



New South Wales Government  
Independent Planning Commission

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# Glenellen Solar Farm

## SSD 9550

### Statement of Reasons for Decision

Dr Sheridan Coakes (Chair)  
Mr Adrian Pilton  
Dr Bronwyn Evans AM

15 December 2023

## Executive Summary

Trina Solar (Australia) Pty Ltd (the Applicant) has sought consent for the development of a new 200-megawatt (MW) solar farm, known as the Glenellen Solar Farm (SSD-9550) (the Project). The site is located approximately two kilometres north-east of Jindera in the Greater Hume Shire local government area.

The Project represents an investment of approximately \$250 million and would generate approximately 200 construction jobs and 10 operational jobs.

The NSW Independent Planning Commission (the Commission) is the consent authority for the Project because more than 50 public objections were made on the Project.

Commissioners Dr Sheridan Coakes (Chair), Mr Adrian Pilton and Dr Bronwyn Evans AM were appointed to constitute the Commission Panel in determining the application. As part of its determination process, the Commission met with representatives of the Applicant, the Department of Planning and Environment (the Department) and Greater Hume Council. The Commission also undertook a site inspection.

A Public Meeting about the Project was held on 16 November 2023 where the Commission heard from community members and relevant stakeholders. The Commission also received written submissions on the Application.

Key issues which are the subject of findings in this Statement of Reasons for Decision relate to land use compatibility; land classification; amenity impacts, including visual, noise and dust impacts; biodiversity; tree removal; traffic and transport; socioeconomic impacts; decommissioning and rehabilitation; waste; contamination; hazards and risks; insurance and liability; heat island effect; supply chain concerns; and the energy transition.

After careful consideration, the Commission has determined that consent should be granted to the application, subject to conditions. The Commission finds that the site is suitable for renewable energy development given its location close to existing electricity transmission networks, topography, solar resources, avoidance of major environmental constraints, access to the regional road network and that the agri-solar component allows for the continued use of the land for grazing and cropping.

The Commission has imposed conditions which seek to prevent, minimise and/or offset adverse impacts of the Project and to ensure appropriate ongoing monitoring and management of any residual impacts. The Applicant will be required to prepare and implement several comprehensive management plans and strategies and will be required to report on mitigation and monitoring outcomes as well as demonstrate compliance with performance criteria on an ongoing basis.

The conditions as imposed include several modifications and additions made by the Commission to the Department's recommended Conditions of Consent. The changes strengthen the environmental management of the development, including the requirement for the complete rehabilitation of the Site, and respond to concerns raised by the community and stakeholders during the Commission's consideration of the Project.

After consideration of the material, including responses to requests for information received from the Applicant, the Department, and Greater Hume Council, and having taken into account the views of the community, the Commission has determined that development consent should be granted to the Application, subject to conditions as amended. The Commission finds that the Project is consistent with applicable strategic planning, energy frameworks and relevant statutory considerations.

The Commission is satisfied that the Project is in accordance with the Objects of the EP&A Act and is in the public interest.

The Commission's reasons for approval of the Project are set out in this Statement of Reasons for Decision.

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## Defined terms

ABBREVIATION	DEFINITION
ACCS	Annual Climate Change Statement 2022 (Australian Government)
Agri-solar	Land use combining solar technology and agricultural production
Agriculture Commissioner's Report	Renewable energy generation and agriculture in NSW's rural landscape and economy – growth sectors on a complementary path (NSW Agriculture Commissioner, 2022)
Applicant	Trina Solar (Australia) Pty Ltd
Application	Glenellen Solar Farm (SSD-9550)
AR para	Paragraph of the Department's Assessment Report
BC Act	<i>Biodiversity Conservation Act 2016</i>
CCPF	NSW Climate Change Policy Framework 2016 (NSW Government)
Commission	NSW Independent Planning Commission
Council	Greater Hume Council
Department	NSW Department of Planning and Environment
Department's AR	Department's Assessment Report, dated October 2023
EII Act	<i>Electricity Infrastructure Investment Act 2020</i>
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
GHLEP 2012	<i>Greater Hume Local Environmental Plan 2012</i>
ha	Hectares
Infrastructure SEPP	<i>State Environmental Planning Policy (Infrastructure) 2007</i>
ISP	2022 Integrated System Plan (Australian Energy Market Operator)
km	Kilometres
LGA	Local Government Area
LSC	Land and soil capability
Mandatory Considerations	Relevant mandatory considerations, as per s 4.15(1) of the EP&A Act
Material	The material set out in section 3.1
MW	Megawatt
NEM	National Electricity Market
NPfl	NSW Noise Policy for Industry
Planning Systems SEPP	<i>State Environmental Planning Policy (Planning Systems) 2021</i>
Project	Development of a 200 MW solar farm and associated infrastructure in the Greater Hume LGA of NSW
RAPs	Registered Aboriginal Parties
Regional Plan	Riverina Murray Regional Plan 2041
REZ	Renewable Energy Zone
RFS	NSW Rural Fire Service
RtS	Response to Submissions
Site	The site as described in section 2.1
Solar Energy Guideline	Large-Scale Solar Energy Guideline, 2022 (NSW Government)
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
SSD	State Significant Development
The Roadmap	NSW Electricity Infrastructure Roadmap, 2020 (NSW Government)
Transport and Infrastructure SEPP 2021	<i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i>
VPA	Voluntary Planning Agreement

# 1. Introduction

1. On 20 October 2023, the NSW Department of Planning and Environment (**Department**) referred State significant development (**SSD**) application SSD-9550 (**Application**) from Trina Solar (Australia) Pty Ltd (**Applicant**) to the NSW Independent Planning Commission (**Commission**) for determination.
2. The Application seeks approval under section 4.38 of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**) for the Glenellen Solar Farm (the **Project**) located in the Greater Hume Shire Local Government Area (**LGA**).
3. The Application constitutes SSD under section 4.36 of the EP&A Act and under section 20 of Schedule 1 of *State Environmental Planning Policy (Planning Systems) 2021* (**Planning Systems SEPP**) (previously clause 20 of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (**SRD SEPP**), which was in force at the time of lodgement). The development is for the purpose of electricity generating works with a capital investment value of more than \$30 million (\$250 million).
4. In accordance with section 4.5(a) of the EP&A Act and section 2.7 of the Planning Systems SEPP, the Commission is the consent authority because more than 50 unique public submissions have been made by way of objection. The Commission notes that Greater Hume Council (**Council**) initially objected to the Application (which would also be a trigger for determination by the Commission), however it formally withdrew its objection to the Project in February 2023.
5. Professor Neal Menzies, as Acting Chair of the Commission, determined that Dr Sheridan Coakes (Chair), Mr Adrian Pilton and Dr Bronwyn Evans AM would constitute the Commission Panel for the purpose of exercising its functions with respect to the Project.
6. The Department provided its Assessment Report (**AR**) and recommended conditions of consent to the Commission on 20 October 2023. The Department concluded that the Project would result in benefits to the local community and State of NSW, is in the public interest and is approvable subject to conditions of consent.

