



Submissions Report

GRIFFITH SOLAR FARM

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1 INTRODUCTION

1.1 BACKGROUND

The Griffith Solar Farm (the 'proposal') would produce up to 53 megavolt-ampere (MVA) or 60 Megawatts (MW) of electricity. The proposal encompasses the construction and operation of a solar photovoltaic array over an area up to 125 hectares, with associated infrastructure, maintenance facilities, access tracks, overhead or underground powerline to connect to the nearby substation and upgrades to adjacent roads.

The proposal is classified as State Significant Development under the NSW *Environmental Planning and Assessment Act 1979* and requires consent from the Minister for Planning.

The proponent for the proposal is Neoen Australia (Neoen), an Independent Power Producer specialised in renewable energy projects. The company is headquartered in Paris (France) and operates across renewable energy technologies, including solar, wind, and biomass, with an experienced workforce of around 100 employees. Neoen develops, finances, constructs, operates and maintains its projects as a fully integrated renewable energy player, with a genuine long-term approach.

An Environmental Impact Statement (EIS), describing the proposal and assessing its potential environmental impacts, was prepared by NGH Environmental and submitted to the NSW Department of Planning and Environment on 7 March 2016. The Secretary's Environmental Assessment Requirements for the preparation of the EIS included investigation of key environmental issues including:

- Aboriginal cultural heritage.
- Visual amenity.
- Biodiversity.
- Noise.

These issues were investigated via specialist assessments and lower risk issues by desktop assessment.

1.2 PURPOSE OF THIS REPORT

This Submission Report identifies and addresses submissions made in regards to the Griffith Solar Farm EIS, submitted to the NSW Department of Planning and Environment on 7 March 2016.

NGH Environmental has prepared this Submissions Report on behalf of Neoen to fulfill the requirements of Section 75H of the *Environmental Planning and Assessment Act 1979*. The purpose of the Submissions Report is to:

- Consider and respond to the issues raised in the public and agency submissions for the Griffith Solar Farm.
- Describe any changes to the proposal, including a revised set of proposed mitigation measures.

1.3 PROJECT SUMMARY

No substantive changes are proposed to the publically exhibited project description; the full description is provided in Section 3 of the EIS. It is noted that the description allows for capacity 'up to 60 MW' and development of 'up to 125 hectares' and that a lesser capacity and area may be determined in the final design stage. In all cases, the development would have a capital investment value exceeding \$30 million and would therefore still constitute State Significant Development.

This section summarises the key aspects of the proposal, annotating changes made since the public exhibition, where relevant, as footnotes.

1.3.1 Site location

The proposal site is located approximately 7 kilometres (km) south east of Griffith (refer Figure 1), within the Griffith Local Government Area (LGA) and Murrumbidgee Irrigation Area (MIA). The site can be accessed via Irrigation Way, Hamilton Road and Poletta Road¹. The solar farm would connect to the existing Griffith/Yoogali Transgrid substation, located on Hamilton Road to the west of the site.

1.3.2 Key components of the proposal

The proposal site covers approximately 125 hectares (ha) of land. Key infrastructure components are illustrated in Figure 2 and would include:

- Solar arrays: approximately 200,000 solar panels supported by approximately 25,000 piles, driven or screwed into the ground in order to support the solar array's mounting system. The panels to be installed would be either:
 - single-axis tracking panels (which would have approximately 2,650 tracker units)
 - north-oriented fixed-tilt panels
 - east-west facing fixed-tilt panels
 - or a combination of these alternatives.
- Approximately 26 PV boxes or PV skids (either containerised or installed on a 'skid' platform) each of them containing an inverter and a 33 kilovolt (kV) transformer.
- Onsite cabling and electrical connections between solar arrays and panel inverters.
- One delivery station in a container or on a 'skid' platform (no further voltage step-up being required, the delivery station will not contain any transformer).
- Cables and trenches.
- Internal access tracks to allow for site maintenance vehicles, and gravel access road and parking for staff and visitors.
- Staff amenities and offices.
- Perimeter security fencing, approximately 2.3 metres (m) high.
- Vegetation buffer.
- A 33 kV underground or overhead power line to connect into the existing Griffith/Yoogali Transgrid substation, approximately 300 m west of the site, on Hamilton Road.

¹ Ross Road access is now also being considered.

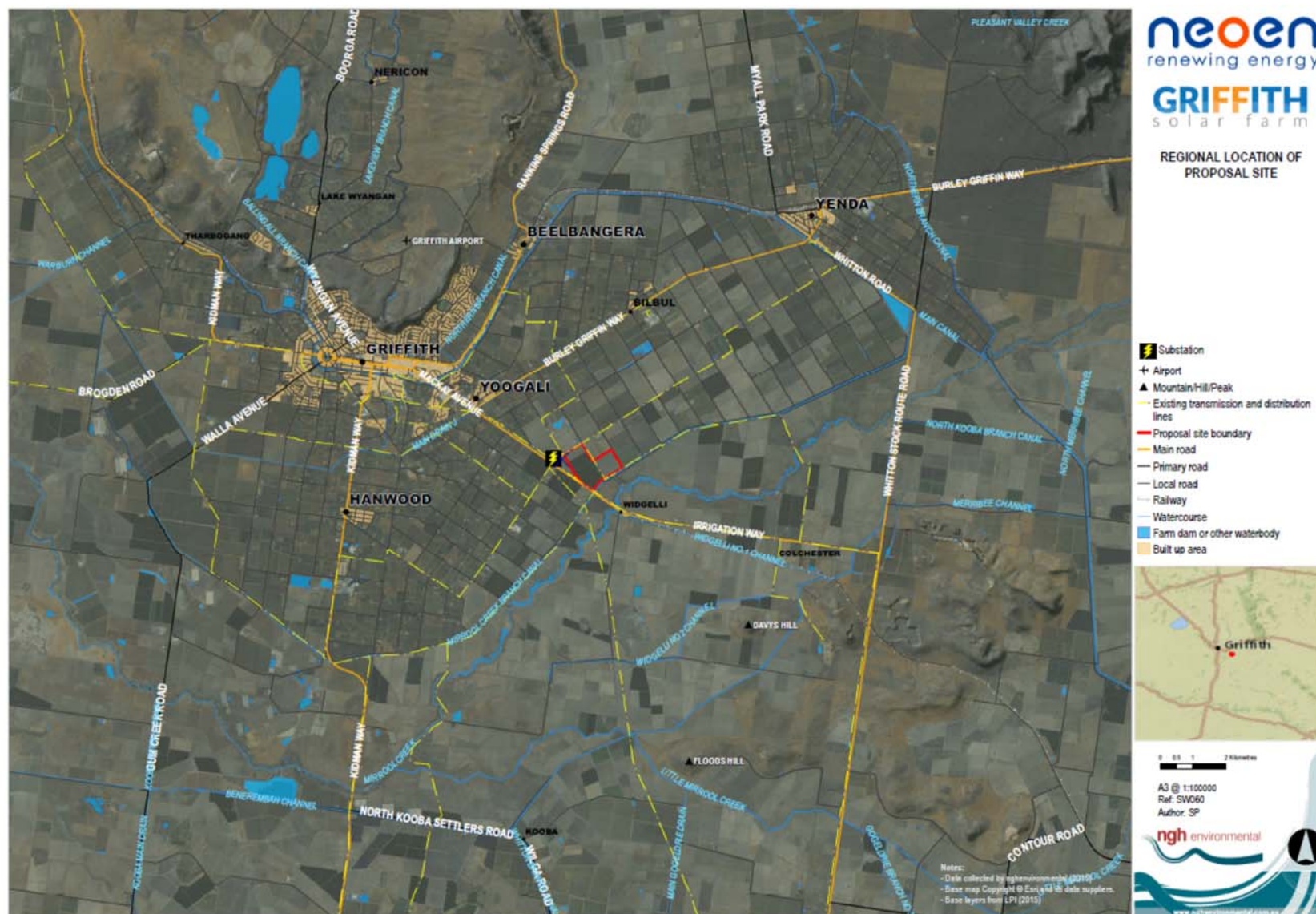


Figure 1 Regional location of the proposal site



Figure 2 Proposed infrastructure

Figure 3 illustrates the proposal site constraints and site access options.

Within the 125 ha proposal site ground disturbance would be limited to:

- The installation of the piles supporting the solar panels, which would be driven or screwed into the ground.
- Construction of internal access tracks.
- Establishment of PV boxes and delivery station.
- Trenches for the installation of cables.
- Establishment of staff amenities and offices.
- Construction of perimeter security fencing.

Ancillary facilities would be located within the site boundary and would include:

- Material laydown areas.
- Temporary construction site offices.
- Temporary car and bus parking areas for construction workers transportation. Once the solar farm has been commissioned a small car park would remain for the minimal staff required and occasional visitors.
- Staff amenities. Once constructed, the solar farm would likely be monitored and operated remotely and would therefore require a minimum number of maintenance personnel (0.5 full time equivalent staff) to be onsite.

The solar array area covers the majority of the site, however the ground disturbance from pile installation would only affect about 0.2% of the total site area. Panels within the solar array area would sit above the ground and ground cover would be maintained under the panels. Additional ground disturbance outside the solar arrays would result from construction of the internal access tracks, trenches for cabling and footings for other equipment. The area of the site which would be affected by shading from the solar panels would be approximately 70% of the total site area.

Excluding underground cabling, all non-submersible electrical equipment and plant (subject to extreme flood events, as illustrated in the Flooding Map in Appendix B of the Griffith Solar Farm EIS) will be established at least 410 mm above the surrounding finished surface level to accommodate extreme flood events (however Neoen may find an alternative solution to meet compatibility with flood protection for electrical equipment, which would be agreed with Griffith City Council).

The annual output of the proposal would be up to 116 Gigawatt hours (GWh), with a capacity factor of approximately 17 to 23 per cent depending on the technology. The construction phase of the project would be approximately 9 months with a capital cost of approximately \$90 million. The proposal is expected to have a 25 to 30 year operating life at which point, all above ground infrastructure would be removed from the site.

1.3.3 Capital investment

The proposed Griffith Solar Farm would have a capital investment of approximately \$90 million.



Figure 3 Proposal site constraints and site access options

1.3.4 Indicative timeline

An indicative timeline for the proposal is outlined in Table 1.

Table 1 Indicative timeline.

Phase	Approximate commencement	Approximate duration
Construction	January 2017	9 months
Commissioning	September 2017	1 month
Operation	October 2017	25 years
Decommissioning	2042	2 months

For more detailed information of the components and ancillary facilities of the solar farm refer to the Griffith Solar Farm EIS, Section 3.

1.4 PROJECT MODIFICATIONS

The following minor changes to the proposal are noted. Additionally, revisions to the proposal's mitigation measures are detailed in Section 2 and provided in full, Appendix A.

Table 2 Changes to the proposal

EIS description	New description	Comment
Project capacity 'up to 60 MW' and site development 'up to approximately 125 hectares'.	A lesser capacity and area may be determined in the final design stage.	In all cases, the development would have a capital investment value exceeding \$30 million and would therefore still constitute State Significant Development.
Access from Irrigation Way off Hamilton Road.	Ross Road may be an access option (see Figure 3) depending on the outcomes of discussions currently in progress with John Holland and RMS.	If haulage traffic comes by road from Sydney and Ross Road is selected as a preferred option, the route may include the Hume Highway, Burley Griffin Way and Ross Road. The proponent commits to finalising the construction and operational access in consultation with John Holland Rail, RMS and Council. Refer to revised mitigation measures in Section 2.7 and 2.8.
Security fencing posts and wire would be non-reflective; green or black rather than grey would reduce the industrial character of the fence.	Security fencing posts and wire would be standard construction materials.	It is considered that standard fencing treatments would be acceptable, given the commitment to establish vegetation screening in sensitive locations around the perimeter of the site. As well as breaking up views of fencing and infrastructure, the vegetation would minimise glare / reflectivity of the fence components. This fencing commitment has been deleted from the revised mitigation measures set out in Appendix A.

1.5 PROJECT BENEFITS

The Griffith Solar Farm would generate renewable energy and would displace approximately 100,000 tonnes of carbon dioxide (CO₂) or greenhouse gas emissions per year during operation. Based on a proposed operating capacity of 116,000 megawatt hours (MWh) of electricity per year, the proposal would generate enough renewable energy to service over 17,500 average NSW households and would be the equivalent of removing approximately 30,000 cars off the roads each year.

The solar farm would contribute to Australia's Large-scale Renewable Energy Target (LRET) of generating 33,000 Gigawatt hours of renewable electricity annually by 2020.

1.6 PROJECT JUSTIFICATION

The Griffith Solar Farm would meet the proposal objectives and is justified in terms of reducing Australia's greenhouse gas emissions, meeting future energy demands, contributing to Australia's renewable energy targets, supporting a global reduction in GHG emissions, being consistent with NSW's Renewable Energy Action Plan and contributing to economic development in the Griffith region.

The proposal has been developed to make use of existing grid connections, on a previously cleared agricultural site that has generally low environmental values.

2 CONSIDERATION OF SUBMISSIONS

2.1 EXHIBITION PERIOD AND LOCATION

The Griffith Solar Farm EIS was on public exhibition from Friday 18 March to Wednesday 20 April 2016 at:

- Department of Planning Information Centre, 23 -33 Bridge Street, Sydney.
- Griffith City Council, 1 Benerembah Street, Griffith.
- Nature Conservation Council, Level 2, 5 Wilson Street, Newtown.
- Office of Environment and Heritage, Level 2, Government Offices, 512 Dean Street, Albury.
- Wagga Wagga Agricultural Institute, Pine Gully Road, Wagga Wagga.
- Roads and Maritime Services, South West, 1 Simmons Street, Wagga Wagga.

Local residents were notified of the exhibition period through newspaper advertisements placed in the local papers by the Department of Planning and Environment.

2.2 RESPONSES RECEIVED

The Department of Planning and Environment received a total of nine submissions for the proposal during the public exhibition period, as detailed in 00.

Table 3 Responses received

Category	Number of submissions
Individual members of the public	1
Government agency submissions	8
Total	9

The submissions are provided in full, Appendix B.

2.3 PROPONENT'S RESPONSE TO COMMUNITY SUBMISSIONS (1)

2.3.1 Impacts on birds

One community submission was received. The submission concerned the potential for the solar panels to be viewed by birds flying overhead as a lake. Potential direct and indirect impacts could result if birds tried to land on the panel surfaces.

Neoen contacted the Murrumbidgee Naturalist Group directly, as the most relevant local special interest group, to discuss this matter. The group provided a response that while there was potential for this effect, they did not consider the impacts would be substantive due to the proposal. This additional submission is included as Appendix C.

Additionally, Neoen investigated this issue, in relation to other impacts likely to affect birds directly and indirectly and provide the following additional information.

2.3.2 Neoen response

The avian impacts of solar photovoltaic (PV) panels are unfortunately not fully understood as very few observational and statistical studies have been conducted in that respect so far. Agencies which investigated this issue, like the US Fish and Wildlife Service, BrightSource and Wildlife Conservationists, agree that more recording is needed. Moreover the reporting of bird mortality has not often been rigorously collected. In fact, researchers are facing difficulties to monitor bird deaths, because of the incidental removal of carcasses by predators and the fact that some carcasses are hidden in the brush. Therefore, the lack of data and the difficulties to collect it prevent us from accurately estimating the impact of solar PV panels on birds.

As an example, the American reporter Alan Neuhauser gathered data about bird deaths from government agencies, academic institutions, nonprofit organizations, and governmental laboratories, including the Bureau of Land Management, solar company BrightSource, and the Biological Conservation journal, and estimated that solar farms cause 1,000 to 28,000 bird deaths annually in the USA. These figures vary significantly, by a factor of 28, which shows how difficult it is to monitor bird deaths caused by solar farms.

It should also be noted that this study encompasses all solar technologies including solar thermal plants, which are generally suspected to cause more threats to birds because of the reflectivity of their mirrors (compared to non-reflective solar PV panels proposed for the Griffith Solar Farm) and because they generate heat.

In this context, Neoen can't accurately estimate the impact of the Griffith Solar Farm project on birds. However, Neoen can try to evaluate the impact of solar farms on birds compared to the impact of other potential causes of bird death, including other means of electricity generation.

Some of the identified causes of bird deaths include cats, building windows, pesticides, fossil-fueled plants, nuclear power plants, communication towers, nuclear power and wind energy, as shown in the chart in Figure 4.

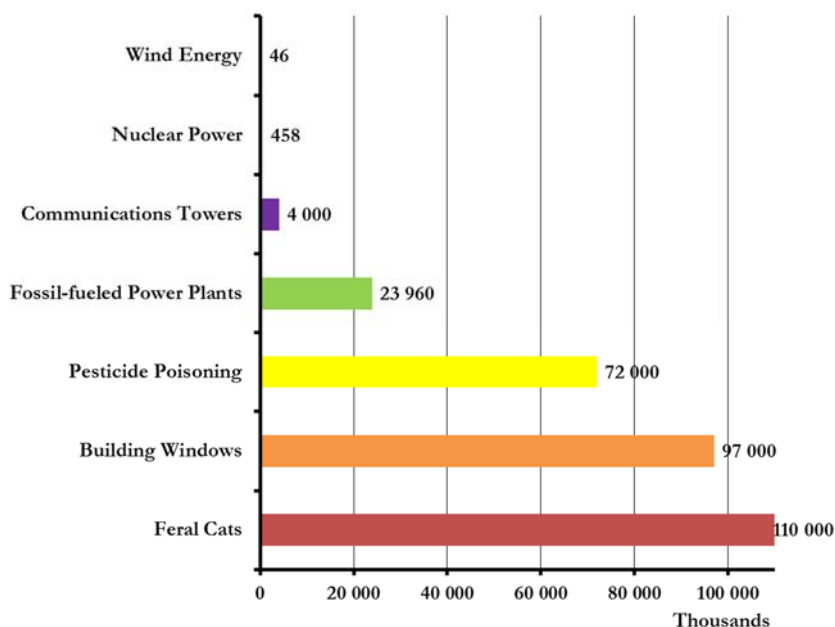


Figure 4 Consideration of Submissions-3 Avian deaths per year in the United States from various energy and non-energy sources, 2009.

Note: When a range of estimates has been given, the figure presents only data for the lowest end of that range.

Source: climaterocks

While Neoen can't confirm that the Griffith Solar Farm will have no impact on birds, it should be highlighted that other causes like houses or pets are responsible for a very significant number of bird fatalities and that solar farms don't count among the identified major causes of bird deaths.

