STATE SIGNIFICANT DEVELOPMENT ASSESSMENT
Beryl Solar Project
(SSD 8183)

Assessment Report
Section 89E of the
Environmental Planning and Assessment Act 1979

October 2017

Cover Photograph: First Solar Pty Ltd modules and a single axis tracker installed at the Gatton Research Facility in Queensland. Sourced from NGH Environmental Pty Ltd, Beryl Solar Farm Environmental Impact Statement, April 2017.

Published October 2017
NSW Department of Planning and Environment
www.planning.nsw.gov.au

EXECUTIVE SUMMARY

First Solar Pty Ltd (the Applicant) proposes to develop a new 87 megawatt (MW) solar farm (the project) approximately 5 km west of Gulgong in the Mid-Western Regional Council local government area. The project is located on a 332 hectare (ha) site, but the proposed development footprint comprises 225 ha.

The project is classified as State Significant Development under the *Environmental Planning and Assessment Act 1979* (EP&A Act), and the consent authority for the project is the NSW Minister for Planning. Under the Minister's delegation of 14 September 2011, the NSW Planning Assessment Commission must determine the development application for the project as it attracted more than 25 public objections.

The Department exhibited the Environmental Impact Statement for the project from 26 April 2017 to 25 May 2017 and received 37 submissions, including 27 objections, primarily from residents living within 5 kilometres of the project site. The Department met with a number of the community members that lodged submissions at their residences on 5 and 6 June 2017. The Department has also consulted further with the Applicant and key government agencies throughout the assessment process. This has resulted in changes to the project that have led to better outcomes for the community and the environment.

None of the government agencies objected to the project, however each provided advice and recommendations that have been addressed in the Department's assessment and incorporated into the recommended conditions of consent. In particular, Mid-Western Regional Council noted that the development of a solar farm within land zoned R5 - Large Lot Residential is contrary to existing Council policies and plans.

The three key issues raised in submissions and considered in the Department's assessment include land use compatibility, amenity impacts (including visual, noise and traffic), and biodiversity impacts.

In relation to land use compatibility, the project site is located partly within land zoned R5 – Large Lot Residential under the *Mid-Western Regional Local Environmental Plan 2012* (the LEP). The Department considers that the proposed development on R5 land would reduce the amount of land that is available for large lot residential development, may increase potential impacts on the rural character of the locality, and is inconsistent with the provisions of the LEP and the *State Environmental Planning Policy (Infrastructure) 2017*. Consequently, the Department agrees with Council that the portion of the project on land zoned R5 should not be approved.

In relation to amenity impacts, the Department notes that solar development is relatively low-lying in nature and the project site is largely flat, with vegetation and topography providing natural screening from most residences. Subject to the removal of the R5 portion of the project and the implementation of visual mitigation measures, the Department is satisfied there would be no significant visual impacts on the surrounding residences or future residences that could be built in land zone R5, and the rural character and visual quality of the area would be preserved. The potential noise and traffic impacts would largely be short-term, relatively minor in nature and can be managed in accordance with Government policy. Nevertheless, the Department has recommended strict conditions requiring restricted construction hours, relevant road upgrades, and a comprehensive Traffic Management Plan.

In relation to biodiversity impacts, the layout of the project was designed to minimise the impact on threatened species and endangered ecological communities (EECs) in moderate-good condition. However, the project would still result in the removal of 17.13 ha of mostly low-moderate condition Box Gum Woodland EEC. The Department does not support part of the proposed offset as it is located on R5 land within the project site. However, OEH has advised that suitable alternative offsets are available in the region to satisfy the shortfall. The Department has therefore recommended conditions requiring the retirement of offset credits in accordance with the *NSW Biodiversity Offsets Policy* within 2 years of the commencement of construction.

In summary, the Department considers that even with the removal of that portion of the project site zoned R5, the project would achieve a reasonable balance between maximising the use of the site's solar resources, and minimising the potential impacts on the local community and environment. Importantly, while the removal of R5 land would reduce the project's capacity, the project would still provide an installed capacity of approximately 70 MW, and is therefore consistent with both the Commonwealth *Government's Renewable Energy Target* and NSW's *Renewable Energy Action Plan*.

As such, following on from its assessment of the project, the Department considers that the project is approvable, subject to the recommended conditions of consent.

1. PROJECT

First Solar Pty Ltd (the Applicant) proposes to develop a new 87 megawatt (MW) solar farm (the project) near Gulgong in the Mid-Western Regional Council local government area.

1.1 Project setting

The project is located on a 332 hectare (ha) site adjacent to Transgrid's Beryl Substation, approximately 30 kilometres (km) north of Mudgee and 5 km west of the town of Gulgong along the Castlereagh Highway (see **Figure 1**).

The site is oriented in an east to west direction between Beryl Road and Perseverance Lane. A number of high voltage transmission line easements intersect the site, which connect to Transgrid's Beryl Substation, located adjacent to the north-west corner of the site.

The site is flat in nature and consists mostly of agricultural land that has largely been cleared and used for cropping and grazing over several decades. While most of the site is zoned RU1 – Primary Production, approximately 20% of the site is zoned R5 - Large Lot Residential.

There are 31 residences within 1 km of the site, with the closest residence located 170 m to the north-west of the project's development footprint. This residence, as well as most of the residences in proximity to the project site, are located on land zoned R5 to the north of the site. The majority of these residences are at a similar elevation to the development and would have limited views of the development as it is relatively low-lying in nature.

The development footprint within the site is 225 ha and has been designed to minimise clearing of species and communities listed under the NSW *Threatened Species Conservation Act 1995* (TSC Act) in moderate-good condition.

However, the project would still result in the removal of 17.13 ha of White Box - Yellow Box - Blakely's Red Gum Woodland endangered ecological community (Box-Gum Woodland EEC) listed under the TSC Act, including 0.99 ha in moderate-good condition and 16.14 ha in low condition.

A raised embankment passes through the centre of the proposed site in an east to west direction in the location of a former railway line. Additionally, a Crown road reserve passes through the centre of the proposed site in a north to south direction.

1.2 Project description

The project involves the construction of a new solar farm with an initial capacity of 87 MW. It also involves any upgrading or decommissioning of infrastructure and equipment in the future. While the capacity of the proposed solar farm may increase over time as technology improves, the footprint of the development would not increase.

As the Applicant intends to purchase the project site from the current landowner, it is proposing to subdivide the land on the site to excise the existing dwelling and surplus land with an area of approximately 12 ha. This aspect of the project is discussed further in **Section 5.4**.

The project would connect to the national electricity grid directly at Transgrid's Beryl Substation, located to the north of the site, via a short overhead 66 kV transmission line.

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**).