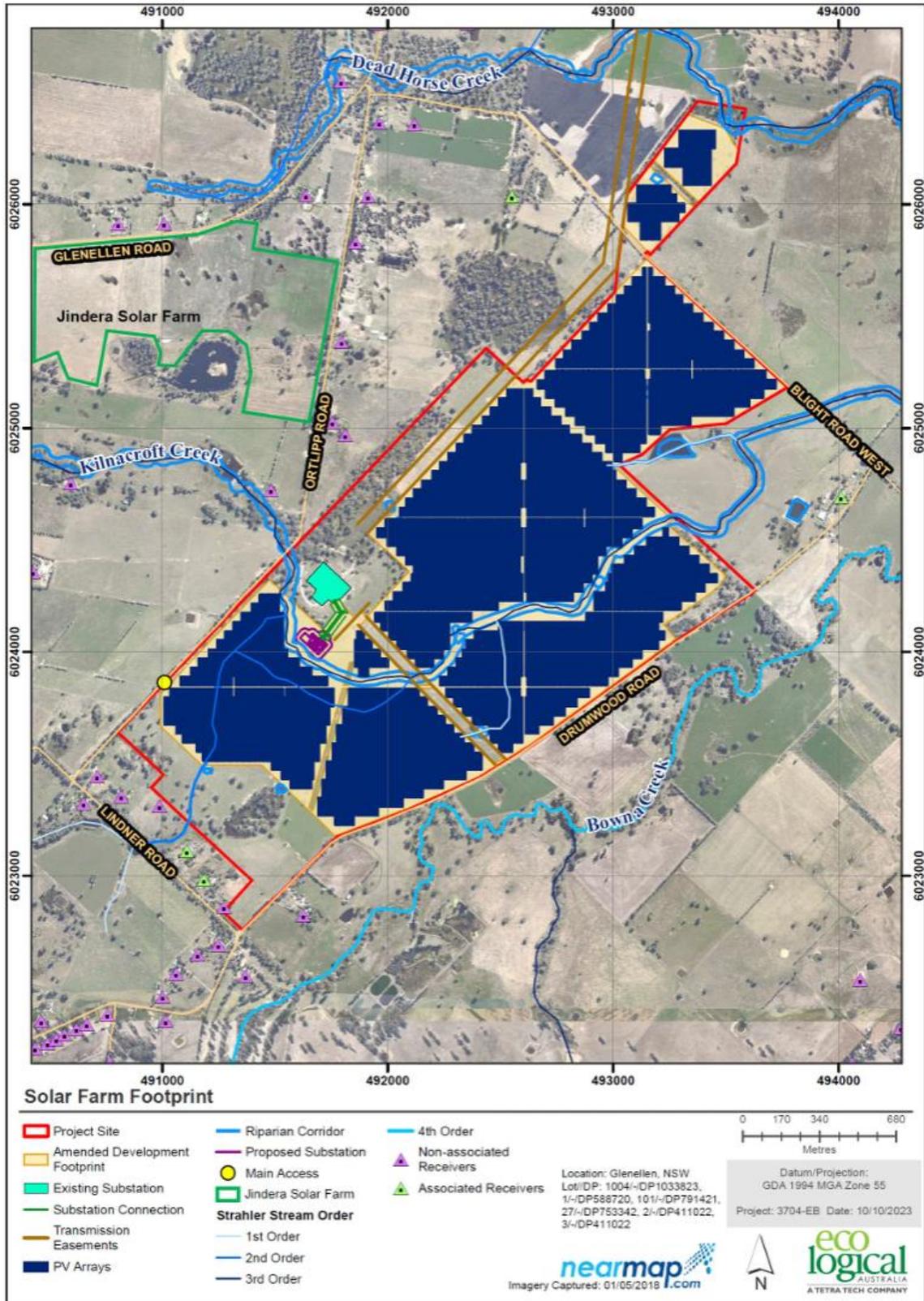
## 2. The Application

### 2.1 Site and locality

7. The 'site' is defined as being within the Project boundary, as illustrated in Figure 1 below (**Site**). The Site is located approximately two kilometres (**km**) north-east of Jindera.
8. Paragraph 4 of the Department's AR (**AR para**) states that the Site is "located within the Riverina Murray region of NSW [and is] currently used for agricultural purposes, predominantly grazing of sheep and cattle, with infrequent cropping of fodder to support the grazing". It states that the Site "does not contain any mapped Biophysical Strategic Agricultural Land (BSAL)" and "land within the development footprint is comprised entirely of Land and Soil Capability (LSC) Class 4 (i.e. land with moderate to severe limitations)" (AR para 5).
9. The Site is zoned RU1 Primary Production under the *Greater Hume Local Environmental Plan 2012* (**GHLEP 2012**), and land surrounding the Site is predominantly also zoned RU1 Primary Production.

- 10. There is existing electricity transmission infrastructure surrounding the Site, including Transgrid's Jindera Substation located adjacent to the Site (AR para 7).

Figure 1 – the Project Site (source: Department's AR, Figure 2)



## 2.2 The Project

11. The Applicant is seeking approval for the development of a 200-megawatt (MW) solar farm. The Project would comprise approximately 393,960 single-axis tracking solar panels, up to 5 metres high, and up to 60 power conversion units (including inverters and transformers). The Project would include construction of grid connection infrastructure as an expansion of TransGrid's existing Jindera Substation. The Project will have a generation capacity of 200 MW – enough electricity to power approximately 76,400 homes.
12. The Site is 398 hectares (ha) in size and the proposed development footprint is 309 ha.
13. Further detail about the main aspects of the Project is set out in Table 1 of the Department's AR.

## 3. The Commission's consideration

### 3.1 Material considered by the Commission

14. In this determination, the Commission has considered the following material (**Material**):
  - the Planning Secretary's Environmental Assessment Requirements issued by the Department, dated 14 September 2018;
  - the following information provided by the Applicant:
    - the Environmental Impact Statement (**EIS**), dated 16 October 2020 and its accompanying appendices;
    - the Response to Submissions Report (**RtS**), dated 5 December 2022 and its accompanying appendices;
    - the Amendment Report, dated 14 December 2022 and its accompanying appendices;
  - all submissions on the EIS made to the Department during public exhibition;
  - all Government Agency advice to the Department;
  - the Department's AR and recommended conditions of consent, dated October 2023;
  - comments and presentation material at meetings with the Department, Applicant, Council, as referenced in Table 2 below;
  - the Department's response to the Commission's questions on notice, dated 7 November 2023;
  - Council's response to the Commission's questions on notice, dated 8 November 2023;
  - the Applicant's responses to the Commission's questions on notice, dated 9 November 2023 and 22 November 2023;
  - the Applicant's submission to the Commission, received 10 November 2023, dated 9 November 2023;
  - all submissions made to the Commission and material presented at the Public Meeting on 16 November 2023;
  - all written submissions received by the Commission up until 5pm, 23 November 2023 and one late submission received by a local community member as an addendum to their initial submission;
  - the Department's comments on the feasibility and workability of proposed conditions, dated 1 December 2023 and received 4 December 2023.

## 3.2 Strategic context

### 3.2.1 Energy context

#### *Australia's Long-Term Emissions Reduction Plan 2021*

15. The Australian Government's *Long Term Emissions Reduction Plan 2021* sets out how Australia will achieve net zero emissions by 2050. According to this plan, solar, wind and other renewable technologies are projected to provide over half of Australia's total electricity generation by 2030. The plan states that "an increased share of renewables will be the foundation for a near zero emission grid by 2050" (page 45). Further, it states that "energy storage technologies are essential for Australia to shift to lower emission electricity systems" and "the challenge is to ensure our electricity system remains secure, reliable and affordable as the share of variable renewables grows" (pages 45 and 52).

#### *Annual Climate Change Statement 2022*

16. The Australian Government's *Annual Climate Change Statement 2022 (ACCS)* makes commitments about achieving net zero by 2050. According to the ACCS, "ensuring access to secure, reliable and affordable renewable energy is critical to meeting net zero targets" (page 6). The Australian Government has committed to a "national renewable energy target of 82% by 2030", noting that this target will "help the Government to achieve the legislated emissions reduction target of 43% by 2030 and set Australia on the path to net zero by 2050" (page 32).

#### *Australian Energy Market Operator's 2022 Integrated System Plan*

17. The Australian Energy Market Operator's *2022 Integrated System Plan (ISP)* is a comprehensive road map for the National Electricity Market (**NEM**). According to the ISP, it provides a "robust whole of system plan" for "supplying affordable and reliable electricity to homes and businesses in the eastern and south-eastern states, while supporting Australia's net zero ambitions" (page 3). The ISP states that significant investment in the NEM is needed to meet electricity demand, and without coal, a nine-fold increase in utility scale variable renewable energy capacity is required. The ISP states that "the transformation of the NEM will deliver low-cost renewable electricity with reliability and security, help meet regional and national climate targets, and contribute significantly to regional jobs and economic growth" (page 8).

#### *NSW Climate Change Policy Framework*

18. The *NSW Climate Change Policy Framework 2016 (CCPF)* aims to "maximise the economic, social and environmental wellbeing of NSW in the context of a changing climate and current and emerging international and national policy settings and actions to address climate change" (page 1). The CCPF describes the NSW Government's objective to achieve net zero emissions by 2050 and for NSW to be more resilient to the changing climate (page 2).

### *Net Zero Plan Stage 1: 2020-2030*

19. In March 2020, the NSW Government released its *Net Zero Plan Stage 1: 2020-2030*, which was then updated in September 2021 with the *Net Zero Plan Stage 1: 2020-2030 Implementation Plan*. The plan states that based on the new initiatives it sets out, “emissions in New South Wales are expected to reduce by 35.8 megatonnes by 2030”, which means that “the State’s annual emissions are forecast to reduce by 35% on 2005 levels” (page 13).

### *NSW Electricity Infrastructure Roadmap*

20. In November 2020, the NSW Government released the *NSW Electricity Infrastructure Roadmap (the Roadmap)*, which is NSW’s 20-year plan to transform the electricity system. Several entities and stakeholders appointed by the NSW Government will work together to deliver the Roadmap and coordinate investment in transmission, generation, storage and upgrading infrastructure as NSW’s ageing coal-fired power plants are retired from 2023. The Roadmap is enabled by the *Electricity Infrastructure Investment Act 2020 (EII Act)*.

