Submissions Report

Forest Glen Solar Farm

March 2022

Project Number: 22-029

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Document verification

Project Title:	Forest Glen Solar Farm
Project Number:	22-029
Project File Name:	22-029 Forest Glen SF SR_final v1.0.docx

Revision	Date	Prepared by	Reviewed by	Approved by
Draft v1	3/03/2022	Jane Love	Brooke Marshall	Brooke Marshall
Final v1	17/03/2022	Rory Taylor	Brooke Marshall	Brooke Marshall

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The definitions below are as those presented within the EIS.

The proposal	The construction, operation and decommissioning of a photovoltaic solar farm with an installed capacity of up to approximately 110 megawatts (MW DC) (90MW AC equivalent) for the generation of electricity. This would comprise of the following: • Solar array • Upgrades to Delroy Road and new internal roads • Underground and above ground cables • Battery storage (25MWh) (i.e., 25MW power output for one hour) • Onsite substation and operational facilities. • Connection to the onsite Essential Energy 132 kV transmission line.
Proponent	X-Elio Australia Pty Ltd
Proposal site	The broader area surveyed and assessed that encompasses the development footprint. Lot 6 DP 755102, which includes all the solar farm infrastructure. As well as the site access, described below and includes Crown Land, Lot 1 DP1198911, Lot 51 and Lot 52 DP755094. The proposal site total area is 789ha.
Site access	Delroy Road, which includes Crown Land, Lot 1 DP1198911, Lot 51 and Lot 52 DP755094. The site access commences at the intersection of Delroy Road and Minore Road. Road upgrades are only required for Delroy Road. No works are proposed on Minore Road.
Development footprint	All areas of land which may be directly impacted by the proposal, either during construction, operation or decommissioning. This includes areas required for environmental controls and machinery manoeuvring and stockpiling / laydown. Generous delineation of this footprint allows flexibility during the final design stages of the project. The final disturbance is likely to be smaller than the Development footprint presented within this EIS, subject to detailed design with appointed contractors (refer to Indicative infrastructure layout definition below). The Development footprint for Forest Glen SF is 444ha (36.9ha of this has been identified as 'exclusion areas' which would be protected from impacts). The Development footprint would be subdivided and leased by X-Elio Australia Pty Ltd during the operational life of the solar farm.

Indicative infrastructure layout	The Indicative infrastructure layout showing where key infrastructure components would be located and representing a likely 'worst case' impact within the Development footprint. This area has been buffered to allow for construction disturbance and used to estimate biodiversity offset requirements for the project. It most closely represents the area of actual impact required to construct and operate the solar farm. The final infrastructure layout will be subject to detailed design with appointed contractors. The Indicative infrastructure for Forest Glen SF is approximately 266ha and shown in Figure 3-1.
Exclusion areas	Areas within the Development footprint that would be protected and not impacted by the Proposal. The total exclusion area is 36.9ha, which includes: • 28.5ha with high biodiversity value • 8.4ha of waterways and waterway buffers.
Associated receivers	Landowners that are involved with the Proposal. These receivers are not considered in visual and noise assessments.
Sensitive receivers	Non-associated receivers, include neighbouring properties to the proposal that may be impacted by noise, vibration and visual impacts.

Executive summary

Background and aims

The Forest Glen Solar Farm is located approximately 16 kilometres (km) west of Dubbo, NSW. It is located within the Dubbo Regional Local Government Area (LGA) and declared Central-West Orana Renewable Energy Zone. The proposed Forest Glen Solar Farm involves the construction, operation and decommissioning of a ground-mounted PV 11 Megawatt (MW, DC) (90MW AC equivalent) solar array.

The Environmental Impact Statement (EIS) provided a detailed analysis of the potential environmental (including social) impacts of the Forest Glen Solar Farm. The EIS was lodged and placed on public exhibition from 2 December 2021 to 20 January 2022.

This Submissions Report has been prepared to fulfil the requirements of Schedule 1 of the *Environmental Planning and Assessment Act 1979* and in accordance with the *State Significant Development Guidelines – Preparing a Submissions Report* (DPIE, 2021). The key purpose of the Submissions Report is to:

1) Consider and respond to the issues raised by the public and agencies, in response to the exhibition of the Forest Glen Solar Farm Environmental Impact Statement (EIS).
2) Describe any changes to the proposal since the exhibition of the Forest Glen Solar Farm EIS.