In particular, the impact of solar farms needs to be compared with alternative sources of electricity that solar farms may be displacing. The charts below (Figures 5 and 6), based on studies conducted in the USA, will allow us to analyse the number of bird fatalities caused by each energy source in the USA; each energy source's respective share in the USA's electricity generation mix.

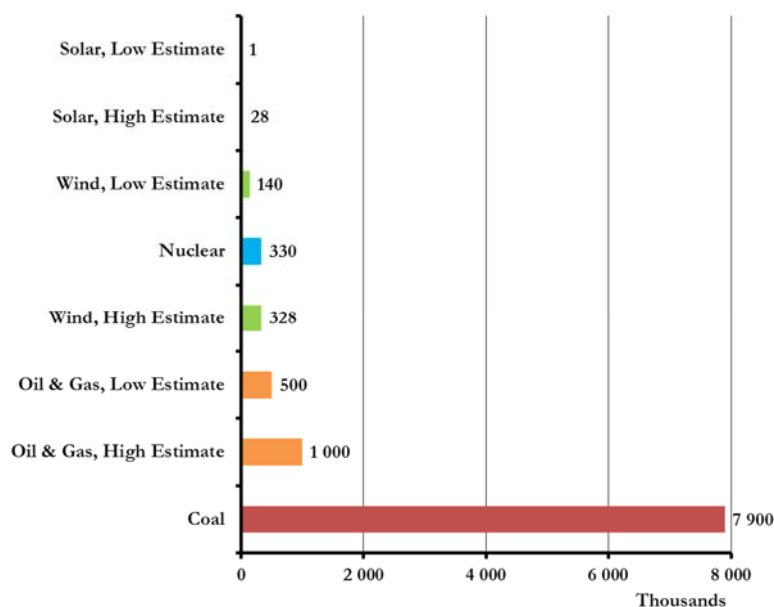


Figure 5 Consideration of Submissions-4 Estimates of how many birds are killed each year by different fuel sources.

Source: U.S. NEWS & WORLD REPORT

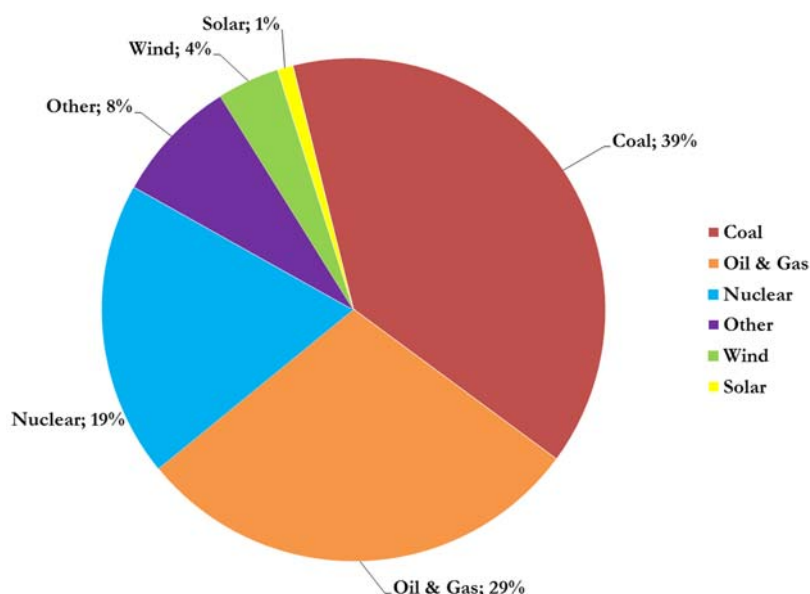


Figure 6 Consideration of Submissions- 5 Electricity generation by source in 2014 in the US

Source: American Energy Alliance

While the first chart is not sufficient to provide information on the relative impact of each energy source, this information can be obtained by combining the 2 charts and identifying what the impact of each technology would be if each of them had the same weight in the electricity generation mix. Table 4 summarises the impact of each source in this case:

Table 4 Impact on bird deaths, by source

Source	Impact on bird deaths
Coal	54%
Wind	16%
Other	11%
Oil & Gas	9%
Nuclear	7%
Solar	4%

Note: When a range of estimates has been given, the average has been used for the calculations.

This analysis shows that coal, which represents approximately 80% of the current New South Wales electricity generation mix, is by far the most dangerous source for birds. Also, solar power, including not only solar PV but also solar thermal, is considered as the most harmless source.

By displacing coal energy, it is thus highly probable that the development of the Griffith Solar Farm will have a positive environmental impact by contributing to the decrease of bird fatalities.

Furthermore, it has been raised that an indirect impact of a solar power plant could be the attraction of birds to adjacent food crops. Birds could hypothetically mistake a solar facility for a water body and be attracted to adjacent food crops. As suggested by John Upton in the Scientific American, this could happen in case of high reflection of the panels.

However as mentioned above, solar photovoltaic panels are designed to absorb rather than reflect light: typical PV panels are designed to reflect only some 2% of incoming sunlight. The panels will not generally create noticeable reflection compared with an existing roof or building surfaces. The following chart (Figure 7) from 2011 Spaven Consulting report shows that solar panels have a lower reflectivity than most other everyday objects.

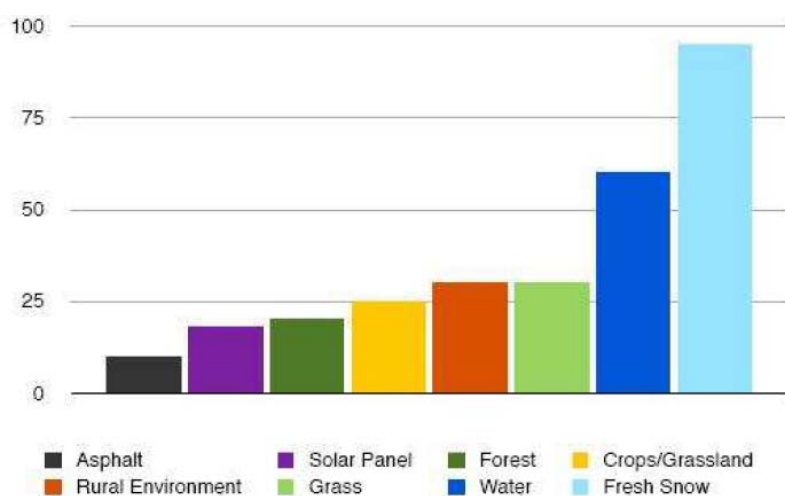


Figure 7 Consideration of Submissions-6 Comparative reflection analysis.

Therefore it seems very unlikely that the Griffith Solar Farm will attract more birds to the adjacent food crops than what is already happening today.

No proposal modification or additional mitigation strategies have been included in relation to this matter.

2.4 PROPONENT'S RESPONSE TO GOVERNMENT AGENCY SUBMISSIONS (8)

Agency submissions are paraphrased below and addressed by the proponent in the right hand column. Revisions to the proposal's mitigation measures are shown in ***bold italics*** and provided in full, Appendix A.

2.4.1 NSW Planning and Environment

Issue	Response
1 Road upgrades	Road upgrades would be undertaken in consultation with the roads authorities (Griffith City Council and the RMS) as well as John Holland Rail (regarding access across the rail way line). Further information is provided specific to Council and RMS requirements in Section 2.7 and 2.8 however it is noted that many of the details of the haulage routes and access requirements will be determined during a competitive tender process for construction contracts. Therefore, while the agency recommendations are noted, the proponent proposes not to be prescriptive but to ensure that the TMP and road upgrades are developed in consultation with these bodies.
2 Biodiversity	
Vegetation screening	Vegetation screening proposed in the EIS already commits to the use of species typical of the Myall Woodland. An additional measure has been added to consult with OEH in the final species selection and configuration. Further detail is provided specific to OEH's submission, below. With regard to constraints mapping, the constraints map provided (SW060 2) shows existing areas of EEC, as mapped by OEH and areas being considered for vegetation screening. Council, RMS and OEH have an interest in the composition and structure of the vegetation proposed. Further detail is provided specific to these agencies below.
Site access – plant species list and abundance required	To provide certainty on this issue, a species list of all areas to be impacted by works is now proposed to be included in the construction environmental management plan (flora and fauna subplan). As follows: <i>As part of the construction environmental management plan, prepare flora and fauna subplan to include a species list of all areas to be impacted by works. The plan would be prepared with input from OEH.</i>
Assessments of significance	The EIS states that the project can be developed without any tree clearing: <i>...The proposal would not require the removal of any trees and would therefore have no impact to the Weeping Myall Woodland EEC or threatened species.</i> OEH required an assessment of significance if <i>Acacia pendula</i> were to be impacted. There would be no impact on <i>Acacia pendula</i>. An assessment of significance is not required in relation to this species. Further detail is provided specific OEH below.

Issue	Response
3 Water use – availability of water requirements should be confirmed.	The proponent would utilise part of the landowner's water entitlement. The proponent would utilise part of the landowner's water entitlement. The landowner has confirmed access to water via pumping station outlet no. 5 on farm 262. Neoen would accept responsibility to transfer this water from the water wholesale market to the landowner's account beforehand. The landowner's entitlement exceeds 900ML and Neoen's requirement would be significantly smaller. To provide certainty, the proponent has committed to additional mitigation measures as follows: <i>The quantities and sources of construction water would be fully detailed within the construction environmental management plan to be developed prior to impacts. The plan would be developed with input from DPI Water.</i> <i>The quantities and sources of water required during operation would be fully detailed within the operation environmental management plan to be developed prior to impacts. The plan would be developed with input from DPI Water.</i>
4 Landowners consent required	Evidence of landowner consents is being sought and will be provided as soon as it is obtained.
5 Other matters	Additional matters raised by the Department are addressed in the agency responses below.

2.4.2 Office of Environmental and Heritage

Issue	Response
Aboriginal heritage	
Artefacts locations not yet submitted to AHIMS	The three Aboriginal artefact sites found during the survey have been submitted and have official AHIMS numbers; 49-2-0148, 49-2-0149, 49-2-0150.
No detail on how objects will be protected during construction, operation or if they will be relocated.	The Griffith Local Aboriginal Land Council (LALC) were consulted regarding the mitigation strategy proposed in the EIS which states: <i>If complete avoidance is not possible, the artefacts should be collected and moved to a safe area within the property, as close as possible to their original location, which will not be subject to ground disturbance. The collection and relocation should be undertaken by representatives of the Griffith LALC. A new AHIMS site card will need to be completed identifying the new location of the moved artefacts.</i> In correspondence dated 14 April 2016, the Griffith LALC (refer to Appendix D) has noted that: "The Griffith LALC has no objections to the proposed Neoen Solar Farm development proceeding as long as the artefacts are avoided and if this is not possible then they should be collected and move [sic] to a suitable location on the property for protection."

Issue	Response
	Preservation and relocation at the decommissioning phase is not considered the best mitigation strategy by NGH Environmental Heritage or Griffith Local Aboriginal Land Council.
Mitigation measures not defined and site monitoring has not been proposed.	No mitigation measures or site monitoring is considered warranted in these areas, as agreed by the Griffith LALC.
Alternatives to track location	The sites are not located on Poletta Road but an internal farm access track adjacent to the Road. This track would be constructed where an existing track around the site boundary is located. Its upgrade would result in less ground disturbance than relocation of the track to another area. As above, the EIS identifies that if the objects cannot be avoided, a management strategy of relocation would apply. This has been agreed to by the Griffith LALC. The current mitigation strategy already includes the words... • <i>If complete avoidance is not possible...</i> It is considered that avoidance as a first option is an objective of the commitment. The detailed design will be determined by a competitive tender process and as such it is not known at this stage if the sites would be avoided.
The aim of the Cultural Heritage Management Plan (CHMP) recommended to be expanded to include avoidance, mitigation and site monitoring:	The EIS commits to a CHMP. The commitment wording has been revised as follows to address OEH comments. • <i>A CHMP will be prepared that will include the following mitigation measures:</i> ○ <i>Outline the cultural values of the site and objects, based on feedback previously received from the Griffith Aboriginal Land Council.</i> ○ <i>Outline specific avoidance and mitigation measures for the proposal, including monitoring during construction (the agreed management strategy is to relocate the artefacts away from impact areas, if they cannot be avoided).</i> ○ <i>Include site impact recording forms for any sites modified as part of the activity (this includes collection).</i> ○ <i>Detail how objects are to be protected during construction and operation if they are relocated.</i> ○ <i>Describe how relocated objects are returned to the original site context during the decommissioning stage, or what other long term management arrangements may be made.</i> Note: A care agreement not required as the Griffith LALC do not want to retain the artefacts.

Issue	Response
Biodiversity	
Tree clearing in road reserves	The EIS states that the project can be developed without any tree clearing and already commits to retaining woodland in section 6.4.4: <i>No clearing of Weeping Myall Woodland is to occur without further assessment.</i> This includes woodland located in road reserves, within or outside of the project boundary. Other roadside vegetation lacks midstorey and is weed dominated. It would not form part of the EEC. The commitment to further restrictions, on the basis of protecting treeless low value vegetation is not considered warranted. To provide certainty on this issue however, a species list of all areas to be impacted by works is now proposed to be included in the construction environmental management plan (flora and fauna subplan). As follows: <i>As part of the construction environmental management plan, prepare flora and fauna subplan to include a species list of all areas to be impacted by works. The plan would be prepared with input from OEH.</i> This provides certainty and input for OEH, regarding the potential to impact on EEC vegetation. Connectivity impacts have been addressed below.
Vegetation mapping	It is noted that the OEH vegetation mapping within the EIS should have been cited as: OEH (2011). Vegetation mapping by 3D digital aerial photo interpretation: vegetation of central-southern NSW. Technical report. NSW OEH, Queanbeyan (VIS ID 3884).
Fauna – mistletoe in <i>Acacia pendula</i>	The EIS states that the project can be developed without any tree clearing and already states woodland would be retained: <i>...The proposal would not require the removal of any trees and would therefore have no impact to the Weeping Myall Woodland EEC or threatened species.</i> Works would not impact on fauna reliant on mistletoe in <i>Acacia pendula</i>. Further, it commits to: <i>No clearing of Weeping Myall Woodland is to occur without further assessment.</i> It is noted that should impacts and further assessment be required, it should include consideration of mistletoe and fauna impacts.
Tree planting	The EIS already commits to native tree planting in Section 6.4.4: <i>Rehabilitation and visual screening plantings should maximise the use of native species that form part of the local Weeping Myall Woodland, where appropriate. Species include;</i> <i>Weeping Myall (<i>Acacia pendula</i>),</i> <i>Western rosewood (<i>Alectryon oleifolius</i> subsp. <i>elongatus</i>);</i> <i>Poplar box (<i>Eucalyptus populnea</i>);</i> <i>Black box (<i>Eucalyptus largiflorens</i>).</i> <i>Neoen will consider improving vegetation connectivity by planting vegetation screening along Ross Road and Irrigation Way (in line with the</i>

Issue	Response
	<i>RMS requirement to maintain a 10 m buffer between roads and vegetation).</i> It is noted that additional to the sections of supplementary planting above, vegetation screening for visual impact will be planted along sections of the site perimeter. The function of this vegetation is to act as a visual screen, which will be the major determinant of the final width and species configuration. Furthermore, the site layout and existing infrastructure may impede a 5m width being developed in some areas. We suggest an additional commitment, that the landscaping list would be developed with input from OEH. • <i>The rehabilitation and visual screening plantings would be determined in consultation with OEH, Council and RMS.</i>
Introduced species, weeds	The EIS already includes commitments to manage weeds during construction and operation. • <i>A Weed management plan would be prepared prior to the commencement of construction outlining measures to prevent the ingress and egress of weeds from the surrounding area. Measures should include...</i> No additional measures are considered warranted.
Restoration and ground cover monitoring	Two commitments are made addressing this issue. For construction: • <i>Site restoration plan would be developed to rehabilitate disturbed areas, progressively.</i> For operation: • <i>A ground cover management plan would be developed with the aim of maintaining ground cover beneath panels, thereby resisting erosion, weed infestation and run off into aquatic habitat. It would include monitoring and triggers or action if the bare areas develop.</i> The majority of the site is cultivated and use of native species for ground cover rehabilitation in this context is considered likely to impede rapid stabilisation of impacted areas, and lead to greater erosion. We propose to include an additional measure: • <i>During operation and construction, disturbed areas would be reseeded/ planted with native species, in areas where native species are already dominant.</i> The EIS states that no tree removal is required and therefore, restoration is not expected to include any tree species, with the exception of specific connectivity and visual screening plantings as addressed above.

2.4.3 DPI Water

Issue	Response												
Source and security of water supply - construction	The proponent would utilise part of the landowner’s water entitlement. The proponent would utilise part of the landowner’s water entitlement. The landowner has confirmed access to water via pumping station outlet no. 5 on farm 262. Neoen would accept responsibility to transfer this water from the water wholesale market to the landowner’s account beforehand. The landowner’s entitlement exceeds 900ML and Neoen’s requirement would be significantly smaller, as set out below. Table 7-3 of the EIS quantifies construction water requirements and availability: <table><tr><th>Water quality</th><th>Annual construction water requirement (kL)</th><th>Potential sources</th><th>Availability</th></tr><tr><td>Potable (drinking)</td><td>30 (for 9 months)</td><td>Bottled water</td><td>Available as required – commercial supply</td></tr><tr><td>Non-potable</td><td>135,000 (for 9 months)</td><td>Truck delivery</td><td>Available as required at most convenient delivery point (to be defined by EPC contractor or subcontractors).</td></tr></table> It is proposed that the quantities and sources be fully detailed within the construction environmental management plan to be developed prior to impacts, and requiring approval from Department of Planning and Environment. The following additional commitment is included in this revised mitigation measures: <i>The quantities and sources of construction water would be fully detailed within the construction environmental management plan to be developed prior to commencement of construction. The plan would be developed with input from DPI Water.</i>	Water quality	Annual construction water requirement (kL)	Potential sources	Availability	Potable (drinking)	30 (for 9 months)	Bottled water	Available as required – commercial supply	Non-potable	135,000 (for 9 months)	Truck delivery	Available as required at most convenient delivery point (to be defined by EPC contractor or subcontractors).
Water quality	Annual construction water requirement (kL)	Potential sources	Availability										
Potable (drinking)	30 (for 9 months)	Bottled water	Available as required – commercial supply										
Non-potable	135,000 (for 9 months)	Truck delivery	Available as required at most convenient delivery point (to be defined by EPC contractor or subcontractors).										
Source and security of water supply - operation	The department requires that water sources for operation to be confirmed before approval is granted. Water quantities are not estimated in the EIS for operation but are stated as being minimal; required for staff amenities at the control and maintenance building and panel cleaning. As above, it is proposed that the quantities and sources be fully detailed within the <i>operational</i> environmental management plan to be developed prior to operation, and requiring approval from Department of Planning and Environment. The following additional commitment is included in this revised mitigation measures: <i>The quantities and sources of water required during operation would be fully detailed within the operation environmental management plan to be developed prior to impacts. The plan would be developed with input from DPI Water.</i>												

Issue	Response
Drainage structures	Section 7.1.5 of the EIS is supported by DPI Water.
Erosion and sedimentation controls	DPI Water supports the development of the Soil and Water Management Plan as outlined in the EIS.

