



Yarren Hut Solar Farm

State Significant Development Assessment

SSD 10415

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Executive Summary

BayWa r.e Projects Australia Pty Ltd (BPA) proposes to develop a new 28 megawatt (MW) solar farm located approximately 17 kilometres (km) northwest of Nyngan in the Central West and Orana region of NSW.

The project is located adjacent to the Mitchell Highway and has direct access to the electricity network via Essential Energy's 66 kV overhead transmission line which traverses the site. The site is in a rural area, with the nearest non-associated rural residence located over 5 km from the development footprint.

The project is classified as State significant development as it is development for the purpose of electricity generating works with a capital investment value of more than \$30 million. Consequently, the Minister for Planning and Public Spaces is the consent authority for the development. However, the Executive Director, Energy, Industry and Compliance, may determine the development application under delegation from the Minister as Council did not object, there were less than 50 objections from the general public and a political donations disclosure statement has not been made.

Engagement

The Department exhibited the Environmental Impact Statement (EIS) for the project and received one submission from a special interest group in support of the application. Advice was also received from 15 government agencies, including Bogan Shire Council.

Council supports the project, and none of the agencies object to the project, subject to the implementation of appropriate mitigation and management measures.

In response to agency comments, BPA undertook additional assessment and amended the project to incorporate upgrades to Mitchell Highway to improve the safety of the site entry.

Assessment

The Department has undertaken a comprehensive assessment of the merits of the project and considered all potential issues in accordance with the requirements of the *Environmental Planning and Assessment Act 1979*. The key assessment issues identified for the project are land use compatibility and the potential traffic and transport issues.

The project site is 1,205 hectares (ha) and is currently used for agricultural purposes, including grazing and dryland cropping. The development footprint (approximately 92 ha) is located on soils classified as Class 3 (highly capable land) under the *Land and Soil Capability Mapping in NSW* (OEH, 2017), meaning that the land is suited to grazing, but capable of sustaining cultivation on a rotational basis.

The Department considers that the project would not significantly reduce the overall agricultural productivity of the region and that the inherent agricultural capability of the site would not be affected, and is satisfied that the site could be returned to its full agricultural use in the future following decommissioning and rehabilitation. The Department also notes that approximately 92 % of the site (1,113 ha) would be retained for agricultural use, and that BPA intends to continue grazing concurrently with the operation of the solar farm. Importantly, both Bogan Shire Council and Department of Primary Industries – Agriculture support the project, subject to the recommended conditions.

The potential traffic impacts would be relatively short-term, minor in nature, and can be managed in accordance with Government policy. The site access route and road upgrades have been designed in consultation with Council and Transport for New South Wales (TfNSW). The Department has recommended strict conditions requiring road upgrades and a comprehensive Traffic Management Plan.

Visual impacts from surrounding residences and roads (including the Mitchell Highway) would be negligible due to separation distances and the proposed and existing vegetation on the site and surrounds.

There are two existing mineral exploration licenses (ELs) that exist over the site. While the ability to access the underlying mineral resources may be locally constrained during the operation of the solar farm, Regional NSW – Mining, Exploration & Geoscience considers that these resources would not be sterilised in the long term given the relatively small size of the development footprint and the fact that the project would ultimately be decommissioned and rehabilitated.

The project would employ up to 40 workers during the 10 month construction period. The Department is satisfied that there is sufficient accommodation within Nyngan and that the use of this accommodation would stimulate the local economy. Nonetheless, the Department has recommended a condition requiring BPA to prepare and implement an accommodation and employment strategy in consultation with Council to ensure that there would be sufficient accommodation for construction workers, and to prioritise the employment of local workers, in the unlikely event that the construction of the project occurs in conjunction with the construction of other proposed and approved energy and mining projects in the region.

To address the residual impacts of the project, including biodiversity, heritage, noise, water and erosion, hazards, decommissioning and rehabilitation, the Department has recommended a range of detailed conditions, developed in conjunction with agencies and Council, to ensure these impacts are effectively managed, minimised and/or offset.

Summary

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

The project is also consistent with NSW's *Climate Change Policy Framework* and *Net Zero Plan Stage 2020 – 2030*, as it would contribute 28 MW of renewable energy to the National Electricity Market, and is located in close proximity to the Central-West Orana Renewable Energy Zone.

The project would also provide flow-on benefits to the local community, including up to 40 construction jobs, a capital investment of approximately \$42 million and an annual community enhancement contribution of \$20,000 to Council for the life of the project.

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

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1 Project

BayWa r.e. Projects Australia Pty Ltd proposes to develop a new State significant development (SSD) solar farm approximately 17 kilometres (km) northwest of Nyngan in the Bogan Shire local government area (LGA) (see **Figures 1 and 2**).

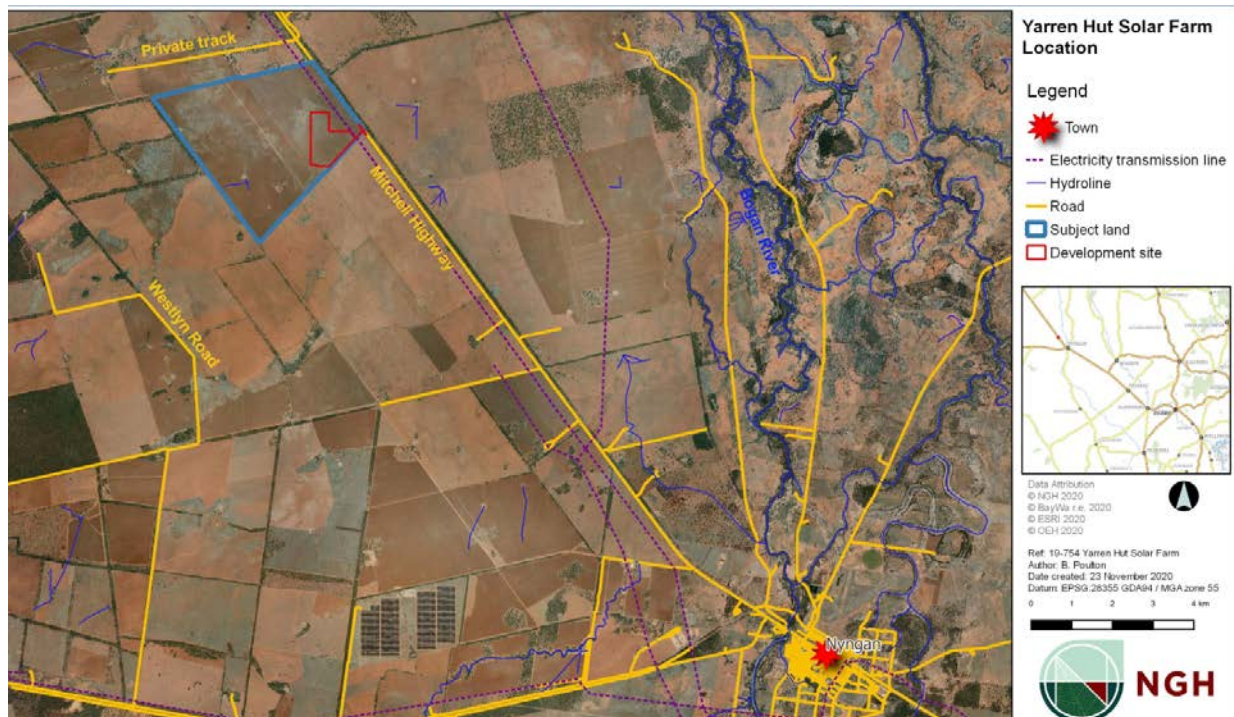


Figure 1 | Regional Context Map

The project involves the construction of a new solar farm with a generating capacity of 28 megawatts (MW). It also involves the upgrading and 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 be permitted to increase without further planning approval.