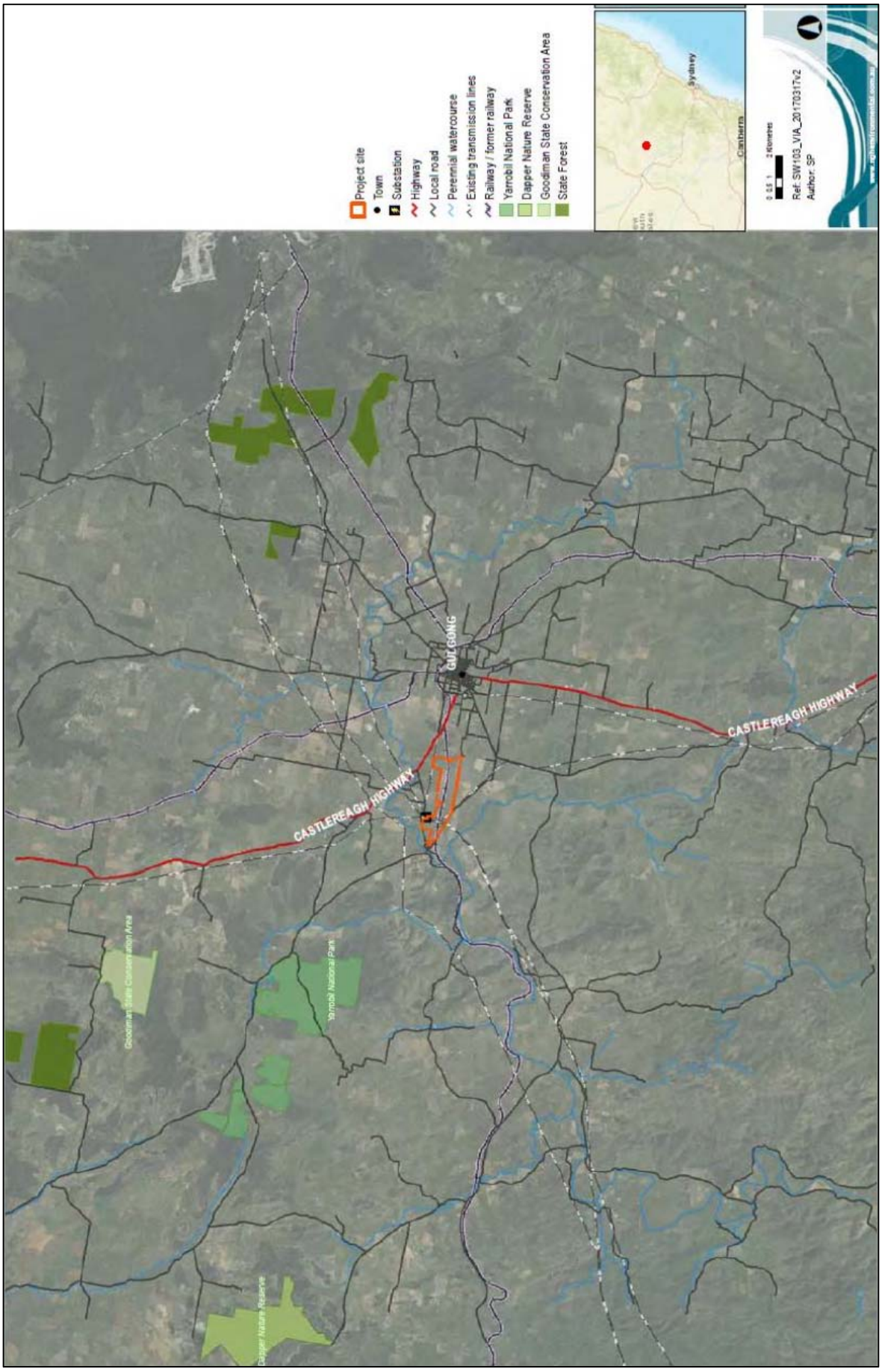

Figure 1: *Regional context*

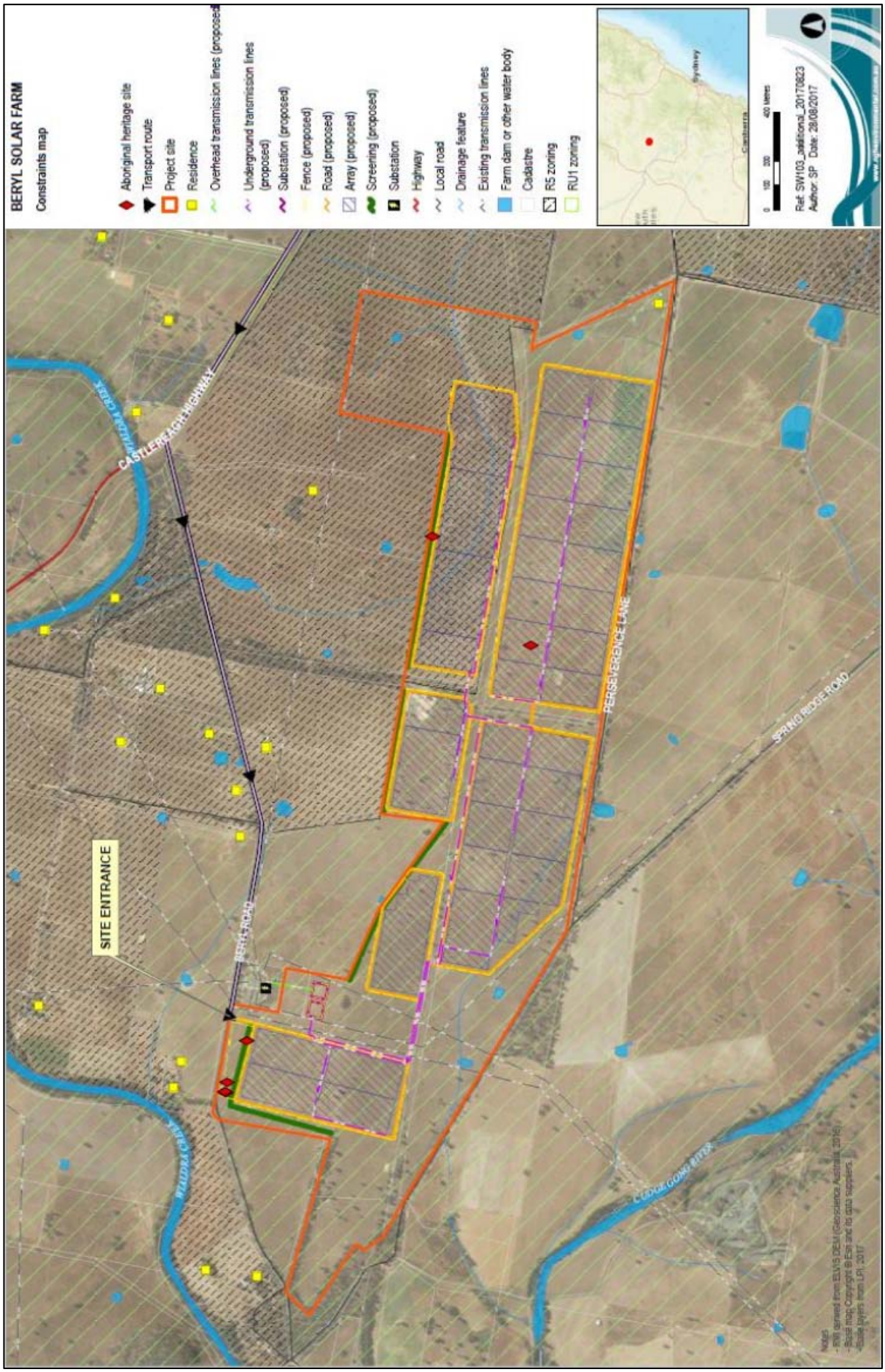

Figure 2: *Project layout*

Table 1: *Major components of the project*

Aspect	*Description*
Project summary	The project includes: • approximately 950,000 solar panels mounted on either fixed mounting frames or a single-axis tracking system (up to 2.7 m in height); • up to 40 inverter stations (up to 2.9 m in height), each containing an inverter and mounted 22 kilovolt (kV) or 33 kV transformer; • one onsite substation, containing a transformer and associated switchgear; • an overhead 300 m 66 kV transmission line connecting to the Beryl Substation; • internal access tracks, staff amenities, offices, parking, laydown area, security fencing; and • vegetation screening along parts of the western and northern boundaries of the site.
Project area	332 ha (including a 225 ha development footprint)
Access route	Access to the site would be via the Castlereagh Highway and Beryl Road.
Site entry and road upgrades	The site would be accessed utilising an existing access point off Beryl Road, 2.5 km west of the intersection with the Castlereagh Highway. Key road works for the project would involve: • an upgrade to the existing intersection between the site access point and Beryl Road; • an upgrade to the intersection between the Castlereagh Highway and Beryl Road; and • upgrades to Beryl Road including line-marking and increasing the shoulder width.
Operational life	• The expected operational life of the initial infrastructure is 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 and underground infrastructure less than 500 millimetres (mm) deep.