2.4.4 DPI Agriculture

Issue	Response
Aerial spraying	No risk to aerial spraying operations has been identified that would result from the development of the solar farm. Excluding powerlines (many of which are existing) the profile of the infrastructure is low (below 3m) and would not constitute a hazard to aircraft due to either height or reflectivity / glare. That latter is discussed in Section 6.3 of the EIS and the dedicated Visual Impact Assessment, Appendix D. As stated in Section 6.3 the EIS: <i>...The potential for glare associated with non-concentrating photovoltaic systems which do not involve mirrors or lenses is relatively limited. PV solar panels are designed to reflect as little sunlight as possible (generally around 2% of the light received; Spaven Consulting 2011), resulting in negligible glare. The reason for this is that PV panels are designed to absorb as much solar energy as possible in order to generate the maximum amount of electricity or heat. The panels will not generally create noticeable glare compared with an existing roof or building surfaces (NSW Department of Planning 2010).</i> It is possible that build-up of spray drift (from aerial spraying) on the panels may affect their yield, in which case additional clearing may be required. Periodic cleaning of panels is described in the project description and assessed in terms of water requirements and potential to generate soil and water impacts.
Land arrangements	ownership The landowner will enter into a lease arrangement with the proponent to compensate them for the loss of productive land occupied by project infrastructure, for the life of the project. The landowner can continue with farming activities on any part of the land that is not being used by the solar plant. The EIS Appendix B map of indicative infrastructure layout, also provided as Figure 1-2 of this Submissions Report show most of the site would be occupied by infrastructure. However, if less of the site is utilised, this would be available to the landowner. It is noted that while grazing beneath the panels may be used as ground cover management method, its primary objective would be biomass control, not agricultural production. Other methods are likely to prove more effective.
Weed measures	management The EIS includes commitments to manage weeds during construction. - A Weed management plan would be prepared prior to the commencement of construction outlining measures to prevent the ingress and egress of weeds from the surrounding area. Measures should include... - Identify areas of noxious and environmental weeds within the proposal area.

Issue	Response
	- o <i>Identify the most suitable methods for the eradication and suggest ongoing control requirements to suppress noxious and environmental weeds prior to construction.</i> - o <i>Monitoring and controlling noxious weeds throughout the proposal area.</i> - o <i>A site restoration plan would be developed to rehabilitate disturbed areas, progressively.</i> The plans would form part of the environmental management documentation required to be submitted to Department of Planning and Environment prior to any construction impacts. No additional measures are considered warranted.
Groundcover Management plan	The groundcover management plan requirement proposed in the EIS is not prescriptive, given the unknowns regarding the effect of panel shading on specific species of pasture. Rather, it makes clear the required outcome and requires triggers for management should that outcome be compromised: • <i>A ground cover management plan would be developed with the aim of maintaining ground cover beneath panels, thereby resisting erosion, weed infestation and run off into aquatic habitat. It would include monitoring and triggers for action if bare areas develop.</i> The detailed plan would form part of the environmental management documentation required to be submitted to Department of Planning and Environment prior to operation. No additional measures are considered warranted.

2.4.5 Department of Industry

Issue	Response
General support	The Department of Industry notes that there are no known mineral or extractive resources in or adjacent to the project area. It notes the project is compatible with specific NSW resource and energy plans and would inject funds and stimulate local employment. No additional mitigation measures have been included in this Submissions Report.

2.4.6 Fire and Rescue NSW (FRNSW)

Issue	Response
Requirement for and Emergency Response Plan (ERP)	The Department notes that a comprehensive emergency response plan (ERP) should be developed to address the unique electrical hazard risks of the project. The proponent commits to the following additional mitigation measure to address this issue: • <i>Prior to operation, a comprehensive emergency response plan would be prepared to include as a minimum:</i> ○ <i>A risk assessment to determine unique hazards specific to the site.</i> ○ <i>Address risks to the health and safety of firefighters and other emergency first responders (for example the level of personnel protective clothing and equipment that must be worn, evacuation zones and a safe method of shutting down and isolating the photovoltaic system).</i> ○ <i>Address other risk control measures in a fire emergency.</i> ○ <i>A requirement to provide two copies of the ERP to be stored in a prominent 'emergency information cabinet' located in a position directly adjacent to the sites main entry points.</i> ○ <i>A requirement to make contact with the relevant local emergency management committee (LEMC).</i> This plan may be combined with the Bush Fire Management Plan, committed to in Section 7.10 of the EIS.

2.4.7 RMS

Issue	Response
Traffic management plan	The EIS already commits to the preparation of a Traffic Management Plan (TMP) as follows: • <i>A Traffic Management Plan would be developed as part of the CEMP, with input from the road authorities and Griffith City Council. The plan would include, but not be limited to:</i> ○ <i>Assessment of road condition prior to construction on all local roads that would be utilised.</i> ○ <i>A program for monitoring road condition, to repair damage exacerbated by the construction and decommissioning traffic.</i> ○ <i>The designated routes of construction traffic to the site.</i> ○ <i>Carpooling/shuttle bus arrangements to minimise vehicle numbers during construction.</i> ○ <i>Scheduling of deliveries.</i> ○ <i>Community consultation regarding traffic impacts for nearby residents.</i> ○ <i>Consideration of cumulative impacts.</i> ○ <i>Traffic controls (speed limits, signage, etc.).</i> ○ <i>Procedure to monitor traffic impacts and adapt controls (where required) to reduce the impacts.</i> ○ <i>Providing a contact phone number to enable any issues or concerns to be rapidly identified and addressed through appropriate procedures.</i> To address the additional issues identified by RMS, the following provisions would be included in the TMP as a commitment: • <i>Identification of the approved access route and requirement that all vehicular access to the site be via the approved access route.</i> • <i>Details of traffic routes to be used by heavy and light vehicles, and any associated impacts and any road-specific mitigation measures.</i> • <i>Details of measures to minimise the potential for interaction of vehicular traffic with train schedule through the rail level crossing on Hamilton Road, e.g. timing of movement of vehicles outside of train schedules.</i> • <i>Details of measures to be employed to ensure safety of road users and minimise potential conflict with project generated traffic.</i> • <i>Proposed hours for construction activities, as night time construction presents additional traffic related issues to be considered.</i> • <i>The management and coordination of the movement of vehicles for construction and worker related access to the site</i>

Issue	Response
	<i>and to limit disruption to other motorists, emergency vehicles, school bus timetables and school zone operating times.</i> <i>• Loads, weights and lengths of haulage and construction related vehicles and the number of movements of such vehicles.</i> <i>• Procedures for informing the public where any road access will be restricted as a result of the project.</i> <i>• Any proposed precautionary measures such as signage to warn road users such as motorists about the construction activities for the project.</i> <i>• A Driver Code of Conduct to address such items as; appropriate driver behaviour including adherence to all traffic regulations and speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc. and appropriate penalties for infringements of the Code.</i> It is noted that the EIS already commits to a complaints procedure for all stages of the project; traffic complaints would be incorporated in this system. The TMP already commits to: <i>• Development of a complaints procedure to promptly identify and respond to issues generating complaints.</i> The TMP would form part of the environmental management documentation required to be submitted to Department of Planning and Environment prior to construction.
Safety Management plan	To address this additional issue identified by RMS in relation to safety management, the following provisions are now proposed to be added to the project's commitments: <i>• A safety management plan will be prepared for the railway crossing on Hamilton Road prior to the commencement of works. This plan will be consistent with the requirements of the NSW Railway Safety Act 2008. The safety management plan will identify any risks at the railway crossing, the measures taken to manage those risks and the responsibility for the management of those risks.</i> The plan would form part of the environmental management documentation required to be submitted to Department of Planning and Environment prior to construction.
Road Dilapidation Report	The EIS already commits to the following specific measures: <i>• Assessment of road condition prior to construction on all local roads that would be utilised.</i> <i>• A program for monitoring road condition, to repair damage exacerbated by the construction and decommissioning traffic.</i> <i>• The proponent would repair any damage resulting from project traffic (except that resulting from normal wear and tear) as required at the proponent's cost.</i>

Issue	Response
	To address this issue more completely, it is proposed to remove these commitments and require preparation of a dedicated Road Dilapidation Report, as follows: • <i>A Road Dilapidation Report, for all local road routes used during construction (and decommissioning), will be prepared in consultation with the relevant road authorities. It would:</i> ○ <i>Be prepared by an appropriately qualified person.</i> ○ <i>Address all road related infrastructure.</i> ○ <i>Be prepared before the commencement of, and after completion of construction (and decommissioning).</i> ○ <i>Any damage from project traffic, excepting normal wear and tear, would be repaired at the proponent's cost.</i> ○ <i>Repair would be undertaken at a time agreed upon between the proponent and roads authorities.</i>
Road up-grades, specifically: <i>The intersection of Intersection of Irrigation Way and Hamilton Road is to be constructed and the roadside maintained so as to provide the required safe intersection sight distance in either direction in accordance with the Austroads Guide to Road Design as amended by the supplements adopted by the RMS for the posted speed limit. Compliance with this requirement would be certified by an appropriately qualified person prior to its construction.</i> <i>The intersection of Irrigation Way and Hamilton Road is to be constructed as a public road intersection with an Auxiliary left turn intersection treatment in accordance with the Austroads Guide to Road Design as amended by the supplements adopted by the RMS for the prevailing speed zone on Burley Griffin Way. The intersection is to be constructed with a minimum width to accommodate general access vehicles.</i> <i>As a minimum, the Hamilton Road intersection is to be constructed to provide for 2 way movement and sealed to the railway level crossing from its intersection with</i>	It is considered that many of the details of the haulage routes and access requirements will be determined during a competitive tender process for construction contracts. Therefore, while the RMS's recommendations are noted, the proponent commits to an objective-oriented TMP that requires consultation, in preference to being overly prescriptive at this stage. To address this issue more completely, it is proposed to add the following mitigation measures: • <i>Prior to construction the proponent would upgrade any roads, and their associated road reserve and public infrastructure, to a standard suitable for the traffic identified in the TMP, in consultation with the roads authorities. The design and specifications and construction will be completed and certified by an appropriate qualified person.</i>

Issue	Response
<i>Irrigation Way. The intersection of Irrigation Way and Hamilton Road shall be designed and constructed so that vehicles turning between Irrigation Way and Hamilton Road are not required to cross the opposing travel land in order to perform a turn manoeuvre. The intersection shall be line marked in accordance with Australian standards.</i>	
Dust suppression	In Section 7.5.3, the EIS already commits to controlling dust: <i>Protocols would be included in construction and decommissioning to minimise and treat dust (water carts or similar in response to visual cues). This may involve installation of barriers such as shade cloth, to protect receivers.</i> To address this issue more completely, it is proposed to add the following text to this above commitment: <i>This would include dust generated during transport of goods to and from the site.</i>
External lighting	In Section 6.3.1, the EIS already commits to minimising lighting during the design phase: <i>Night lighting would be minimised to the maximum extent possible (i.e. manually operated safety lighting at main component locations). No external lighting of any infrastructure associated with the project will occur at night that would cause distraction to road users.</i> No further mitigation is proposed.
Reflection of solar panels	In Section 6.3.1, the EIS considers that the effects of glare will be minimal and proposes a screening treatment to be developed post construction to ensure actual impacts are mitigated. However, in the case that glare causing a nuisance, disturbance or hazard to traffic is identified, it is now proposed that: <i>In the event of glare causing a nuisance, disturbance or hazard glare, mitigation measures will be immediately introduced to remove the problem. This may include a barrier (i.e. fence) while vegetation becomes established.</i>
Vegetation landscape buffer, specifically: <i>A vegetation landscape buffer, at least 10 meters wide, planted with a variety of endemic plant species and growing up to a mature height range of up to at least 5 metres will be established within the development site along the boundary, facing Irrigation Way</i>	In Section 6.3.1, the EIS assesses that the visual impacts on traffic will be low, given the short duration of exposure and the existing level of infrastructure in this area. The EIS commits to the use of local species from the Weeping Myall Open Woodland Community in vegetation screening. Its implementation post-construction is proposed to ensure 'actual' not 'estimated' impacts are mitigated, in consultation with affected residents. Therefore, planting prior to use of the solar farm is not proposed. However, to address RMS

Issue	Response
prior to the commencement of construction. This buffer will be maintained for the life time of the development.	concerns, the proponent now commits to revising the measure provided in Section 6.3.4 of the EIS as follows: • <i>Neoen will consider improving vegetation connectivity by planting vegetation screening along Ross Road and Irrigation Way (in line with the RMS requirement to maintain a 10 m buffer between roads and vegetation).</i> • <i>Planting requirements are outlined in the VIA and would be detailed fully within an appropriate management plan, developed within input from OEH, RMS and Council, prior to construction.</i> This will ensure the detail of the plan is acceptable to RMS and other agencies that also have an interest in the plan. The additional measures set out above are now included in the revised mitigation measures in Appendix A of this Submissions Report.

2.4.8 Griffith City Council

Issue	Response
Damage to council property	This matter is already addressed in the road dilapidation commitments of the proposal. Refer also to revised commitments on this issue, provided within the RMS response, above.
Dust/noise/erosion control measures (Attachment A, 2)	In Section 7.5.3, the EIS already commits to controlling dust. Refer also to revised commitments on this issue, provided within the RMS response, above.
Responsibility for connection to services	It is noted that the proponent is responsible for all amplification, extension and adequate provision for connection to services at their own expense. This is implicit in the EIS project description, Section 3. It is noted that such work will be in accordance with the Council's Engineering Guidelines – Subdivisions and Development Standards
Construction Management Plan	The EIS commits to the development of a TMP with input from Council, to ensure public road network issues are fully resolved prior to works. It is noted that this plan would form part of the environmental management documentation required to be submitted to Department of Planning and Environment prior to any construction impacts.
Works as executed plans for approved civil works, specifically: Works as Executed plans will be in accordance with Council's Engineering Guidelines – Subdivisions and Development Standards. These will be submitted to council upon completion of the development prior to the use of the facility.	As the proposal is a State Significant Development, all construction drawings and environmental management documents are required to be provided to Dept. Planning and Environment.

Issue	Response
Bond application and monetary bond, specifically: <i>A bond application and a monetary bond is to be submitted to council to provide a 12 month maintenance period for civil works related to Council's infrastructure. The relevant departments will be notified by the proponent on commencement and finish of the maintenance period and arrangements regarding any relevant inspections.</i>	As the proposal is a State Significant Development, Dept. Planning and Environment are the consent authority. While the restoration of damage to Council assets, should it occur, is agreed to be the responsibility of the proponent, it is considered that this process would be managed by the Dept. Planning and Environment.
Inspections by council engineers	It is now a commitment of the project that: <i>If required, inspections by council engineers will be paid for by the proponent, in accordance with the Council's current Revenue policy, prior to the commencement of work.</i>
Access conditions Hamilton Road relocation, Ross Road reconstruction and haulage routes: <i>Prior to the use of the facility the existing access off Hamilton Road will be relocated 20 metres south from its current position and constructed as a "rural property access" type in accordance with Austroads Guide to road design.</i> <i>Access will be constructed in accordance with Council's Engineering Guidelines – Subdivisions and Development Standards. The property owner is responsible for the upkeep and maintenance of the access ways and associated facilities.</i> <i>The existing access way off Hamilton Road shall be made redundant and the road reserve being reinstated to match surrounding roadside landform to prior to the use of the facility.</i> <i>Prior to the use of the facility the existing access way off Ross Road shall be reconstructed as a "Rural Property Access" type treatment in accordance with the Austroads Guide to Road Design and cater for</i>	Details of the haulage routes and access requirements will be identified during a competitive tender process for construction contracts. Therefore, while the Council's recommendations are noted, the proponent commits to an objective-oriented TMP that requires consultation, rather than being overly prescriptive at this stage. To address this issue more completely, it is proposed to add the following mitigation measures: <i>Prior to construction onsite, the proponent would upgrade any roads, and their associated road reserve and public infrastructure, to a standard suitable for the traffic identified in the TMP, in consultation with the roads authorities. The design and specifications and construction will be completed and certified by an appropriate qualified person.</i>

Issue	Response
<i>the largest sized vehicle accessing the site. The access ways are to be constructed in accordance with Council's Engineering Guidelines - Subdivisions and Development Standards. The property owner remains responsible for the upkeep and maintenance of the access ways and associated facilities.</i> <i>Prior to the use of the facility all internal driveways to the proposed development are to be constructed as all-weather access and maintained to Council's satisfaction.</i> <i>Vehicular access to the development from Irrigation Way is not permitted at any time.</i>	
Traffic Management Conditions – use of Hamilton Road Specifically: <i>Heavy vehicle access to the site shall be via Hamilton Road.</i> <i>The intersection of Hamilton Road and Irrigation way upgrade treatment. These specifications are not consistent with RMS advice. The proponent commits to development of this detail in consultation with RMS and the Council.</i> <i>A traffic control plan is required to be submitted to council satisfying AS 1742.3. This can be specified within the TMP.</i> <i>Vehicles accessing the development will be limited to 19-metre Semi-Trailer Vehicles as specified in Austroads Design Vehicles and Turning Path Templates (2013). This can be specified within the TMP.</i> <i>All vehicular loading and unloading will be carried out within the site. This can be specified within the TMP.</i>	Council provides several recommendations in relation to traffic management on Hamilton Road. The EIS includes the following commitments: • <i>Preparation of a Traffic Management Plan in consultation with the roads authorities (EIS, Section 7.4.3 and modified within the RMS response, above).</i> • <i>Road dilapidation (monitoring and restoration) (EIS, Section 7.4.3 and modified within the RMS response, above).</i> • <i>Consultation with John Holland Rail (EIS, Section 7.4.3).</i> • <i>Obtaining a Section 138 permit under the Roads Act (EIS, Section 5.6).</i> While the Council's recommendations are noted, the proponent commits to an objective-oriented TMP that requires consultation with the roads authorities (including Council), rather than introducing overly prescriptive that may result in the proponent having to commit to works that would not be required as a result of the developed site.