The solar farm would connect to Essential Energy's existing Nyngan to Bourke 66 kilovolt (kV) overhead transmission line which traverses the site adjacent to the eastern boundary.

The solar farm would be constructed over approximately 10 months, with a peak construction period of 5 months.

The key components of the project are summarised in **Table 1**, shown in **Figure 4**, and described in the Environmental Impact Statement (EIS) (see **Appendix B**), Submissions Report (see **Appendix C**) and additional information provided during the Department's assessment of the project (see **Appendix A**).

Table 1 | Main Components of the Project

Aspect	Description
Project summary	<p>The project includes:</p> <ul style="list-style-type: none"> • approximately 84,000 panels (up to 4 m high, fixed tilt or single-axis tracking); • up to 8 inverter stations (up to 4.5 m high); • an on-site substation / switching station (including supporting structures for overhead cabling up to 12 m high); • collector network of underground cables; • a new 66 kV overhead sub-transmission line to connect to Essential Energy's existing 66 kV sub-transmission line; • internal access tracks, staff amenities, maintenance buildings, site office, laydown areas, car park, storage facilities, fire breaks, vegetation screening and security fencing; and • 3 lot subdivision of land within the site.
Project area	<p>Site: 1,205 hectares (ha) Development footprint: Approximately 92 ha</p>
Access route	<p>All vehicles, including over-dimensional and heavy vehicles, would access the project site via an existing private access track located off the Mitchell Highway.</p>
Site entry and road upgrades	<ul style="list-style-type: none"> • Site entry on Mitchell Highway to be sealed and upgraded for 26 m B-Double semi-trailers. • Upgrades to the intersection of Mitchell Highway and private access track to provide a Basic Right Turn (BAR) and a Basic Left Turn (BAL) treatment.
Construction	<ul style="list-style-type: none"> • The construction period would last for about 10 months, with a peak period of five months. • Construction hours would be limited to Monday to Friday 7 am to 6 pm, and Saturday 8 am to 1 pm.
Operation	<p>The expected operational life is approximately 50 years. However, the project may involve infrastructure upgrades that could extend the operational life.</p>
Decommissioning and Rehabilitation	<p>The project also includes decommissioning at the end of the project life, which would involve removing all infrastructure.</p>
Hours of Operation	<p>Daily operations and maintenance would be undertaken Monday to Friday 7 am to 6 pm and Saturdays 8 am to 1 pm.</p>
Subdivision	<p>3 lot subdivision of land within the site, including one lot (1,113 ha) to be retained by the landowner for continued agricultural use, one lot for the solar farm (92 ha) and one lot for the grid substation (0.4 ha) that would be transferred to Essential Energy.</p>
Employment	<p>Up to 40 construction jobs and 2 full-time operational jobs</p>
Capital Investment Value	<p>Approximately \$42 million</p>



Figure 2 | Project Site as viewed from Mitchell Highway



Figure 3 | Development Footprint Within Project Site

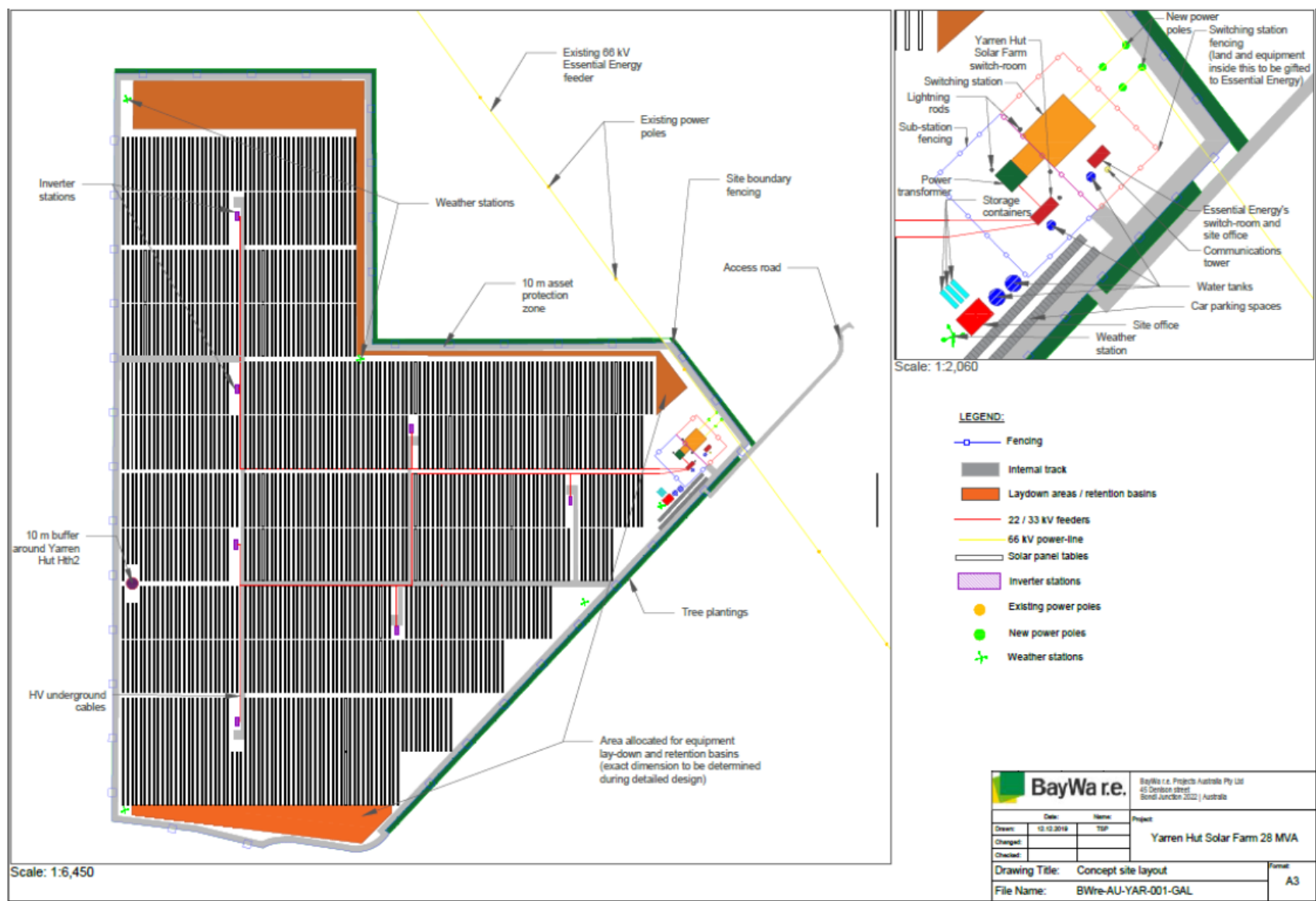


Figure 4 | Project Layout

2 Strategic context

2.1 Site and Surrounds

The project is located on a 1,205 ha site within the Central West and Orana region of NSW. The site is zoned RU1 – Primary Production under the *Bogan Local Environmental Plan 2011* (Bogan LEP) and is currently used for agricultural purposes, including grazing of livestock and dryland cropping. Approximately 92 % of the site (1,113 ha) would continue to be used for agricultural purposes.

