

## STATE SIGNIFICANT DEVELOPMENT ASSESSMENT *Sandigo Solar Project (SSD 8872)*

### EXECUTIVE SUMMARY

ESCO Pacific proposes to develop a new 100 megawatt solar farm and 40 megawatt-hour battery storage facility near Narrandera in southwest NSW.

The Department publicly exhibited the development application and received submissions from seven Government agencies and one member of the general public. None of the government agencies objected to the project, however the single public submission was an objection. The key issues considered in the Department's assessment are potential impacts to agricultural land and traffic.

The Department considers that the project would not significantly reduce the overall agricultural productivity of the region and is satisfied that the site could be returned to agricultural uses in the future. In relation to traffic, the project site is located adjacent to a major state highway and would result in minimal traffic disturbance to local road users. Roads and Maritime Services has confirmed that road safety can be managed through road upgrades and a comprehensive Traffic Management Plan.

In summary, the Department considers the site to be suitable for the project 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 100 megawatts of renewable energy to the National Electricity Market, including 40 megawatt-hours of dispatchable generation. 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.

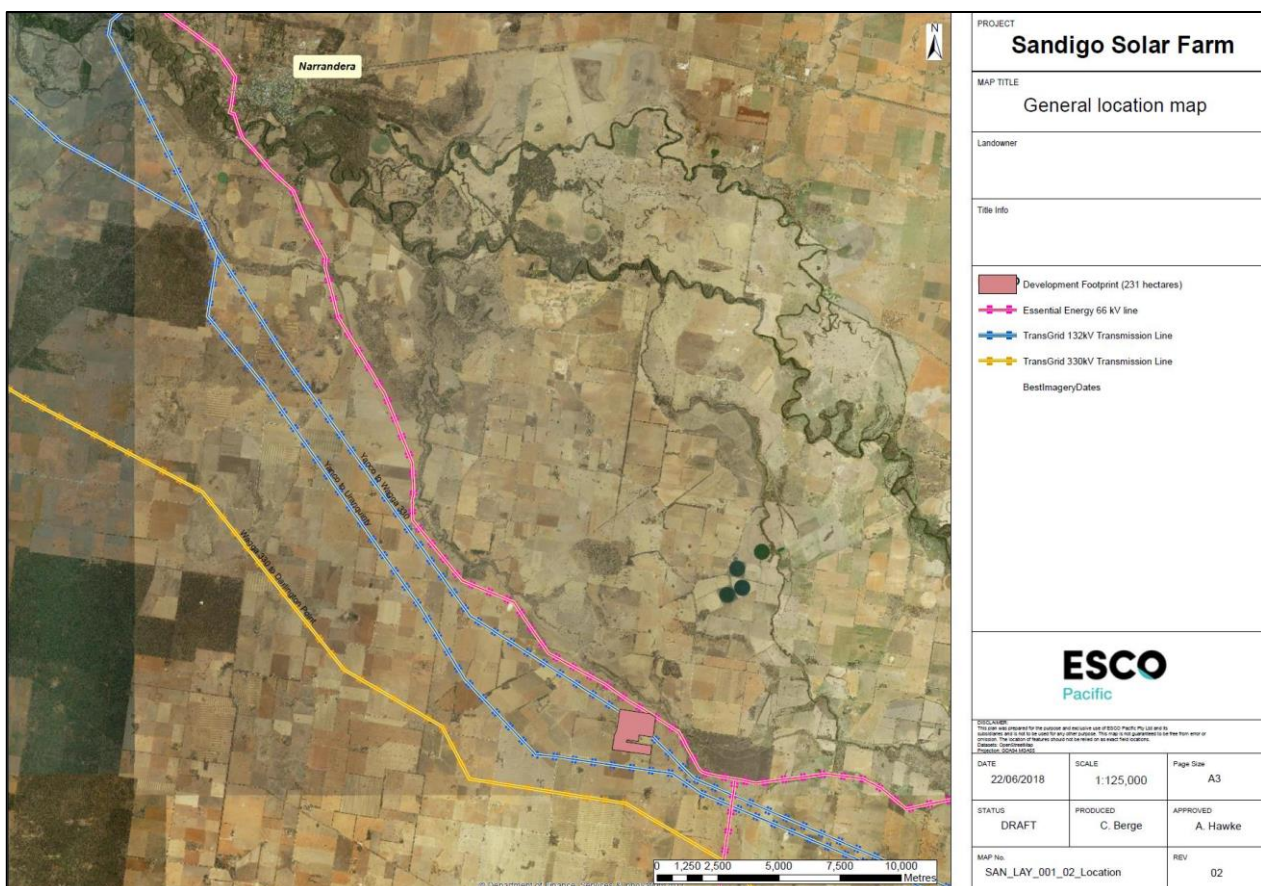


Figure 1: Regional Context

# 1. BACKGROUND

ESCO Pacific (the Applicant) proposes to develop a new 100 megawatt (MW) solar farm and 40 MW-hour (MWh) battery storage facility (the project) approximately 28 kilometres (km) southeast of Narrandera and 55 km northwest of Wagga Wagga, in the Narrandera Shire local government area (see **Figure 1**).

## 1.1 Project setting

The project is located on a 420 hectare (ha) site bounded by Kywong Road to the south, Mitchells Road to the west and the Sturt Highway to the north.

The site is relatively flat and has mostly been cleared for agricultural purposes, including grazing and dryland cropping of wheat, barley and canola. The site is located 13 km southwest of the Murrumbidgee River, within the NSW Murray-Darling basin.

The proposed development footprint within the site is 231 ha and has been designed to largely avoid site constraints including high value remnant vegetation. There is one rural residence located within 1 km of the site which is owned by the host landowner, and a further two residences located within 2 km of the site, with the nearest located approximately 1.4 km northeast of the site (see **Figure 2**).

