MAJOR PROJECT ASSESSMENT:
BP Solar – Site 3 - Southern
Moree Solar Farm
MP10_0175

Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

June 2011

ABBREVIATIONS

CIV	Capital Investment Value
Department	Department of Planning and Infrastructure
DGRs	Director-General's Requirements
Director-General	Director-General of the Department of Planning and Infrastructure
EA	Environmental Assessment
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPI	Environmental Planning Instrument
MD SEPP	State Environmental Planning Policy (Major Development) 2005
Minister	Minister for Planning and Infrastructure
Part 3A	Part 3A of the *Environmental Planning and Assessment Act 1979*
PEA	Preliminary Environmental Assessment
Proponent	BP Solar Pty Ltd

Cover Photograph: photograph of indicative tracker table comprising PV solar modules

Published June 2011
NSW Department of Planning
www.planning.nsw.gov.au

EXECUTIVE SUMMARY

BP Solar Pty Ltd has lodged a project application seeking approval for the construction and operation of a 150 megawatt Solar Farm on an 1129 hectare site 10km south of Moree (being Lots 4, 32 & 54 DP 751791), within the Moree Plains Shire.

The Solar Farm would comprise 645,000 individual photovoltaic modules mounted on fixed frame tracker tables (with approximately 10 modules to each tracker table covering an area of 30m^2 at a maximum height of 3.4 metres), arranged in a series of rows and would be connected to the existing Moree 132kV substation via a 132kV electricity transmission line (ETL). The solar farm would have an expected operating life of up to 50 years and would have the capacity to power around 60,000 homes.

The Capital Investment Value (CIV) of the project is $650,000,000, and the proposal will create 1050 full time equivalent (FTE) construction phase jobs in NSW inclusive of up to 640 FTE construction jobs in Moree and 10-12 FTE operational jobs.

On 6 October 2010, the Director, Infrastructure Projects, as delegate of the Minister for Planning, formed an opinion that the project is a major project under clause 24 of Schedule 1 of *State Environmental Planning Policy (Major Development) 2005* (MD SEPP), as it is development for the purpose of a facility for the generation of electricity or heat or their co-generation (using any energy source, including gas, coal, bio-fuel, distillate and waste and hydro, wave, solar or wind power), with a CIV of more than $30 million. Therefore, the Minister for Planning and Infrastructure is the approval authority.

The project was developed in response to the Federal Government's Solar Flagships Program, which is part of the Australian Government's $5.1 billion Clean Energy Initiative (CEI), announced in the May 2009 Budget. The CEI complements the Carbon Pollution Reduction Scheme and the Renewable Energy Target (RET) of 20 per cent of electricity from renewable sources by 2020 by supporting the research, development and demonstration of low-emission energy technologies.

The Solar Flagships Program aims to accelerate the commercialisation of solar power in Australia, with the commitment of $1.5 billion to support the construction of up to four large-scale solar power plants in Australia, using solar thermal and photovoltaic (PV) technologies. Following the Federal Government's May 2011 budget, funding for the Solar Flagships program remains at $1.5 billion, with $1.15 billion available to be spent up to 30 June 2015 and a further $370 million available to be spent beyond 30 June 2015.

The Environmental Assessment was placed on public exhibition for a period of 31 days from 16 February 2011 until 18 March 2011. The Department received 6 submissions from public authorities and 5 public submissions. All public submissions supported the project. Of the agency submissions, only the Office of Environment and Heritage (OEH) raised issues, which related to the extent of vegetation mapping and inclusion of a suitable offset strategy.

A Submissions Report was submitted by the Proponent which addressed the issues raised by the OEH and included additional commitments regarding the quantifying of existing native vegetation and the preparation of an Offset Management Plan.

The Department has assessed the merits of the project and considers the key issues to be visual and noise impacts, indigenous heritage, traffic and transport, biodiversity and agricultural impacts. The Department is satisfied that the impacts of the project have been addressed via the Environmental Assessment, Response to Submissions and Statement of Commitments, and can be adequately managed through the recommended conditions.

The Department also considers that the project is in the public interest as it would positively contribute towards achieving the RET, is consistent with the NSW State Plan and Federal Government targets for reducing greenhouse gas emissions, would help meet the predicted growing demand for electricity, and is consistent with the objects of the Environmental Planning and Assessment Act, 1979 (including ecologically sustainable development). The Department therefore recommends that the project be approved.

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1. BACKGROUND

BP Solar Pty Ltd (the Proponent) proposes to construct and operate a 150 megawatt (MW) Solar Farm and associated infrastructure on an 1129 hectare site south of Moree. The Solar Farm would comprise a series of photovoltaic modules mounted on fixed frames, arranged in a series of rows and would be connected to the existing Moree 132kV substation via a 132kV electricity transmission line (ETL). The solar farm would have an expected operating life of up to 50 years.

The Capital Investment Value (CIV) of the project is $650,000,000, and the proposal will create 1050 full time equivalent (FTE) construction phase jobs in NSW inclusive of up to 640 FTE construction jobs in Moree and 10-12 FTE operational jobs.

1.1. Location

The site is located 10km south of Moree in the Moree Plains Shire in the northwest of New South Wales. The proposal is to be located on three parcels of adjacent lands being Lots 4, 32 & 54 DP 751791, which are currently separated by a Crown road reservation. The land is currently used for agricultural cropping and cattle grazing with some rotation of uses according to season.

The project location is shown in Figure 1.

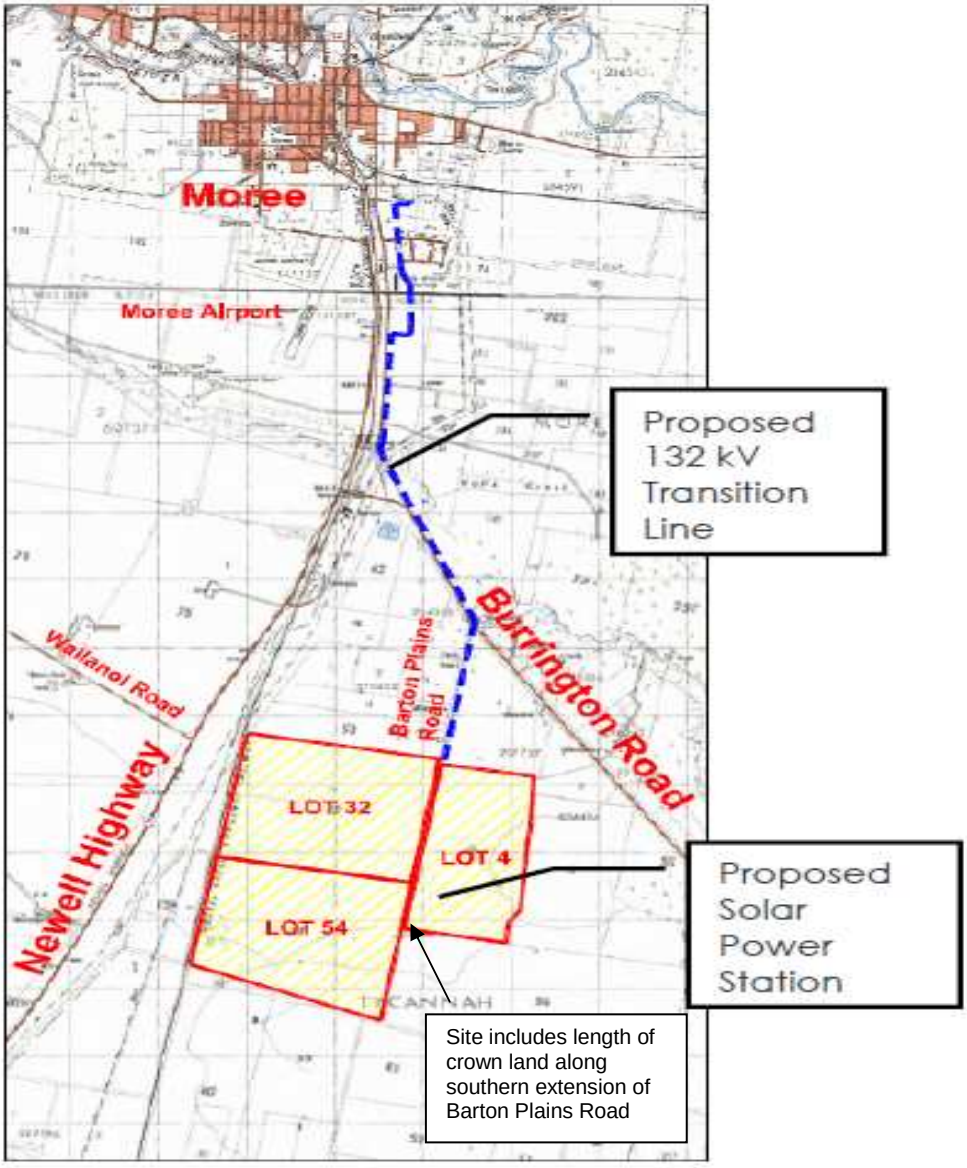


Figure 1: project location

1.2. Surrounding Land Uses

Surrounding land uses include rural small holdings to the east and north of the site; the Moree Plains Shire Council waste management centre and Bio-fuel operation and cotton gin to the north of the site; railway corridor and the Newell Highway and larger agricultural holdings to the west of the site (See Figure 2).

