Jindera Solar Farm

State Significant Development Assessment
SSD 9549

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Executive Summary

Jindera Solar Farm Pty Ltd (JSF) proposes to develop a new 120 megawatt (MW) solar farm with 30 MW / 60 MW-hour (MWh) of battery storage located approximately 4 kilometres (km) north of Jindera in the Riverina region of NSW (see **Figure ES 1**).

The project is located in close proximity to the regional road network via Urana Road and the electricity network via a new 132 kV transmission line to TransGrid's Jindera substation, which is 600 m south east of the site.

The site is located in a rural area, with 27 non-associated residences located within 1 km of the development footprint.

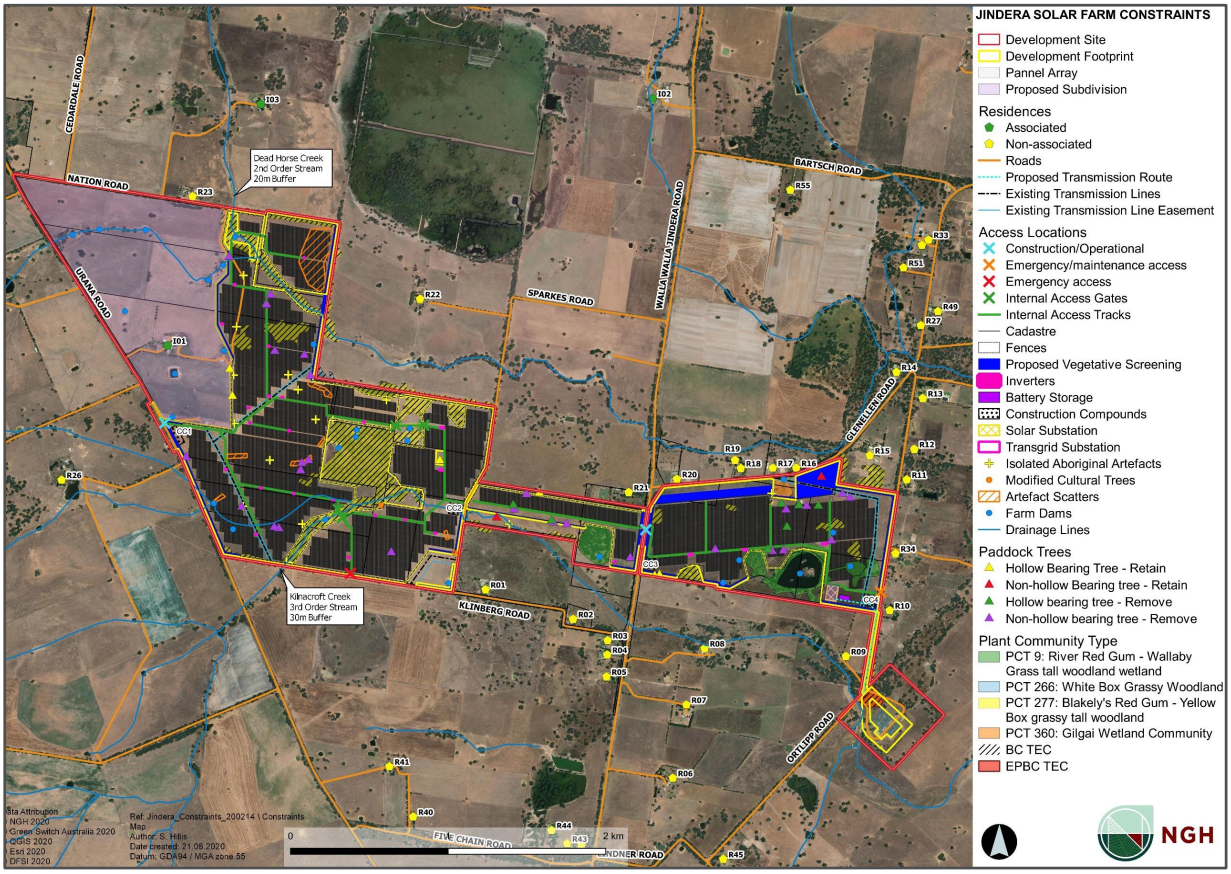

Figure ES 1 | Project Layout

Engagement

The Department exhibited the Environmental Impact Statement (EIS) for the project and received 109 public submissions (96 objections including a petition, 11 supporting and two providing comments) and two from special interest groups providing comments. One objection was received from Greater Hume Council (Council) and 13 government agencies provided comment.

The Department also consulted with Greater Hume Council (Council) and the relevant government agencies on key issues and inspected the site and held a community information session on 7 November 2019.

In response to agency advice and submissions on the project, JSF undertook additional assessments and made several amendments to the proposed project. The amendments included increased setback

distances between solar panels and the project boundary, repositioning and reducing the number of inverter stations, commitments to additional road upgrades and additional vegetation screening. Further amendments were made to avoid the removal of approximately 3.9 hectares (ha) of Box-gum woodland vegetation that is an endangered ecological community (EEC).

The project amendments would lead to better outcomes by reducing visual and noise impacts on surrounding residences and motorists both during construction and operation, avoiding potentially significant impacts on an endangered ecological community and important habitat for the squirrel glider, and ensuring site access points are designed to AustRoads safety standards.

Assessment

The Department has undertaken a comprehensive assessment of the merits of the project and considered all potential issues in accordance with the requirements of the *Environmental Planning and Assessment Act 1979*. The key assessment issues identified for the project are land use compatibility and potential impacts on visual amenity and biodiversity, and the potential cumulative impacts of multiple proposed solar developments within the Greater Hume local government area (LGA).

The project site is 521 ha and is currently used for agricultural purposes, including grazing sheep and cattle (90 %) and cropping (10 %). The development footprint (337 ha) is primarily located on soils classified as Class 3 or 6 under the *Land and Soil Capability Mapping for NSW* (OEH, 2017). Assessment undertaken by the JSF indicates that the soils in the Class 3 portion of site is of limited productivity due to waterlogging issues and considered to be Class 4 (moderate limitations) only, which can support grazing but requires active management to sustain cultivation on a rotational basis.

The Department considers that the project would not significantly reduce the overall agricultural productivity of the region and that the inherent agricultural capability of the site would not be affected, and is satisfied that the site could be returned to its full agricultural uses in the future following rehabilitation.

Given approximately 23 % of the more productive agricultural land on site would remain available for agricultural production, the Department has recommended conditions requiring the implementation of land management measures to maintain the full agricultural capability of soils across the entire site during the operation of the project. JSF intends to graze sheep on the remainder of the site during operation of the project. Importantly, DPI Agriculture accept the findings of JSF's assessment and supports the project, subject to the recommended conditions.

The site and surrounds comprise of relatively flat land that has sections that are highly disturbed from a history of prolonged agricultural practices. The site contains patches of remnant native vegetation, including a large stand in the centre of the western portion of the site, along most of the property boundary and roadside corridors, and along the two watercourses which traverse the western portion site, which would all be retained.

The solar farm is relatively low-lying (solar panels up to 3 m high) and existing vegetation provides some screening of the project from most nearby receivers and would be further minimised by the proposed vegetation screening. The project would not be visible from the town of Jindera (4 km south) or Gerogery (11 km north-east).

The Department supports JSF's amended layout, which has removed a section of solar panels along Glenellen Road, provided increased development setbacks from the site boundaries and additional vegetation screening along most of the boundaries of the site.

Of the 48 non-associated residences within 2 km of the solar infrastructure, 38 are considered to have low or negligible visual impact due to distance, the nature of the landscape and the extent of intervening mature vegetation. The Department considers that the remaining 10 residences located between 120 m and 630 m from the solar infrastructure would not have significant visual impacts. This is due to the setbacks proposed by JSF, existing dense vegetation at residences, native vegetation retained on-site and extensive vegetation screening along the majority of the project boundary, particularly at Ortlipp Road, Urana Road, Klinberg Road, Glenellen Road and along the north western property boundary.

The project has been designed to largely avoid impacts on native vegetation and threatened species. Additional amendments were made by JSF during the assessment of the project to retain an additional 3.9 ha of Blakely's Red Gum – Yellow Box grassy tall woodland (Box-gum Woodland) EEC. Avoidance of this Box-gum woodland community would minimise the potential for significant impact of this vegetation community in the region, maintain connectivity between the retained onsite woodland vegetation and the surrounding area and provide suitable habitat opportunity for movement for the Squirrel Glider and woodland birds. All residual impacts (including clearing of 20.8 ha of native vegetation and 34 native paddock trees) would be offset in accordance with the NSW Biodiversity Offset Scheme, which is included as a requirement in the recommended conditions.

The Department also considered the potential cumulative impacts (including visual amenity, noise, agricultural land, electricity network capacity and traffic) with other State significant development solar projects proposed in the LGA (i.e. Culcairn, Jindera and Glenellen solar farms).

The project would employ up to 200 workers during the 18 month construction period. The Department is satisfied that there is sufficient accommodation in nearby towns, such as Jindera, Culcairn, Table Top, Albury and Wagga Wagga and that the use of accommodation in these areas would stimulate the local economy. The Department has recommended a condition requiring JSF to prepare and implement an accommodation and employment strategy to prioritise the employment of local workers and to ensure there would be sufficient accommodation to house construction workers.

Given the distance of the project from the proposed Glenellen Solar Farm (approximately 320 m to the south east of the site), there is potential for the project to result in cumulative visual impacts and construction noise impacts if the two projects were to be constructed concurrently.

The Department considers that potential cumulative visual impacts would not be significant due to existing native vegetation, and would be further mitigated by proposed vegetation screening. Cumulative construction noise impacts would occur with the proposed Glenellen Solar Farm in the event that both projects are approved and constructed concurrently. Cumulative noise impacts would potentially occur at one residence (R10) with a predicted cumulative construction noise level of 58 dB(A), which would take place intermittently over a six week period whilst construction activities occur on site in proximity to the residence. Importantly, the noise level is well below the 'highly noise affected' criterion of 75 dB(A), the Glenellen Solar project application is yet to be lodged and impacts could be managed with best practice mitigation measures in the event that construction periods overlap.

To address the residual impacts of the project, including Aboriginal cultural heritage, traffic, water, erosion and hazards, the Department has recommended a range of stringent conditions, developed in consultation with agencies and Council, to ensure these impacts are effectively minimised or offset to meet acceptable standards.

Summary

Overall, the Department considers the site to be appropriate for a solar farm as it has good solar resources and available capacity on the existing electricity network and is consistent with the NSW Government's *Large-Scale Solar Energy Guideline*.

The project is consistent with NSW's *Climate Change Policy Framework* and the *Net Zero Plan Stage 1: 2020 – 2030*, as it would contribute 120 MW of renewable energy to the National Electricity Market, including a battery storage facility with a capacity of 30 MW / 60 MWh. Importantly, the battery facility would enable the project to store solar energy for dispatch to the grid outside of daylight hours and/or during periods of peak demand, which has the potential to increase grid stability and energy security.

The project would also provide flow-on benefits to the local community, including up to 200 construction jobs, five operational jobs and a capital investment of $168 million, and up to $1.7 million in contributions to Council for community enhancement projects.

The Department supports JSF's amendments to the project layout to address concerns from the community and other stakeholders and has recommended a suite of conditions to address concerns raised by the community and Council, and to ensure the impacts of the development are appropriately mitigated and/or managed.

The Department considers that the project would result in benefits to the State of NSW and the local community and is therefore in the public interest and approvable, subject to strict conditions of consent.

Contents

1 Project

1.1.1 Jindera Solar Farm Pty Ltd (JSF), a partnership involving Green Switch Australia and Hanwha Energy Corporation, proposes to develop a new State significant development (SSD) solar farm approximately 4 kilometres (km) north of Jindera, in the Greater Hume local government area (LGA) (see **Figure 1**).

1.1.2 The project involves the construction of a new solar farm with a generating capacity of approximately 120 megawatts (MW) and 30 MW / 60 MW-hour (MWh) of battery storage. It also involves the upgrading and decommissioning of infrastructure and equipment over time. While the capacity of the project may increase over time as technology improves, the footprint of the development would not be permitted to increase without further planning approval.

1.1.3 The solar farm would consist of two solar array areas (western and eastern), connected by below ground cabling across Walla Walla Jindera Road. The solar farm would connect to TransGrid's existing Jindera 330/132 kilovolts (kV) substation, which is located approximately 600 m south east of the site via a new overhead 132 kV transmission line along Ortlipp Road.

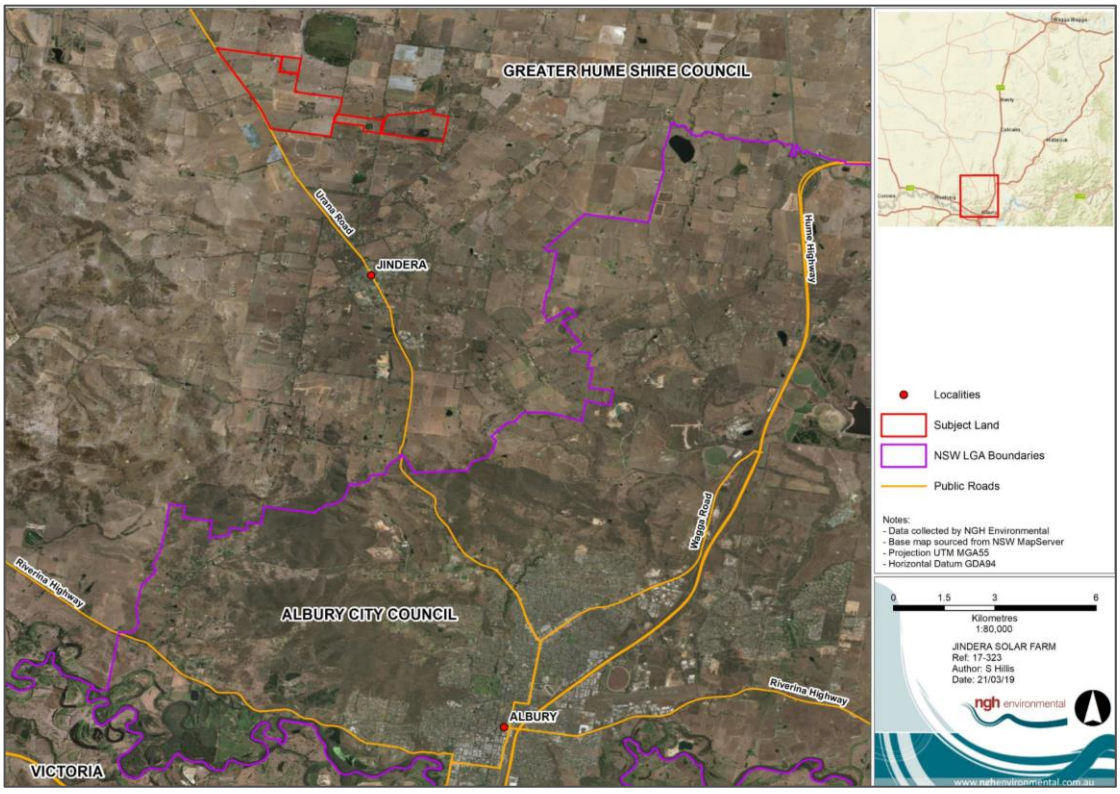

Figure 1 | Regional Context

1.1.4 The key components of the project are summarised in **Table 1**, shown in **Figure 3**, and described in the Environmental Impact Statement (EIS) (see **Appendix B**), Amendment Report (see **Appendix E**), Submissions Report (see **Appendix D**) and additional information (see **Appendix F**). The project site is shown in **Figure 2**.