Issue	Response
Traffic Management Conditions – Use of Ross Road Specifically: <i>Heavy vehicle access to the site shall be via Ross Road.</i> <i>The intersection of Ross Road and Irrigation way upgrade treatment. These specifications are not consistent with RMS advice. The proponent commits to development of this detail in consultation with RMS and the Council.</i>	Council provides several recommendations in relation to traffic management on Ross Road traffic management. The EIS includes the following commitments: <i>Preparation of a Traffic Management Plan in consultation with the roads authorities (EIS, Section 7.4.3 and modified within the RMS response, above).</i> <i>Road dilapidation (monitoring and restoration) (EIS, Section 7.4.3 and modified within the RMS response, above).</i> <i>Obtaining a Section 138 permit under the Roads Act (EIS, Section 5.6).</i> Use of Ross Road is only proposed as an alternative to the Hamilton Road, if a smaller project area is developed. As above, while the Council's recommendations are noted, the proponent commits to an objective-oriented TMP that requires consultation, with the roads authorities (including Council), rather than introducing overly prescriptive that may result in the proponent having to commit to works that would not be required as a result of the developed site.
Stormwater/ flooding conditions	Mitigation measures for soil erosion and silt are provided in 7.2.2 Potential impacts. This plan would include provisions to: <i>At the commencement of the works, and progressively during construction, install the required erosion control and sediment capture measures.</i> <i>Regularly inspect erosion and sediment controls, particularly following rainfall.</i> <i>Maintain a register of inspection and maintenance of erosion control and sediment capture measures.</i> <i>Ensure that machinery arrives on site in a clean, washed condition, free of fluid leaks.</i> <i>Ensure that machinery leaves the site in a clean condition to avoid tracking of sediment onto public roads which may cause risks to other road users through reduced road stability.</i> <i>In all excavation activities, separate subsoils and topsoils and ensure that they are replaced in their natural configuration to assist revegetation.</i> <i>Stockpile topsoil appropriately, so as to minimise weed infestation, maintain soil organic matter, maintain soil structure and microbial activity.</i> <i>Minimise the area of disturbance from excavation and compaction.</i> <i>Ensure any discharge of water from the site is managed to ensure ANZECC (2000) water quality criteria are met.</i> <i>Manage traffic generated soil erosion.</i>

Issue	Response
	Manage works in consideration of heavy rainfall events; if a heavy rainfall event is predicted, the site should be stabilised and work ceased until the wet period had passed. Additional controls are not considered to be required.
Probable maximum Flooding Event	The provision to ensure all electrical outlets and perishable items be kept a minimum 410mm above surrounding finished surface level to minimise the likelihood of damage from flooding, is already a commitment of the EIS; Section 1.2.3. No further mitigation is proposed. It is noted however that the proponent may find an alternative solution to meet compatibility with flood protection for non-submersible electrical equipment, which would be agreed with Griffith City Council).
Soil and water / stormwater	The EIS already contains the required soil and water commitments. Additionally, it is proposed to develop the Soil and Water Management Plan in consultation with Council: - A soil and water management plan would be prepared in consultation with Council and implemented and monitored during the project, in accordance with Landcom (2004), to minimise soil (and water) impacts. These plans would include provisions to:... The EIS already commits to: - Design of track drainage and other stormwater devices would be included in the detailed design phase. The stormwater control requirements specified by Council would be met by additionally committing to: Details of drainage design would comply with the Council's Engineering Guidelines – Subdivision and Development Standards and Council's Stormwater Drainage and Disposal Policy (CS CP 310) and be endorsed by Council prior to works. It is noted that these plans would form part of the environmental management documentation required to be submitted to Department of Planning and Environment prior to any construction impacts.
Landscaping plan	The EIS already commits to the use of local species from the Weeping Myall Open Woodland Community in vegetation screening. Its implementation post-construction is proposed to ensure 'actual' not 'estimated' impacts are mitigated, in consultation with affected residents. Therefore, planting prior to use of the solar farm is not necessarily proposed. However, to address Council concerns, the proponent now commits to revising the measure provided in Section 6.3.4 of the EIS as follows: Planting requirements are outlined in the VIA and would be detailed fully within an appropriate management plan, developed with input from OEH, RMS and Council, prior to construction. This will ensure the detail of the plan is acceptable to Council, and other agencies that also have an interest in the plan.

Issue	Response
Decommissioning Plan	While the EIS commits to removing all above ground onsite infrastructure and restoring the land to its current land capability, a formal plan has not been proposed. It is noted that there are risks in developing an overly prescriptive plan, for actions to be undertaken in 25-30 years at the end of the project's life. However, to provide certainty regarding the objectives of the plan the proponent now commits to: • <i>A site decommissioning plan would be provided within the construction environmental management plan, outlining methods to remove infrastructure, disposal options and restoration objectives to restore the land to its former land capability. The plan would set specific timelines for the activities.</i>
Section 94A Development Contributions	A Section 94 & Section 94A of the Environmental Planning and Assessment Act 1979 allows Councils to levy developers for contributions towards public amenities and services required as a consequence of development. The Griffith City Council Section 94A Development Contributions Plan 2010 (Amendment 2013) has been prepared for the purpose of satisfying the requirements of Part 4, Division 6 of the Act and Part 4 of the accompanying Regulation, and the NSW Department of Planning's Development Contributions Practice Notes, and to enable the Council to impose, as a condition of development consent and complying development certificates, a requirement that the applicant pay to the Council a levy determined in accordance with the plan. The levy is set at 1% for different types of development, as set out in Table A.1 of the plan. The EIS does not include a commitment to meet the requirements of this plan. The project is considered State Significant Development and fees are payable to the State. No further are considered relevant in the context of a solar project, which is not expected to put any strain on the Council's infrastructures and services.

3 REVISED MITIGATION MEASURES: SUMMARY

This submissions report proposes a number of changes to the safeguards and mitigation measures detailed in the EIS. These changes are summarised below. It is noted that the final detail of the construction and operational management measures will need to reflect the final detailed project design. As many elements of the detailed design will be determined in a competitive tender process, the commitments below are objective-oriented and require consultation, rather than being overly prescriptive at this stage. Some measures are of interest to several agencies and therefore, development of plans in consultation with these agencies is proposed. For example:

- Vegetation screening in consultation with RMS, Council and OEH.
- Traffic management in consultation with RMS, Council and John Holland Rail.

Table 5 Changes to the proposal's mitigation strategies

Impact area	New / modified measure
Biodiversity (and vegetation screening and rehabilitation)	• <i>As part of the construction environmental management plan, prepare flora and fauna subplan to include a species list of all areas to be impacted by works. The plan would be prepared with input from OEH.</i> • <i>The rehabilitation and visual screening plantings would be determined in consultation with OEH, Council and RMS.</i> • <i>During operation and construction, disturbed areas would be reseeded/ planted with native species, in areas where native species are already dominant.</i> • <i>Planting requirements are outlined in the VIA and would be detailed fully within an appropriate management plan, developed within input from OEH, RMS and Council, prior to construction.</i>
Aboriginal heritage	• <i>A CHMP will be prepared that will include the following mitigation measures:</i> ○ <i>Outline the cultural values of the site and objects, based on feedback previously received from the Griffith Aboriginal Land Council.</i> ○ <i>Outline specific avoidance and mitigation measures for the proposal, including monitoring during construction (the agreed management strategy is to relocate the artefacts away from impact areas, if they cannot be avoided).</i> ○ <i>Include site impact recording forms for any sites modified as part of the activity (this includes collection).</i> ○ <i>Detail how objects are to be protected during construction and operation if they are relocated.</i> ○ <i>Describe how relocated objects are returned to the original site context during the decommissioning</i>

Impact area	New / modified measure
	<i>stage, or what other long term management arrangements may be made.</i>
Soil and Water	• A soil and water management plan would be prepared in consultation with Council and implemented and monitored during the project, in accordance with Landcom (2004), to minimise soil (and water) impacts. These plans would include provisions to:... • Details of drainage design would comply with the Council's Engineering Guidelines – Subdivision and Development Standards and Council's Stormwater Drainage and Disposal Policy (CS CP 310) and be endorsed by Council prior to works. • The quantities and sources of construction water would be fully detailed within the construction environmental management plan to be developed prior to impacts. The plan would be developed with input from DPI Water. • The quantities and sources of water required during operation would be fully detailed within the operation environmental management plan to be developed prior to impacts. The plan would be developed with input from DPI Water.
Air quality	• Protocols would be included in construction and decommissioning to minimise and treat dust (water carts or similar in response to visual cues). This may involve installation of barriers such as shade cloth, to protect receivers. This would include dust generated during transport of goods to and from the site.
Traffic and access	• In the event of glare causing a nuisance, disturbance or hazard glare, mitigation measures will be immediately introduced to remove the problem. This may include a barrier (i.e. fence) while vegetation becomes established. • A Traffic Management Plan would be developed as part of the CEMP, with input from the road authorities and Griffith City Council. The plan would include, but not be limited to: ○ Identification of the approved access route and requirement that all vehicular access to the site be via the approved access route. ○ Details of traffic routes to be used by heavy and light vehicles, and any associated impacts and any road-specific mitigation measures. ○ Details of measures to minimise the potential for interaction of vehicular traffic with train schedule through the rail level crossing on Hamilton Road, e.g. timing of movement of vehicles outside of train schedules. ○ Details of measures to be employed to ensure safety of road users and minimise potential conflict with project generated traffic.

Impact area	New / modified measure
	○ <i>Proposed hours for construction activities, as night time construction presents additional traffic related issues to be considered.</i> ○ <i>The management and coordination of the movement of vehicles for construction and worker related access to the site and to limit disruption to other motorists, emergency vehicles, school bus timetables and school zone operating times.</i> ○ <i>Loads, weights and lengths of haulage and construction related vehicles and the number of movements of such vehicles.</i> ○ <i>Procedures for informing the public where any road access will be restricted as a result of the project.</i> ○ <i>Any proposed precautionary measures such as signage to warn road users such as motorists about the construction activities for the project.</i> ○ <i>A Driver Code of Conduct to address such items as; appropriate driver behaviour including adherence to all traffic regulations and speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc. and appropriate penalties for infringements of the Code.</i> ● <i>Prior to construction the proponent would upgrade any roads, and their associated road reserve and public infrastructure, to a standard suitable for the traffic identified in the TMP, in consultation with the roads authorities. The design and specifications and construction will be completed and certified by an appropriate qualified person.</i> ● <i>A Road Dilapidation Report, for all local road routes used during construction (and decommissioning), will be prepared in consultation with the relevant road authorities. It would:</i> ○ <i>Be prepared by an appropriately qualified person.</i> ○ <i>Address all road related infrastructure.</i> ○ <i>Be prepared before the commencement of, and after completion of construction (and decommissioning).</i> ○ <i>Any damage from project traffic, excepting normal wear and tear, would be repaired at the proponent's cost.</i> ○ <i>Repair would be undertaken at a time agreed upon between the proponent and roads authorities.</i>
Fire and emergency response	● <i>A safety management plan will be prepared for the railway crossing on Hamilton Road prior to the commencement of works. This plan will be consistent with the requirements of the NSW Railway Safety Act 2008. The safety management plan will identify any risks at the railway crossing, the measures taken to manage those risks and the responsibility for the management of those risks.</i>

Impact area	New / modified measure
	• <i>Prior to operation, a comprehensive emergency response plan would be prepared to include as a minimum:</i> ○ <i>A risk assessment to determine unique hazards specific to the site.</i> ○ <i>Address risks to the health and safety of firefighters and other emergency first responders (for example the level of personnel protective clothing and equipment that must be worn, evacuation zones and a safe method of shutting down and isolating the photovoltaic system).</i> ○ <i>Address other risk control measures in a fire emergency.</i> ○ <i>A requirement to provide two copies of the ERP to be stored in a prominent 'emergency information cabinet' located in a position directly adjacent to the sites main entry points.</i> ○ <i>A requirement to make contact with the relevant local emergency management committee (LEMC).</i>
Griffith Council additional requirements	• <i>If required, inspections by council engineers will be paid for by the proponent, in accordance with the Council's current Revenue policy, prior to the commencement of work.</i> • <i>A site decommissioning plan would be provided within the construction environmental management plan, outlining methods to remove infrastructure, disposal options and restoration objectives to restore the land to its former land capability. The plan would set specific timelines for the activities.</i>

The measures are now included in the revised safeguards and mitigation measures, included as Appendix A of this report.

4 CONCLUSION

This Submissions Report responds to the issues raised in submissions from the community and government agencies, following the public exhibition of the Griffith Solar Farm EIS.

In response to the submissions, additional safeguards and mitigation measures have been developed and would form part of the project. These relate to the following key impact areas:

- Aboriginal heritage
- Biodiversity (including screening and rehabilitation)
- Soil and water
- Traffic and access
- Fire and emergency response
- Additional requirements from Griffith City Council

This Submissions Report fulfils the requirements of Section 75H of the *Environmental Planning and Assessment Act 1979*.

In consideration of the assessment of the impacts from the project contained in the EIS and the proposed mitigation measures committed to in the full set of revised safeguards and mitigation measures (included as Appendix A), it is believed that all relevant issues and concerns have been addressed and that the project should now proceed for approval by the Minister.

APPENDIX A FULL SET OF REVISED SAFEGUARDS AND MITIGATION MEASURES

Safeguards and mitigation measures	C	O	D
Archaeology			
All efforts should be made in the design stage to avoid the artefacts recorded during the survey.	C		
If complete avoidance is not possible, the artefacts should be collected and moved to a safe area within the property, as close as possible to their original location, which will not be subject to ground disturbance. The collection and relocation should be undertaken by representatives of the Griffith LALC. A new AHIMS site card will need to be completed identifying the new location of the moved artefacts.	C		
Neoen prepares a Cultural Heritage Management Plan (CHMP) to address the potential for finding additional Aboriginal artefacts during the construction of the Solar Farm. Preparation of the CHMP should be undertaken in consultation with the Griffith LALC. The CHMP will include the following : - Outline the cultural values of the site and objects, based on feedback previously received from the Griffith Aboriginal Land Council. - Outline specific avoidance and mitigation measures for the proposal, including monitoring during construction (the agreed management strategy is to relocate the artefacts away from impact areas, if they cannot be avoided). - Include site impact recording forms for any sites modified as part of the activity (this includes collection). - Detail how objects are to be protected during construction and operation if they are relocated. - Describe how relocated objects are returned to the original site context during the decommissioning stage, or what other long term management arrangements may be made.	C		
In the unlikely event that human remains are discovered during the construction, all work must cease. OEH, the local police and Griffith LALC should be notified. Further assessment would be undertaken to determine if the remains were Aboriginal or non-Aboriginal.	C		
Further archaeological assessment would be required if the proposal activity extends beyond the area of the current investigation. This would include consultation with the Griffith LALC and may include further field survey.	C		
Visual			
Design measures: - If feasible, underground rather than overhead power lines would be considered. If undergrounding is not feasible, options to co-locate lines or match existing pole design would be investigated. - The materials and colour of onsite infrastructure will, where practical, be non-reflective and in keeping with the materials and colouring of existing infrastructure or of a colour that will blend with the landscape. - Where practical, buildings will non-reflective and in eucalypt green, beige or muted brown, pole mounts will be non-reflective.	C		

Safeguards and mitigation measures	C	O	D
- Parking areas, material stock piles and other construction activities would be located as far as practical from nearby residences or screened (by existing vegetation or constructed screens) for the period of construction. - Night lighting would be minimised to the maximum extent possible (i.e. manually operated safety lighting at main component locations).			
In the event of glare causing a nuisance, disturbance or hazard glare, mitigation measures will be immediately introduced to remove the problem. This may include a barrier (i.e. fence) while vegetation becomes established.		O	
Screening and rehabilitation: - Onsite planting within the solar farm boundaries would be considered for three residences identified with potential for medium to high level impacts; Viewpoints 5, 6 and 9. - Planting requirements are outlined in the VIA and would be detailed fully within an appropriate management plan. - Onsite planting within the solar farm would be considered for where infrastructure would be located closest to Irrigation Way (View point 13). Conversely, the option of a pull over viewing area could be considered in this location in consultation with the roads authority, with consideration of potential road hazards. - Screens would be maintained for the operational life of the solar farm, including replacing dead plants and weeding, as required to maintain the screen's effectiveness in breaking up views. - The rehabilitation and visual screening plantings would be determined in consultation with OEH, Council and RMS. - Planting requirements are outlined in the VIA and would be detailed fully within an appropriate management plan, developed within input from OEH, RMS and Council, prior to construction.	C	O	D
A verification process would be implemented within 2 months of the completion of the construction phase. A Visual Verification Report and Landscape Plan would: Confirm the assumptions of this assessment by ground based assessment and ensure all medium to high impacts are mitigated. Finalise the location and species for proposed screening, in consultation with nearest affected landholders and roads authority. Detail planting methods and maintenance requirements of the screen planting.		O	
Biodiversity			
Vegetation clearing is to be restricted to areas identified within the project site. No machinery, equipment or personnel access would occur beyond these boundaries.	C		
As part of the construction environmental management plan, prepare flora and fauna subplan to include a species list of all areas to be impacted by works. The plan would be prepared with input from OEH.			
No clearing of Weeping Myall Woodland is to occur without further assessment.	C		
Rehabilitation and visual screening plantings should maximise the use of native species that form part of the local Weeping Myall Woodland, where appropriate. Species include; Weeping Myall (<i>Acacia pendula</i>),	C		