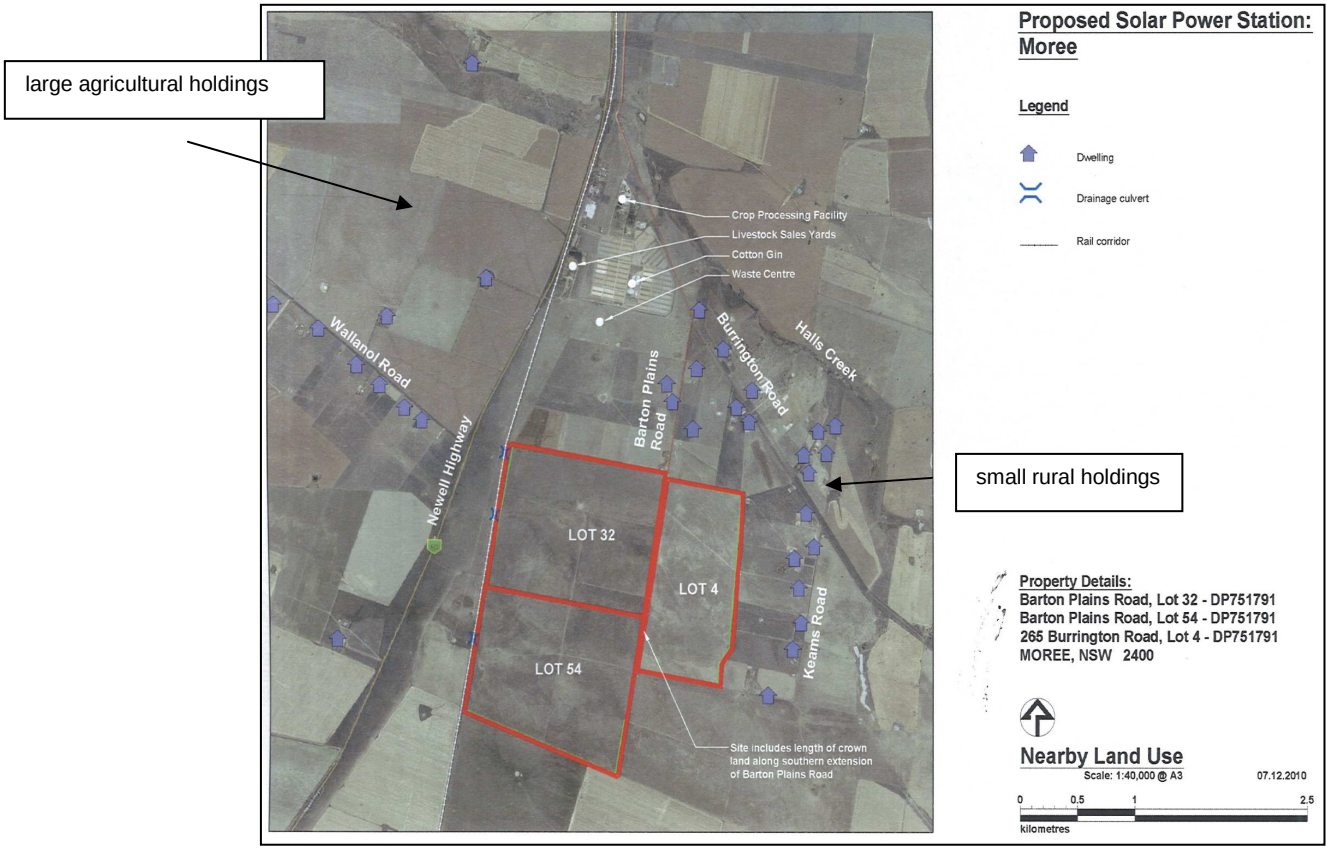


Figure 2: surrounding land uses

2. PROPOSED PROJECT

2.1. Project Description

The proposal is for the construction and operation of a 150MW photovoltaic electricity generation facility at Moree. The key components of the project are listed below, with the project layout shown in Figure 3. The construction of the project is to be staged over a 4 year period, with the facility expected to operate for a minimum of 35-50 years and would have the capacity to power around 60,000 homes.

Key components consist of:

- 645,000 individual PV solar modules set on tracker tables (with approximately 10 modules to each tracker table covering an area of 30m^2 at a maximum height of 3.4 metres);
- both above and underground electrical conduits and cabling connecting arrays and inverters;
- sets of inverters and transformers distributed around the site;
- on-site substation which will step the system voltage up from 22kv to 132kv in order to connect to the Moree Zone Substation;
- site administration and operations building;
- 132kv ETL connecting the site to the 132kv Moree Zone substation within an easement approximately 9km long x 45m in width;
- internal and perimeter access tracks, perimeter fencing and landscaping; and
- site services, reticulated potable water and a 200kl above-ground water holding tank.

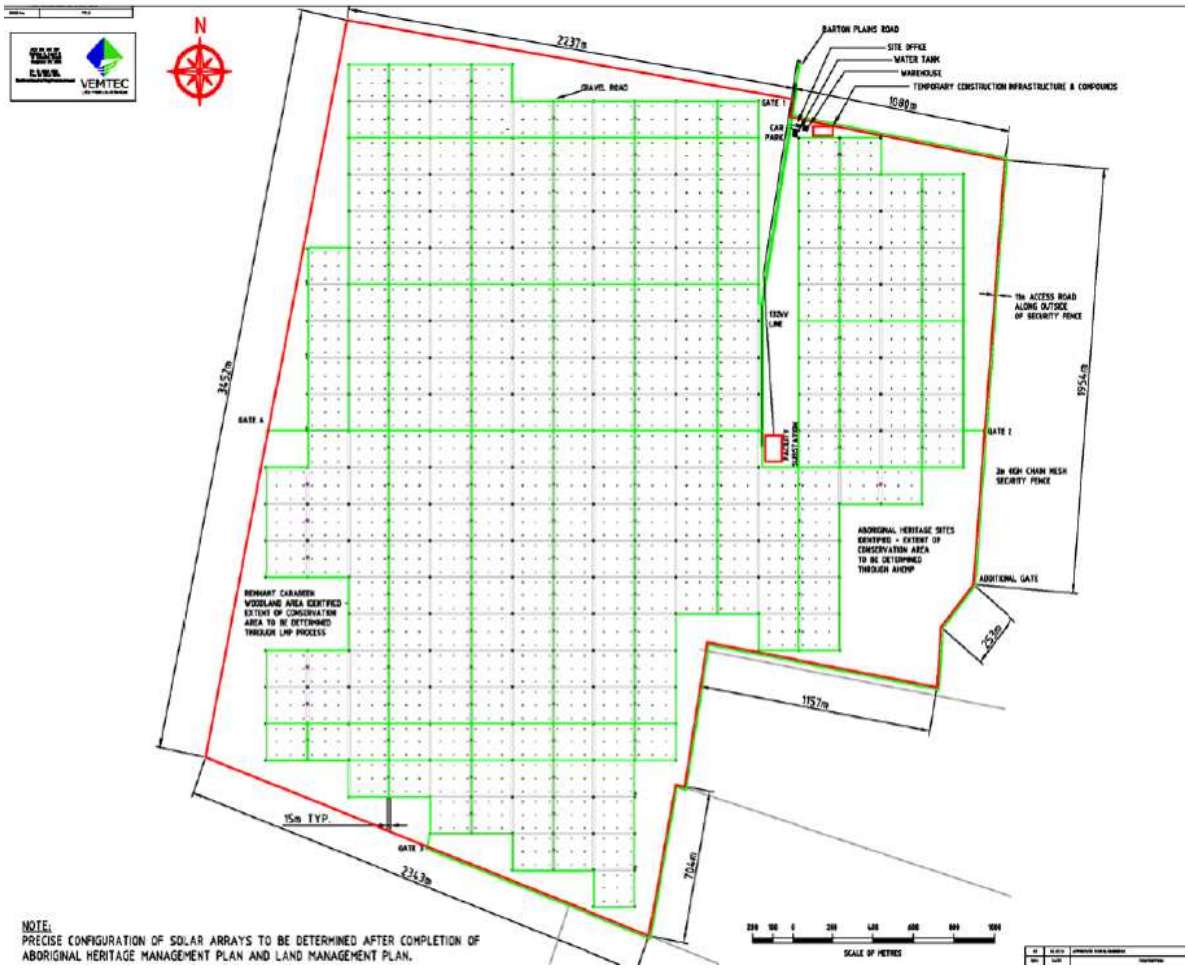


Figure 3: project layout (main site)

2.2. Project Need and Justification

The Proponent has argued that the justification of the project is based on the following:

- to assist in the reduction of increased Greenhouse Gas (GHG) emissions contributing to climate change through the development of low or zero GHG emission energy technologies;
- a solar project of this scale has the potential to help defer the necessity to build new peaking capacity and would help alleviate congestion on the regional interconnectors during periods of peak demand;
- to help meet Federal and State policy objectives to enhance the contribution made by renewable energy sources to meeting electricity demand;
- to provide an ongoing source of employment and encourage participation in energy related training programs to improve the knowledge and skills of the local workforce; and
- to encourage and facilitate diversity in the local economy, especially in sectors which bring less reliance on water.

Renewable Energy / Sustainability

The Proponent's Environmental Assessment (EA) states that the *National Strategy* for *Ecologically Sustainable Development, 1992* committed federal, state/territory and local governments to pursue ecologically sustainable development (ESD), with climate change being indentified as a threat to a sustainable future. With energy production being the primary source of Australia's emissions, governments are therefore recognising the need to reduce GHG emissions. In this respect, the NSW State Plan seeks to match the Commonwealth's target to *"achieve a 60% cut in greenhouse gas emissions by 2050"*, and the then NSW Government implemented a separate scheme to reduce greenhouse gas emissions associated with electricity production called the Greenhouse Gas Reduction Scheme (GGAS) with a NSW greenhouse gas target of 7.27 tonnes of carbon dioxide equivalent (tCO2-e) per capita until 2012. The development of low or zero GHG emission energy technologies such as the solar farm is essential to achieving significant reductions in greenhouse gas emissions. Over the 25 years of its service life, the proposed Moree solar plant would abate approximately 9.1 million tCO2-e, which is equivalent to a contribution of 0.7% of the target NSW greenhouse gas reductions under the GGAS.

The Australian Government's Mandatory Renewable Energy Target (MRET) scheme was also established in 2001 to expand the renewable energy market and increase the amount being utilised in Australia's electricity supply. The Renewable Energy Target (RET) scheme is an expansion of the MRET and has been established to encourage additional generation of electricity from renewable energy sources to meet the Government's commitment to achieving a 20 per cent share of renewables in Australia's electricity supply in 2020. In February 2011, the Enhanced Renewable Energy Target (ERET) was introduced which consisted of the Small-scale Renewable Energy Target (SRET) and the Large-scale Renewable Energy Target (LRET). The Proponent has identified that the project would generate approximately 404GWh per annum which would contribute to approximately 1.8% of the LRET and 1.5% of the total RET in 2016 when the solar farm is proposed to become operational, and would generate enough renewable energy to power up to 60,000 homes and provide local job opportunities during both operation and construction.