Figure 2 | Project Site

Table 1 | Main Components of the Project

Aspect	Description
Project summary	The project includes: • approximately 390,500 single-axis tracking solar panels (up to 3 m high) and 25 inverter stations (up to 3.5 m high); • an on-site substation and a new 600 m 132 kV overhead transmission line along Ortlipp Road to connect to TransGrid's 330/132kV Jindera substation south east of the site; • a lithium-ion battery energy storage facility (30 MW / 60 MWh); • internal access tracks, staff amenities, maintenance buildings (up to 3.5 m high), offices, laydown areas, car park, vegetation screening and security fencing; • underground cabling across Walla Walla Jindera Road; • subdivision of land within the site to be retained by the landowner and for the substation; and • connection configuration works at TransGrid's Jindera Substation.
Project area	521 ha (with a 337 ha development footprint – approximately 65% of the site)
Access route	All vehicles would access the site via the Hume Highway, Thurgoona Road, Catherine Crescent, Dallinger Road, Union Road, Wagga Road, Urana Road, Urana Street: • and Urana Road; or • Urana Road and Walla Walla Jindera Road.
Site entry and road upgrades	Five new site entry points would be constructed: • Urana Road to access the western array area, with Channelised Right Turn (CHR(s)/Basic Left Turn (BAL) treatments; • two access points on Walla Walla Jindera Road designed with Basic Right Turn (BAR) and Basic Left Turn (BAL) intersections; and • emergency and maintenance site access point for light vehicles off Ortlipp Road; and • emergency access only for light vehicles off Klinberg Road.
Construction	• The construction period would be up to 18 months, including a peak period of up to four months. • Construction hours would be limited to Monday to Friday 7 am to 6 pm, and Saturday 8 am to 1 pm.
Operation	The expected operational life is approximately 30 years. However, the project may involve infrastructure upgrades that could extend the operational life.
Decommissioning and rehabilitation	The project also includes decommissioning at the end of the project life, which would involve removing all infrastructure.
Hours of operation	Daily operations and maintenance would be undertaken Monday to Friday 7 am to 6 pm, and on Saturday 8 am to 1 pm.
Employment	Up to 200 construction jobs and five operational jobs.
Capital investment value	$168 million

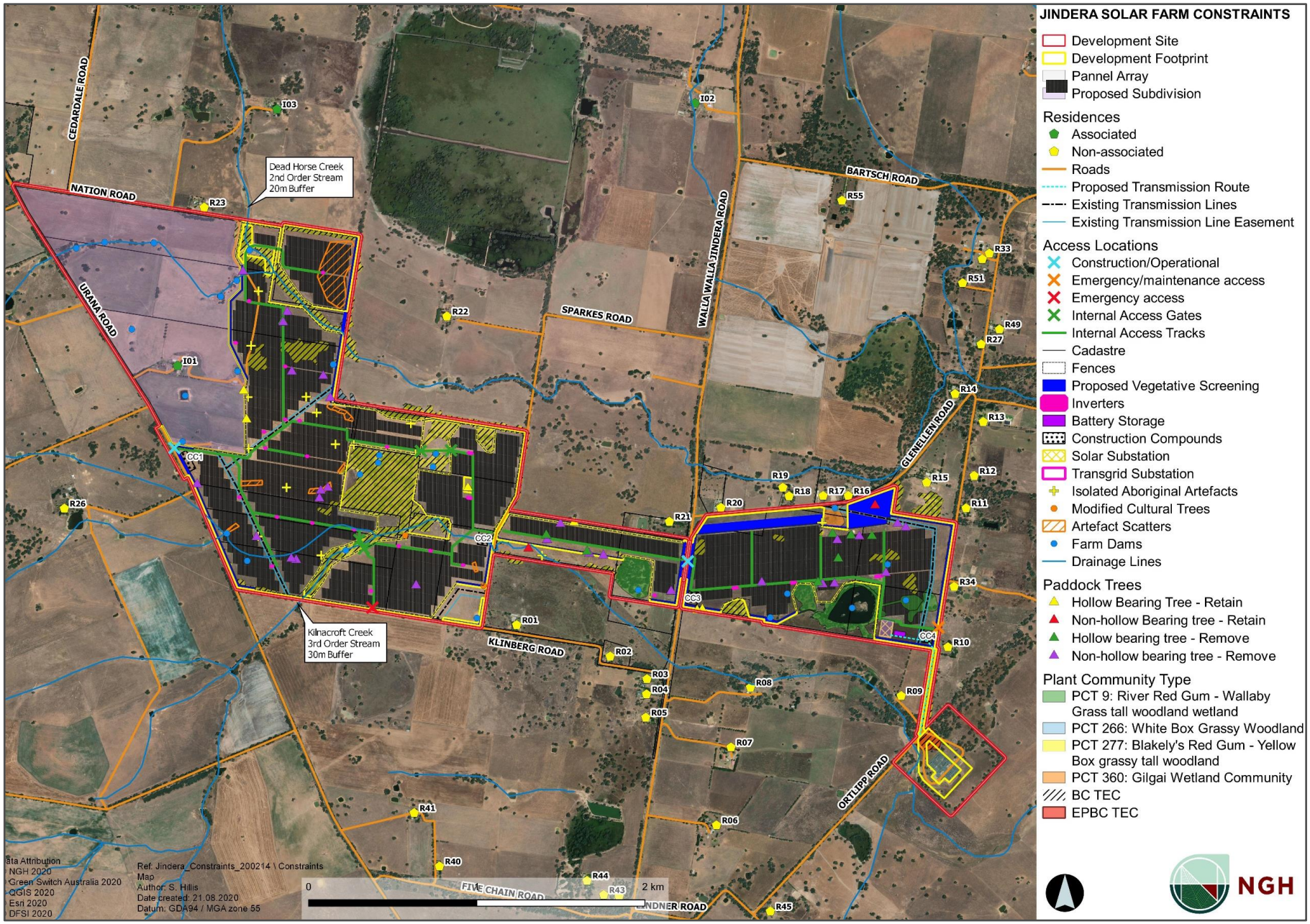

Figure 3 | Project Layout

2 Strategic context

2.1 Site and Surrounds

2.1.1 The project is located on a 521 hectare (ha) site within the Riverina Murray region of NSW. The site (as shown in **Figure 3**) is zoned RU1 - Primary Production under the *Greater Hume Local Environmental Plan 2014* (Greater Hume LEP) and is currently used for agricultural purposes, including grazing sheep and cattle (approximately 90 % of the site) and cropping fodder for the sheep grazed on site (approximately 10 % of the site). Approximately 24 % (119 ha) of the site would continue to be used by the landowners for current agricultural practices (predominantly livestock grazing).

2.1.2 The site does not include any mapped Biophysical Strategic Agricultural Land. Soil studies undertaken as part of the EIS indicate that soils within the development footprint (337 ha) would be classified as Class 4 (245 ha) (land with moderate capability, requiring specialised management practices, expertise, inputs and technology to manage productivity) and Class 6 (92 ha) (severely limited land, generally suitable only for grazing) under the *Land and Soil Capability Classification in NSW* (OEH, 2017).

2.1.3 Land within the site is generally flat to gently undulating and has areas cleared of native vegetation and patches of well-established native vegetation throughout the site.

2.1.4 The site is located within the Upper Murray Catchment with several ephemeral watercourses traversing the western portion of the site, including Dead Horse Creek and Kilnacroft Creek flowing from west to east. There are 26 farm dams scattered throughout the site, including a large man-made wetland in the south east of the site.

2.1.5 The proposed development footprint is approximately 337 ha and was designed to largely avoid site constraints, including watercourses, native vegetation, Aboriginal heritage items of significance, existing transmission lines, and to reduce visual impacts on nearby residences (see **Figure 3**).

2.1.6 Land adjoining the site is also zoned RU1 and is primarily used for agricultural purposes (grazing and limited cropping). There is existing electricity transmission infrastructure within and surrounding the site, with the Jindera substation 600 m south east of the site, two 22 kV Essential Energy powerlines and a 330 kV TransGrid transmission line transecting the western portion of the site (see **Figure 3**).

2.1.7 There are 25 non-associated dwellings within 1 km of the development footprint. A further 23 non-associated residences are located between 1 and 2 km. The majority of these dwellings surround the eastern array.

2.2 Other Solar Farms

2.2.1 The Riverina Murray region of NSW has attracted considerable interest from solar developers given the presence of major transmission lines and existing electricity substations. There are three proposed SSD solar projects within 50 km of the project (see **Table 2** and **Figure 4**). While there are another three solar farms in the broader region, they are located at a significant distance to the proposed project (i.e. more than 75 km from the site).

Table 2 | Nearby solar farms

Project	Capacity (MW)	Status	Approximate distance from the project (km)
Glenellen Solar Farm	200	Proposed	0.32
Walla Walla Solar Farm	300	Proposed	18
Culcairn Solar Farm	400	Proposed	21

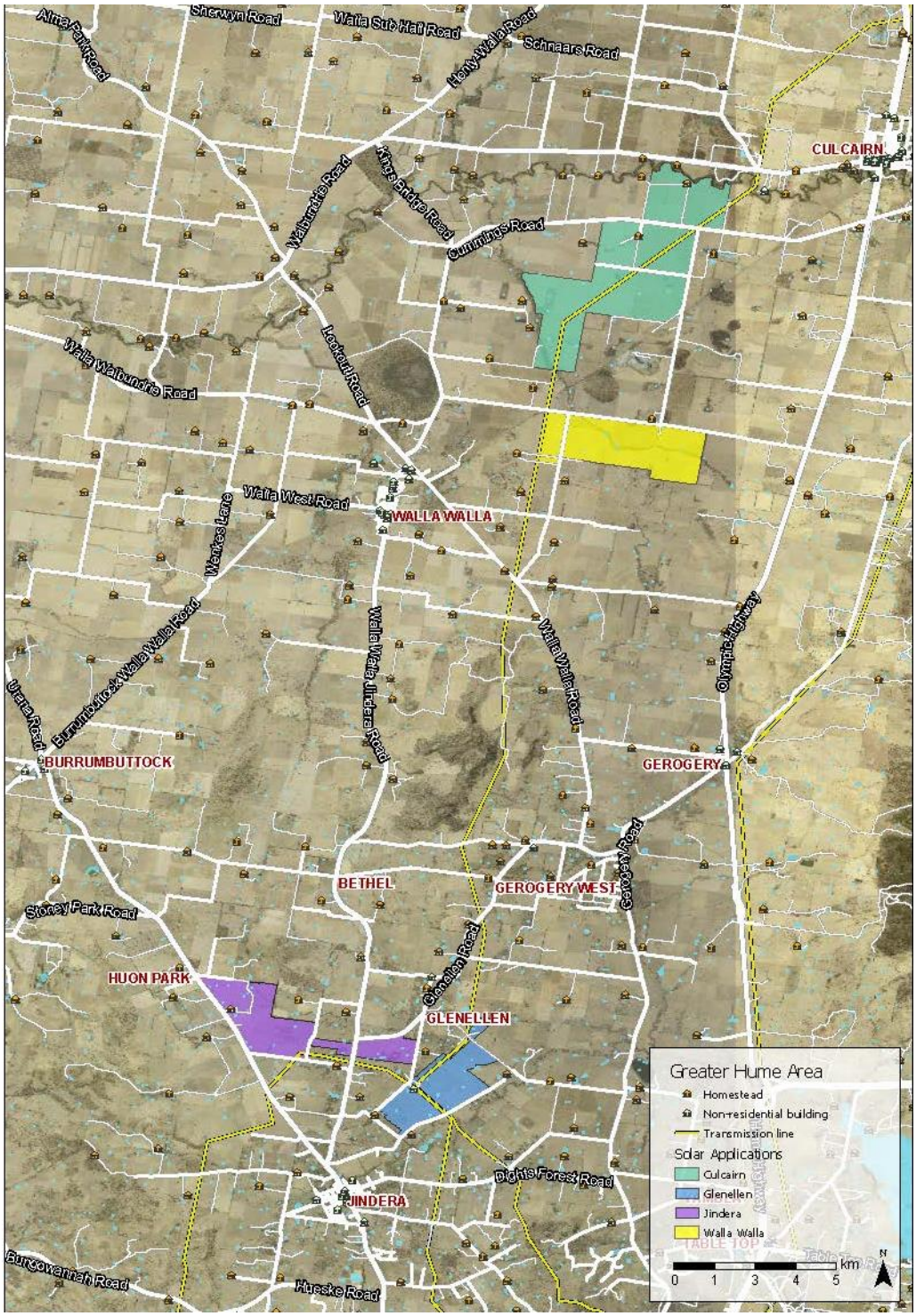

Figure 4 | Nearby Solar Farms

2.2.2 Potential cumulative impacts relate to loss of agricultural land, traffic, workforce accommodation and visual amenity. The proposed Glenellen Solar Farm (located 320 m south east of the site) is in the early stages of the application process, and if approved, would be the closest solar farm to the project. Walla Walla Solar Farm and Culcairn Solar Farm have both submitted applications and are currently under assessment, with the Walla Walla Solar Farm currently with the Independent Planning Commission for determination.

2.2.3 Should all four projects be approved, there is the potential for the construction periods to overlap. However, there would be no significant cumulative visual, noise or traffic impacts associated with an overlap of construction periods with Walla Walla Solar Farm or Culcairn Solar Farm given the distance from the project (18 km and 21 km respectively). Potential cumulative amenity (visual and noise) impacts with Glenellen Solar Farm have been considered in **sections 5.2** and **5.4**. There is also the potential for cumulative construction traffic impacts, which have been considered in **section 5.4**.

2.2.4 Workforce accommodation for the project would be sourced from the local and wider region, including neighbouring towns and LGAs, as discussed further in **section 5.4**. Other potential cumulative impacts with the nearby solar farms include the loss of agricultural land which is discussed in **section 5.1**.

2.3 Energy Context

2.3.1 In 2019, NSW derived approximately 18.7 % of its energy from renewable sources. The remainder was derived from fossil fuels, including 76.7 % from coal and 4.1 % from gas. However, there are currently no plans for the development of new coal power stations in NSW, and the development of renewable energy sources, like wind and solar farms, is experiencing rapid growth.

2.3.2 This is highlighted in the 2017 *Independent Review into the Future Security of the National Electricity Market* (the Finkel Review), which outlines a strategic approach to ensuring an orderly transition from traditional coal and gas fired power generation to generation with lower emissions. It notes that Australia is heading towards zero emissions in the second half of the century.

2.3.3 The *United Nations Framework Convention on Climate Change* has adopted the Paris Agreement, which aims to limit global warming to well below 2°C, with an aspirational goal of 1.5°C. Australia's contribution towards this target is a commitment to reduce greenhouse gas emissions by 26 % to 28 % below 2005 levels by 2030.

2.3.4 The *NSW Climate Change Policy Framework*, released in November 2016, sets an aspirational objective for NSW to achieve net zero emissions by 2050. The *NSW Net Zero Plan Stage 1: 2020 – 2030*, released in March 2020, builds on the framework and sets out how the NSW Government will deliver on this objective, and fast-track emissions reduction over the next decade.

2.3.5 The Department released the *Large-Scale Solar Energy Guideline* in December 2018 to provide the community, industry and regulators with guidance on the planning framework for the assessment of large-scale solar projects, and identify the key planning considerations relevant to solar energy development in NSW.

2.3.6 The Guideline aims to support the growth of the solar industry, whilst ensuring that impacts are adequately assessed, effective stakeholder engagement is undertaken, and that attracting

investment is balanced with considering the interests of the community. JSF submitted its EIS in September 2019 and its assessment is consistent with the principles of the Guideline.

