

Scoping Report

PARKES SOLAR FARM



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1 INTRODUCTION

Neoen Australia proposes the development of a commercial scale solar photovoltaic (PV) site near Parkes in central New South Wales. The proposal would have a capacity of up to 30 megavolt ampere (MVA).

1.1 PURPOSE OF THIS DOCUMENT

This Scoping Report provides an outline of the existing site and its surroundings, statutory framework for approval, a description of the proposal and identification of key potential environmental issues that may be associated with the solar farm proposal. The report has been prepared to support a request to the Department of Planning and Infrastructure (DP&I) for Director-General's Requirements (DGRs) which will guide the preparation of an Environmental Impact Statement (EIS) for the proposal under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.2 THE PROPOSAL

1.2.1 Site location

The solar farm proposal site is located roughly 10km north west of Parkes, within the Parkes Shire Council Local Government Area (LGA), see Figure 1-1. The site is accessed from the north via Condobolin Road and Pat Meredith Drive. The proposed solar farm would connect to an existing Transgrid substation located on Pat Meredith Drive to the north of the site.

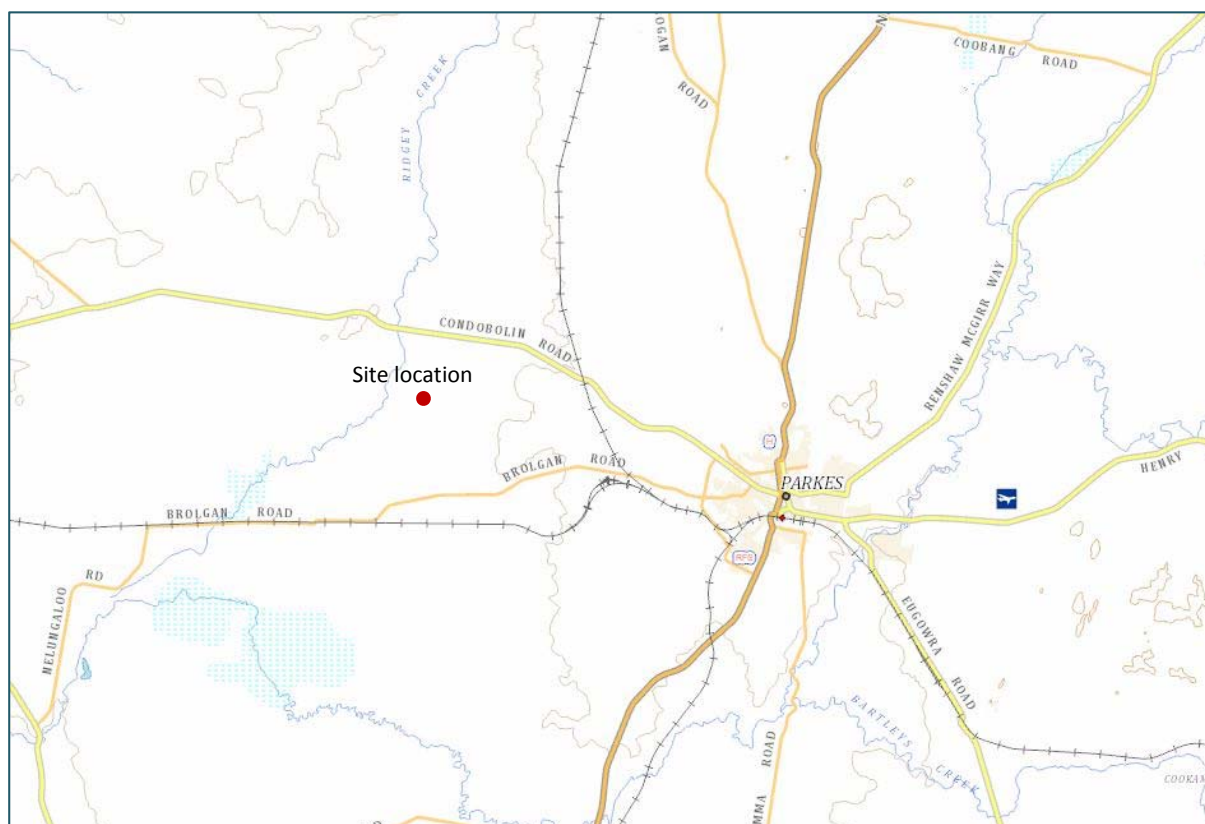


Figure 1-1 Proposed solar site location (Source SIX Maps, 2013)

1.2.2 Site description

Figure 1-2 illustrates the features of the proposal site, which is identified as Lot 4, DP 854193. The site is approximately 110 hectares, the majority of which is cleared land that has been cultivated in the past. There is a small area of native vegetation in the north eastern area of the site, isolated paddock trees and several rows of planted trees and shrubs, mostly along fence lines. There are five farm dams across the site, the largest one being adjacent to the native vegetation in the north western area of the site.