Safeguards and mitigation measures	C	O	D
- Western rosewood (<i>Alectryon oleifolius subsp. elongatus</i>); - Poplar box (<i>Eucalyptus populnea</i>); - Black box (<i>Eucalyptus largiflorens</i>). Neoen will consider improving vegetation connectivity by planting vegetation screening along Ross Road and Irrigation Way (in line with the RMS requirement to maintain a 10 m buffer between roads and vegetation).			
A Weed management plan would be prepared prior to the commencement of construction outlining measures to prevent the ingress and egress of weeds from the surrounding area. Measures should include: - Vehicle hygiene protocols, including inspections and cleaning of vehicles when arriving at the site. - Identify areas of noxious and environmental weeds within the proposal area. - Identify the most suitable methods for the eradication and suggest ongoing control requirements to suppress noxious and environmental weeds prior to construction. - Monitoring and controlling noxious weeds throughout the proposal area.	C		
A site restoration plan would be developed to rehabilitate disturbed areas, progressively.	C		D
During operation and construction, disturbed areas would be reseeded/ planted with native species, in areas where native species are already dominant.	C	O	
A ground cover management plan would be developed with the aim of maintaining ground cover beneath panels, thereby resisting erosion, weed infestation and run off into aquatic habitat. It would include monitoring and triggers for action if bare areas develop.		O	
Noise			
For construction works within approximately 400 m of Receivers R1 and R2, manage potential noise impacts via discussions/ agreements with residents. Consider time restrictions and providing periods of repose for residents, where feasible.	C		
Plant and equipment to be properly maintained.	C		
Avoid unnecessary noise when carrying out manual operations and when operating plant.	C		
Switch of any equipment not in use for extended periods.	C		
Establish good relations with people living in the vicinity of the site at the beginning of project and maintain. Keep people informed, take complaints seriously, and deal with complaints expeditiously. The community liaison member of staff should be adequately experienced.	C		
Hydrology			
The substation and office buildings would be designed to accommodate a 1:100 year flood and be located outside the PMF zone.	C		
Ensure that the floor level of habitable rooms is designed to be at least 410 mm above the existing natural ground level, in accordance with Griffith City Council's Floor Heights Policy.	C		

Safeguards and mitigation measures	C	O	D
Soil			
Ground cover would be established and maintained beneath the array area as much as possible prior to and during construction, to minimise areas exposed to erosion.	C		
A soil and water management plan would be prepared in consultation with council and implemented and monitored during the project, in accordance with Landcom (2004), to minimise soil (and water) impacts. These plans would include provisions to: • At the commencement of the works, and progressively during construction, install the required erosion control and sediment capture measures. • Regularly inspect erosion and sediment controls, particularly following rainfall. • Maintain a register of inspection and maintenance of erosion control and sediment capture measures. • Ensure that machinery arrives on site in a clean, washed condition, free of fluid leaks. • Ensure that machinery leaves the site in a clean condition to avoid tracking of sediment onto public roads which may cause risks to other road users through reduced road stability. • In all excavation activities, separate subsoils and topsoils and ensure that they are replaced in their natural configuration to assist revegetation. • Stockpile topsoil appropriately, so as to minimise weed infestation, maintain soil organic matter, maintain soil structure and microbial activity. • Minimise the area of disturbance from excavation and compaction. • Ensure any discharge of water from the site is managed to ensure ANZECC (2000) water quality criteria are met. • Manage traffic generated soil erosion. • Manage works in consideration of heavy rainfall events; if a heavy rainfall event is predicted, the site should be stabilised and work ceased until the wet period had passed.	C		D
Details of drainage design would comply with the Council's Engineering Guidelines – Subdivision and Development Standards and Council's Stormwater Drainage and Disposal Policy (CS CP 310) and be endorsed by Council prior to works.	C		
The quantities and sources of construction water would be fully detailed within the construction environmental management plan to be developed prior to impacts. The plan would be developed with input from DPI Water.	C		
The quantities and sources of water required during operation would be fully detailed within the operation environmental management plan to be developed prior to impacts. The plan would be developed with input from DPI Water.		O	
A Spill Response Plan would be developed as part of the overall Risk Management Plan to prevent contaminants affecting adjacent pasture and dams. It would: • Manage the storage of any potential contaminants onsite. • Mitigate the effects of soil contamination by fuels or other chemicals (including emergency response and EPA notification procedures and remediation).	C	O	D

Safeguards and mitigation measures	C	O	D
Protocols would be included in construction and decommissioning to minimise and treat dust (water carts or similar in response to visual cues). This may involve installation of barriers such as shade cloth, to protect receivers. This would include dust generated during transport of goods to and from the site. Dust suppression activities that would be undertaken, include: <u>During construction and decommissioning</u> - A water cart (truck) would be utilised routinely, wetting all access roads and exposed dusty surfaces as appropriate to the conditions of the project site. - Stockpiled topsoil and other materials that exhibit significant dust lift off would be wet down routinely and as appropriate. - Stabilising techniques and/or environmentally acceptable dust palliatives will be utilised if the wetting down of surfaces prove to be ineffective. <u>During operation</u> - Any area that was temporarily used during construction (laydown and trailer complex areas) would be restored back to original condition or re-vegetated with native plants. - Areas that may not have been hard packed but have been disturbed in some form would be treated with environmentally acceptable dust palliatives and / or vegetated (e.g. by means of hydro seeding) with a suitable seed mix.	C	O	D
Stockpiled topsoil and other materials that exhibit significant dust lift off would be wetted down or covered to manage dust.	C		D
A contamination protocol would be developed to address: Procedure for discovering buried contamination within the proposal site (e.g. pesticide containers). Disposal would be at a facility able to accept the waste.	C		
Water use and quality			
The works should generally be carried out in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land</i> (DPI, 2012).	C		D
Design of track drainage and other stormwater devices would be included in the detailed design phase.	C		
Procedures for testing, treatment and discharge of construction waste water must be as described in a Soil and Water Management Plan.	C		D
All fuels, chemicals, and liquids would be stored at least 50 m away from any waterways or drainage lines and would be stored in an impervious bunded area.	C	O	D
The refuelling of plant and maintenance of machinery would be undertaken in impervious bunded areas.	C	O	D
Machinery would be checked daily to ensure there is no oil, fuel or other liquids leaking from the machinery. All staff would be appropriately trained through toolbox talks for the minimisation and management of accidental spills	C		D
All staff would be appropriately trained through toolbox talks for the minimisation and management of accidental spills.	C	O	D
Additional water requirements would be met commercial arrangements with local water supply authorities.	C	O	D

Safeguards and mitigation measures	C	O	D
Traffic and access			
A Haulage Plan would be developed with input from the roads authority, including but not limited to: - Assessment of road routes to minimise impacts on transport infrastructure - Scheduling of deliveries of major components to minimise safety risks (on other local traffic) - Traffic controls (signage and speed restrictions etc.).	C		D
A Traffic Management Plan would be developed as part of the CEMP, with input from the road authorities and Griffith City Council. The plan would include, but not be limited to: - The designated routes of construction traffic to the site. - Carpooling/shuttle bus arrangements to minimise vehicle numbers during construction. - Scheduling of deliveries. - Consideration of cumulative impacts. - Procedure to monitor traffic impacts and adapt controls (where required) to reduce the impacts. - Providing a contact phone number to enable any issues or concerns to be rapidly identified and addressed through appropriate procedures. - Community consultation regarding traffic impacts for nearby residents. - Consideration of cumulative impacts. - Traffic controls (speed limits, signage, etc.). - Procedure to monitor traffic impacts and adapt controls (where required) to reduce the impacts. - Providing a contact phone number to enable any issues or concerns to be rapidly identified and addressed through appropriate procedures. - Identification of the approved access route and requirement that all vehicular access to the site be via the approved access route. - Details of traffic routes to be used by heavy and light vehicles, and any associated impacts and any road-specific mitigation measures. - Details of measures to minimise the potential for interaction of vehicular traffic with train schedule through the rail level crossing on Hamilton Road, e.g. timing of movement of vehicles outside of train schedules. - Details of measures to be employed to ensure safety of road users and minimise potential conflict with project generated traffic. - Proposed hours for construction activities, as night time construction presents additional traffic related issues to be considered. - The management and coordination of the movement of vehicles for construction and worker related access to the site and to limit disruption to other motorists, emergency vehicles, school bus timetables and school zone operating times. - Loads, weights and lengths of haulage and construction related vehicles and the number of movements of such vehicles. - Procedures for informing the public where any road access will be restricted as a result of the project.	C		D

Safeguards and mitigation measures	C	O	D
- Any proposed precautionary measures such as signage to warn road users such as motorists about the construction activities for the project. - A Driver Code of Conduct to address such items as; appropriate driver behaviour including adherence to all traffic regulations and speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc. and appropriate penalties for infringements of the Code.			
Prior to construction the proponent would upgrade any roads, and their associated road reserve and public infrastructure, to a standard suitable for the traffic identified in the TMP, in consultation with the roads authorities. The design and specifications and construction will be completed and certified by an appropriate qualified person.			
A Road Dilapidation Report, for all local road routes used during construction (and decommissioning), will be prepared in consultation with the relevant road authorities. It would: - Be prepared by an appropriately qualified person. - Address all road related infrastructure. - Be prepared before the commencement of, and after completion of construction (and decommissioning). - Repair would be undertaken at a time agreed upon between the proponent and roads authorities.			
The proponent would consult with the Griffith City Council regarding the proposed upgrading of Poletta Road. The upgrade would be subject to detailed design, and must be designed and constructed to the standards as specified in Griffith City Council's <i>Engineering Guidelines Subdivision and Development Standards December 2008</i> .	C		
The proponent would continue consultation with RMS and John Holland Rail in regard to the use of the Irrigation Way/Hamilton Road intersection and railway crossing. Any upgrades to the intersection (construction of left hand turn off Irrigation Way) would be subject to detailed design in consultation with RMS.	C		D
The proponent would repair any damage resulting from project traffic (except that resulting from normal wear and tear) as required at the proponent's cost.	C	O	D
A safety management plan will be prepared for the railway crossing on Hamilton Road prior to the commencement of works. This plan will be consistent with the requirements of the NSW Railway Safety Act 2008. The safety management plan will identify any risks at the railway crossing, the measures taken to manage those risks and the responsibility for the management of those risks.	C		
Climate and air quality			
Development of a complaints procedure to promptly identify and respond to issues generating complaints.	C	O	D
Protocols to guide vehicle and construction equipment use, to minimise emissions would be included in construction and operational environmental management plans. This would include but not limited to Australian standards and (POEO Act).	C	O	D
Protocols would be included in construction and decommissioning to minimise and treat dust (water carts or similar in response to visual cues). This may involve installation of barriers such as shade cloth, to protect receivers.	C		D

Safeguards and mitigation measures	C	O	D
Electric and magnetic fields			
All design and engineering would be undertaken by qualified a competent persons with the support of specialists as required.	C		
Transmission lines would be located as far as practical from residences, farm sheds, and yards in order to reduce the potential for both chronic and acute exposure to EMFs.	C		
Design of electrical infrastructure would minimise EMFs.	C		
Land use			
Consultation with local community, to minimise impact of construction of adjacent agricultural activities and access.	C		
Removal of all above ground infrastructure and rehabilitation of areas disturbed during the operation of the solar farm, to allow a return to agricultural or alternate use.			D
Socio economic and community			
The CCP would be implemented to manage impacts to community stakeholders, including but not limited to: • Protocols to keep the community updated about the progress of the project and project benefits. • Protocols to inform relevant stakeholders of potential impacts (haulage, noise etc.). • Protocols to respond to any complaints received.	C		
Liaison with local industry representatives to maximise the use of local contractors, manufacturing facilities, materials.	C		
Liaison with local representatives regarding accommodation options for staff, to minimise adverse impacts on local services.	C		D
Liaison with local tourism industry representatives to manage potential timing conflicts with local events.	C		D
Resource use and waste			
A Waste Management Plan (WMP) would be developed to minimise wastes. It would include but not be limited to: • Identification of opportunities to avoid, reuse and recycle, in accordance with the waste hierarchy. • Quantification and classification of all waste streams. • Provision for recycling management onsite. • Provision of toilet facilities for onsite workers and how sullage would be disposed of (i.e., pump out to local sewage treatment plant). • Tracking of all waste leaving the site. • Disposal of waste at facilities permitted to accept the waste. • Requirements for hauling waste (such as covered loads).	C	O	D
Septic system to be installed and operated in accordance with Griffith City Council requirements.	C	O	

Safeguards and mitigation measures	C	O	D
Fire and bushfire			
Develop a Comprehensive Bush Fire Management Plan with input from the RFS to include but not be limited to: • A risk assessment to determine unique hazards specific to the site. • Address risks to the health and safety of firefighters and other emergency first responders (for example the level of personnel protective clothing and equipment that must be worn, evacuation zones and a safe method of shutting down and isolating the photovoltaic system). • Address other risk control measures in a fire emergency. • A requirement to provide two copies of the ERP to be stored in a prominent 'emergency information cabinet' located in a position directly adjacent to the sites main entry points. • A requirement to make contact with the relevant local emergency management committee (LEMC). • Management of activities with a risk of fire ignition. • Management of fuel loads onsite. • Storage and maintenance of firefighting equipment, including siting and provision of adequate water supplies for bush fire suppression. • The below requirements of <i>Planning for Bush Fire Protection 2006</i> - ○ Identifying asset protection zones ○ Providing adequate egress/access to the site (s4.1.3) ○ Emergency evacuation measures (s4.2.7). • Operational procedures relating to mitigation and suppression of bush fire relevant to the solar farm.	C	O	D
Historic heritage			
Should an item of historic heritage be identified, the Heritage Division (OEH) would be contacted prior to further work being carried out in the vicinity.	C	O	D
Griffith City Council			
If required, inspections by council engineers will be paid for by the proponent, in accordance with the Council's current Revenue policy, prior to the commencement of work.	C		D
A site decommissioning plan would be provided within the construction environmental management plan, outlining methods to remove infrastructure, disposal options and restoration objectives to restore the land to its former land capability. The plan would set specific timelines for the activities.	C		

APPENDIX B SUBMISSIONS RECEIVED FROM DEPT. PLANNING AND ENVIRONMENT

From: system@acelo.com on behalf of [REDACTED]
To: [Diana Charteris](#)
Subject: Submission Details for [REDACTED] (comments)
Date: Monday, 21 March 2016 11:43:39 AM

Confidentiality Requested: yes

Submitted by a Planner: no

Disclosable Political Donation: no

Name: [REDACTED]

Email: [REDACTED]

Address:

[REDACTED]

Burra, NSW

[REDACTED]

Content:

The EIS has omitted to provide a detailed assessment of the 'Lake Effect' of the solar farm and the subsequent direct and indirect impacts this may have.

The 'Lake Effect' is a phenomena whereby migratory terrestrial and water bird species are often killed as they make contact with the hard surface of solar panel. It appears, based on bird mortality counts overseas, that solar panels mounted close to the ground can pose a significant risk in that birds perceive a large solar farm as a body of water on which they attempt to land.

The probability of a 'Lake Effect' being an important issue for this project is reasonable given that the Murrumbidgee Irrigation Area has numerous water bodies including irrigation channels along with food crops which represent a potential food source for birds.

The direct impact is bird mortality while the indirect impact is that the birds may also be attracted, because of the 'Lake Effect', to adjacent food crops.

In United States, the Fish and Wildlife Service has recommended that research be undertaken to modify or re-design solar panels so that birds don't perceive them as water bodies. This includes the installation of visual markers or other potential deterrents and changes to the spacing of solar panels.

IP Address: - 1.144.96.240

Submission: Online Submission from [REDACTED] (comments)

https://majorprojects.affinitylive.com/?action=view_activity&id=145521

Submission for Job: #6604 Griffith Solar

https://majorprojects.affinitylive.com/?action=view_job&id=6604

Site: #2965 Griffith Solar Farm

https://majorprojects.affinitylive.com/?action=view_site&id=2965



Planning & Environment

Planning Services

Resource Assessments

Contact: Diana Charteris

Phone: 9228 6331

Email: diana.charteris@planning.nsw.gov.au

Mr Chris Leonard
Neoen Australia Pty Ltd
Suite 3, Level 14
227 Elizabeth Street
Sydney NSW 2000

Dear Mr Leonard

Griffith Solar Farm (SSD 6604)

The public exhibition of the Environmental Impact Statement (EIS) for the Griffith Solar Farm concluded on Wednesday, 20 April 2016.

The Secretary requests that you prepare and submit a report detailing your responses to all issues raised in submissions. The submissions can be viewed on the Department's website www.majorprojects.planning.nsw.gov.au.

To assist you in responding to the key issues raised in submissions, the Department has identified several areas where further assessment or additional information is required (see **Attachment A**). Please provide your response to the Department by **Tuesday, 10 May 2016**.

Please also ensure that you respond to the full range of matters and recommendations raised in submissions.

If you wish to discuss this matter, please contact Diana Charteris on 9228 6331.

Yours sincerely,



26/4/16

Clay Preshaw
A/Director
Resource Assessments

Attachment A

1. Traffic and transport

Both Griffith City Council (Council) and RMS require road upgrades to accommodate heavy vehicle traffic movements associated with the construction of the project.

The Department agrees with this advice and requests that the Applicant confirms its acceptance of the proposed road upgrades, in consultation with Council and RMS.

2. Biodiversity and vegetation screening

a. Vegetation screening

In order to provide adequate compensation for any biodiversity loss due to the project, the Office of Environment and Heritage (OEH) considers that planting components of the Myall Woodland endangered ecological community (EEC) as vegetation screening onsite would be appropriate.

Council also notes that Weeping Myall (*Acacia pendula*) is the predominant tree species at the site and surrounds, and recommends that *Acacia pendula* and/or species that form part of the Myall Woodland EEC are used as vegetation screening on site.

The Department agrees with OEH and Council in this regard, and requests that the Applicant:

- uses a species consistent with the Myall Woodland EEC as vegetation screening; and
- revises the Consolidated Constraints Map (Ref: SW060_2) provided to the Department on 19 April 2016 to reflect the use of this EEC.

b. Site access

OEH recognises that the Applicant has committed to not removing *Acacia pendula* individuals during clearing of the roadside vegetation for the site access. However, OEH considers that the area to be cleared may still be considered Myall Woodland EEC as the community can occur without an overstorey (tree layer).

As requested by OEH, the Department requires the Applicant to further evaluate the potential for Myall Woodland EEC in the area proposed to be cleared for site access, and provide both a plant species list to support this assessment and their percentage cover.

c. Assessments of significance

OEH noted that the assessment has not considered the potential for mature *Acacia pendula* trees supporting mistletoe (*Amyema quandang*) to provide a foraging resource for the Painted Honeyeater (*Grantiella picta*), which is listed as vulnerable under the *Threatened Species Conservation Act 1995*. OEH indicated that an assessment of significance should have been prepared for impacts to this species.

As requested by OEH, the Department requires the Applicant to prepare an assessment of significance for the *Grantiella picta*.

3. Water use

As requested by the Department of Primary Industries (DPI) – Water, the Department requires the Applicant to confirm with the relevant Local Water Utility and Murrumbidgee Irrigation Limited that there would be sufficient water available to support the project.

4. Landowner's consent

Under clause 49(a) of the *Environmental Planning and Assessment Regulation 2000*, the project requires landowner's consent in writing from the owners of the properties that comprise the development application.

