

COUNCIL ASSESSMENT REPORT

Panel Reference	PPSSTH-89
DA Number	DA2021/0145
LGA	HILLTOPS
Proposed Development	SOLAR ENERGY SYSTEM (5MW SOLAR FARM)
Street Address	4177 LACHLAN VALLEY WAY, BOOROWA NSW
Applicant/Owner	RICHARD PATRICK CORCORAN C/O- ITP DEVELOPMENT PTY LTD
Date of DA lodgement	15 June 2021
Total number of Submissions	• 1
Number of Unique Objections	• 1
Recommendation	Approval
Regional Development Criteria (Schedule 7 of the SEPP (State and Regional Development) 2011	Private Infrastructure Works with a Capital Investment Value over five (5) million dollars.
List of all relevant s4.15(1)(a) matters	<ul style="list-style-type: none"> • Boorowa Local Environmental Plan 2012 • Draft Hilltops Local Environmental Plan 2021 • Boorowa Development Control Plan 2013
List all documents submitted with this report for the Panel's consideration	<ul style="list-style-type: none"> • Statement of Environmental Effects, prepared by Zenith Town Planning Pty Ltd, dated 10 June 2021. • Biodiversity Inspection Report, prepared by Red-Gum Environmental Consulting, dated 5 May 2021. • Fire Assessment – Boorowa 1B Solar Farm, prepared by ITP Development Pty Ltd, dated 12 February 2021. • Glint and Glare Assessment – Boorowa Solar Farm, prepared by ITP Development Pty Ltd, dated 8 June 2021. • Landscape Character & Visual Impact Assessment, prepared by Zenith Town Planning Pty Ltd, dated 10 June 2021. • Noise Assessment – Boorowa 1B Solar Farm, prepared by Muller Acoustic Consulting Pty Ltd, dated 8 June 2021. • Traffic Impact Assessment Report, prepared by Price Merrett Consulting Pty Ltd, dated 9 June 2021. • Water Assessment – Boorowa Solar Farm, prepared by ITP Development Pty Ltd, dated 8 June 2021. • Waste and Decommissioning Assessment – Boorowa 1B Solar Farm, prepared by ITP Development Pty Ltd, dated 1 April 2021. • Development Proposal Plans <ul style="list-style-type: none"> ▪ Location Plan ▪ General Arrangement Plan ▪ Site Elevations ▪ Inverter Footing Details ▪ BESS Footing Details ▪ Access Path Details ▪ Landscape Details ▪ Inverter Station Plan ▪ Inverter Station Details ▪ Typical BESS Details ▪ Typical DC-DC Skid Details

Clause 4.6 requests	NO VARIATIONS SOUGHT
Summary of key submissions	<ul style="list-style-type: none"> Land use Conflict – impact upon nearby residential zoned land.
Report prepared by	Bill Vanry
Report date	30 August 2021

1. EXECUTIVE SUMMARY

1.1 PURPOSE OF REPORT

Pursuant to Schedule 7 of the State Environmental Planning Policy (State and Regional Development) 2011, this Development Application is referred to the Joint Regional Planning Panel (Southern Region) as the proposed development is private infrastructure works calculated to be above five (5) million dollars in Capital Investment Value.

1.2 PROPOSED DEVELOPMENT

This Development Application has been submitted to Council for consideration of a 5MW Solar Farm, legally defined as '**Solar Energy System (5Mw Solar Farm)**'

1.3 THE SUBJECT SITE

The proposed development is located on Lots 130-133 and 136-139 DP 2493; and is part of a large holding with the address 4177 Lachlan Valley Way, Boorowa, NSW.

The development site is an irregular shape with a total area of 38.5 hectares. The site is heavily modified by historic agricultural uses and is currently used for cropping.

The subject site is zoned RU1 Primary Production under the *Boorowa Local Environmental Plan 2012*.

1.4 MAIN ISSUES

The main issues identified throughout the assessment are as follows:

- Visual Amenity
- Transport
- Biodiversity
- Hazard Risk
- Land Use Conflict
- Access/transport

It is considered that the applicant has addressed the above issues as part of the submitted material, or conditions of consent can be applied accordingly.

1.5 OFFICERS RECOMMENDATION

Following a detailed assessment of the proposed development, it has been concluded Development Application number DA2021/0145 be recommended for approval subject to conditions.

2. SITE CONTEXT

The proposed development is located on Lots 130-133 and 136-139 DP 2493; and is part of a large holding with the address 4177 Lachlan Valley Way, Boorowa, NSW (hereby referred to as the **Subject Site**). The property is located approximately 2.4 kilometres south of Boorowa centre and about 1.3 kilometres from the edge of the urban area.

The development site is an irregular shape with a total area of 38.5 hectares. The site is heavily modified by historic agricultural uses and is currently used for cropping. The topography of the site is generally flat with a gentle fall to the north, with A number of small farm dams scattered around the property.

The site is currently accessed via Lachlan Valley Way through adjacent land parcels.

Figures 1-2 below show the site location in relation to Boorowa, and the existing site environs.

The subject site is zoned RU1 Primary Production under the Boorowa Local Environmental Plan 2012 (**BLEP**) and is mapped in comparatively small pockets as affected by the Terrestrial Biodiversity overlay (see **Figure 3**).