Neoen Australia proposes to develop approximately 55 hectares of the site. The proposed development area is illustrated as the 'Preferred solar plant location' in Figure 1-2.

There is a 132kv power line running north-south through the site located adjacent to the western boundary of the site.

Pat Meredith Drive is a public road running west of the site boundary. The road reserve contains mature native vegetation. The vegetation extends into an area surrounding the substation. The proposed grid connection route follows the road reserve.

1.2.3 Proposal description

The project would comprise the installation of a solar plant with a capacity of up to approximately 30MVA. The project would include the following elements:

- PV modules using polycrystalline, monocrystalline or thin-film technology, with solar tracking system.
- A system of inverters and medium voltage step up transformers throughout the arrays.
- Underground electrical conduits and cabling to connect the arrays to the inverters and transformers.
- One 66kV transformer station and switchgear.
- One 66kV overhead or underground line to connect into existing electrical network.
- A supervisory control and data acquisition (SCADA) control system.
- A site office and maintenance building.
- Internal access tracks to allow for site maintenance.
- Perimeter security fencing.
- Native vegetation landscaping.

A 3.5m wide access track to the site would be developed. Figure 1-2 illustrates the route to the site from Condobolin Road via Pat Meredith Drive (both public roads) and the indicative route to the Preferred solar plant location.

The grid connection route is illustrated on Figure 1-2. Cables would be installed either underground or via an overhead power line within the road reserve (to avoid removing trees), connecting to the substation to the north.

The construction phase of the proposal is expected to take 6 to 12 months. The Parkes Solar Farm is expected to operate for approximately 30 years. The project would be decommissioned at the end of its operational life. The site would be re-vegetated as necessary to return it to its original condition, as far as practicable.

The proposed solar farm at Parkes has a capital investment estimated to be \$50 million.