### **3.2.2 NSW Solar Energy Guideline**

21. The *Large-Scale Solar Energy Guideline* was originally released by the NSW Government in December 2018 to provide the community, industry and regulators with guidance on the planning framework for assessing large-scale solar projects and identifying the key planning considerations relevant to solar energy development in NSW (AR para 17). The Guideline was revised in August 2022 (**Solar Energy Guideline**). The Department states that “while the revised guideline does not strictly apply to this project as it was lodged prior to [its] release, the project is broadly consistent with the principles in the revised guideline” (AR para 18). The Commission agrees with the Department on this point and has considered the assessment issues covered by the Solar Energy Guideline in section 5 of this report.

### **3.2.3 Regional and Local Plans**

22. In determining the Application, the Commission has also considered the following regional and local plans:
- Riverina Murray Regional Plan 2041; and
  - Greater Hume Local Strategic Planning Statement 2020.

### **3.2.4 Other proximate energy projects**

23. There are three approved State significant renewable energy projects in proximity to the Site, including:
- Jindera Solar Farm – located immediately to the north-west of the Site (approximately 320 metres) (120 MW);
  - Walla Walla Solar Farm – located approximately 18 km to the north (300 MW); and
  - Culcairn Solar Farm – located approximately 21 km to the north (350 MW).
24. The location of nearby renewable energy projects is illustrated in Figure 1 of the Department’s AR.
25. The Department notes that should this Application be approved, there is the potential for the construction periods of these projects to overlap (AR para 12).

26. The Commission has considered the potential cumulative impacts of these projects, including loss of agricultural land (section 5.4.2), workforce accommodation (section 5.4.4), visual amenity (section 5.1), and traffic and transport (section 5.2) in this Statement of Reasons.

### 3.3 Statutory context

#### 3.3.1 State significant development

27. The Application is SSD under section 4.36 of the EP&A Act because it is development for the purpose of electricity generating works with a capital investment value of more than \$30 million (\$250 million) as per section 20 of Schedule 1 of the Planning Systems SEPP (previously clause 20 of Schedule 1 of the SRD SEPP, which was in force at the time of lodgement).
28. In accordance with section 4.5(a) of the EP&A Act and section 2.7 of the Planning Systems SEPP, the Commission is the consent authority because the Application is SSD and more than 50 unique public submissions objecting to the project were made to the Department. Council initially objected to the Application (which would also be a trigger for determination by the Commission), however Council formally withdrew its objection to the Project in February 2023.

#### 3.3.2 Amended Application

29. In accordance with clause 55 of the *Environmental Planning and Assessment Regulation 2000 (EP&A Regulation)*, a development application can be amended at any time before the application is determined. Following consideration of submissions on the Project, the Applicant amended the Application.
30. Para 52 of the Department's AR provides a summary of the amendments made to the Project.

#### 3.3.3 Permissibility

31. The Site is zoned RU1 Primary Production under the GHLEP 2012. Electricity generating works are permissible with consent on any land in a prescribed rural, industrial or special use zone, including RU1 zones, under clause 34 of the *State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)* (AR para 27) (now section 2.36 of *State Environmental Planning Policy (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP)*). As detailed below in Table 1, provisions from the Infrastructure SEPP were transferred into the Transport and Infrastructure SEPP and the transfer does not affect the operation or meaning of the provisions.

##### *Subdivision*

32. The Applicant proposes subdivision for the purposes of a long-term lease. The proposed subdivision of the lots would be below the minimum lot size of 100 ha and prohibited under a strict reading of the GHLEP 2012. Under section 4.38(3) of the EP&A Act, development consent for the Project can be granted despite the subdivision component of the application being prohibited by the GHLEP 2012.

### 3.3.4 Integrated and other NSW approvals

33. Under section 4.41 of the EP&A Act, several other approvals are integrated into the SSD approval process, and therefore are not required to be separately obtained for the Project (AR para 29). The Commission Panel has considered the Department’s recommended conditions of consent relating to integrated and other approvals as part of its deliberation process.

### 3.3.5 Renewable Energy Zones

34. The NSW Government has declared five ‘renewable energy zones’ (REZs) across the State to help expand transmission and generation capabilities in strategic areas. This is to ensure that development occurs in appropriate areas that are close to existing transmission and distribution infrastructure. The *Large-Scale Solar Energy Guideline* recognises that “a large portion (approximately 70%) of existing solar development is currently located outside REZs and continued development outside of the REZs will be required to support a transition to renewable energy” (page 7). Although the Project is not located in a declared REZ, the Commission notes that it is located close to the South West REZ. The Project would have direct access to the transmission network with available capacity (AR para 61).

## 3.4 Mandatory considerations

35. In determining this Application, the Commission is required by section 4.15(1) of the EP&A Act to take into consideration such of the listed matters as are of relevance to the development the subject of the Application (**Mandatory Considerations**). The mandatory considerations are not an exhaustive statement of the matters the Commission is permitted to consider in determining the Application. To the extent that any of the Material does not fall within the mandatory considerations, the Commission has considered that Material where it is permitted to do so, having regard to the subject matter, scope and purpose of the EP&A Act.

Table 1 – Mandatory Considerations

Mandatory Considerations	Commission’s Comments
<b>Relevant Environmental Planning Instruments (EPIs)</b>	Appendix I of the Department’s AR identifies relevant EPIs for consideration. The key EPIs include: <ul style="list-style-type: none"> <li>• SRD SEPP;</li> <li>• Planning Systems SEPP;</li> <li>• Transport and Infrastructure SEPP;</li> <li>• <i>SEPP No. 33 – Hazardous and Offensive Development</i>;</li> <li>• <i>SEPP No. 55 – Remediation of Land</i>; and</li> <li>• GHLEP 2012.</li> </ul> <p><i>SEPP 33 – Hazardous and Offensive Development</i> and <i>SEPP 55 – Remediation of Land</i> were consolidated into the <i>State Environmental Planning Policy (Resilience &amp; Hazards) 2021</i> and the <i>State Environmental Planning Policy (Infrastructure) 2007</i> was consolidated into the <i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i>. The consolidated SEPPs commenced on 1 March 2022.</p>

	<p>Provisions from the previous SEPPs were transferred into the consolidated SEPPS and the transfer does not affect the operation or meaning of the provisions and the provisions are to be construed as if they had not been transferred (s 30A <i>Interpretation Act 1987</i> (NSW); s 1.4 <i>SEPP (Transport and Infrastructure) 2021</i>; s 1.4 <i>SEPP (Resilience &amp; Hazards) 2021</i>). References to the former SEPPs are deemed as references to the equivalent provisions in the new consolidated SEPPs.</p> <p>The Commission agrees with the Department's assessment of EPIs set out in Appendix I of the AR. As discussed above, the Application is permissible with consent in accordance with the Transport and Infrastructure SEPP.</p> <p>The Commission finds that the Project is consistent with the objectives of the RU1 zone as the Project:</p> <ul style="list-style-type: none"> <li>• allows for both non-agricultural and agricultural uses that will not restrict the use of other land in the locality for agricultural purposes;</li> <li>• allows the Site to be used for agricultural purposes by supporting agri-solar uses including sheep grazing and limited cropping;</li> <li>• does not conflict with land uses on adjoining zones; and</li> <li>• minimises the fragmentation of resource lands.</li> </ul>
<b>Relevant DCPs</b>	Section 2.10 of the Planning Systems SEPP states that development control plans do not apply to SSD. The Commission does not consider any development control plans to be relevant to the determination of the Application.
<b>Likely impacts of the development</b>	The likely impacts of the Application have been considered in section 55 of this Statement of Reasons.
<b>Suitability of the site for development</b>	<p>The Commission has considered the suitability of the Site and finds that the Site is suitable for the following reasons:</p> <ul style="list-style-type: none"> <li>• the development is permissible with consent;</li> <li>• the Site does not include any mapped Biophysical Strategic Agricultural Land (BSAL);</li> <li>• the inherent agricultural capability of the land will not be affected in the long term;</li> <li>• decommissioning and rehabilitation would be capable of returning the land to its pre-development condition;</li> <li>• the Project does not preclude the use of the land for agriculture and will be managed for agri-solar purposes during operation, including grazing and limited cropping;</li> <li>• adverse impacts on surrounding receivers have been minimised as far as practicable and would be further managed and mitigated by the imposed conditions of consent;</li> <li>• the use of the Site is for the purpose of electricity generation and is an orderly and economic use and development of land;</li> <li>• the development of the Site for the purpose of electricity generation will facilitate social and economic benefits;</li> <li>• the development of the Site will contribute to the orderly transition from traditional coal and gas fired power generations to power generation with lower emissions; and</li> <li>• the development of the Site will assist in meeting NSW's target of net zero emissions by 2050.</li> </ul>
<b>Objects of the EP&amp;A Act</b>	In this determination, the Commission has carefully considered the Objects of the EP&A Act. The Commission finds that the Application has been assessed against the relevant EPIs and, subject to the conditions imposed, is consistent with the Objects of the EP&A Act.

