

STATE SIGNIFICANT DEVELOPMENT ASSESSMENT *Jemalong Solar Project (SSD 8803)*

EXECUTIVE SUMMARY

Vast Solar proposes to develop a new 50 megawatt photovoltaic solar farm near Forbes in central NSW.

The Department publicly exhibited the Environmental Impact Statement for the project and received submissions from nine government agencies and two members of the general public. None of the government agencies objected to the project. Both of the public submissions objected to the project, raising concerns about the broader impacts of large-scale renewable projects on energy security and pricing. The Department has carefully addressed this issue and other minor residual matters in its assessment.

The key issues to consider are land use compatibility and potential traffic impacts. The Department is satisfied that the project would not significantly reduce the overall agricultural productivity of the region, and that the site could be easily returned to agricultural uses in the future. The potential traffic impacts would be short-term and minor in nature. The Department is satisfied that with the relevant road upgrades and implementation of a comprehensive Traffic Management Plan, impacts to local roads and motorists would be minor.

In summary, the Department considers the site to be suitable for a large-scale solar farm as it has good solar resources, has largely been cleared for agricultural purposes and is close to the existing electricity network. The project is consistent with both the Commonwealth's *Renewable Energy Target* and NSW's *Climate Change Policy Framework* as it would contribute 50 MW of renewable energy to the National Electricity Market, and increase the diversity of supply. The Department considers that the project would result in benefits for NSW and the local community, and is therefore in the public interest.



Figure 1: Regional Context

1. BACKGROUND

Vast Solar (the Applicant) proposes to develop a new 50 MW photovoltaic (PV) solar farm at Jemalong in the Forbes Shire Council local government area. The project site is currently the subject of a separate State Significant Development application by the same Applicant for a concentrated solar thermal (CSP) plant (refer to SSD 6588). The Applicant intends to amend that application to relocate the proposed CSP plant to an adjacent site.

1.1 Project setting

The project would be located on a 679 hectare (ha) site within Jemalong Station, approximately 26 kilometres (km) south west of Forbes (see **Figure 1**). There is an existing 6 MW CSP pilot plant on an adjacent lot within the Jemalong Station, located approximately 2 km north of the proposed PV solar farm.

The project site is relatively flat, consists mostly of cleared agricultural land, and is on land zoned RU1 – Primary Production. It is located within the floodplain of the Lachlan River and is adjacent to the Thurumbidgee Lagoon, which is an ephemeral waterbody (see **Figure 2**).

The proposed development footprint within the site is 165 ha and was designed to minimise impacts on flood prone land, remnant native vegetation, hollow-bearing trees and Aboriginal heritage items. There are two 'non-associated' residences located within 2 km of the project site, with the closest residence located approximately 1.7 km to the north of the proposed solar panels.

1.2 Project description

The project involves the construction of a new solar farm with a generating capacity of 50 MW. It also involves any upgrading or decommissioning of infrastructure and equipment in the future. While the capacity of the project may increase over time as technology improves, the footprint of the development would not increase.

The key components of the project are summarised in **Table 1**, depicted in **Figure 2** and described in detail in the Environmental Impact Statement (EIS) for the project (see **Appendix B**).