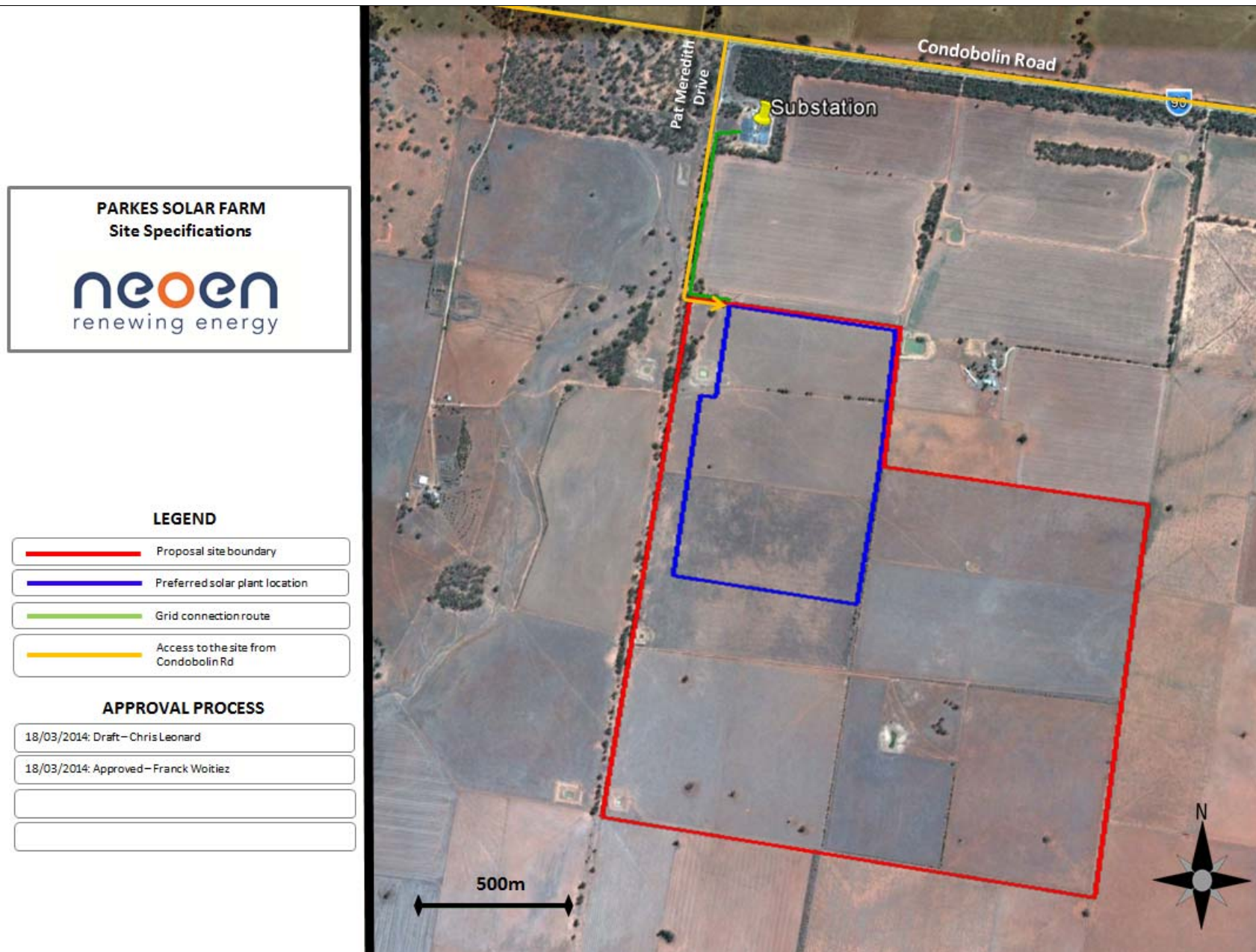


Figure 1-2 Proposed site layout (Source Neoen Australia, 2014)

The photographs below show examples of solar plants constructed by Neoen in France and Portugal.



Figure 1-3 11MWp solar project constructed in Rochefort du Gard, France (Source Neoen Australia, 2014)



Figure 1-4 2.2MWp solar project constructed in Coruche, Portugal (Source Neoen Australia, 2014)

1.2.4 *Site locality*

There are four farm dams on the site, with the nearest water course to the site being Ridgey Creek approximately 500m to the west. Ridgey Creek flows to the south west into Goobang Creek, one of the tributaries of the Lachlan River.

Condobolin Road is approximately 1km to the north of the northern extent of the site and Brolgan Road is approximately 1.5km to the south of the southern extent of the site. Approximately 600m further south is the Orange to Broken Hill railway line, which is used by the Indian Pacific tourist train.

The nearest sensitive receivers to the site are the two residences illustrated on Figure 4-1. The nearest residence is located approximately 400m east of the boundary of the Preferred solar plant location.

2 PROJECT NEED AND ALTERNATIVES

2.1 PROJECT NEED

The Kyoto Protocol is an international agreement created under the United Nations Framework Convention on Climate Change in Kyoto, Japan in 1997. The Australian Prime Minister signed Australia's instrument of ratification of the Kyoto Protocol in 2007, thereby committing Australia to reduce its collective greenhouse gas emissions.

The development of renewable energy projects is considered to be one of the most effective ways to achieve this commitment, which led to the implementation of the Renewable Energy Target (RET) Scheme in 2009.

The Parkes Solar Farm proposal would provide the following benefits:

- Reduction in greenhouse gas emissions and a move towards cleaner electricity generation.
- Provision of embedded electricity generation to supply into the Australian grid closer to the main consumption centers.
- Provision of social and economic benefits through the provision of direct and indirect employment opportunities.

It is noted that a national logistic hub proposal for Parkes has recently been approved by the State Government. The electricity generation from the proposed Parkes Solar Farm would assist in supplying the additional load from the national logistic hub.

2.2 ALTERNATIVES CONSIDERED

During the site selection process for the Parkes Solar Farm, a number of alternative locations were considered. Minimising environmental and social impacts and maximising efficiency were major considerations in the evaluation of alternatives.

The site was identified as the preferred location, based on the following:

- Availability of an abundant solar resource.
- Proximity to an electricity substation with good connection capacity.
- Availability of appropriate land.
- Suitability in terms of environmental constraints (the site contains little native vegetation and its disturbed nature means Aboriginal heritage issues are unlikely).
- Absence of flood risk.

Neoen Australia will design the infrastructure layout for the solar proposal once constraints have been identified through the environmental impact assessment (EIA) process. The proposal design is flexible so that there are a number of alternative arrangements and the one which most avoids sensitive constraints will be selected.

3 CONSULTATION

To date, Neoen Australia has had discussions with Parkes Shire Council and received positive feedback regarding the proposal.

A Community Consultation Plan will be prepared to inform the community and stakeholders of the proposal. Stakeholders will be identified as those potentially being impacted by the solar farm proposal or having an interest in the project itself. The Community Consultation Plan will sell out consultation requirements with interested parties including government agencies, Aboriginal groups, community groups and neighbours to the site. The Community Consultation Plan may include:

- Preparation of material for distribution informing stakeholders about the project and newspaper advertisements to advertise the proposal.
- Establishment of a database, including all private stakeholders and potentially affected landholders.
- Meetings with stakeholders and concerned landholders as required and an open day in Parkes to provide detailed information about the proposal to the general public.
- Establishment of an information hotline and project email address.