The site does not include any mapped Biophysical Strategic Agricultural Land (BSAL). The soils within the site are predominantly classified as Class 3 (approximately 80% of the land) under the *Land and Soil Capability Mapping in NSW* (OEH, 2017), with the remainder of the land being Class 4. As such, the land is considered suitable for agriculture on a rotational basis.

While the site is largely mapped as Class 3 Land, soil studies submitted with the EIS indicate that the Class 3 soils within the site have limitations to agricultural productivity that are typically characteristic of Class 4 land, including low water holding potential and poor soil structure. Land use compatibility and impacts on agricultural land are discussed further in **Section 5.1**.

The site comprises low lying and relatively flat land and is predominantly cleared of vegetation. The site lies within the Bogan River catchment area. However, there are no watercourses or tributaries located within the site.

The proposed development footprint is approximately 92 ha and was designed to avoid impacts on biodiversity and Aboriginal heritage items and to avoid visual impacts on surrounding residential receivers (see **Figure 4**).

Land surrounding the site is also zoned RU1 and is largely used for agricultural purposes, such as cropping and grazing. The Mitchell Highway adjoins the eastern boundary of the site, and an Essential Energy 66 kV transmission line traverses the eastern boundary of the site.

There are no non-associated receivers located within 2 km of the proposed development footprint. The closest non-associated residence (R5) is located over 5 km from the development footprint and would not be able to see the project due to distance and intervening vegetation.

2.2 Other Solar Farms and State Significant Developments

The Central West and Orana region of NSW has attracted interest from solar developers given the presence of major transmission lines and existing electricity substations in the area. There are 3 other approved State significant development solar projects located within approximately 70 km of the project, with the closest located approximately 10 km south of the site, being Nyngan Solar Farm (see **Table 2** and **Figure 5**).

There are also 2 approved mining projects located within approximately 30 km of the site, being the Nyngan Scandium Mine and the Tritton Copper Mine (see **Table 3** and **Figure 5**).

Table 2 | Nearby Solar Farms

Project	Capacity (MW)	Status	Approximate distance from the project (km)
Nyngan Solar Farm	102	Operational	10
Bogan River Solar Farm	100	Not proceeding	20
Nevertire Solar Farm	105	Operational	71

Table 3 | Nearby SSD Mining Projects

Project	Status	Approximate distance from the project (km)
Nyngan Scandium Mine	Approved	20
Tritton Copper Mine	Operational	30

**Figure 5 |** Nearby Solar Farms and SSDs

Given the distance of the Yarren Hut Solar Farm from other approved solar farms and mining projects in the region (with the nearest solar farm located approximately 10 km and the nearest mining project located approximately 20 km from the site), there would be no significant cumulative visual or noise impacts. Potential cumulative impacts at the regional level relate to workforce accommodation, traffic and loss of agricultural land.

Regarding construction workforce accommodation, Nyngan Solar Farm (SSD 5355) and Nevertire Solar Farm (SSD 8072) are both operational, and the Department understands Bogan River Solar Farm (MP10_0123) is not proceeding.

Tritton Copper Mine (DA 41/98), located approximately 30 km to the west of the site, commenced operations in 2004. However, Nyngan Scandium Mine (SSD 5157) has not commenced and there is the potential for the construction period of the Yarren Hut Solar Farm to overlap with that of the Nyngan

Scandium Mine. Workforce accommodation for these projects would be sourced from the local and wider region, as discussed further in **section 5.2**.

There is also the potential for cumulative traffic impacts associated with an overlap of construction periods for the Yarren Hut Solar Farm and Nyngan Scandium Mine. The Yarren Hut Solar Farm is proposing to use the State road network for light and heavy vehicles, and access to the site would be located off the Mitchell Highway.

The Mitchell Highway has sufficient capacity to absorb construction traffic for the project and for the Nyngan Scandium Mine should the construction periods for both projects overlap. Given the distance of the Nyngan Scandium Mine from the project (approximately 20 km), it is unlikely that there would be any significant cumulative traffic impacts associated with an overlap of construction periods for these projects. In any case, the Department has recommended strict conditions to minimise any potential cumulative traffic impacts with other solar farms and State Significant Developments in the area. Potential cumulative traffic impacts from the project have been considered in **section 5.2**.

The broader potential cumulative impacts on agricultural land in the region are discussed further in **section 5.1**.

2.3 Energy Context

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

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* 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.

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

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

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

is balanced with considering the interests of the community. BPA's assessment is consistent with the principles of the Guideline.

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

NSW is one of the nation's leaders in large-scale solar, with 14 major operational projects and an additional 8 under construction.

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 is located in close proximity to the Central West Orana Renewable Energy Zone and would have access to the electrical grid at a location with available network capacity. With a capacity of 28 MW, the project would generate enough electricity to power approximately 10,000 homes, and is therefore consistent with NSW's *Climate Change Policy Framework* and *Net Zero Plan Stage 1: 2020 – 2030*.

3 Statutory Context

3.1 State Significant Development

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

Consequently, the Minister for Planning and Public Spaces is the consent authority for the development. However, under the Minister's delegation of 9 March 2020, the Executive Director, Energy, Industry and Compliance, may determine the development application as Council did not object, there were less than 50 unique submissions from the general public and a political donations disclosure statement has not been made.

3.2 Permissibility

The site is located wholly within land zoned RU1 - Primary Production under the *Bogan Local Environmental Plan 2011* (LEP), the provisions of which are discussed in **section 5.1**. The RU1 zone includes various land uses that are both permitted with and without consent. As electricity generating works are not expressly listed as permitted with or without consent, they are a prohibited land use under a strict reading of the LEP. However, the LEP expressly references the *State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP) and acknowledges that electricity generating works are regulated by the Infrastructure SEPP, rather than the LEP.

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

3.3 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 therefore are not required to be separately obtained for the proposal.

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

- permits under the *Water Management Act 2000*;
- approvals for the disposal of wastewater under the *Local Government Act 1993*; and
- approvals for any works under the *Roads Act 1993*, including the proposed road upgrades at the intersection of the Mitchell Highway.

The Department has consulted with the relevant government agencies 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 F**).

BPA considers that the project does not need to obtain approval from the Commonwealth Minister for the Environment under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC

Act), as surveys undertaken to date have not identified any significant impacts on matters of national environmental significance listed under the EPBC Act.

3.4 Mandatory Matters for Consideration

Section 4.1.5 of the EP&A Act outlines the matters that a consent authority must take into consideration when determining development applications. These matters are summarised as:

- the provisions of environmental planning instruments (including draft instruments), development control plans, planning agreements, and the EP&A Regulations;
- the environmental, social and economic impacts of the development;
- the suitability of the site;
- any submissions; and
- the public interest, including the objects in the EP&A Act and the encouragement of ecologically sustainable development (ESD).

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

4 Engagement

4.1 Department's engagement

The Department publicly exhibited the EIS from 19 August 2020 until 16 September 2020 on its website and advertised the exhibition in the Daily Telegraph and Sydney Morning Herald and notified landowners adjoining the project boundary.

The Department also consulted with Council and the relevant government agencies throughout the assessment.

The Department notified and sought comment from Essential Energy and Transport for NSW (TfNSW) in accordance with the Infrastructure SEPP.

4.2 BPA's Engagement

BPA undertook engagement with the surrounding community as detailed in the EIS, including newspaper advertisements, a community information session, correspondence with individual adjacent neighbours via phone or email and made information about the proposal available via a project website. BPA also undertook consultation with the Department, relevant government agencies, network providers and Bogan Shire Council during the assessment process.

4.3 Submissions and Submissions report

During the exhibition of the EIS, the Department received one submission from a special interest group in support of the project. No individual community submissions were received.