<b>Ecologically Sustainable Development (ESD)</b>	The Commission finds that the Project is consistent with ESD principles and would achieve an acceptable balance between environmental, economic and social considerations.
<b>The public interest</b>	<p>The Commission has considered whether the grant of consent to the Application is in the public interest. In doing so, the Commission has weighed the predicted benefits of the Application against its predicted negative impacts.</p> <p>The Commission's consideration of the public interest has also been informed by consideration of the principles of ESD.</p> <p>The Commission has given consideration to the principles of ESD in its assessment of each of the key issues, as set out in section 5 below. The Commission finds that, on balance, the Application is not inconsistent with ESD principles, and that the Project would achieve an appropriate balance between relevant environmental, economic and social considerations. The likely benefits of the Project warrant the conclusion that an appropriately conditioned approval is in the public interest.</p>

### 3.5 Additional considerations

36. In determining the Application, the Commission has also considered:

- Noise Policy for Industry 2017 (**NPfI**);
- Interim Construction Noise Guideline 2009 (**ICNG**);
- NSW Road Noise Policy 2011 (**RNP**);
- NSW Biodiversity Offsets Scheme;
- NSW Biodiversity Offsets Policy for Major Projects 2014;
- Renewable energy generation and agriculture in NSW's rural landscape and economy – growth sectors on a complementary path (NSW Agriculture Commissioner, 2022) (**NSW Agriculture Commissioners Report**);
- Greater Hume Strategic Plan 2032 (**Council's Strategic Plan**)
- Land and Soil Capability Mapping for NSW (Office of the Environment and Heritage); and
- Social Impact Assessment Guideline 2021 (**SIA Guideline**).

### 3.6 The Commission's meetings

37. As part of the determination process, the Commission met with various persons as set out in Table 2. All meeting and site inspection notes were made available on the Commission's website.

*Table 2 – Commission's Meetings*

<b>Meeting</b>	<b>Date</b>	<b>Transcript/notes available on</b>
<b>Department</b>	1 November 2023	6 November 2023
<b>Applicant</b>	1 November 2023	7 November 2023
<b>Council</b>	1 November 2023	7 November 2023
<b>Site inspection</b>	15 November 2023	22 November 2023
<b>Public Meeting</b>	16 November 2023	21 November 2023, and re-published on 22 November to amend a minor error

## **4. Community participation and public submissions**

### **4.1 Community group attendance at the site inspection**

38. On 15 November 2023, the Commission Panel conducted an inspection of the Site.
39. In accordance with the Commission's Site Inspection and Locality Tour Guidelines, and in line with the Commission's principles of openness and transparency, the Commission Panel may exercise its discretion to invite community observers, in addition to the Applicant, to attend a site inspection. However, in this instance, the Commission Panel determined not to exercise its discretion to invite observers to the site inspection. The Commission Panel was satisfied that the Commission's principles of openness and transparency were met through the publishing of detailed site inspection notes, including photographs, on the Commission's website, as outlined in Table 2 above. The Commission was also satisfied that the Community was provided the opportunity to make any comments such as they see fit following the site inspection via written submissions, which were accepted until 23 November 2023.

### **4.2 Public Meeting**

40. The Commission conducted a Public Meeting on 16 November 2023. The Public Meeting was held in-person with registered speakers presenting to the Commission Panel in-person or via telephone.
41. The Commission heard from the Department, the Applicant, various community group representatives and individual community members. In total, 25 speakers presented to the Commission during the Public Meeting.
42. Presentations made at the Public Meeting have been considered by the Commission as submissions and are referenced in section 4.3 below.

### **4.3 Public submissions**

43. This section sets out the matters raised in the submissions considered by the Commission. Consideration has been given to these submissions in the Commission's determination of the Project (see section 5 below).
44. As part of the Commission's consideration of the Project, all persons were offered the opportunity to make written submissions to the Commission until 5.00pm, Thursday 23 November 2023. One late submission received from a local community member as an addendum to their initial submission was also accepted and considered by the Commission.
45. The Commission received a total of 61 written submissions on the Application. An overview of the written submissions received by the Commission is provided in Figure 2 below. The key issues raised in submissions are summarised in Figure 3 below.

Figure 2 – Submissions received by the Commission

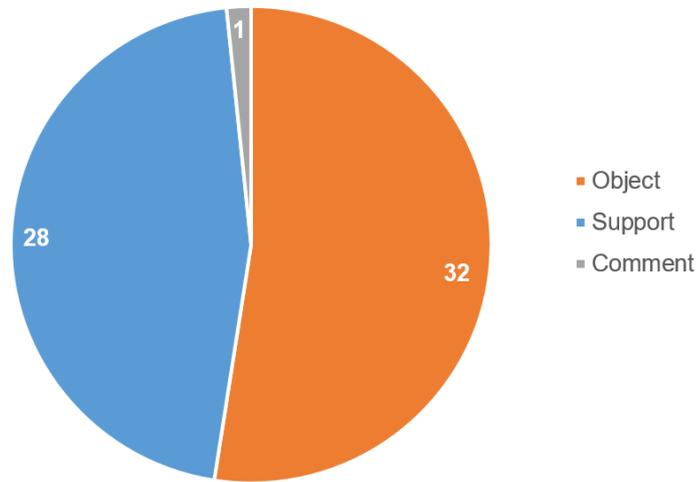
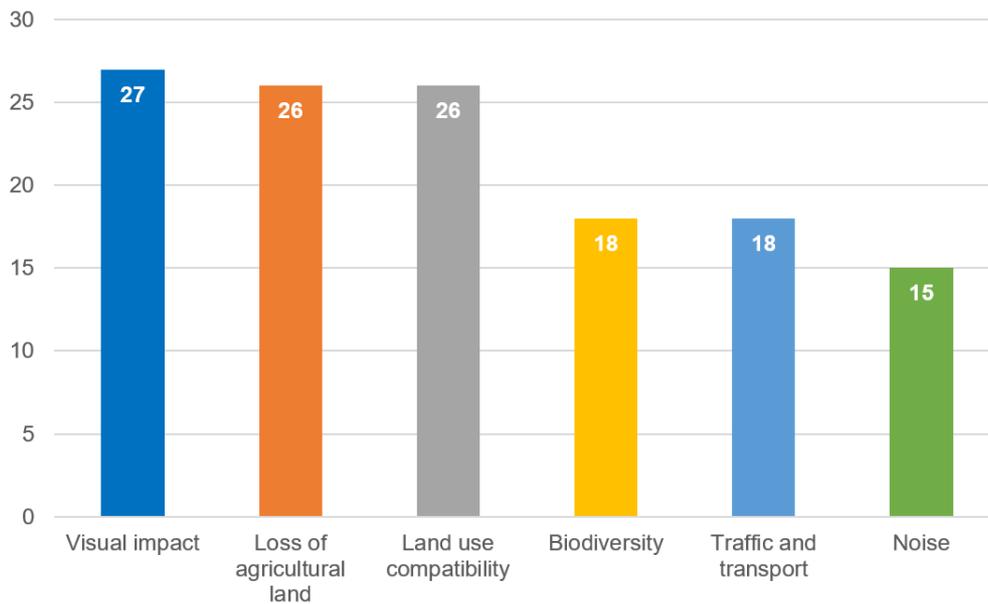


Figure 3 – Overview of key issues raised in submissions



- 46. The Commission acknowledges that many residents impacted by this Application work in agricultural industries, and given the determination timeframe for this case, the Public Meeting and submission period fell at a busy time of year during the cropping and harvesting season for some affected members of the community.
- 47. For the reasons set out in this Statement of Reasons, the Commission considers that the matters raised in submissions do not preclude the grant of development consent and that the matters can be satisfactorily addressed by the conditions of consent imposed by the Commission.

### 4.3.2 Key issues raised

48. Submissions to the Commission raised several key issues, which are outlined below. The Commission notes that the themes referred to below are not an exhaustive report of the submissions considered by the Commission, they are reflective and illustrative of what the Commission regards as the key issues that emerged from the submissions.