No changes have occurred to the project infrastructure, construction or operational parameters proposed since its public exhibition in December 2021 and January 2022.

Analysis of submissions

12 submissions were received for the Forest Glen Solar Farm. 2 submissions were provided by the public. 9 submissions were provided by public agencies. 1 submission was provided by Dubbo Regional Council.

The submissions included 2 objections; both were public submissions and the respondents are identified as being within 5km of the proposal site. One submission raised concerns regarding environmental impacts (i.e visual, glare, flooding, noise and dust), project infrastructure details, land use capability and consultation. The other submission raised concerns regarding the local road conditions and safety.

Actions taken since exhibition and responses to submission

The Forest Glen Solar Farm Proposal remains generally as described in Section 4 of the EIS. No changes have occurred to the project infrastructure, construction or operational parameters proposed since its public exhibition in December 2021 and January 2022

However, two key changes have been made in response to public and agency submissions received during the exhibition period. These changes have been informed through targeted community and stakeholder consultation.

These changes include:

1. **Establishing a new visual set-back area** to mitigate the visual impact of the solar farm on a neighbouring landowner; and,
2. **Obtain right of way carriageway** along sections of Delroy Road that traverse private property.

No further specialist assessments were required to respond to the issues raised or due to any project updates.

The Proponent has committed to new safeguards and mitigation measures to minimise impacts and ensure the best possible environmental outcomes of the project. These new measures include:

- No above ground operational infrastructure would be constructed within the visual set-back area for R6. This set back is included manage the operational visual, glare and glint impacts of the project on this receiver.
- No security lighting to be installed on this perimeter of the project, within 500m of the residence.
- A preclearance survey would be conducted for *Indigofera efoliata* between September-October, in all areas of Zone 1 PCT 255, prior to project commencement. If this species is detected, all individuals (including an appropriate buffer) would be avoided, in consultation with BCS.
- Prior to operation, a Fire Safety Study (FSS) will be undertaken to ensure that the fire prevention, detection, protection and firefighting measures are appropriate to the specific fire hazards and adequate to meet the extent of potential fires from the BESS. The FSS will considers the operational capability of local fire agencies and the need for the facility to achieve an adequate level of on-site fire and life safety independence The FSS will be developed in accordance with the requirements of Hazardous Industry Planning Advisory Paper No.2 (HIPAP No.2) and consultation with FRNSW.
- Prior to operation of the solar farm, a comprehensive Emergency Response Plan (ERP) is to be developed for the site in consultation with the RFS and Fire and Rescue NSW.
- Prior to transporting any oversized or over mass loads, the applicant shall obtain a permit for an oversized and over mass load from the RMS Special Permits Unit in Glen Innes.
- DRC will be consulted in the preparation of the Haulage Plan and Construction Traffic Management Plan.
- A Waste Management Plan (WMP) would be developed in consultation with Dubbo Regional Council to minimise wastes.

Updated project justification

The objectives, benefits and strategic need of the Forest Glen Solar Farm remain consistent with those outlined in the EIS.

The EIS and this SR indicate that the proposal can be approved, subject to the identified mitigation measures, as

- The proposal meets relevant planning requirements
- The environmental risks associated with the proposal are well understood and manageable.

The Forest Glen Solar provides a balance between technological, energy and environmental aspects, while retaining the flexibility required in the final design stage of the proposal. Furthermore, the proposal is consistent with the principles of ESD and forms an important part of Australia's transition to renewable energy generation. It is considered justifiable and acceptable.

1. Introduction

1.1 Background

The Forest Glen Solar Farm is located approximately 16 kilometres (km) west of Dubbo, NSW. It is located within the Dubbo Regional Local Government Area (LGA), and Central-West Orana region, which has been proposed as a Renewable Energy Zone (REZ). REZs are zones with high renewable energy resource potential that will be developed to encourage new electricity generation projects, supported by existing transmission strength and capacity (AEMO, 2020). The Central-West Orana region has been selected as a pilot REZ as it benefits from relatively low transmission build costs due to its proximity to the existing backbone transmission network, and it has a strong mix of energy resources.