Advice was received from 15 government agencies, including Bogan Shire Council.

Full copies of the agency advice and public submissions are attached in **Appendix D**.

BPA provided a response to all matters raised in submissions on the project (see **Appendix E**). BPA has also provided additional information during the Department's assessment (see **Appendix A**).

4.4 Key issues – Government Agencies

Bogan Shire Council expressed support for the proposal, subject to recommended conditions regarding bushfire, wastewater, waste management, site decommissioning and the Voluntary Planning Agreement (VPA). BPA has addressed these requirements in the Submissions Report and additional information, and the Department has included them as conditions of consent where appropriate.

The **Department's Biodiversity Conservation and Science Directorate** (BCS, formerly Biodiversity Conservation Division) initially requested further information on BPA's Biodiversity Development Assessment Report (BDAR) regarding the development footprint and site access.

BPA responded to these issues in the Submissions Report and additional information, which included an amended BDAR. BCS subsequently confirmed that it had no residual concerns regarding the

development, subject to the implementation of appropriate mitigation and management measures, which have been incorporated into the recommended conditions of consent. Biodiversity is further discussed in **section 5.2**.

The Department's **Water Group** (DPIE Water) and the **Natural Resources Access Regulator** (NRAR) recommended water supply arrangements be confirmed for the project and requested a Construction and Operational Environmental Management Plan that incorporates an Erosion and Sediment Control Plan be prepared prior to commencement. BPA responded to these issues in the Submissions Report, and has confirmed availability of water following consultation with Council and committed to the preparation of an Environmental Management Plan that includes an Erosion and Sediment Control Plan. The Department has included requirements in the recommended conditions of consent to minimise any soil erosion.

The **Rural Fire Service** (RFS) and **Fire and Rescue NSW** (FRNSW) recommended requirements related to bushfire and hazard preparation and management, which have been incorporated into the recommended conditions of consent.

The **Department of Primary Industries (Agriculture)** has advised that potential agricultural land and land use impacts have been adequately addressed by the project and has recommended conditions regarding pest and weed management, monitoring and reporting of groundcover conditions for the site, and rehabilitation and decommissioning measures. The Department has included these requirements in the recommended conditions of consent.

Transport for NSW (TfNSW) did not object to the project but requested additional upgrades to include a basic right turn (BAR) treatment at the intersection of the site access with the Michell Highway as well as the proposed basic left turn (BAL). BPA have agreed to these requirements and amended the design to include a BAR treatment. The amended design was referred to TfNSW who confirmed it had no residual issues, subject to recommended conditions regarding road upgrades, obtaining relevant permits under the *Roads Act 1993*, and the preparation of a Traffic Management Plan in consultation with TfNSW. The Department has included these requirements in the recommended conditions of consent.

Regional NSW – Mining, Exploration & Geoscience (MEG) did not object to the proposal and confirmed that it is satisfied that the project would not sterilise any mineral resources.

Heritage NSW raised no issues with the project, noting that the subject site is not listed on the State Heritage Register (SHR), does not contain any known historical archaeological deposits and is not in the immediate vicinity of any SHR items.

Heritage NSW – Aboriginal Cultural Heritage did not object to the project, subject to the recommended measures to manage potential impacts on Aboriginal cultural heritage within the development site. The Department has included these requirements in the recommended conditions of consent.

The **Environment Protection Authority (EPA)** raised no issues with the project, noting that the proposal is not a scheduled activity and does not require an environment protection licence (EPL) under the *Protection of the Environment Operations Act 1997*.

Crown Lands and **WaterNSW** raised no concerns and made no recommendations.

Essential Energy provided advice regarding electricity connection requirements and confirmed with BPA that there is presently capacity in the Dubbo-Nyngan network to accommodate the project.

4.5 Interest Group Submission

One interest group submission was received from Workfast Marketplace (a staffing and recruitment agency) indicating support for the development of renewable energy projects in remote communities.

4.6 Response to submissions

Following consideration of submissions on the project, BPA amended the design to incorporate a Basic Right Turn (BAR) treatment on Mitchell Highway adjacent to the site entry. Further information was also submitted to support initial findings relating to biodiversity impacts, soil quality and agricultural impacts.

5 Assessment

The Department has undertaken a comprehensive assessment of the merits of the project. This report provides a detailed discussion of the key assessment issues, namely land use compatibility (see **section 5.1**) and traffic and transport (see **section 5.2**).

The key constraints for the project are depicted in **Figure 4**. The Department has also considered the full range of potential impacts associated with the project and has included a summary of the conclusions in **section 5.2**. A list of the key documents that informed the Department's assessment is provided in **Appendix A**.

5.1 Compatibility of Proposed Land Use

Provisions of the Bogan LEP

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

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

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

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

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

While the Bogan Shire LGA has traditionally relied upon agriculture, the growing number of proposed and approved SSD solar farms in the LGA and in the region, including Nyngan Solar Farm (SSD 5355), Bogan River Solar Farm (MP10_0123) and Nevertire Solar Farm (SSD 8072), indicates that the local economy is transitioning to accommodate a greater diversity of land uses in the area. The introduction of another solar farm in the LGA would contribute to a diverse local industry base, thereby supporting the local economy and the community. The project is also consistent with the Department's *Central West and Orana Regional Plan 2036*, which identifies the development of renewable energy generation as a priority growth sector for the region.

The Department considers that the development would not fragment or alienate resource lands in the LGA, as the land could easily be returned to agricultural land following decommissioning, and the inherent agricultural capability of the land would not be affected in the long term. Further, BPA propose to continue sheep grazing within the site and the project would also not sterilise any mineral resources (as discussed further below).

Finally, and importantly, Council supports the project, subject to the implementation of appropriate environmental mitigation measures.

Potential Impacts on Agricultural Land

The project site is located within the Central West and Orana Region, which has a strong and diverse agricultural sector, with over 8.9 million ha of the region being used for agricultural output.

Under the existing *Land and Soil Capability Mapping in NSW* (OEH), which provides a broad-scale regional view of the land and soil capability across NSW, all of the project site including all of the land within the development footprint (approximately 92 ha) is classified as Class 3 (highly capable land), (see **Figure 6**). As such, a majority of the site is capable of sustaining cultivation on a rotational basis.