Table 1: Major components of the project

Aspect	Description
<i>Project summary</i>	<p>The project includes:</p> <ul style="list-style-type: none"> approximately 170,000 solar panels (up to 3.5 metres (m) in height) and approximately 22 inverter stations (up to 3 m in height); a new 66 kilovolt (kV) grid connection substation and a new 66 kV transmission line approximately 5 km in length to the existing Essential Energy West Jemalong Substation; internal access tracks, staff amenities, operations and maintenance buildings, car parking, laydown areas, security fencing and underground cabling; and subdivision for the project site (165 ha) and the substation (0.5 ha).
<i>Project area</i>	679 ha (including a 165 ha development footprint)
<i>Access route</i>	Access to the site would be via Lachlan Valley Way, Wilbertroy Lane and Naroo Lane.
<i>Site entry and road upgrades</i>	<p>The site would be accessed utilising an existing access point at the end of Naroo Lane, approximately 1.2 km west of the intersection with Wilbertroy Lane. Key road works for the project would involve:</p> <ul style="list-style-type: none"> an upgrade to the intersection of Lachlan Valley Way and Wilbertroy Lane; an upgrade to the intersection of Wilbertroy Lane and Naroo Lane; and upgrades to Wilbertroy Lane and Naroo Lane.
<i>Operational life</i>	<ul style="list-style-type: none"> The expected operational life of the initial infrastructure is approximately 30 years. However, the project may involve infrastructure upgrades that could extend the operational life. The project also includes decommissioning at the end of the project life, which would involve removing all above ground infrastructure.
<i>Construction traffic and timeframe</i>	<ul style="list-style-type: none"> The total construction period would last for up to 12 months from the commencement of site establishment works, and include a peak period of 9 months. Construction hours would be limited to Monday to Friday 7 am to 6 pm, and Saturday 8 am to 1 pm.
<i>Hours of operation</i>	<ul style="list-style-type: none"> The project would operate during daylight hours. Daily operations and maintenance by site staff would be undertaken Monday to Friday 7 am to 6 pm and Saturday 8 am to 1 pm.
<i>Employment</i>	Up to 100 full time equivalent construction jobs and 4 full time equivalent operational jobs.
<i>CIV</i>	\$70.25 million