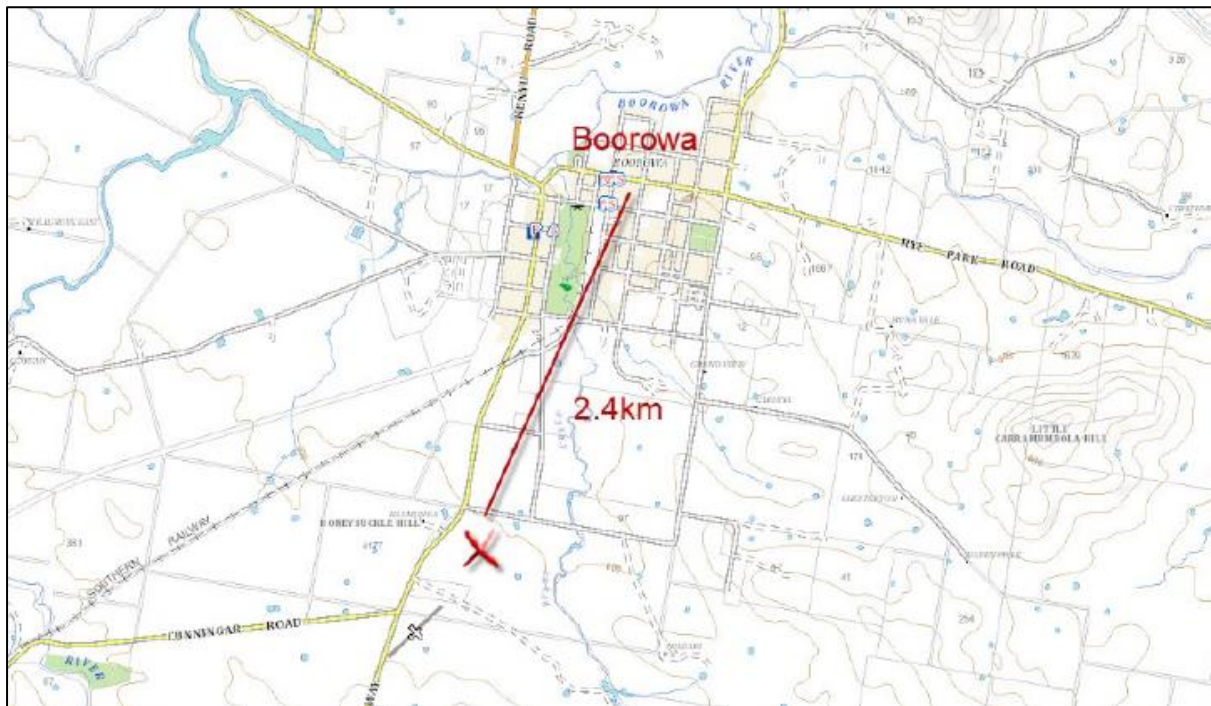


Figure 1. Image showing the location of the subject site as taken from the Submitted Statement of Environmental Effects prepared by Zenith Town Planning.



Figure 2. Aerial image of subject site (Source: Google 2021).



Figure 3. Image showing affectation of biodiversity mapping under the BLEP.

3. THE PROPOSED DEVELOPMENT

This Development Application has been submitted to Council for consideration of a 5MW Solar Farm, legally defined as '**Solar Energy System (5Mw Solar Farm)**'.

As taken from the Submitted Statement of Environmental Effects, the proposed development consists of the following components:

- 12,100 solar modules ranging in height from 1.5 metres to 2.75 metres installed in rows running north to south with approximately 6.25 metres centre to centre spacing between each row;
- Two 3MW inverter stations that are 3 metres high and each mounted on a 12.2 metre long skid;
- A 2.9 metre high kiosk to convert high and medium voltage to low voltage electricity suitable for connection to the local system;
- A battery storage system that is 12.2 metre long, 2.4 metres wide and 2.9 metres high;
- A temporary car parking and materials laydown area;
- A 1.8 metre high security fence topped with three rows of barbed wire to give a total height of 2.3 metres; and
- Perimeter landscaping on the outer side of the security fence on all sides of the array with shrubs that will grow to a height of 2.5 to 3 metres except at the south-eastern corner.

The array is to be contained within an area with perimeter dimensions of 247.2 metres across the northern side, 245.8 metres along the southern side, 465.3 metres along the eastern side and 469 metres along the western side. The layout and placement of the array is shown in **Figure 4** below taken from the submitted proposal plans.

Each row of modules will rotate to track the sun across the sky from east to west each day reaching an approximate height of 2.75m when the array is fully tilted to 60 degrees from horizontal. The array would only be tilted to 60 degrees in the early morning or late evening.

Two 3.4MW AC inverter stations and a converter-DC coupler will be installed within the centre of the array and mounted on a 12.2 metre long skid as shown in **Figure 5** below. A 2.9 metre high prefabricated containerised 5.7MWh battery energy storage facility (BESS) is proposed alongside the inverter stations.

A 2.5 metre high kiosk is proposed at the north-eastern corner of the array which is intended to be connected to the existing grid through underground high and medium voltage cables.

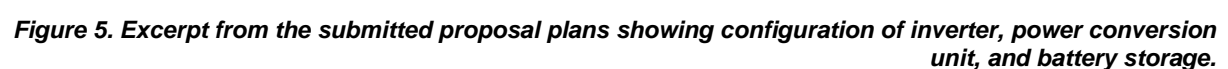
The inverter will be connected by way of an overhead high voltage power line to an existing power line that runs east-west along the northern side of the road reserve of Meads Lane to inject power to the electricity grid at the Essential Energy Boorowa Zone Substation.