2.3.7 The Guideline also acknowledges that large scale solar projects could help to reduce reliance on fossil fuels, thereby contributing to reductions in air pollution and greenhouse gas emissions, whilst also supporting regional NSW through job creation and investment in communities that may not have similar opportunities from other industries.

2.3.8 NSW is one of the nation's leaders in large-scale solar, with 13 major operational projects and eight under construction.

2.3.9 In March 2018, the NSW Government's *Transmission Infrastructure Strategy* identified 10 potential Energy Zones across three broad regional areas, including the New England, Central West and South West regions of NSW. While the project is not located within a Renewable Energy Zone, the NSW Government has a clear policy to encourage investment in new electricity infrastructure and unlocking additional generation capacity in order to ensure secure and reliable energy in NSW, subject to appropriate site selection, detailed assessment and community consultation.

2.3.10 The project would be located in close proximity to the South West Energy Zone and would have access to the electrical grid at a location with available network capacity. With a capacity of 120 MW, the project would generate enough electricity to power over 44,000 homes, and is therefore consistent with NSW's *Climate Change Policy Framework* and the *Net Zero Plan Stage 1: 2020 – 2030*.

3 Statutory Context

3.1 State Significant Development

3.1.1 The project is classified as State significant development under Section 4.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This is because it triggers the criteria in Clause 20 of Schedule 1 of *State Environmental Planning Policy (SEPP) (State and Regional Development) 2011*, as it is development for the purpose of electricity generating works with a capital investment value of more than $30 million.

3.1.2 Under Section 4.5(a) of the EP&A Act and clause 8A of the SRD SEPP, the Independent Planning Commission (the Commission) is the consent authority for the development as the project received more than 50 unique public submissions by way of objection, and Council has also objected to the project.

3.2 Amended Application

3.2.1 In accordance with Clause 55 of the *Environmental Planning and Assessment Regulation* 2000 (EP&A Regulations), a development application can be amended at any time before the application is determined. JSF has sought to amend its application, the details of which are summarised in **section 4.4** of this report.

3.2.2 Under clause 55 of the EP&A Regulation, an application can be amended with the agreement of the consent authority (i.e. the Commission for this development), however, under the delegation of 4 August 2020, the Executive Director, Energy, Industry and Compliance can agree to amendments to an application.

3.2.3 The Department considers that it can accept JSF's amended application for the following reasons:

- the project amendments have reduced the impacts of the project as a whole;
- the amended application directly responds to the key issues raised in submissions received by the Department during the exhibition of the original application;
- JSF assessed the impacts of the amended project (see Appendix E and F); and
- the Department made the additional information available online and sent it to the relevant agencies for comment.

3.3 Permissibility

3.3.1 The site is located wholly within land zoned RU1 - Primary Production under the Greater Hume LEP, the provisions of which are discussed in **section 5.1**. The RU1 zone includes various land uses that are both permitted with and without consent. As electricity generating works are not expressly listed as permitted with or without consent, it is a prohibited land use under a strict reading of the LEP. However, the LEP expressly references the *State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP) and acknowledges that electricity generating works are regulated by the Infrastructure SEPP, rather than the LEP.

3.3.2 Under the Infrastructure SEPP, electricity generating works are permissible on any land in a prescribed rural, industrial or special use zone. Land zoned RU1 Primary Production is a prescribed rural zone pursuant to the Infrastructure SEPP. Consequently, the project is permissible with development consent.

3.4 Integrated and Other approvals

3.4.1 Under Section 4.41 of the EP&A Act, a number of other approvals are integrated into the State significant development approval process, and therefore are not required to be separately obtained for the proposal.

3.4.2 Under Section 4.42 of the EP&A Act, a number of further approvals are required, but must be substantially consistent with any development consent for the proposal.

3.4.3 The project requires an approval under the *Roads Act 1993* for the proposed road upgrades.

3.4.4 Notwithstanding, the Department has consulted with relevant government agencies, considered their advice in its assessment of the project, and included suitable conditions in the recommended conditions of consent to address these matters (see **Appendix I**).

3.4.5 JSF has not referred the project to the Commonwealth Minister for the Environment under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as it considers surveys undertaken to date have not identified any significant impacts on matters of national environmental significance listed under the EPBC Act.

3.5 Mandatory Matters for Consideration

3.5.1 Section 4.15 of the EP&A Act outlines the matters that a consent authority must take into consideration when determining development applications. These matters are summarised as:

- the provisions of environmental planning instruments (including draft instruments), development control plans, planning agreements, and the EP&A Regulations;

- the environmental, social and economic impacts of the development;
- the suitability of the site;
- any submissions; and
- the public interest, including the objects in the EP&A Act and the encouragement of ecologically sustainable development (ESD).

3.5.2 The Department has considered all these matters in its assessment of the project, as well as JSF's consideration of environmental planning instruments in its EIS, as summarised in **section 5** of this report. The Department has also considered relevant provisions of the environmental planning instruments in **Appendix H**, and concluded that the project is consistent with objectives of those instruments.

4 Engagement

4.1 Department's Engagement

4.1.1 The Department publicly exhibited the EIS from 16 October 2019 until 13 November 2019, advertised the exhibition in the *Albury Border Mail*, and notified adjoining landowners adjacent to the project boundary.

4.1.2 The Department consulted with Council and the relevant government agencies throughout the assessment. The Department also inspected the site and held a community information session on 7 November 2019.

4.1.3 The Department notified and sought comment from TransGrid and Transport for New South Wales (TfNSW) (formerly Roads and Maritime Services) in accordance with the Infrastructure SEPP, as discussed further in **section 4.5**.

4.2 JSF's Engagement

4.2.1 JSF undertook engagement with the local community as detailed in the EIS, including a dedicated project-specific website, an online feedback form, a dedicated email address and phone number available on the project website, community open days, general information flyers and individual meetings with adjacent and nearby landowners. JSF also undertook consultation with the Department and relevant government agencies during the assessment process.

4.3 Submissions and Submissions Report

4.3.1 During the exhibition period of the EIS, the Department received 109 public submissions, consisting of 96 objections (including a petition with 201 signatures), 11 in support and 2 comments.

4.3.2 Of the 96 objections received, 27 were either duplicate submissions or were substantially the same as other submissions (i.e. form letters and a petition). Therefore, 69 were considered unique objections for the purposes of the assessment.

4.3.3 In addition to the public submissions, two special interest groups provided comments.

4.3.4 Advice was also received from 13 government agencies, including an objection from Greater Hume Council.

4.3.5 Full copies of the submissions are attached in **Appendix C**.

4.3.6 JSF provided a response to all matters raised in submissions on the project (see **Appendix D**) and has also provided additional information during the Department's assessment (see **Appendix F**).

4.4 Amended Application

4.4.1 Following consideration of submissions on the project, JSF amended its application on two occasions, in February and June 2020, as detailed in the Amendment Reports (see **Appendix E**).

4.4.2 The amended application includes:

- an additional 60 m setback between project infrastructure and Glenellen Road resulting in a total 120 m setback from properties to the north of the eastern section;
- repositioning, and reduction in the number of, inverter stations to reduce potential visual and noise impacts on surrounding residences;
- removal of solar panels to avoid clearing sections of Blakely's Red Gum – Yellow Box grassy tall woodland (Box-gum woodland) EEC in the centre of the site, to maintain and improve the connectivity of this species on and surrounding the site;
- constructing the site access point on Urana Road with a channelised right turn-short (CHR(s) and a basic left turn (BAL) treatment;
- constructing the two site access points on Walla Walla Jindera Road with BAL and basic right turn (BAR) treatments;
- a minimum 30 m setback from solar panels to all neighbouring property boundaries;
- additional landscape screening across the site;
- a revised subdivision plan; and
- details of a proposed Voluntary Planning Agreement with Council.

4.4.3 The amendments to the project are summarised in **Table 3**.

4.4.4 Despite the proposed changes, the generating capacity of the project would remain the same.

4.4.5 The Department provided the Amendment Report to government agencies for review and comment and made it available on the Department's website. As the project amendments would reduce the impacts of the project as a whole, the Department did not exhibit the Amendment Report.

Table 3 | Amendments to the project during the assessment process

Project Aspect	EIS (September 2019)	Final Proposed Project (June 2020)
Solar panels	400,000	390,500
Inverter stations	49	32
Distance between solar panels and the site boundary on Glenellen Road (m)	60	120

Project Aspect	EIS (September 2019)	Final Proposed Project (June 2020)
Native vegetation removal	17.41 ha 34 paddock trees (noting that road upgrades and substation works were not included)	20.79 ha 34 paddock trees (including road upgrades and substation works)
Road upgrades (site access points)	Urana Road: Basic Right Turn (BAR)	Urana Road: CHR(s) and BAL
	Walla Walla-Jindera Road: No upgrades	Walla Walla-Jindera Road: BAL and BAR
Subdivision	• Lot 140 and Lot 141 DP 753342 consolidated and subdivided into 2 lots: 71.55 ha for the landowner and 23.09 ha for the project • Lot 139 DP 753342 subdivided into 2 lots: 47.35 ha for landowner and 65.89 ha for the project.	• Lot 140 and Lot 141 DP 753342 consolidated and subdivided into 2 lots: 76.6 ha for the landowner and 18.1 ha for the project • Lot 139 DP 753342 subdivided into 2 lots: 50.1 ha for landowner and 63.1 ha for the project • Lot 148 753342 subdivided into 2 lots: 16.1 ha for the project and 0.9 ha for the onsite substation.
Voluntary Planning Agreement (VPA)	No VPA proposed	Financial contributions in the form of a VPA totalling $1.7 million

4.5 Key issues – Government agencies

4.5.1 **Greater Hume Council** objected to the project and expressed concerns about the adverse environmental, social and economic impacts of the project on the local community. In particular, Council considered that the project would have unacceptable amenity impacts on a high number of surrounding residences both during construction and operation of the project. Council also objected to the loss of agricultural land associated with the development.

4.5.2 Other concerns raised by Council included dust, socio-economic impacts, biodiversity, Aboriginal cultural heritage, bushfire risks, development contributions, the proximity to Jindera township potentially limiting residential growth over time, and the potential for the solar farm to affect the microclimate of neighbouring properties.

4.5.3 JSF addressed these matters in its Submissions Report and Amendment Reports. Council noted that the amendments addressed a number of the concerns raised. However, Council maintained concerns about the loss of agricultural land and potential devaluation of adjacent properties. These matters are all discussed in **section 5** of this report.

4.5.4 The Department's **Biodiversity & Conservation Division** (BCD) initially raised concerns that the impact assessments for biodiversity and Aboriginal cultural heritage required additional information and assessment. JSF undertook additional assessment and revised its Biodiversity Development Assessment Report (BDAR), and provided an addendum to the Aboriginal cultural heritage assessment to address BCD's concerns as part of the Submissions Report and Amendment Report.

4.5.5 Further, BCD raised concerns that the Amended Application did not adequately consider direct and indirect impacts on Box Gum woodland EEC.

4.5.6 To address BCD's concerns, JSF amended the development footprint to avoid three significant areas of remnant Box-gum woodland EEC to enable adequate connectivity between remnant woodland vegetation both within the site and in the surrounding region and further revised the BDAR to reflect these changes. The amendments have resulted in a reduction in impacts on biodiversity values and BCD is supportive of JSF's efforts to minimise impacts on Box-gum woodland and the habitat this provides for native fauna species, including Squirrel Gliders. BCD has advised that it has no residual concerns with the BDAR or proposed development, subject to the recommended conditions of consent. This is discussed further in **section 5.3**.

4.5.7 **Department of Primary Industries – Agriculture** (DPI Agriculture) initially raised concerns about the loss of class 3 (highly capable agricultural land). DPI Agriculture requested JSF undertake an agricultural impact assessment. Further, DPI Agriculture requested to be consulted regarding rehabilitation and decommissioning. JSF responded to these requests and recommendations in its Submissions Report and undertook an agricultural impact assessment. DPI Agriculture accepted the findings of the agricultural impact assessment undertaken, which concluded that the mapped class 3 agricultural land was considered to be Class 4 and is of limited productivity. DPI Agriculture has advised that it has no residual concerns with the proposed development subject to the recommended conditions of consent. These matters are discussed further in **section 5.1**.

4.5.8 **Transport for NSW** (TfNSW, formerly the Roads and Maritime Services) supports the project, subject to a range of recommendations regarding dust, visual impacts to road users, road upgrades and repairs, and the preparation of a comprehensive Traffic Management Plan. JSF has addressed these matters in the Submissions Report and additional information, and TfNSW has advised that they have no residual concerns with the proposed development, subject to the recommended conditions of consent. These matters are discussed further in **section 5.4**.

4.5.9 The Department's **Water Group** (DPIE Water) provided recommended conditions regarding erosion and sediment control, works within waterfront land and relevant approvals and licences required under the *Water Management Act 2000*. These recommendations have been incorporated into the recommended conditions of consent where appropriate and discussed in **section 5.4**.

4.5.10 The **Rural Fire Service** (RFS) and **Fire and Rescue NSW** (FRNSW) recommended a number of conditions, including the development of a Fire Management Plan and fire and emergency response plan conditions, which have been incorporated into the recommended conditions of consent.

4.5.11 **Regional NSW – Mining, Exploration & Geoscience** (MEG) raised no concerns but requested that it be consulted regarding the location of any land based offsets required to retire the biodiversity credit liability for the project.

4.5.12 **TransGrid** supports the project, subject to a range of recommendations to ensure the project adheres to connection requirements and easement guidelines.

4.5.13 The **Environment Protection Authority** (EPA), the **Heritage Council of NSW** (Heritage Council), **Local Land Service** and the **Department's Crown Lands Group** (DPIE Crown Lands) raised no concerns and made no recommendations.

4.6 Key Issues - Community

4.6.1 A summary of submissions received from the public is provided in **Table 4**.

4.6.2 Of the 109 submissions received from the public, 96 objected, 11 supported and two provided comments on the project.

4.6.3 Around half (49 %) of all objections were received from residents located within 5 km of the site, 36 % were from residents located between 5 km and 25 km from the site and 15 % were from residents located more than 25 km from the site. Regardless of proximity to the site, submissions objecting to the project typically focused on local impacts and matters relevant to the local community.

Table 4 | Summary of Community Submissions

Submitter	Object	Support	Comment	Total
< 2 km	27 (19)*	5	0	32
2 – 5 km	20 (16)	2	1	23
5 - 25 km	35 (27)	4	1	40
> 25 km	14 (7)	0	0	14
Total	96 (69)	11	2	109

* Numbers in brackets represent unique submissions

4.6.4 The key issues raised in public submissions objecting to the project are summarised in **Figure 5**. The most common matters raised in submissions objecting to the project include:

- land use compatibility, specifically regarding the use of prime agricultural land, impacts on adjacent agricultural activities, food security and reducing the agricultural output of the region;
- visual impacts on the surrounding landscape, the proximity to neighbours and the Jindera township, the effectiveness of vegetation screening, and glint and glare caused by the project; and
- socio-economic factors, including lack of benefit to the local community, property devaluation and restricting future town growth.

4.6.5 Other issues raised in objections included biodiversity (particularly the clearing of native vegetation and the loss of habitat for threatened species), hazards (particularly increased fire risk), amenity (noise, dust, traffic), water and erosion (potential groundwater and soil contamination, filling dams resulting in potential flooding), cumulative (other solar farms), decommissioning and concerns that the project may alter the microclimate for adjacent neighbours.

