity of the area.
	Low Reflective Materials	
10	In accordance with the provisions of Council's Section 7.12 plan, a contribution towards the provision, extension or augmentation of public amenities or services, is required to be paid prior to the issue of a Construction Certificate. The required contribution is \$66,717.57 being 1% of the estimated cost of the development works.	To provide for augmentation of public amenities or services necessitated by the development.
	Developer Contributions	
9.	 h) Consultation with the National Heavy Vehicle Regulator regarding the use of Tuttles Lane by B-Doubles. Road and Access Design The proponent must submit to Council scale engineering plans of all proposed vehicle access, parking and manoeuvring areas demonstrating compliance with Australian Standard 2890: Off Street Parking, the Austroads Design Turning Path Templates and any other relevant Australian standards, for the types of vehicles expected to use the development. 	safety and
	 c) Incorporate traffic management measures to manage risk of rear-end crashes in the 100km/h speed environment in vehicles turning right from the Gwydir Highway into Tuttles Lane throughout the construction phase of the development. d) Limit access to the route identified in the Traffic Impact Assessment (TIA). e) Identify daily and peak hourly vehicle movements to ensure the demand generated by the development is consistent with the assessment provided in the TIA. f) Ensure no conflict between construction traffic and school bus services. g) Include temporary and ongoing measures to be implemented during the construction and operational phases of the development. The TMP, inclusive of any temporary traffic control measures. should be prepared by a suitably qualified person and include a Driver Code of Conduct (COC) and details of to be implemented during peak construction and/or periodic operational maintenance activities. 	

12	Lighting must comply with AS4282 Control of Obtrusive Effects of Outdoor Lighting.	To maintain the amenity of the area.
PART	C – BEFORE THE COMMENCMENT OF CONSTRUCTION	1
	Vegetation Management	
13	A vegetation rehabilitation and management plan be prepared and approved by Council covering the south-eastern section of the site in the area identified as 'low wet area' on the Stormwater Management Plan by DRB Consulting Engineers, Drawing No CIV01 dated 8 December 2020.	To maintain the amenity of the area.
	Essential Energy	
14	Satisfactory ground clearance from high voltage overhead powerlines must be achieved at the entry into the solar farm as set out in AS/NZS 7000:2016.	To manage potential safety risks.
	Landscaping	
15	 The landscaping is to be implemented generally as shown on the Landscape Plan and must include: A 3 to 4 metre wide landscaped buffer to all sides of the lease boundary (not just the eastern and southern sides of the lease area). A water supply (tank water) to allow regular watering of the landscaped buffer. The water supply may be supplemented with tanker delivery as required. 	To mitigate visual impact.
	Commencement of Construction	
16	No construction is to commence until a Construction Certificate is issued for the proposed public infrastructure works. The works are to be constructed in accordance with the plans and specifications referred to in the Construction Certificate.	So that the design of the proposed work may be assessed in detail before construction commences and because it is in the public interest that the development comply with the appropriate construction standards.
1.	Intention to Commence Works	
17	The proponents for the development are to give Council written notice of the intention to commence works and the appointment of a Principal Certifying Authority (if the PCA is not Council) at least two days before the proposed date of commencement, in accordance with cls 103, 103A and 104 of the <i>Environmental</i> <i>Planning and Assessment Regulation 2000.</i> Such notice is to be given using the form enclosed with this consent.	To ensure compliance with the provisions of the Environmental Planning and Regulation 2000
PART	D – WHILE CONSTUCTION WORK IS BEING CARRIED OUT	
	Unexpected Finds – Aboriginal Heritage	
18	In the event that surface disturbance identified an Aboriginal object, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and the registered Aboriginal representatives must be contacted to determine the significance of the objects. The site is to be	To reduce the risk of harm to Aboriginal items, relics and places.