Electricity Demand / Supply

The Proponent also states that NSW is a net importer of electricity, and with the trend being towards increasing peak demand in summer, additional investment in open cycle gas turbines (OCGT) is warranted. The Moree Solar Farm, however, may provide an opportunity to defer the need for investment in new OCGT, as peak periods of electricity demand generally coincide with the peak period for solar generation.

The Department acknowledges that additional electricity generators will need to be built to meet increasing demand to avoid potential power outages and blackouts in peak times. Renewable energy projects, such as this one, will assist in providing additional supply capacity which could contribute to addressing any supply/demand shortfalls. The Department also considers that the

proposed solar farm would make a contribution towards offsetting the emissions of Carbon Dioxide (CO_2) and other gases, particulate emissions and other pollutants that would otherwise be produced if the equivalent power supply was provided by fossil-fuel combustion. The project would also result in the avoidance of consumption of water that would otherwise have been used in coal or other fossil fuel fired power stations.

The Department supports the development of solar farms as a form of renewable energy, subject to suitability of their locations. This is consistent with Commonwealth and State policies promoting the production and uptake of renewable energies as a means of addressing climate change.

The Department considers that in conjunction with relevant demand management and efficiency measures, a diverse mix of local embedded generating solutions would provide the most risk-averse method of achieving a secure and reliable electricity supply base for the State, which is resilient to changing market factors including a more constrained carbon market and water restrictions associated with drought. Local embedded generation in regional areas would promote greater transmission efficiencies (and associated greenhouse gas benefits from reduced transmission losses) by reducing the need for electricity to be delivered from further afield. The Department also accepts that the proposal would involve a number of direct local benefits including employment generation and the participation in energy related training programs to improve the knowledge and skills of the local workforce. Although it is acknowledged that solar farms could not solely meet the future energy demands on either the Federal or State level, they are likely to play an increasing role in energy production and the development of solar energy will encourage and assist future industry development, reduce barriers to the national electricity market, and provide greater community access to renewable energy.

The Australian Energy Market Operator (AEMO) Electricity Statement of Opportunities 2010 report states that NSW's average annual growth rate of energy consumption and maximum demand (based on medium economic growth forecasts) over the next 10 years is 2.6 per cent, which in five years is predicted to surpass the NSW summer 2010/11 summer aggregate scheduled and semi-scheduled generation capacity of 15,950 megawatts. AEMO predicts that low reserve conditions (LRC) may occur in NSW as early as 2016/2017 (with a predicted shortfall of 27 megawatts) but more likely in 2017/2018 (with a predicted shortfall of 416 megawatts). This shortfall is predicted to further increase to 1,335 megawatts by 2019/2020. The LRC point is the time at which the network reliability standard may not be met, and at which point loadshedding may be required and brown-outs may occur in some areas. Continued demand growth beyond the LRC without provision of additional generating capacity increases the need for loadshedding and exacerbates issues with the quality and reliability of supply (i.e. Increases in brown-out extent, severity and duration).

Solar Flagships Program

In May 2010, BP Solar Pty Ltd (as a consortium with Fotowatio Renewable Ventures) was short-listed as one of four applicants in the solar photovoltaic category under round one of the Solar Flagships Program. The Solar Flagships Program is part of the Australian Government's $5.1 billion Clean Energy Initiative (CEI), announced in the May 2009 Budget. To accelerate the commercialisation of solar power in Australia, the Government has committed $1.5 billion to support the construction of up to four large-scale solar power plants in Australia, using solar thermal and photovoltaic (PV) technologies. Following the Federal Government's May 2011 budget, funding for the Solar Flagships program remains at $1.5 billion, with $1.15 billion available to be spent up to 30 June 2015 and a further $370 million available to be spent beyond 30 June 2015. In addition the then NSW Government pledged $120 million to help NSW solar projects bidding for funding under the Solar Flagships Program. The proposed solar farm would assist the State's goals of attracting solar energy projects to the State and help make NSW home to one of the largest solar thermal or solar photovoltaic power plants in the world.

On the above basis, the Department considers the proposed BP Moree Solar Farm would have a role in helping to meet the energy requirements of the State as well as addressing local demand, and would therefore have benefits for the local industry and community. It would also contribute to addressing the urgent challenges of climate change, reliance on fossil fuels and energy supply.

2.3. Critical Infrastructure

The project is classified as critical infrastructure in accordance with section 75C of the *Environmental Planning and Assessment Act 1979* (EP&A Act) by virtue of the then Minister's declaration of 11 November 2009 relating to the generation of electricity derived from renewable fuel sources being development with a capacity to generate at least 30 megawatts, which are the subject of a project application lodged pursuant to section 75E or 75M of the EP&A Act.

3. STATUTORY CONTEXT

3.1. Major Project

The proposal is a major project under Part 3A of the EP&A Act because it is development for the purpose of a facility for the generation of electricity or heat or their co-generation (using any energy source, including gas, coal, bio-fuel, distillate and waste and hydro, wave, solar or wind power), being development that has a capital investment value (CIV) of more than $30 million under clause 24 of Schedule 1 of *State Environmental Planning Policy (Major Development) 2005* (MD SEPP). Therefore, the Minister for Planning and Infrastructure is the approval authority.

3.2. Permissibility

The site is zoned both Zone *1(a) General Rural* and *Zone 1(c) Small Rural Holdings* under the *Moree Plains Shire Council Local Environmental Plan 1995* (MLEP). Electricity Generating Works are permissible with consent.

Zoning	Permissibility
1 (a) General Rural	Permissible with consent
1(c) Small Rural Holdings	Permissible with consent

Table 1: Moree Plains Local Environmental Plan 1995

The site is zoned both Zone *RU1 – Primary Production*, *RU4 – Rural Small Holdings* and *IN1 – General Industrial* under the Draft *Moree Plains Shire Council Local Environmental Plan 2010,* which was exhibited from 3 August 2010 until 3 September 2010. Electricity Generating Works are permissible with consent within zone RU4 and IN1 and prohibited within RU1.

Zoning	Permissibility
RU1 – Primary Production	Prohibited
RU4 – Rural Small Holdings	Permissible with consent
IN1 – General Industrial	Permissible with consent

Table 2: Draft Moree Plains Local Environmental Plan 2010

State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP) applies to the project. Division 4 of the Infrastructure SEPP relates to electricity generating works with Clause 34(1) stating that development for the purpose of electricity generating works may be carried out by any person with consent on land in a prescribed zone. Therefore, as the proposal is on land within prescribed zones and is for the purpose of generating electricity it is permissible within all the zones.

3.3. Environmental Planning Instruments

There are no other environmental planning instruments that substantially govern the carrying out of the project.

3.4. Objects of the EP&A Act

Decisions made under the EP&A Act must have regard to the objects of that Act, as set out in Section 5 of that Act. The relevant objects are:

(a) to encourage:

(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,
(ii) the promotion and co-ordination of the orderly and economic use and development of land,
(iii) the protection, provision and co-ordination of communication and utility services,
(iv) the provision of land for public purposes,
(v) the provision and co-ordination of community services and facilities, and
(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and
(vii) ecologically sustainable development, and
(viii) the provision and maintenance of affordable housing, and

(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and
(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.

Of particular relevance to the environmental assessment and eventual determination of the subject project application by the Minister, are those objects stipulated under Section 5(a). Relevantly, the objects stipulated under (i), (ii), (iii), (vi) and (vii) are significant factors informing the determination of the application (noting that the proposal does not raise significant issues relating to land for public purposes, community services and facilities or affordable housing). With respect to ecologically sustainable development, the EP&A Act adopts the definition in the Protection of the Environment Administration Act 1991 (PEA Act). This is discussed further in Section 3.5.

In addition to the above, the agency and community consultation undertaken as part of the assessment process (see Section 4.0 of this report), address objects 5(b) and (c) of the EP&A Act.

3.5. Ecologically Sustainable Development

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the PEA Act. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

(a) the precautionary principle,
(b) inter-generational equity,
(c) conservation of biological diversity and ecological integrity,
(d) improved valuation, pricing and incentive mechanisms.

The Department has considered the need to encourage the principles of ecologically sustainable development, in addition to the need for the proper management and conservation of natural resources; the orderly development of land considering land use; the need for the project as a whole (which comprises a utility provision); and the protection of the environment including threatened species in Section 5 of this report.

The Department's assessment of the ecological impacts of the project (Section 5) is based on a conservative and rigorous assessment of the likely extent of ecological impacts and of likely offset requirements to ensure that appropriate and adequate measures are put in place to prevent the threats of serious or irreversible environmental damage consistent with the precautionary principle and the principle of conservation of biological diversity and ecological integrity. The majority of potential impacts of the proposal are likely to be localised and would not diminish the options regarding land and resource uses and nature conservation available to future generations. The proposal would not require large scale earthworks and impacts to the site would be reversible.

The development has significant social and environmental benefits on a local, state and federal level and can be argued to have global environmental benefits on the basis that the project would produce electricity without the production of greenhouse gases. With the assessed benefits of the proposal and the assessed impacts on the environment and their ability to be managed (Section 5), it is considered that the development would be ecologically sustainable within the context of the above principles.

3.6. Statement of Compliance

In accordance with section 75I of the EP&A Act, the Department is satisfied that the Director-General's environmental assessment requirements have been complied with.

4. CONSULTATION AND SUBMISSIONS

4.1. Exhibition

Under section 75H(3) of the EP&A Act, the Director-General is required to make the EA of an application publicly available for at least 30 days. After accepting the EA, the Department publicly exhibited it from 16 February 2011 until 18 March 2011 (31 days) on the Department's website, and at:

- the Department of Planning, Information Centre, Sydney;
- the Nature Conservation Council of NSW; and
- the Moree Plains Shire Council.