4.6.6 The key matters raised in the comments and supporting submissions included views that:

- the project would make a contribution to NSW's future energy demands, and make positive contributions to addressing climate change;
- the project would be in an optimal location, on mostly cleared flat land that is in close proximity to an existing substation;

- the local economy would benefit as a result of the project by creating local jobs and supporting local businesses; and
- the project constitutes a good use of land and would continue to support agriculture through managed grazing that would assist with maintaining groundcover, which would be an improvement to the present condition of the land.

4.6.7 A further breakdown and summary of key issues raised by the public is summarised in **Appendix D**. **Section 5** of the assessment report provides a summary of the Department's consideration of these matters and recommended conditions.

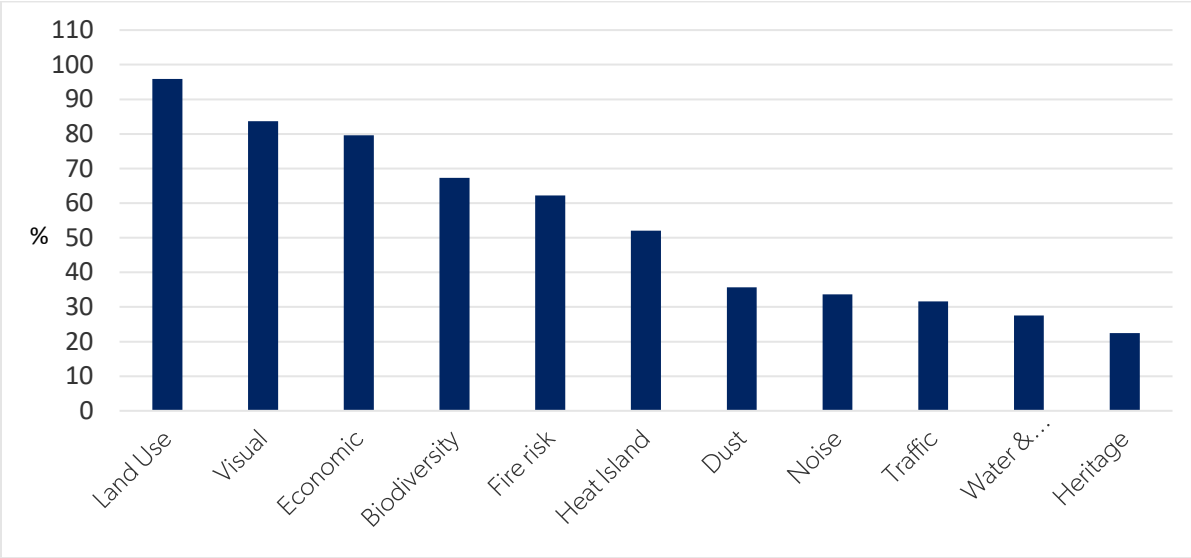

Figure 5 | Key Issues Raised in Public Submissions

4.7 Key Issues – Special Interest Groups

4.7.1 The **Squirrel Glider Advisory Group** provided comments on considerations for fencing required for the project, in particular that the fencing be wildlife friendly. The group also requested that the landscape connectivity be maintained between habitat patches.

4.7.2 JSF has proposed additional measures to maintain and enhance the connectivity of the vegetation on site to the boundaries of the site and the surrounding area. These measures include installation of glider poles and rope crossings, a commitment to not use barbed wire on internal fencing and protection from barbed wire (such as the use of PVC pipes) where the proposed connectivity routes bisect external site fencing. JSF has committed to continue consulting with the Squirrel Glider Advisory Group to further develop protection measures for the Squirrel Glider.

4.7.3 The **Country Women's Association of NSW** provided comments raising concerns about the impacts of the project on agricultural land, specifically with regard to the importance of Australia's food production and food security.

5 Assessment

5.0.1 The Department has undertaken a comprehensive assessment of the merits of the project. This report provides a detailed discussion of the key assessment issues, namely land use compatibility, potential impacts on visual amenity and biodiversity.

5.0.2 The key constraints for the project are shown in **Figure 2**. The Department has also considered the full range of potential impacts associated with the project and has included a summary of the conclusions in **section 5.4**. A list of the key documents that informed the Department's assessment is provided in **Appendix A**.

5.1 Compatibility of Proposed Land Use

Provisions of the Greater Hume LEP

5.1.1 The site is located wholly within the RU1 Primary Production zone under the LEP. As discussed in **section 3.2**, a solar farm is a prohibited land use under a strict reading of the LEP.

5.1.2 However, based on a broader reading of the LEP, and consideration of the objectives of the RU1 zone and other strategic documents for the region, the Department considers that there is no clear intention to prevent the development of a solar farm on the project site.

5.1.3 Firstly, the LEP expressly references the Infrastructure SEPP and acknowledges that electricity generating works are regulated by the Infrastructure SEPP, rather than the LEP. As described above, a solar farm is permitted with consent on land zoned RU1 under the Infrastructure SEPP.

5.1.4 Secondly, the project is not inconsistent with the objectives of the RU1 zone, particularly in relation to:

- encouraging diversity in primary industry enterprises and systems appropriate for the area; and
- minimizing fragmentation and alienation of resource lands.

5.1.5 While the Greater Hume LGA has traditionally relied upon agriculture, the introduction of solar energy generation would contribute to a more diverse local industry, thereby supporting the local economy and community. In addition, the proposed solar farm would encourage renewable energy development which is consistent with the *Greater Hume Local Strategic Planning Statement 2018*.

5.1.6 The project is consistent with the Department's *Riverina Murray Regional Plan 2036*, which identifies the development of renewable energy generation as a future growth opportunity for the region.

5.1.7 The Department considers that the development would not fragment or alienate any resource lands in the LGA, as the land could be easily returned to agricultural land following decommissioning as the inherent agricultural capability of the land would not be affected in the long term and JSF propose to continue sheep grazing within the development footprint.

5.1.8 Council objected to the project with a number of concerns including its view that the development would restrict the ability for Jindera to grow in the direction of the site. The site is approximately 2.5 km north of the nearest residential development. The *Greater Hume Local*

Strategic Planning Statement 2018, which is Council's 20-year vision for land use in the area, identifies areas to the south and west of Jindera as future growth areas to be protected for residential expansion, and does not identify land to the north of Jindera for residential expansion.

5.1.9 As the site is located on land zoned RU1 Primary Production, and is not identified as a future growth area by Council, the Department considers the project would not impact the future growth of Jindera.

5.1.10 Council also objected with a view that the development may not be consistent with the objectives of the LEP on the basis that the site contains high quality agricultural land. Whilst the Department considers that the project is compatible with the LEP for the above reasons, the project's impacts on agricultural land are further discussed below.

Potential Impacts on Agricultural Land

5.1.11 Concerns about the project's impact on agricultural land, including the impact on surrounding agricultural practices and the cumulative impacts of several solar farms within the locality, were raised by Council and in the majority of community submissions objecting to the project.

5.1.12 The project is located within the Riverina Murray region of NSW, which has a strong and diverse agricultural sector, with over 9.1 million ha of the region being used for agriculture output. The site (521 ha) does not include any mapped Biophysical Strategic Agricultural Land (BSAL) and is currently used predominantly for sheep and cattle grazing (90 % of the site), with approximately 10 % of the land cropped for fodder to support the grazing on site.

5.1.13 Whilst the site is not mapped as BSAL, many submissions, including Council, considered that the site should to be classified as prime or important agricultural land. Under the existing *Land and Soil Capability Mapping for NSW* (OEH), which provides a broad-scale regional view of the land and soil capability across NSW, the land within the development footprint is classified as Class 3 (245 ha) (highly capable land), which is capable of sustaining cultivation on a rotational basis. The remaining 92 ha is classified as Class 6 (severely limited land), which is generally only suitable for grazing (see below in **Figure 6**).

5.1.14 The Department understands that DPI Agriculture is undertaking a mapping program across NSW to assist with identifying important agricultural land, however this has not yet been finalised, exhibited or adopted by the NSW Government and therefore not directly relevant to the assessment of this project. The Department's assessment of the project is based on soil sampling and assessment undertaken by JSF as part of the EIS, as detailed below in section 5.1.12.

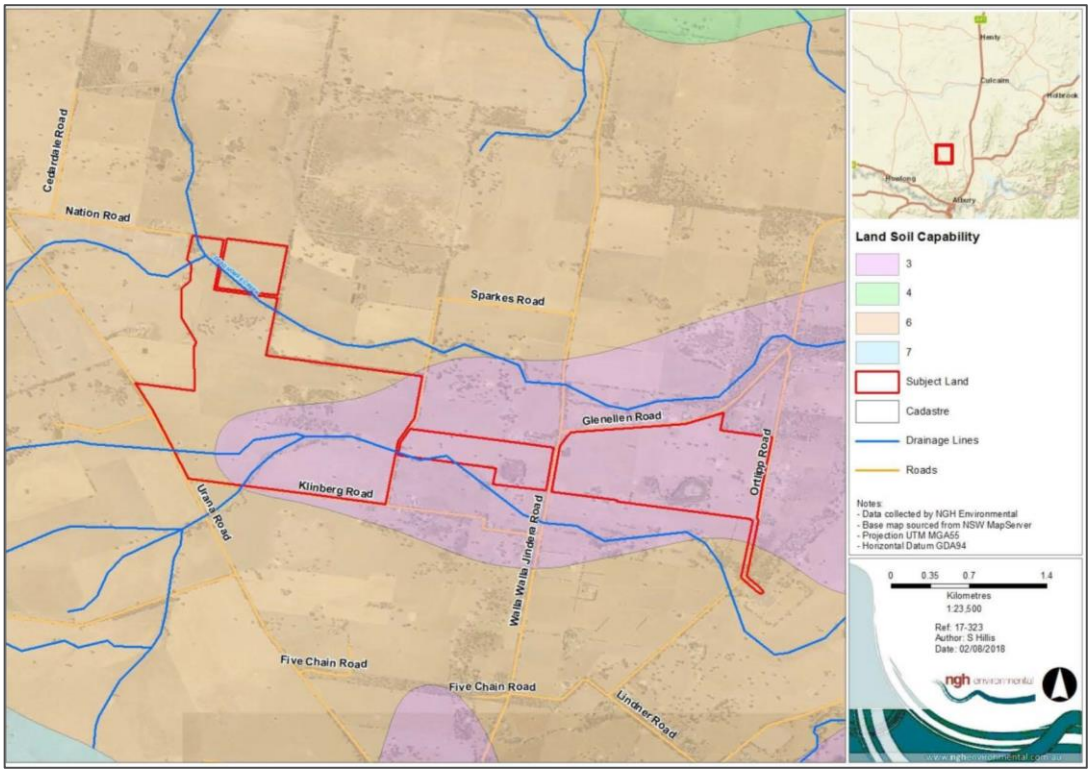

Figure 6 | Land and Soil Capability Class

5.1.15 JSF undertook an agricultural impact assessment, which assessed the soil samples against the *Land and Soil Capability Assessment Scheme* (OEH 2012). The assessment concluded that, although majority of the site is mapped as Class 3 land at a regional scale, this portion of the land is more likely to be Class 4 (moderate limitations), which can support grazing but requires active management to sustain cultivation on a rotational basis. DPI Agriculture has accepted the conclusions of the agricultural impact assessment and agreed that the productivity of the land is limited due waterlogging issues.

5.1.16 As the site is currently used for grazing and intermittent cropping, the Department accepts that the solar farm would reduce the agricultural output of the site while the solar farm remains operational. However, the development footprint occupies approximately 65 % of the site, allowing the current agricultural practice to continue in the remaining 35 % (approximately 119 ha) of the site. Further, JSF is proposing to manage the land through sheep grazing during the operation of the development, and the two landowners would be able to continue their agricultural activities on the land adjacent to the development. The decline in agricultural output as a result of the development is anticipated to be approximately 25 % less than the current output.

5.1.17 The inherent agricultural capability of the land would not be affected by the project due to the relatively low scale of the development, and JSF proposes to return the land back to existing levels of agricultural capability. To this end, the Department has included requirements to maintain the current land capability of the site (including ground cover and maintaining grazing within the development footprint) during the construction and operation of the project, and to fully reinstate the agricultural capability of the land following decommissioning of the project, including the requirement to return the development footprint to existing land and soil capability.

5.1.18 Regarding potential cumulative impacts, the development footprint of the project combined with the other approved and/or operational SSD solar farms in the Riverina-Murray region

would be approximately 8,200 ha. The loss of 8,200 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 negligible reduction in the overall productivity of the region.

5.1.19 If all four proposed SSD solar projects within Greater Hume LGA are approved, they would have a combined development footprint of approximately 2,300 ha, which is approximately 0.69 % of the 335,000 ha of land being used for agricultural output within the Greater Hume local government area.

5.1.20 The potential loss of a small area of cropping and grazing land in the region must be balanced against:

- the broader strategic goals of the Commonwealth and NSW governments for the development of renewable energy into the future;
- the environmental benefits of solar energy, particularly in relation to reducing greenhouse gas emissions;
- the economic benefits of solar energy in an area with good solar resources and capacity in the existing electricity infrastructure; and
- the benefits of dispatchable energy for grid stability and reliability.

5.1.21 Based on these considerations, the Department considers that the proposed solar farm represents an effective and compatible use of the land within the region.

Potential Impacts on Neighbouring Agricultural Activities

5.1.22 Concerns were raised in some submissions about potential impacts on neighbouring agricultural activities. These concerns included potential impacts on livestock and cropping from the spread of weeds, increased flooding, erosion and dust, increased fire risks and noise generated by the project, as well as potential changes to the microclimate as a result of solar panels, also referred known as the “Photovoltaic Heat Island Effect” (PVHI).

5.1.23 While evidence shows that solar panels can increase air temperatures above solar panels, a study commissioned by Greater Shepparton Council on the Shepparton Solar Farm, and referenced in the EIS, 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.

5.1.24 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 screens at the project boundary become effective. However, in response to community concerns, JSF has committed to having a minimum 30 m setback from solar panels to the boundary of adjacent private properties.

5.1.25 The Department considers that, with the implementation of the recommended conditions of consent, the commitments to setback infrastructure from property boundaries and vegetation screening, the project would not impact the agricultural operations of neighbouring landholders given the relatively low impacts associated with the solar farm.

5.1.26 The Department has recommended strict land management conditions to control the growth of weeds, reducing the potential spread of weeds to neighbouring properties. In this regard, JSF would be required to restore groundcover of the site following construction or upgrading, maintain the ground cover with appropriate perennial species and manage weeds within this

groundcover. This groundcover would be required to be maintained to an acceptable standard, to reduce the risk of erosion and loss of soil from the project site. Additionally, JSF would be required to prepare and implement measures to control weeds and feral pests through a Biodiversity Management Plan, and there are separate regulatory requirements that apply to all landowners under the *Biosecurity Act 2015* in regard to managing these potential issues.

5.1.27 The recommended conditions also require JSF to ensure that the solar panels and ancillary infrastructure are designed, constructed and maintained to reduce the impacts of flooding and erosion.

5.1.28 Any erosion and sedimentation risks can be effectively managed using best practice construction techniques and JSF would be required to minimise any soil erosion associated with the construction, upgrading or decommissioning of the project in accordance with OEH's *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) manual. DPIE Water raised no concerns in this regard, subject to JSF preparing and implementing a Soil and Water Management Plan and an Erosion and Sediment Control Plan, which it has committed to do.

5.1.29 Under Section 120 of the *Protection of the Environment Operations Act 1997*, JSF must ensure that the project does not cause any water pollution. To this end, JSF would store and handle all chemicals, fuels and oils used on-site in accordance with the requirements of all relevant Australian Standards, and the Department has recommended conditions requiring JSF to design, construct and maintain the project to reduce impacts on soil and water.