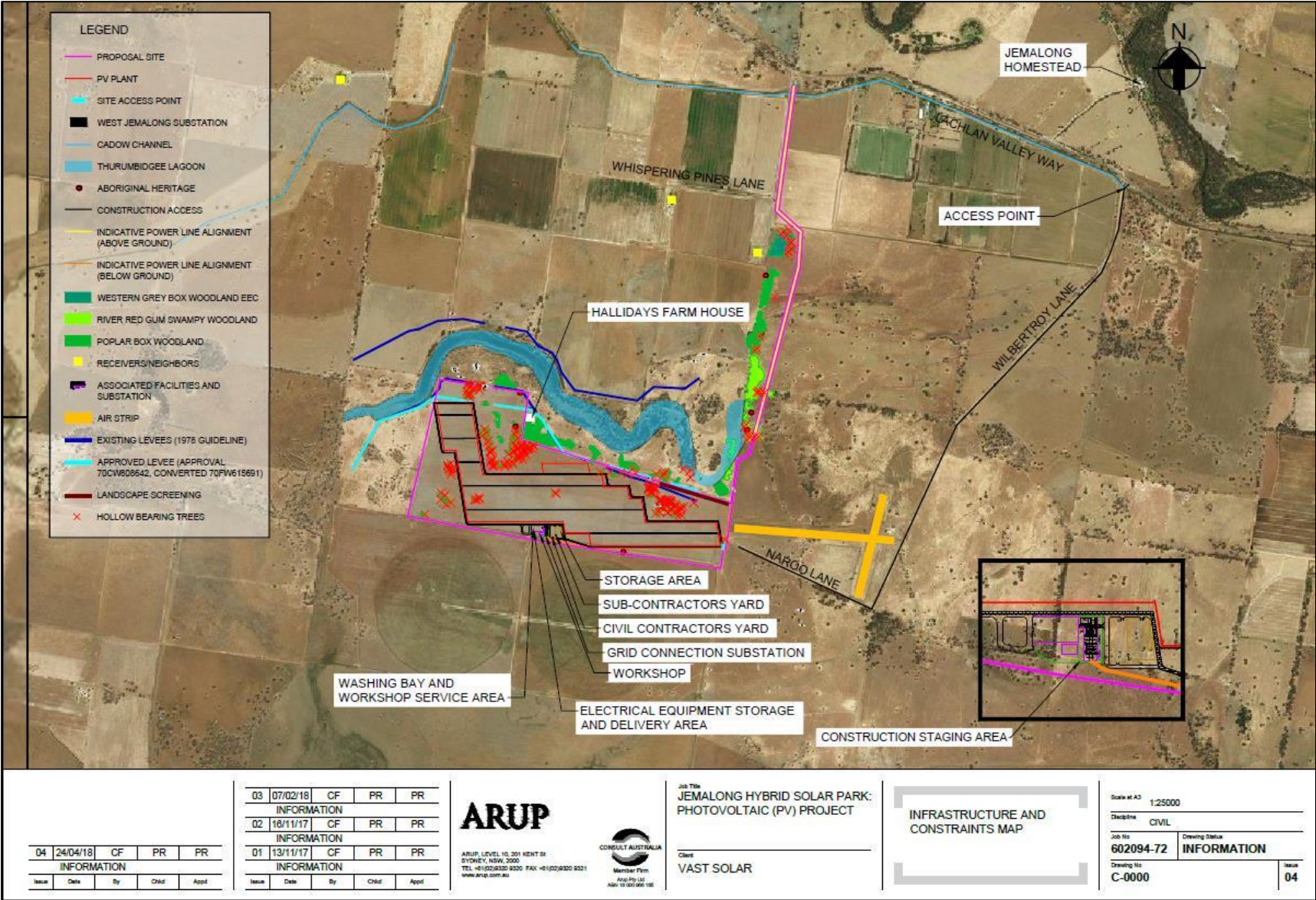


Figure 2: Project Layout

1.3 Strategic context

In 2017, NSW derived approximately 19.6% of its energy from renewable sources. The rest was derived from fossil fuels, including 75.8% from coal and 4.6% 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.

This is highlighted in the *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.

The *United Nations Framework Convention on Climate Change* (UNFCCC) 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.

One of the key initiatives to deliver on this commitment is the Commonwealth Government's *Renewable Energy Target*. Under this target, more than 20% of Australia's electricity would come from renewable energy by 2020. It is estimated that an additional 6,000 MW of new renewable energy capacity will need to be built by 2020 to achieve the *Renewable Energy Target*.

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 Government also has a *Renewable Energy Action Plan*, which promotes the development of renewable energy in NSW.

In March 2018, the NSW Government identified 10 potential Energy Zones across three broad regional areas, including the New England, Central West and South West regions of NSW. The identified energy zones are aimed at encouraging "*investment in new electricity infrastructure and unlocking additional generation capacity in order to ensure secure and reliable energy in NSW.*" The project would be located within the proposed Central West Energy Zone.

NSW is currently leading Australia in large-scale solar, with five major operational projects, including the largest solar farm in Australia.

With a capacity of 50 MW, the project would generate enough power for up to 18,500 homes, and is therefore consistent with both the Commonwealth's *Renewable Energy Target* and NSW's *Renewable Energy Action Plan*.

2. STATUTORY CONTEXT

2.1 State Significant Development

The project is classified as SSD under Section 4.38 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 (CIV) of more than \$30 million.

Consequently, the Minister for Planning is the consent authority for the development. However, under the Minister's delegation of 11 October 2017, the Executive Director, Resource Assessments and Business Systems, may determine the development application as there were fewer than 25 objections and a political donations disclosure statement has not been made.

2.2 Environmental planning instruments

The provisions of the *Forbes Local Environment Plan (LEP) 2013* are discussed in **section 4.1** of this report.

Under the *SEPP (Infrastructure) 2007* (Infrastructure SEPP), the project is permissible as it involves development for the purposes of electricity generating works. In accordance with the Infrastructure SEPP, the Department has given written notice of the project to Essential Energy as the electricity supply authority for the area. Essential Energy provided landowner's consent for the development.

The Department has considered the provisions of *SEPP No. 44 – Koala Habitat Protection*. There are patches of woodland on and around the site which contain trees that would be considered suitable habitat for koala. However, the fragmented nature of these patches of potential habitat suggests the site is unlikely to provide core koala habitat and there are no records of koalas within 50 km of the site. As such, the Department is satisfied that the project is consistent with the aims, objectives and requirements of SEPP 44.

The Department has also considered the provisions of *SEPP No. 55 – Remediation of Land*. A preliminary assessment of the land found no evidence of contamination within the project site. The Department is satisfied that the risk that contamination is present on the project site is low, and as such, the site is suitable for the development.