The Department also advertised the public exhibition in the Moree Border News on 14 February 2011 and Moree Champion on 15 February 2011 and notified relevant state and local government authorities in writing.

The Department received 11 submissions during the exhibition of the EA - 5 submissions from public authorities and 6 submissions from the general public.

A summary of the issues raised in submissions is provided below.

4.2. Public Authority Submissions

5 submissions were received from public authorities.

Industry & Investment (I&I) – (now Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS))
DTIRIS did not raise any objections to the project, however provided information that the Proponent can access in assessing environmental impacts on agricultural land uses in the area.

Department of Environment, Climate Change and Water (DECCW) – (now Office of Environment and Heritage(OEH))
OEH did not raise an objection to the proposal, however highlighted areas of concern that they require the Proponent to further address prior to determination of the project. In summary these are:

- the extent of impacts on vegetation communities has not been clearly quantified and so the nature and extent of probable impacts should be clearly described and quantified for each vegetation type;
- an adequate offset strategy has not been included in the EA and the Statement of Commitments does not address the need for an offset strategy that is consistent with the principles for the use of biodiversity offsets in NSW; and
- the Statement of Commitments needs to be amended to require that any Aboriginal Cultural Heritage site identified in areas, or adjacent to areas, impacted or involved with the proposal are to be registered in accordance within the *National Parks and Wildlife Act 1979*.

NSW Office of Water (NoW)
NoW did not raise any objections to the project, however recommended that the commitments regarding managing water impacts become conditions of approval.

Border Rivers-Gwydir Catchment Management Authority (CMA)
The CMA did not raise any objections to the project.

NSW Rural Fire Service (RFS)
The RFS did not raise any objections to the project, however provided a recommended condition of approval in relation to adopting the recommendations in Section 10 of the Bushfire Hazard Assessment Report.

4.3. Public Submissions

6 submissions were received from the public, with 100% of these supporting the project indicating that the solar farm will provide sustainable energy, additional employment and tourism opportunities which will help arrest the declining population of Moree.

The Department has considered the issues raised in submissions in its assessment of the project.

4.4. Proponent's Response to Submissions

Pacific Hydro, on behalf of BP Solar Pty Ltd, provided a response to the issues raised in submissions (see Appendix C).

The Submissions Report was forwarded to OEH on 13th April 2011, who provided a response on 2nd May 2011 stating that it supports the revised draft Statement of Commitments.

The Moree Solar Farm Submissions Report was placed on the Department's website on 9th May 2011.

5. ASSESSMENT

The Department considers the key environmental issues for the project to be:

- visual impact;
- noise impact;
- indigenous heritage;
- traffic and transport;
- biodiversity; and
- agricultural impacts.

5.1. Visual Impact

The solar farm is to consist of approximately 645,000 photovoltaic (PV) modules installed on a series of tracker tables measuring approximately 30m^2 and up to 3.4m in height, oriented towards the north. The solar farm also contains electrical inverters, transformers, site administration and operations building plus security fencing and ETL.

The proponent has undertaken a visual impact assessment, which assessed the overall visual impact of the proposal as viewed from a number of locations from distances up to 5km from the proposal (See Figures 4 & 5), as well as impacts from the associated construction activities.

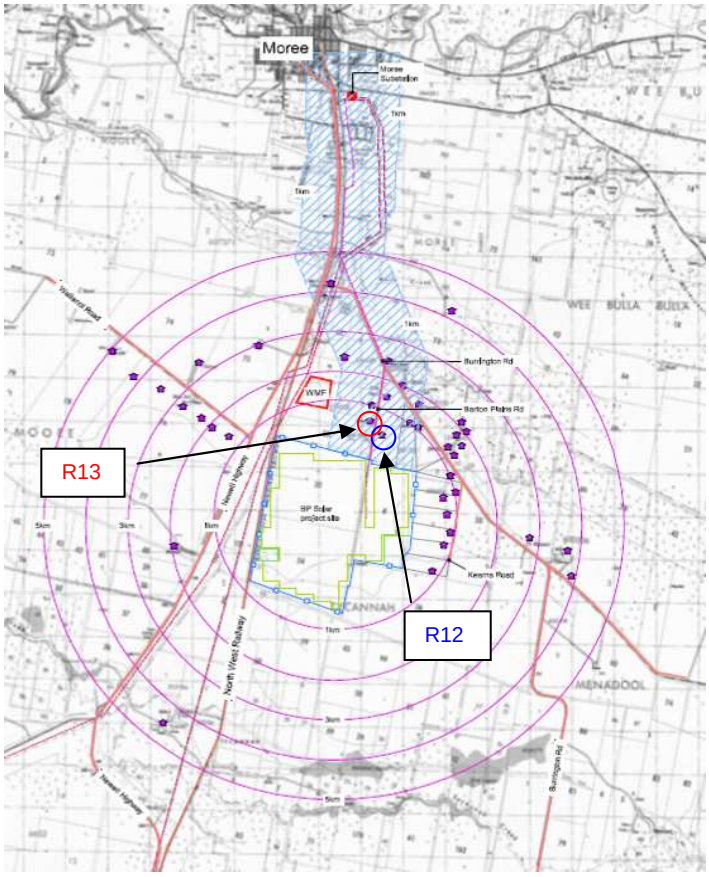


Figure 4 – visual impact assessment viewshed

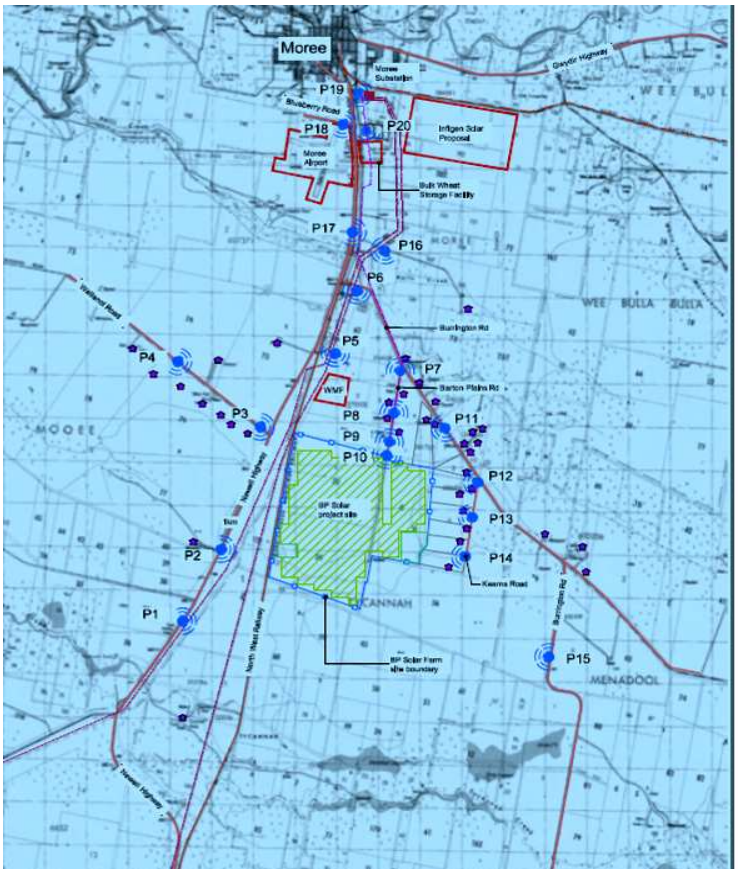


Figure 5 – view point locations

The visual impact of the solar farm on the surrounding residences was generally assessed to be low (see Figure 6 for a photomontage taken from the north of the site), however was considered moderate (identified as R13 in Figure 4), or moderate to high (identified as R12 in Figure 4) on two residences located approximately 1km north of the project. Mitigation

measures such as screen planting (tree or large shrub planting) are seen as an effective measure to reduce this impact, and will be explored within the framework of the landscape plan, which has been included as a condition within the terms of approval.