The modules are proposed to be constructed by piling 1.5 to 3.5 metres into the ground supervised by structural and geotechnical engineers.

A new access point to the development site is proposed off Meads Lane 105 metres from the intersection with Lachlan Valley Way. A four (4) metre wide internal road will lead to the centre of the proposed development to access the inverter station and battery storage unit.

The applicant has proposed a temporary car parking area at the western end of the array for forty (40) vehicles to cater for the anticipated construction traffic.

A landscaping buffer is proposed around the perimeter of the development to assist in maintain visual amenity.



4. DEVELOPMENT APPLICATION SUMMARY

- **17 June 2021** – Development Application Submitted;
- **17 June 2021** – Development Application referred to APA Group / Essential Energy / Transport for New South Wales;
- **23 June 2021** – Public Submission received – objection;
- **1 July 2021** – Response received from APA Group confirming no objections subject to conditions;
- **6 July 2021** – Response received from Transport for NSW confirming no objections with recommended conditions;
- **13 July 2021** – Response received from Essential Energy confirming no objections subject to conditions;
- **27 July 2021** – Case created for Southern Region Planning Panel assessment on the NSW Planning Portal reference number PPSSTH-89;
- **29 July 2021** – Application accepted by the Southern Region Planning Panel.

5. PUBLIC NOTIFICATION

The development application was notified to neighbours between 17 June 2021 to 2 July 2021; and notified in a local newspaper twice on 24 June and 1 July 2021 as per the requirements of the Boorowa Development Control Plan 2013.

One public submission was received and addressed further in this report.

6. STATUTORY REFERRALS

The following statutory referrals were undertaken as part of the application process:

- **APA Gas** – Clause 66C of State Environmental Planning Policy (Infrastructure) 2007
- **Transport for NSW** – Clause 101 of State Environmental Planning Policy (Infrastructure) 2007
- **Essential Energy** – Clause 45 of State Environmental Planning Policy (Infrastructure) 2007

7. ENVIRONMENTAL ASSESSMENT

7.1 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 CONSIDERATION

In determining a Development Application, a consent authority (Southern Region Joint Regional Planning Panel) is to take into consideration the matters as are of relevance as stipulated in Section 4.15 of the *Environmental Planning and Assessment Act 1979* (the Act).

(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),*

(v) *(Repealed)*

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.

The following sections (7.1 – 7.9) provide assessment against Section 4.15 of the Act, and it is considered the proposed development accords with the relevant provisions.

7.1.1 State Environmental Planning Policies

State Environmental Planning Policy (Infrastructure) 2007

Part 3 Division 4 of this SEPP relates to electricity generating works or solar energy systems. Section 34(7) enables development for the purpose of a solar energy system to be carried out by any person with consent on any land. Consequently, the proposed development is permitted with consent under this SEPP. In addition, Council considers it reasonable to ensure the development is installed in accordance with the manufacturer's specifications, or by a person who is accredited under the Clean Energy Council in accordance with Division 4 Section 37 as per the recommendation.

Clause 45 of this SEPP requires Council to consider any development carried out:

- a) Within or immediately adjacent to an easement for electricity purposes,
- b) Immediately adjacent to an electricity substation,
- c) Within 5m of an overhead power line,
- d) Includes installation of a swimming pool any part of which is: within 30m of a structure supporting an overhead electricity transmission line and/or within 5m of an overhead electricity power line, or
- e) Placement of power lines underground.

The proposal includes works within proximity to electrical infrastructure and referral to Essential Energy has been carried out accordingly. Conditions of consent have been included into the recommendation as necessary.

The proposed development is within proximity to a gas pipeline and as such, consideration of Clause 66C must be given. Prior to the granting of development consent, the Consent Authority must:

- (a) be satisfied that the potential safety risks or risks to the integrity of the pipeline that are associated with the development to which the application relates have been identified, and
- (b) take those risks into consideration, and
- (c) give written notice of the application to the pipeline operator concerned within 7 days after the application is made, and

- (d) take into consideration any response to the notice that is received from the pipeline operator within 21 days after the notice is given.

The application was referred to APA Group who have confirmed no objections subject to conditions.

The proposed development is on land with a frontage to a classified road, being Lachlan Valley Way. Clause 101(2) of this SEPP states that a consent authority must not grant consent to development on land that has a frontage to a classified road unless it is satisfied that:

- (a) where practicable and safe, vehicular access to the land is provided by a road other than the classified road, and
- (b) the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development as a result of:
 - (i) the design of the vehicular access to the land, or
 - (ii) the emission of smoke or dust from the development, or
 - (iii) the nature, volume or frequency of vehicles using the classified road to gain access to the land, and
- (c) the development is of a type that is not sensitive to traffic noise or vehicle emissions, or is appropriately located and designed, or includes measures, to ameliorate potential traffic noise or vehicle emissions within the site of the development arising from the adjacent classified road.

The proposed subdivision does not involve any additional vehicular connection points to Lachlan Valley Way as the applicant has proposed a new access off Meads Lane 105m from the Lachlan Valley Way intersection.

The application was referred to Transport for NSW for comment and conditions have been included into the recommendation accordingly. The design detail of the new access off Meads Lane will be assessed via a separate application under Section 138 of the *Roads Act 1993*.