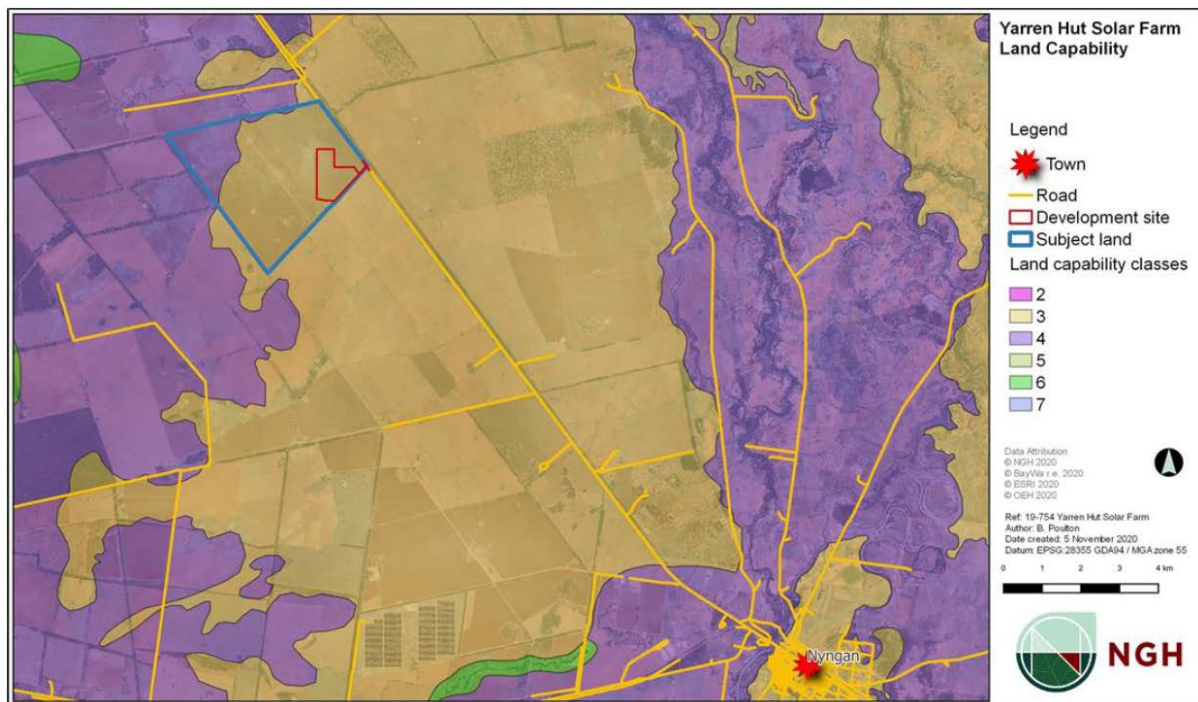


Figure 6 | Land and Soil Capability Class

While OEH mapping data classifies the land within the development footprint as Class 3 land, soil studies undertaken as part of the EIS indicate that soils within the development footprint have some of the limitations and characteristics associated with Class 4 land, including low water holding capacity and poor soil structure. The land would therefore require further management practices, inputs and technology to manage productivity than would ordinarily be required for other Class 3 land.

As the project site (1,205 ha) is currently used for sheep grazing and dryland cropping, the solar farm would reduce the agricultural output of the site while the solar farm remains operational. However, the Department notes that the development footprint would occupy less than 10% of the Class 3 land (approximately 960 ha) within the site, and the landowners would be able to continue the agricultural use of the remaining 92% of the site (1,113 ha). Further, BPA is proposing to manage the land within the project footprint through sheep grazing during the operation of the development.

The inherent agricultural capability of the lands and soils would not be affected by the project due to the limited disturbance required to construct and operate the development, and BPA proposes to return the land back to existing levels of agricultural capability.

The Department also notes that Council indicated support for the project, subject to appropriate rehabilitation and site management measures. The Department has therefore included requirements to

maintain the land capability of the site, including ground cover and maintaining grazing within the development footprint during operation of the project (where possible), and to fully reinstate the agricultural capability of the land following decommissioning.

Regarding potential cumulative impacts, the development footprint of the project combined with other approved and/or operational SSD solar farms in the Central West and Orana region would be approximately 4,000 ha. The loss of 4,000 ha of agricultural land represents a very small fraction (approximately 0.05%) of the 8.9 million ha of land being used for agricultural output and would result in a negligible reduction in the overall productivity for the Central West and Orana region.

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

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

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

Potential Impacts on Mining and Exploration

Two exploration licences (ELs) exist over the development site, being EL8631, held by Ochre Resources Pty Ltd, and EL8730, held by Australian Consolidated Gold Holding Pty Ltd.

Ochre Resources Pty Ltd and Australian Consolidated Gold Holdings have raised no concerns about the proposal being located on the EL holdings.

MEG has confirmed that BPA has undertaken adequate consultation with the EL holders and that sufficient information has been provided about the potential land use conflicts of the solar farm and these existing ELs.

Further, the Department notes that EL8631 and EL8730 both cover a large land area, and that the proposed development footprint would occupy less than 1 % of this area. While the ability to access underlying mineral resources may be locally constrained during operation of the solar farm, the Department is satisfied that access to these resources would not be sterilised in the long term following decommissioning and rehabilitation of the project.

5.2 Other Issues

The Department's consideration of other issues is summarised in Table 4.

Table 4 | Summary of other issues

Findings	Recommendations
Traffic and Transport	
<ul style="list-style-type: none"> The transport route to be used by light, heavy and over-dimensional vehicles for the project during construction and operation is via the southern approach from the Mitchell Highway. Site access for construction and operational traffic would be via a single site access point in the north-eastern corner of the site with a parking and set down area proposed in the north-eastern corner of the site (see Figure 4). The main increase in traffic volumes would occur during the 10 month construction period, with a peak construction period of up to 5 months. During the peak period, the project would generate up to 34 heavy vehicle movements per day and 34 light vehicles movements per day. Additionally, two over-dimensional vehicle movements would be required during construction, upgrading or decommissioning activities. In order to reduce the number of light vehicles accessing the site during the peak construction period, BPA has committed to implementing a shuttle bus service to and from Nyngan or other nearby town centres, dependent upon workforce and accommodation requirements, the details of which would be provided in the project's Traffic Management Plan. Traffic during operations would be negligible, with a maximum of 6 light vehicles per day. The Mitchell Highway has sufficient capability to accommodate construction traffic associated with the project, subject to widening and realignment adjacent to the site access point. A Basic Left Turn (BAL) and Basic Right Turn (BAR) treatment are proposed to accommodate simultaneous truck movements into the site. With the above upgrades, dilapidation surveys and maintenance requirements including repairs where the dilapidation surveys identify the road has been damaged during construction, upgrading or decommissioning activities and implementation of a Traffic Management Plan, the Department, TfNSW and Council are satisfied that the project would not result in significant impacts on the road network capacity, efficiency or safety. Other major projects in the surrounding area include the approved Nyngan Scandium Mine approximately 20 km west of Nyngan and the Nyngan Solar Farm approximately 10 km west of Nyngan township. The combined total peak traffic volumes for these projects is estimated to be in the order of 10 vehicles per hour, which would have a minimal impact on the road network, including traffic through Nyngan township. 	<ul style="list-style-type: none"> Upgrade the primary site access point including provision of BAL and BAR treatment on Mitchell Highway. Restrict the number of vehicles during construction, upgrading or decommissioning to the peak volumes identified within the EIS. Ensure the length of vehicles (excluding over-dimensional vehicles) does not exceed 26 m. Prepare and implement a Traffic Management Plan in consultation with TfNSW and Council, including measures that would be implemented to address road safety, details of the employee shuttle bus service and strategies to encourage use of the shuttle bus service and car-pooling. Undertake road dilapidation surveys for the portion of Mitchell Highway adjacent to the site and adjacent to the required roadworks (including the BAR and BAL upgrades), prior to construction, upgrading or decommissioning activities, and repair any damage identified.