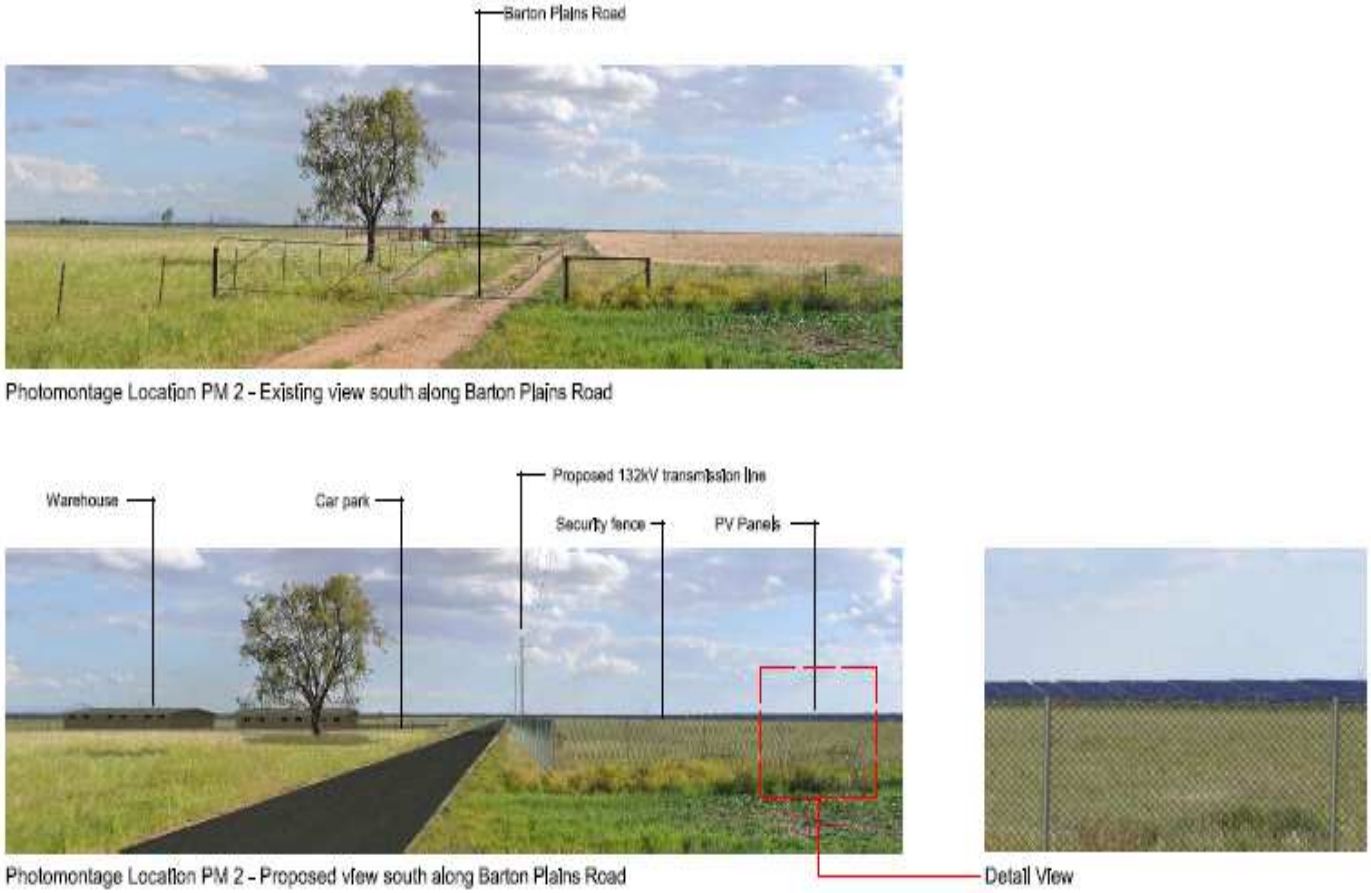


Figure 6 – photomontage at north boundary looking south

Sun glint, glare and night time lighting impacts have also been considered within the landscape and visual impact assessment. The solar panels are not expected to impact on aircraft operations at the Moree airport, residents surrounding the project or passing motorists as the reflected energy percentages of the PV glass panels has been determined to be less than common materials utilised within the rural/agricultural environments such as steel, standard glass and plexiglass. Lighting would also be low level and directional within the site to minimise any potential for light spill onto adjoining areas.

Pre-construction and construction activities such as civil works, signage and the erection of buildings, solar panels and the substation associated with the solar farm were also deemed to be unlikely to result in an unacceptable level of visual impact. This is a result of their temporary nature and the fact that most activities would be undertaken within the site area or discrete areas beyond the solar farm boundaries. The assessment also determined that the construction of the project would generally not result in any significant visual impacts on the majority of views from roads and the rail corridor approaching the project or passing beneath the 132kV ETL.

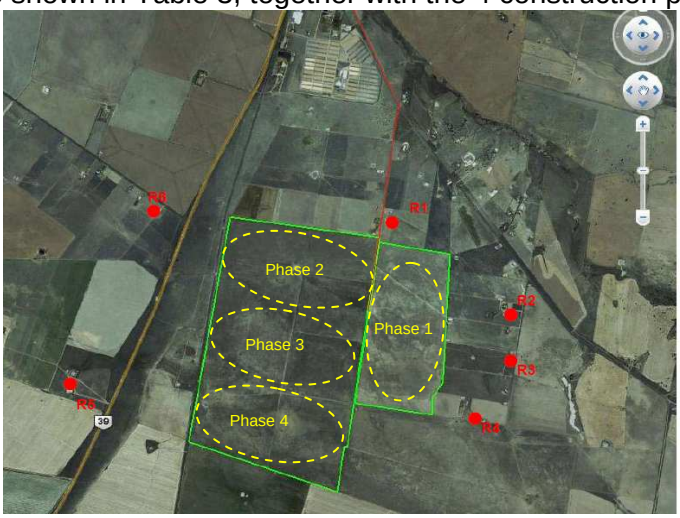
The ETL would be largely contained within existing road carriageways, and would pass existing industrial/agricultural developments located between the site and Moree substation such as Council's waste management facility; cotton gin; saleyards; bio-energy plant; Moree airport; bulk wheat storage facility and Moree industrial park. Approximately 70% of the length of the ETL would also be visible against existing electrical distribution and transmission lines, and therefore the visual impact of the ETL was considered to be low.

Consideration

Given the low lying nature of the landscape surrounding the site, and low height of the predominant feature of the proposal, being the solar panels, and potential mitigation measures such as tree planting that will be explored to screen the closest residences, the Department is satisfied that the proposal is unlikely to result in an unacceptable visual impact. A condition of approval has been recommended by the Department that will require the Proponent to prepare a Landscape Plan to investigate these mitigation measures, with their implementation confirmed through the submission of a visual impact verification report within 6 months of the commencement of operation of the solar farm. This report will identify all reasonable and feasible screening and landscaping options available, including demonstration that these measures were determined in consultation with the affected landowners and relevant road authorities. The Proponent is also to ensure that the site administration and operations building is designed to minimise any visual intrusion through consideration of appropriate external finishes and landscape planting.

5.2. Noise Impact

A noise assessment was undertaken by the Proponent's consultant in accordance with the *Department of Environment and Conservation Interim Construction Noise Guidelines; Environmental Criteria for Road Traffic Noise; and Assessing Vibration: a technical guideline and NSW Industrial Noise Policy* (INP). The nearest residential receptor locations for the noise monitoring are shown in Table 3, together with the 4 construction phases.



Reference Location	Receptor Identification	Distance from SPF site boundary (metres)	Distance from SPF Substation (metres)
R1	Barton Plains Road	220	1350
R2	Keams Road	750	1895
R3	Keams Road	970	2150
R4	Keams Road	650	2250
R5	Newell Highway	1800	4450
R6	Wallanoi Road	1020	3400

Table 3 – residential receptor locations

The expected operational and construction noise impacts from the solar farm and any mitigation measures are detailed below:

Operational Noise

It was determined there would not be any significant noise emitted between sunset and sunrise from the operation of the solar farm. Sources of noise during daylight hours, however, include the tracking mechanisms, inverters, kiosk transformers, site traffic and the high voltage substation.

Project noise goals were determined for the receptor locations using the INP (for both day and night), and predicted noise levels were then modelled at the same locations. Overall the operational noise impacts were considered to be minimal, with the modelled noise levels being lower than the project noise goals as shown in Table 4.

Reference Location	Description	Predicted Sound Pressure Level Contributions dBA	Project Noise Goal dBA
R1	Barton Plains Road	26	35
R2	Keams Road	25	35
R3	Keams Road	25	35
R4	Keams Road	25	35
R5	Newell Highway	15	42
R6	Wallanoi Road	17	42

Table 4 – predicted operational sound levels

No operational vibration sources were identified that are expected to generate ground vibration impacts at the residential receptor locations.

Construction Noise

The construction of the project is to be staged over a 4 year period, within 4 phases, starting in the eastern section of the site, and working towards the southern boundary. Construction activities for the main site have been summarised as access track construction; vegetation clearing; site preparation; PV module support foundations and substation/PV module installation. The target noise goals together with the predicted construction noise levels are detailed in Table 5, with the closest point being represented, as well as the centre of each construction stage.

Description	Target Noise Goal	Predicted Sound Pressure Levels LAeq 15min Closest	Stage 1	Stage 2	Stage 3	Stage 4
R1- Barton Plains Road						
Access Track Construction	40	57	42	42	38	35
Vegetation Clearing	40	51	36	36	32	29
Site Preparation	40	58	43	43	39	36
PV Module Support Foundations	40	50	35	35	31	28
Substation/PV Module Installation	40	57	42	42	38	35
R2- Keams Road						
Access Track Construction	40	48	43	36	36	35
Vegetation Clearing	40	42	37	30	30	29
Site Preparation	40	49	44	37	37	36
PV Module Support Foundations	40	41	36	29	29	28
Substation/PV Module Installation	40	48	43	36	36	35
R3- Keams Road						
Access Track Construction	40	46	42	35	36	35
Vegetation Clearing	40	40	36	29	30	29
Site Preparation	40	47	43	36	37	36
PV Module Support Foundations	40	39	35	28	29	28
Substation/PV Module Installation	40	46	42	35	36	35
R4- Keams Road						
Access Track Construction	40	50	41	35	36	37
Vegetation Clearing	40	44	35	29	30	31
Site Preparation	40	51	42	36	37	38
PV Module Support Foundations	40	43	34	28	29	30
Substation/PV Module Installation	40	50	41	35	36	37
R5- Newell Highway						
Access Track Construction	47	41	32	34	36	36
Vegetation Clearing	47	35	26	28	30	30
Site Preparation	47	42	33	35	37	37
PV Module Support Foundations	47	34	25	27	29	29
Substation/PV Module Installation	47	41	32	34	36	36
R6 - Wallanoi Road						
Access Track Construction	47	46	34	39	37	35
Vegetation Clearing	47	40	28	33	31	29
Site Preparation	47	47	35	40	38	36
PV Module Support Foundations	47	39	27	32	30	28
Substation/PV Module Installation	47	46	34	39	37	35

Table 5 – predicted construction sound levels

As shown above, construction activities are likely to exceed the target noise goals for periods of stage 1 at 4 of the residential receptor locations located north and east of the proposal, and during periods of stage 2 at the receptor located north of the proposal. To manage the noise impacts, plant selections, temporary controls and work practices have been recommended by the Proponent's consultant, where practical and feasible, and consultation is to occur with affected landowners.

The construction of the ETL is also anticipated to take 3 to 4 months, with the duration at any one structure location expected to be less than 3 weeks. Along Barton Plains Road residential dwellings could be located approximately 50-100m away from the construction activities, which could result in exceedances of the targeted noise goal. However, given the transient nature of the works, the assessment did not identify any significant impacts with the ETL construction. Notwithstanding this, any required mitigation measures would be explored within the Construction Noise Management Plan (CNMP).