State Environmental Planning Policy (Koala Habitation Protection) 2020

Subject lands are greater than 1ha in area and zoned RU1 Primary Production under the **BLEP** and as such, consideration must be given to Part 2 of this SEPP.

The applicant has engaged a suitably qualified Environmental Consultant to undertake a Biodiversity Inspection Report to address the requirements of Part 2 of the SEPP.

Following a desktop review and site inspection, the applicant's consultant has concluded that there is no evidence of koala habitat, or koala use of the site.

Council are in acceptance of the findings of the submitted report, and conditions of consent have been included into the recommendation ensuring compliance with the recommendations of the Biodiversity Inspection Report.

State Environmental Planning Policy (Koala Habitation Protection) 2021

The proposal area is located in the Hilltops Local Government Area (**LGA**), which is listed in Schedule 1 of this SEPP. As per schedule 2 of the SEPP, Koala Tree species are listed by regions (Koala Management Areas). Under the Central and Southern Tablelands Far West koala management area, three of the listed species were found within the study area by the applicants Environmental Consultant, however outside of the developable area. No Koala

Plan of Management currently exists for the Hilltops LGA and as such, Council must be satisfied the proposed development will have a low to no impact on potential koala habitat.

Assessment of koala habitat has been carried out as per the submitted Biodiversity Inspection Report and it has been concluded that no koala habitat would be impacted by the proposed development.

No further investigations of potential koala habitat is warranted.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

Following review of Appendix 3 of the Hazardous and Offensive Development Guidelines – Applying SEPP 33, it is evident that the land uses Solar Farms and battery storage are not listed as potentially offensive or hazardous development. Notwithstanding, a preliminary risk screening assessment must be undertaken where the applicability of SEPP 33 is not readily apparent in accordance with Appendix 2.

The applicant has undertaken a preliminary risk screening assessment within the submitted Fire Assessment – Boorowa 1B Solar Farm which confirms none of the relevant risk screening thresholds are exceeded. Notwithstanding, the report recommends the implementation of a ten (10) metre wide Asset Protection Zone (**APZ**) around the proposed development, as well as managing the solar modules, battery station and other infrastructure as an Inner Protection Zone (**IPA**) in accordance with Appendix 4 of Planning for Bushfire Protection 2019. Conditions of consent have been included into the recommendation as necessary.

State Environmental Planning Policy No. 55 – Remediation of Land

Clause 7(1)(a) of SEPP 55 requires Council to consider whether the site is contaminated and if the site is contaminated whether it is suitable (with or without remediation) for the development.

With regard to clause 7(4) of SEPP 55 the land concerned:

- (a) is not land within an investigation area;
- (b) is land upon which development, that being agriculture, which is identified in Table 1 of the Contaminated Land Planning Guidelines has previously been carried out; and
- (c) is not likely to contain a sensitive land use.

Limited site works are required for the proposed Solar Energy System, and it is considered the risk of contamination is negligible.

On this basis Council can be reasonably assured that no further investigations are warranted in this instance.

State Environmental Planning Policy (State and Regional Development) 2011

In accordance with Schedule 7 of this SEPP, private infrastructure which includes electricity generating systems, that have a Capital Investment Value (**CIV**) over five (5) million dollars are declared regionally significant and are to be determined by a Regional Planning Panel.

The applicant has provided a cost summary report by a suitably qualified and registered quantity surveyor confirming the CIV of the proposed development is **\$ 7,638,787 (excluding GST)**.

As a result, the Development Application is to be determined by the Southern Region Joint Regional Planning Panel.

7.1.2 Boorowa Local Environmental Plan 2012

The BLEP applies to the land. The site is zoned RU1 Primary Production by the LEP. The proposal is for a Solar Energy System and the land use is permissible with consent on any land under the *State Environmental Planning Policy (Infrastructure) 2007*.

The zone objectives of the RU1 Primary Production zone are as follows:

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To encourage diversity in primary industry enterprises and systems appropriate for the area.*
- *To minimise the fragmentation and alienation of resource lands.*
- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*
- *To encourage development that is in accordance with sound management and land capability practices, and that takes into account the natural resources of the locality.*
- *To support rural communities.*

The proposal is considered not inconsistent with above objectives for the following reasons:

- The proposed development would not result in any significant reduction in the overall agricultural productivity of the region. The applicant will manage the ground cover on as an Inner Protection Zone (IPZ) for fire purposes has been proposed
- The proposal is low impact and the land can be restored back to its natural state at the developments end of life;
- Existing agricultural land will not be fragmented, and the proposal and will not likely increase land use conflict given the nature of the development and location;
- The proposed development will support rural communities by creating an additional revenue stream and employment opportunity;
- The site could be returned to agricultural uses after the project is decommissioned and the inherent agricultural capability of the land would not be affected.

The following relevant BLEP provisions have been considered in this assessment:

Clause 5.10 Heritage Conservation

The objectives of this clause are as follows;

- (a) *to conserve the environmental heritage of Boorowa,*
- (b) *to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,*
- (c) *to conserve archaeological sites,*
- (d) *to conserve Aboriginal objects and Aboriginal places of heritage significance.*

The applicant has undertaken an Aboriginal Heritage Information Management Service (AHIMS) search which has stated that no Aboriginal sites or places are recorded at the location.

Further, the applicant has contacted the relevant Local Aboriginal Land Council (LALC) and have yet to receive a response.