2.3 Integrated and other approvals

Under Section 4.41 of the EP&A Act, a number of other approvals are integrated into the SSD approval process, and consequently are not required to be separately obtained for the proposal. 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 (e.g. approvals for the intersection works under the *Roads Act 1993*).

The Department has consulted with the relevant government authorities responsible for the integrated and other approvals, 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 A**).

3. CONSULTATION

The Department publicly exhibited the EIS from 21 November 2017 until 21 December 2017 (30 days), advertised the exhibition in the *Forbes Advocate*, *Parkes Champion Post* and *Condobolin Argus*, and received eleven submissions, including nine from government agencies and two from members of the public.

The Department inspected the site on both 3 March and 9 May 2016.

A summary of the key issues raised in submissions is provided below. A full copy of the submissions is provided in **Appendix C**.

The Applicant provided a detailed response to all matters raised in submissions (see **Appendix D**).

3.1 Agency submissions

Roads and Maritime Services (RMS) initially advised that it had insufficient information to enable its assessment of construction traffic impacts. Following receipt of additional information, RMS advised that it has no objection to the project, subject to recommended conditions. These recommendations have been incorporated into the recommended conditions of consent.

Forbes Shire Council (Council) initially raised concerns on aspects of the project including traffic impacts, flooding, workers accommodation, and waste management. These matters have been addressed by the Applicant in the Response to Submissions and are discussed in **sections 4.3** and **4.4** of this report.

The **Office of Environment and Heritage (OEH)** recommended that biodiversity impacts should be offset in less than the two years proposed by the Applicant, given the small area of impact. The Department has included a condition of consent requiring offsets to be achieved within 1 year.

The **Department of Industry (DoI)** requested additional information about the proposed water use and the potential impacts of the solar farm infrastructure on flood flows. This was provided by the Applicant, and DoI advised it was satisfied with the additional information.

The **Division of Resources and Geoscience** noted that the site is not subject to any mineral, petroleum or coal titles.

Fire & Rescue NSW and the **Rural Fire Service (RFS)** recommended bushfire conditions, which have been incorporated into the recommended conditions of consent.

The **Civil Aviation Safety Authority (CASA)** and **Airservices Australia** advised that they have no objection to the project.

3.2 Public submissions

The two public submissions received were from members of the public that do not reside in the project's locality. Both submissions objected to the project and raised general concerns regarding the broader impacts of large-scale solar farms (and other renewable energy projects) on energy security and pricing. These matters are addressed in **section 4.4** of this report.

4. ASSESSMENT

The Department has undertaken a comprehensive assessment of the merits of the project. This report provides a detailed discussion of the three key issues below, including the compatibility of the proposed land use, traffic and biodiversity impacts.

The Department has also considered the full range of potential impacts associated with the project and has included a summary of this consideration in **Table 2**.

4.1 Compatibility of proposed land use

Provisions of the Forbes LEP

The site is located wholly within the RU1 Primary Production zone under the Forbes LEP.

The RU1 zone identifies land uses that are permitted with and without consent. As a solar farm is not expressly listed as permitted with or without consent, it is a prohibited land use under a strict reading of the LEP zoning table.

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

Firstly, the Forbes LEP expressly references the Infrastructure SEPP and acknowledges that electricity generating works and solar energy systems are regulated by the Infrastructure SEPP, rather than the LEP. As described above, a solar farm is permitted with consent under the Infrastructure SEPP.

Secondly, the project is consistent with the objectives of the RU1 zone, particularly in relation to:

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

The proposed development would have limited impacts on the agricultural productivity of the land; the site could be easily returned to agricultural land in the future once the project is decommissioned, and managed grazing could occur during operations. Further, Council supports the development of the project subject to the implementation of appropriate environmental mitigation measures.

Thirdly, while the Forbes Shire local government area (LGA) is still underpinned by irrigated and dry land agriculture, particularly grains and livestock, the region has diversified with forestry, fishing, dairy operations, viticulture and horticulture, manufacturing industries and an expanding tourism market. The proposed solar farm would encourage a new element of agricultural enterprise and contribute to a more diverse and thriving economy, which is part of the vision of the *Forbes Shire Community Strategic Plan 2017-2027*.