## 1.2 Project description

The project involves the construction of a new solar farm with a generating capacity of 100 MW and a battery storage facility with capacity of 40 MWh. 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"> <li>approximately 310,000 solar panels and 30 inverter stations (up to 4 m in height);</li> <li>a lithium-ion battery storage facility, with up to 20 housing containers (up to 4 m in height);</li> <li>an on-site 132 kV substation and connection to TransGrid's 132 kV transmission line which transects the site;</li> <li>internal access tracks, staff amenities, temporary laydown areas, maintenance and equipment buildings, site offices, on-site car parking and security fencing; and</li> <li>subdivision for the project site (249 ha) and the switchyard (0.03 ha).</li> </ul>
<i>Project area</i>	420 ha (with a 231 ha development footprint)
<i>Access route</i>	Access to the site would be via Mitchells Road, Kywong Road, Boree Creek Road and the Sturt Highway.
<i>Site entry and road upgrades</i>	<p>The site would be accessed utilising a new access point on Mitchells Road. Key road works include:</p> <ul style="list-style-type: none"> <li>upgrading the intersection of the Sturt Highway and Boree Creek Road;</li> <li>upgrading Boree Creek Road a minimum of 50 m from its intersection with the Sturt Highway to a standard that allows two-way heavy vehicle movements;</li> <li>upgrading the intersections of Kywong Road and Boree Creek Road, and Kywong Road and Mitchells Road; and</li> <li>upgrading Mitchells Road between Kywong Road and the site access point.</li> </ul>
<i>Operational life</i>	<ul style="list-style-type: none"> <li>The expected operational life of the infrastructure is approximately 40 years. However, the project may involve infrastructure upgrades that could extend the operational life.</li> <li>The project also includes decommissioning at the end of the project life, which would involve removing all above ground infrastructure.</li> </ul>
<i>Construction traffic and timeframe</i>	<ul style="list-style-type: none"> <li>The construction period would last for up to 8 months from the commencement of site establishment works, and include a peak period of 3 months.</li> <li>Construction hours would be limited to Monday to Friday 7 am to 6 pm, and Saturday 8 am to 1 pm.</li> </ul>
<i>Hours of operation</i>	<ul style="list-style-type: none"> <li>The project would operate during daylight hours.</li> <li>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.</li> </ul>
<i>Employment</i>	Up to 150 full time equivalent construction jobs, and 4 full time equivalent and 8 part time equivalent operational jobs.
<i>Capital investment value</i>	<ul style="list-style-type: none"> <li>\$120 million</li> </ul>