Dubbo is the closest major regional centre, with a population of 38,943 people (ABS, 2016). The proposal is located within the locality of Minore, which had a population of 153 people (ABS, 2016). A locality map and regional geographic context of the Proposal is illustrated in Figure 1-1 below. Significant features in the locality include the railway station at Minore Village (closed to passengers in 1975) and Minore Falls Reserve on the Macquarie River (8km north of proposal site, a popular recreation area). The Sappa Bulga National Park is 2.9km southeast of the proposal site. The National Park is a small reserve covering 121 hectares (ha) of native remnant forest with no formal recreational areas. The land immediately surrounding the proposal site includes agricultural land with extensive areas of remnant vegetation.

The proposed Forest Glen Solar Farm involves the construction, operation and decommissioning of a ground-mounted PV solar array. Approximately 110 megawatts (MW, DC) (90MW AC equivalent) would be generated and supplied directly to the national energy grid. The proposal would generate enough clean, renewable energy for about 40,000 average NSW homes, displacing approximately 164,000 metric tonnes of carbon dioxide, currently generated by non-renewable sources per annum.

The Forest Glen Solar Farm would be located on Lot 6 DP 755102 and accessed via Delroy Road, which includes Crown Land, Lot 1 DP1198911, Lot 51 and Lot 52 DP755094. Of the 789ha proposal site, the Development footprint would represent approximately 444ha which would be developed for the solar farm and associated infrastructure. X-Elio proposes to lease the Development footprint part of the proposal site for the solar farm.

The Environmental Impact Statement (EIS) provided a detailed analysis of the potential environmental (including social) impacts of the proposal. Issues of most concern to the public during pre-exhibition consultation were included as well as specialist studies required by the SEARs. Key specialist studies provided in the EIS included:

- Visual amenity and landscape character
- Noise and vibration
- Biodiversity
- Traffic, transport and safety

The Development footprint area has been refined in response to the findings of the environmental assessments, site constraints and consultation with relevant government agencies, the community, and other stakeholders in order to minimise the environmental and social impacts of the project. Of this area, 36.9ha will be protected during construction and operation. These ‘exclusion areas’ represent 28.5ha of high biodiversity value land and 8.4ha of waterways and waterway buffers.

The remaining 345ha of the proposal site, adjacent to the Development footprint, includes areas that will likely continue to be used for agriculture including cropping and grazing, by the current landowner.

The key features of the proposed Forest Glen Solar Farm are summarised in Table 1-1 below. The component specifications are subject to change during detailed design. Where required, upper limit quantities and power level estimates are provided to ensure the assessment and any subsequent approval maintains the flexibility required in the detailed design stage, which will occur post approval and be subject to competitive tendering processes.

Table 1-1 Summary of key features of the proposal, as presented in the EIS.

Proposal element	Description
Proposal	Forest Glen Solar Farm
Proponent	X-Elio Pty Ltd
Capacity	Approximately 110MW (DC) (90MW AC equivalent)
Proposal site area	Approximately 789ha
Development footprint area	Approximately 444ha includes 36.9ha of the following exclusions areas: • 28.5ha of biodiversity • 8.4ha of waterways.
Exclusion zones	As identified by the environmental investigations, 36.9ha within the DF would be protected from impacts to preserve existing values: • 28.5ha of biodiversity • 8.4ha of waterways. Additionally, no solar panel arrays would be placed within the 10.2ha of electricity easement traversing the site.
Site description	**Proposal Site:** Lot 6 DP 755102 **Site Access:** Delroy Road including Crown Land, Lot 1 DP 1198911, Lot 51 and Lot 52 DP755094.
Local Government	Dubbo Regional Council.
Subdivision	Subdivision of land for the location of assets which will become the property of Essential Energy (substation). Subdivision of land for the separation of the projects Development footprint and residual agricultural land for the landowner.
Solar array	Number of panels: 150,000 – 200,000, 650 W bifacial modules. Area of panels: approximately 275ha fenced. Row spacing: 17.7m. Height: 2.1m. Arrays will be single-axis tracking.