Potential impacts on agricultural land

The project site is located in the Central Tablelands of NSW where agriculture is the major economic driver. While the site covers an area of 679 ha within the Jemalong Station that is currently used for livestock grazing, the development footprint of the proposed solar farm is 165 ha. The agricultural output from the site would be reduced by the development of the project, however the land area to be taken up by the project represents a very small fraction of the agricultural land of the region.

Approximately 679,000 ha of land within the Forbes Shire LGA is used for agriculture and the project site is located on the Jemalong Station, a 17,478 ha cattle farm. The loss of 165 ha of grazing land from the project would result in a negligible reduction in the overall productivity of Jemalong Station and the broader region.

Furthermore, the inherent agricultural capability of the land would not be affected by the project due to the relatively low scale of the development. Grazing is proposed to be used to control ground cover between panels during operations and the land would be returned to agricultural use following decommissioning.

Additionally, neither DoI nor Council has raised concerns that the operation of the project would compromise the long-term use of the land for agricultural purposes.

Nevertheless, the Department must balance the potential loss of a small area of grazing land 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; and
- the economic benefits of solar energy in an area with good solar resources and capacity in the existing electricity infrastructure.

Based on these considerations, the Department is satisfied that the proposed solar farm represents an effective and compatible use of the land within the region. In addition, the Department has recommended suitable conditions to maintain the productivity of the agricultural land during construction and operation and to fully reinstate the agricultural capacity of the land following decommissioning of the project.

4.2 Traffic and transport

The project site would be accessed via an existing access point at the end of Naroo Lane, via Wilbertroy Lane and Lachlan Valley Way. There would be minimal traffic to and from the project site during the operation of the project (i.e. 3 to 12 light vehicles per day). Consequently, the only material traffic impacts would occur during construction, decommissioning and major infrastructure upgrades.

The construction period is expected to last up to 12 months, including a peak period of approximately 9 months. During the construction peak, there would be up to 19 heavy vehicle movements per day and up to 132 construction personnel commuting to the site on a daily basis. Additionally, up to 20 over-dimensional vehicle movements would be required for the delivery of substation infrastructure.

Project traffic during decommissioning and major infrastructure upgrades would be similar to construction traffic levels, however for shorter durations.

Council initially raised concerns about construction-related traffic impacts on the condition and safety of Wilbertroy and Naroo Lanes, and recommended that the roads be widened to a minimum of 7 m and sealed.

Wilbertroy Lane and Naroo Lane are both unsealed, narrow formation roads located within flood prone land, and the Department agrees that the roads should be upgraded and widened to allow two-way vehicle movement. However, the distance from Lachlan Valley Way to the site entry along Wilbertroy Lane and Naroo Lane is approximately 5 km, and the Department considers that sealing this length of road would impose an unreasonable cost on the Applicant, given the impact would only occur during the construction period.

Additionally, in response to Council's concerns, the Applicant has committed to using shuttle buses and car pooling to transport 80% of construction personnel from nearby towns (i.e. Parkes, Forbes and Condobolin), which would reduce light vehicle movements to approximately 35 per day.

As such, the Department has included conditions of consent requiring the Applicant to upgrade both Wilbertroy Lane and Naroo Lane to a minimum width of 7 m with an all-weather gravel surface seal prior to construction, and to repair any damage to the roads following construction.

The Department has also included conditions requiring the Applicant to:

- upgrade the intersection of Lachlan Valley Way and Wilbertroy Lane with a basic right turn (BAR) and basic left turn (BAL) treatment, including sealing Wilbertroy Lane for 50 m on its approach to the intersection, to the satisfaction of RMS;
- upgrade the intersection of Wilbertroy and Naroo Lanes in accordance with Council requirements; and
- prepare a Traffic Management Plan in consultation with RMS and Council, including a flood response plan and details of the measures that would be implemented to address road safety.