Traffic noise

Traffic generated during construction would be associated with the delivery of plant and equipment, with additional vehicle trips generated on Halls Creek Burrington Road and Barton's Plains Road, the locations of which were the focus of the noise modelling conducted at the façade of the residences. Overall the traffic volumes generated during construction were considered to be minimal, with the modelled noise levels determined to be below the project noise goals, as shown in Table 6.

Description	Sound Pressure Level LAeq. 15min		Target Noise Goal
	Stages 1-2	Stages 3-4	
Halls Creek Burrington Road	50	52	60
Intersection to Barton Plains Road	38	40	60
Barton Plains Road	43	46	55

Table 6 – predicted sound levels

Consideration

The Department is satisfied that the operational noise impacts have been satisfactorily addressed by the Proponent, and a condition has been recommended that a noise verification report be submitted to the Department prior to construction. This will be undertaken once final details of the plant and equipment are known, which will demonstrate that the proposed design and layout of the project and any proposed noise management or mitigation measures will ensure that noise levels at nearby sensitive receivers are within acceptable limits.

The Department notes that the construction noise exceeds the target noise goals in a few locations during stages 1 and 2 of the project. However, given the predicted sound levels are the 'worst case' analysis, and the intermittent nature of the works resulting from the different stages of site and ETL construction, the Department considers that with the inclusion of a CNMP, the construction noise levels could be managed to an acceptable level.

The Department has therefore recommended a condition requiring a CNMP be prepared prior to construction and submitted as part of the Construction Environmental Management Plan. This will ensure all feasible and reasonable noise mitigation measures are identified (such as selection of plant and equipment, work practices, resident notification, complaints management and noise monitoring) that will address and manage construction noise and vibration and any impacts. The Department has included a condition relating to the implementation of these measures during the construction period and the Proponent has included commitments regarding the protection of noise amenity and the development of a community relations program to inform residents and the community.

5.3. Indigenous Heritage

An Aboriginal Heritage Assessment (AHA) was undertaken by the Proponent's consultant in accordance with the *Guidelines for Aboriginal Cultural Impact Assessment and Community Consultation (DECCW 2005),* in consultation with relevant Aboriginal groups. The AHA identified 3 Aboriginal archaeological sites within the boundaries of the proposal, and 2 previously recorded sites over 100m east of the proposed ETL (see Table 7 for a description and Figure 7 for location), as well as the significance and management of the items.

Aboriginal Site	Description	Location
BPS-ST1	Culturally modified (scarred) Bimble Box Tree	ETL route
BPS-ST2	Culturally modified (scarred) Carbeen Tree	Study area 2
BPS-OS1	Open site with potential archaeological deposit	Study area 1
10-3-0036	Isolated find	100m east of ETL route
10-6-0040	Open camp site	100m east of ETL route

Table 7 – identified Aboriginal sites

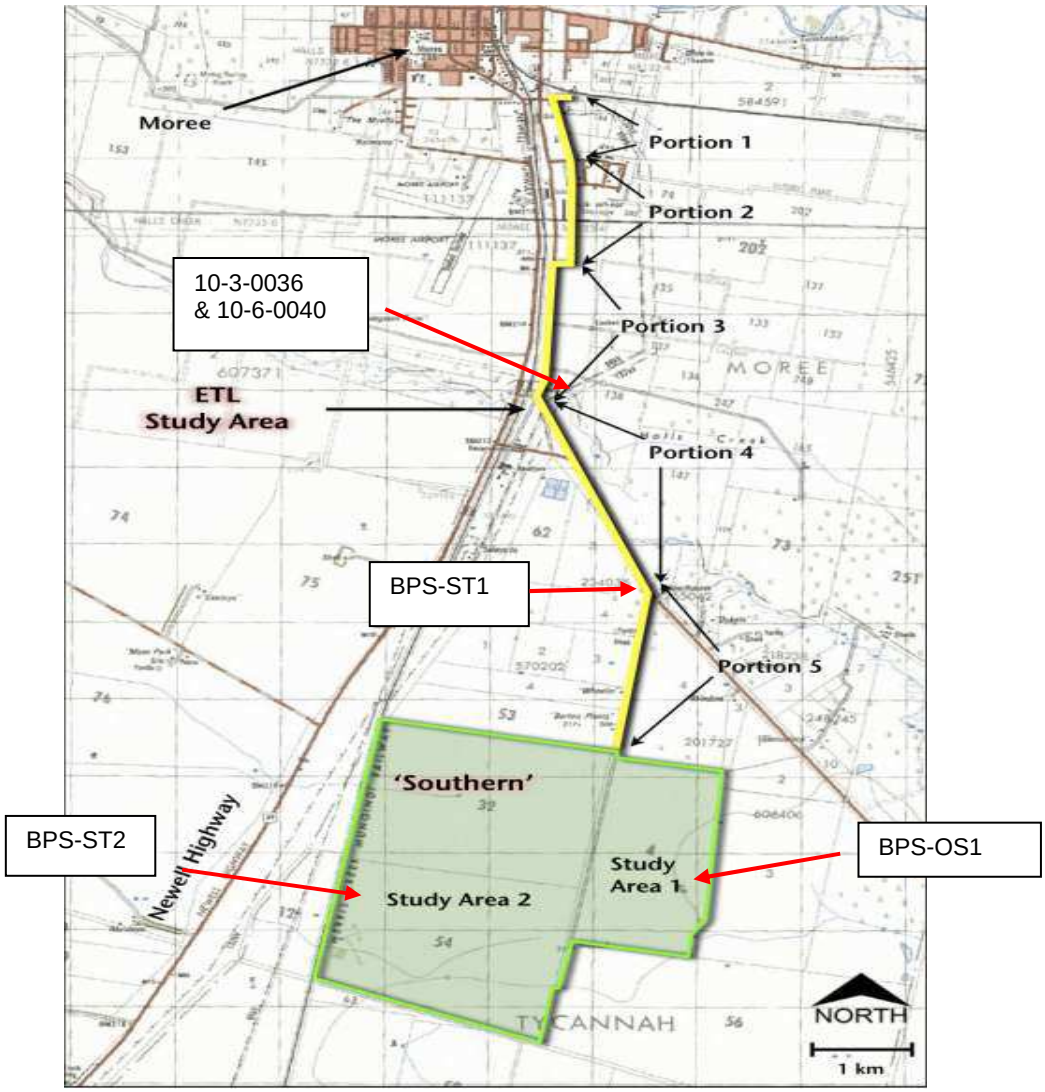


Figure 7 – approximate location of identified Aboriginal sites

The cultural, scientific and public significance of the 3 items identified within the boundaries of the proposal is described below:

Cultural Significance
All site types have been identified as culturally significant to the Aboriginal community, with *BPS-0S1* deemed to have the greatest level of significance given it contains some relationship to a significant landscape feature, being the extinct billabong/ephemeral wetland, and therefore has greater conservation significance.

Scientific and Public Significance
Subsequent to the initial recording, *BPS-ST1* was identified as being scarred by a European surveyor, and so is unlikely to be an Aboriginal site and deemed to be of moderate scientific significance. *BPS-ST2* is a damaged example of a site type (scarred tree) common to the region, with the damage reducing the possibility of a definitive interpretation of the original purpose of the scar, and so has been deemed to have low significance. Within the region, *BPS-OS1* is a rare example of an open site that is still associated with a significant public landscape feature and is deemed to be of high scientific significance, and with the potential for the site to be enhanced through conservation and interpretive signage, low-moderate public significance.

The AHA identified a number of methods of managing potential impacts on the identified sites prior to and during the construction and operation of the solar farm. These include protecting sites during construction by providing a suitable curtilage around the sites, and including signage and fencing. The AHA also recommends the preparation of an Aboriginal Heritage Management Plan (AHMP), formulated in consultation with the identified Aboriginal community stakeholders, which will include measures for management and site conservation. Methods summarised within the AHA include adjusting the project design to avoid *BPS-ST1* and *BPS-0S1*. In relation to *BPS-ST2*, given its location, and unlikely chance of avoidance, the AHA recommends removal in consultation with the local Aboriginal community regarding the method of removal and its destination, storage location and display if required.

Consideration
The Department is satisfied that the Proponent, through the AHA, has adequately identified and assessed the potential impacts of the project components on indigenous heritage in consultation with the registered stakeholder group consisting of local Aboriginal groups. The AHA also identified a number of mitigation methods to manage potential impacts on the identified items of significance within the area of the site, which will be further explored through the preparation of the AHMP, included within the Statement of Commitments. The Statement of Commitments also includes additional mitigation measures such as the inclusion of a no-go zone within the vicinity of the sites and a worker induction program that will raise awareness of Aboriginal site identification, inclusive of 10-3-0036 &10-6-0040 located east of the ETL, and north of the solar farm site. The Department has also recommended a condition regarding the procedures to be followed should any previously unidentified objects be discovered during the course of construction.

5.4. Traffic and Transport

Direct access to the site is via Barton Plains Road, with the Newell Highway and Burrington Road also being nearby roads that will be utilised to service the site (see Figure 8).

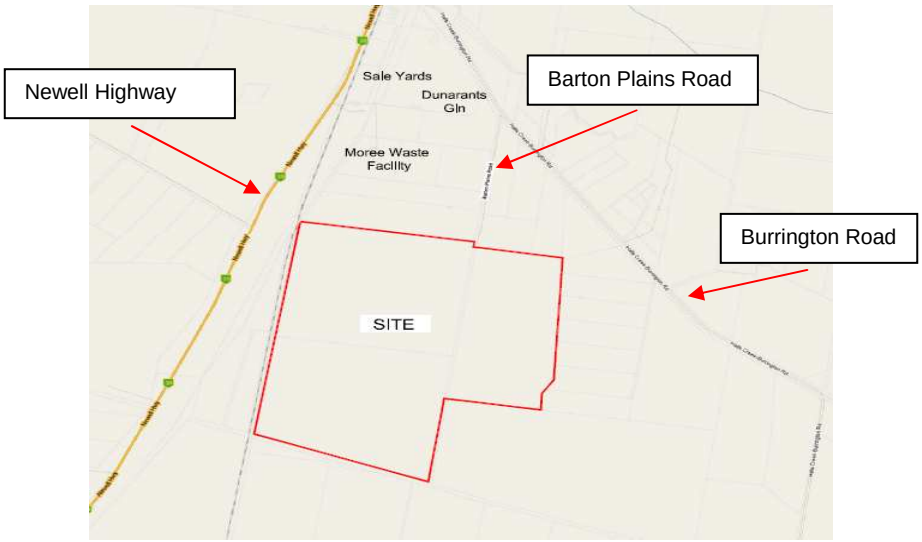


Figure 8 – site access

A traffic and transport study has been undertaken by the Proponent's consultants which has assessed the access arrangements as well as the construction and operational impacts of the proposal on the surrounding road network.