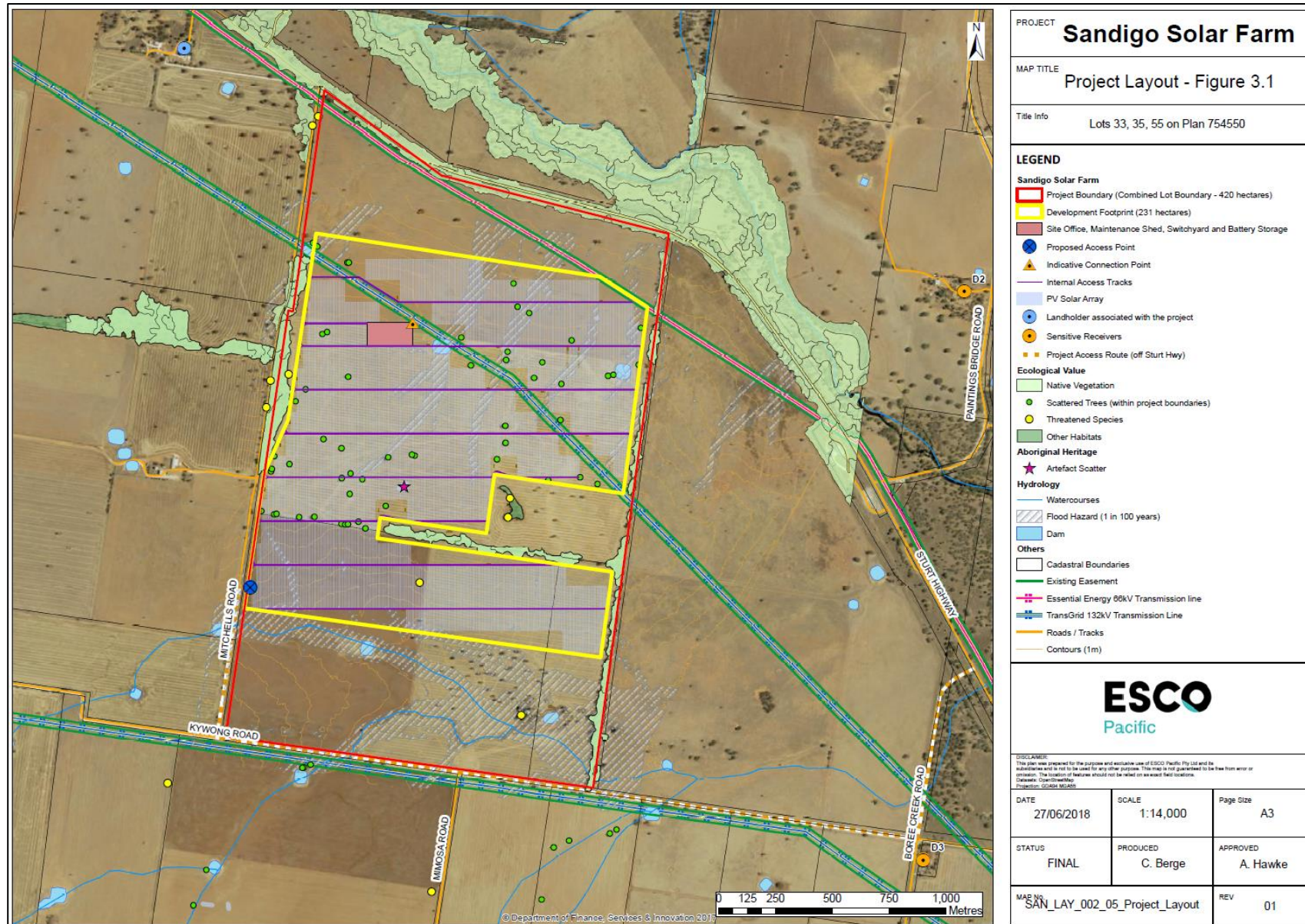


Figure 2: Project Layout

### 1.3 Strategic context

In 2017, NSW derived approximately 15.8% of its energy from renewable sources. The rest was derived from fossil fuels, including 79.3% from coal and 4.8% 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 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.

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* (RET). Under this target, more than 20% of Australia's electricity would come from renewable energy by 2020. It is estimated that an additional 5,400 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 South 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 100 MW, the project would generate enough electricity to power up to 37,000 homes, and is therefore consistent with both the Commonwealth's *Renewable Energy Target* and NSW's *Renewable Energy Action Plan*.