5.1.30 Noise during construction of the project is predicted to comply with the relevant criteria, as discussed further in **section 5.4**. JSF would also be required to minimise noise and dust generated by the project.

5.1.31 Impacts on the local landscape have been minimised through project design, including locating the solar panels and associated infrastructure with a significant buffer between the solar panels, inverters and onsite substation from neighbouring residences, particularly those located to the northeast of the site on Glenellen Road (see **Figure 3** and **Figure 7**).

5.1.32 Based on these considerations, the Department considers that the project would not significantly impact neighbouring agricultural activities.

5.2 Visual

5.2.1 The majority of the public submissions objecting to the project (84 %) raised concerns about the potential visual impacts of the proposed development, including the proximity of the project to surrounding residences, potential impacts on the scenic quality, landscape and rural outlook of the area and cumulative impacts of multiple solar farms within the LGA. Some submissions (40 %) raised concerns regarding the potential visual impacts associated with glint and glare from the solar farm.

Visual Context

5.2.2 The site and surrounds are located within a relatively flat landscape predominantly characterised by agricultural uses, including farmland, rural residences and road corridors surrounding the site.

5.2.3 Well established and continuous vegetation along large sections of the project boundary, within neighbouring properties and along roadside corridors, particularly along Klinberg Road,

Ortlipp Road, Nation Road, Walla Walla Jindera Road, and sections of Glenellen Road and Urana Road (see Error! Reference source not found.).

5.2.4 While large sections of the site have been cleared due to its long-term agricultural use, there are remnant patches of mature native vegetation throughout the site, including a large stand in the centre of the western array area, along the two watercourses which traverse the western array area, and several stands in the eastern array area, which would all be retained.

5.2.5 There are several existing electrical transmission lines that run through the site and surrounds, including three 22 kV lines and a 330 kV line that connects to TransGrid's Jindera substation, which is situated approximately 600 m south east of the site.

5.2.6 There are 25 non-associated residences within 1 km of the development footprint, 13 of which are clustered in an area to the north east of the site along Glenellen Road and Ortlipp Road and another seven clustered to south of the site around Klinberg Road and Walla Walla Jindera Road (see **Error! Reference source not found.**).

5.2.7 There are an additional 23 non-associated residences located between 1 km and 2 km from the development footprint.

5.2.8 The site would not be visible from the towns of Jindera (4 km south) or Gerogery (11 km north-east).

Visual Mitigation

5.2.9 JSF has proposed avoidance and mitigation measures to reduce the potential visual impacts on surrounding residences, including:

- retention of mature vegetation within and surrounding the site;
- exclusion of infrastructure at several locations around the site to reduce potential impacts on nearby residences and road users, including the western, north-western, southern and south-eastern boundaries of the western array area and the northern and eastern boundaries of the eastern array area (see **Figure 3**); and
- installing vegetation screening (minimum 15 m depth) along the majority of the project boundary, including along Ortlipp Road, Urana Road, Walla Walla Jindera Road and the north western and southern boundaries of the site in order to screen views to residences and road users, with more extensive landscaping (50 m depth) to minimise views from residences along Glenellen Road (see **Figure 7** and **Figure 9**).

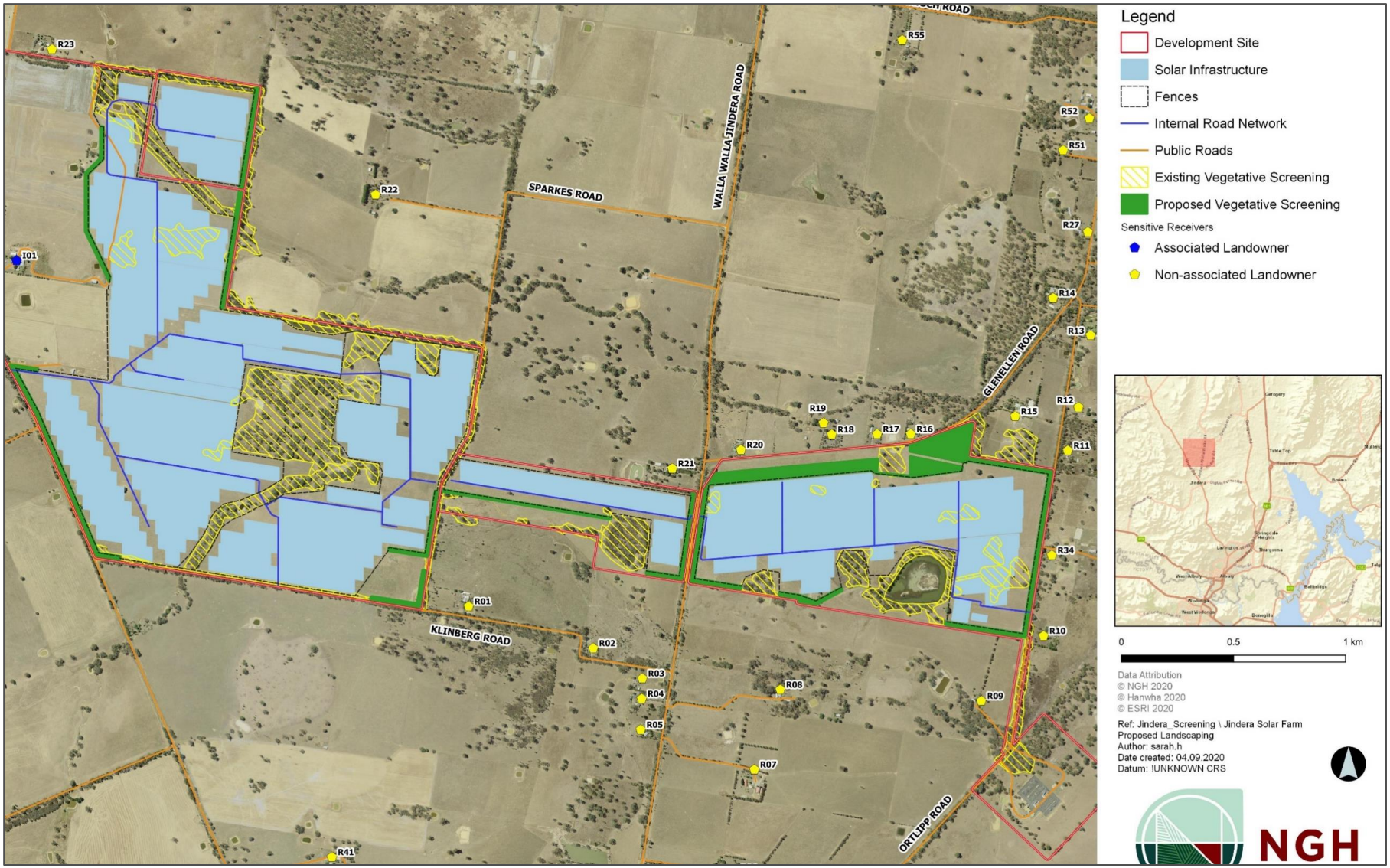

Figure 7 | Proposed Vegetation Screening

Assessment

Landscape

5.2.10 Due to the relatively flat nature of the local landscape, and the presence of well-established vegetation along large sections of the project boundary, roadside corridors, within neighbouring properties and within the project site, views of the project would be limited beyond its immediate vicinity.

5.2.11 Impacts on the local landscape have been further reduced through project design, including the buffer distances between project infrastructure and local residences and roads, and the retention of mature native vegetation, both along the perimeter of the site and within the site, as described in **section 5.2.4**.

5.2.12 The Department recognises that the introduction of the proposed solar farm to a rural landscape would result in a material change to the local landscape, but considers it would have a limited impact beyond the project's immediate vicinity and would not be visible from the township of Jindera (approximately 4 km south).

Residences

5.2.13 The EIS and Amendment Report include a visual impact assessment (VIA) that is based on 14 representative viewpoints, including photomontages from four residences (R09, R22, R23 and R25) that had specific visual concerns about the development.

5.2.14 The nature of the proposed development would minimise its visibility from surrounding residences, as the solar panels would be relatively low lying (up to 3 m high) and maintenance buildings, inverter stations and the onsite substation would generally be a similar size to agricultural sheds commonly used in the area.

5.2.15 The presence of several roads surrounding the project site, and the associated well established vegetation along the road corridors, means that there is a natural separation and setback between the majority of residences and the site.

5.2.16 With the exception of the residences noted below, the visual impact for residences surrounding the site is expected to be negligible, due to distance, topography and the extent of intervening well-established vegetation along the project boundary, roadside corridors, within neighbouring properties and retained on site, as noted in **sections 5.2.10** to **5.2.12** above and in **Table 5** below.

5.2.17 The remaining residences can generally be grouped into four clusters, being:

- Southern Group (Klinberg Road and Walla Walla Jindera Road);
- Eastern Group (Ortlipp Road);
- North-Eastern Group (Glenellen Road); and
- Western Group (Urana Road, Nation Road, Walla Walla Jindera Road and Sparkes Road).

Southern Group (Klinberg Road and Walla Walla Jindera Road)

5.2.18 There are seven residences (R01, R02, R03, R04, R05, R07 and R08) to the south of the western array area located along Klinberg Road and Walla Walla Jindera Road, at distances between 330 m and 810 m from the nearest solar infrastructure. Four of these residences (R01,

R02, R07 and R08) objected to the project. The residences are at the same elevation as the project site.

5.2.19 Residence R01 is located 550 m south and 330 m east of the nearest solar infrastructure. Views of the project would be screened by existing mature vegetation and the presence of outbuildings surrounding the residence to its north and west and interrupted by the existing high voltage transmission lines that traverse the land directly north and north west of the residence. The residence would also benefit from the proposed setback of infrastructure from the project boundary to its north and west (see **Figure 7**) and the proposed landscape screening, to a depth of 15 m.

5.2.20 Residences R02, R03, R04, R05, R07 and R08 are located at distances between 440 m and 810 m from the nearest solar infrastructure and benefit from existing dense mature vegetation that would screen views of the project. The residences would also benefit from the setback of solar infrastructure from the site's southern boundary and the proposed 15 m landscape screening.

5.2.21 The Department considers that with the existing intervening vegetation, distance to the solar infrastructure (including setbacks from the project boundary) and proposed landscape screening, the visual impacts on these residences would be low.

Eastern Group (Ortlipp Road)

5.2.22 There are eight residences (R09, R10, R11, R12, R13, R14, R15 and R34) to the east of the site located along Ortlipp Road, at distances between approximately 155 m and 820 m from the nearest solar infrastructure. One of these residences (R09) objected to the project. The residences are at the same elevation as the project site and would benefit from the proposed 110 m setback of solar infrastructure from Ortlipp Road beyond the transmission line that traverses the site (see **Figure 8**) and the proposed 15 m landscape screening along the site's eastern and north eastern boundaries.

5.2.23 Residence R09 is located approximately 370 m from the onsite substation and battery energy storage system in the south eastern corner of the site. JSF's project amendments included relocating the onsite substation about 120 m west, to reduce potential noise impacts for residences on Ortlipp Road. The relocation would reduce the potential visual impacts on R09, which as a result would experience fragmented views of the substation and the battery energy storage system due to existing vegetation at the residence, intervening vegetation and the proposed landscape screening at the site boundary (see **Figure 8**).

5.2.24 Residences R10, R11, R12, R13, R14 R15 and R34 are located along Ortlipp Road between 155 m and 820 m east and north east of the nearest solar infrastructure. In addition to the proposed setbacks and vegetation screening along Ortlipp Road, existing dense vegetation at the residences, along Ortlipp Road and at the project boundary would screen views of the project.

5.2.25 The Department considers that with the existing intervening vegetation, location of the residences to the east of Ortlipp Road, increased setbacks to the solar infrastructure and proposed landscape screening, the visual impacts on these residences would not be significant.

Figure 8 | Vegetation at Residences on Ortlipp Road

North-Eastern Group (Glenellen Road)

5.2.26 There are five residences (R16, R17, R18, R19 and R20) to the north east of the site located along Glenellen Road, at distances between approximately 155 m (R20) and 245 m (R19) from the nearest solar infrastructure. One of these residences (R18) objected to the project. The residences are at the same elevation as the project site.

5.2.27 Although there is no existing vegetation along the project boundary at this location, these residences have intervening vegetation within the curtilage of the residences and Glenellen Road between the residence and the project reducing the visual impacts (see **Figure 9**).

5.2.28 In addition, the residences benefit from the amended project layout, which includes a 120 m setback from Glenellen Road. The residences would also benefit from the proposed extensive landscape planting along Glenellen Road to a depth of 50 m.

5.2.29 The Department considers that with the existing intervening vegetation, location of the residences to the north of Glenellen Road, increased setbacks to the solar infrastructure and proposed extensive landscape planting, the visual impacts on these residences would not be significant.

Figure 9 | Vegetation at Residences on Glenellen Road

Western Group (Urana Road, Nation Road, Walla Walla Jindera Road and Sparkes Road)

5.2.30 There are four residences (R21, R22, R23 and R26) located to the north and west of the western array area, at distances between 120 m and 820 m from solar infrastructure.

5.2.31 R21 is located 120 m north of the nearest solar infrastructure, however the residence is surrounded by extensive dense vegetation both within the property and along the project boundary that would block views of the project.

5.2.32 R22 is slightly elevated and located 680 m north and 615 m east of the nearest solar infrastructure within the western array area. The residence is oriented away from the project and views of the project would be screened by existing dense intervening vegetation at the residence and within the property, along the project boundaries, and the retention of well-established vegetation on-site. The residence would also benefit from proposed landscape planting along the project boundary, to a depth of 15 m

5.2.33 R23 is located 335 m north west of nearest solar infrastructure in the western array area. Existing dense intervening vegetation at the residence, along the project boundary and retained vegetation along Dead Horse Creek would screen views of the project. JSF has also designed the project to exclude all infrastructure from the north western corner of the site, away from the residence.

5.2.34 R26 is located 820 m west of the solar infrastructure in the western array area beyond Urana Road. Existing vegetation surrounding the residence and along both sides of Urana Road would largely screen views of the project. The residence would also benefit from proposed landscape planting along the project boundary, to a depth of 15 m.

5.2.35 The Department considers that with the existing dense intervening vegetation at residences, along the project boundaries and retained on site, the increased setbacks to the solar

infrastructure and the proposed landscape screening, the visual impacts on these residences would be minimal.

Table 5 | Visual Impacts at Surrounding Residences

Residence Group	Distance to development footprint (m)	Mitigating Factors	Visual Impact Rating
Southern (Klinberg Road and Walla Walla Jindera Road)	R01: 330 m	• Mature vegetation at residences and site boundary, and high voltage transmission lines; • Avoidance of onsite vegetation; and • Additional landscape plantings proposed.	Low
	R02, R03, R04, R05, R07, R08: 440 – 815 m	• Mature vegetation at residences and site boundary, and high voltage transmission lines; • Avoidance of onsite vegetation; and • Additional landscape plantings proposed.	
Eastern (Ortlipp Road)	R09: 355 m	• Patches of established vegetation at residence; • Setback of project infrastructure, including onsite substation, a further 15 m from project boundary; and • Additional landscape planting proposed.	Low
	R10, R11, R12, R13, R14, R15, R34: 155 – 820 m	• Patches of dense mature vegetation at the residences and site boundary; • Setback of project infrastructure, including onsite substation, a further 15 m from Ortlipp Road; • Additional landscape planting proposed.	
North-Eastern (Glenellen Road) R16, R17, R18, R19, R20	155 – 245 m	• Existing intervening vegetation at residences; • Setback of project infrastructure 120 m from Glenellen Road; and • 50 m deep landscape planting proposed;	Low-Moderate
Western R21, R22, R23, R26	R21: 120 m	• Dense mature vegetation at the residence and site boundary; and • Additional landscape planting proposed.	Low
	R22: 615 m	• Dense vegetation at the residence and site boundary; • Avoidance of onsite vegetation (see **section 5.3**); and • Additional landscape planting proposed where vegetation is sparse.	
	R23: 335 m	• Patches of mature vegetation at residence and dense at site boundary and on site; and • Avoidance of onsite vegetation and 20 m buffer around Dead Horse Creek.	
	R26: 815 m	• Patches of mature vegetation at residence, at site boundary and along Urana Road; • Distance from solar infrastructure; and • Additional landscape planting proposed.	