#### *Amenity impacts – visual, noise and dust*

49. Submissions raised concern regarding the visual impact of the Project, noting that the rural character of the area is highly valued by community members, and in particular neighbouring properties.
50. Submissions acknowledged the proposed vegetation screening, however some submissions stated that there was a need for improved screening in places, for example along Drumwood Road. Concern was also raised regarding the effectiveness of vegetation screening and the survival rates of planting, noting maintenance and water requirements.
51. Submissions raised concern in relation to noise and dust generation during the construction period, as well as the potential for ongoing dust generation. One submission requested that dust to be controlled and monitored on an ongoing basis.

#### *Traffic and transport*

52. Submissions raised concern about the transport of materials to and from the Site, particularly during the construction period. One submission commented that Drumwood Road is not a suitable road for heavy, consistent traffic and that any Project-related transport should not be permitted along Drumwood Road.

#### *Decommissioning and rehabilitation*

53. The Commission received submissions regarding the decommissioning of the Project, raising concerns in relation to underground cables being left in the ground at the end of the Project life, and the return of the land to its current agricultural use following closure of the solar farm. Submissions also noted concerns regarding measures to ensure appropriate decommissioning occurs, suggesting that the Applicant be required to pay a bond.

#### *Land use compatibility, land classification and land management*

54. Submissions raised concern about the proposed land use and the loss of agricultural land. Submissions described the proposed solar farm use as an industrial land use and stated that it was not a suitable use. Some submissions commented that combining the proposed solar farm use of the Site with agricultural production (**agri-solar**) is not feasible.
55. The Commission also received submissions in support of the agri-solar component of the Project, noting that the continuation of grazing at the Site reduces the impacts that similar projects may have on the use of agricultural land.
56. Submissions commented that the Site is prime agricultural land and should not have been reclassified from land and soil capability (**LSC**) Class 3 and Class 6 to LSC Class 4.
57. The Commission received a submission that noted the surrounding agricultural land uses and requested stockproof fencing be installed around the Site.

### *Biodiversity*

58. Submissions raised concern regarding the removal of paddock trees, noting concerns in relation to erosion and loss of biodiversity. One submission suggested shelterbelt and riparian planting be required to offset any potential damage caused by tree removal.

### *Water*

59. The Commission received submissions that raised concern regarding potential pollution of waterways by the Project and the Project's potential to affect salinity. The Commission also received some submissions that raised concerns in relation to the removal of the paddock trees, including the impact this could have to groundwater.

### *Social and economic impacts*

60. The Commission received submissions that raised concerns about the proposed change of land use and noted the stress that the Project has caused for some members of the local community. Some submissions commented that the Project does not have a social license to operate in the area.
61. Submissions received in support of the Project raised the economic benefits that the Project would generate for the local community. Submissions commented that local jobs are needed to provide opportunities for young people to work in the region. Submissions also stated that the financial contribution to Council via the planning agreement would have a significant positive impact on the community.

### *Waste and recycling*

62. Submissions received raised concern regarding the end-of-life treatment of solar panels. Submissions included comments that there are non-recyclable materials and waste components within the panels that are difficult to manage, and concern was raised about the environmental impacts of this.
63. Submissions to the Commission also raised concern in relation to the disposal of waste generated during the construction process.

### *Hazards and risk*

64. Submissions received raised concern about the management of bushfire risk at the Site and the impact this might have on surrounding properties.

### *Heat island effect*

65. The Commission received submissions that raised concern about the potential for the solar farm to create a 'heat island'. Submissions raised concern regarding potential impacts to neighbours due to a cumulative 'heat island effect', noting the impact of prevailing winds over several contiguous solar farms and potential impacts this may have to the microclimate effecting farms to the east of the Site.

### *Sourcing and supply chain*

66. The Commission heard from speakers at the public meeting and received submissions raising concern about the use of modern slavery in supply chains to produce solar panels, and the potential for solar panels used in the Project to come from such sources. Submissions made specific reference to the *Modern Slavery Act 2018* (Cth).

### *Contamination*

67. Submissions received raised concern that solar panels, when damaged or degraded, have the potential to leach heavy metals and contaminate agricultural land, water resources and aquatic habitat. Specific concerns were raised regarding heavy metal contamination.

### *Neighbour agreements*

68. The Commission received submissions that commented on the consultation process that the Applicant has undertaken, including discussions regarding neighbour agreements. Some submissions stated that there has not been any recent progress and that consent should not be granted until neighbour agreements are in place.

### *Insurance and liability*

69. The Commission received submissions from neighbouring residents raising concern about the cost and availability of insurance, commenting that solar farms can make it difficult for neighbouring properties to continue existing agricultural pursuits because of increased insurance costs to cover liability for causing damage to the solar farm.

### *Energy transition*

70. The Commission received submissions in support of the Project that commented on the benefits of the Project in achieving the State's transition to renewable energy and away from reliance on fossil fuels.

## **5. Key issues**

### **5.1 Visual impacts**

71. The visual impacts of the Project were a key issue raised in submissions to the Department and to the Commission. Concern was raised about the Project's impact on the rural character of the area and its perceived change to an 'industrialised landscape'. Visual impact concerns were particularly raised by residents of neighbouring properties.
72. During its site inspection, the Commission viewed the Site from the boundaries with the closest non-associated residences, including residences along Lindner Road and Drumwood Road.
73. The Applicant considered the visual impacts of the Project in its Landscape and Visual Impact Assessment within the EIS, an addendum assessing the amended Application, and further information requested by the Department which clarified the assessment of impacts at a number of non-associated dwellings (AR para 97). The Applicant made amendments to the Project to reduce visual impacts, including relocating the substation, reducing the number of solar panels, increasing setbacks from Lindner Road and Ortlipp Road, and increasing vegetation screening around the Project (Public Meeting transcript, page 10).

74. The Department's assessment found that there would be "no significant visual impacts on surrounding residences" (AR para 114), and that all residences within two kilometres of the Site "would experience nil to low visual impacts" (Public Meeting transcript, page 6). Further, the Department found that "the rural character and visual quality of the area would be preserved as far as practicable" (AR para 114). To ensure this outcome, the Department recommended conditions requiring the Applicant to establish and maintain a vegetation buffer (in accordance with the draft landscape plan provided in the EIS); ensure the visual appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape; and minimise the off-site lighting impacts of the development in accordance with Australian Standards (AR para 115).
75. The Commission generally agrees with the Department's assessment of the visual impacts of the Project and its recommended conditions of consent to minimise visual impacts as far as practicable. The Commission has therefore imposed condition B24 requiring the Applicant to minimise the off-site visual impacts of the development, including the potential for any glare or reflection. Regarding visual screening, the Commission has imposed conditions to ensure the vegetation buffer is planted prior to the commencing of operation of the Project; vegetation is comprised of species that are endemic to the area; vegetation is properly and actively maintained with appropriate weed management, and failed plantings are replaced; and is in accordance with bushfire requirements (condition B10). The Commission has also imposed condition B11 that requires the Applicant to provide additional vegetation screening or scattered trees at nearby residences (including receivers LIN001, 004, 005, 007, DRM008, NIK003 and MLA01), in consultation with the landowners, to ensure that any remaining views of the development are appropriately screened.
76. The Commission concludes that the visual impacts on all potentially affected residents would be negligible for the following reasons:
- there is reasonable separation distance between the development footprint and the receivers;
  - there is intervening vegetation on the Site which is to be retained;
  - the proposed vegetation screening on the Site will be appropriately positioned and is required to be maintained; and
  - additional vegetation screening is required to be provided in consultation with nearby landowners, as imposed by the Commission.

## 5.2 Traffic and transport

77. During the 12 to 18 month construction phase, the Project would result in increased daily traffic movements including light vehicles, buses, heavy vehicles and heavy vehicles requiring escort. During the operational phase, light and heavy vehicle movements would be negligible (AR para 86).
78. The Project involves the delivery of plant, equipment and materials via two road haulage routes. The first route assumes that site components would be delivered from the Port of Newcastle and the second route accounts for site components being delivered from a port in Melbourne (AR paras 90 & 91). There are a number of road upgrades required along these routes, as detailed by the Department at AR paragraph 92.
79. The Commission acknowledges the submissions it received that raised concern about the transport of materials to and from the Site, particularly during the construction period. The Commission notes the submission that commented that Drumwood Road is not a suitable road for heavy, consistent traffic and that any Project related transport should not be permitted along Drumwood Road.