Subject to the recommended conditions, the Department, RMS and Council are satisfied that the project would not result in significant impacts on road network capacity, efficiency or safety.

4.3 Other issues

The Department's consideration of other issues is summarised in **Table 2**.

Table 2: Other issues

Issue	Consideration	Recommendations
Energy Security	<ul style="list-style-type: none"> Two submissions received raised concerns that the project, or a combination of the project and a range of other renewable energy projects, could have an adverse impact on energy security in NSW, and increase electricity prices. In particular, these submissions contend that renewable energy projects may force the closure of baseload energy suppliers (e.g. coal and gas), leading to higher energy prices as the remaining baseload suppliers may increase prices at times renewable energy cannot be generated. The Department acknowledges and understands the broad concerns raised in these submissions, however any evaluation of these issues must have regard to the broader strategic context. Firstly, NSW forms part of the National Electricity Market (NEM). The NEM is complex and is governed by a robust statutory framework at both the Commonwealth and State level which covers the regulation of electricity generation, distribution and pricing. Secondly, there is strong policy support at both the Commonwealth and State level for the increased development of renewable energy projects to ensure that a greater proportion of electricity is generated by renewable sources, and to reduce greenhouse gas emissions associated with any electricity generation. Thirdly, the Department notes that long-term energy policies are being informed by recommendations in the <i>Independent Review into the Future Security of the National Electricity Market</i>, which provides a blueprint for ensuring Australia's energy systems remain affordable, reliable, sustainable and secure. In the Department's view, the likelihood of the project having an adverse impact on energy security or electricity prices in NSW is extremely low, given that it would only add 50 MW of capacity to the NEM, which at this stage has a total generation capacity of over 54,000 MW. Further, any incremental or cumulative impacts associated with the potential intermittency of renewable energy projects could be mitigated through the operation of the NEM. 	<ul style="list-style-type: none"> No specific conditions required.
Biodiversity	<ul style="list-style-type: none"> The project site is mostly cleared and relatively flat agricultural land with a long history of cropping. However, there are patches of remnant vegetation remaining on site and 205 hollow bearing trees located within or very close to the site. Three native vegetation communities exist on the site: Western Grey Box Woodland, Poplar Box Woodland and River Red Gum Swampy Woodland Wetland. The Western Grey Box Woodland is listed as an Endangered Ecological Community (EEC) under the <i>Biodiversity Conservation Act 2016</i> (BC Act). The project has been designed to avoid impacts to Western Grey Box Woodland EEC. However, 0.84 ha of native vegetation would be removed, including 0.21 ha of the Poplar Box Woodland, 0.63 ha of the River Red Gum Swampy Woodland Wetland and ten hollow bearing trees. Under the transitional arrangements of the BC Act, offsets for this project are to be assessed under the <i>NSW Biodiversity Offset Policy for Major Projects</i>. The Applicant has calculated that the disturbance of native vegetation would generate 8 ecosystem offset credits and OEH is satisfied that this was correctly calculated. The Department considers that the project has been designed to avoid impacts to EECs and minimise impacts on native vegetation and hollow-bearing trees. 	<ul style="list-style-type: none"> Retire the required biodiversity offset credits in accordance with the <i>NSW Biodiversity Offset Policy for Major Projects</i> within one year of the commencement of construction. Prepare a Biodiversity Management Plan prior to commencement of construction.