Proposal element	Description
Substation	Approximately 1.1 ha. Onsite substation 132kV / 33kV to connect onsite to 132kV line. 132/33kV transformers and associated infrastructure. Maximum height of 6m.
Energy storage	BESS of 25MWh (i.e., 25MW power output for one hour), adjacent to the onsite substation and comprising of lithium ion batteries with inverters. Between 12-15 shipping containers (40 foot each). The footprint would be approximately 2.4 ha.
Site access	Minore Road via Delroy Road approximately 1.9km east of the site. Intersection of Minore Road and Delroy Road will be upgraded, specifically the section of Delroy Road meeting Minore Road is to be sealed and signage improved. No other intersection treatments or upgrades are required. The longest vehicle expected on site is a 19m B-Double, with an estimated peak of 24 B-Double movements through the site.
Internal access tracks	Perimeter tracks; approx. 29,814m. Additional internal tracks; approx. 7,756m. Total: approx. 37,570m. All internal tracks would be approximately 4m wide unsealed gravel.
Operations and maintenance (O&M) buildings	Permanent O&M site office with staff amenities and vehicle parking. Control room with switch gear. Located within the substation footprint. Maximum height of 5m subject to final design.
Security fencing, lighting and CCTV	Steel security fence 2.3m high around PV arrays, with necessary gates and CCTV system. Permanent security lighting would be at the substation area. These components subject to final design.
Construction hours	Subject to council requirements. Expected hours: • Monday to Friday: 7:00am to 6:00pm. • Saturday: 8:00am to 1:00pm. • Sundays and Public Holidays: No work. In general, no construction activities would occur outside these hour including Sundays or public holidays; however, in cases of emergency, major asset inspection or maintenance

Proposal element	Description
	programs may be undertaken outside standard construction hours. Dubbo Regional Council and affected surrounding landholders would be notified of any works expected to be performed outside standard daytime construction hours that may be expected to cause noise exceedance to neighbouring dwellings.
Construction timing	Approximately 12 to 18 months (Q1 2022 – Q2 2023)
Workforce	Construction – approximately 150 to 200 staff during peak construction (approximately 10 months). Operation – around 7 to 10 full time equivalent staff.
Operation period	Expected 35 years of operational life.
Decommissioning	The site would potentially be returned to its pre-works state. All above ground infrastructure would be removed to a depth of 500mm. The site would be rehabilitated consistent with land use requirements. All infrastructure would be removed with the exception of the substation. The site would be rehabilitated consistent with future land use requirements.
Capital investment	Estimated $185.5 million AUD
Community benefits	X-Elio will plan, facilitate and implement a Community Benefit Sharing Program (CBSP). Through this plan X-Elio would share with the community a percentage of gross revenues of the solar farm or gross revenues from implemented Power Purchase Agreements.