## 2. STATUTORY CONTEXT

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### 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 less than 25 objections and a political donations disclosure statement has not been made.

### 2.2 Environmental planning instruments

The site is located wholly within land zoned RU1 Primary Production under the *Narrandera Local Environment Plan (LEP) 2013*, the provisions of which are discussed in **section 4.1**.

Under the *SEPP (Infrastructure) 2007* (Infrastructure SEPP) electricity generating works are permissible on any land in a prescribed rural, industrial or special use zone. As such, the project is permissible under the Infrastructure SEPP as it is located wholly within land zoned RU1, which is a prescribed rural zone.

In accordance with the Infrastructure SEPP, the Department has given written notice of the project to TransGrid as the electricity supply authority for the area.

In accordance with *SEPP No. 33 – Hazardous and Offensive Development (SEPP No. 33)* the Applicant completed a Preliminary Hazard Analysis for the battery storage facility. The Department's consideration of this analysis is discussed in **section 4.3**.

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.

### 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

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The Department publicly exhibited the EIS from 9 March 2018 until 8 April 2018 (30 days), advertised the exhibition in the Narrandera Argus, and received submissions from seven Government agencies and one member of the general public. A summary of the key issues raised in submissions is provided below. A full copy of the submissions is provided in **Appendix C**.

The Department inspected the site with a representative from the Office of Environment and Heritage (OEH) on 15 March 2018 and spoke to the resident who lodged an objection on 27 June 2018.

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

### 3.1 Agency advice

**Narrandera Shire Council** did not object to the proposal, but raised minor concerns regarding traffic, workforce accommodation, waste management, visual impacts, and recommended the site continue to be grazed during operation. These matters were addressed by the Applicant in the Response to Submissions and are discussed in **section 4**.

**Roads and Maritime Services (RMS)** did not object to the proposal, provided that the Applicant develop a Traffic Management Plan and upgrade the intersection at the Sturt Highway and Boree Creek Road. These recommendations are discussed in **section 4.2** and have been incorporated into the conditions of consent.

The **Office of Environment and Heritage (OEH)** initially raised concerns about aspects of the biodiversity assessment and the management of Aboriginal heritage on site. Following receipt of additional information, OEH advised that it has no objection to the project subject to recommended conditions of consent. These recommendations are discussed in **section 4.4** and have been incorporated into the conditions of consent.

The **Department of Industry - Lands and Water (DoI - L&W)** requested any Crown roads associated with the site are closed and any works on the project site in proximity to watercourses are undertaken in accordance with the *Guidelines for Controlled Activities on Waterfront Land*. These recommendations are discussed in **section 4.4** and have been incorporated into the conditions of consent.

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

The **NSW Rural Fire Service (RFS)** recommended specific operating requirements related to bushfire management, which have been incorporated into the recommended conditions of consent, where appropriate, as discussed in **section 4.4**.

**Fire & Rescue NSW** recommended the Applicant develop a Fire Management and Emergency Response Plan including specific risk avoidance and emergency management measures. These recommendations are discussed in **section 4.4** and have been incorporated into the conditions of consent.

### 3.2 Public submissions

A public submission in objection to the project was received from the landowner of residence D2, located 1.4 km northwest of the site (see **Figure 2**). Key concerns raised in the submission included potential impacts to agricultural land, bushfire management, rehabilitation and decommissioning, and impacts to amenity and local watercourses.

These matters are addressed in **section 4** of this report.

## 4. ASSESSMENT

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The Department has undertaken a comprehensive assessment of the merits of the project. This report provides a detailed discussion of the two key issues, including potential impacts to agricultural land, and traffic and transport.

The Department has also considered the full range of potential impacts associated with the project and has included a summary of the findings relating to these in **section 4.3**.

### 4.1 Compatibility of proposed land use

#### Provisions of the Narrandera LEP

The site is located wholly within the RU1 Primary Production zone under the *Narrandera LEP 2013*.

The RU1 zone includes various land uses that are both permitted with consent 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 Narrandera 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.

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

- encouraging diversity in primary industry enterprises; and
- minimising fragmentation and alienation of resource lands.