Issue	Consideration	Recommendations
Soil and Water	<ul style="list-style-type: none"> The site is located adjacent to Flood Network Zones A and B under the <i>Lachlan River: Jemalong Gap to Condobolin Floodplain Management Plan</i>. The Applicant has undertaken a flood impact assessment and the project has been designed to largely avoid flood-prone land. However, a 29 ha area of proposed solar panels would be covered by up to 0.5 m of water in a 1 in 25 year flood. The solar panels would be installed to a height of 3 to 3.5 m, which is well above the 1 in 25 year flood height. No infrastructure other than solar panels would be located on the flood prone land. The flood impact assessment concluded that the design and location of the proposed solar infrastructure would have no impact on existing flood levels or flows, and that the solar panels are designed to be secure so they would not be washed away in a flood and cause a hazard. The Department is satisfied that any potential erosion and sedimentation risks associated with the project can be effectively managed using best practice construction techniques. The project would also require around 3.5 megalitres (ML) of water during construction. The Applicant has an agreement with the owner of the property to supply this water from existing water entitlements. 	<ul style="list-style-type: none"> Ensure all infrastructure on flood affected land complies with the requirements of the <i>Lachlan River: Jemalong Gap to Condobolin Floodplain Management Plan</i>. Undertake activities in accordance with OEH's <i>Managing Urban Stormwater: Soils and Construction</i> (Landcom, 2004) manual and <i>Guidelines for Controlled Activities on Waterfront Land</i> (DPI Water). Prohibit water pollution.
Heritage	<ul style="list-style-type: none"> An archaeological field survey identified six low density stone Aboriginal heritage sites (i.e. Jemalong Locales 1 to 6) in the vicinity of the project site (see Figure 2). The sites were assessed as having low scientific significance. Nevertheless, the project has been designed to avoid any impacts to these sites. Generally, the site is considered to have low archaeological potential, but some areas within 200 m of the Thurumbidgee Lagoon have greater archaeological potential. As a result, the transmission line has been re-aligned eastward to avoid the lagoon area. OEH did not raise any concerns about Aboriginal Heritage. 	<ul style="list-style-type: none"> Cease works and notify the NSW Police and OEH if human remains are identified over the life of the project. Prepare a Chance Finds Protocol. Protect all heritage items on site from any impact.
Visual	<ul style="list-style-type: none"> The solar panels would be a relatively low-lying development (3 to 3.5 m high). Existing vegetation would provide screening of the solar panels from the nearby residences. Any visual impacts would further be mitigated by the distance between these residences and the solar farm (>1.7 km). Notwithstanding, the Applicant is proposing vegetation screening along a portion of the northern boundary of the project site to further reduce visual impacts on nearby residences (see Figure 2). While the residences would have views of the transmission line, the transmission line would occupy a relatively small proportion of the view, and is not expected to result in any significant visual impacts. The Applicant has already planted vegetation adjacent to a section of the transmission line (associated with the CSP pilot plant), which would provide some additional visual screening of the transmission line from the nearby residences. CASA has advised that no impacts are expected for pilots using the nearby air strip or Forbes Aerodrome. 	<ul style="list-style-type: none"> Establish and maintain a vegetation buffer to screen nearby residences. Prepare and implement a Landscaping Plan. Ensure that external lighting is minimised and complies with the relevant Australian Standards. Prohibit any signage or advertising on the development, unless for safety purposes.