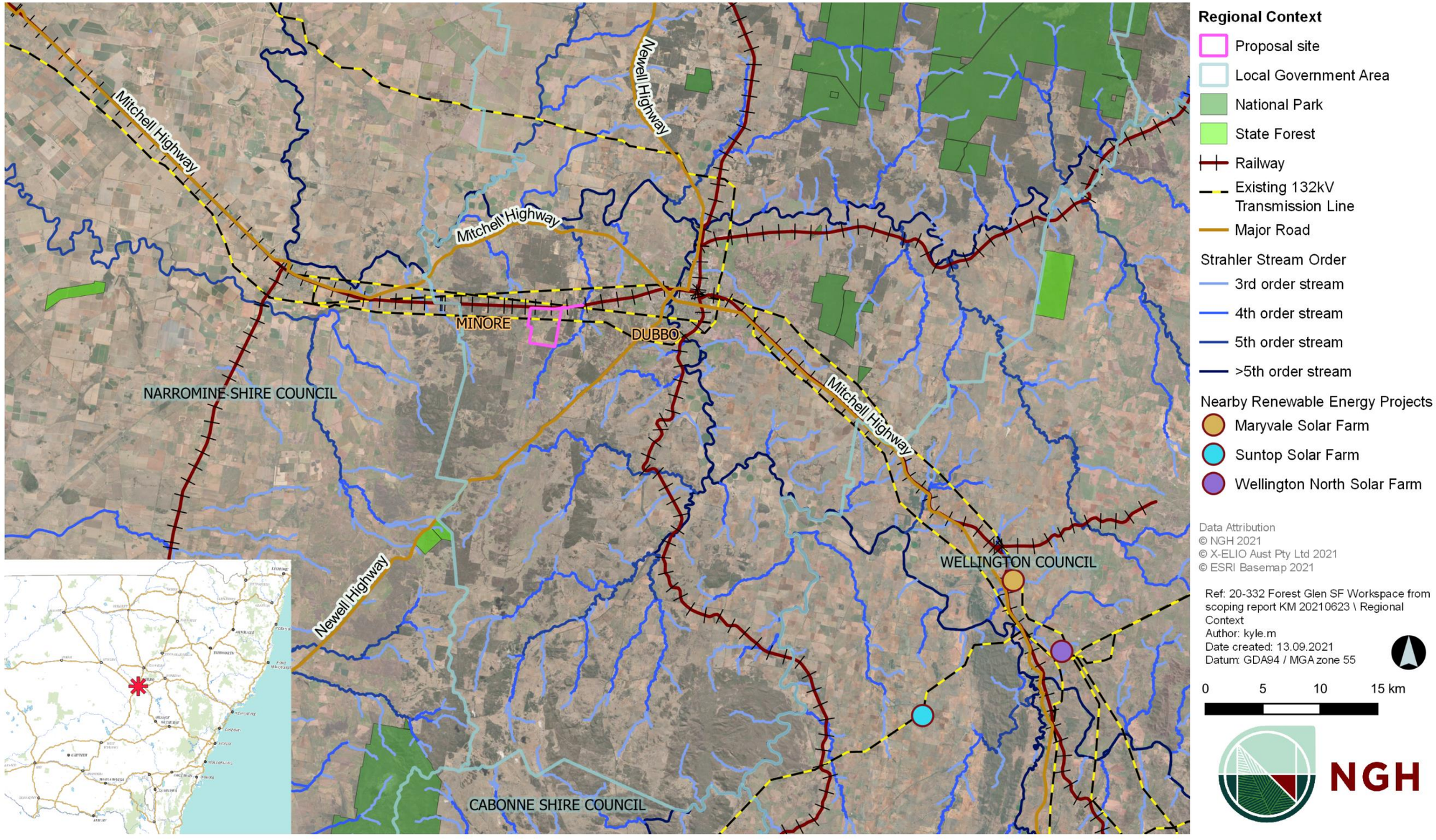


Figure 1-1 Locality and regional context of the proposed Forest Glen Solar Farm, as presented in the EIS.

1.2 Purpose of this report

NGH has prepared this Submissions Report on behalf of the proponent to fulfil the requirements of Schedule 1 of the *Environmental Planning and Assessment Act 1979.* This Submissions Report has been prepared in accordance with the *State Significant Development Guidelines – Preparing a Submissions Report* (DPIE, July 2021). The key purpose of the Submissions Report is to:

3) Consider and respond to the issues raised by the public and agencies, in response to the exhibition of the Forest Glen Solar Farm Environmental Impact Statement (EIS).
4) Describe any changes to the proposal since the exhibition of the Forest Glen Solar Farm EIS.

No changes have occurred to the project infrastructure, construction or operational parameters proposed since its public exhibition in December 2021 and January 2022. This report documents some additional information relevant to the environmental assessment as well as some changes to the mitigation strategies, in order to address the specific concerns raised through submissions. It is supported by:

1) A submissions register, of all submissions received during exhibition[1] (Appendix A)
2) An updated consolidated list of mitigation measures proposed to accompany the project (Appendix B)
3) An updated Biodiversity Development Assessment Report (BDAR) reflecting Biodiversity Conservation Division requirements (Appendix C)
4) An updated Aboriginal Cultural Heritage Report (ACHAR reflecting NSW Heritage requirements (Appendix D)
5) An updated Traffic Impact Assessment (TIA) reflecting road authority requirements (Appendix E).