It is considered that the proponent has undertaken the required due diligence as described in the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*. Conditions of consent have been included into the recommendation in relation to unexpected finds as per the requirements of the *National Parks and Wildlife Act 1974*.

Clause 6.1 Earthworks

The objective of this clause is to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land. Standard conditions of consent have been included into the recommendation ensuring soil and water management measures are consistent with *Managing Urban Stormwater - Soils and Construction Volumes 1 and 2, 4th Edition* (Landcom, 2004).

Clause 6.3 Terrestrial Biodiversity

The subject site has been mapped with affectation by the Terrestrial Biodiversity Map as shown in **Figure 3** earlier in this report.

The objective of this clause is to maintain terrestrial biodiversity by;

- (a) *protecting native fauna and flora,*
- (b) *protecting the ecological processes necessary for their continued existence, and*
- (c) *encouraging the conservation and recovery of native fauna and flora and their habitats.*

A biodiversity assessment was undertaken by suitably qualified environmental consultants which has confirmed that, the proposed works will occur on land previously cleared and currently used for cropping, and the assessment concludes no significant effects on threatened species, populations, or ecological communities are likely.

It has been confirmed the proposed development does not exceed the biodiversity offset threshold stipulated by the *Biodiversity Conservation Act 2016*.

Conditions of consent have been included into the recommendation to confirm the recommendations of the submitted biodiversity inspection report.

Clause 6.8 Essential Services

The purpose of this clause is to ensure development consent is not granted unless the consent authority is satisfied that relevant essential services are available, or suitable arrangements have been made.

The applicant has contended that the supply of reticulated water and sewer is not required for the proposed development, and that portaloos will be made available for the construction phase of the development. This position is accepted by Council as there are no reticulated water and sewer services within close proximity to the development site.

Vehicular access is available and a new access point is proposed from Meads Lane which has been deemed acceptable by Transport for NSW.

Electricity is available to the site.

Stormwater services are to be implemented as per standard conditions of consent.

7.1.3 Draft Hilltops Local Environmental Plan 2021

The *Draft Hilltops Local Environmental Plan 2021* applies to subject lands.

The proposed development will remain a permissible land use under the provisions of State Environmental Planning Policy (Infrastructure) 2007 and as such, an assessment of the corresponding zone objectives is required.

An assessment of the proposal against the zone objectives of the RU1 Primary Production zone of the *Draft Hilltops Local Environmental Plan 2021* has been undertaken below. It is considered the proposed development accords with the objectives of the zone.

- ***To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.***

The proposed development will not significantly compromise the primary industry production on the subject site, given the solar array and associated infrastructure is low impact, requires minor construction works being piling and is for a relatively short lifespan of thirty-five (35) years.

The natural resource base will remain unaffected by the proposed development for reasons outlined above.

- ***To encourage diversity in primary industry enterprises and systems appropriate for the area.***

The proposed development is considered diversifying an income stream for the property.

- ***To minimise the fragmentation and alienation of resource lands.***

No changes are anticipated for the existing resource lands.

- ***To minimise conflict between land uses within this zone and land uses within adjoining zones.***

It is considered that the existence of a solar farm on the subject site will not present a land use conflict for the RU1 Primary Production zone or the residential zoned land to the north of the site.

Once constructed, the solar farm will be a low impact land use. The visual prominence of the solar farm requires further assessment and this has been carried out by the applicant who has prepared a Landscape Character and Visual Impact Assessment, and a Glint and Glare Assessment Report.

The intent of the RU1 Primary Production zone is to encourage rural production and economic development whilst minimising rural fragmentation and impacts on the existing resource base. It is considered that the existence of a solar farm does not present a land use conflict as the proposed development accords with the intent of the zone.

- ***To encourage competitive rural production and associated economic development by maintaining and enhancing local and regional transport and communications connectivity and accessibility to national and global supply chains.***

The proposed development accords with this objective by diversifying the rural land use on the subject site.

No changes are anticipated to the existing regional transport and communications connectivity.

- ***To maintain areas of high conservation value vegetation.***

Nearby areas of high biodiversity (the creek to the east) will remain unchanged.

- ***To encourage development that is in accordance with sound management and land capability practices, and that takes into account the natural resources of the locality.***

The proposed development will not negatively impact upon the current land capability as the solar farm and associated infrastructure can be decommissioned and returned to agricultural use as per the submitted Waste and Decommissioning Assessment.

- ***To protect and enhance the water quality of receiving watercourses and groundwater systems and to reduce land degradation.***

Standard conditions of consent have been applied ensuring water quality objectives are met.

- ***To encourage the development of non-agricultural land uses that are compatible with the character of the zone.***

The proposed development is non-agricultural and is considered commensurate with the existing primary production character of the area as per the submitted Landscape Character and Visual Impact Assessment.

Given the compliance with the RU1 Primary Production zone objectives of the, it is considered the proposed development accords with the Draft Hilltops Local Environmental Plan 2021.

7.1.4 Boorowa Development Control Plan 2013

There are no relevant considerations for the proposed development in the Boorowa Development Control Plan 2013. As such, no further investigations are warranted.

7.1.5 Planning Agreements

There are no planning agreements relating to the site.