The Community Consultation Plan will aim to ensure that there is effective, ongoing liaison with the community. Measures to reduce adverse impacts and promote positive impacts will be identified in the EIS and appropriate management plans developed for the project. Agency consultation will also be undertaken in accordance with the requirements of the DGRs.

4 PLANNING CONSIDERATIONS

4.1 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Development in NSW is subject to the requirements of the EP&A Act and its associated regulations. Environmental planning instruments prepared pursuant to the Act set the framework for approvals under the Act.

The proposal would be assessed under Part 4 of the EP&A Act.

4.1.1 State Significant Development

Clause 20 of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* identifies electricity generating works and heat or co-generation developments which are State Significant Developments. Clause 20 states that ‘*Development for the purpose of electricity generating works or heat or their co-generation (using any energy source, including gas, coal, biofuel, distillate, waste, hydro, wave, solar or wind power) that:*

- (a) has a capital investment value of more than \$30 million, or*
- (b) has a capital investment value of more than \$10 million and is located in an environmentally sensitive area of State significance.’*

The proposed solar farm at Parkes has a capital investment estimated to be \$50 million, therefore the proposal is classified as “state significant development” under Part 4 of the *Environmental Planning and Assessment Act 1979*.

State Significant Developments are major projects which require approval from the Minister for Planning and Infrastructure. An (EIS) is prepared in accordance with the requirements of the Director-General of the DP&I. The Director-General must consult with relevant public authorities and will have regard to the need to assess key issues raised by those public authorities.

The Minister for Planning and Infrastructure is the consent authority for State Significant Development, however, the Minister may delegate the consent authority function to the Planning Assessment Commission (PAC), the Director-General or to any other public authority.

4.1.2 *Parkes Local Environmental Plan 2012 and State Environmental Planning Policy (Infrastructure) 2007*

The site is located within the Parkes LGA and is therefore subject to the provisions of the *Parkes Local Environmental Plan 2012* (Parkes LEP). The Parkes LEP aims:

- a) to protect, enhance and conserve agricultural land through the proper management, development and conservation of natural and man-made resources,*
- b) to encourage a range of housing, employment, recreation and facilities to meet the needs of existing and future residents of Parkes,*
- c) to promote the efficient and equitable provision of public services, infrastructure and amenities,*
- d) to conserve, protect and enhance the environmental and cultural heritage of Parkes,*
- e) to promote the town of Parkes as a major commercial and community service centre,*
- f) to encourage the sustainable growth of the villages of Parkes,*
- g) to encourage industrial development that is matched by adequate land supply for long-term needs, is linked with key services and infrastructure, provides for a diversity of employment and increases the number of skilled jobs in Parkes,*
- h) to raise the profile of Parkes to broaden the economic base, improve its attractiveness as a tourist destination, encourage longer stays and greater local spending and promote a wider understanding of Parkes as a place to live and invest,*
- i) to acknowledge the contribution of mining to Parkes and the role of Parkes as a mining centre for the region.*

The solar farm site and transmission line route are located on land zoned RU1 - Primary Production.

RU1 Primary Production

The LEP states that the consent authority must have regard to the objectives for development in a zone when determining a development application. The objectives of this zone are:

- a) to encourage sustainable primary industry production by maintaining and enhancing the natural resource base*
- b) to encourage diversity in primary industry enterprises and systems appropriate for the area*
- c) to minimise the fragmentation and alienation of resource lands*
- d) to minimise conflict between land uses within this zone and land uses within adjoining zones*
- e) to encourage eco-tourism enterprises that minimise any adverse effect on primary industry production*
- f) to permit non-agricultural uses that support the primary production purposes of the zone*
- g) to permit small scale rural tourism uses associated with primary production and environmental conservation with minimal impact on primary production and the scenic amenity of the area*
- h) to encourage the provision of tourist accommodation in association with agricultural activities*
- i) to provide opportunities for employment-generating development that adds value to local agricultural production and integrates with tourism*

For the life of the project, the proposal would harness a natural resource (solar energy). While the activity would impact on land availability for primary production, the land would meet objects b) and c) as identified above; it would allow for diversity in land use, appropriate to the area and it would not fragment resource lands. Being fully reversible and involving limited ground disturbance, it would not remove the potential to use the land for primary production in the medium to long term.

Permissibility

Electrical generation is prohibited in the RU1 Zone. However, clause 34(7) of *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) provides that development for the purpose of a solar energy system may be carried out by any person with consent on any land (except land in a prescribed residential zone). A solar energy system includes a PV electricity generating system.

Therefore the project is therefore permissible with consent.

4.1.3 Roads Act 1993

The *Roads Act 1993* (Roads Act) provides for the classification of roads and for the declaration of the Roads and Maritime Services (RMS) and other public authorities as roads authorities for both classified and unclassified roads. It also regulates the carrying out of various activities in, on and over public roads. Approval from the RMS or Parkes Shire Council would be required under section 138 of the Roads Act to erect a structure or carry out a work in, on or over a public road.