Glint and Glare

5.2.36 While photovoltaic panels are designed to absorb rather than reflect sunlight, the Department recognises that some project components have the potential to generate glare or reflection, including the galvanised steel used for the solar panel mounting framework, but that this diminishes over time. JSF undertook a Glare Study, which modelled the potential glare impact of the solar panels, which concluded that there was no glare risk for the project from 22 representative viewpoints including residences, the public road network as well as the flight paths from Albury and Corowa airports.

5.2.37 The setback distances from nearby residences, existing well-established intervening vegetation and the proposed vegetation screening would shield or minimise views of the development from surrounding residences, including views of infrastructure with the potential to create glare or reflection. In addition, any glint or glare experienced by nearby receivers would be temporary, depending on the time of day and receiver location.

5.2.38 The Department has recommended conditions requiring the applicant to minimise the off-site visual impacts of the development, including the potential for any glare or reflection, and to ensure the visual appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape. Subject to the recommended conditions, the Department is satisfied that the project would not cause significant glint or glare to nearby receivers.

Cumulative Visual Impacts

5.2.39 The project is located approximately 320 m north west of the proposed Glenellen Solar Farm at its closest point. If both projects were approved, there is the potential for cumulative visual impacts on four residences (R09, R10, R11 and R12). Existing dense native vegetation would largely screen views of the proposed Glenellen Solar Farm from these residences. Similarly, existing vegetation would mostly screen views of the project. The Department notes that JSF has committed to further mitigating visual impacts to these residences with additional vegetation plantings within the project site, which would further fragment views of the project.

5.2.40 The project would not be visible from other solar farms proposed solar farms in the LGA, including Walla Walla Solar Farm (18 km north) and Culcairn Solar Farm (21 km north).

5.2.41 In consideration of the low lying nature of the development, the existing and proposed vegetation screening, the Department considers that cumulative visual impacts with the proposed Glenellen Solar Farm would be minor.

Conclusion

5.2.42 To address the residual visual impacts, the Department has recommended a range of stringent conditions requiring JSF to:

- establish and maintain a vegetation buffer along sensitive parts of the site, including along Ortlipp Road, Urana Road, Walla Walla Jindera Road, Glenellen Road and the north western and southern boundaries of the site, which must:
  - be planted prior to the commencement of construction;
  - consist of a variety of endemic species that would facilitate the best possible outcome in terms of visual screening;

- reduce views of the solar panels and ancillary infrastructure within 3 years of the commencement of construction; and
- be properly maintained with appropriate weed management.

- prepare a detailed Landscaping Plan for the site which must include a description of measures that would be implemented to ensure the effectiveness of the vegetation buffer;
- minimise the off-site visual impacts of the development, including the potential for any glare or reflection;
- ensure the visual appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape; and not mount any advertising signs or logos on site, except where this is required for identification or safety purposes; and
- minimise the off-site lighting impacts of the development, and ensure that any external lighting is installed as low intensity lighting (except where required for safety or emergency purposes), does not shine above the horizontal and complies with *Australian/New Zealand Standard AS/NZS 4282:2019 – Control of Obtrusive Effects of Outdoor Lighting.*

5.2.43 Subject to the proposed amended layout, the associated setbacks and the implementation of the recommended conditions, the Department considers that there would be no significant visual impacts, including cumulative visual impacts, on surrounding residences, and the rural character and visual quality of the area would be preserved as far as practicable.

5.3 Biodiversity

5.3.1 The site comprises mostly cleared agricultural land with good quality native vegetation located along sections of the property boundary, the two on-site watercourses and in the centre of the western portion of the site. There is approximately 78 ha of native vegetation distributed throughout the site, including 41 scattered paddock trees. The remnant native vegetation is predominantly (42.8 ha) Blakely's Red Gum – Yellow Box grassy tall woodland (plant community type (PCT 277), which is classified as a critically endangered ecological community (EEC) under the *Biodiversity Conservation Act 2016* (BC Act) (reclassified from endangered in July 2020).

Avoidance and Mitigation

5.3.2 JSF has designed the project to avoid large stands of native vegetation throughout the site (see **Figure 3**), including riparian vegetation along both Dead Horse Creek and Klinberg Creek, which traverse the western portion of the site, and a large stand in the centre of the western portion of site. JSF has also designed the project to avoid the two wetland areas and 12 of the 19 farm dams on site.

The Department accepts that JSF has designed the project to minimise biodiversity impacts and acknowledges the amendments made by JSF to retain an additional 3.9 ha of Box-gum woodland in the western portion of the site (see

5.3.3 **Figure 10**) to address BCD's concerns regarding the impact on this woodland.

5.3.4 The retention of this woodland would maintain connectivity between remnant Box-gum woodland vegetation within the site and the surrounding area and connectivity with vegetation

along Kilnacroft Creek and the large area of retained vegetation in the centre of the western portion of site.

5.3.5 JSF also proposes a range of mitigation and management measures to address potential indirect impacts on threatened species, communities and their habitats and improve the quality of Box-gum Woodland within the site. These include:

- stock fencing areas of vegetation to delineate boundaries and protect retained vegetation from sheep grazing; and
- designing vegetation buffers to further enhance biodiversity values of the site.

5.3.6 Of the 78 ha of native vegetation and 41 native paddock trees on site, the amended project would avoid 57.2 ha and seven paddock trees, six of which are hollow bearing.

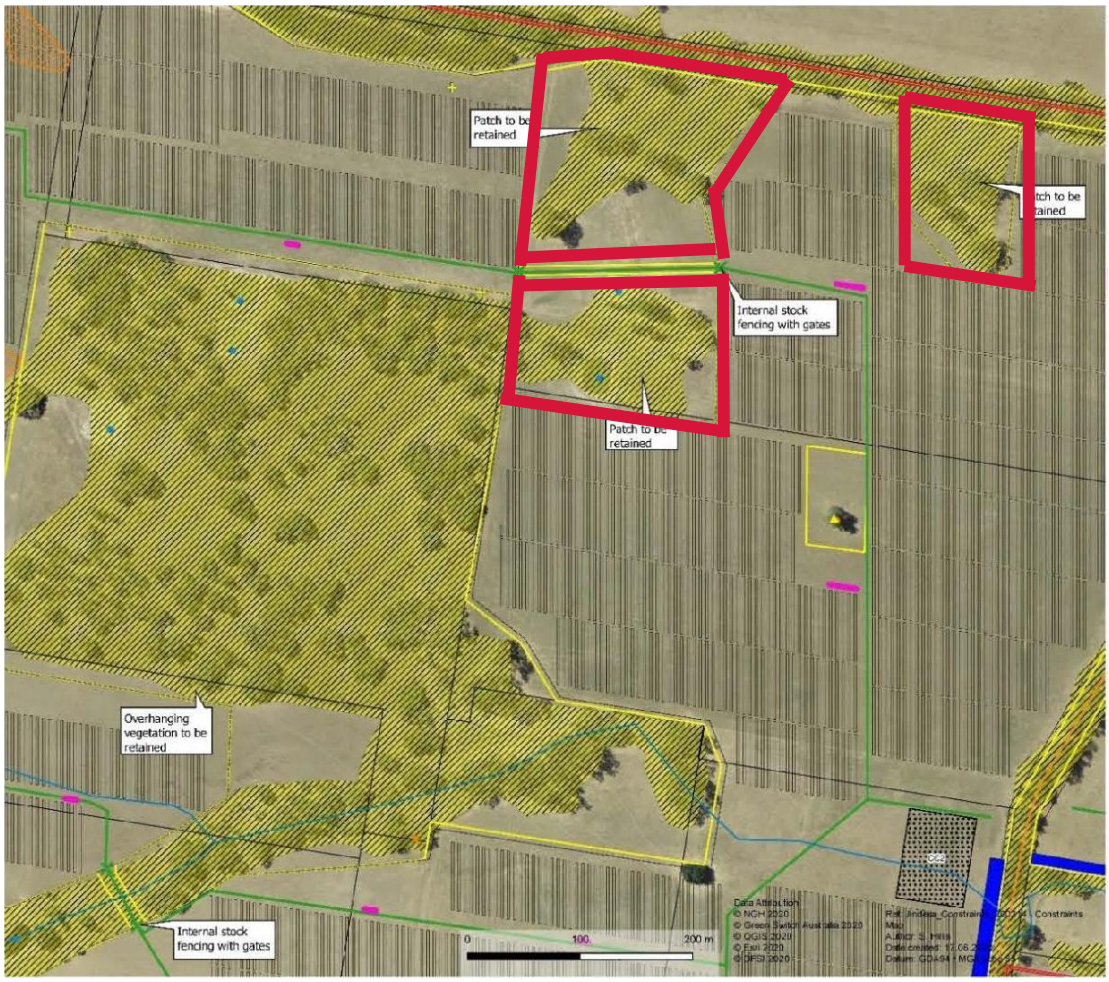

Figure 10 | Additional Native Vegetation to be Retained Flora Impacts

Vegetation Clearing

5.3.7 Of the 377 ha development footprint, the project would clear 20.8 ha of native vegetation and 34 native paddock trees. The remainder of the development footprint is cleared land and/or exotic species. **Table 6** provides a summary of the impacts of the project on each native vegetation type, and the associated ecosystem credit liability under the *NSW Biodiversity Offset Scheme*.

Table 6 | Native Vegetation Impacts

Native Vegetation Community		Disturbance Area (ha)	Ecosystem Credit Liability
Blakely's Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion (EEC) (PCT 277)	Grazed understory	8.6	95
	Roadside	4.3	91
	Creek line	0.5	10
	Woodland	1.6	20
	Derived Native Grassland	3.1	0
	Paddock trees	34 trees	27
River Red Gum – wallaby grass tall woodland wetland on the outer River Red Gum zone mainly in the Riverina Bioregion (PCT 9)	Woodland	1.6	21
	Derived Native Grassland	1.1	12
Total		20.8 ha	276

5.3.8 No threatened flora species listed under the BC Act or EPBC Act were identified within the site. However, seasonal conditions prevented confirmation of three species potentially located along roadside vegetation and the TransGrid substation. These species were therefore assumed to be impacted by the proposed road upgrades and connection to the substation and the potential impact on these species has been accounted for in the species credit calculations in **Table 7**.

Fauna Impacts

5.3.9 The biodiversity assessment concluded that there would be impacts to one species (Squirrel Glider) observed during targeted surveys and a further four species are assumed to be present. Impacts on these species has been accounted for in the species credit calculations in **Table 7**.

5.3.10 Targeted surveys did not find any Koalas or evidence of Koalas within the survey area. Any habitat within the study area is not considered to be critical to the survival of the Koala.

5.3.11 The Department and BCD consider that all threatened species, communities and habitats have been correctly identified, assessed and offsets calculated correctly.

Table 7 | Species Credit Species Assumed to be Impacted

Species		Area of Habitat Impacted (ha)	Species Credit Liability
Fauna	Squirrel Glider (Petaurus norfolcensis)	6.02	72
	Eastern Pygmy Possum (*Cercartetus nanus*)	2.91	52
Flora	Small Scurf Pea (*Cullen parvum*)	6.16	96
	Silky Swainson-pea (*Swainsona sericea*)	3	49
	Small Purple-pea (*Swainsona recta*)	3	49
Total			318

Biodiversity Offsets Summary

5.3.12 Under the BC Act, the impact on native vegetation and species would generate 276 ecosystem credits (including 27 credits for paddock trees) (see **Table 6**) and 318 species credits for flora and fauna species both known and assumed to be present on site and within the road reserve (see **Table 7**).

5.3.13 Whilst limited suitable registered offset sites exist within the region under the Biodiversity Conservation Trust (BCT), the final credit requirement would be retired in accordance with the NSW Biodiversity Offset Scheme, which includes the following options:

- acquiring or retiring 'biodiversity credits' within the meaning of the BC Act;
- making payments into an offset fund that has been developed by the NSW Government; or
- funding a biodiversity conservation action that benefits the entity impacted and is listed in the ancillary rules of the NSW Biodiversity Offsets Scheme.

Conclusion

5.3.14 JSF has designed the project to largely avoid impacts on biodiversity values and further amendments have reduced impacts to Box-gum woodland. All unavoidable impacts (including clearing of 20.8 ha of native vegetation and 34 native paddock trees) would be offset in accordance with the NSW Biodiversity Offset Scheme, which is included as a requirement in the recommended conditions.

5.3.15 BCD supports the retention of the Box-gum woodland and the additional benefit of retaining habitat for local populations of threatened species within the locality, including the Squirrel Glider.

5.3.16 The Department has recommended conditions requiring JSF to:

- avoid the disturbance of native vegetation or fauna habitat located outside the development footprint;
- retire the applicable biodiversity offset credits in accordance with the Biodiversity Offsets Scheme prior to commencing the development; and
- prepare and implement a Biodiversity Management Plan in consultation with BCD, including measures to minimise clearing, avoid unnecessary disturbance of vegetation located within the development footprint and maintaining and improving the condition and extent of Blakely's Red Gum – Yellow Box grassy tall woodland within and surrounding the project site.

5.3.17 With these measures, the Department and BCD consider that the project is unlikely to result in a significant impact on the biodiversity values of the locality.

5.4 Other Issues

5.4.1 The Department's consideration of other issues is summarised in **Table 8**.

Table 8 | Summary of other issues raised

Findings	Recommendations
Traffic and Transport	
• The transport route for over-dimensional and heavy vehicles for the project during construction and operation is via Hume Highway, Thurgoona Road, Catherine Crescent, Dallinger Road, Union Road, Wagga Road, Urana Road, Urana Street, Urana Road, and Walla Walla Jindera Road as required. All roads along the transport route are designated for use by B-doubles and over-dimensional vehicles. • Access for construction vehicles for the transmission line from the project site to the Jindera substation, would be via Ortlipp Road during the four to six week construction period of the transmission line. • Site access for construction traffic would be via three new site access points: - off Urana Road, which would include CHR(s) and BAL intersection treatments; - two access points opposite each other off Walla Walla Jindera Road, which would include BAL/BAR intersection treatments. • Two new access points for light vehicles would be located: - off Ortlipp Road for emergency and maintenance access; and - off Klinberg Road for emergency access only. • The main increase in traffic volumes would occur during the 18 month construction period, with a peak construction period of up to 6 months. • During the peak period, the project would generate up to 30 heavy vehicle movements per day and 110 light vehicle movements per day. • Additionally, there would be a total of 5 over-dimensional vehicle movements during construction, upgrading or decommissioning. • Traffic during operations would be negligible with up to 5 heavy and 6 light vehicle movements per day. • the Department has recommended a requirement in the Traffic Management Plan for JSF to undertake dilapidation surveys and repairs of local roads along the proposed over-dimensional and heavy vehicle transport route. • With the above upgrades, maintenance requirements and implementation of a Traffic Management Plan, the Department, TfNSW and Council are satisfied that the project would not result in significant impacts on the road network capacity, efficiency or safety. <u>Cumulative Traffic Impacts</u> • The proposed Glenellen Solar Farm is at an early stage of the application process and the final transport route has not yet been proposed. However, there is the potential for the two projects to have a section of common haulage route along Urana Road and Walla Walla Jindera Road. • Other than the proposed Glenellen Solar Farm, no other approved or proposed SSD project in the Greater Hume area shares a common transport route. • Any potential cumulative traffic impacts on local road users would be minimised and managed through stringent measures developed as part of the Traffic Management Plan, including scheduling construction activities and deliveries to minimise road transport movements and avoid conflict with school buses, other road users, and the construction traffic of other solar farms in the Greater Hume area. TfNSW and Council support this approach, and the Department has included this requirement in the recommended conditions.	• Undertake the relevant road upgrades prior to commencing construction. • Restrict the number of vehicles during construction, upgrading and decommissioning to the peak volumes identified in this report. • Ensure the length of vehicles (excluding over-dimensional vehicles) does not exceed 26 m. • Prepare a Traffic Management Plan in consultation with TfNSW and Council, including provision for dilapidation surveys, details of the measures that would be implemented to address road safety, including consideration for school buses, other motorists and road users.