	registered in the Aboriginal Heritage Information System (AHIMS) which is managed by DPIE and the management outcome for the site included in the information provided to AHIMS. The Applicant must consult with the Aboriginal community representatives, the archaeologists and DPIE, to development and implement management strategies for all projects/site.	
	Erosion and Sediment Control	
19	All erosion and sediment control measures are to be effectively implemented and maintained at or above design capacity for the duration of the construction works and until such time as all ground disturbed by the works have been stabilised and rehabilitated so that it no longer acts as a source of sediment.	To protect the surrounding environment.
	Stormwater	
20	All stormwater runoff from the developed area is to be conveyed to a natural drainage system or other approved receiving waters in a manner consistent with Aus-Spec #1. Alternatively, an on-site detention pond is to be constructed which will discharge up to a 1% Annual Exceedance Probability storm event at equivalent flow to undeveloped land.	To ensure that no nuisance is created from the disposal of stormwater runoff.
	Vehicle access - driveways	
21	The construction of vehicle access/driveways to the site, in a manner consistent with Council's " <i>Property Access – Vehicle Crossings Policy" and "Driveway Guidelines</i> ".	This work is necessary to enable adequate means of vehicular access.
	Hours of Work	
22	Construction and associated work shall be carried out only between the times stated as follows: Mondays to Fridays 7.00 am to 6.00pm Saturdays 8.00am to 1.00pm Sundays & Public Holidays No construction work to take place. Note: Prior written arrangement with Council is required for building work to take place outside these hours. Breaches of this condition may result in the issuing of a Penalty Infringement Notice or prosecution.	To ensure that the environmental quality of adjoining land is not adversely affected, such as by the generation of excessive noise levels.
	Dust Control Measures	
	 Adequate measures shall be taken to prevent dust from affecting the amenity of the neighbourhood during construction. In particular, the following measures must be adopted: All materials shall be stored or stockpiled at appropriate locations; The surface should be dampened slightly to prevent dust from becoming airborne but should not be wet to the extent that runoff occurs; All vehicles carrying spoil or rubble to or from the site shall at all times be covered to prevent the escape of dust or other materials; Cleaning of footpaths and roadways shall be carried out regularly; and 	To maintain the amenity of the area.
	E – PRIOR TO THE ISSUE OF AN OCCUPATION CERTIFICATE OF IENCEMENT OF USE	<i>۲</i>

	Landscaping		
24	All landscaping identified consent conditions shall b unless otherwise varied a	in the Landscape Plan and as outlined in be provided on the development site nd agreed to by Council due to s such as drought conditions.	To ensure visual impacts are mitigated.
25	by Council for at least twe Occupation Certificate. T	20,000 shall be paid to Council and held live (12) months following issue of the he bond will be released following Council n that the landscaped buffer has been	To ensure visual impacts are mitigated.
26	must be replace as soon a	s to establish after the intuition planting as practicable with the same or equivalent eding shall be undertaken to maintain the ty and effectiveness.	To ensure visual impacts are mitigated.
	Road Damage		
27	Authority's assets in the v construction works associ	damage caused to Council or other Public icinity of the Subject Site as a result of ated with the approved development is to cant prior to occupation of the site.	To maintain public infrastructure.
PART	F – ONGOING USE		
	Vegetation Management	t	
28	regular basis. The vegeta	dertaken across the whole site on a tion rehabilitation and management plan I maintained on the south eastern section	To maintain the amenity of the area and to manage weeds.
	Glare		
29	when not in normal tracking	horizontal or near horizontal position ng mode (eg for maintenance), it is et with an eastwards tilt of at least 5°.	To mitigate glare impact.
	Landscaped Buffer		
30	Any tree or shrub that fails to establish after the initial planting must be replaced as soon as practicable with the same or equivalent species. Pruning and weeding shall be undertaken to maintain the vegetation screen's amenity and effectiveness.		To maintain the amenity of the area.
	Decommissioning and F	Rehabilitation	
31	 31 A decommissioning plan is to be provided to Council for appropriate prior to the commencement of use. Within 18 months of the cessation of operations, unless Council agrees otherwise, the applicant shall rehabilitate the site to the satisfaction of Council. This rehabilitation must comply with the objectives below: 		To maintain the amenity of the area and to manage waste sustainably.
	Feature	Objective	
	Development site (as a whole)	Safe, stable and non-polluting Minimise the visual impact of any above ground ancillary infrastructure agreed to be retained for an alternative use	
	Solar Farm	To be decommissioned and removed, unless the Council agrees otherwise	