7.1.6 The Regulations

Division 8 of Part 6 of the Environmental Planning and Assessment Regulation 2000 specifies additional matters that must be taken into consideration by Council, specifically:

- Clause 92 - Building Demolition - not applicable.
- Clause 92 - Medium Density Design Guide (where no development control plan adequately addresses manor houses or multi-dwelling housing) - not applicable.
- Clause 93 - Fire Safety Upgrade (change of building use) - not applicable.
- Clause 94 - Building Upgrades (building alterations and additions) - not applicable.
- Clause 94A - Temporary structures - not applicable

7.1.7 The Likely Impacts of Development

Context and Setting

The proposed development is considered consistent with the land use zone objectives of the BLEP and not conflicting with the surrounding development.

The site is considered appropriate for the use of a solar farm as it has been assessed as having good solar resources available and beneficial access to the existing electricity network. The proposed development has been designed to be commensurate with existing land use constraints and the relatively minor construction impacts can be mitigated through the appropriate application of conditions of consent.

Access and Traffic

The applicant has provided a Traffic Impact Assessment Report for assessment with the application material.

A new vehicular access point is to be designed and constructed off Meads Lane to a standard to accommodate B-Double truck movements. This arrangement has been assessed by Transport for NSW who have raised no objections subject to conditions outlined in the recommendation.

Meads Lane is not recognised as a B-Double route by the National Heavy Vehicle Regulator (NHVR) and as such, a permit would be required for the construction period.

Following the construction period, the traffic impact of the proposed development is anticipated to be negligible.

Public Domain

No works are proposed within the public domain except for a new vehicular access point proposed off Meads Lane to be finalised under Section 138 of the *Roads Act 1993*.

The proposed development will be visible from the public domain. The applicant has provided a Landscape Character and Visual Impact Assessment, and a Glint and Glare Assessment Report as part of the assessment material.

Following review of the above documentation, the potential impact upon the public domain is considered acceptable.

Utilities

Reticulated water and sewer are not available to the subject site and no connections to same are required for the proposed development.

Stormwater treatment systems can be addressed by way of condition as per the recommendation.

Electricity is available to the site. The application has been referred to Essential Energy who have raised no objections to the proposal subject to conditions.

Heritage

The subject site is a highly modified environment and proposed works being piling and road excavation are considered to be minor in nature.

The applicant has undertaken required due diligence in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*. Conditions of consent have been included into the recommendation in relation to unexpected finds as per the requirements of the *National Parks and Wildlife Act 1974*.

Other Land Resources

The proposed development is not expected to significantly impact upon the agricultural worth of the land. The site could be returned to agricultural uses after the project is decommissioned and the inherent agricultural capability of the land would not be affected.

Water and Soils

Impacts to water and soil quality from the proposed development may be in the form of stormwater quality and sediment and erosion.

Conditions of consent ensuring the development is undertaken in accordance with *Managing Urban Stormwater - Soils and Construction Volumes 1 and 2, 4th Edition* (Landcom, 2004) has been included into the recommendation.

The development site has not been identified as flood prone in accordance with the Boorowa Floodplain Risk Management Study. Notwithstanding, the applicant has prepared a Water Assessment Report outlining proposed measures in the case of minor flooding from nearby Ryans Creek. Council can be satisfied of its obligations under Section 733 of the *Local Government Act 1993* that potential flood has been sufficiently assessed and the development site deemed appropriate, subject to conditions relating to stormwater as per the recommendation.

Air Quality

The construction of the solar farm will not involve extensive earthworks. Pile driving for footings for the array framework and excavation for roads and ancillary structures will be carried out as necessary. The delivery of materials will be undertaken by using heavy vehicles.

Construction works may generate dust, however, once operational the change of use of the land from agricultural to a solar farm is expected to reduce particulate emissions and lead to an improvement in local air quality.

Vehicle movements would be restricted to internal access roads and the majority of the site would be revegetated with native or pasture grasses.

Conditions of consent relating to dust emissions have been included into the recommendation.

Flora and Fauna

The applicant has provided a Biodiversity Inspection Report prepared by a suitably qualified consultant which has confirmed the proposed development will not have a significant impact upon threatened species or ecological processes.

A condition of consent has been applied in the recommendation ensuring compliance with same.

Waste

The applicant has provided a Waste and Decommissioning Report confirming compliance with the requirements of the Protection of the Environment Operations (POEO) Act 1997 and Council objectives.

Conditions of consent have been included into the recommendation ensuring compliance with the submitted report.

Energy

The proposed development is intended to reduce the impact on the state electricity grid with a renewable energy source.

Noise and Vibration

The applicant has provided a Noise Assessment which has assessed the potential acoustic and vibration impacts of the development.

The Noise Assessment has predicted an exceedance of the Noise Management Level (**NML**) for six (6) sensitive receptors during the construction period as shown below from an excerpt of the report (see **Figure 6**). It is noted that this is during the construction phase only during a short timeframe (3 months) and during daylight hours, and not during the operational phase.

The expected acoustic impact on sensitive receivers during the operational phase is expected to be significantly below NML.