Construction traffic and timeframe	• The total construction period would last for up to 8 months, and would comprise:
	  • a peak traffic period of 5 months; and
	  • a non-peak traffic period of 3 months.
	• Construction hours would be limited to Mon to Friday 7 am-6 pm, and Saturday 8 am-1 pm.

Hours of operation	• The solar farm 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.
Employment	150 full time equivalent construction jobs during the peak construction period (5 months) and 3 full time equivalent operational jobs.
Capital investment value	$171 million

2. STRATEGIC CONTEXT

2.1 Regional Setting

The Mid-Western Regional local government area is centrally located in NSW, with a growing population and a strong and diverse economy based on agriculture, viticulture, mining and related industries. The area is also popular for tourism as it is picturesque and offers a range of recreational opportunities, including vineyards and various national parks.

Council's vision for the region is to provide for sustainable growth and development having regard to the regions unique heritage, environment and rural character, while supporting agricultural enterprises and the region's diverse economic base. In addition, Council's strategic documents encourage the growth of renewable energy sources to supplement existing sources of electricity in the region.

As a result of the growing economy, there is a high demand for rural lifestyle lots within close proximity to Mudgee, as well as the smaller towns in the region of Gulgong, Rylstone and Kandos. Across the local government area, Council has created opportunities for large lot residential development near existing towns and villages, where existing road access and services are available.

2.2 Renewable Energy

In 2016, the vast majority of energy in NSW was derived from fossil fuels, including 80.4% from coal and gas, with only 19.6% derived from renewable energy sources. However, there are currently no plans for the development of new coal fired power stations in NSW, and the development of renewable energy sources, such as wind and solar, is experiencing rapid growth.

This is highlighted in the recently released *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 renewable energy 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 2ºC, with an aspirational goal of 1.5ºC. 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 6,000 MW of new renewable energy capacity will need to be built by 2020 to achieve the RET.

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.

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

With an installed capacity of 87 MW, the project would generate enough power for around 28,000 homes, and is therefore consistent with both the Commonwealth's RET and NSW's *Renewable Energy Action Plan*.

3. STATUTORY CONTEXT

3.1 State Significant Development

The project is classified as State Significant Development (SSD) under Section 89C of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This is because it triggers the criteria in Clause 20 of Schedule 1 to *State Environmental Planning Policy (SEPP) (State and Regional Development) 2011*, as it is development for the purpose of electricity generating works that has a capital investment value of more than $30 million.

Consequently, the Minister for Planning is the consent authority for the development. However, under the Minister's delegation dated 14 September 2011, the independent Planning Assessment Commission must determine the development application for the project as there were more than 25 public submissions by way of objection.

3.2 Environmental planning instruments

The project is located in the Mid-Western Regional local government area and is on land zoned RU1 – Primary Production (approximately 80%) and R5 – Large Lot Residential (approximately 20%) under the *Mid-Western Regional Local Environmental Plan 2012* (the LEP).

Under the LEP, development for the purposes of electricity generating works is expressly prohibited on land zoned R5. In land zoned RU1, electricity generating works are not specifically listed as permitted or prohibited, however would fall within the category of "*any other development*" and would be permitted with consent.

The LEP expressly references the *State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP) and acknowledges that electricity generating works and solar energy systems are regulated by the Infrastructure SEPP, rather than the LEP.

Under the Infrastructure SEPP, electricity generating works are permitted with consent within prescribed rural zones (including RU1), however only small-scale electricity generating works (i.e. less than 100 kilowatts) are permissible in prescribed residential zones (including R5).

As such, while both the LEP and Infrastructure SEPP permit development for the purposes of a large-scale photovoltaic electricity generating system on land zoned RU1, they both do not permit it on land zoned R5.

However, under Section 89E(3) of the EP&A Act, development consent may be granted despite the development being partly prohibited by an environmental planning instrument. As such, despite the provisions of the LEP and Infrastructure SEPP, consent could be granted for the development.

While the consent authority has the power to override a partial prohibition for a State significant development, it must assess the planning merits of such a decision. In this case, the consent authority must take into consideration a number of factors in deciding whether to allow the project to occur in the R5 zone, despite the prohibition in the LEP and Infrastructure SEPP. This is discussed further in **section 5.1** of this report.

The LEP also contains provisions relating to minimum lot sizes that would make the proposed subdivision prohibited. This partial prohibition could also be overcome through section 89E(3) and is discussed in detail in **section 5.4** of this report.

In addition to the LEP and Infrastructure SEPP, several other environmental planning instruments apply to the project, including:

- *SEPP (Rural Lands) 2008* (Rural Lands SEPP);
- *SEPP No. 44 – Koala Habitat Protection*; and
- *SEPP No. 55 – Remediation of Land*.

The Department has assessed the project against all the relevant provisions of environmental planning instruments (see **section 5.1** of this report and **Appendix C**).

3.3 Integrated and other approvals

Under Section 89J 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. These include:

- various approvals relating to heritage required under the *National Parks and Wildlife Act 1974* and the *Heritage Act 1997*;
- an authorisation under the *Native Vegetation Act 2003* for the clearing of native vegetation; and
- certain water approvals under the *Water Management Act 2000*.

Under Section 89K of the EP&A Act, a number of further approvals are required, but must be substantially consistent with any development consent for the proposal. These include approvals for roads and intersection construction under the *Roads Act 1993*.

The Department has consulted with the relevant government authorities responsible for these integrated approvals, considered their advice in its assessment of the project, and included suitable conditions in the recommended conditions of consent to address these matters.

4. CONSULTATION

4.1 Exhibition

The Department publicly exhibited the EIS from 26 April 2017 until 25 May 2017 (30 days), and advertised the exhibition in the Mudgee Guardian, Dubbo Mailbox Shopper and Gilgandra Weekly.

The Department also notified relevant State government authorities, Council, relevant electricity supply and transmission authorities, and affected landholders.

Consequently, the Department has satisfied the notification requirements of Section 75H of the EP&A Act and the Infrastructure SEPP.

4.2 Consultation process

During the exhibition period of the EIS, the Department received a total of 37 submissions, including:

- 8 from government agencies;
- 1 from a special interest group; and
- 28 from the general public.

Since the exhibition of the EIS, the Department has received further representations from a number of members of the general public. Department representatives met with a number of these community members and various people that lodged submissions at their residences on 5 and 6 June 2017 to gain a better understanding of their concerns.

Additionally, the Department has consulted further with the Applicant and key public authorities including Council, the Roads and Maritime Service (RMS), the Office of Environment and Heritage (OEH) and the Department of Primary Industries (DPI) in order to address the key issues, and inform the assessment of the merits of the project.

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

The Applicant provided a detailed response to the issues raised in submissions on the EIS (see **Appendix B**), as well as a range of additional information to address matters raised by the Department and other agencies during the assessment process (see **Appendix F**).

4.3 Summary of submissions

Agency submissions

While none of the government agencies have objected to the project, Mid-Western Regional Council has noted that development of a solar farm within land zoned R5 - Large Lot Residential is contrary to existing Council policies and plans. The Department has considered this matter in **section 5.1** of this report.

The RMS, OEH and DPI initially raised some concerns with aspects of the project, however, these issues have been addressed through the provision of additional information or through the recommended conditions of consent. These matters are addressed in **sections 5.2** and **5.3**.

As recommended by the Division of Resources and Geosciences, the Applicant has undertaken consultation with the holders of the two exploration licences located across the project site.

The recommendations from other government agencies are discussed in the relevant sections of this report.

Community submissions

Of the 28 submissions from the general public received on the project's EIS, 27 objected to the project and one commented on the project.

The majority of the submissions from the general public were from residents residing in the local area (i.e. within 5 km of the project site), with 1 from out of state (i.e. Queensland). The nearest landowner who lodged a submission by way of objection is located 170 m north-west of the project site.

The key issues raised in the public submissions related to land use compatibility and the amenity impacts of the project, including visual, noise and traffic impacts. Many people thought that the project was inappropriate for the area, and raised concerns that it may adversely affect the character of the rural setting, have impacts on several residences located in proximity to the site, and exacerbate the cumulative impacts of the existing electrical infrastructure in the area.