The proposed development would not fragment or alienate any resource lands during its operation as it has generally low impacts and it could be easily returned to agricultural land in the future once decommissioned. Further, managed grazing may also occur during the operation of the solar farm. In addition, Council supports the development of the project, subject to the implementation of appropriate environmental mitigation measures.

Additionally, while the Narrandera Shire local government area 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. The proposed solar farm would help Council meet its broader goals around sustainability, and the future economic growth of the region.

Finally, 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.

#### Potential impacts on agricultural land

The project site is located in the Riverina region of southwestern NSW where agriculture, forestry and fishing are the major economic industries. While the site is mapped as having Class 3 land and soil capability and has historically been used for the agricultural purposes of grazing and dryland cropping of wheat, barley and canola, it is not Biophysical Strategic Agricultural Land.

There is currently 311,714 ha of land zoned RU1 Primary Production within the Narrandera Shire local government area. While the agricultural output from the site would be reduced by the development of the solar farm, the land area (i.e. 231 ha) to be taken up by the solar farm represents a very small fraction of the local government area's agricultural output (0.074%).

Furthermore, the inherent agricultural capability of the land would not be affected by the project due to the relatively low disturbance associated with the development. Managed grazing may be used to maintain the ground cover during operations and the land would be returned to agricultural use following decommissioning.

Neither DoI L&W nor Council raised any concerns about the impacts of the project on the long-term use of the land for agricultural purposes.

The potential loss of a small area of agricultural 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.

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 the construction and operation of the project and to reinstate the agricultural capability of the land following the decommissioning of the project.

## 4.2 Traffic and transport

The main transport route to be used for the project during construction and operation is via the Sturt Highway, Boree Creek Road, Kywong Road and Mitchells Road. Site access would be via a new site access point on Mitchells Road, in the southwest of the site (see **Figure 2**).

The main increase in traffic volumes associated with the project would occur during the 8 month construction period, with a peak period of 3 months. During the peak period, there would be up to 30 vehicle movements a day, including approximately 15 heavy vehicles and 15 light vehicles. Additionally, up to 10 over-dimensional vehicle movements would be required for the delivery of the substation infrastructure.

Traffic during operations would be negligible (i.e. up to 5 heavy or light vehicles per day).

While Boree Creek Road is sealed and Kywong Road is unsealed, both roads are designed to carry heavy vehicles and would have adequate capacity to do so given the relatively short-term construction period.

However, Council has advised that the southern section of Mitchells Road, which is unsealed, does not currently have capacity to accommodate construction traffic and would need to be upgraded. Additionally, Council has advised that the intersections of Kywong Road and Mitchells Road, and Kywong Road and Boree Creek Road, would potentially need to be upgraded.

RMS recommended that a Basic Right Turn treatment and Basic Left Turn treatment is constructed at the intersection of the Sturt Highway and Boree Creek Road. In addition, RMS recommended that Boree Creek Road be sealed to provide two travel lanes for a minimum of 50 m from its intersection with the Sturt Highway. The Applicant has also committed to the partial upgrading of Mitchell Road, including sealing if required, from the site access point to Kywong Road.

The Department has also included conditions requiring the Applicant to:

- undertake the relevant road upgrades prior to the commencement of construction;
- ensure the length of vehicles accessing the site does not exceed 26 m (except for over-dimensional vehicles) and the number of vehicles does not exceed the volumes predicted in the EIS;
- undertake pre-construction dilapidation surveys of Boree Creek Road and Kywong Road, to ensure they may be restored to pre-construction condition; and
- prepare and implement a Traffic Management Plan in consultation with RMS and Council.