As such, the Department requests evidence of landowner's consent for the application in writing from:

- Council, as the roads authority of the Hamilton Road public road reserve;
- Transgrid, as the landowner of Lot 1 DP 865611; and
- the landowner of Lot 58 DP 751728.

5. Other matters

The Department requests that the Applicant address the following matters:

- submission of the identified Aboriginal heritage sites found during the survey to the Aboriginal Heritage Information Management System (AHIMS) (raised by OEH);
- stormwater management during construction and operation (raised by Council);
- land ownership arrangements in relating to grazing onsite (raised by DPI – Agriculture);
- site decommissioning plan (raised by DPI – Agriculture and Council);
- risk to solar panels from aerial spraying on adjacent farm land (raised by DPI – Agriculture);
- weed management (raised by DPI – Agriculture).

Please note that in addition to responding to the matters detailed above, the Department requires the Applicant to acknowledge, consider and/or provide comments on all other matters raised in community and agency submissions.



**Office of
Environment
& Heritage**

Your reference: SSD 6604
Our reference: DOC16/133038
Contact: Miranda Kerr
Ph 6022 0607

Ms Diana Charteris
Resource Assessments
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Charteris

**RE: Griffith Solar Farm Project (SSD 6604) – Griffith LGA
Environmental Impact Statement Exhibition**

I refer to your email dated 14 March 2016 seeking comment from the Office of Environment and Heritage (OEH) about the Environmental Impact Statement (EIS) for the Griffith Solar Farm Project (SSD 6604).

We have reviewed the exhibited EIS and the supplementary information provided on 29 March 2016. The OEH review takes into account Secretary's Environmental Assessment Requirements (SEARs) provided by the Department of Planning and Environment to the proponent on 26 August 2014. OEH considers that the EIS does meet the Secretary's requirements, however we recommend that development approval be conditioned to avoid impacts to Aboriginal cultural heritage (ACH) and biodiversity. Detailed comments are provided in **Attachment A**.

While the biodiversity assessment is deficient, the site is highly disturbed so it is unlikely that the proposal will have a significant impact on species or communities listed in the *Threatened Species Conservation Act 1995* (TSC Act). We consider that planting components of the Myall Woodland endangered ecological community as vegetation screenings will provide adequate compensation for any biodiversity loss due to the development.

Attachment A includes a number of actions that should be addressed within the EIS, or could be included as conditions of approval. Key among these are the following:

- All screenings should be with species components of the Myall Woodland endangered ecological community, including the use of *Acacia pendula* as the main species.
- No clearing of *Acacia pendula* without further threatened species assessment, including targeted searches for mistletoe.
- Further detail on the assessment of ACH, including preparation of a Cultural Heritage Management Plan to consider mitigation of impacts and protection of ACH.

All plans required as a Condition of Approval that relate to flooding, biodiversity or ACH should be developed in consultation with OEH, to ensure that issues identified in this submission are adequately addressed.

If you have any questions regarding this matter please contact Miranda Kerr on 6022 0607 or email miranda.kerr@environment.nsw.gov.au.

Yours sincerely



19/4/16

ANDREW FISHER
A/Senior Team Leader Planning
South West Region
Regional Operations Group
Office of Environment & Heritage

Enclosures: Attachment A: Detailed comments for the Griffith Solar Farm Project Environmental Impact Statement (SSD 6604)

ATTACHMENT A Detailed comments for the Griffith Solar Farm Project Environmental Impact Statement (SSD 6604)

Aboriginal cultural heritage

The Aboriginal Cultural Heritage Assessment (ACHA) (EIS Section 6.2 and Appendix G) does not fully comply with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (OEH2010a) and the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (OEH 2010b).

Site registration

From the ACHA (Section 4.3, page 16) it would appear that the sites found during the current survey have not been submitted to the Aboriginal Heritage Information Management System (AHIMS). Insufficient location information is provided in the report to enable OEH to accurately re-locate the sites if necessary.

The *National Parks and Wildlife Act 1974* (NPW Act) requires that, if a person finds an Aboriginal object on land and the object is not already recorded on AHIMS, they are legally bound under s.89A of the NPW Act to notify OEH as soon as possible of the object's location. This requirement applies to all people and to all situations. An Aboriginal Site Recording Form must be completed and submitted to the AHIMS Registrar, for each Aboriginal site that is recorded during archaeological investigations completed for these environmental assessment requirements. This must be done prior to any Care Agreement being made or Site Impact recording forms being completed. The forms can be downloaded at:

www.environment.nsw.gov.au/licences/DECCAHISSiteRecordingForm.htm

Based on consideration of the above, we recommend the following conditions of development consent:

- *Aboriginal sites identified during the visual inspection need to be reported to AHIMS in the prescribed format for formal registration of the objects.*

Site Impact

The objects are located on the Poletta Road access route. There is no detail about how the sites will be protected during the construction and operation of the proposal, or if they will be relocated.

If the objects are to be relocated, the EIS should consider returning the relocated objects to the original site context during site decommissioning. An Aboriginal site impact recording form has been developed by OEH to ensure that current information about the status of AHIMS sites is maintained for all registered Aboriginal sites across NSW. This form should be completed after any authorised impacts (i.e. surface collection/salvage) occur and submitted to the AHIMS Registrar.

The proponent, in consultation with Griffith Local Aboriginal Land Council, needs to determine where those objects will be going (the keeping place) prior to salvage and enter into a Care Agreement.

Based on consideration of the above, we recommend the following condition of development consent:

- *If objects are to be temporarily removed and returned to the site, an Aboriginal Site Impact Recording Form needs to be completed following salvage of the archaeological material:*
www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf.

6.2.4 Safeguards and mitigation measures (page 63), 8.2 Mitigation measures (page 143) Appendix G 4.2, page 14

Ground surface visibility during the survey was very poor and affected the ability of surveyors to see potential objects (section 4.2, page 14). There is a significant likelihood that more ACH is present in the low visibility area where solar panel erection is planned. Mitigation measures have not been defined and site monitoring has not been proposed.

It is not clear within the EIS or supporting information how the proposed activities will impact/harm known sites nor have any alternatives to harm been considered (such as relocating vehicle access points or site layout modification and adjustment of proposed development activities).

Table 6-4 of the EIS outlines the aim of a Cultural Heritage Management Plan (CHMP) (page 63). We recommend that the aim of the CHMP be expanded to include details about how the final site design avoids harm, mitigation measures and site monitoring.

Based on consideration of the above, we recommend the following conditions of development consent:

- *A Cultural Heritage Management Plan be prepared that will:*
 - *Confirm the cultural values of the site and objects, based on feedback from the Griffith Local Aboriginal Land Council.*
 - *Outline specific avoidance and mitigation measures for the proposal, including monitoring during construction.*
 - *Consider and detail alternatives to harm prior to any application for an Aboriginal site impact or Care Agreement.*
 - *Include site impact recording forms for any sites modified as part of the activity (this includes collection).*
 - *Detail how objects are to be protected during construction and operation if they are relocated.*
 - *Describe how relocated objects are returned to the original site context during the decommissioning stage, or what other long term management arrangements may be made.*

Biodiversity

The EIS meets the Secretary's requirements for biodiversity assessment but is deficient in the assessment of threatened fauna and ecological communities. However, the site is highly disturbed and tree clearing is not proposed so it is unlikely that the development will have a significant impact on species or communities listed on the TSC Act.

3.2.9 Site access (page 20)

Disturbance to adjoining roadside vegetation due to fencing the proposal site has not been considered as a potential impact of construction. There is potential for disturbance to roadside vegetation during fence construction and associated material storage. Roadside vegetation is important for habitat connectivity in predominantly cleared landscapes, such as the Griffith area, so disturbance outside the proposal site should be prevented.

Based on consideration of the above, we recommend the following condition of development consent:

- *Construction activities and storage of materials for boundary fencing should be wholly contained within the proposal site. Disturbance to road reserves other than access points identified in the EIS is prohibited.*

6.4 Biodiversity (Flora and Fauna) (page 76)

The biodiversity map at Appendix D.2 (page D-iii) shows native vegetation on roadsides adjoining the proposal site. Vegetation mapping for the Griffith LGA¹ identifies this vegetation as a strip of 'Myall or Boree (*Acacia pendula*) woodland', which corresponds to the Myall Woodland endangered ecological

¹ GCC (2013). *Griffith City Council Biodiversity Strategy Draft*. Griffith City Council, Griffith; 2. OEH (2011). *Vegetation mapping by 3-D digital aerial photo interpretation: vegetation of central-southern New South Wales*. Technical Report. NSW Office of Environment and Heritage, Queanbeyan (VIS ID 3884).

communities listed in the NSW TSC Act and the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The TSC Act-listed Myall Woodland EEC can exist without an overstorey so it is important to determine whether native species other than *Acacia pendula* are present at a site. The flora and vegetation description in Section 6.4.2 (page 78) describes the understorey to Myall Woodland EEC as being dominated by weedy, exotic species. A plant species list is not provided to support this assessment, and Table 6-9 (page 79) does not provide an indication of the relative proportion of native and exotic plant species present or their percentage cover.

Acacia pendula individuals will not be removed during clearing of the roadside vegetation for site access (page 84). The EIS does not evaluate the likelihood of the EEC occurring without a tree layer, apart from describing the roadside vegetation as “weedy”.

The value of linear vegetation remnants, such as roadsides, is discussed in the assessment of significance for Myall Woodland EEC (Appendix D.4, page D-I) and description of the existing environment on page 78. It appears that the authors consider linear remnants to be of low value due to their narrowness and associated edge effects such as weediness. Linear feature such as roadsides and creeklines are important in heavily cleared landscapes, such as the Griffith local government area where only 8 percent of natural vegetation remains¹. The draft Griffith Biodiversity Strategy¹ includes the Mirrool Branch Canal Road reserve, which abuts the southern boundary of the proposal site, as a “connecting habitat area”. Any remnant vegetation critical as core or linking habitat has been identified in the draft strategy for protection and enhancement.

The accurate identification of threatened ecological communities present on and adjacent to the subject land is important to ensure that construction, operation and site management activities, including species selection for revegetation, are ecologically appropriate and do not constitute harm to threatened entities.

The vegetation mapping referred to in Section 6.4.2 (page 77) should be cited as: OEH (2011). *Vegetation mapping by 3-D digital aerial photo interpretation: vegetation of central-southern New South Wales*. Technical Report. NSW Office of Environment and Heritage, Queanbeyan (VIS ID 3884).

Fauna

The assessment has not considered the potential for mature *Acacia pendula* trees supporting mistletoe to provide a foraging resource for the threatened Painted Honeyeater (*Grantiella picta*)², listed as vulnerable on the TSC Act. Appendix D (page D-XI) reports the species as unlikely to occur on the proposal site due to the lack of habitat. There are several Bionet (Atlas of NSW Wildlife) database records for Painted Honeyeater from the Mirrool Branch Canal Road reserve, one of which is within 200 metres of the proposal site (OEH 2016).

An assessment of significance should have been prepared for impacts to the Painted Honeyeater. If *Acacia pendula* individuals are not removed, then there is unlikely to be an impact.

6.4.4 Safeguards and mitigation measures (page 85)

8.2 Mitigation measures (page 143)

We consider that planting components of the Myall Woodland endangered ecological community as vegetation screenings will provide adequate compensation for any biodiversity loss due to the development.

Table 6-10 provides a list of species to be used during rehabilitation and visual screening. Screenings should consist of species associated with the Myall Woodland EEC. Specifically, *Acacia pendula* (Myall, locally known as Boree) should be planted where screening is required, and if necessary shrubs that are components of the EEC should be planted as understorey. The final determination for Myall

² OEH (2016). *Painted Honeyeater threatened species profile*. Office of Environment and Heritage www.environment.nsw.gov.au/threatenedSpeciesApp/profile.aspx?id=10357

Woodland EEC (OEH 2011)³ does not include black box (*Eucalyptus largiflorens*) or poplar box (*Eucalyptus populnea*).

Impact of introduced species

The EIS does not discuss the potential for revegetation practices to introduce exotic species into remnant native vegetation, or the impact of plant species selection on EECs and remnant native vegetation on and adjacent to the development site. Introduction of pasture species, weed seeds from hay bales and non-local native plants into native remnant vegetation has the potential to further reduce vegetation condition.

Based on consideration of the above, we recommend the following conditions of development consent

- *Screening plantings should be with Acacia pendula (Myall) to a minimum width of 5 metres, comprising at least two rows of staggered trees. Any plantings should be with species that are components of the Myall Woodland endangered ecological community.*
- *Revegetation works within 100 metres of threatened ecological communities and remnant native vegetation mapped in the Griffith LGA Biodiversity map (regardless of vegetation condition) should be with species that naturally occur within the relevant community. Pasture species, weed seeds from hay bales and non-local native plants should not be introduced into native remnant vegetation.*
- *No clearing of Acacia pendula (Myall) is to occur without further assessment, including targeted searches for mistletoe in the tree canopy. Areas mapped as Myall Woodland endangered ecological community without an overstorey of Acacia pendula should be assessed for presence of other components of the ecological community.*
- *Plantings specified by the site restoration plan comprise species consistent with the Myall Woodland endangered ecological community listing, as fitting with the final site land use.*
- *The ground cover management plan not compromise the Myall Woodland endangered ecological community by introducing exotic species to the site. Native plant species should be used for ground cover.*

We also recommend mitigation measures in table 6-10 (page 85) and section 8.2 (page 143) be modified according to the points above.

³ NSWSC (2005). *Myall woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions – endangered ecological community final determination*. NSW Scientific Committee, Sydney. <http://www.environment.nsw.gov.au/determinations/MyallWoodlandWesternEndSpListing.htm>.



Department of Primary Industries

OUT16/16459

Ms Diana Charteris
Resource Assessments
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

diana.charteris@planning.nsw.gov.au

Dear Ms Charteris

Griffith Solar Farm (SSD 6604) Comment on the Environmental Impact Statement

I refer to your email dated 14 March 2016 to the Department of Primary Industries in respect to the above matter. DPI Water and Agriculture comments are as follows. Any further referrals to DPI can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

Comment by DPI Water

The Department of Primary Industries - Water (DPI Water) has reviewed the exhibited Environmental Impact Statement for the Griffith Solar Farm Project. The following comments are provided to assist in determination of the project.

- The EIS indicates water demands during the 9 month construction period are mainly for dust suppression with 135ML required. The water is to be trucked to site however the source and security of this supply is yet to be confirmed. Potential options for sourcing the water listed in the EIS include local water supply authorities or via the water entitlement supplied by Murrumbidgee Irrigation held by the project site's landowner. DPI Water recommends the ability to access the required water be confirmed prior to project approval. Potable water demands over the 9 month construction period is 30 000L over 9 months which is to be delivered in bottles.
- Water demands for the operation period are for the staff amenities and for cleaning the solar panels. It is recommended the volume be estimated and confirmation be made on the ability to access this water source of the appropriate quality and volume when required.
- Section 7.1.5 of the EIS refers to the need to design drainage structures to ensure surface water and runoff associated with flooding is directed through stabilised discharge points. This is supported by DPI Water.
- DPI Water supports the proposed management of erosion and sedimentation impacts via development of a Soil and Water Management Plan in accordance with the guideline, "*Managing Urban Stormwater: Soils and Construction*".

For further information please contact Tim Baker, Senior Water Regulation Officer, (02) 6841 7403, Tim.Baker@dpi.nsw.gov.au.

Comment by DPI Agriculture

The Department of Primary Industries – Agricultural Land Use Planning (DPI Agriculture) has reviewed the exhibited Environmental Impact Statement for the Griffith Solar Farm against the SEARs and the Primefact “Infrastructure Proposals on Rural Land”. The following matters are outstanding:

- The EIS does not discuss if there is any risk to the solar panels from aerial spraying activities on adjacent farm lands.
- The EIS does not discuss land ownership arrangements and/or the relationship with the current landowner with regards ongoing farm activities on the remaining land.

The following matters should be addressed in any conditions of approval:

- The Project Environmental Management Plans for construction and operation should include weed management and control measures for the disturbed areas **during** the landforming and construction phases before groundcover can be sown.
- The groundcover management plan should include details of ground cover control (e.g. grazing, slashing, etc.), not just its establishment. Should vegetation not be used a polymer or similar synthetic product should be used for erosion (water and wind) control.

Preparation of the Decommissioning Environmental Management Plan should include rehabilitation objectives and strategies for returning the land to productive irrigated agriculture.

For further information please contact Lilian Parker, Resource Management Officer, (02) 6938 1906, lilian.parker@dpi.nsw.gov.au.

Yours sincerely



Mitchell Isaacs
Director, Planning Policy & Assessment Advice
20/4/2016

Ms Diana Charteris
Senior Planning Officer
Resource Assessments
Department of Planning & Environment
23-33 Bridge Street | GPO Box 39 SYDNEY NSW 2001

Dear Ms Charteris

Griffith Solar Farm Project (SSD 6604) – EIS Exhibition

I refer to your email of 14 March 2016 requesting comments on Neoen Australia Pty Ltd's Griffith Solar Farm Environmental Impact Statement (EIS) currently on exhibition.

NSW Department of Industry, Division of Resources & Energy (the Division) has reviewed the *Griffith Solar Farm EIS* dated March 2016 and provides the following comments within its area of responsibility.

The proposal is located about 7 km southeast of Griffith. There are no known mineral, petroleum or extractive resources within or adjacent to the project area.

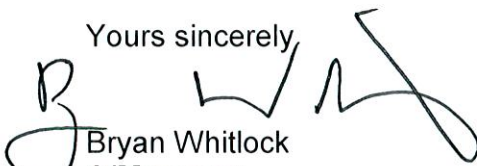
The NSW Government is committed to providing a diverse, affordable and clean energy mix for NSW. Solar energy diversifies the energy mix and is supported under the Government's cornerstone renewable energy policy, the Renewable Energy Action Plan.

The Griffith Solar Farm is one of eight NSW solar farm projects that has been shortlisted for up to \$30 million of funding per project under the Australian Renewable Energy Agency's (ARENA) Competitive Round for Large-scale Solar PV. The Division is working with proponents to facilitate these projects in line with the NSW Government's commitments under the Renewable Energy Action Plan.

The Division supports the Griffith Solar Farm as it aligns with Government policy to increase renewable energy generation, jobs and investment in the State. The solar farm project has an estimated capital investment value of \$90 million and is expected to inject considerable funds into the local community of Griffith and support up to 90 direct jobs during construction.

Should you have any enquires regarding this matter please contact Steve Cozens, Senior Project Officer, Royalty & Advisory Services on 9842 8573.