Findings	Recommendations
<ul style="list-style-type: none"> Cumulative traffic impacts on local road users would be further minimised and managed through measures developed as part of the Traffic Management Plan, including scheduling construction activities and deliveries to minimise road transport movements and avoid conflict with school buses and other road users. TfNSW and Council support this approach, and the Department has included this requirement in the recommended conditions. 	
Biodiversity	
<ul style="list-style-type: none"> The site is largely comprised of cleared agricultural land with small patches of remnant roadside vegetation and isolated paddock trees scattered throughout the site. The project would disturb 0.12 ha of native vegetation within the roadside and 3 paddock trees within the site (1 Ironwood (<i>Acacia excelsa</i>) and 2 Poplar Box (<i>Eucalyptus populnea</i>)). None of the paddock trees to be removed are hollow bearing. The native vegetation and paddock trees to be removed represent <i>Poplar Box – White Cypress Pine -Wilga – Ironwood shrubby woodland</i> (PCT 98) for the purpose of calculating offset requirements. This approach is supported by BCS. The woodland is not a threatened ecological community under the <i>Biodiversity Conservation Act 2016 (BC Act)</i>. Two threatened species listed under the BC Act were assumed to be present within the roadside vegetation of the proposed road upgrades, including the Major Mitchell's Cockatoo (<i>Lophochroa leadbeateri</i>) and Shrub Sida (<i>Sida rohlenae</i>). The site is not considered to include potential Koala Habitat. The impact on native vegetation and native species would generate 2 ecosystem credits and 2 species credits under the BC Act. The final credit requirement would be retired in accordance with the <i>NSW Biodiversity Offset Scheme</i> which may include acquiring or retiring biodiversity credits, making payments in an offset fund or funding a biodiversity conservation action. With these measures, both BCS and the Department consider that the project is unlikely to result in a significant impact on the biodiversity values of the locality. 	<ul style="list-style-type: none"> Retire the applicable biodiversity offset credits in accordance with the <i>NSW Biodiversity Offsets Scheme</i>.
Noise	
<ul style="list-style-type: none"> There are no residences located within 5 km of the development, and any noise generated by the proposed construction, upgrading and decommissioning activities is unlikely to be detectable at residences more than 5 km from the site. Given the distance between the development and surrounding properties, noise generated by the proposed construction, upgrading and decommissioning activities would be well below the 'noise affected criterion' of 45 dB(A) in EPA's <i>Interim Construction Noise Guideline</i> (the ICNG) at all surrounding residences. 	<ul style="list-style-type: none"> Minimise noise generated by the construction, upgrading or decommissioning activities on site in accordance with best practice requirements outlined in the ICNG. Restrict construction hours to Monday to Friday, 7am – 6

Findings	Recommendations
<ul style="list-style-type: none"> • Road traffic noise during construction of the project would comply with the relevant criteria in the EPA's <i>Road Noise Policy</i>. • Given the distance between the development and surrounding residences, operational noise is unlikely to be detectable at any of these residences, and operational noise levels are predicted to be well below the intrusiveness criteria in the EPA's <i>Noise Policy for Industry</i>. • Given the distance between the development and the nearest operational solar farm (10 km to Nyngan Solar Farm), and the distance between the development and the yet to be constructed Nyngan Scandium Mine (approximately 20 km), there would be no significant cumulative noise impacts associated with these developments. • Whilst minimal noise impacts are anticipated, construction noise would still be limited to standard construction hours and would be short-term. • Noting the above, the Department is satisfied that construction and operational noise impacts would be limited and has recommended conditions requiring BPA to minimise noise during construction, upgrading or decommissioning by implementing best practice noise mitigation work practices set out in the ICNG. 	<p>pm and Saturday, 8 am – 1 pm.</p>

Visual	
<ul style="list-style-type: none"> • The project would be located in a relatively isolated area, with the closest non-associated residence (R5) located over 5 km to the south of the development footprint at its closest point. • Given the distance between the solar farm and surrounding residences, the relatively low height of the infrastructure (solar arrays up to 4 m high) and the topography of the area, the potential visual impacts of the project on residences would be negligible. • The Department notes that no submissions were received expressing concerns regarding potential visual impacts. • Impacts on the landscape have been minimised through project design, including the development setbacks from site boundaries, the retention of existing roadside vegetation where practicable and the provision of screening vegetation along the project boundaries to minimise views of the development from the Mitchell Highway. • 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. • Lighting would be limited to office buildings and motion sensor securitylighting for after hours access. • The Department considers that subject to the implementation of the proposed visual impact mitigation measures, including the provision of visual screening along the project boundaries, the visual impacts of the project on the landscape and local residents would be negligible. 	<ul style="list-style-type: none"> • Establish and maintain a vegetation buffer along the northern, southern and eastern borders of the development site to minimise views from the Mitchell Highway within 3 years of operation. • Ensure the appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape, and not mount any advertising signs or logos on site, except where this is required for identification and safety purpose. • Minimise the off-site lighting impacts of the development, and ensure that any external lighting is installed as low intensity lighting (except where required for safety or

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emergency purposes), does not shine above the horizontal and complies with *Australian/New Zealand Standard AS/NZS 4282:2019 – Control of Obtrusive Effects of Outdoor Lighting*.

Water and Erosion

- There are no mapped watercourses within the site or within the vicinity of the site, and the development footprint has been sited away from all farm dams within the site.
- The site is not identified as flood prone land under the Bogan LEP, and the development has been designed to minimise site runoff and surface water flows.
- The site is not located within the Bogan River floodplain and is unlikely to be impacted by a 1%, 0.5% or 0.2% AEP flood event.
- However, the Flood and Drainage Assessment submitted with the EIS notes that there is a slight chance that a Probable Maximum Flood (PMF) event could occur on the site and has recommended a suite of mitigation measures should a flood event occur within the site.
- BPA would avoid potential impacts on flooding by constructing the floor levels of the inverter stations, substation and site office to a minimum of 0.5 m above surrounding ground surface levels.
- BPA have also committed to the development of a Floodsafe Plan and Flood Response Plan encompassing all stages of the development.
- Any erosion and sedimentation risks associated with the project can be effectively managed using best practice construction techniques.
- Fuels and chemicals would be stored to prevent water pollution.
- The project is not expected to affect groundwater or groundwater dependent ecosystems.
- The project would require around 3,500 kL of water during construction (primarily for dust suppression) and around 60 kL of water annually during operation (primarily for panel cleaning and plant watering). A static water supply (20,000 litres) would also be established and maintained for fire protection.
- It is proposed that water used on site would be sourced from Bogan Shire Council (BSC) standpipes located within Nyngan township. BPA has confirmed that BSC is able to provide the required quantity of water.
- Subject to the recommended conditions, the Department is satisfied that the project would not result in significant impacts on water resources.
- Ensure the solar panels and ancillary infrastructure (including security fencing) are designed, constructed and maintained to reduce impacts on surface water, flooding and groundwater at the site.
- Minimise any soil erosion in accordance with *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) manual and ensure the project is constructed and maintained to avoid causing erosion on site.
- Prohibit water pollution in accordance with Section 120 of the *Protection of the Environmental Operations Act 1997*.
- Ensure there is sufficient water for all stages of the project, and if necessary, adjust the scale of the development to match available water supply

Voluntary Planning Agreement (VPA)