80. The Commission notes that, following amendments made to the Project including the removal of Glenellen Road from the haulage route, Council withdrew its objection to the proposal. Further, in its correspondence to the Commission dated 8 November 2023, Council advised that it considered the draft conditions were acceptable.
81. The Commission is satisfied that, subject to the imposed conditions, the Project would not result in significant impacts to the road network condition, efficiency or safety. The Commission has imposed condition B9 which requires the Applicant to prepare a Traffic Management Plan in consultation with TfNSW and Council. This plan must include details of the transport route, road upgrades and measures that would be implemented to minimise traffic impacts during construction, upgrading or decommissioning works.
82. The Commission recognises the community's concerns in relation to the movements of heavy vehicles and heavy vehicles requiring escort and has imposed condition B4 to prohibit such vehicles from using Glenellen Road and Drumwood Road. In order to improve safety outcomes, heavy vehicles and heavy vehicles requiring escort are also prohibited from moving through and parking in the township of Jindera during school zone times.

### 5.3 Decommissioning and rehabilitation

83. The Commission received submissions that raised concern regarding the effectiveness of decommissioning and rehabilitation of the Project's infrastructure, including concerns about underground cables being left in the ground and the return of the land to its current agricultural use following closure of the solar farm. Submissions also noted concerns regarding mechanisms to ensure appropriate decommissioning occurs, suggesting that the Applicant be required to pay a bond.
84. The Solar Energy Guideline identifies the following four key decommissioning and rehabilitation principles (page 31):
- the land on which a large-scale solar energy project and supporting infrastructure is developed must be returned to pre-existing use if the project is decommissioned;
  - if operations cease, infrastructure (including underground infrastructure) should be removed unless there is significant justification for retaining it;
  - land must be rehabilitated and restored to pre-existing use, including the pre-existing LSC class, if previously used for agricultural purposes; and
  - the owner or operator of a solar energy project should be responsible for decommissioning and rehabilitation, and this should be reflected in an agreement with the host landholder.
85. The Commission acknowledges the Community's concerns in relation to assurances surrounding rehabilitation. The Department, at its meeting with the Commission on 1 November 2023, advised that "[i]t is the New South Wales Government's policy that financial assurances should not be required by conditions of consent and any financial assurances should be dealt with in the commercial arrangements outside of the planning system" (Meeting Transcript, page 8).
86. The Commission agrees with the Department (AR Table 5) that with the implementation of objective-based conditions and monitoring requirements, which are consistent with these key principles above – the Project is capable of being decommissioned, and that the Site is capable of being appropriately rehabilitated.

87. The Commission has therefore imposed condition B37, which states that the Applicant must prepare a Decommissioning and Rehabilitation Plan within 3 years of the commencement of operation and reviewed halfway through the operational life of the Project, as well as 2 years prior to the Project's decommissioning. The Commission has additionally imposed condition B38 which sets specific rehabilitation objectives that the Applicant must meet within 18 months of cessation of operations. This includes removing all infrastructure from the Site (above and below ground) and returning the development footprint to the pre-existing land and soil capability.

## 5.4 Other issues

### 5.4.1 Land use compatibility

88. The Commission acknowledges the concerns raised by the community through submissions about the compatibility of the proposed solar farm with the area's predominantly agricultural context. The Commission also acknowledges the importance of landscape character and notes that the community's enjoyment of the region and sense of place is closely tied with its existing rural setting.
89. As discussed at paragraph 31 above, the Commission notes that Project is permissible within the RU1 Primary Production zone under the Infrastructure SEPP. The Commission also notes that the proposed land use is consistent with key government strategic planning guidance, including the objective to leverage renewable energy opportunities in the region to contribute to the State's transition to lower emissions.
90. In reference to land impacts and solar farms, the NSW Agriculture Commissioner's Report acknowledges that "[o]ne of the main characteristics of utility-scale solar energy production is its larger footprint than most other renewable sources" (page 32). On land impacts, the report concludes (page 40):
- The analysis shows that renewable energy development is not in conflict with agricultural land use at a sufficiently large scale to materially affect the NSW state agricultural base. Even if the highest estimated levels of supply occur, the land required is, in orders of magnitude, significantly smaller than land currently in cultivated agriculture and less than the amount of agricultural land currently utilised for other competing land uses such as urban development.*
- Despite this, there may be localised impacts on agricultural land when considered on a smaller scale. The presence of REZs and proximity to transmission infrastructure means that in some regions or localities, the land-use change impacts will be more evident.*
91. The Commission agrees with the Department that the Project "would not fragment or alienate any resource lands in the LGA" (AR para 71). The Commission is of the view that the siting of the Project, and proposed arrangement of solar arrays, is such that it will not cause fragmentation of agricultural land and would not impede the growth of nearby urban areas. The Commission finds that the Site can be returned to agricultural land following the decommissioning of the Project and agrees with the Applicant and the Department that the inherent agricultural capability of the land would not be affected by the Project. The Commission supports the proposed use of the Site for agri-solar, including continued sheep grazing and limited cropping within the development footprint, and notes that the Project would result in only a 25% reduction in productive sheep carrying capacity across the Site (AR para 78).

92. Although the Commission acknowledges that the Project will be visible from some adjoining and nearby residences (as discussed in section 5.1) it would not be visible from main roads or regional centres and therefore the Commission finds that the broader landscape character of the area, its rural setting and sense of place would not be significantly altered by the proposed development.

#### 5.4.2 Land classification

93. Submissions to the Commission noted concerns regarding the loss of prime agricultural land. Submissions also commented that the Site should not have been reclassified from LSC Class 3 and Class 6 to LSC Class 4.
94. In the EIS, the Applicant drew on mapping data from the Office of Environment and Heritage which mapped the north-eastern portion of the site Class 3 and the south-western portion of the site Class 6 (EIS, page 122). Following a number of submissions received during the Department's exhibition period that raised concerns regarding the loss of agricultural land, the Applicant undertook a Land and Soil Capability Assessment. This assessment determined that the land classed as LSC Class 3 and Class 6 better met the LSC classification of Class 4 (Amendment Report, page 46).
95. Regarding the loss of agricultural land and potential cumulative impacts, the Department states (AR para 82):
- ... the development footprint of the project combined with other operational, approved and proposed SSD solar farms in the Riverina Murray region would be approximately 8,000 ha. The loss of 8,000 ha of agricultural land represents a very small fraction (0.09%) of the 9.1 million ha of land being used for agricultural output in the Riverina Murray region, and would result in a negligible reduction in the overall productivity of the region.*
96. The Commission notes that the Project has been designed to allow sheep grazing and limited cropping to continue at the Site throughout the operation of the Project and the Project "would only result in a 25% reduction in productive sheep carrying capacity across the [S]ite" (AR para 87).
97. The Commission accepts the determination made in the Land and Soil Capability Assessment that the land within the development footprint is comprised entirely of LSC Class 4.
98. The Commission is satisfied that, subject to the imposed conditions, including rehabilitation requirements for the Applicant to restore the land capability to its pre-existing use, the Project is a reasonable use of the land and would not result in any significant or meaningful loss in agricultural land, particularly given that the Project has been designed to allow grazing and cropping to continue at the Site.

#### 5.4.3 Biodiversity

99. The Commission notes that the Site has been subject to clearing for agricultural use over many decades and is comprised predominantly of exotic pasture with paddock trees.
100. The Department's AR states that of the Project's 309 Ha disturbance footprint, a total of approximately 8.7 ha of native vegetation (including paddock trees) would be required to be cleared (Table 5).
101. The Commission understands that two native Plant Community Types (PCT) have been mapped within the Site, and there is suitable habitat for three threatened species listed under the *Biodiversity Conservation Act 2016 (BC Act)*. The Department's AR provides a summary of the likely biodiversity impacts of the Project, and the biodiversity offset credits required to be retired under the NSW Biodiversity Offset Scheme (Table 5).

102. The Commission notes the Department's view that, given the minor extent of clearing and the degraded nature of the vegetation within the Site, it "considers it unlikely that the project would result in a Serious and Irreversible Impact to any biodiversity values" (AR, Table 5).
103. The Commission agrees with the Department and finds that the Project is unlikely to significantly impact the biodiversity values of the locality, subject to conditions of consent. The Commission has therefore imposed condition B15 which restricts the clearing of any vegetation or fauna habitat outside the approved disturbance areas, and condition B12(c) which requires the Applicant to reincorporate on the Site any hollow-bearing trees proposed to be removed, where reasonable and feasible. The Commission has also imposed condition B16 which requires the Applicant to make all reasonable efforts to replace the removed paddock trees with the same number of trees of a similar species within the areas of the Site identified for riparian planting and the vegetation buffer.
104. The Commission has imposed conditions B17 and B18 which require the Applicant to retire biodiversity credits in accordance with the NSW Biodiversity Offset Scheme, and condition B19 which requires the preparation of a Biodiversity Management Plan in consultation with the Biodiversity Conservation and Science Directorate within the Department. As part of the Biodiversity Management Plan, the Applicant must set out measures to protect, manage and enhance the remnant vegetation and fauna habitat on the Site, rehabilitate temporary disturbance areas, and control weeds and feral pests.