Findings	Recommendations
Noise	
• 30 community submissions expressed concern about the noise impacts of the project. • Noise generated by the proposed construction, upgrading and decommissioning activities is predicted to be well below the 'highly noise affected' criterion of 75 dB(A) in EPA's *Interim Construction Noise Guideline* (the ICNG) at all nearby residences. • Refinements of the project layout, including additional setbacks of project infrastructure, repositioning of the substation and inverter stations, has reduced the predicted construction and operational noise levels. • JSF provided a revised noise assessment following project amendments, which concluded that the project would not result in operational noise exceedances (i.e. the noise generated would not exceed 35 dB(A) for any non-associated residences). • During construction,12 non-associated residences, predominantly surrounding the eastern array area, were predicted to experience noise levels above the 'noise affected criterion' of 45 dB(A) in the ICNG but below the highly noise affected' criterion and ranging between 48 – 64 dB(A). • Any exceedances would be short term, intermittent and limited to standard construction hours and would be limited to when activities associated with earthworks, road construction and panel framing are undertaken in proximity to the residences. JSF estimates these impacts would be limited to a 3-week period. • JSF has committed to implement the noise mitigation work practices set out in the ICNG, including scheduling activities to minimise noise, using quieter equipment and establishing a complaint handling procedure. • Road traffic noise during construction of the project would comply with the relevant criteria in the EPA's Road Noise Policy. • As a result of amendments made to the project layout as described above, there would be negligible noise during operation. • The Department has recommended conditions requiring JSF to minimise noise during construction, upgrading or decommissioning by implementing best practice noise mitigation work practices set out in the ICNG.	• Minimise noise generated by the construction, upgrading or decommissioning activities on site in accordance with best practice requirements outlined in the ICNG. • Restrict construction hours to Monday to Friday, 7am – 6 pm and Saturday, 8 am – 1 pm.
Dust	
• 35 submissions raised concern that the project would result in unacceptable dust impacts in the local area during construction and during operation of the project, in the event that groundcover on site could not be sufficiently established due to overshadowing by solar panels. • Construction of the project involves earthworks for site preparation, trenching for cables, construction of access tracks and construction of footings for on-site infrastructure. Other sources of dust would include vehicles travelling on unsealed roads. • The Department is satisfied that dust generated during construction of the project would be managed via the use of water trucks and covering loads, which JSF has committed to. JSF has also committed to daily visual monitoring of dust during construction of the project. • In addition, the Department notes that measures implemented to minimise soil erosion in accordance with *Managing Stormwater: Soils and Construction Manual* (Landcom, 2004) and ensure that the project is constructed and maintained to avoid causing erosion on site would also reduce the generation of dust during construction.	• Minimise dust generated by the development. • Manage development in accordance with the relevant requirements in the *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) manual. • Establish and maintain groundcover with appropriate perennial species as soon as practicable following construction.

Findings	Recommendations
Heritage	
Aboriginal Cultural Heritage • Surveys identified 28 Aboriginal heritage sites, including 15 isolated finds, 10 artefact scatters and three cultural sites. All items were assessed to be of low significance. • JSF has committed to avoiding six items and salvaging and relocating the remaining 22 items prior to the commencement of construction. • Consultation with Registered Aboriginal Parties (RAPs) informed the project design and management measures. • If Aboriginal artefacts or skeletal material are identified during construction of the project all work would cease and an unexpected finds procedure would be implemented. • With these measures, the Department and BCD consider that the project is unlikely to result in significant impacts on the heritage values of the locality. Historic Heritage • No heritage items listed on Commonwealth, National or State registers are located within or surrounding the site. • Site inspections undertaken did not identify any new heritage sites or items occurring within or near the development footprint. • The Heritage Council was consulted regarding the project but raised no concerns regarding the project. • The Department is satisfied that the project would not have any adverse impacts on local or State heritage items in the local area.	• Ensure the development does not cause any direct or indirect impacts on any items located within exclusion zones or outside the approved development footprint. • Salvage and relocate Aboriginal items in consultation with RAPs. • Cease works and notify the NSW Police and OEH if human remains are identified over the life of the project. • Prepare and implement a Heritage Management Plan, including procedures for unexpected finds, in consultation with RAPs.
Hazards	
• The site is not identified as bushfire prone land. However, the land contains portions of grassland vegetation identified as category 2 vegetation bushfire prone land, which is at lower risk of bushfire due to historic clearing from agricultural practices with only remnant vegetation remaining on site. • JSF would be required to maintain 10 m of defendable space around all project infrastructure and manage the defendable space and solar array areas as an Asset Protection Zone. JSF would also be required to comply with the RFS's *Planning for Bushfire Protection 2019* and prepare a Fire Safety Study and Emergency Plan to manage the fire risk. • The Department and RFS are satisfied that the bushfire risks can be suitably controlled through the implementation of standard fire management procedures. • The project would comply with the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines for electric, magnetic and electromagnetic fields. • JSF would implement a range of hazard prevention and mitigation measures to manage potential risks associated with the battery storage facility, including (but not limited to): - a 10 m Asset Protection Zone (APZ) around the battery storage facility; - automated monitoring and control systems, with alarm and shutdown capability; and - appropriate separation between battery containers. • Subject to the recommended conditions, the Department is satisfied that risks associated with the facility would be negligible.	• Ensure that the development complies with the relevant asset protection requirements in the RFS's *Planning for Bushfire Protection 2019* and *Standards for Asset Protection Zones*. • Prepare a Fire Safety Study and an Emergency Plan in consultation with RFS and Fire and Rescue NSW. • Store and handle all liquid chemicals, fuels and oils used on-site in accordance with all relevant Australian Standards and the EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Handbook*.

Findings	Recommendations
Water and Erosion	
• Two ephemeral watercourses traverse the western portion of the site (see **Figure 3**). Dead Horse Creek is a second order stream and Kilnacroft Creek is a third order stream. Both watercourses are not defined channels and have little or no flow, with water only present after significant rainfall events. • The project has been designed to avoid these watercourses, however crossings of both creeks would be required for internal access tracks, electrical cabling and security fencing. • Two wetlands occur on the site, one of which is a large man-made wetland in the south east of the site and a smaller ephemeral wetland in the north east of the site, both of which would be retained. • No riparian vegetation would be cleared and JSF has committed to implement buffer zones consistent with the *Guidelines for Controlled Activities on Waterfront Land.* • There are 19 farm dams within the site, 12 of which would be retained. The remaining seven would be suitably filled with existing material from on site and would be utilised for the siting of solar panels. • Any erosion and sedimentation risks associated with the project can be effectively managed using best practice construction techniques. • The project is not expected to affect groundwater resources or groundwater dependent ecosystems. • The site is not identified as flood prone land under the Greater Hume LEP. • The project would require around 30 megalitres (ML) of water during construction (mainly for dust suppression) and around 1.2 ML of water annually during operation (mainly for cleaning panels). A static water supply (two 20,000 litre tanks) would be established and maintained for fire protection. • It is proposed that water used on site would be sourced from a Council-owned standpipe in Jindera, which has been agreed in principle with Council. • Subject to the recommended conditions, the Department and DPIE Water consider that the project would not result in significant impacts on water resources.	• Minimise the siting of solar panels and ancillary infrastructure within watercourses. • Design, construct and maintain the project to reduce impacts on surface water and flooding at the site. • Minimise any soil erosion in accordance with *Managing Urban Stormwater: Soils and Construction (Landcom, 2004)* and ensure the project is constructed and maintained to avoid causing erosion on site. • Unless DPIE Water agrees otherwise, ensure all works are undertaken in accordance with *Guidelines for Controlled Activities on Waterfront Land* (NRAR, 2018).
Subdivision	

• JSF proposes to consolidate and subdivide three lots (Lot 139, 140 and 141 of DP 753342) into four newly created lots in the western portion of project site. This subdivision is to facilitate lease agreements with the landowners and enable the continuation of agricultural practices on two of the newly created lots.
• The proposed subdivision of Lot 148 DP 753342 into two new lots is required to enable the proposed substation to be transferred to TransGrid.
• The six newly created lots would be below the minimum lot size of 200 ha and prohibited under a strict reading of the LEP.
• Notwithstanding, under Section 4.38(3) of the EP&A Act, development consent for the project as a whole can be granted despite the subdivision component of the application being prohibited by the LEP.
• The Department is satisfied that the subdivision should be approved as it:
  - is necessary for the operation of the substation;
  - would not result in any additional dwelling entitlements on the subdivided lots; and
  - is consistent with the key objectives of the RU1 zone as it would encourage diversity and primary industry enterprises and minimise conflict between land uses.
• The Department notes that Council raised no concerns in relation to the proposed subdivision.
	• Subdivide the proposed lots in accordance with requirements of section 157 of the *Environmental Planning and Assessment Regulation 2000*.

Findings	Recommendations
• The Department considers that on the basis of the above, the proposed subdivision would allow the solar farm to be developed and consequently provide net benefits to the National Electricity Market that can be realised in a timely manner, whilst not adversely affecting the use of surrounding land for agricultural purposes.	
Decommissioning and rehabilitation	
• Some community submissions raised concerns about decommissioning, rehabilitation and the use of the land after its operational life. • The Department has developed strict conditions for solar farms to cover this stage of the project life cycle, including clear decommissioning triggers and rehabilitation objections such as removing all above and below ground infrastructure and restoring land capability to its pre-existing agricultural use. • With the implementation of these measures, the Department considers that the solar farm would be suitably decommissioned at the end of the project life, or within 18 months if operations cease unexpectedly, and that the site be would appropriately rehabilitated.	• Include rehabilitation objectives requiring the site to be rehabilitated within 18 months of cessation of operations.
Land Values	
• Several public submissions raised concern that the project would have an adverse impact on neighbouring land values, particularly as a result of the proximity of the project and other proposed solar farms. • The Department notes that: - property values are influenced by a number of factors; - there is no clear evidence to suggest that solar farms in NSW are adversely affecting property values; - the project is permissible with development consent under the Infrastructure SEPP; - a detailed assessment of the merits of the project has found that the project is unlikely to generate any significant economic, environmental or social impacts; - the impacts of the project can be further minimised by imposing suitable conditions on the project, and requiring a range of standard mitigation measures, such a vegetation screening, to be implemented; and - the Department considers the visual impacts of the project on the surrounding residences and road users would not be significant. • Accordingly, the Department considers the project would not result in any significant or widespread reduction in land values in the areas surrounding the solar farm.	• No specific conditions required.
Workforce Accommodation & Local Employment	
• Up to 200 workers would be required during the construction period and JSF has committed to source workers from the local and regional community where possible and the Department is satisfied that there is sufficient accommodation in nearby towns, such as Jindera, Albury, Table Top and Culcairn. • There is the potential for construction of the project to overlap with the construction of the proposed Walla Walla Solar Farm, Culcairn Solar Farm (if approved). Should this occur, up to 1,025 construction personnel may be required in the region and additional workers for the Glenellen Solar Farm. However, the Department considers that although possible, it is unlikely the entire construction periods of these three projects would overlap. • While the Department considers there to be sufficient workers accommodation available for this project, to manage the potential cumulative impacts associated	• Prepare an Accommodation and Employment Strategy for the project in consultation with Council, with consideration to prioritising the employment of local workers.

Findings	Recommendations
with multiple projects in the region and to encourage locally sourced workers, JSF would be required to develop an Accommodation and Employment Strategy in consultation with Council. The Strategy would require JSF to: - propose measures to ensure there is sufficient accommodation for the workforce associated with the project; - consider cumulative impacts with other projects in the area; - prioritise employment of local workers; and - monitor and review the effectiveness of the strategy, including regular monitoring during construction.	
Economic	
• Concerns were raised in submissions that the project would have negligible benefits to the local community following construction, and that there would be a lack of local employment opportunities. • The project would generate direct and indirect benefits to the local community, including: - up to 200 jobs during the 18 month construction period and five jobs during operation of the project; - expenditure on accommodation and businesses in the local economy by workers who would reside in Greater Hume Shire LGA or the adjoining Albury City LGA; - the procurement of goods and services by JSF and any associated contractors; and - upgrading and maintenance of roads used by project related traffic. • While JSF has advised that the project would utilise accommodation within the Great Hume Shire LGA and would source workers from the local region, the Department has recommended conditions requiring JSF to prepare an Accommodation and Employment Strategy (discussed above) to prioritise these matters. • Public submissions also raised concern that the solar farm would reduce the viability and income of local businesses, particularly those supporting agricultural activities in the region. • Managed grazing would continue on the site during operation of the solar farm, and both landowners would continue farming their land that is not being developed for the solar farm. In any event, as previously discussed, the project site represents less than 0.01 % of the land currently used for agriculture within the Riverina Murray region. • In addition, JSF has an in principle agreement with Council to enter into a VPA, including: - a one-off payment of $700,000 at completion of construction of the project; - a further $250,000 in staged payments for the first six years of the project's operation; and - an annual contribution of $25,000, to be adjusted for inflation, into a Community Fund for the 30 year operation of the project for community related projects and organisations. • The Department considers that it is unlikely that there would be significant impacts on local businesses. • The Department has also considered the demand on public services and infrastructure in the Greater Hume LGA and is satisfied that its recommended conditions address the only material impact of the project on these matters (i.e. roads). • Noting the above, the Department considers that the project would provide economic benefits for the local community.	• Prepare an Accommodation and Employment Strategy for the project in consultation with Council, with consideration to prioritising the employment of local workers. • Enter into a VPA with Council.

6 Recommended Conditions

6.1.1 The Department has prepared recommended conditions of consent for the project (see **Appendix I**).

6.1.2 The Department consulted with JSF and relevant agencies, including Council, on the conditions for the project, particularly BCD regarding mitigating the direct and indirect impacts on biodiversity values.

6.1.3 These conditions are required to:

- prevent, minimise, and/or offset adverse impacts of the project;
- ensure standards and performance measures for acceptable environmental performance;
- ensure regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

6.1.4 The recommended conditions use a risk-based approach that focuses on performance-based outcomes. This reflects current government policy and the fact that solar farms require relatively limited ongoing environmental management once the project has commenced operations.

6.1.5 In line with this approach, the Department has recommended operating conditions to minimise biodiversity, amenity, traffic, water, flooding, heritage and bushfire impacts, and required the following management plans be prepared and implemented:

- Biodiversity Management Plan;
- Landscaping Plan;
- Traffic Management Plan;
- Heritage Management Plan; and
- Emergency Plan.