Findings	Recommendations
<ul style="list-style-type: none"> • BPA has an in-principle agreement with Council to enter into a VPA comprising a financial contribution of \$20,000 (plus CPI) per annum to Council. • The terms of the VPA would be from the commencement of energy generation and export into the network, and until operations ceased as specified in the development consent. • The financial contribution would be reduced proportionally where export into the network cannot occur due to maintenance, and no contributions would be payable if export ceased permanently. • The Department has included a condition of consent that the VPA be formalised with the delivery of the project in accordance with the terms of the agreement. 	<ul style="list-style-type: none"> • Require a VPA to be entered into in accordance with the in-principal agreement between BPA and Council.
Hazards	
<ul style="list-style-type: none"> • The development site is identified as bushfire prone land. BPA would be required to maintain a 10 m defendable space around all project infrastructure and manage the defendable space and solar array areas as an Asset Protection Zone. BPA would also be required to comply with the RFS's <i>Planning for Bushfire Protection</i> (2019) and prepare an Emergency Plan to manage the fire risk. • The Department and RFS are satisfied that the bushfire risks can be suitably controlled through the implementation of standard fire management procedures. • The project would comply with the <i>International Commission on Non-Ionizing Radiation Protection</i> (ICNIRP) guidelines for electric, magnetic and electromagnetic fields. • The project has been screened against the <i>State Environmental Planning Policy (SEPP 33) Hazardous and Offensive Development</i> guidelines and is not identified as potentially hazardous development. • Subject to the recommended conditions, the Department is satisfied that risks associated with the facility would be negligible. 	<ul style="list-style-type: none"> • Ensure that the development complies with relevant asset protection requirements in the RFS's <i>Planning for Bushfire Protection</i> (2019). • Prepare and implement an Emergency Plan in consultation with RFS and FRNSW. • Store and handle all liquid chemicals, fuels and oils used on-site in accordance with all relevant Australian Standards and the EPA's <i>Storing and Handling of Liquids: Environmental Protection – Participants Handbook</i>.
Decommissioning and Rehabilitation	
<ul style="list-style-type: none"> • BPA has advised that the project would have a 50-year operational life, after which it would be decommissioned. Bogan Shire Council in its submission indicated that a Rehabilitation and Decommissioning Management Plan (RDMP) for the project should be prepared within 5 years of operations commencing and BPA has agreed to this. • The Department notes that the recommended conditions of consent do not limit the life of the project and the capacity of the project may increase over time as technology improves as long as it stays within the approved footprint. • Although Bogan Shire Council requested an RDMP and BPA agreed to this, the Department considers that as strict conditions have been developed for solar farms to cover this stage of the project life cycle, including clear decommissioning triggers and rehabilitation 	<ul style="list-style-type: none"> • Include rehabilitation objectives requiring the site to be rehabilitated within 18 months of cessation of operations.

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objectives such as restoring land capability to its pre-existing agricultural use, this stage can be appropriately managed with the recommended conditions and an RDMP is not required.

- With the implementation of these measures, the Department considers that the solar farm would be suitably decommissioned at the end of the project life, or within 18 months if operations cease unexpectedly, and that the site would be appropriately rehabilitated.

Subdivision

- BPA proposes to subdivide the 1,205 ha property into three lots. One 92 ha lot would contain the solar farm compound and solar arrays, one 0.4 ha lot would contain the substation and would be transferred to Essential Energy, and the residual 1,113 ha (approx.) lot would be retained by the landowner for agricultural purposes.
- Two of the newly created lots would be below the minimum lot size of 600 ha and are prohibited under a strict reading of the LEP.
- Notwithstanding, under Section 4.38(3) of the EP&A Act, development consent for the project as a whole can be granted despite the subdivision component of the application being prohibited by the LEP.
- The Department is satisfied that the subdivision should be approved as it:
 - is necessary for the operation of the substation;
 - would not result in any additional dwelling entitlements on the subdivided lots; and
 - is consistent with the key objectives of the RU1 zone as it would encourage diversity and primary industry enterprises and minimise conflict between land uses.
- The Department notes that Council raised no concerns in relation to the proposed subdivision.
- The Department considers that on the basis of the above, the proposed subdivision would allow the solar farm to be developed and consequently provide net benefits to the National Electricity Market that can be realised in a timely manner, whilst not adversely affecting the use of surrounding land for agricultural purposes.
- Subdivide the proposed lots in accordance with requirements of section 157 of the *Environmental Planning and Assessment Regulation 2000*.

Workforce Accommodation & Local Employment

- Bogan Shire Council supports the project for its economic contribution to the area and have encouraged sourcing workers locally.
- Up to 40 workers would be required during the construction period and BPA has committed to source workers from the local community wherever possible.
- The Department is satisfied that there is sufficient accommodation in nearby towns, such as Nyngan.
- There is however potential for construction of the project to overlap with the construction of the proposed Nyngan Scandium Mine.
- Prepare an Accommodation and Employment Strategy for the project in consultation with Council, with consideration of the cumulative impacts associated with other SSD projects in the region.

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Should this occur, up to 100 construction personnel may be required in the region, although it is unlikely that the entire construction periods of these projects would overlap.

- While the Department considers that there is sufficient workers accommodation for these projects, to manage cumulative impacts associated with multiple projects in the region and to encourage the employment of locally sourced workers (which was a concern of Council), BPA would be required to develop an Accommodation and Employment Strategy. The Strategy would require BPA to:
 - propose measures to ensure that there is sufficient accommodation for the workforce associated with the project;
 - consider the cumulative impacts with other projects in the area;
 - prioritise employment of local workers; and
 - monitor and review the effectiveness of the strategy, including regular monitoring during construction.

Heritage

Aboriginal Cultural Heritage

- Site surveys identified three Aboriginal heritage sites within the site, including two hearths (NGH Yarren Hut Hth1 (hearth with artefacts) and NGH Yarren Hut Hth2) and one scarred tree (NGH Yarren Hut ST1). These surveys were conducted in consultation with Registered Aboriginal Parties (RAPs), and the sites were assessed as having low cultural value and low to moderate scientific significance.
 - ST1 is located approximately 1.3 km outside of the development footprint and would not be impacted by the development.
 - Hth1 is also located outside of the development footprint, but due to its proximity to the southwest corner of the development, BPA has committed to implement perimeter fencing around Hth1 with a minimum 10 m radius to avoid impacts on this item.
 - Whilst Hth2 is located within the footprint, BPA has also committed to the provision of a 10 m buffer zone with perimeter fencing to avoid impacts on this item.
 - Consultation with RAPs has informed the project design and management measures.
 - BPA has committed to provide ongoing management opportunities through a Cultural Heritage Management Plan in consultation with RAPs.
 - If Aboriginal artefacts or skeletal remains are identified during construction of the project, all work would cease, and an unexpected finds procedure would be implemented.
 - With these measures, the Department and Heritage NSW consider that the project would not significantly impact the heritage values of the locality.
- Ensure the development does not cause any direct or indirect impacts on any items located within exclusion zones or outside the approved development footprint.
 - Where required, salvage and relocate Aboriginal items to suitable alternative locations in consultation with Aboriginal stakeholders.
 - Prepare and implement a Cultural Heritage Management Plan, including procedures for unexpected finds, in consultation with RAPs.

Historic Heritage

- Site inspections and a desktop study did not identify any heritage sites or items occurring within or near the development site. The

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nearest listed heritage item of local significance is located approximately 17 km southeast of the development site.

- The Department is satisfied that the project would not have any adverse impacts on heritage items in the local area. Any unexpected finds of potential heritage significance could be appropriately managed by an unexpected finds protocol.
-

6 Recommended Conditions

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

The Department consulted with BPA and the relevant agencies on the conditions for the project, particularly Council regarding the terms of the VPA, TfNSW in regard to the road upgrades and maintenance requirements, and BCS to determine the appropriate biodiversity offset requirements for the project.

These conditions are required to:

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

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

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

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

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

Other key recommended conditions include:

- *roads* – requiring dilapidation surveys and maintenance of local roads, and implementation of road upgrades prior to the commencement of construction;
- *biodiversity offsets* – retiring biodiversity offset credits in accordance with the NSW Biodiversity Offsets Scheme;
- *operating hours* – undertaking construction, upgrading or decommissioning activities on-site during standard construction hours, unless these activities are inaudible at non-associated receivers; and
- *fire* – ensure that the development complies with the relevant asset protection requirements in the RFS's *Planning for Bushfire Protection 2019*.

7 Evaluation

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

The project site is located in proximity to Mitchell Highway and has direct access to the electricity network via Essential Energy's transmission line, which traverses the site. The site is in a rural area, with the nearest non-associated dwelling located over 5 km from the site.