#### 5.4.4 Social and economic impacts

105. In addition to its contribution to energy transition, the Project would generate direct and indirect benefits to the local community, including (AR Table 5):
- Up to 200 construction jobs over the 12 to 18 month construction period;
  - Up to 10 full-time jobs during operation;
  - Expenditure on accommodation and businesses in the local economy by workers involved in the Project; and
  - The procurement of goods and services by the Applicant and associated contractors.
106. The Commission received a number of supporting submissions that highlighted the economic benefits the Project would generate for the local community. Submissions commented that local jobs are needed to provide opportunities for young people to work in the region. Submissions also stated that the financial contribution to Council via the planning agreement would be significant and would have a positive impact on the community. The Commission also received submissions that raised concern regarding the proposed change of land use and noted the stress this has caused some members of the local community. Some submissions commented that the Project does not have a social license to operate in the area.
107. The Greater Hume Strategic Plan 2032 (**Council's Strategic Plan**) identifies the Community's desire to encourage young people to stay, as well as to attract new people to the area, and recognises that new employment opportunities would support this. This is articulated in Council's strategy to "support local job creation by creating industrial areas and employment opportunities" (page 17). The Commission notes that the Project is consistent with this in that it will provide ongoing local job opportunities.

### *Community enhancement*

108. The Applicant has offered Council a Voluntary Planning Agreement (**VPA**) comprised of a development contribution of \$2,500,000 (excluding GST), to be paid to Council in instalments. At its meeting with the Commission on 1 November 2023, Council confirmed that it was happy with the terms of the offered VPA. Accordingly, the Commission has imposed condition A14 that requires the Applicant to enter into a VPA with Council in accordance with the terms of the agreement.

### *Workforce accommodation*

109. At its meeting with the Commission, Council noted the workforce requirements of the Project, as well as other solar farm projects expected to undergo or currently undergoing construction in the region. Council commented that currently, accommodation in its towns is limited, and it would like to see workforce accommodation outcomes that could leave a positive community legacy.
110. The Commission recognises the economic benefits that the Project could generate for the local community. To manage the potential cumulative impacts associated with multiple projects in the region and to encourage the employment of locally sourced workers, the Commission has imposed condition B36 which states that the Applicant must prepare an Accommodation and Employment Strategy for the development in consultation with Council, and informed by consultation with local accommodation and employment service providers. As part of this strategy the Applicant must give consideration to strategies that leave a positive community legacy and maximise local economic contribution and must propose measures to ensure there is sufficient accommodation for the workforce associated with the development, considering the cumulative impacts associated with other SSD projects in the area.

### *Neighbour agreements*

111. In addition to its development contribution to Council, the Applicant has offered neighbour agreements to 10 properties that neighbour the Project in order to acknowledge that minor residual impacts may still occur. These agreements would take the form of a one-off financial contribution with the aim of seeking to pre-emptively share a portion of the financial returns from the Project with neighbours.
112. The Commission received submissions that commented on the consultation process that the Applicant has undertaken, including discussions regarding neighbour agreements. Some submissions stated that there has not been any recent progress and that consent should not be granted until neighbour agreements are in place.
113. At its meeting with the Commission, the Applicant confirmed that two neighbours have accepted the agreement, and that “any neighbour that has been proposed [a] neighbour agreement can join the scheme until after two years post construction” (Meeting Transcript, page 22).
114. The Commission acknowledges that the Applicant is under no obligation to make the subject neighbour agreements and notes that the subject neighbour agreements are a contract between the Applicant and the neighbour and are not a planning matter.
115. Subject to the imposed conditions, the Commission is satisfied with the Project’s capacity to provide community benefit.

#### 5.4.5 Amenity impacts – noise

116. The Commission acknowledges the submissions it received raising concerns in relation to noise, particularly during the construction period. The Commission notes that construction noise levels are predicted to exceed the ‘noise management level’ in the *EPA’s Interim Construction Noise Guideline* (ICNG) of 23dB(L<sub>Aeq</sub>) at two of the nearest residential receivers. These impacts would be short-term and intermittent. Noise generated during construction, upgrading and decommissioning activities would be below the ‘highly noise affected’ criterion of 75dB(A) in the ICNG at all nearby residences (AR Table 5).
117. Provided that construction traffic is limited to 40 km/hr along Ortlipp and Lindner Roads, road traffic noise during the construction period is predicted to comply with the relevant criteria in the *EPA’s Road Noise Policy* (AR Table 5).
118. The Commission agrees with the Department that noise generated during the construction and operation of the Project is capable of being appropriately managed. The Commission imposes conditions B20 and B21 to restrict the hours within which the Applicant may undertake road upgrades, construction, upgrading or decommissioning activities, and condition B9(c)(vi) to ensure construction traffic is restricted to a 40 km/hr speed limit along Ortlipp and Lindner Roads. The Commission also imposes condition B22 to ensure works are undertaken in accordance with best practice requirements outlined in the ICNG and the *NSW Noise Policy for Industry*.

#### 5.4.6 Amenity impacts – dust

119. The Commission acknowledges the submissions it received raising concern in relation to dust generation during the construction period, as well as the potential for ongoing dust generation. The Commission is satisfied that dust impacts can be mitigated and managed on an ongoing basis through conditions of consent. The Commission has therefore imposed condition B23 which states that the Applicant must ensure that all activities occurring at the Site are carried out in a manner that minimises dust, including wind-blown or traffic generated dust.

#### 5.4.7 Water

120. The Commission received some submissions that raised concerns in relation to the removal of the paddock trees and the impact this could have to ground water. The Commission also received submissions that raised concern regarding potential pollution of waterways from the Project.
121. The Commission notes that Council has confirmed that the water required during the Project’s construction and operational phases can be provided from the Council village water scheme (AR Table 5). The Commission notes that the Project “is not expected to affect groundwater resources or groundwater dependent ecosystems” (AR Table 5).
122. The Commission acknowledges the concerns raised by the community. The Commission is of the view that erosion and sediment risks associated with the Project are capable of being effectively managed and that, subject to the imposed conditions, the Project would not result in significant impacts on water resources. The Commission has therefore imposed condition B30 to ensure the Applicant minimises any soil erosion and controls sediment generation and to ensure that the Project is designed, constructed and maintained to reduce impacts on localised flooding and groundwater at the Site. The Commission has also imposed condition B29 to ensure that the Applicant does not cause any water pollution.

123. The Commission has also imposed condition B28 which states that the Applicant must ensure that it has sufficient water for all stages of the development - including volumes required for the maintenance and support of vegetation screening for the life of the Project.

#### **5.4.8 Heritage**

##### *Aboriginal cultural heritage*

124. The Commission notes that the three stone artifact sites identified within the development footprint were assessed to be of low significance. These items are proposed to be salvaged in consultation with the Registered Aboriginal Parties (RAPs) prior to the commencement of construction.
125. The Commission agrees with the Department that the Project is unlikely to result in significant impacts on the heritage values of the locality (AR Table 5). The Commission has imposed condition B27 requiring the Applicant to prepare a Heritage Management Plan, including provisions to salvage and relocate Aboriginal items, and procedures for unexpected finds, in consultation with RAPs.

##### *Historic heritage*

126. Locally listed heritage item 'Drumwood' homestead and outbuildings (I128 in GHLEP 2012) and its curtilage are located approximately 30m to the southeast of the Site. The Commission notes that Council did not raise historic heritage as an issue in its submissions to the Department and the Commission.
127. The Commission agrees with the Department and is satisfied that the Project would not have any adverse impacts on local heritage items in the area (AR Table 5). The Commission has imposed condition B27, requiring the Applicant to prepare a Heritage Management Plan. As part of this plan the Applicant must set out measures that would be implemented to protect heritage items outside the approved development footprint.