Yours sincerely



Bryan Whitlock
A/Manager
Royalties & Advisory Services

19/4/16



File Ref. No: BFS16/501(10079)
TRIM Doc. No: D16/26052
Contact: Mark Castelli

12 April 2016

The Department of Planning & Environment
C/- Diana Charteris
GPO Box 39
SYDNEY NSW 2001

E: diana.charteris@planning.nsw.gov.au

Dear Ms Charteris

**Proposed Griffith Solar Farm
Hamilton Road, Yoogali (SSD 6604)**

I refer to the above development proposal's Environmental Impact Statement (EIS) which is currently on public exhibition (from the 18 March 2016 to the 20 April 2016).

Fire & Rescue NSW (FRNSW) have reviewed Section 7.10 of the EIS (Fire and Bush Fire Issues and Impacts).

It is FRNSW experience that small and large scale photovoltaic installations present unique electrical hazard risks to personnel when fulfilling their emergency first responder role (N.b. the Fire Brigades Act 1989 imposes specific statutory functions and duties to the Commissioner of FRNSW).

In addition, the Work Health and Safety (WHS) Act 2011 (and its subordinate Regulation) classify FRNSW as a person conducting a business or undertaking (PCBU). Clauses 34 and 35 of the WHS Regulation impose specific obligations upon a PCBU to identify hazards and manage risks at workplaces.

Due to the electrical hazards associated with large scale photovoltaic installations and the potential risk to the health and safety of firefighters, both FRNSW and the NSW Rural Fire Service (NSWRFS) must be able to implement effective and appropriate risk control measures when managing an emergency incident at the proposed site.



Within the context of the above and based on our review, FRNSW submits the following comments and recommendations to the Department of Planning & Environment (DPE) for consideration.

Recommendation/s

Should a fire or hazardous material incident occur, it is important that first responders have ready access to information which enables effective control measures to be quickly implemented. Without limiting the scope of the emergency response plan (ERP), the following matters are recommended to be addressed:

1. That a comprehensive ERP is developed for the site.
2. That the ERP specifically address foreseeable on-site and off-site fire incidents, (e.g. a fire involving solar panel arrays or a bushfire in the immediate vicinity).
3. That the ERP detail the appropriate risk control measures that would need to be implemented in order to safely mitigate potential risks to the health and safety of firefighters and other first responders (including electrical hazards). Such measures would include the level of personal protective clothing required to be worn, the minimum level of respiratory protection required, decontamination procedures, minimum evacuation zone distances and a safe method of shutting down and isolating the photovoltaic system (either in its entirety or partially, as determined by a risk assessment).
4. Other risk control measures that may need to be implemented in a fire emergency due to any unique hazards specific to the site should be included in the ERP.
5. That two copies of the ERP (detailed in recommendation 1 above) be stored in a prominent 'Emergency Information Cabinet' which is located in a position directly adjacent to the site's main entry point/s.
6. Once constructed and prior to operation, that the operator of the facility make contact with the relevant local emergency management committee (LEMC). The LEMC is a committee established by virtue of Section 28 of the State Emergency and Rescue management Act 1989. LEMCs are required to be established so that emergency services organisations and other government agencies can proactively develop comprehensive inter agency local emergency procedures for significant hazardous sites within their particular local government area. The contact details of members of the LEMC can be obtained from the relevant local council.

For further information please contact Mark Castelli of the Fire Safety Assessment Unit, referencing FRNSW file number BFS16/501(10079). Please ensure that all correspondence in relation to this matter is submitted electronically to bfs@fire.nsw.gov.au.

Yours Sincerely



Daire Fleming
Manager
Fire Safety Advisory Unit

21 April 2016

SWT14/00073
SF2014/060432
MM

The Manager
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Diana Charteris

SSD-6604 – PROPOSED SOLAR FARM - REVISED, LOTS 59 60 62 81 & 82 DP751728, HAMILTON ROAD & IRRIGATION WAY (MR80), YOOGALI.

I refer to your correspondence regarding the subject application which was referred to the Roads and Maritime Services for assessment and comment.

Roads and Maritime Services has reviewed the Environmental Impact Statement (EIS) dated March 2016 prepared by NGH Environmental for the Griffith Solar project. The submitted EIS assesses the impacts of the establishment of a photovoltaic (PV) commercial scale solar station with a proposed operating capacity of 53 MVA or 60 MW on the subject site. The site has frontage to Irrigation Way (MR80), which is a classified road, within a 100 km/h speed zone.

The submitted documentation indicates that the Solar Farm will comprise of a series of mounted photovoltaic modules (approximately 200,000 solar panels) erected in arrays. From the information provided it is understood that panel structures would be 1.5 to 2.3 metres high however the mounting system and panel orientation will depend on the panel technology adopted. Generally the panel orientation would predominantly be northerly however the documentation refers to the potential for the orientation of the panels in an easterly direction.

Due to the characteristics of the project the development should be considered as 2 distinct stages, the Construction phases (about 9 months) and Operational phase. This is considered appropriate as the significant proportion of traffic generation and the transportation of the large components will occur during the construction (and decommissioning) stage of the development. It is anticipated that the operational phase of the development will generate limited traffic.

Section 7.4 of the EIS considers the vehicle traffic generation for construction of the facility. The submitted reports defines the preferred haulage routes for the components to the site, however the source of other products, such as gravel is yet to be finalised. Whilst the transportation of the components may be addressed, it's the frequency and volumes of the other material and the smaller construction and worker vehicles that can represent issues for the road network. These issues need to be finalised to allow for the proper assessment of the impacts on the road network. Section 7.4.3 and 8.2 of the EIS outline safe guards and mitigation measures for traffic generation including works to the intersection of Irrigation Way with Hamilton Road and a Haulage Plan and Traffic Management Plan to be developed with input from the relevant roads authorities.

The submitted documentation indicates that the preferred access route to the development site for both construction and worker traffic is from the west along Irrigation Way and Hamilton Road. The proposal includes the construction of an Auxiliary Left Turn (AUL) treatment for the left movement from Irrigation Way to Hamilton Road to accommodate the traffic volumes and address the staking distance between the carriageway of Irrigation Way and the railway level crossing on Hamilton Road. Roads and Maritime Services would not object to this intersection treatment subject to its constructability and appropriate design to store the turning traffic outside the existing travel lanes of Irrigation Way. It appears that the existing carriageway of Irrigation Way is located close to the property boundary between the road reserve and the parallel railway corridor and to build an Auxiliary Left Turn (AUL) may encroach into this corridor. A detailed survey of the carriageway and the property boundaries would clarify this. The submitted reports also indicate that a dedicated left turn lane back onto Irrigation Way from Hamilton Road may also be required.

It is noted that a detailed haulage program for the movement of components to the site has not yet been developed however the documentation indicates the components would be delivered by road from Sydney or Adelaide. From Sydney, the route would likely include the Hume Highway and Burley Griffin Way. From Adelaide, the route would likely include the Mallee Highway, the Sturt Highway and Kidman Way.

The submitted documentation indicates that a draft Traffic Management Plan will be completed in liaison with road authorities to ensure traffic is appropriately managed. Given the intersection treatment proposed this plan is to include a requirement that all traffic to the development access the intersection of Hamilton road with Irrigation from the west along Irrigation Way. As the proposal relies on access via the classified and local road network the plan should be finalised in consultation with the relevant road authorities, in this case being both the Roads and Maritime Services and Council.

Roads and Maritime Services has adopted a procedure for the assessment of railway Level Crossings on public roads to address the requirements of the NSW Railway Safety Act 2008. As part of this development it is considered that a safety management plan should be developed for the railway crossing on Hamilton Road. These plans should set out the risks identified at the railway crossing, the measures taken to manage those risks and the responsibilities for the management of those risks. Given the proximity of the railway crossing to Irrigation Way and the generation of additional vehicular traffic across the railway as a result of the solar farm development it is considered appropriate that such a plan be developed as part of the proposed development prior to any works commencing onsite.

It is noted that the development proposes a number of mitigating measures to be undertaken to address any perceived impact on visual amenity. This includes the establishment of a landscape screen along Irrigation Way and the Yanco and Griffith freight/passenger rail line. This is proposed to minimise distraction of the motorist on Irrigation Way. The submitted report identifies that vegetation screening is to be established along Ross Road and Irrigation Way (in line with the RMS requirement) to maintain a 10 m buffer between roads and vegetation. Roads and Maritime would recommend a vegetated buffer at least 10 metres wide and planted with a variety of endemic species and growing to a mature height ranging up to at least 5 metres be established and maintained within the subject site.

A second application (SSD-7482) for a solar farm proposed to be located on land adjoining the site of the subject solar farm (SSD-6604). It is noted that the preferred access arrangements for the other solar farm is via the intersection of Ross Road with the Burley Griffin Way however Council has concerns regarding the impacts of the generated traffic on Ross Road. The cumulative traffic impact needs to be considered should both the Riverina and Griffith Solar farms be constructed simultaneously. However based on the information provided a number of unanswered variables exist, such as timing of construction, transportation routes, transportation of construction materials/pad formation materials, etc. that require clarification. It is considered appropriate that the assessment of both of these applications conditions the need for discussions with the relevant road

authorities (in the case Roads and Maritime Services and Council) and railway authority to formulate appropriate traffic management processes and road upgrades.

Roads and Maritime is mainly concerned with the provision of safe access between the subject site and the public road network and the impact of the development on the safety and efficiency of the road network. Roads and Maritime emphasises the need, particularly in the construction phase of this development, to minimise the impacts on the existing road network and maintain the safety, efficiency and standard of maintenance along the existing road network and to minimise the impact and distraction to the road user. As the subject site is to be accessed via the intersection of Hamilton Road with Irrigation Way which is located within a 100 km/h speed zone the following conditions are proposed for road safety reasons.

Roads and Maritime Services has assessed the Development Application based on the documentation provided and would raise no objection to the development proposal subject to the Consent Authority ensuring that the development is undertaken in accordance with the information submitted as amended by the inclusion of the following as conditions of consent (if approved):-

1. A Traffic Management Plan shall be prepared in consultation with the relevant road authorities (Council and Roads and Maritime Services) and rail authorities to outline measures to manage traffic related issues associated with the development, particularly during the construction or decommission process. The appointed transport contractor shall be involved in the preparation of this plan. The plan shall address all light and heavy traffic generation to the development site and detail the potential impacts associated with the development, the mitigation measures to be implemented, and the procedures to monitor and ensure compliance. This plan shall address, but not necessarily be limited to;
 - i) Require that all vehicular access to the site be via the approved access route.
 - ii) details of traffic routes to be used by heavy and light vehicles, and any associated impacts and any road-specific mitigation measures.
 - iii) Details of measures to minimise the potential for interaction of vehicular traffic with train schedule through the rail level crossing on Hamilton Road, eg timing of movement of vehicles outside of train schedules.
 - iv) Details of measures to be employed to ensure safety of road users and minimise potential conflict with project generated traffic,
 - v) Proposed hours for construction activities, as night time construction presents additional traffic related issues to be considered.
 - vi) The management and coordination of the movement of vehicles for construction and worker related access to the site and to limit disruption to other motorists, emergency vehicles, school bus timetables and school zone operating times,
 - vii) loads, weights and lengths of haulage and construction related vehicles and the number of movements of such vehicles,
 - viii) procedures for informing the public where any road access will be restricted as a result of the project,
 - ix) any proposed precautionary measures such as signage to warn road users such as motorists about the construction activities for the project,
 - x) a Driver Code of Conduct to address such items as; appropriate driver behaviour including adherence to all traffic regulations and speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc and appropriate penalties for infringements of the Code,
 - xi) details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the mine,
2. A Safety Management Plan is to be prepared for the railway level crossing on Hamilton Road prior to the commencement of works on the development site and the preparation of the Traffic Management Plan. The plan shall be consistent with the requirements of the NSW Railway Safety Act, 2008. As a minimum this plan shall set out the risks identified at the railway crossing, the measures taken to manage those risks and the responsibilities for the management of those risks.

3. The Proponent must engage an appropriately qualified person to prepare a Road Dilapidation Report for all road routes to be used during the construction (and decommissioning) activities, in consultation with the relevant road authority (Roads and Maritime Services and Council). This report is to address all road related infrastructure. Reports must be prepared prior commencement of, and after completion of, construction (and decommissioning). Any damage resulting from the construction (or decommissioning) traffic, except that resulting from normal wear and tear, must be repaired at the Proponent's cost. The applicant is accountable for this process, rather than the proposed haulage contractor. Such work shall be undertaken at a time as agreed upon between the Proponent and relevant road authorities.
4. Prior to the commencement of construction on-site, the proponent must undertake all works to upgrade any road, its associated road reserve and any public infrastructure to a standard suitable for use by heavy vehicles to meet any reasonable requirements that may be specified by the relevant roads authority. The design and specifications, and construction, of these works must be completed and certified by an appropriately qualified person to be to a standard to accommodate the traffic generating requirements of the project. On Classified Roads the geometric road design and pavement design must be to the satisfaction of the Roads and Maritime Services.
5. As a minimum the intersection of Irrigation Way and Hamilton Road is to be constructed and the roadside maintained so as to provide the required Safe Intersection Sight Distance (SISD) in either direction in accordance with the Austroads Publications as amended by the supplements adopted by Roads and Maritime Services for the posted speed limit. Compliance with this requirement is to be certified by an appropriately qualified person prior to construction of the vehicular access.
6. As a minimum the intersection of Irrigation Way and Hamilton Road is to be constructed as a public road intersection with an Auxiliary Left Turn (AUL) intersection treatment in accordance with the Austroads Guide to Road Design as amended by the supplements adopted by Roads and Maritime Services for the prevailing speed zone on the Burley Griffin Way. The intersection is to be constructed with a minimum width to accommodate general access vehicles.
7. As a minimum Hamilton Road is to be constructed to provide for 2 way movement and be sealed to the railway level crossing from its intersection with Irrigation Way to the satisfaction of Council. The intersection of Irrigation Way and Hamilton Road shall be designed and constructed so that vehicles turning between Irrigation Way and Hamilton Road are not required to cross to the opposing travel lane in order to perform a turn manoeuvre. The intersection shall be line marked in accordance with Australian standards.
8. A management plan to provide measures to suppress dust generation from the development site and the transportation route shall be prepared and implemented to the satisfaction of Council and Roads and Maritime Services.
9. No external lighting of any infrastructure associated with the project is permitted at night that may cause distraction to road users other than low intensity security lighting.
10. Reflection of sunlight from the solar panels (glare) shall not cause a nuisance, disturbance or hazard to the travelling public. In the event of glare from the solar plant being evident from a public road, the proponent shall immediately implement glare mitigation measures such as construction of a barrier (e.g. fence) or other approved device to remove any nuisance, distraction and/or hazard caused as a result of glare from the solar panels.
11. A vegetated landscaped buffer, at least 10 metres wide and planted with a variety of endemic species and growing to a mature height ranging up to at least 5 metres in height shall be established within the development site along its boundary facing Irrigation Way prior to commencement of construction. The vegetated buffer shall be maintained for the lifetime of the development.

12. The intersection of Irrigation Way and Hamilton Road is to be designed and constructed so as not to interfere with the capacity of the current roadside drainage network and to prevent water from proceeding onto, or ponding within, the carriageway of Irrigation Way. If a culvert is to be installed and is to be located within the clear zone of the highway for the prevailing speed zone it is to be constructed with a traversable type headwall.
13. Any damage or disturbance to the road reserve of Irrigation Way is to be restored to match surrounding landform in accordance with Council requirements.
14. Irrigation Way is part of the State Road network. For works on the State Road network the developer is required to enter into a Works Authorisation Deed (WAD) with Roads and Maritime Services before finalising the design or undertaking any construction work within or connecting to the road reserve. The Works Authorisation Deed documentation is to be submitted for each specific change to the state road network for assessment and approval by Roads and Maritime Services prior to commencement of any works within the road reserve. The applicant is to contact the Land Use Manager for the South West Region on Ph. 02 69371611 for further detail.
15. Any works within the road reserve of the Burley Griffin Way requires approval under Section 138 of the Roads Act, 1993 from the road authority (Council) and concurrence from Roads and Maritime Services prior to commencement of any such works. The developer is responsible for all public utility adjustment/relocation works, necessitated by the development and as required by the various public utility authorities and/or their agents.
16. All works associated with the project shall be at no cost to the Roads and Maritime Services.

Under the provisions of the Environmental Planning & Assessment Act, the Consent Authority, is responsible to consider any likely impacts on the natural or built environment. Depending on the level of environmental assessment undertaken to date and nature of the works, it may be necessary for the developer to undertake further environmental assessment for any ancillary road works required as a condition on the development.

Any enquiries regarding this correspondence may be referred to the Manager, Land Use for Roads and Maritime Services (South West Region), Maurice Morgan, phone (02) 69371611.

Please forward a copy of the Notice of Determination for this Development Application to the Roads and Maritime Services at the same time as advising the applicant.

Yours faithfully



Per:
Mr Lindsay Tanner
Regional Manager
South West Region



23 April 2016

Diana Charteris
Planner | Resource Assessments | Planning Services
Department of Planning & Environment
GPO Box 39 Sydney NSW 2001

Dear Ms. Charteris

This letter is in response to a letter received by Griffith City Council (GCC) from your office dated 03 March 2016 regarding the Griffith Solar Farm (SSD 6604). Discussions have taken place recently with the Department of Planning and the RMS regarding the use of Irrigation Way for the movement of construction vehicles which has delayed the submission of this letter. Due to concerns raised regarding the approval of John Holland to utilise the rail corridor for a temporary turning lane, GCC has drafted alternative conditions of consent pertaining to the potential use of Ross Road and Burley Griffin Way.

Griffith City Council has previously met with the applicant to discuss the proposal and has provided preliminary comments and identified issues of concern. In general, it appears that the majority of the concerns flagged by Council have been addressed in the Environmental Impact Statement. The information in this letter does not represent a full merit assessment of the development and merely a review of key issues identified by Council and proposed draft conditions of consent.

Issue 1: Screening of Riverina Solar Farm from residents and vehicles on Irrigation Way

The applicant has addressed this concern through a proposed vegetation buffer at strategic locations around the subject site to decrease potential visual impact (refer to Appendix D of the EIS). Council is generally supportive of the location of the proposed buffer, however would like to have input into the species planted during the preparation of a Landscaping Plan which has been included as a condition of consent.