Special interest group submissions

The one submission from a special interest group, the Nature Conservation Council, supported the project. The Nature Conservation Council supports the project on the grounds of the economic benefits it would provide to the local area and the contribution it would have towards Australia's renewable energy target.

The Department has considered all the issues raised by the community and special interest group in its assessment of the project, as summarised in **section 4** of this assessment report.

5. ASSESSMENT

In its assessment of the merits of the project, the Department has considered the:

- EIS, submissions, Response to Submissions, and additional information provided by the Applicant;
- advice from State and local government agencies;
- findings of its site visits and consultation with the local community;
- relevant environmental planning instruments, policies and guidelines; and
- relevant provisions of the EP&A Act, including the objects of the Act (see **Appendix D**).

This report provides a detailed discussion of the three key issues below, including the compatibility of the proposed and existing land uses, impacts on amenity (visual, noise and traffic) and biodiversity impacts.

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

5.1 Compatibility of the proposed land use

The development of solar farms is a rapidly growing industry in rural areas of NSW, and it is important to ensure that rural land uses can coexist with the more industrial nature of solar farms into the future. Consequently, the Department has undertaken a thorough assessment of the compatibility of the proposed solar farm with the existing land uses in the area.

For this project, that assessment involves:

1. A statutory review of the provisions of relevant environmental planning instruments (EPIs), including:
   - RU1 – Primary Production land; and
   - R5 – Large Lot Residential land.
2. A broader merit assessment of the:
   - potential impacts on rural residential land; and
   - potential impacts on agricultural land.

5.1.1 Provisions of relevant EPIs

The project site is located within land that is zoned both RU1 - Primary Production and R5 - Large Lot Residential under the *Mid-Western Regional LEP 2012* (see **Figure 3**).

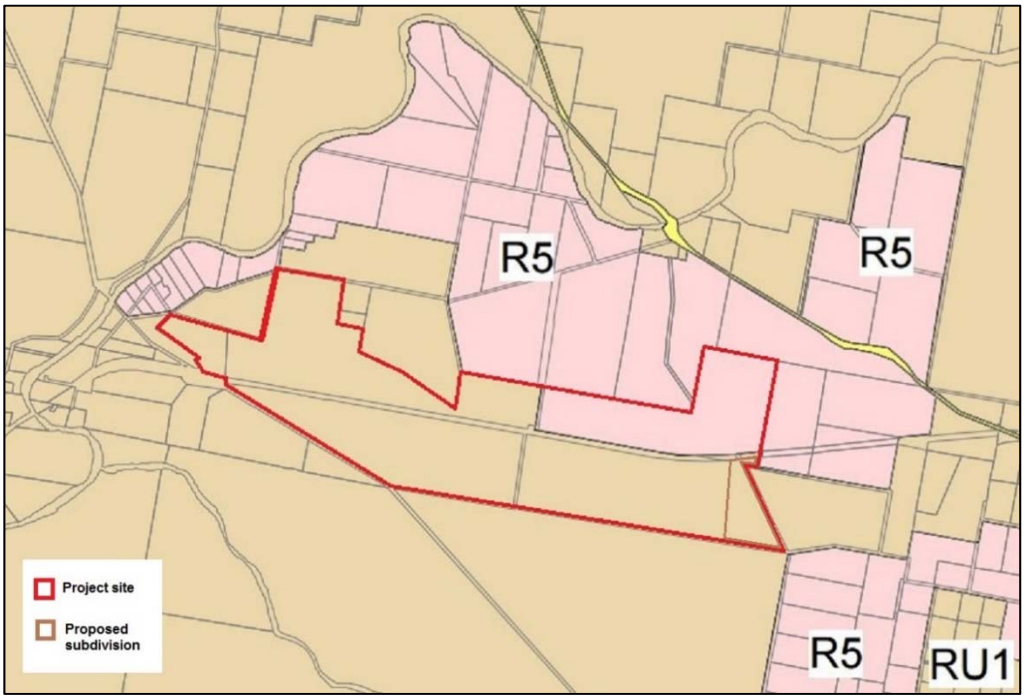

Figure 3: *Project site zoning map*

RU1 (Primary Production) land

The majority of the site (approximately 80%) is zoned RU1 and solar farms are permissible in that zone under both the LEP and the Infrastructure SEPP.

The development of this solar farm is also consistent with the standard objectives of RU1 zoning, including:
- encouraging diversity in primary industry enterprises; and
- supporting rural communities.

The RU1 portion of the site is located in an area that has traditionally been agriculture, but also contains existing electricity infrastructure, including a substation and associated transmission lines. The introduction of solar energy generation would contribute to a more diverse local industry, thereby supporting the local economy and community.

However, the LEP also includes two non-standard objectives for the RU1 zone, which reflect the nature and character of the region, including:
- maintaining visual amenity and landscape quality by preserving open rural landscapes; and
- promoting the unique rural character of the region.

The development of a low-lying solar farm on mainly flat agricultural land would ordinarily be consistent with these objectives. On agricultural land, the preservation of rural landscapes and visual amenity can usually be achieved through appropriate siting of solar panels and the provision of vegetation screening along the perimeter. (The potential visual impacts of this project are discussed in detail in **section 5.2.1**.)

However, in this instance, the two non-standard zoning objectives are particularly important in relation to the interface between agricultural (i.e. RU1) and residential (i.e. R5) land. The potential impacts of developing a solar farm development on the interface of a residential zone is discussed in **section 5.1.3** below.

R5 (Large Lot Residential) land

The portion of the project site zoned R5 comprises approximately 20% of the total site area and the Applicant is proposing solar panels and ancillary infrastructure in this portion of the site. Both the LEP and the Infrastructure SEPP prohibit large-scale solar farms on land zoned R5.

While the consent authority has the power to override a partial prohibition, it must carefully assess the planning merits of such a decision. The first step in this assessment is to consider all relevant environmental planning instruments (EPIs), including the Infrastructure SEPP, the LEP and the Rural Lands SEPP.

Based on the provisions of these EPIs, the Department believes there are strong policy reasons against the development of a solar farm on both R5 land generally, and on this particular area of R5 land.

Firstly, the Infrastructure SEPP is the key Government policy that regulates the location of energy generation facilities (like solar farms) and it is clear that these types of developments should only occur on land zoned industrial, special use or agricultural.

The Infrastructure SEPP does provide an exception for small-scale solar generation facilities in residential land but expressly limits this to under 100 kilowatts (kW), which would allow for private power generation on the rooftops of houses or other structures. The scale of the project is 800 times larger than the maximum allowed under the SEPP as it would generate up to 87 megawatts (MW) of energy.

Secondly, there is a clear intention in the LEP and Council's supporting strategic documents to preclude any development on R5 land that would prevent opportunities for rural lifestyle lots. This is emphasised in the objectives of the R5 zone, which include:
- providing residential housing in a rural setting;
- preserving, and minimising impacts on, environmentally sensitive locations and scenic quality; and
- minimising the conflict between land uses within this zone and land uses within adjoining zones.

The objectives of the LEP are also supported by the *Mid-Western Regional Comprehensive Land Use Strategy 2017*, which specifically identifies the area of the project site zoned R5 as part of an 'opportunity area' for the supply of rural lifestyle lots in the short term within the Gulgong catchment.

Thirdly, the proposed use of R5 land for solar panels is not consistent with a number of the 'Rural Planning Principles' that are established under the Rural Lands SEPP, including:

- the provision of opportunities for rural lifestyle, settlement and housing that contribute to the social and economic welfare of rural communities;
- recognition of the significance of rural land uses to the State and rural communities; and
- ensuring consistency with any regional strategy approved by the Department.