	Land Use	Restore land capability to pre-existing agricultural use			
	Community	Ensure public safety			
32	Noise				
	be intrusive or offensive a	n the operation of the solar farm must not and must satisfy the EPA maximum noise oise Policy for Industry (2017) or any	To maintain the amenity of the area.		
33	Weed and Pest Manage	ement			
	and the risk of fire. The p Biosecurity Act 2015 in m species and comply with	aintained to prevent the harbourage of pest property must meet the obligations of the nanages declared pest animal and plant the minimum standards of fire prevention d by the <i>Local Government Act 1993</i> .	To comply with legislation.		
	ADVISORY NOTES				
	A separate approval und construction of vehicular	er S138 of the <i>NSW Roads Act</i> will be requi entrances.	red prior to the		
	Essential Energy:				
	 If the proposed development changes, there may be potential safety risks and it is recommended that Essential Energy is consulted for further comment; Any existing encumbrances in favour of Essential Energy (or its predecessors) not on the title of the above property should be complied with; In addition, Essential Energy's records indicate there is electricity infrastructure located within the property. Any activities within this location must be undertaken in accordance with the latest industry guideline currently known as <i>ISSC 20 Guideline for the Management of Activities within Electricity Easements and Close to Infrastructure</i>. A copy of this guideline can be located at https://energy.nsw.gov.au/sites/default/files/2018-09/ISSC-20-Electricity-Easements_0.pdf; 				
	 Prior to carrying out any works, a "Dial Before You Dig" enquiry should be undertaken in accordance with the requirements of <i>Part 5E</i> (<i>Protection of Underground Electricity</i> <i>Power Lines</i>) of the <i>Electricity Supply Act 1995</i> (NSW); and 				
	- Given there is electric person/s completing a responsibilities. Safe provide guidance whe	city infrastructure in the area, it is the respon- any works around powerlines to understand Work NSW (<u>www.safework.nsw.gov.au</u>) has en working close to electricity infrastructure. <i>York near Overhead Power Lines</i> and <i>Code</i>	their safety publications that These include the		
	premises or land use, inc signage, partition walls o	be made for any change, enlargement or in cluding the display/erection of any new struc r building fit-out (unless the proposed work i State Environmental Planning Policy (Codes	ture such as s exempt from the		
	Dial Before You Dig				
	interests of health and sa contact Dial before you d or erecting structures. (T configuration, size, form you dig service, an amen	v exist in the area that is subject to your applifety, and in order to protect damage to third lig at www.1100.com.au or telephone on 110 This is the law in NSW). If alterations are recordesign of the development upon contactination to the development consent (or a new essary. Individuals owe asset owners a duty	l party assets please 00 before excavating quired to the ng the Dial before w development		

observed when working in the vicinity of plant or assets. It is the individual's responsibility to anticipate and request the nominal location of plant or assets on the relevant property via contacting the Dial before you dig service in advance of any construction or planning activities.
Telecommunications Act 1997 (Commonwealth)
Telstra (and its authorised contractors) are the only companies that are permitted to conduct works on Telstra's network and assets. Any person interfering with a facility or installation owned by Telstra is committing an offence under the Criminal Code Act 1995 (Cth) and is liable for prosecution. Furthermore, damage to Telstra's infrastructure may result in interruption to the provision of essential services and significant costs. If you are aware of any works or proposed works which may affect or impact on Telstra's assets in any way, you are required to contact Telstra's Network Integrity Team on Phone Number 1800810443.