4.1.4 Native Vegetation Act 2003

The *Native Vegetation Act 2003* regulates the clearing of native vegetation. Clearing is defined as cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting or burning native vegetation including native grasses and herbage.

The proposal is not expected to involve the clearing of native vegetation, however there is native vegetation on and in the vicinity of the site, therefore this Act will be considered in the EIA.

4.1.5 Threatened Species Conservation Act 1996

The *Threatened Species Conservation Act 1995* (TSC Act) provides for the conservation of threatened species, populations and ecological communities of animals and plants. The TSC Act sets out a number of specific objects relating to the conservation of biological diversity and the promotion of ecologically sustainable development.

The potential to impact threatened species, populations and ecological communities listed under this Act is discussed in Section 5.2.1 of this report.

4.1.6 National Parks and Wildlife Act 1974

Under the *National Parks and Wildlife Act 1974*, the Director-General of the NPWS is responsible for the care, control and management of all national parks, historic sites, nature reserves, reserves, Aboriginal areas and state game reserves. The Director-General is also responsible under this legislation for the protection and care of native fauna and flora, and Aboriginal places and objects throughout NSW.

The potential impact to Aboriginal heritage and native fauna and flora are discussed in Section 5.2 of this report.

4.1.7 Heritage Act 1977

This Act aims to conserve heritage values. The Act defines 'environmental heritage' as those places, buildings, works, relics, moveable objects and precincts listed in the Local or State heritage Significance. A property is a heritage item if it is listed in the heritage schedule of the local Council's Local Environmental Plan or listed on the State Heritage Register, a register of places and items of particular importance to the people of NSW.

The proposal would not impact directly or indirectly on any items of heritage significance (refer to Section 5.2.3).

4.2 COMMONWEALTH LEGISLATION

4.2.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is administered by the Commonwealth Department of the Environment (DoE). Under the EPBC Act, if the Minister determines that an action is a 'controlled action' which would have or is likely to have a significant impact on a Matter of National Environmental Significance (MNES) or Commonwealth land, then the action may not be undertaken without prior approval of the Minister.

The EPBC Act identifies the following eight MNES:

- World Heritage properties.
- National heritage places.
- Ramsar wetlands of international significance.
- Threatened species and ecological communities.
- Migratory species.
- Commonwealth marine areas.
- The Great Barrier Reef Marine Park.
- Nuclear actions (including uranium mining).

When a person proposes to take an action which may be a 'controlled action' under the EPBC Act, they must refer the proposal to the DoE for a decision about whether the proposed action is a 'controlled action'.

A search of the Commonwealth Protected Matters Search Tool indicates that there are no World Heritage or National Heritage areas or items within the proposal site. Search results listed three Wetlands of International Importance that are either known to occur or have potential to occur in the area, however these are not relevant to the site or proposal. The proposed development is not likely to have a significant impact on the environment of Commonwealth land. Section 5.2.1 discusses the results of searches in relation to threatened species, ecological communities and migratory species. Further flora and fauna studies will confirm whether impacts to the remnant vegetation would occur as a result of the proposed development, during the preparation of the EIS.

4.2.2 Native Title Act 1993

The *Native Title Act 1993* provides a legislative framework for the recognition and protection of common law native title rights. Native title is the recognition by Australian law that Indigenous people had a system of law and ownership of their lands before European settlement. Where that traditional connection to land

and waters has been maintained and where government acts have not removed it, the law recognises this as native title.

People who hold native title have a right to consult or continue to practise their law and customs over traditional lands and waters while respecting other Australian laws. This could include visiting to protect important places, making decisions about the future use of the land or waters, hunting, gathering and collecting bush medicines. Further, when a native title claimant application is registered by the National Native Title Tribunal, the people seeking native title recognition gain a right to consult or negotiate with anyone who wants to undertake a project on the area claimed.

To the extent that native title does exist in relation to the proposal site, Neoen Australia will comply with the provisions of the *Native Title Act 1993*.

5 PRELIMINARY ENVIRONMENTAL ASSESSMENT

5.1 PRELIMINARY ENVIRONMENTAL RISK ANALYSIS

A preliminary environmental risk analysis has been conducted to assist in the identification of key environmental matters that will require detailed assessment within the EIS. Risks were identified for both the construction and operation phase of the project and analysed in relation to their possible consequence and likelihood of occurrence. From this analysis, some environmental matters were deemed to be key issues on the basis that they had the potential, without appropriate mitigation measures, to have a significant impact on the environment.