The Department's *Central-West Orana Regional Plan 2015* identifies the development of renewable energy generation as a future growth opportunity ('Direction 9'), however it also highlights the importance of providing adequate opportunities for rural residential development ('Direction 28'). In that regard, the Regional Plan explicitly supports the provisions of the LEP as one of its key 'actions' is to locate rural lifestyle lots near existing urban settlements in accordance with local plans (e.g LEPs).

In summary, the Department is satisfied that the relevant EPIs provide strategic policy reasons against solar farm developments on R5 land, and a clear intention to prevent the development of a solar farm on this particular site. Nevertheless, the broader planning merits of the project on residential land are discussed further in **section 5.1.3** below.

5.1.2 Potential impacts on agricultural land

The majority of the site is zoned RU1 – Primary Production and currently supports cropping and grazing by cattle and sheep.

The project site is located within the Central-West Orana region of NSW, which has a strong and diverse agricultural sector. Given the large amount of land available for agricultural purposes in this region, the loss of approximately 180 ha of cropping/grazing land would result in a negligible reduction in the overall productivity of the 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. Managed grazing may be used to maintain the height of ground cover during operations and the land would be returned to agricultural uses after the project is decommissioned.

Additionally, neither DPI nor Council considers that operation of the project would compromise the long-term use of the land for agricultural purposes.

The potential loss of a relatively small area of 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; 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 portion of the project on land that is zoned RU1 represents an effective and compatible use of the land within the broader region. In addition, the Department has recommended suitable conditions to maintain the productivity of the agricultural land during the construction, operation and decommissioning of the project.

5.1.3 Potential impacts on residential land

Within the Gulgong Catchment Area, Council has identified 1,114 ha as 'developable area' for rural residential development. Of this, 357 ha has been identified for short term development (within 5 – 10 years), due to its connection to infrastructure and services, including sewer, water, electricity and the road network.

The total area of land zoned R5 on the project site is 65 ha, which comprises approximately 20% of the 357 ha identified for short term development by Council. As noted above, Council does not support the project on the R5 portion of the site.

The Department also notes that solar farm approvals do not have a fixed end-date, which means the proposed development of solar infrastructure in the R5 land would likely result in a long-term or permanent loss of this land for large lot residential purposes.

Furthermore, many of the local residents objected to the project on the basis of potential adverse impacts on nearby residential land. These objections came largely from landowners that live to the north of the project site i.e. near the interface of the residential (R5) and agricultural (RU1) land. The key concerns for these community members are visual impacts (particularly given the rural setting) and potential construction-related impacts (i.e. noise and traffic).

The Department notes that concerns about visual, noise and traffic impacts are not uncommon for solar farms and is satisfied that they can largely be managed through mitigation and management measures. In this instance, the Department has recommended vegetation screening along all boundaries of the project site that are in proximity to the R5 land. In relation to construction, the noise and traffic impacts would be temporary, relatively minor in nature and can be managed in accordance with the relevant Government policy. This is discussed further in **section 5.2**.

However, given the location of this project on the interface of residential and agricultural land, the Department acknowledges the community has raised legitimate concerns, and considers that these concerns are exacerbated by the encroachment of the proposed solar infrastructure onto the R5 land.

In summary, the Department considers that the portion of the project site zoned R5 is not suitable for large-scale solar development as it:

- would substantially reduce the amount of land that is available for large lot residential development;
- would increase the potential impacts on the rural character of the locality; and
- is inconsistent with the provisions of the relevant EPIs.

Consequently, the Department agrees with Council and has recommended that the portion of the project on land zoned R5 not be approved.

5.2 Amenity

The submissions from local residents raised concerns about the potential amenity impacts of the project, including visual, noise and traffic impacts.

5.2.1 Visual

The EIS includes a comprehensive visual impact assessment that is based on 22 viewpoints, including 8 residences (see **Figure 4**). It includes panoramic photos showing the visual extent of the project for 5 locations, including 3 residences.

Visual impacts

Visual impacts would be limited to residences within 1 km of the project, due to a combination of distance and screening from topography and existing vegetation.

Views from residences to the west of the site would largely be screened due to existing vegetation. Views from residences to the east of the site (including in the township of Gulgong) would be limited due to the intervening topography and distance.

Only residences located to the north and north-west of the project site would be visually impacted by the project. All of these residences are located within land zoned R5. **Figure 5** and **Figure 6** provide examples of the predicted views of the project from viewpoints 17 and 19, which are residences located to the north and north-west of the project site.

In the panoramic photos, the visual extent of the project is shown as follows:

- the red lines represent the extent of the project site;
- the yellow lines represent where the solar panels would likely be shielded by vegetation, and therefore not visible; and
- the green lines represent the estimated visible extent of the solar panels, excluding shielding by vegetation.

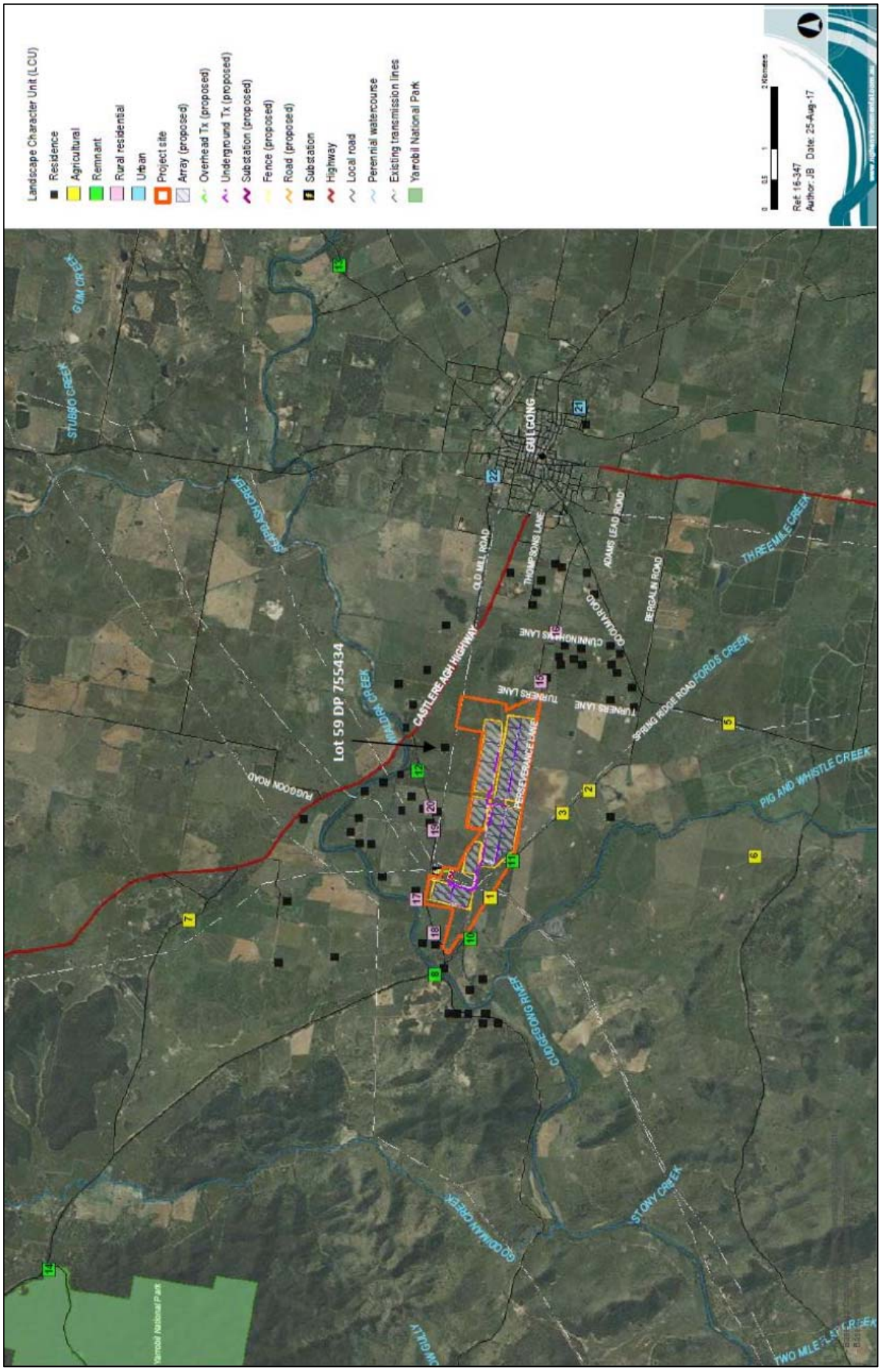

Figure 4: *Location of viewpoints*

Figure 5: *Panoramic photo looking towards the project site from viewpoint 17*

Figure 6: *Panoramic photo looking towards the project site from viewpoint 19*

The visual impact assessment concluded that these residences would experience *'moderate'* visual impacts. However, the Department notes that the classification of these impacts as *'moderate'* is a relative term and is in the context of minor impacts overall, particularly in comparison to other projects like wind farms.