Road Capacities

The Newell Highway would be the main route for the delivery of the principal materials and equipment (steelwork, panels and inverters), which would occur primarily from the south (Sydney and Newcastle). The truck movements from the north would be primarily local and consist of concrete, gravel, road making and hardstand materials for construction. There would also be 2 large transformer deliveries involving 'special permit oversize' per year for the 4 year construction period, equating to a maximum of 8 deliveries.

Currently the Newell Highway accommodates approximately 2400 vehicle movements per day (vpd) south of Burrington Road, and 3199 vpd south of the airport. Burrington Road is accommodating less than 300 vpd, and the vehicle movements on Barton Plains Road are negligible.

During years 1 and 2 of construction there would be a maximum of 100 full time workers involved on the site and 100 truck deliveries per month (or approximately 3 per day), which would increase to 160 workers and 200 truck deliveries during years 3 and 4 (or approximately 6 per day). The operational requirements of the solar farm would require 10-12 full time workers, with occasional truck movements for maintenance workers, and is estimated at 20 daily trips in and out of the site.

The traffic assessment concluded that the Newell Highway and Burrington Road are capable of accommodating these projected vehicle movements. However, Barton Plains Road will require upgrading to a 7.0m wide sealed pavement and 0.5m wide gravel shoulder to accommodate the movement of the B Double vehicles to the site.

Intersection Capacities

At the Newell Highway/Burrington Road intersection, the peak flows are 350 peak vehicle movements per hour (vph) along the Newell Highway and 50 vph along Burrington Road. Stage 1 and 2 of the project are anticipated to create an additional 41vph and stage 3 and 4

an additional 62vph. This intersection has been upgraded to incorporate separate right turn and left turn bays, and the assessment concludes that the intersection is therefore capable of accommodating the additional vehicle movements generated by the proposal. This is inclusive of the movements of the B Double and Road Train vehicles which would be used for the delivery of the materials and equipment, the additional flows generated by the Waste Management facility and potential future traffic growth on the Newell highway. However, the Burrington and Barton Plains Road intersection would require upgrading to accommodate the movement of the B Double vehicles as described above.

Consideration
The Department acknowledges that an increase in vehicle movements, particularly from heavy vehicles, would have an effect on the safety and operation of the traffic system and condition of the roads if not managed appropriately. To mitigate any potential impacts, the Proponent has included a commitment that requires a Construction Stage Roads Management and Maintenance Plan to be prepared in consultation with Council. This will include an examination of all road assets, regular inspections and a commitment by the Proponent to rectify any damage on completion of the project. The Proponent has also included a commitment to upgrade Barton Plains Road and the Burrington and Barton Plains Road intersection to be able to accommodate the B-Double vehicles.

The Department has recommended a condition of approval to this effect with road dilapidation reports to be prepared prior to construction and after the completion of substantial works, both of which are to be submitted to the Director-General clearly identifying recommendations made by the Council and the RTA, and how these have been addressed. The Department has also recommended a condition requiring the Proponent to undertake a Traffic Management Plan to manage potential traffic conflicts that may be generated during the construction phase.

The Department is satisfied that the traffic impacts have been adequately addressed, and the construction and operation of the solar farm is unlikely to have an unacceptable level of impact on the safety and operation of the surrounding traffic network, subject to the Statement of Commitments and conditions recommended by the Department being implemented accordingly.

5.5. Biodiversity

A terrestrial ecology assessment was undertaken by the Proponent's consultant who divided the project into two main study areas being the 'ETL Study Area' and 'Southern Study Area' (See Figure 9). The southern study area was further delineated into western and eastern.

Western Study Area
This area has been previously mapped (within the wildlife atlas) as 'Cropping and Improved Pasture', which is consistent with the field assessment; however 3 remnants of Carbeen woodland on alluvial soils have also been identified. Carbeen woodland is listed as an endangered ecological community under the *NSW Threatened Species Conservation Act 1995*, and approximately 124 trees in total were recorded in 3 remnants (100 in 4.8ha remnant; 16 in 0.6ha remnant and 8 in 0.1ha remnant). No native groundcovers remain within the cropped area, however native and exotic ground covers exist within the 3 remnants.

The majority (approximately 95%) of the trees were deemed to be unhealthy, with the two smaller remnants considered unlikely to recover, and are therefore scheduled to be cleared. The preferred ecological outcome for the larger 4.8ha remnant, however, was deemed to be conservation and enhancement, with 10-15% of the trees located in this area containing hollows suitable for small hollow dependent parrots, up to 30% containing cracks and fissures suitable for micro bats and the potential for mixed native and exotic groundcover to be affected should it not be conserved.

The Proponent has indicated the retention of the larger remnant is possible within the framework of the project, and has included a commitment regarding the protection of identified native vegetation areas.

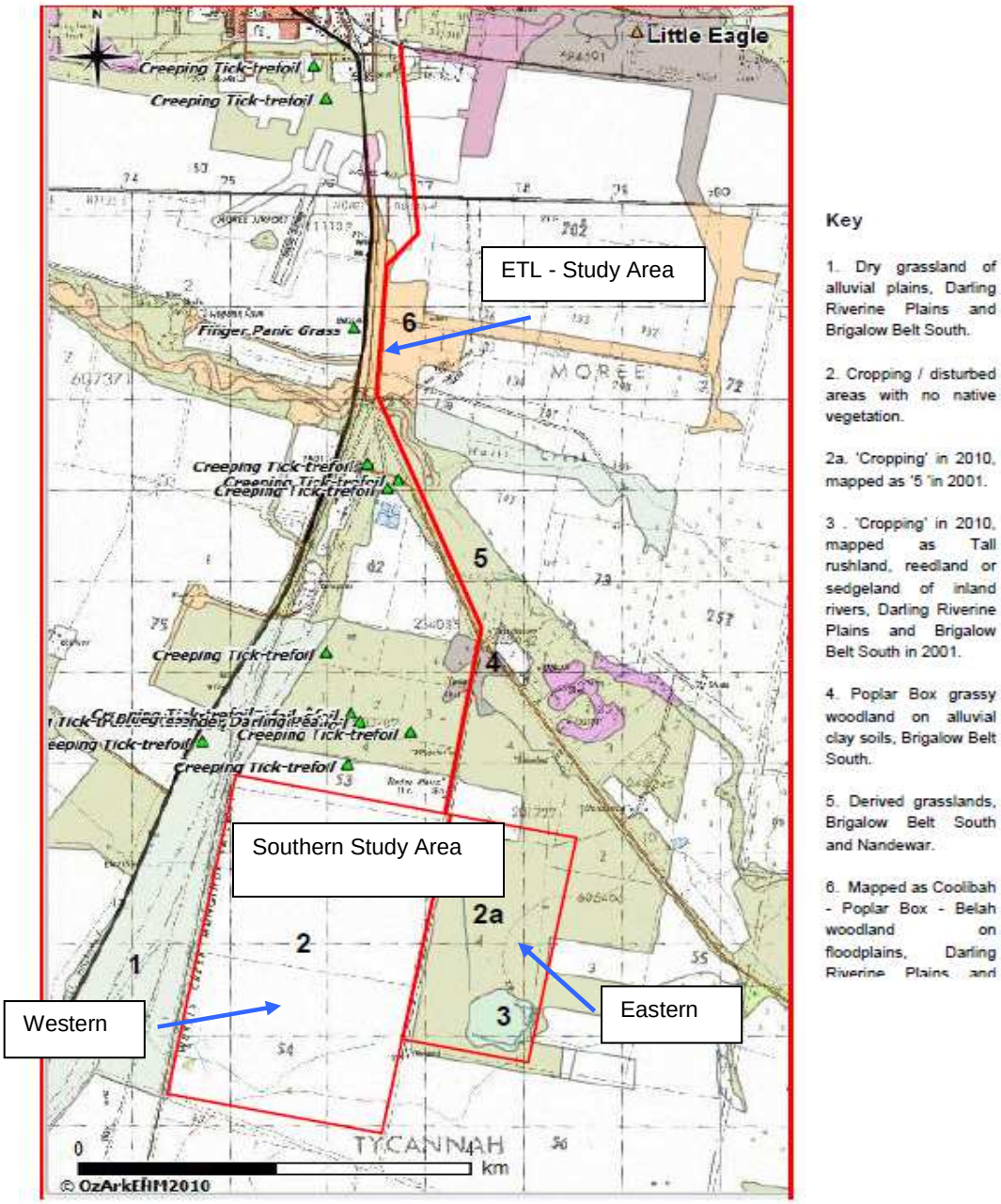


Figure 9 – ecology assessment study area

Eastern Study Area

The majority of this area is previously mapped (within the wildlife atlas) as 'derived grasslands, Brigalow Belt South and Nandewar Bioregions', which is listed nationally as an endangered ecological community under the *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act). The field assessment, however, has confirmed this mapped area is now 'cropping', with a few remnants of native pastures still remaining (equating to a total of 17 trees, which includes 9 Carbeen, 7 Bimble Box and 1 Whitewood tree). Native groundcovers also exist.

The assessment indicated that the Carbeen trees have been recently poisoned and are considered to have a low chance of recovering and are therefore anticipated to be removed

along with the single Whitewood tree. No native groundcovers exist within these areas. The Bimble Box are located on the foreshore of the former wetland *BPS-0S1* described in section 5.3, which is recommended to be preserved which will be further explored through the Aboriginal Heritage Management Plan.