[1] Two public agency submissions, one from the NSW Rural Fire Service and one from the Dubbo Regional Council were provided to DPE following close of the exhibition period. These are also considered in this Submissions Report.

2. Analysis of submissions

The EIS was placed on public exhibition between the 2 December 2021 and the 20 January 2022.

The total number of submissions received for the Forest Glen Solar Farm was 12. Submissions were received from agencies, councils and individuals as provided in Table 2-1. No submissions were provided by special interest groups.

The submissions included 2 objections; both were public submissions and the respondents are identified as being within 5km of the proposal site. One submission raised concerns regarding environmental impacts (i.e visual, glare, flooding, noise and dust), project infrastructure details, land use capability and consultation. The other submission raised concerns regarding the local road conditions and safety.

Note, while submissions from the ARTC and the Heritage Council were requested, neither agency has provided any submission at the time of Submissions Report lodgement.

Table 2-1 Number of submissions received

Category	Number of responses received
Members of the public	2 submissions received (both were objections)
Public agencies: • Crown Lands • Department of Planning and Environment (DPE) Biodiversity, Conservation and Science Directorate (BCS) • DPE Water and Water and the Natural Resources Access Regulator (NRAR) • Department of Primary Industries (DPI) Agriculture • Environment Protection Authority (EPA) • Heritage NSW • NSW Fire and Rescue • Transport for NSW (TfNSW) • NSW Rural Fire Service (RFS)	9 submissions received, one from each agency identified.
Council/s • Dubbo Regional Council	1 submission received

3. Actions taken since exhibition

3.1 Refinements/amendments to Proposal

The Forest Glen Solar Farm Proposal remains generally as described in Section 4 of the EIS. However, two key changes have been made in response to public and agency submissions received during the exhibition period.

These changes include:

1. **Establishing a new visual set-back area.**

Following landowner consultation, the Proponent has committed to establishing a specific visual impact setback area on the western edge of the Proposal site to mitigate the visual impact of permanent infrastructure to Receiver R6. The Proposal now commits to no above ground operational infrastructure associated with the Proposal being sited within this setback area. It has not been excised from the Development footprint, as it may receive temporary use during the construction period and may be used as part of the operational access network.

This visual setback area is displayed as part of an updated indicative infrastructure layout for the Proposal in Figure 3-1 below and is reinforced in the updated visual impact mitigation commitments. The assessed Development footprint for which development consent is sought remains unchanged from the EIS.

2. **Right of way carriageway**

As described in the EIS, Delroy Road would be the primary construction and operational site access road to the Proposal. Delroy Road has recently been gazetted as a local Council road. However, portions of it traverse private freehold (Lots 51/ DP755094 and Lot 52/DP755094). Refer Figure 3-2.

Following Council consultation, the Proponent has sought and obtained landowner consent to establish right of way carriageway for across these sections, to ensure legal access to the Proposal site. An additional land owner consent for right of access through the affected private lots has been provided to DPE with this Submissions Report.