Subject to the recommended conditions, the Department, RMS and Council are satisfied that the project would not result in significant impacts on the 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
<i>Hazards – battery storage facility</i>	<ul style="list-style-type: none"> <li>In response to increasing demands for dispatchable energy, the Applicant is proposing an on-site battery storage facility, comprising up to 240 lithium-ion battery units containing 16,000 lithium-ion battery cells.</li> <li>The facility is proposed within a separate enclosure with a footprint of up to 0.5 ha, at least 20 m from the maintenance yard facilities in the northwest of the project site (see Figure 2). The facility would include up to 20 purpose-built containers (up to 4 m high) to house the batteries.</li> <li>The Applicant's hazard assessment within the EIS assessed risks associated with development and operation of lithium-ion batteries in accordance with <i>SEPP No. 33</i>.</li> <li>The assessment concluded that the project is not considered potentially hazardous based on the quantities of dangerous goods required. However, the assessment did consider and propose specific control measures to minimise the risks from handling, storage and operation of the batteries.</li> <li>The Applicant would implement a range of hazard prevention and mitigation measures including (but not limited to): <ul style="list-style-type: none"> <li>minimum separation distances of 4 m between containers;</li> <li>a 2 m asset protection zone comprising of gravel (or similar non-combustible ground cover) around the facility;</li> <li>an integrated fire suppression system in each container;</li> <li>automated monitoring of voltage and temperature, including alarm and shutdown response systems; and</li> <li>integrated fire detection and fire suppression systems.</li> </ul> </li> <li>The Department has carefully assessed the proposed battery storage facility in consultation with its internal hazard unit and relevant government agencies. The Department notes that the facility would be located away from residences and environmentally sensitive landscapes.</li> <li>Subject to the recommended conditions, the Department is satisfied that risks associated with the facility would be minimal.</li> </ul>	<ul style="list-style-type: none"> <li>Prepare a Fire Safety Study consistent with the <i>Department's Hazardous Industry Planning Advisor Paper No.2 'Fire Safety Study Guidelines'</i> in consultation with Fire &amp; Rescue NSW, and implement the recommended mitigation measures.</li> </ul>
<i>Biodiversity</i>	<ul style="list-style-type: none"> <li>The project site is mostly cleared agricultural land comprised of a mixture of grazed and cropped paddocks.</li> <li>However, there are patches of remnant vegetation remaining on the site comprised of low condition Western Grey Box woodland, listed as an Endangered Ecological Community (EEC) under the <i>Biodiversity Conservation Act 2016</i> (BC Act).</li> <li>While the project has been designed to avoid most of this remnant vegetation, it would require 1.63 ha of EEC to be cleared, including 15 scattered hollow-bearing paddock trees.</li> <li>The Applicant has calculated the offset requirements in accordance with the <i>Biodiversity Assessment Method</i>. The removal of 1.63 ha of Western Grey Box woodland would require 41.25 ecosystem credits to be retired.</li> <li>The Applicant has committed to achieving this via a biodiversity stewardship agreement and has identified suitable sites within the region.</li> <li>Targeted surveys observed three threatened bird species within the project site and surrounding areas, including the Grey-crowned Babbler, White-fronted Chat and Superb Parrot.</li> <li>These species nest in trees and hollows, and as such, the removal of the 15 scattered hollow-bearing paddock trees could potentially impact their breeding habitat.</li> <li>Consequently, OEH has recommended that the Applicant avoid clearing any hollow-bearing trees during key breeding periods, from late winter to spring.</li> <li>Subject to the recommended conditions, OEH and the Department are satisfied that the project would not have significant impacts to biodiversity values.</li> </ul>	<ul style="list-style-type: none"> <li>Retire required offset credits in accordance with the <i>NSW Biodiversity Offset Policy for Major Projects</i> within two years of the commencement of construction.</li> <li>Prepare Biodiversity Management plan in consultation with OEH.</li> <li>Avoid clearing hollow-bearing trees during key breeding periods, from late winter to spring.</li> </ul>