A summary of the key environmental issues is provided in Section 5.2. The intent of the discussion is to demonstrate an understanding of the issues and the need for further environmental assessment and mitigation measures for these key issues. The potential impacts and management of other issues are discussed in Section 5.3.

5.2 ASSESSMENT OF KEY ISSUES

5.2.1 Biodiversity

The majority of the site is cleared land which has been previously cultivated. There is a small area of native vegetation in the north western area of the site, isolated paddock trees and several rows of planted trees and shrubs, mostly along fence lines. There are five farm dams across the site, the largest one being adjacent to the native vegetation in the north western area of the site. The grid connection route would use the corridor of Pat Meredith Drive, the road reserve of which contains mature native vegetation. The vegetation extends into an area surrounding the substation.

The potential ecological constraints within the study area have been identified based on the following information sources:

- Existing threatened species listings under the TSC Act and EPBC Act.
- Existing records of threatened species sightings in the study area, as recorded in the Atlas of NSW Wildlife (OEH).
- Department of, Environment (online) Protected Matters Search Tool (nationally threatened species listed on the EPBC Act).

Neoen Australia has advised that the development of the proposal would aim to avoid the removal of any remnant native vegetation.

Threatened species and ecological communities

A search of the EPBC Act Protected Matters Search Tool was conducted on the 25th of February 2014, using a 10 km radius from a single point located approximately at the centre of the site. This search identified 16 threatened species, two endangered ecological communities (EECs), 12 listed migratory species (some of which are included within the threatened bird species) and three Wetlands of International Importance that are either known to occur or have potential to occur in this area. The three Wetlands of International Importance were not relevant to the site or proposal.

A search of the NSW Atlas of NSW Wildlife was conducted on the same date, using a 10 km x 10 km grid over the site area. This search identifies species listed under the TSC Act. The search identified five EECs, one threatened flora species and six threatened fauna species (all birds).

Biodiversity constraints

During a site visit in March 2014 it was noted during the site visit that many bird calls could be heard in the Pat Meredith Drive area within the road corridor vegetation. It is likely that this vegetation comprises at least one of the EECs identified in the background searches and is also likely to provide habitat for the threatened bird species for the search results.

Figure 5-1 illustrates the biodiversity constraints identified on the site. The native vegetation within the Pat Meredith Drive road corridor and part of the north western portion of the site are defined as medium constraint as it is likely that this vegetation comprises EEC and is habitat for threatened bird species. Neoen Australia has advised that the proposal design would aim to avoid the removal of this native vegetation.

Figure 5-1 shows low biodiversity constraints which consist of isolated paddock trees (likely to be native) and the large farm dam in the north west of the site (adjacent to the area of native vegetation). It is expected that the low risk biodiversity features may be removed without a significant impact to threatened species.

Conclusions and Need for Further Assessment

Overall, although the site is largely devoid of native vegetation, a number of endangered ecological communities, threatened flora and fauna species of national and state conservation significance have potential to occur within the proposal site. However the proposal is unlikely to result in the removal of native vegetation.

As part of the EIA, it is proposed that an ecologist visit the site to identify any native vegetation, EECs or habitat for threatened species in the vicinity of the site, access route and grid route corridors. A formal (stand-alone) flora and fauna impact assessment is not considered to be required.

This information would form part of a constraints assessment to identify sensitive habitat so that impacts on threatened flora and fauna populations and communities can be minimised by designing the solar farm infrastructure layout and location of the transmission easement to avoid them.

5.2.2 Aboriginal heritage

Search results

An Extensive search of the AHIMS was completed on 4th March 2014 for the site and surrounding area. The search returned three results, two of which occur in the vicinity of the site and are illustrated in Figure 5-1. The items are artefacts found in open sites by Navin Officer Heritage Consultants Pty Ltd.

Conclusions and Need for Further Assessment

It is recommended that an Aboriginal heritage assessment of the development footprint of the proposal would be completed as part of the EIA. Consultation with representatives of local Aboriginal groups would also be undertaken as part of the assessment. The significance of any Aboriginal heritage sites that may be potentially affected by the proposal would be determined.

Considering that the proposal can generally be designed to avoid any potential impact on identified Aboriginal objects or place, it is expected that potential impacts are avoidable. Appropriate management measures would be developed prior to construction works.



Figure 5-1 Site constraints

5.2.3 Non-Aboriginal heritage

A search of listed items (under the NSW *Heritage Act 1977*, the Australian Heritage Database and those listed by local Councils and State Government agencies) was completed for the Parkes LGA on 25th February 2014. None of the items listed are located in the vicinity of the site.

Conclusions and need for further assessment

Due to the open and disturbed nature of the site, it is considered unlikely that any other heritage artefacts remain unidentified in the proposal area.

An updated search will be undertaken as part of the EIS, though a non-Aboriginal heritage assessment is unlikely to be required for the proposal.