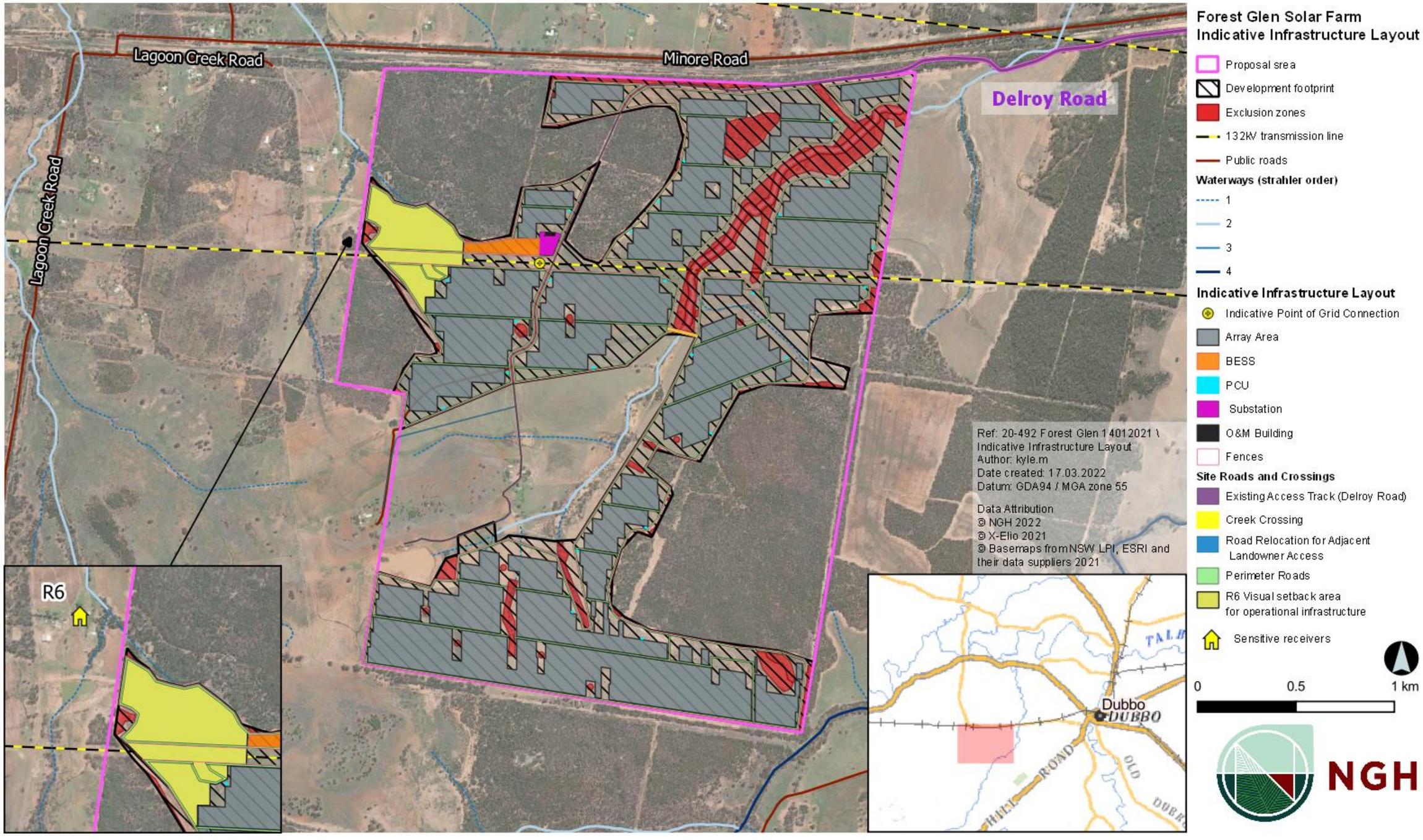


Figure 3-1 Updated indicative infrastructure layout for the Forest Glen Solar Farm. The Visual set-back area for R6 is located on the western boundary of the Proposal area. The Development footprint remains unchanged.