Issue	Consideration	Recommendations
Heritage	<ul style="list-style-type: none"> <li>Site surveys identified three Aboriginal heritage items within the project site, including one artefact scatter and two grindstones.</li> <li>All items were assessed as having low scientific value.</li> <li>Notwithstanding, the Applicant has committed to salvaging the identified items prior to construction commencing and relocating them in agreement with the Registered Aboriginal Parties.</li> <li>Given the highly disturbed nature of the site, the likelihood of identifying unexpected items during construction is low. If Aboriginal artefacts or skeletal material are identified, all work would cease and the Chance Finds Protocol would be implemented.</li> <li>There are no known items of historic heritage value in the vicinity of the project site.</li> <li>The Department and OEH are satisfied that the project is unlikely to result in a significant impact on the heritage values of the locality.</li> </ul>	<ul style="list-style-type: none"> <li>Relocate any heritage items that would be disturbed by the project to suitable alternative locations.</li> <li>Cease works and notify the NSW Police and OEH if human remains are identified over the life of the project.</li> <li>Prepare a Chance Finds Protocol.</li> </ul>
Noise	<ul style="list-style-type: none"> <li>The proposed construction, upgrading and decommissioning activities would be well below the 'highly noise affected' criterion of 75 dB(A) in the EPA's <i>Interim Construction Noise Guideline</i> (ICNG).</li> <li>However, two non-associated residences (D2 and D3) may be subject to temporary noise up to 6 dB(A) above the 'noise affected' criterion of 45 dB(A) when mulching is occurring associated with vegetation removal.</li> <li>This exceedance would be short-term (up to one month), limited to standard operating hours and similar to noise generated by agricultural machinery such as tractors and harvesters.</li> <li>The Applicant has committed to implementing the noise mitigation work practices set out in the ICNG, including scheduling activities to minimise noise, using quieter equipment, informing the immediately surrounding landowners and establishing a complaints handling procedure.</li> <li>The Department is satisfied that any noise impacts would be limited to the construction period, short-term and minor.</li> <li>There would be negligible noise during operation.</li> </ul>	<ul style="list-style-type: none"> <li>Minimise the noise generated by any construction, upgrading or decommissioning activities on site in accordance with best practice requirements outlined in the ICNG, including consultation with nearby landowners.</li> <li>Restrict construction hours to Monday to Friday 7 am to 6 pm, and Saturday 8 am to 1 pm.</li> </ul>
Visual	<ul style="list-style-type: none"> <li>The solar panels would be relatively low-lying (up to 4 m).</li> <li>The maintenance building, site office, and battery storage facility, would stand at a maximum height of 6 m and 4 m, respectively. These structures are considered a similar size to agricultural sheds commonly utilised in the local area.</li> <li>The relatively low height of the infrastructure would limit the visual impact from most viewpoints.</li> <li>Two residences are located 1.4 km (D2) and 1.7 km (D3) from the project site. Existing vegetation would provide screening of the solar panels from these residences. Any visual impacts would be further mitigated by the distance between these residences and the project (&gt;1km).</li> <li>RMS is satisfied that the 300 m distance between the solar arrays and the Sturt Highway would ensure that risks to road users are sufficiently minimised.</li> <li>The photovoltaic panels are designed to absorb rather than reflect sunlight, and the Department is satisfied that the project would not cause noticeable glint or glare compared to other building surfaces.</li> <li>The Department is satisfied that there would be no significant visual impacts on the surrounding residences or road users.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure that external lighting is minimised and complies with the relevant Australian Standards.</li> <li>Prohibit any signage or advertising on the development, unless for safety purposes.</li> </ul>
Workforce accommodation	<ul style="list-style-type: none"> <li>Up to 150 personnel would be required during the construction period.</li> <li>The workforce would be sourced from the local and wider region including the surrounding local government areas.</li> <li>An assessment of accommodation availability in Narrandera and Wagga Wagga (which are located approximately 20 minutes and 50 minutes' drive from the project site, respectively) indicated there is likely to be sufficient accommodation available to house workers during the construction period.</li> </ul>	<ul style="list-style-type: none"> <li>No specific conditions required.</li> </ul>