The impacts on these residences would be limited as they are located at a similar elevation to the development, and the development is relatively low-lying in nature. The solar panel heights, at their highest tilt angle, would be up to 2.7 m in height, and the inverter stations would be up to 2.9 m in height.

Visual mitigation measures

Notwithstanding the relatively minor visual impacts, the Department has recommended that the proposed solar infrastructure be removed from the R5 land, which would further reduce visual impacts on residences to the north and north-west of the site. In addition, the Department requested that the Applicant prepare a Landscape Management Strategy outlining measures to mitigate any residual visual impacts on these residences (refer to **Appendix F**).

These mitigation measures include:

- setting back the project infrastructure a minimum of 30 m from the north and north-west boundary of the R5 land; and
- developing a vegetation buffer along the northern and western boundaries of the development footprint, outside of the perimeter fence.

However, even with the removal of the R5 portion of the project and the proposed mitigation measures, the single residence located within the R5 land (Lot 59, DP 755434 on **Figure 4**) would have slightly elevated views towards the project as it is located on a small crest (i.e. approximately 5 m in elevation).

The landowner of this residence raised particular concerns about the ability of the proposed vegetation buffer to screen views of the project from their residence and property. In response, the Applicant has committed to providing supplementary visual mitigation measures at this residence to further mitigate the project's visual impact. These measures have been accepted by the landowner.

The Department has recommended a range of stringent conditions requiring the Applicant to establish and maintain a mature vegetation buffer along the northern and western boundaries. This buffer must:

- be established prior to the commencement of operations;
- consist of species that facilitate the best possible outcome in terms of visual screening (i.e. the buffer does not have to consist only of native vegetation); and
- be effective at screening views of the solar panels and ancillary infrastructure from surrounding residences within 3 years of the commencement of construction.

The Department has also recommended conditions requiring the Applicant to provide supplementary visual impact mitigation measures (such as landscaping and vegetation screening) for Lot 59 DP 755434.

Furthermore, the Applicant must prepare a detailed Landscaping Plan for the site, in consultation with OEH and Council, which builds on the Landscape Management Strategy and includes a detailed description of the measures to ensure the effectiveness of the vegetation buffer. This plan must also include a program to monitor and report on the effectiveness of these measures.

Lighting

The Department has also required that external lighting is minimised and complies with the relevant Australian Standards, and prohibits any signage or advertising on the development, unless for safety purposes.

The lighting is particularly relevant as the project is located approximately 125 km south-east of Siding Spring Observatory and therefore falls inside the Dark Sky Region covered by the *NSW Government's Dark Sky Planning Guideline*. A consent authority must consider this guideline for SSD that is likely to impact the night sky and is within 200 km of the Observatory.

While there would be some security lighting at night, there would be negligible light spill beyond the horizontal plane. Consequently, the Department is satisfied that the project would not affect the observing conditions at the Observatory.

Conclusion

Subject to the removal of the R5 portion of the project and the implementation of visual mitigation measures, the Department is satisfied that:

- there would be no significant visual impacts on surrounding residences;
- the rural character and visual quality of the area would be preserved; and
- large residential lifestyle lots in a rural setting can still be developed in the R5 land.

5.2.2 Noise

Many of the submissions from local residents raised concerns about the noise impacts of the project, both from construction activities and ongoing operations.

The EIS includes a noise impact assessment of both operational and construction noise, including an assessment of the noise impacts associated with construction traffic.

The noise impact assessment concluded that the noise associated with the proposed construction, upgrading and decommissioning activities would be well below the 'highly noise affected' criterion of 75 dB(A) in the EPA's *Interim Construction Noise Guideline* (ICNG) for all residences.

However, up to 5 residences may be subject to temporary noise up to 12 dB(A) above the 'noise affected criterion' of 40 dB(A) when piling installation works for solar panels occur at the project boundary adjacent to these residences. This exceedance would be limited to standard operating hours and would occur for up to 3 weeks.

The Department notes that the noise assessment assumes that the development envelope would be located across the project site. However, as solar panels and associated infrastructure are not proposed to be located in the western corner of the project site, the actual construction noise impacts would likely be much less than that predicted at residences 3 of the 5 residences.

The Applicant has also prepared a draft Construction Noise Management Plan, in which it has committed to implementing the noise mitigation work practices in Tables 5 and 8 of the ICNG, including scheduling activities to minimise noise, using quieter equipment, informing the landowners and establishing a complaint handling procedure.

The noise impact assessment concluded that the noise levels from the general operation of the project would comply with the relevant noise criteria of 35 dB(A) established under the *Industrial Noise Policy* at all residences under all scenarios and meteorological conditions.

The Department is satisfied that any noise impacts would be limited to the construction period and would be short-term and minor, and has recommended conditions requiring the Applicant to:

- minimise the noise generated by any construction, upgrading or decommissioning activities on site in accordance with best practice requirements outlined in the ICNG; and
- restrict construction hours to Monday to Friday 7 am - 6 pm and Saturday 8 am - 1 pm, with no works on Sundays and NSW public holidays.

5.2.3 Traffic

A number of submissions from local residents also raised concerns about the traffic impacts of the project during construction.

The project would be accessed via the Castlereagh Highway and Beryl Road. There would be minimal traffic to and from the project site during the operation of the development. Consequently, the only material traffic impacts would occur during construction, decommissioning and major infrastructure upgrades.

The construction period is expected to last up to 8 months, including a peak period of approximately 5 months. During the construction peak, there would be up to 30 heavy vehicles and approximately 45 light vehicles visiting the site daily. One large convoy would be required to transport the substation equipment.

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

Both RMS and Council support the proposed site access, provided the required road upgrades are undertaken to support the increased volume of traffic. The road upgrades required to be undertaken include:

- constructing a Channelised Right (CHR) turn lane and an Auxiliary Left (AUL) turn treatment at the intersection of the Castlereagh Highway and Beryl Road;
- sealing Beryl Road a minimum of 30 m from the edge of the Castlereagh Highway travel lane;
- extending the sealed width of the road shoulders on either side of Beryl Road by 1.0 m, for a total shoulder width of 1.5 m;
- line-marking the centre line and edge lines of Beryl Road; and
- upgrading the site access off Beryl Road to a rural property access standard.

The Applicant has accepted the proposed upgrades and has confirmed they would be designed and constructed to the satisfaction of the relevant roads authority.

Notwithstanding, the Department has recommended conditions requiring the Applicant to:

- restrict construction hours as outlined in **section 5.2.2**, which includes vehicle movements to and from the site;
- undertake the relevant road upgrades prior to the commencement of construction;
- ensure the number of vehicles does not exceed:
  - 30 heavy vehicle movements a day during construction, upgrading or decommissioning; and
  - 5 heavy vehicle movements a day during operations;
- ensure the length of the vehicles accessing the site does not exceed 25 m; and
- prepare and implement a Traffic Management Plan in consultation with RMS and Council.