The Department considers the site to be appropriate for a solar farm as it has good solar resources and available capacity on the existing electricity network, and is in close proximity to the Central West Orana Renewable Energy Zone.

Visual impacts on surrounding roads and residences would be negligible due to separation distances and intervening existing and proposed vegetation in and around the site.

The project has been designed to largely avoid key constraints, including remnant native vegetation and Aboriginal heritage.

Given the distance of Yarren Hut Solar Farm from all approved and proposed projects in the region there would be no significant cumulative impacts.

Both the Department and Council consider a solar farm development to be a suitable land use for the site. The project would not result in any significant reduction in the overall agricultural productivity of the region, and BPA intends to graze sheep on the site during operation of the project. Additionally, the site could be returned to agricultural use 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 managed, minimised and/or offset. BPA has reviewed the conditions and does not object to them.

The Department also considers that with the proposed conditions of consent, the residual impacts can be appropriately addressed.

Importantly, the project would assist in transitioning the electricity sector from coal power stations to low emission sources. It would generate up to approximately 62,000 megawatt hours (MWh) of clean electricity annually, which is enough to power up to 10,000 homes and save up to 59,000 tonnes of greenhouse emissions per year. It is therefore consistent with the goals of the NSW *Climate Change Policy Framework* and *Net Zero Plan Stage 1: 2020-2030*.

The Department considers that the project achieves an appropriate balance 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, including up to 40 construction jobs, capital investment of approximately \$42 million, and an annual community enhancement contribution of \$20,000 to Council for the life of the project.

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

8 Recommendation

It is recommended that the Executive Director, as delegate of the Minister for Planning and Public Spaces:

- **considers** the findings and recommendations of this report; and
- **accepts** and **adopts** all of the findings and recommendations in this report as the 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** for the application in respect of Yarren Hut Solar Farm (SSD 10415); and
- **signs** the attached development consent and recommended conditions of consent (see **Appendix F**).

Prepared by:
Lander Robinson
Senior Environmental Assessment Officer
Energy Resource Assessments

Recommended by:



27 January 2021

Karl Okorn
Team Leader
Energy Resource Assessments

Recommended by:



27 January 2021

Nicole Brewer
Director
Energy Resource Assessments

9 Determination

The recommendation is **Adopted** by:



28 January 2021

Mike Young

Executive Director

Energy, Industry and Compliance

Appendices

Appendix A – List of Documents

Yarren Hut Solar Farm Environmental Impact Statement, NGH Environmental, 3 August 2020

Yarren Hut Solar Farm Submissions Report, NGH Environmental, 18 November 2020

Yarren Hut Solar Farm Additional Information, NGH Environmental, 22 January 2021

Appendix B – Environmental Impact Statement

See the Department's website at:

<https://www.planningportal.nsw.gov.au/major-projects/project/26561>

Appendix C – Additional Information

See the Department's website at:

<https://www.planningportal.nsw.gov.au/major-projects/project/26561>

Appendix D – Submissions

See the Department's website at:

<https://www.planningportal.nsw.gov.au/major-projects/project/26561>

Appendix E – Submissions Report

See the Department's website at:

<https://www.planningportal.nsw.gov.au/major-projects/project/26561>

Appendix F – Recommended Conditions of Consent

See the Department's website at:

<https://www.planningportal.nsw.gov.au/major-projects/project/26561>

Appendix G – Statutory Considerations

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

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

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

Aspect	Summary
Objects of the EP&A Act	<p>The objects of most relevance to the Minister's decision on whether or not to approve the project are found in Section 1.3(a), (b), (c), (e) and (f) of the EP&A Act.</p> <p>The Department considers the project encourages the proper development of natural resources (Object 1.3(a)) and the promotion of the orderly and economic use of land (Object 1.3(c)), particularly as the project:</p> <ul style="list-style-type: none">• is a permissible land use on the subject land;• is located in a suitable location for efficient solar energy development;• is able to be managed such that the impacts of the project could be adequately minimised, managed, or at least compensated for, to an acceptable standard;• would not fragment or alienate resource lands in the LGA; and• is consistent with the goals of the <i>NSW Net Zero Plan Stage 1: 2020 – 2030</i>, and would assist in meeting Australia's greenhouse gas emission reduction targets. <p>The Department has considered the encouragement of ESD (Object 1.3(b)) in its assessment of the project. This assessment integrates all significant socio-economic and environmental considerations and seeks to avoid any potential serious or irreversible environmental damage, based on an assessment of risk-weighted consequences.</p> <p>In addition, the Department considers that appropriately designed SSD solar development, in itself, is consistent with many of the principles of ESD. BPA has also considered the project against the principles of ESD, particularly the principle of <i>intergenerational equity</i>, concluding that the proposal would benefit future generations by reducing the reliance on energy sources derived from non-renewable resources, which produce greenhouse gas emissions.</p> <p>Consideration of environmental protection (Object 1.3(e)) is provided in section 5 of this report. BPA has applied both the <i>precautionary principle</i> and the <i>conservation of biological diversity and ecological integrity</i> to avoid serious or irreversible damage to the environment where practicable and to include management measures to minimise residual impacts. Following its consideration, the Department considers that the project can 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</p>

communities of the locality. The Department is also satisfied that any residual biodiversity impacts can be managed and/or mitigated by imposing appropriate conditions and retiring the required biodiversity offset credits.

Consideration of the sustainable management of built and cultural heritage (Object 1.3(f)) is provided in **section 5.2** of this report. Following its consideration, the Department considers the project would not significantly impact the built or cultural heritage of the locality. The Department is satisfied that any residual impacts on heritage can be managed and/or mitigated by imposing appropriate conditions.

State Significant Development

Under Section 4.36 of the EP&A Act and the *State Environmental Planning Policy (SEPP) (State and Regional Development) 2011* the project is considered a State Significant Development. The Minister for Planning and Public Spaces is the consent authority for the development.

However, under the Minister's delegation of 9 March 2020, the Executive Director, Energy, Industry and Compliance, may determine the project.

Environmental Planning Instruments

The *Bogan Local Environment Plan* (LEP) 2011 applies and is discussed in **sections 3.2, 5.1** and **5.2** of this report, particularly regarding permissibility, land use zoning, subdivision and contributions.

The project is permissible under the Infrastructure SEPP. In accordance with the Infrastructure SEPP, the Department has given written notice of the project to:

- Essential Energy as the electricity supply authority for the area and owner of the existing transmission line transecting the site; and
- TfNSW as the relevant roads authority for road upgrades.

BPA completed a preliminary risk screening in accordance with *SEPP No. 33 – Hazardous and Offensive Development*. The Department's consideration of this analysis is discussed in section 5.2.

The Department has considered the provisions of the *State Environmental Planning Policy (Koala Habitat Protection) 2020*. However, Bogan Shire Council is not listed under this SEPP.

The Department has considered the provisions of the *State Environmental Planning Policy (Primary Production and Rural Development) 2019*. Of relevance to the project, the SEPP aims to facilitate the orderly economic use and development of lands for primary production, to reduce land use conflict and sterilisation of rural land and to identify State significant agricultural land. While the 'important agricultural land' mapping has not been finalised by DPI Agriculture, the Department has considered potential impacts on agriculture based on current land capability mapping and other site-specific information in **section 5.1** of this report.

The Department has considered the provisions of *SEPP No. 55 - Remediation of Land*. A preliminary assessment found no contaminated land within the project site, and the Department is satisfied that the site is suitable for the development.