The applicant has proposed the following noise mitigation measures which have been included into the recommendation as conditions of consent:

- a construction noise management protocol to minimise noise emissions, manage out of hours (minor) works to be inaudible, and to respond to potential concerns from the community;
- where possible use localised mobile screens or construction hoarding around piling rig/plant to act as barriers between construction works and receivers, particularly where equipment is near the site boundary and/or a residential receiver including areas in constant or regular use (eg unloading and laydown areas);
- operating plant in a conservative manner (no over-revving), shutdown when not in use, and be parked/started at farthest point from relevant assessment locations;
- selection of the quietest suitable machinery available for each activity;
- minimise noisy plant/machinery working simultaneously where practicable;
- minimise impact noise wherever possible;
- utilise a broadband reverse alarm in lieu of the traditional high frequency type reverse alarm;
- provide toolbox meetings, training and education to drivers and contractors visiting the site during construction so they are aware of the location of noise sensitive receivers and to be cognisant of any noise generating activities;
- signage is to be placed at the front entrance advising truck drivers of their requirement to minimise noise both on and off-site; and
- utilise project related community consultation forums to notify residences within proximity of the site with project progress, proposed/upcoming potentially noise generating works, its duration and nature and complaint procedure.

Receiver	Description/Address	Predicted Noise	Highest Predicted	NML Standard	Compliance Achieved
		Level Range dB LAeq(15min) ¹	Noise Level dB LAeq(15min)	Hours dB LAeq(15min)	
R01	4177 Lachlan Valley Way	30-52	52	45	✗
R03	4177 Lachlan Valley Way	<30-46	46	45	✗
R04	97 Market Street	<30-49	49	45	✗
R05	176-186 Market Street	<30-48	48	45	✗
R06	Market Street	<30-47	47	45	✗
R07	82 Market Street	<30-46	46	45	✗

Figure 6. Excerpt from the Noise Assessment showing the sensitive receptors that may be impacted by excessive noise during construction.

Technological Hazards

The applicant has completed a preliminary risk screening as part of the submitted Fire Assessment – Boorowa 1B Solar Farm for the project in accordance with SEPP No.33 – Hazardous and Offensive Development (SEPP 33), which concluded that the storage and transport of hazardous materials for the project (including the risks associated with the battery storage facility) would not exceed the relevant risk screening thresholds and the project is not considered to be ‘potentially hazardous’.

In addition, the Fire Assessment – Boorowa 1B Solar Farm recommended a number of actions in relation to fire risk that are included in the recommendation as conditions of consent.

According to the Australian Radiation Protection and Nuclear Safety Agency (ARPNSA), the conversion of solar power to electricity involves inverter systems which may result in high electric, electromagnetic and magnetic fields directly adjacent to transformers and inverters. It is noted that the measurements taken directly adjacent inverters and transformers were still below the general public limit set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP).

The ARPNSA also states that a measurement taken at 30 centimetres from the transformer surface confirms that the electric, electromagnetic and magnetic fields dropped to five (5) times lower than the ICNIRP’s general public limit.

In accordance with the general layout of the proposed development where the inverters, converters and battery storage systems are located centrally within the site significantly away from any property boundary, it is considered that the risk of radiation is negligible.

Safety, Security, and Crime Prevention

The solar farm is to be enclosed within a 1.8 metre high security fence, setback a distance of 117.2 metres from the northern boundary, variable with a minimum of 147.8 metres from the eastern boundary, variable with a minimum of 146.4 metres from the western boundary and approximately 250 metres from the southern boundary.

Solar arrays are to be setback a minimum of 10 metres from the security fence. The proposed fence is to be chain mesh steel topped with three rows of barbed wire giving a total

height of 2.3 metres. A 10 metre wide asset protection zone is proposed between the array and the security fence.

Security lighting is not proposed to be installed given the overall size of the development.

It is considered the proposed development security measures are suitable for purpose.

Economic Impacts

The project would generate direct and indirect economic benefits to the local community including employment for the three month construction phase, ongoing employment for the operational phase and expenditure on accommodation and businesses in the local area.

Site Design & Internal Design

The site design and internal design is considered fit for purpose.

Visual Amenity

Subject to the implementation of buffer zones and landscape planting as per the Landscape Character and Visual Impact Assessment, and a Glint and Glare Assessment Report, the proposed development is considered acceptable.

Conditions of consent have been included into the recommendation ensuring compliance with the above reports.

Construction

The applicant has conceded that the most impact from the proposed development will be during the construction phase. These issues relate specifically to traffic movements and noise.

The applicant has proposed a new vehicular access point off Meads Lane and a temporary on site car park and unloading area to address traffic concerns.

The noise impact during construction phase is expected to be short term and only during daylight hours. The submitted Noise Assessment Report have proposed recommended actions to limit the potential impacts and this has been included into the recommendation as conditions of consent.

Cumulative Impacts

Cumulative impacts are expected to be negligible.

The site can be restored to its natural state as per the findings of the submitted Waste and Decommissioning Report.

Conditions of consent have been included into the recommendation accordingly.

7.1.8 Suitability of the Site for Development

In assessing the suitability of the site for the proposed development, guidance has been sought from the Large Scale Solar Energy Guideline for State Significant Developments prepared by the NSW Government in 2018.

There are many technical and commercial factors that applicants consider when selecting a site for a solar development including the proximity to the electricity network, available connection capacity or distance to towns, cities or other major energy users. Consideration

must be given to relevant environmental and other planning factors when selecting a site including (but not limited to) the following:

- **Visibility and topography**

Sites with high visibility, such as those on prominent or high ground positions, or sites which are located in a valley with elevated nearby residences with views toward the site. This is particularly important in the context of significant scenic, historic or cultural landscapes.

Comment

The applicant has provided a Landscape Character and Visual Impact Assessment, and a Glint and Glare Assessment Report which is considered acceptable.