Issue	Consideration	Recommendations
Hazards	<ul style="list-style-type: none"> The project would comply with the National Health and Medical Research Council standards for electro-magnetic fields. The fire risks can be suitably controlled through the implementation of standard fire management procedures. The Applicant has committed to maintaining an Asset Protection Zone around the solar panels and maintaining appropriate vegetation clearances around the transmission line in accordance with the <i>Guideline for Managing Vegetation near Power Lines</i>. RFS recommended a Fire Management Plan and Fire & Rescue NSW requested a detailed Emergency Response Plan be prepared for the development outlining how risk would be managed. The Applicant has committed to preparing these plans. 	<ul style="list-style-type: none"> Ensure that the development complies with asset protection requirements in the RFS's <i>Planning for Bushfire Protection 2006</i>. Prepare a Fire Management and Emergency Response Plan in consultation with RFS and Fire & Rescue NSW.
Noise	<ul style="list-style-type: none"> The proposed construction and decommissioning activities are predicted to comply with the noise management levels in the <i>Interim Construction Noise Guideline (ICNG)</i>. The Department considers construction noise can be minimised by implementing the noise mitigation work practices set out in Tables 5 and 8 of the ICNG. There would be negligible noise during operation. 	<ul style="list-style-type: none"> Minimise the noise in accordance with the best practice ICNG requirements. Restrict construction hours to Monday to Friday 7 am-6 pm, and Saturday 8 am-1 pm.
Workforce Accommodation	<ul style="list-style-type: none"> Up to 132 personnel would be required during the construction period. The workforce would be sourced from the local and wider region including the surrounding local government areas. An assessment of accommodation availability in Forbes, Parkes and Condobolin indicated there is likely to be sufficient accommodation available to house workers during the construction period. 	<ul style="list-style-type: none"> No specific conditions required.
Subdivision	<ul style="list-style-type: none"> The Applicant intends to lease the project site from the current landowner and is seeking to subdivide the existing lot to facilitate the lease. The proposed subdivision would result in a 165 ha lot that would accommodate the solar panels, a 0.5 ha lot that would accommodate the substation and a 513 ha residue lot. The 0.5 ha lot is prohibited under a strict reading of the LEP as it would not meet the minimum lot size for RU1 land (100 ha). 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. In this case, the Department is satisfied that the subdivision should be approved as part of the project as: <ul style="list-style-type: none"> it would not result in the addition of any dwelling entitlements on the subdivided lots; and it is consistent with key objectives of the RU1 zone as it would encourage diversity in primary industry enterprises and minimise conflict between land uses. 	<ul style="list-style-type: none"> Subdivide the proposed lots providing information is provided in accordance with requirements of section 157 of the <i>Environmental Planning and Assessment Regulation 2000</i>.

5. CONCLUSION

The Department has assessed the development application, EIS, submissions, Response to Submissions and additional information provided by the Applicant and relevant government agencies. The Department has also considered the objectives and the relevant considerations of Section 4.15 of the EP&A Act.

The Department considers the site to be suitable for a solar farm as it has good solar resources and there is available capacity on the existing electricity network. In addition, the site is relatively flat and has been largely cleared for agricultural purposes. There are very few landowners in close proximity to the proposed solar farm and none of the nearby landowners have objected to the project.

The project has been well-designed to largely avoid areas with conservation values or hazards, particularly in relation to native vegetation, hollow-bearing trees, Aboriginal heritage items and flood prone land. Any residual impacts would be minor and can be managed through the recommended conditions of consent.

The project would not result in a significant reduction in the overall agricultural productivity of the region. Additionally, the site could be easily returned to agricultural uses after the project is decommissioned and the inherent agricultural capability of the land would not be affected.

Importantly, the project would assist in transitioning the electricity sector from coal and gas-fired power stations to low emissions sources. It would generate up to approximately 50 MW of clean electricity annually, which is enough to power up to 18,500 homes and save up to 105,000 tonnes of greenhouse gas emissions per year. It is therefore consistent with the goals of the Commonwealth's *Renewable Energy Target* and NSW's *Climate Change Policy Framework*.

The Department is satisfied that the project achieves a reasonable balance between maximising the efficiency of the solar resource development and minimising the potential impacts on surrounding land users 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 and capital investment.

On balance, the Department believes that the project is in the public interest and should be approved, subject to the recommended conditions of consent.

6. RECOMMENDATION

In accordance with section 4.38 of the EP&A Act it is recommended that the Executive Director, Resource Assessments and Business Systems, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report;
- **approves** the State Significant Development application for the Jemalong Solar Project (SSD 8803); and
- **signs** the attached development consent and recommended conditions of consent (**Appendix A**).

Recommended by:

 14/5/18

Diana Mitchell
Senior Planning Officer
Resource and Energy Assessments

Recommended by:

 14/5/18

Clay Preshaw
Director
Resource and Energy Assessments

7. DECISION

The recommendation is: Approved / Not approved by:

 18/5/18

David Kitto
Executive Director
Resource Assessments and Business Systems
as delegate of the Minister for Planning

APPENDIX A:

RECOMMENDED CONDITIONS OF CONSENT

See website at http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8803

APPENDIX B:

ENVIRONMENTAL IMPACT STATEMENT

See website at http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8803

APPENDIX C:

SUBMISSIONS

See website at http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8803

APPENDIX D: RESPONSE TO SUBMISSIONS

See website at http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8803