#### **5.4.9 Waste and recycling**

128. The Commission received submissions that raised concern regarding waste, particularly regarding the disposal of solar panels. The Commission acknowledges that the disposal of waste was also raised as an issue by Council at its meeting with the Commission on 1 November 2023. Council also noted its landfills are designed for its local communities and have limited capacity to accommodate large scale construction and industrial waste.
129. At the Public Meeting, the Applicant noted that a Waste Management Plan would be prepared for the Project in order to reduce the quantity of waste generated, and proposed to follow a hierarchy of "reduce waste production, recover resources and dispose of waste appropriately" (Public Meeting Transcript, page 11). The Applicant also stated that this would be undertaken in consultation with Council.
130. The Commission acknowledges the concerns raised by the community and Council and has imposed condition B35, which includes a requirement that the Applicant must minimise the waste generated by the development. The Applicant is also required to ensure that waste is reused, recycled or sent to an appropriately licensed waste facility for disposal and to consult with Council for the use of Council facilities.

#### 5.4.10 Heat island effect

131. The Department notes that it received submissions that raised concerns about potential changes to the microclimate as a result of large scale solar projects, also referred to as the 'heat island effect' (AR Table 5). The Commission also received a number of submissions that raised similar concerns.
132. In its original submission to the Department dated 27 November 2020, Council raised concerns "about the potential for the heat island effect to adversely impact upon localised climatic conditions and result in heat transmission out of the solar farm and into neighbouring properties" (page 1). Council also stated concerns regarding the cumulative impacts of the 'heat island effect' on nearby residences. Council also noted that the EIS relied upon several studies in relation to the 'heat island effect' caused by solar panels, however there were no cited Australian studies in the same context as the Glenellen Solar Farm. The Commission notes that in its submission dated 17 February 2023, Council acknowledges the amendments made to the Project and withdrew its objection.
133. The Department states (AR Table 5):
- While evidence shows that solar panels can increase air temperatures above solar panels, a study commissioned by Greater Shepparton Council in 2018 found that lateral temperatures drop very quickly from the perimeter of a solar farm in part due to natural convections, which take warm air upwards.*
- The study found that changes to air temperatures would be negligible within 30 m of the development footprint, and that any impacts would be further reduced once vegetation screening at the project boundary became effective.*
134. The Department's *Large-Scale Solar Energy Guidelines* states that "[w]here a solar energy project is located adjacent to a horticultural or cropping activity, the solar array should be setback from the property boundary by at least 30m to mitigate any heat island effect" (page 35).
135. The Commission notes that the development footprint is setback more than 30m from the boundary of any adjacent private properties. The Commission acknowledges the Community's concerns, however, as no evidence was put before the Commission to demonstrate any potential 'heat island effect' and as the Project achieves a 30m setback, the Commission is satisfied on the evidence before it that there are minimal risks associated with the potential 'heat island effect'. The Commission is of the view that, with the implementation of the conditions of consent, including setback distances and vegetation screening, the Project would not significantly impact neighbouring properties (AR Table 5).

#### 5.4.11 Supply chain

136. The Commission received submissions that raised concern about ethical supply chains and the potential for overseas modern slavery practices to be associated with solar panels and infrastructure procured for the Project. Some submissions have suggested that the Commission impose conditions in relation to this matter.
137. The Commission notes that, separate to the development consent granted by the Commission, the Applicant would be required to satisfy the relevant requirements of the Commonwealth *Modern Slavery Act 2018* and the NSW *Modern Slavery Act 2018*.

138. Whilst acknowledging the importance of this issue, the Commission has not imposed conditions to address this issue as, even if it was within the scope of the planning legislation, the Commission is satisfied that the Applicant must comply with the relevant requirements of both Modern Slavery Acts in constructing and operating the development, would be duplicative and unnecessary.

#### 5.4.12 Contamination

139. The Commission received submissions that raised concern regarding the potential for damaged or degraded solar panels to leach heavy metals and contaminate agricultural land, water resources and aquatic habitat. Specific concerns were raised regarding heavy metal contamination.
140. The Solar Energy Guideline Frequently Asked Questions (**Guideline FAQ**) provides the following advice on whether solar panels contaminate soil (page 4):

*The metals in solar panels (including lead, cadmium, copper, indium, gallium and nickel) cannot be easily released into the environment. This is because metals such as cadmium telluride (CdTe) or cadmium sulfide (CdS) are enclosed in thin layers between sheets of glass or plastic within the solar panel. Because of this, the use of metals in solar panels has not been found to pose a risk to the environment.*

*To readily release contaminants into the environment, solar panels would need to be ground to a fine dust.*

141. The Commission acknowledges the concerns raised in submissions, however the Commission accepts the advice contained in the Guideline FAQ and is satisfied that there are minimal contamination risks from damaged or degraded solar panels.

#### 5.4.13 Hazards and risk

##### *Bushfire risk*

142. Portions of the Site and its surrounds are mapped as bushfire prone land (AR Table 5). The Commission acknowledges the concerns raised in submissions regarding the management of bushfire risk at the Site and the impact this might have on surrounding properties.
143. The Commission agrees with the Department that the bushfire risk can be suitably controlled through the implementation of standard management procedures. The Commission therefore imposes condition B33 which requires the Applicant to prepare an Emergency Plan consistent with NSW Rural Fire Service's (**RFS**) *Planning for Bushfire Protection 2019*, including appropriate fire and bushfire emergency management planning.

##### *Insurance and liability*

144. The Commission acknowledges that some landholders may be concerned about their ability to acquire insurance to cover potential liabilities when operating in the vicinity of large-scale solar energy developments, with specific concerns regarding fire and bushfire risks. The Commission notes that issues regarding public liability insurance or indemnities are not matters that are properly the subject of conditions under planning legislation. With respect to fire risk, the Commission is satisfied that fire risks associated with the Project can be suitably controlled through the implementation of standard fire management procedures and recommendations made by Fire and Rescue NSW and RFS, including compliance with RFS's *Planning for Bushfire Protection 2019* and standards for asset protection zones.

## 6. The Commission's findings and determination

145. The views of the community were expressed through public submissions and comments received (as part of exhibition of the Project by the Department and as part of the Commission's determination process), as well as in oral presentations to the Commission at the Public Meeting. The Commission carefully considered all these views as part of making its decision.
146. The Commission has carefully considered the Material before it as set out in section 3.1 of this report. Based on its consideration of the Material, the Commission finds that the Project should be approved subject to conditions of consent for the following reasons:
- the Project is consistent with the existing strategic planning and energy framework as it will deliver a renewable energy development in NSW, which will increase the proportion of renewable energy generation within the electricity grid;
  - the use of the Site for renewable energy development is consistent with the relevant EPIs, including the Planning Systems SEPP and Infrastructure SEPP;
  - the Site is a suitable site for renewable energy development given its location close to existing electricity transmission networks, topography, solar resources, avoidance of major environmental constraints, access to the regional road network;
  - the proposed agri-solar component of the Project allows for the continued use of the land for grazing and cropping;
  - the Project represents an effective and compatible use of the land;
  - there is unlikely to be a serious and irreversible impact on biodiversity present in the area;
  - impacts on visual amenity and landscape character would be low and will be mitigated by separation distance, retained vegetation and proposed vegetation screening;
  - there would be no material cumulative traffic impacts on the State, regional or local road network as a result of the Project;
  - there is likely to be sufficient workforce accommodation for the Project;
  - the Project will generate direct and indirect benefits to the local community, including through the proposed VPA
  - with the implementation of objective-based conditions and monitoring requirements, the Project is capable of being decommissioned and the Site appropriately rehabilitated;
  - the Project would not result in significant impacts on water resources;
  - erosion and sedimentation risk associated with the Project can be effectively managed;
  - bush fire risks can be suitably controlled through the implementation of fire management procedures and recommendations;
  - the Project would not significantly impact the Aboriginal or historic heritage values of the locality;
  - the conditions modified and imposed by the Commission will ensure that the residual impacts of the Project are appropriately mitigated and managed into the future and on cessation of operations;
  - the Project is consistent with the ESD principles and would achieve an acceptable balance between environmental, economic and social considerations;
  - the Project is in accordance with the Objects of the EP&A Act; and
  - the Project is in the public interest.

147. For the reasons set out in paragraph 146 above, the Commission has determined that the consent should be approved subject to conditions. These conditions are designed to:
- prevent, minimise and/or offset adverse environmental and social impacts;
  - set standards and performance measures for acceptable environmental performance;
  - require regular monitoring and reporting; and
  - provide for the on-going environmental management of the development.
148. The reasons for the Decision are given in the Statement of Reasons for Decision dated 15 December 2023.



Dr Sheridan Coakes (Chair)  
Member of the Commission



Mr Adrian Pilton  
Member of the Commission



Dr Bronwyn Evans AM  
Member of the Commission



**New South Wales Government**  
Independent Planning Commission

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