- **Biodiversity**

Areas of native vegetation or habitat of threatened species or ecological communities within and adjacent to the site, including native forests, rainforests, woodlands, wetlands, heathlands, shrublands, grasslands and geological features.

Comment

The applicant has provided a Biodiversity Inspection Report which confirms no significant impacts on threatened species or ecological communities.

- **Residences**

Residential zones or urbanised areas.

Comment

The proposed development is setback an acceptable distance to the residential zoned land to the north of Meads Lane, and the recommendations proposed within the submitted Landscape Character and Visual Impact Assessment, and a Glint and Glare Assessment Report are to be conditioned upon consent to ensure residential amenity is protected to the greatest degree possible.

- **Agriculture**

Important agricultural lands. Consideration should also be given to any significant fragmentation or displacement of existing agricultural industries and any cumulative impacts of multiple developments.

Comment

The applicant has provided assessment against the impacts upon the existing agricultural resource base and the proposed has been considered acceptable. The development can be decommissioned and removed from site restoring the land to agricultural use as per the submitted Waste and Decommissioning Report.

- **Natural hazards**

Areas subject to natural hazards such as flooding and land instability.

Comment

Lands have not been identified as being flood prone, nor subject to geotechnical issues. Notwithstanding, the applicant has prepared a Water Assessment Report outlining proposed measures in the case of minor flooding from nearby Ryans Creek.

- **Resources**

Prospective resource developments, including areas covered by exploration licences, and mining and petroleum production leases. Solar development applicants should seek advice from the Department of Planning, Division of Resources and Geoscience about the coverage of resources-related licences.

Comment

Not applicable.

- **Crown Lands**

If any part of the project or associated transmission or distribution infrastructure will cross Crown Lands, it may be subject to legislative requirements that restrict access to the land.

Comment

Not Applicable.

In addition to the above site selection indicators, in accordance with the Bureau of Meteorology, the Hilltops LGA receives approximately 7-8 hours of sunshine each day with a mean monthly global solar exposure level considered adequate for the proposed development.

As a result of the above assessment, it is considered the site is appropriate for a solar farm as it has good solar resources and available capacity on the existing electrical network. The proposed development has been designed to avoid key site constraints and amenity impacts can be addressed by way of recommended conditions of consent.

7.1.9 Submissions

During the public notification stage of the development process, one (1) submission was received by way of an objection based on potential land use conflict with the residential zoned land to the north of Meads Lane.

The submitter has stated that the 'sheer scale' of the proposed development will have a negative impact on adjoining land.

As part of the application material, the applicant has provided a Landscape Character and Visual Impact Assessment, confirming the proposed development (with the inclusion of proposed landscaping as visual buffers) has been designed at a significant set back from Meads Lane addressing to the greatest degree possible visual amenity impacts.

Once operational, the proposed development will result in minimal traffic use as per the submitted Traffic Impact Assessment, and the Noise Assessment confirms the operational noise will be negligible.

The proposed development is set back a significant distance to any road frontage and adjoining land under separate ownership.

It is considered that the concerns of the submitter has been addressed within the submitted material, or is addressed by conditions of consent. No further investigations are warranted.

7.1.10 The Public Interest

The proposed development is not considered prejudicial to the public interest.

The project would assist to a degree the transition of the electrical sector from fossil fuels to low emission generation systems. The proposed development is consistent with the objectives outcomes of the Commonwealth's Renewable Energy Target and the NSW Renewable Energy Action Plan.

7.2 BIODIVERSITY CONSERVATION ACT 2016

In accordance with section 1.7 of the Act, consideration must be given to the Biodiversity Conservation Act 2016.

For the purposes of this Act, a development or activity assessed under Part 4 of the *Environmental Planning and Assessment Act 1979* (i.e. the subject development application) is likely to significantly affect threatened species if (taken directly from Section 7.2(1) of the Act):

- a) *It is likely to significantly affect threatened species or ecological communities, or their habitats, according to the test in Section 7.3, or*
- b) *The development exceeds the biodiversity offsets scheme threshold is the biodiversity offset scheme applies to the impacts of the development on biodiversity values, or*
- c) *It is carried out in a declared area of outstanding biodiversity value.*

The proponent has engaged a suitable qualified environmental consultant to undertake assessment of same and it has been concluded the proposal has no significant effects on threatened species, population, or ecological communities subject to the implementation of the proposed recommendations; of which has been included as conditions of consent within the recommendation.

8. DEVELOPER CONTRIBUTIONS

In accordance with Section 7.12 of the Act, developer contributions apply as stipulated within the Boorowa Council Section 94A Contributions Plan.

In accordance with Section 2.7.1 of the Plan, developer contributions are payable a 1% of development with a CIV of over \$200,000.00.

The CIV of the proposed development has been calculated to be **\$ 7,638,787**. As such developer contributions are payable of \$ 76,387.85 prior to the issue of a Construction Certificate.

9. RECOMMENDATION

That Development Application number DA2021/0145 for the purpose of a Solar Energy System (5Mw Solar Farm) over 4177 Lachlan Valley Way, Boorowa, NSW; legally described as Lots 130-133 and Lots 136-139 in DP 2493, be recommended for **Approval** subject to conditions detailed in **Annexure A**.

<u>Bill Vanry</u>	<u>30/08/2021</u>
Assessment Officer	Date

<u>Andrew Raines</u>	<u>31/08/2021</u>
Reviewing Officer	Date