Within the locality, Weeping Myall (Boree) *Acacia pendula* is the predominant tree species at the subject site and surrounds. Weeping Myall Open Woodland would have historically covered much of the horticultural irrigation area in the Bilbul and Hanwood irrigation areas and is listed as an Endangered Ecological Community under both state and federal legislation. Weeping Myall is most suitably adapted to the soils and conditions at the site. This species can grow from 5-12m, but can be lopped if necessary to avoid shading to keep to a height of 5m as observed under powerlines in the locality. This species is recommended for planting in the buffer zones to provide habitat and movement for wildlife adapted to this species in the locality including threatened species such as the painted Honeyeater.

Other tree species which form part of the Weeping Myall Open Woodland community in the locality and considered suitable include Yarran *Acacia homalophylla*, Miljee *Acacia oswaldii*, Emubush *Eremophila longifolia* and Butterbush *Pittosporum phylliraeoides*. These species could be planted in a mix with or without Boree. There are many other smaller shrub and groundcover species which would also be suitable.

Council has proposed a condition of consent listed in Attachment 'A' relating to the planting of the buffer which requires a more detailed landscape plan to be provided. This would allow the applicant to liaise with Council's Environmental Planner to choose appropriate plantings for both the environment and the operational efficiency of the solar farm.

Issue 2: Site Decommissioning Plan

Council has concerns that the site could be vacated and the infrastructure remain after the lifespan of the solar farm. Although the applicant has suggested the site will be reverted back to its former agricultural use, a detailed plan to ensure this occurs has not been submitted. To ensure that the site is adequately decommissioned at the end of the lifespan of the solar farm, a Decommissioning Plan should be provided as a condition of consent (refer to Attachment 'A').

Issue 3: Access and Traffic / Construction Management

Council have previously assessed the surrounding road network to determine the best route to the site for delivery vehicles, both for entering and leaving the site. Due to the limited widths and poor condition of the majority of roads in the area, Council determined Hamilton Road to be the best route to the site. Therefore heavy vehicle access to the site should be via Hamilton Road. A Traffic Management Plan for the construction traffic is to be prepared for the development which is listed as a draft condition in Attachment 'A'.

However, should permission from John Holland not be provided for the use of a portion of the rail reserve for the turning of heavy vehicles adjacent to Irrigation Way, Council has drafted conditions of consent for the use of Ross Road as an alternative option for the movement of heavy vehicles during construction (refer to Attachment 'A').

Council has included some condition of consent which may be imposed by other authorities including the EPA, RMS and John Holland. Where a discrepancy occurs between conditions, please consult with Council if possible.

For further information regarding this matter please contact Council's Coordinator of Land Use Planning and Compliance, Kelly McNicol at (02) 6962 8110.

Yours sincerely



KELLY MCNICOL
COORDINATOR, PLANNING AND COMPLIANCE

ATTACHMENT A – GRIFFITH CITY COUNCIL DRAFT CONDITIONS OF CONSENT

General Conditions

- (1) If any damage is occasioned to Council property during building construction, the cost of repairs will be recoverable. It is therefore requested that any damage which is obvious before construction be immediately notified to Council to avoid later conflict.
- (2) Effective dust/noise/erosion control measures are to be maintained during construction to maintain public safety/ amenity.
- (3) The applicant is to be responsible for all amplification, extension and adequate provision for connection to services at their own expense. The work is to be in accordance with Council's Engineering Guidelines – Subdivisions and Development Standards and relevant authorities specifications.
- (4) A Construction Management Plan is to be submitted to Council for approval prior to the commencement of work. This is to ensure that suitable provision is available on site for all vehicles associated with the construction of the development to alleviate any need to park within, load/unload from, the surrounding public road network. Appropriate signage and fencing is to be installed and maintained to effect this requirement.
- (5) Works As Executed plans for approved civil works are to be submitted to Council upon completion of the development prior to the use of the facility. Works As Executed plans are to be in accordance with Council's Engineering Guidelines – Subdivisions and Development Standards
- (6) A Bond Application and a monetary bond is to be submitted to Council to provide a twelve (12) month maintenance period for civil works relating to Council's infrastructure. It is the applicant's responsibility to notify the relevant departments regarding the commencement and finish of the maintenance period and adequate arrangements are to be made regarding any relevant inspections required.

A five percent (5%) bond of the total cost of works is to be submitted to Council for the works that need maintenance prior to the use of the facility.
- (7) The applicant is required to pay for all inspections carried out by Council's Engineers. Payment must be paid for two (2) inspections as per Council's current Revenue Policy prior to the commencement of work. Any adjustments to the total amount must be paid in full prior to the use of the facility.

Access Conditions

- (1) Prior to the use of the facility the existing access off Hamilton Road is to be relocated twenty (20) metres south from its current position and constructed as a "Rural Property Access" type treatment in accordance with the Austroads Guide to Road Design and cater for the largest sized vehicle accessing the site. The accessways are to be constructed in accordance with Council's Engineering Guidelines - Subdivisions and Development Standards.

The property owner remains responsible for the upkeep and maintenance of the accessways and associated facilities.

- (2) The existing accessway off Hamilton Road shall be made redundant and the road reserve being reinstated to match surrounding roadside landform to Council's satisfaction prior to the use of the facility.
- (3) Prior to the use of the facility the existing accessway off Ross Road shall be reconstructed as a "Rural Property Access" type treatment in accordance with the Austroads Guide to Road Design and cater for the largest sized vehicle accessing the site. The accessways are to be constructed in accordance with Council's Engineering Guidelines - Subdivisions and Development Standards.

The property owner remains responsible for the upkeep and maintenance of the accessways and associated facilities.

- (4) Prior to the use of the facility all internal driveways to the proposed development are to be constructed as all-weather access and maintained to Council's satisfaction.
- (5) Vehicular access to the development from Irrigation Way is not permitted at any time.

Traffic Management Conditions – Use of Hamilton Road

- (1) Heavy vehicle access to the site shall be via Hamilton Road.
- (2) Prior to the commencement of works onsite, as a minimum, the intersection of Hamilton Road and Irrigation Way is to be designed to provide a temporary Auxiliary Left Turn - Short (AUL(s)) treatment on Irrigation Way in accordance with the Austroads Guide to Road Design as amended by the supplements adopted by Roads and Maritime Services for the prevailing speed limit and to accommodate the largest size vehicle likely to access the development site.
- (3) Prior to the commencement of work, a Traffic Management Plan (TMP) is to be prepared by a suitably qualified professional detailing the proposed traffic control and management arrangements during the construction of the development shall be submitted to Council for approval. The TMP will address but not be limited to:
 - access arrangements;
 - management of the loading and unloading of vehicles;
 - parking;
 - internal vehicle manoeuvring;
 - deliveries; and
 - dust mitigation measures.
- (4) A traffic control plan/s is to be submitted to Council satisfying the provisions of Australian Standard 1742.3, for acceptance prior to the commencement of work. The traffic control plan shall detail the traffic control measures to be implemented during the construction of the proposed development and associated infrastructure identified in the Traffic Management Plan, this shall include vehicle deliveries. Strict compliance to the traffic control plan is to be maintained throughout the duration of the construction work.

- (5) John Holland Rail's written approval for the intersection treatment works and heavy vehicle access over the railway line across Hamilton Road is to be submitted to Council prior to the commencement of work.
- (6) Vehicles accessing the development are to be limited to 19-metre Semi-Trailer Vehicles as specified in Austroads Design Vehicles and Turning Path Templates (2013).
- (7) All vehicular loading and unloading is to be carried out within the site to prevent interference with the use of the public road by vehicles and pedestrians.
- (8) All vehicles are required to enter and leave the development in a forward direction to ensure traffic/pedestrian safety.
- (9) Prior to the commencement of works the applicant will be required to enter into a Works Authorisation Deed (WAD) with the Road and Maritime Services. The applicant shall contact the Road and Maritime Services' Development Assessment Officer (South West Region) once the Notice of Determination is issued by the Council.

Detailed design plans and all relevant additional information including pavement design details for the works, as may be required in the Road and Maritime Services' Works Authorisation Deed documentation, for each specific change to the state road network for the Road and Maritime Services' assessment and final decision concerning the work.

- (10) Prior to the commencement of works within the road reserve the applicant must apply for and obtain approval under Section 138 of the Roads Act, 1993 from the road authority (Council) and concurrence from Roads and Maritime Services. The developer is responsible for all public utility adjustment/relocation works, necessitated by the proposed works and as required by the various public utility authorities and/or their agents.
- (11) Prior to the use of the facility any damage or disturbance to the road reserve of Hamilton Road is to be restored to match surrounding landform in accordance with Council requirements.
- (12) The developer is responsible for all public utility adjustment/relocation works, necessitated by the proposed works and as required by the various public utility authorities and/or their agents. It should be noted that the relocation of any utility service within the road reserve will require concurrence from Roads and Maritime Services under section 138 of the Roads Act, 1993 prior to commencement of works.

Traffic Management Conditions – Use of Ross Road

- (1) Heavy vehicle access to the site shall be via Ross Road.
- (2) Prior to the commencement of works, as a minimum, the intersection of Ross Road and Burley Griffin Way is to be designed to provide a Basic Right Turn - Short (BAR) and Basic Left Turn (BAL) treatment on Burley Griffin Way in accordance with the Austroads Guide to Road Design as amended by the supplements adopted by Roads

and Maritime Services for the prevailing speed limit and to accommodate the largest size vehicle likely to access the development site.

- (3) Prior to the commencement of works onsite, Ross Road shall be upgraded from Burley Griffin Way to the eastern boundary of the development. The pavement shall have a width of 8.4 metres, consisting of 6 metre carriageway & 1.2 metre shoulders. Ross Road is to be designed and constructed in accordance with Council's Engineering Guidelines – Subdivisions and Development Standards.
- (4) Prior to the commencement of works onsite, Ross Road is to be appropriately delineated (guideposts) in accordance with the signposting and line marking policy adopted by Roads and Maritime Services.
- (5) Prior to the commencement of works, detailed design drawings are to be submitted to Council for approval for the road works to be conducted on Ross Road. Ross Road shall be upgraded from Burley Griffin Way to the eastern boundary of the development. The pavement shall have a width of 8.4 metres, consisting of 6 metre carriageway & 1.2 metre shoulders. Ross Road is to be designed and constructed in accordance with Council's Engineering Guidelines – Subdivisions and Development Standards.
- (6) Prior to the commencement of works onsite, the intersection of Burley Griffin Way and Ross Road is to be appropriately signposted and line marked (Intersection warning signs, Bi-Directional Hazard Markers) in accordance with the signposting and line marking policy adopted by Roads and Maritime Services.
- (7) Prior to the commencement of works the applicant will be required to enter into a Works Authorisation Deed (WAD) with the Road and Maritime Services. The applicant shall contact the Road and Maritime Services' Development Assessment Officer (South West Region) once the Notice of Determination is issued by the Council.

Detailed design plans and all relevant additional information including pavement design details for the works, as may be required in the Road and Maritime Services' Works Authorisation Deed documentation, for each specific change to the state road network for the Road and Maritime Services' assessment and final decision concerning the work.

- (8) Prior to the commencement of works within the road reserve the applicant must apply for and obtain approval under Section 138 of the Roads Act, 1993 from the road authority (Council) and concurrence from Roads and Maritime Services. The developer is responsible for all public utility adjustment/relocation works, necessitated by the proposed works and as required by the various public utility authorities and/or their agents.
- (9) Prior to the use of the facility any damage or disturbance to the road reserve of Irrigation Way is to be restored to match surrounding landform in accordance with Council requirements.

- (10) The developer is responsible for all public utility adjustment/relocation works, necessitated by the proposed works and as required by the various public utility authorities and/or their agents. It should be noted that the relocation of any utility service within the road reserve will require concurrence from Roads and Maritime Services under section 138 of the Roads Act, 1993 prior to commencement of works.
- (11) The applicant is required to pay for all inspections carried out by Council's Engineers. Payment must be paid for five (5) inspections as per Council's current Revenue Policy prior to the commencement of work. Any adjustments to the total amount must be paid in full prior to the use of the facility.
- (12) Prior to the commencement of work, a Traffic Management Plan (TMP) is to be prepared by a suitably qualified professional detailing the proposed traffic control and management arrangements during the construction of the development shall be submitted to Council for approval. The TMP will address but not be limited to:
- the management of Burley Griffin Way's intersection with Ross Road, including the management of the channel crossing to the east of the intersection;
 - access arrangements;
 - the management of the loading and unloading of vehicles;
 - parking;
 - internal vehicle manoeuvring;
 - deliveries; and
 - the route of heavy vehicles to the site.

All traffic control and management arrangements in the approved Traffic Management Plan must be installed prior to the commencement of work.

- (13) The traffic control and management measures specified in the approved Traffic Management Plan shall be implemented for the lifetime of the proposed development.
- (14) Works As Executed plans for approved civil works are to be submitted to Council upon completion of the development prior to the use of the facility. Works As Executed plans are to be in accordance with Council's Engineering Guidelines – Subdivisions and Development Standards.
- (15) A Bond Application and a monetary bond is to be submitted to Council to provide a twelve (12) month maintenance period for civil works relating to Council's infrastructure. It is the applicant's responsibility to notify the relevant departments regarding the commencement and finish of the maintenance period and adequate arrangements are to be made regarding any relevant inspections required.

A five percent (5%) bond of the total cost of works is to be submitted to Council for the works that need maintenance prior to the use of the facility.

Stormwater/Flooding Conditions

- (1) Control measures are to be utilised to prevent soil erosion and silt entering the drainage systems. Prior to the commencement of work details of the proposed measures utilising the principles outlined in following document, Soils and Construction - Managing Urban Stormwater by Landcom (Blue Book), are to be submitted for Council approval and implemented before, during and after development works.
- (2) The subject site is flood prone for the Probable Maximum Flooding (PMF) event. Council advise that all electrical outlets and perishable items be kept a minimum 410mm above surrounding finished surface level to minimise the likelihood of damage from flooding.
- (3) Adequate arrangements are to be made for the disposal of stormwater. Stormwater run off shall not be permitted to flow over the property boundaries onto the adjoining properties unless legally created easements in accordance with Section 88B of the Conveyancing Act are created. Details for the proposed drainage design are to comply with Council's Engineering Guidelines – Subdivision and Development Standards and Council's Stormwater Drainage and Disposal Policy (CS-CP-310) and are to be submitted to Council for approval prior to the commencement of works onsite.

Landscaping

- (1) Prior to the lodgement of a construction certificate application a landscaping plan shall be submitted to Council for the proposed Landscape Buffer detailed in the Draft Landscape Plan (Appendix 6 of the Environmental Impact Statement) prepared by a suitably qualified person. The landscape plan should be drawn to scale and include the location of tree species, height and spread at maturity and elevation of landscaped areas. The type of tree species shall be selected in consultation with Griffith City Council's Environmental Planner and shall include species which are adapted to the soils and climate of the locality.
- (2) The landscaped buffer approved under the Landscape Plan for the site shall be installed prior to the use of the solar farm.

Decommissioning Conditions

- (1) A site Decommissioning Plan shall be provided prior to the lodgement of a Construction Certificate application. The Plan shall detail the methods proposed to revert the land to its former agricultural use including timeframes, plant disposal methods and any earthworks required.

Section 94A Development Contributions

Section 94A Environmental Planning and Assessment Act 1979 - Development Contributions Plan 2010

In accordance with Section 94A of the Environmental Planning and Assessment Act 1979 and Council's Development Contribution Plan 2010, this development requires

a payment of a contribution towards the cost of or the recoupment of the cost of the provision, extension or augmentation of public amenities, public services and infrastructure that will, or are likely to be, or that have been provided and are required to adequately serve the community. Copies of relevant plans may be viewed or purchased from Council's Customer Services Unit during normal business hours.

Total payment shall be [insert amount] (1% of the proposed cost of carrying out the development).

The contribution is to be paid **prior to the lodgement of the Construction Certificate application** unless other arrangements acceptable to Council are made.

Payment is to be in the form of cash or bank cheque. Where bonding is accepted a bank guarantee is required.

APPENDIX C SUBMISSION SOUGHT FROM NEOEN

The Murrumbidgee Naturalist

TO WHOM IT MAY CONCERN

Neoen Australia Pty Ltd proposed the Griffith Solar Farm at Yoogali, NSW.

At the monthly meeting on 14 April 2016, the members agreed that the proposal to construct a solar farm on the 125ha site at Yoogali, 7 kilometres south-east of Griffith, as explained by Morgane Le Guen, appears to pose no serious threat to the bird population in that area.

The only negative, as we discussed, was the possibility of birds flying at night, such as ducks and migratory wading birds, which might see the panels as resembling a water body and be tempted to land on them. However, it appears unclear that still panels would cause any serious threat to birds in these circumstances.

It was pointed out that there would be some concerns if the farm would include the highly reflective solar panels. However, we were informed that the Griffith Solar Farm will be a solar photovoltaic power plant and Neoen won't install the highly reflective solar panels used for solar thermal power plants, but panels with a very weak reflectivity (generally around 2% of the light received; Spaven Consulting 2011) such as the ones used in domestic solar power generation.

Assuming this to be the case, the Murrumbidgee Field Naturalists have no serious objections to the establishment of the solar farm in its present form and are pleased that the area will have access to more "green power" in the near future. Something we feel should be encouraged as the country moves away from the heavily polluting coal power production so much relied upon in the past as the only viable source of power in most parts of Australia.

Max O'Sullivan

President of the Murrumbidgee Field Naturalists Inc.

APPENDIX D LALC CORRESPONDENCE



Griffith Local Aboriginal Land Council

ABN: 79 251 966 502

PO Box 8043 East Griffith, NSW 2680

5 Wiradjuri Place, Griffith, NSW 2680

Phone: (02) 6962 6711 • Fax: (02) 6964 1477

Email: griff1alc@bigpond.com

14th April 2016

Mr Mathew Barber
Principal Heritage Consultant
Nghenvironmental
Unit 17, 27 Yallourn Street
Fyshwick, ACT 2609

Dear Mathew

Re: Neoen Solar Farm Proposal

I write pertaining to the above and the Aboriginal Site assessments that were undertaken on the 15th December 2015, by Mr Max Harris who was representing the Griffith LALC.

The Griffith LALC understands that 3 individual Sites were investigated and a total of 11 artefacts were found and that all of the sites had been disturbed either through laser levelling, construction of an irrigation channel or/and intensive ploughing.

The Griffith LALC has no objections to the proposed Neoen Solar Farm development proceeding as long as the artefacts are avoided and if this is not possible then they should be collected and move to a suitable location on the property for protection.

If you require any additional information in relation to this matter, then please do not hesitate to contact the undersigned.

Yours in Unity

Robert Carroll
Chief Executive Officer



"Always was, always will be Aboriginal Land"