If a potential European heritage site is uncovered during construction, works in that area would cease until the find could be assessed by an appropriately qualified archaeologist, and the NSW Office of Environment and Heritage would be consulted.

5.2.4 Noise

The nearest sensitive receivers to the site are the two residences illustrated on Figure 2-1. The nearest residence is located approximately 400m east of the boundary of the proposal site.

Noise impacts would, for the most part, only occur during construction (generated by construction related vehicles and machinery), with minimal noise likely to be generated during operation. Neoen Australia would adopt mitigation measures during construction, such as standard working hours and regular vehicle and machinery maintenance to reduce the risk of adverse noise impacts.

During the operation of the solar farm, potential noise impacts are associated with the solar tracking system (an optional feature which would operate for around half an hour per day), transformer station and switchgear and any maintenance works undertaken on site. Noise impacts during the operation of the solar farm are expected to be negligible.

Conclusions and need for further assessment

The operation of the Solar Plant and transmission line would not be expected to have any significant noise impacts.

A construction noise assessment will be undertaken as part of the EIA to assess potential noise impacts. The assessment will be undertaken in accordance with the Interim Construction Noise Guideline (Department of Environment Climate Change and Water, 2009).

5.2.5 Visual impact

Figure 5-1 shows that the site is located over 1km south of Condobolin Road. The site is not located on an elevated area, therefore the proposal is not expected to be an imposing feature in the landscape. In addition, there is a strip of vegetation providing screening between the site and Condobolin Road. The proposed solar arrays would be no higher than 3m and solar panels are designed to absorb as much sunlight as possible, therefore reflect a very low percentage of the light they receive, resulting in negligible glare. Although the panels would be north facing (toward Condobolin Road), it is expected that a significant impact on visual amenity from Condobolin Road is unlikely.

The location of the nearest residences to the site are illustrated on Figure 2-1. The nearest residence is located approximately 400m east of the boundary of the Preferred solar plant (Figure 5-1) location and there is relatively little screening between here and the site. The other residence is located to the west of Pat Meredith Drive, with road corridor vegetation screening the view.

Conclusions and need for further assessment

It is proposed that a landscape and visual impact assessment, including photomontages of the proposal from the nearest residences, Condobolin Road and Broogan Road and the railway line to the south is prepared as part of the EIA.

5.3 OTHER ENVIRONMENTAL ISSUES

There are a range of potential environmental issues associated with the Parkes Solar Farm which are not considered to be key issues. These issues are considered secondary issues given the characteristics of the proposal and the availability of appropriate safeguards for mitigation. These issues are outlined in Table 5-1

It is proposed that these issues will be addressed in sufficient detail to assess the level of their impacts (if any). It is anticipated that any impacts identified would be able to be managed through appropriate mitigation measures and management plans.

Table 5-1 Other environmental issues

Issue	Existing environment	Potential impacts	Management and mitigation measures
Soils and water	The site is located on a low lying area within the Lachlan River catchment.	Construction activities such as excavation have the potential to cause soil erosion and sedimentation.	The adverse impacts on soils and water are expected to be minimal and would be managed with the implementation of erosion and sedimentation control measures. The EIS will provide thorough consideration of soil and water impacts and proposed mitigation measures during construction.
Contamination	Contamination associated with agricultural activities (e.g., pesticides) may still be present on the site.	A search of contaminated sites records for the LGA will be completed. It is unlikely that significant contamination exists on the proposal site and construction activities would not pose a significant contamination risk at the site.	It is considered unlikely that contamination is present at the site and therefore no further investigation is proposed within the EIS. If contamination is identified during site construction, it would be managed in accordance with a Construction Environmental Management Plan (CEMP).
Access and traffic	Condobolin Road is a two lane sealed road connecting Parkes with Condobolin (and smaller communities to the west and north of Condobolin). The road is expected to carry medium volumes of traffic, likely to be increased during periods such as grain harvest.	Impacts to local traffic on Condobolin Road during construction.	Consider construction traffic impacts in EIS. Consultation would be undertaken before construction with the appropriate roads authority regarding the works that may affect roads or traffic. A Traffic Management Plan would be developed as part of the CEMP.
Groundwater	The site is located in the centre of the Lachlan Regulated River Water Source area. The Water Sharing Plan for this area includes rules for protecting the environment, extractions, managing	It is unlikely that groundwater would be encountered given the minor excavation and earthwork requirements for the proposal and pole placements for the transmission lines.	Groundwater impacts are expected to be minimal. Appropriate chemical and fuel handling as part of the CEMP would mitigate any potential contamination of groundwater.