5.3 Biodiversity

The EIS includes a biodiversity assessment of the project. The project site is characterised by agricultural land mostly derived from Box-Gum Woodland (see **Figure 7**).

The layout of the project was designed to minimise the impact on threatened species and high quality endangered ecological (EECs), including avoiding 4.43 ha of White Box - Yellow Box - Blakely's Red Gum Woodland community (Box Gum Woodland) EEC in moderate-good condition in the western corner of the project site. The Box Gum Woodland is listed as both an EEC under the TSC Act and as a Critically Endangered Ecological Community (CEEC) under the EPBC Act.

Notwithstanding, the project would still result in the removal of 17.13 ha of Box-Gum Woodland EEC listed under the TSC Act, including 0.99 ha in moderate-good condition and 16.14 ha in low condition. The Department notes that the majority of the EEC required to be cleared is in low condition, and is satisfied that the development footprint avoid impacts where possible.

Under the transitional arrangements of the recently commenced *Biodiversity Conservation Act 2016*, offsets for this project are to be assessed under the existing *NSW Biodiversity Offsets Policy for Major Projects* and the *Framework for Biodiversity Assessment* (FBA). The Applicant has calculated a total offset credit requirement of 684 ecosystem credits.

The Applicant initially proposed to provide offsets within the project site, including a western and eastern area as shown on **Figure 7**. However, as the eastern area is within land zoned R5, the Department does not support its use as an offset because it would prevent the development of rural lifestyle lots.

Consequently, the Department has recommended conditions which prohibit the Applicant from utilising any land zoned R5 on the project site as an offset to retire the required ecosystem credits.

While the western offset area alone would not be able to meet the offsetting requirements, OEH has advised the Department that suitable Box Gum Woodland EEC offset sites are available in the region to satisfy the shortfall of required credits.

The Department also notes that the *NSW Biodiversity Offsets Policy for Major Projects* allows for the retirement of biodiversity offset credits to be achieved by a number of mechanisms (not just through land-based offsets), namely:

- acquiring or retiring credits under the biobanking scheme in the TSC Act;
- making payments into an offset fund that has been developed by the NSW Government; or
- providing supplementary measures.

Figure 7: *Vegetation type across the project site and potential offset site*

Consequently, the Department has not locked in the potential land-based offsets identified by the Applicant, but has recommended conditions requiring the Applicant to retire the applicable biodiversity offset credits for the project in accordance with the *NSW Biodiversity Offsets Policy for Major Projects* within 2 years of the commencement of construction. Additionally, the Department has recommended conditions requiring the Applicant to prepare and implement a detailed Biodiversity Management Plan.

Subject to the recommended conditions, both the Department and OEH are satisfied that the project could be undertaken in a manner that improves or at least maintains the biodiversity values of the locality over the medium to long term.

5.4 Other Issues

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

Table 2: *Other issues*

Issue	*Consideration*	*Recommendations*
Energy Security	• Concerns were raised in three submissions 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. • These concerns were expressed at a high level, and were not supported by any detailed evidence showing how intermittent energy in general could affect energy security and/or electricity prices, or how this project in particular would do that. • This makes it difficult, if not impossible, for the Department to evaluate these concerns in any meaningful way, particularly in the context where it is required to look at the planning merits of this project. • Any such evaluation, however, would need to have regard to the broader strategic context on these matters. • First, there is strong policy support at both the Commonwealth and State level for the increased development of renewable energy projects, to both ensure that a greater proportion of electricity is generated by renewable sources and to reduce greenhouse gas emissions associated with any electricity generation. • Second, 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. • 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 87 MW of capacity to the NEM, which at this stage has a total generation capacity of over 47,000 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.	• No specific conditions required.
Subdivision	• The Applicant intends to purchase the project site from the current landowner, however the landowner wishes to maintain ownership of their existing dwelling in the south west corner of the site. • To facilitate this outcome, the Applicant has proposed to consolidate two lots in the site (to be used for the solar farm), while excising the landowner's existing dwelling and a small area around it (for continued agricultural purposes). • The proposed subdivision would result in one lot that is 278 ha and one lot that is 12 ha.	• Subdivide the proposed lots providing information is provided in accordance with requirements of section 157 of the *Environmental Planning and Assessment Regulation 2000.*

Issue	*Consideration*	*Recommendations*
	• The smaller of the subdivided lots is prohibited under a strict reading of the LEP as it would not meet the minimum lot size for RU1 land (100 ha). • Notwithstanding, development consent for the project as a whole can be granted despite the subdivision component of the application being prohibited by the LEP (under section 89E(3) of the EP&A Act). • In this case, the Department is satisfied that the subdivision should be approved as part of the project as: o it would ensure agricultural practices can continue on the land that is not required by solar farm operations; o it would not result in the addition of any dwelling entitlements on the subdivided lots; and o 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.	
Water and Soil	• The project would require approximately 4.5 megalitres (ML) of water during construction (primarily for dust suppression) and approximately 0.09 ML per year during operation (primarily for staff amenities and cleaning the solar panels). • During construction, all water would be sourced from on-site dams. If the dams are diminished below an acceptable level, water use would be sought from a Council standpipe, in consultation with Council. • During operation, all water would be gathered from the operations and maintenance building roof and stored on site in tanks. • There is an ephemeral watercourse which traverses the north eastern portion of the project site (i.e. wholly within land zoned R5). • As the Department has recommended that the R5 portion of the project not be approved, there would be no changes in flood levels outside of the project site. • Any potential erosion and sedimentation risks associated with the project can be effectively managed using best practice construction techniques.	• Prohibit water pollution. • Undertake activities in accordance with OEH's *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) manual.
Heritage	• There are 6 stone artefacts comprising 5 Aboriginal heritage sites within the project site. • All sites were assessed as having low scientific value due to the existing highly disturbed nature of the site and surrounds. • Notwithstanding, the assessment recommended the artefacts be salvaged prior to construction commencing and relocated to an area within the project site outside of the development footprint that would not be subject to any ground disturbance.	• 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, including those that would remain in situ, as well as those that are relocated, from any impact.
Hazards	• A number of submissions raised concerns about the potential health impacts of the project from Electric and Magnetic Fields (EMF). • Like other electricity generating infrastructure, EMF would be generated by the electrical components of the project. • The EIS includes an assessment of EMF, which indicates that the levels of EMF would be significantly lower than the current internationally acceptable level for human health. • Consequently, the Department is satisfied the project is not likely to have any significant EMF-related impacts. • There are also fire risks associated with all large solar farm developments. These risks can be suitably controlled through the implementation of standard fire management procedures. • Fire & Rescue NSW requested a detailed Emergency Response Plan to be prepared for the development outlining how these risks would be managed.	• Prepare an Emergency Response Plan in consultation with the Rural Fire Service and Fire & Rescue NSW. • Ensure that the development complies with the relevant asset protection requirements in the RFS's *Planning for Bushfire Protection 2006* (or equivalent). •

Issue	*Consideration*	*Recommendations*
Mineral Resources	• Two mineral exploration titles exist over the project site. • The Applicant has consulted with the holder of both licences, and the holder has indicated that it has no concerns with the project as it has no plans to explore for, or extract minerals from, the area within the project site. • Additionally, the Applicant has committed to continue to liaise with the licence holders during the life of the project. • As such, both the Department and the Division of Resources and Geosciences are satisfied the project is not likely to have significant impacts on mineral exploration and could co-exist with any future exploration and/or mine development.	• Decommission and remove all infrastructure to a standard that would not preclude future mineral exploration.

6. RECOMMENDED CONDITIONS

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

The conditions used 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 commissioned.

In line with this approach, the Department has consolidated the number of management plans to the following:

- Traffic Management Plan;
- Landscaping Plan;
- Biodiversity Management Plan;
- Chance Finds Protocol; and
- Emergency Response Plan.

The recommended conditions also require the Applicant to provide detailed final layout plans to the Department prior to construction. The Department believes this is an adequate mechanism for providing greater flexibility for the siting of project infrastructure without resulting in any material changes to the impacts of the project.