Issue	Consideration	Recommendations
Soil and water	<ul style="list-style-type: none"> <li>The development footprint has been designed to avoid waterfront land, including two ephemeral watercourses located in the south of the project site (see <b>Figure 2</b>).</li> <li>The two farm dams located within the development footprint would be drained and infilled during construction.</li> <li>The project would require around 10 megalitres (ML) of water during construction and decommissioning (mainly for dust suppression) and 0.5 ML of water annually during operation. The Application is proposing to either source this water from on-site rainwater tanks, or truck it to site when required.</li> <li>The project is not expected to impact groundwater resources.</li> <li>The Department is satisfied any erosion and sedimentation risks associated with the project can be effectively managed using best practice construction techniques.</li> </ul>	<ul style="list-style-type: none"> <li>Prohibit water pollution in accordance with Section 120 of the <i>Protection of the Environment Operations Act 1997</i>.</li> <li>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).</li> </ul>
Other hazards	<ul style="list-style-type: none"> <li>The project would comply with the National Health and Medical Research Council standards for electric and magnetic fields.</li> <li>The bushfire risks can be suitably controlled through the implementation of standard fire management procedures.</li> <li>The Applicant has committed to managing the entire site as an Asset Protection Zone and preparing a Fire Management and Emergency Response Plan to manage fire risk in consultation with RFS and Fire &amp; Rescue NSW.</li> <li>The Department is satisfied that the bushfire risks can be suitably controlled through the implementation of standard fire management procedures.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure that the development complies with relevant asset protection requirements in the RFS's <i>Planning for Bushfire Protection 2006</i>.</li> <li>Prepare a Fire Management and Emergency Response Plan in consultation with RFS and Fire &amp; Rescue NSW.</li> </ul>
Subdivision	<ul style="list-style-type: none"> <li>The Applicant is proposing to subdivide the three lots in DP 754550 to facilitate the lease of the project site from the landowner, with an additional lot for the substation.</li> <li>The proposed subdivision would result in six lots, including one lot for the project site (249 ha), one lot for the substation (0.03 ha) and four residual lots (16, 20, 58 and 77 ha).</li> <li>All the reconfigured lots would be prohibited under a strict reading of the LEP as they would not meet the minimum lot size for RU1 land (400 ha).</li> <li>Notwithstanding, under Section 4.38(3) of the EP&amp;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.</li> <li>Additionally, Council supports the subdivision providing no dwelling entitlements are attached to any of the lots.</li> <li>The Department is satisfied that the subdivision should be approved as: <ul style="list-style-type: none"> <li>it would not result in the addition of any dwelling entitlements on the subdivided lots; and</li> <li>is consistent with key objectives of the RU1 zone as it would encourage diversity in primary industry enterprises and minimise conflict between land uses.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Subdivide the proposed lots subject to information being provided in accordance with the requirements of section 157 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</li> </ul>
Crown roads	<ul style="list-style-type: none"> <li>DoI - L&amp;W advised that the Crown roads affected by the project should be purchased and closed prior to the commencement of activities, as Crown lands require the transfer of ownership before any works are undertaken.</li> <li>The Applicant has committed to purchasing the relevant Crown road, in consultation with the landowner.</li> </ul>	<ul style="list-style-type: none"> <li>No specific conditions required.</li> </ul>

## 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 relevant considerations under section 4.15 of the EP&A Act.

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. In addition, the site is relatively flat and has been largely cleared for agricultural purposes.

The project has also been designed to largely avoid key constraints, particularly in relation to high value native vegetation. The project would not result in any 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.

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 and/or offset. The Applicant has reviewed the conditions and does not object to them.

Importantly, the project would assist in transitioning the electricity sector from coal and gas fired power stations to renewable energy sources. It would generate up to approximately 100 MW of clean electricity annually, which is enough to power approximately 37,000 homes and save up to 210,000 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.

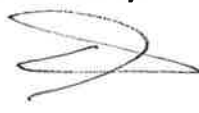
## 6. RECOMMENDATION

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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;
- **accepts and adopts** all of the findings and recommendations in this report as reasons for making the decision to grant consent to the application;
- **agrees** with the key reasons for approval listed in the notice of decision;
- **grants consent** to the application in respect of the Sandigo Solar Project (SSD 8872); and
- **signs** the attached development consent and recommended conditions of consent (**Appendix A**).

Recommended by:



26/07/18

**Tim Stuckey**  
Senior Environmental Assessment Officer  
Resource and Energy Assessments

Recommended by:



26/7/18

**Clay Preshaw**  
Director  
Resource and Energy Assessments

## 7. DECISION

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The recommendation is **Adopted / Not adopted** by:



27/7/18.

**Mike Young**  
A/Executive Director  
Resource Assessments and Business Systems  
as delegate of the Minister for Planning

## **APPENDIX A:**

### **Recommended Conditions of Consent**

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See website at [http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=8872](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8872)

## **APPENDIX B:**

### **Environmental Impact Statement**

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See website at [http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=8872](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8872)



## **APPENDIX C:**

### **Submissions**

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See website at [http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=8872](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8872)

## **APPENDIX D:**

### **Response to Submissions**

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See website at [http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=8872](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8872)