Issue	Existing environment	Potential impacts	Management and mitigation measures
	licence holders' water accounts, and water trading in the plan area.	Contamination of groundwater would also be unlikely given that chemicals and fuels would be appropriately stored, and spills procedures would be implemented.	
Alienation of Resources	The rural land in the study area is used primarily for agriculture, particularly sheep and cattle grazing and crop farming, with some mining.	Although the proposed PV Power Project has the potential to impact on the viability of the proposed development site for agricultural purposes, the relatively small loss of productive land for the region is not considered likely to have a significant impact on the overall agricultural productivity of the region.	Overall, the adverse impacts related to alienation of resources are expected to be minimal, and as such, are not considered to be a key environmental issue. As part of the EIA, information would be obtained from Department of Primary Industries to determine current exploration titles and applications for minerals, coal and petroleum.
Air Quality	The air quality in Parkes is generally expected to be good and typical of that found in a rural setting in NSW due to low population numbers. Existing sources of air pollution in such a location is expected to comprise vehicle emissions, agricultural, manufacturing industries and mining. During colder months, there may be a minimal increase in air contaminants due to smoke emissions from the operation of solid fuel heating.	The construction of the proposal is not anticipated to have a significant impact on air quality.	A CEMP would be prepared to manage air quality impacts during the construction of the project.
Hazard and Risk - EMF	A 66kV transmission line to connect the site to the substation on Pat Meredith Drive is proposed.	Considering that no dwellings or other facilities are intended to be built and occupied within the proposed 66kV transmission line easement, the electromagnetic field (EMF) that would be generated by the proposed transmission line is expected to be below the guideline for public	The EMF levels of the proposed transmission line will be calculated as part of the EIS.

Issue	Existing environment	Potential impacts	Management and mitigation measures
		exposure and would not be expected to have an adverse impact on human health.	
Hazard and Risk - Bushfire	In terms of bushfire hazard and risk, the Central West region is characterised by mild to hot summers and cool to mild winters. The proposal site has been predominantly cleared for agricultural purposes.	The proposal is unlikely to be affected by bushfire, or pose a significant bushfire risk due to the lack of existing vegetation on and surrounding the site.	The proposed development would not result in an increased risk of bushfire for the site.
Aviation	Parkes Airport is located approximately 20km to the south east of the site. It is likely that there are small, private air strips in the vicinity of the site.	Concerns have been raised in the media regarding the potential risk posed to pilots from solar farms; specifically glare related risks. The PV modules that would be installed at Parkes would not result in a glare issue.	The EIS will provide information about glare impacts related to aviation.
Social and economic impacts	The proposal site is located within the Parkes LGA, 10km from Parkes. The main industries of employment in this part of NSW are expected to be agriculture and mining.	The construction of the proposal would generate approximately 150 to 300 jobs at peak construction (approximate duration of 6 to 12 months). It is possible that construction workers would relocate their families to Parkes during the construction period, and this may place pressures on services such as accommodation, schools and health services.	A social and economic assessment will be undertaken as part of the EIS.
Land use	The proposed development is located entirely within the Parkes LGA. The Parkes LGA predominantly comprises rural land which is used primarily for agriculture, particularly sheep and cattle grazing and crop farming, with some mining. The closest urban centre to the proposed	The change in land use from agricultural to power generation is not considered to be significant. Construction of the proposal may result in temporary loss of access to land along the site	Overall, the adverse impacts on land use are expected to be minimal. The management of existing and proposed land use of the project area is not considered to be a key environmental

Issue	Existing environment	Potential impacts	Management and mitigation measures
	development is the town of Parkes, which is also the main township in the LGA. The proposal development is located on rural land. The surrounding area also comprises rural land.	access during the construction period. Construction impacts are not considered to be significant.	issue. The EIS will address issues relating to land use impact in further detail.
Waste Management	The project would generate a number of waste streams and utilise a variety of materials during the construction phase.	During construction, excavated material and green waste would be generated as waste. No operational waste would be associated with this project.	A Waste Management Plan (WMP) would be developed and incorporated in to the CEMP. This would incorporate the principles to avoid, re-use and recycle to minimise wastes.

6 CONCLUSION

This report has described the proposed Parkes Solar Farm and established the planning context of the project.

The proposal would be assessed under Part 4 of the EP&A Act and classed as State Significant Development under *State Environmental Planning Policy (State and Regional Development) 2011*.

Potential environmental impacts associated with the project have been categorised as key issues or other issues. Based on this scoping study, an indicative scope for the EIS has been developed, focusing on the key issues. The other issues can be readily addressed through appropriate mitigation and management measures and do not require detailed assessment. Following consideration of this report and consultation with other agencies, the DP&I will provide the Director-General's requirements for the EIS.

The EIS would be prepared in accordance with the Director-General's requirements. Statements of Commitment will be developed for inclusion in the EIS and will address the management of key issues and other issues identified in the assessment process.