Other key recommended conditions include:

- *biodiversity offsets* – retire biodiversity credits in accordance with *the NSW Biodiversity Offsets Policy for Major Projects*;
- *roads* – upgrade Beryl Road and the intersection of the Castlereagh Highway and Beryl Road prior to construction; and
- *decommissioning and rehabilitation* – remove project infrastructure and rehabilitate the site to a good condition.

7. CONCLUSION

The Department has assessed the development application, EIS, submissions, Response to Submissions and additional information provided by the Applicant in accordance with the requirements of the EP&A Act.

The Department considers the project 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 very flat and has been cleared for agricultural uses.

The project would not result in any significant reduction in the overall agricultural productivity of the region. Additionally, the project 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.

However, the Department has recommended the removal of the project infrastructure within the portion of the site zoned R5 Large Lot Residential, as well as additional setbacks and vegetation screening along the majority of the northern and western development footprint boundaries adjacent to land zoned R5.

This would ensure that the project would achieve a reasonable balance between maximising the use of the site's solar resources, and minimising the potential impacts on the local community and environment.

Notwithstanding some community opposition from local landowners and special interest groups, the project offers several benefits for the wider community, and would facilitate the development of the state's renewable energy resources.

Importantly, while the removal of the solar panels within the portion of the site zoned R5 - Large Lot Residential would reduce the capacity of the project, it would still provide an installed capacity of up to 70 MW, which would generate enough power for around 26,000 homes and assist in meeting Australia's renewable energy targets consistent with the goals of the Commonwealth RET and the NSW *Renewable Energy Action Plan*.

On balance, the Department believes that the project is in the public interest and should be approved, subject to the removal of the project infrastructure within the portion of the site zoned R5 - Large Lot Residential.

As such, following on from its assessment of the project, the Department considers that the project is approvable, subject to the conditions of consent (outlined in **Appendix G**). This assessment report is hereby presented to the Planning Assessment Commission for determination.

Clay Preshaw 19/10/17

Clay Preshaw
Director
Resource Assessments

David Kitto 19/10/17

David Kitto
Executive Director
Resource Assessments and Business Systems

APPENDIX A:
ENVIRONMENTAL IMPACT STATEMENT

See website at http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8183

APPENDIX B:
RESPONSE TO SUBMISSIONS

See website at http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8183

APPENDIX C:
CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENTS

SEPP (Infrastructure) 2007
In accordance with clause 104 of the Infrastructure SEPP, the application was referred to RMS and Transgrid. Transgrid did not raise any concerns with the project. The matters raised in RMS's submission on the project were considered by the Department, and the Department has recommended conditions of approval in relation to the classified road network.

SEPP (Rural Lands) 2008
The Rural Lands SEPP applies to the project as the Applicant is proposing to subdivide land zoned RU1 - Primary Production that involves an existing dwelling.

While under the Rural Lands SEPP land in zone RU1 - Primary Production may be subdivided to create a lot of a size that is less than the minimum size otherwise permitted (i.e. 100 ha), such a lot cannot be created if an existing dwelling would, as a result of the subdivision, be situated on the lot.

As an existing dwelling would be situated on the 12 ha lot, the subdivision is prohibited under the Rural Lands SEPP.

However, under Section 89E(3) of the EP&A Act, development consent may be granted despite the development being partly prohibited by an environmental planning instrument. As such, the Department considers that consent should be granted for the proposed subdivision.

SEPP No. 44 – Koala Habitat Protection
The biodiversity assessment undertaken by the Applicant considered the potential impact on koalas and their habitat. The assessment involved undertaking targeted spotlighting surveys for koalas and inspecting all trees within the development footprint for signs of fauna use, such as the presence of scratch marks or scats at the base of trees. The assessment did not detect the presence of koalas on the project site.

The Department is satisfied that the project would not impact any areas of core koala habitat, and that the project is generally consistent with the aims, objectives and requirements of SEPP 44.

SEPP No.55 – Remediation of Land
The Applicant undertook a search of the NSW EPA Contaminated Land Register and neither the project site, nor land located adjacent to it, is listed on the register. Further, no evidence of contamination was observed by the Applicant while undertaking site inspections.

The Department is satisfied that the risk that contamination is present on the project site is low. Also, construction activities would not significantly disturb soil or groundwater resources on the project site.

APPENDIX D:
STATUTORY CONSIDERATIONS

Section 79C(1) of the EP&A Act outlines the matters that a consent authority must take into consideration when determining development applications. These matters could be summarised as:

- the provisions of environmental planning instruments (including draft instruments), development control plans, planning agreements, and the EP&A Regulations;
- the impacts of the development;
- the suitability of the site;
- any submissions; and
- the public interest.

Section 5 of the EP&A Act also outlines a range of objects that must be considered when making decisions under the EP&A Act, and Sections 5A to 5D further outline provisions to be considered with regard to threatened species (including species, populations and ecological communities) and their habitats. The Department has given consideration to the requirements of other provisions of Sections 5A to 5D. In particular, these matters include the:

- factors in Section 5A(2), known as the '7 part test of significance';
- threatened species assessment guidelines[1] identified in Section 5A(1); and
- register of critical habitat as identified in Section 5B.

The Department has considered all of these matters in its assessment of the project and in summary considers that:

- the project can be undertaken in a manner that is consistent with the aims, objectives and provisions of the applicable environmental planning instruments, other applicable planning documents and the EP&A Regulations (see **Appendix C**);
- the project could be undertaken in a manner that is generally consistent with the objects of the EP&A Act;
- the potential impacts of the project on the site and surrounds has been carefully considered in the assessment of the project, and the Department is satisfied that the impacts of the project on the environment and the local community could be adequately minimised, managed, or at least compensated for, to an acceptable standard;
- apart from that portion of the project on land zoned R5 – Large Lot Residential, the site is suitable for the project, as it is within a region recognised as having some of the best solar resources in NSW, and has access to existing electricity distribution networks. The operation of the project on land zoned RU1 – Primary Production would also not compromise the long-term use of the land for agricultural purposes; and
- whilst there is some opposition to the project from local landowners and special interest groups, the project is in the wider public interest, particularly as it would:
    - be consistent with the NSW Government's vision for a secure, reliable, affordable and clean energy future for the state;
    - assist in meeting Australia's renewable energy target as well as future electricity demands without the production of additional greenhouse gases; and
    - facilitate employment for up to 150 personnel during construction and 3 personnel during operations.

Objects of the EP&A Act

The Minister must consider the objects of the EP&A Act when making decisions under the Act. The objects of most relevance to the Minister's decision on whether or not to approve the project are found in Section 5(a)(i),(ii),(vi) and (vii). They are:

[1] *Threatened Species Assessment Guidelines – The Assessment of Significance*, prepared by the then Department of Environment and Climate Change, dated August 2007.

To encourage:

(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment;

(ii) the promotion and co-ordination of the orderly and economic use and development of land;

(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats; and

(vii) ecologically sustainable development.

The Department is satisfied that the project encourages the proper development of natural resources (Object 5(a)(i)) and the promotion of orderly and economic use of land (Object 5(a)(ii)), particularly as the project is:

- a permissible land use on that portion of the project site zoned RU1 - Primary Production;
- located in a logical location for efficient solar energy development;
- 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; and
- consistent with the goals of the *Renewable Energy Action Plan*, and would assist in meeting Australia's renewable energy targets whilst reducing greenhouse gas emissions.

Consideration of environmental protection (Object 5(a)(vi)) is provided in **section 5** of this report. Following its consideration, the Department considers that the project is able to be undertaken in a manner that would improve or 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.

The Department has considered the encouragement of ESD (Object 5(a)(vii)) 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. The Applicant 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.

APPENDIX E:
SUBMISSIONS

See website at http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8183

APPENDIX F:
ADDITIONAL INFORMATION

APPENDIX G:
RECOMMENDED CONDITIONS OF APPROVAL