As with the western study area, 10-15% of the trees contain hollows suitable for small hollow dependent parrots (the whitewood was identified as having active hollows that were in use by small parrots for breeding at the time of the assessment), with up to 30% containing cracks and fissures suitable for micro bats. Management actions have been recommended within the ecology assessment to reduce the impact to any tree dependent microbats and hollow dependent birds, such as the clearing of substantive trees to only occur between April and September, with an experienced ecologist / wildlife rescue person to be present to advise of tree removal, should any birds be nesting in the hollows.

The ETL Study Area
Four mapped communities exist within the proposed ETL easement being:

Crops:
This area contains cropping and a single Myall tree also exists.

Poplar box grassy woodland on alluvial clay soils:
This area (marked as 4 in Figure 9) was previously mapped (within the wildlife atlas) as '*Poplar box grassy woodland on alluvial clay soils*' and the field assessment has determined that it also contains *Desmodium campylocaulon* and an individual *Dichanthium setosum* and approximately 100 *Bothriochloa biloba.*

Derived Grasslands, Brigalow Belt South and Nandewar Bioregion:
This area (marked as 5 in Figure 9) was previously mapped (within the wildlife atlas) as '*Derived Grasslands, Brigalow Belt South and Nandewar Bioregion*', and the field assessment has determined it to also contains the following:

- Derived grasslands occur along Barton Plains Road, Burrington Road and Crown Land and are listed as the endangered ecological community '*Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland*' under the EPBC Act.
- Halls Creek and all areas 40m either side of it form part of the *NSW Aquatic Ecological Community in the Natural Drainage System of the Lowland Catchment of the Darling River* Endangered Ecological Community under the *Fisheries Management Act 1995*. This grassland community is listed as the nationally endangered ecological community '*Natural grasslands on basalt and fine-textured alluvial plains of northern NSW and southern QLD*' under the EPBC Act.
- *Desmodium campylocaulon* (creeping tick-trefoil), listed as endangered in NSW, is widespread through-out the ETL alignment.
- It is also considered possible that habitat exists for *Swainsona murrayana*, birds associated with the ephemeral wetlands, the five-clawed worm skink (*Anomalpopus maclayi*), and that threatened fish may utilise flooded waterways to migrate during a high flow event.

Coolibah-Poplar box-belah woodland on floodplains, Darling Riverine Plains and Brigalow belt south, north-west floodplain woodlands:
This area (mapped as 6 in Figure 9) was ground truthed and determined to be *Derived Grasslands, Brigalow Belt South and Nandewar Bioregion.*

12 trees also exist within the ETL easement, of which 6 of the larger trees have habitat values for microbats and 2 trees have hollows suitable for small parrots. No threatened fauna were observed or considered likely to occur and remain unrecorded within the ETL study area, and thereby will not be affected by the proposal.

The Proponent has identified the 12 trees at being at risk of removal, as well as approximately 0.027ha of ground cover mapped as *Bluegrass derived grassland of the Brigalow Belt South Bioregion* and up to 10 individuals of *Desmodium campylocaulan*. However, the actual losses of each vegetation type will be re-calculated and confirmed once the final ETL pole locations are known.

Vegetation Mapping and Offsetting

OEH raised issues that the likely impacts on native vegetation had not been fully quantified, predominantly in relation to ground cover and shrub layers, particularly along the ETL, and therefore the proposal's ability to meet the "improve or maintain" requirement had not been substantiated. OEH also stipulated that a more detailed offsetting strategy that proposes an adequate offset proposal supported by a suitable metric is required.

The Proponent has indicated in the Submissions Report that approximately 0.027ha of the groundcover within the ETL would be initially affected but would naturally recover. However no rare grasses would be affected, and therefore no offset for this habitat type is anticipated. However, given that the final location of the ETL poles is yet to be determined, the actual losses of each vegetation type would be re-calculated and confirmed (within the site, ETL and road alignment) once the final locations are known.

The Proponent has also indicated that once the final route into the site has been finalised, and the requirement for road upgrade works identified (along Burrington Road / Barton Plains Road), a suitably qualified ecological surveyor would undertake a survey to quantify any potential loss of native vegetation.

With respect to offsetting, the Proponent has indicated its intention to offset any vegetation losses by improved management of the 4.8ha of carbeen woodland, as well as an additional 0.01 ha for the trees to be lost on site, equating to a total of 4.81ha. The Proponent has indicated an offset plan is to be prepared based on the *Principles for the use of Biodiversity Offsets in NSW*, and also the impacts to the remnants will be assessed using the 'metric' system and they would commit to the long term security of the area. OEH reviewed the Submissions Report, and advised that it supported the additional commitments and therefore did not object to the project.

Consideration

The Department has considered the Proponent's ecology assessment and is satisfied that impacts on biodiversity have been adequately avoided where possible. Furthermore, where the nature and extent of impacts are not able to be quantified prior to the final design stage, the additional commitments regarding the quantifying of the existing native vegetation following the final design for the site, ETL and road alignment, as well as an offset strategy and management plan provided in the Submissions Report, would ensure that any unavoidable impacts would be adequately quantified, managed and offset.

Furthermore, to ensure that measures are taken to protect and minimise the loss of native vegetation and native fauna habitat during the construction of the project, and that adequate vegetation cover beneath the solar PV arrays would exist, the Department has recommended the preparation of a flora and fauna management plan and ground cover management plan. These would be prepared in consultation with OEH, and would include consideration of the recommended management measures provided within the terrestrial ecology assessment.

To adequately compensate for any native vegetation losses, the Department has also recommended a condition relating to the preparation of a biodiversity offset strategy following final design of the proposal, which is to be prepared by an ecologist and must consider aspects such as native vegetation losses, demonstration of how the offset will aim to achieve

'improve or maintain biodiversity values', and how the conservation commitment would be ensured in perpetuity.

The Department considers that with the measures outlined above, any impacts on biodiversity can be adequately mitigated and/or managed, and do not propose a constraint to approval of the Project. The OEH has also indicated support for the revised commitments with regards to the management of potential impacts on biodiversity.

5.6. Agricultural Impacts

The majority of the site has been, or is currently, utilised for agricultural cropping and cattle grazing, with some rotation of uses according to the season. The eastern parcel (Lot 4) is currently unused, however has historically been used for agricultural production. The western parcels (Lots 32 and 54) have been recently used for wheat cropping, and have also been utilised for other cereal cropping and cotton.

No Agricultural Land Classification Map has been produced by NSW Agriculture for the Moree Shire local government area. However, the Proponent has stated that the land would be most likely considered to be "Class 3" as per the NSW Agriculture's agricultural land classification system (with Class 1 land having few constraints to agricultural production and Class 5 land having severe constraints, and is, in general, unsuitable to agriculture) and "Agricultural Land Classification Agfact AC.25". Specifically class 3 is described as follows:

"Class 3: Grazing land or land well suited to pasture improvement. It may be cultivated or cropped in rotation with sown pasture. The overall production level is moderate because of edaphic or environmental constraints. Erosion hazard, soil structural breakdown or other factors, including climate, may limit the capacity for cultivation and soil conservation or drainage works may be required".

Currently approximately 7,318,305ha, or 62.9%, of land within the Northern District (Moree lies within the Northern District of NSW) is utilised for agriculture, with 548,714ha used for wheat and 124,616ha used for cotton. The project will result in a loss of approximately 1129ha of agricultural land, which equates to approximately 0.02% of agricultural land in total or 0.2% of land available for wheat crops, and 0.9% of land available for cotton, annually (assuming the total area was annually cropped with either wheat or cotton). The Proponent considers that the loss of this area of land to be minimal given the overall area of land that would remain for agricultural use.

Consideration

The Department acknowledges that there would be a small reduction in land available for agricultural production within the Northern District (0.02%), however considers this reduction to be negligible and therefore unlikely to significantly impact on the agricultural production capacity of the greater Moree, or Northern District area.

Fragmentation of existing agricultural lands would also be minimised as the proposal is located between existing infrastructure, being the Newell Highway and north-south rail corridor to the west, and waste management facility to the north. The impact on the small rural land holdings to the east and north will also be minimised as access to and from these properties to the road network would be maintained.

Risks to surrounding agriculture lands through the spreading of weed species and introduction of pest animals would be managed through weed, pest and animal control measures, the inclusion of which have been incorporated in the statement of commitments. The development and implementation of the ground cover management plan, within the construction environmental management plan, as recommended by the Department would also ensure weed management measures are implemented to control and prevent the spread of noxious weeds.

In relation to decommissioning of the Solar Farm, the Department has also recommended a condition that requires the site to be returned as far as practicable, to its condition prior to the commencement of construction. This would ensure that land will not be lost to agricultural activities indefinitely, and should be suitable agricultural use in the future, if required.

6. RECOMMENDATION

The Department has assessed the merits of the project and considers the key issues to be visual and noise impacts, indigenous heritage, traffic and transport, biodiversity and agricultural impacts. The Department is satisfied the impacts of the project have been addressed via the Environmental Assessment, Submissions Report and Statement of Commitments, and can be adequately mitigated and/or managed through the recommended conditions to ensure a satisfactory level of environmental performance.

The Department also considers that the project is in the public interest as it would positively contribute towards achieving the RET, is consistent with the NSW State Plan and Federal Government targets for reducing greenhouse gas emissions, would help meet the predicted growing demand for electricity, and is consistent with the objects of the EP&A Act (including ecologically sustainable development).

The Department therefore recommends that this project be approved subject to the recommended conditions of approval.

30.6.11

Executive Director
Major Projects Assessment

2/7/11

Deputy Director-General
Development Assessment & Systems Performance

S Haddad

Director-General 16/7/2011

APPENDIX A ENVIRONMENTAL ASSESSMENT

See the Department's website at
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4272

APPENDIX B SUBMISSIONS

See the Department's website at
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4272

APPENDIX C PROPONENT'S RESPONSE TO SUBMISSIONS

See the Department's website at
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4272

APPENDIX D POLITICAL DONATION DISCLOSURES

See the Department's website at
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4272

APPENDIX E RECOMMENDED CONDITIONS OF APPROVAL

Attached