6.1.6 The recommended conditions also require JSF to provide detailed final layout plans to the Department prior to construction.

6.1.7 Other key recommended conditions include:

- *biodiversity offsets* – retiring biodiversity offset credits in accordance with the *NSW Biodiversity Offsets Scheme*;
- *operating hours* – undertaking construction, upgrading or decommissioning activities on-site during standard construction hours, unless these activities that are inaudible at non-associated receivers;
- *visual* – minimising the off-site visual and lighting impacts of the project, including the potential for any glare or reflection, and ensuring the visual appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape;
- *roads* – requiring relevant road upgrades are undertaken prior to the commencement of construction, and maintenance and repair of any damage during construction, upgrades or decommissioning activities;

- *water and flooding* – ensuring the solar panels and ancillary infrastructure (including security fencing) are designed, constructed and maintained to reduce impacts on surface water, flooding and groundwater at the site;
- *fire* - ensure that the development complies with the relevant asset protection requirements in the RFS's *Planning for Bushfire Protection 2019*;
- *accommodation and employment* – requiring an accommodation and employment strategy be prepared and implemented to ensure there would be sufficient accommodation to house construction workers, and to prioritise the employment of local workers; and
- *community enhancement* – requiring JSF to enter into a VPA with Council, which would provide funding for community projects for the 30 year operation life of the development.

7 Evaluation

7.1.1 The Department has assessed the development application, EIS, submissions, Submissions Report, amended development application and additional information provided by JSF and advice received from relevant government agencies. The Department has also considered the objectives and relevant considerations under Section 4.15 of the EP&A Act.

7.1.2 The project site is located in a rural area, with the nearest non-associated residence located 121 m north of the development footprint at its closest point. A further 24 residences are located within 1 km of the development footprint.

7.1.3 The site would have direct access to the local and regional road network via Urana Road and Walla Walla Jindera Road and is in close proximity to the electricity via TransGrid's existing Jindera substation, which is located about 600 m south east of the proposed development footprint.

7.1.4 The Department considers the site to be appropriate for a solar farm as it has good solar resources and available capacity on the existing electricity network.

7.1.5 The project has been designed to largely avoid key constraints, including amenity impacts to nearby non-associated residences, good quality agricultural land, watercourses, remnant native vegetation and Aboriginal heritage sites. Any residual impacts would be relatively minor and can be managed through the recommended conditions of consent.

7.1.6 The Department acknowledges that JSF amended the project to further reduce impacts by increasing setback distances between project infrastructure and Glenellen Road by a further 60 m, revising the layout of the inverter stations and substation to reduce noise and visual impacts, amending the project layout to avoid an additional 3.9 ha of Blakely's Red Gum – Yellow Box grassy tall woodland EEC and incorporating additional vegetation screening along sensitive sections of the project boundary

7.1.7 Following amendments to the project, the Department considers that with the additional setbacks from Glenellen Road, intervening existing vegetation and proposed additional landscape planting, the project is not likely to have significant visual impacts on surrounding residences including residents along Glenellen Road.

7.1.8 The project would not result in any significant reduction in the overall agricultural productivity of the region. Approximately 119 ha of land is to be retained for continued agricultural practices.

Additionally, JSF would manage ground cover within the site through sheep grazing. 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.

7.1.9 Importantly, the project would assist in transitioning the electricity sector from coal and gas-fired power stations to low emissions sources. It would generate over 264,000 MWh of clean electricity annually, which is enough to power over 44,000 homes and save over 254,000 tonnes of greenhouse gas emissions per year. It is therefore consistent with the goals of the *NSW Climate Change Policy Framework* and *Net Zero Plan Stage 1: 2020 - 2030*.

7.1.10 To address the residual impacts of the project, the Department has recommended a range of detailed conditions, developed in conjunction with agencies and Council, to ensure these impacts are effectively minimised, managed and/or offset. JSF has reviewed the conditions and does not object to them

7.1.11 Whilst Council maintains its objection to the project on the grounds of potential impacts to micro-climate, loss of agricultural land and amenity impacts to neighbours, it confirmed that amendments to the project addressed several of its concerns, it did not object to the proposed conditions of consent, and has agreed terms with JSF for a Voluntary Planning Agreement, with a significant proportion of the funds proposed to be used on local projects within Jindera and other nearby townships.

7.1.12 The Department considers that the project achieves an appropriate balance between maximizing the efficiency of the solar resource development and minimising the potential impacts on surrounding land uses and the environment. The project would also stimulate economic investment in renewable energy and provide flow-on benefits to the local community, through job creation, capital investment and substantial contributions to Council for community enhancement projects.

7.1.13 On balance, the Department considers that the project is in the public interest and is approvable, subject to the recommended conditions of consent (see **Appendix I**).

7.1.14 This assessment report is hereby presented to the Independent Planning Commission for determination.

27/10/2020

Nicole Brewer
Director
Energy Assessments

27/10/2020

Mike Young
Executive Director
Energy, Industry and Compliance

Appendices

Appendix A – List of referenced documents

Jindera Solar Farm Environmental Impact Statement, ngh environmental, September 2019

Jindera Solar Farm Submissions Report, ngh environmental, March 2020

Jindera Solar Farm Amendment Report, ngh environmental, March 2020

Jindera Solar Farm Amendment Report 2, ngh environmental, June 2020

Jindera Solar Farm Additional Information, ngh environmental, April and May 2020

Appendix B – Environmental Impact Statement

See the Department's website at:
https://www.planningportal.nsw.gov.au/major-projects/project/9811

Appendix C – Submissions

See the Department's website at:
https://www.planningportal.nsw.gov.au/major-projects/project/9811

Appendix D – Submissions Report

See the Department's website at:
https://www.planningportal.nsw.gov.au/major-projects/project/9811

Appendix E – Amendment Reports

See the Department's website at:
https://www.planningportal.nsw.gov.au/major-projects/project/9811

Appendix F – Additional Information

See the Department's website at:
https://www.planningportal.nsw.gov.au/major-projects/project/9811

Appendix G – Consideration of Community Views

The Department exhibited the Environmental Impact Statement (EIS) for the project from 16 October 2019 until 13 November 2019 and received 109 submissions from the community (96 objections, 11 supporting and two comments), and two from special interest groups (providing comments).

The key issues raised by the community (including in submissions) and considered in the Department's Assessment Report include land use compatibility (including the loss of agricultural land), visual impacts on surrounding residences and road users, and economic impacts (including lack of benefit to the local community, and potential for property devaluation).

Other issues are addressed in detail in the Department's Assessment Report.

Issue	Consideration
Compatibility of the proposed land use • Use of agricultural land • Impacts on neighbouring agricultural activities (weeds, pests, erosion, noise, photovoltaic heat island effect and dust) • Impacts on local agribusiness	Assessment • The majority of land within the development footprint site is Class 4 and a small section is Class 6 land capability. This class of land typically requires active management to sustain cultivation on a rotational basis. • The cumulative loss of agricultural land associated with the project and other approved solar projects in the region represents a very small fraction of the 9.1 million ha of land being used for agricultural output in the Riverina Murray region, therefore resulting in a negligible reduction in the overall productivity of the region. • The site would be returned to agricultural use following decommissioning. • The agricultural operations of neighbouring landholders would not be impacted as weeds would be controlled through strict land management measures, erosion and sediment risks can be effectively managed using best practice construction techniques, water pollution is not permitted, and noise and dust would not be significant and would be minimised. • The panels would not result in any significant impact to microclimate which might affect neighbouring land uses and has JSF's committed to a minimum 30 m setback from neighbouring property boundaries and the proposed vegetation buffers surrounding the project. • The site would also support local agriculture by permitting managed grazing, and as a result, the Department is satisfied that the project would not result in any significant reduction in agricultural productivity of the region or of local agribusiness. • The project is consistent with the *Greater Hume Local Strategic Planning Statement 2018* and *Riverina Murray Regional Plan 2036.* Recommended Conditions include: • Restore land capability to pre-existing use. • Restore the groundcover of the site following construction or upgrading, maintain the groundcover with appropriate perennial species and manage weeds within the groundcover

Issue	Consideration
	• Minimise any soil erosion associated with the construction, upgrading or decommissioning of the development. • Ensure that the development does not cause any water pollution, as defined under Section 120 of the POEO Act. • Ensure the visual appearance of all ancillary infrastructure (including paint colours) blends in with the surrounding landscape, where reasonable and feasible. • Ensure that noise associated with the construction, operation, upgrading and decommissioning of the project complies with the relevant noise criteria. • Minimise dust generated by the development.
Visual Impacts	Assessment • The closest non-associated residence (R21) is located about 121 m from the development footprint at its closest point, however views of the project would be limited due to existing dense vegetation surrounding the residence and along the property boundary. A further 24 non-associated residences are located within 1 km of the development footprint. • The project has been designed to minimise potential impacts on the surrounding receivers, including retention of native vegetation on site, extensive vegetation buffers and amending the project to include 120 m setback of solar panels from Glenellen Road. • The solar panels would be relatively low lying (up to 3 m high) and the maintenance buildings, inverters and substations would also be a similar size to agricultural sheds commonly used in the area. • While the photovoltaic panels are designed to absorb rather than reflect sunlight, some project components have the potential to generate glare or reflection, including the galvanised steel used for the solar panel mounting framework, however this diminishes over time. • The setback distances from nearby residents, existing well-established intervening vegetation and the proposed vegetation screening would shield or minimise views of the development from surrounding residences, including views of infrastructure with the potential to create glare or reflection. In addition, any glint or glare experienced by nearby receivers would be temporary, depending on the time of day and receiver location. Recommended Conditions include: • Establish and maintain a vegetation buffer to minimise views from nearby receivers within 3 years of operation. • Ensure the visual appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape, and not mount any advertising signs or logos on site, except where this is required for identification and safety purposes. • Minimise the off-site visual impacts of the development, including the potential for any glare or reflection. • Minimise the off-site lighting impacts of the development, and ensure that any external lighting is installed as low intensity lighting (except where required for safety or emergency purposes), does not shine

Issue	Consideration
	above the horizontal and complies with *Australian/New Zealand Standard AS/NZS 4282:2019 – Control of Obtrusive Effects of Outdoor Lighting.*
Economic Impacts • Lack of local benefits • Property devaluation	Assessment • The project would generate direct and indirect benefits to the local community, including:" ○ up to 200 jobs during the 18 month construction period and 5 jobs during operation of the project; ○ expenditure on accommodation and business in the local economy by workers who would reside in Greater Hume Shire LGA, or the adjoining Albury City LGA; and ○ the procurement of goods and services by JSF and any associated contractors. • JSF has committed to a Voluntary Planning Agreement (VPA) with Council, which would consist of an initial one-off payment of $700,000 at the completion of construction, followed by a further $250,000 in staged for the first six years of the project's operation. A further $25,000 per year for a period of 30 years would be directed towards a lasting Community Enhancement Fund. • Under the Greater Hume LEP and Infrastructure SEPP, the project is permissible with consent, and the Department's assessment demonstrates the project would not result in any long-term amenity or environmental impacts. Accordingly, the Department considers the project would not result in any significant or widespread reduction in land values in the areas surrounding the project. Recommended Conditions include: • Prepare an Accommodation and Employment Strategy for the project in consultation with Council, with consideration to prioritising the use of local accommodation and the employment of local workers. • Prior to commencing construction the Applicant must enter into a VPA with Council.

Appendix H – Statutory Considerations

In line with the requirements of Section 4.15 of the EP&A Act, the Department's assessment of the project has given detailed consideration to a number of statutory requirements. These include:

- the objects found in Section 1.3 of the EP&A Act; and
- the matters listed under Section 4.15(1) of the EP&A Act, including applicable environmental planning instruments and regulations.

The Department has considered all of these matters in its assessment of the project and has provided a summary of this assessment below.

Aspect	Summary
Objects of the EP&A Act	The objects of most relevance to the Consent Authority's decision on whether or not to approve the project are found in Section 1.3(a), (b), (c), (e) and (f) of the EP&A Act. The Department is satisfied that the project encourages the proper development of natural resources (Object 1.3(a)) and the promotion of orderly and economic use of land (Object 5(c)), particularly as the project: • is a permissible land use on the subject land; • is located in a logical location for efficient solar energy development; • is able to be managed such that the impacts of the project could be adequately minimised, managed, or at least compensated for, to an acceptable standard; • would contribute to a more diverse local industry, thereby supporting the local economy and community; • would not fragment or alienate resource lands in the LGA; and • is consistent with the goals of the *NSW Net Zero Plan Stage 1: 2020 – 2030* and would assist in meeting Australia's renewable energy targets whilst reducing greenhouse gas emissions. The Department has considered the encouragement of ESD (Object 1.3(b)) in its assessment of the project. This assessment integrates all significant socio-economic and environmental considerations and seeks to avoid any potential serious or irreversible environmental damage, based on an assessment of risk-weighted consequences. In addition, the Department considers that appropriately designed SSD solar development, in itself, is consistent with many of the principles of ESD. JSF has also considered the project against the principles of ESD. Following its consideration, the Department considers that the project can be carried out in a manner that is consistent with the principles of ESD. Consideration of environmental protection (Object 1.3(e)) is provided in **section 5.3** of this report. Following its consideration, the Department considers that the project is able to be undertaken in a manner that would at least maintain the biodiversity values of the locality over the medium to long term and would not significantly impact threatened species and ecological communities of the locality. The Department is also satisfied that any residual biodiversity impacts can be managed and/or mitigated by

	imposing appropriate conditions and retiring the required biodiversity offset credits. Consideration of the sustainable management of built and cultural heritage (Object 1.3(f)) is provided in **section 5.4** of this report. Following its consideration, the Department considers the project would not significantly impact the built or cultural heritage of the locality.
State significant development	Under Section 4.36 of the EP&A Act the project is considered a State significant development. Under Section 4.5(a) of the EP&A Act and clause 8A of the SRD SEPP, the Independent Planning Commission (the Commission) is the consent authority for the development as the project received more than 50 unique public submissions by way of objection, and Council has also objected to the project.
Environmental Planning Instruments	The *Greater Hume Local Environment Plan 2012* applies and is discussed in sections **2.1, 3.3, 5.1** and **5.4** of this report, particularly regarding permissibility, land use zoning, bushfire and contributions. The project is permissible under the Infrastructure SEPP. In accordance with the Infrastructure SEPP, the Department has given written notice of the project to TransGrid and TfNSW. JSF completed a preliminary risk screening and preliminary hazard analysis in accordance with *SEPP No. 33 – Hazardous and Offensive Development*. The Department's consideration of this analysis is discussed in **section 5.4**. The Department has considered the provisions of the *SEPP (Primary Production and Rural Development) 2019*. Of relevance to the project, the SEPP aims to facilitate the orderly economic use and development of lands for primary production, to reduce land use conflict and sterilisation of rural land and to identify State significant agricultural land. While the location of State significant agricultural land has not been finalised, the Department has considered all of these matters in **section 5.1** of this report. The Department has considered the provisions of *SEPP No. 55 – Remediation of Land*. A preliminary assessment of the land found no contaminated land within the project site, and the Department is satisfied the site is suitable for the development. Greater Hume Shire Council is listed under *SEPP (Koala Habitat Protection) 2019.* JSF's assessment concluded that the vegetation within the site is not considered potential Koala habitat, the Department has considered this in **section 5.3** of this report.

Appendix I – Recommended Conditions of Consent

See the Department's website at:
https://www.planningportal.nsw.gov.au/major-projects/project/9811