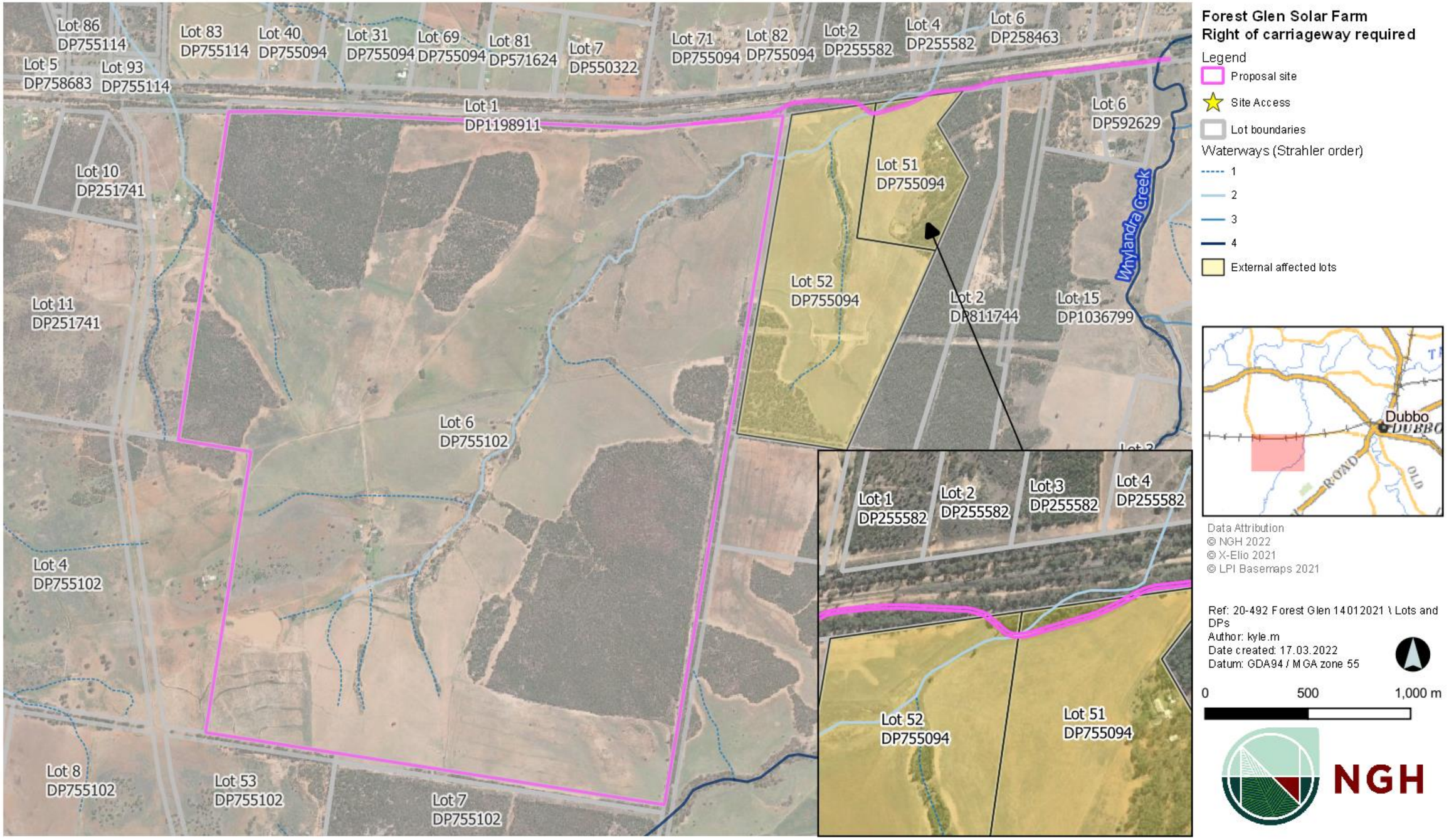


Figure 3-2 Lots 51/ DP755094 and Lot 52/DP755094. Right of carriageway now included for Lot 51.

3.2 Consultation

Consultation undertaken with the community and government agencies since public exhibition of the EIS is summarised below.

3.2.1 Community consultation

Table 3-1 Community consultation results

Receiver	Date	Consultation comments
Name withheld (SE-35251041; R6)	1/03/2022	X-Elio spoke with the receiver and her husband over a video meeting to discuss concerns they raised around the visual impact of the Proposal. Mitigation options were discussed, including vegetation screening, wire-frame analysis and the possibility to move certain parts of the plant infrastructure, including panels.
Name withheld (SE-35251041; R6)	07/03/2022	X-Elio spoke with the receiver over a video call. The discussion covered three parts of the plant in which X-Elio were able to move above ground infrastructure (including solar panels) to another area of the site in order to remove visual impact from the areas of concern identified by the receiver. Refer section 3 and Figure 3-1.
(SE-35294519)	07/03/2022	X-Elio spoke with the receiver over the phone to discuss concerns they'd raised during the public exhibition, and to outline the steps X-Elio will take during construction to ensure their traffic noise and safety concerns managed. These include all the items listed in the Submissions Response report. The receiver re-iterated their concerns during the meeting, and was not assuaged and discussion on the outcomes of traffic modelling and the traffic impact assessment X-elio's response to their concerns is detailed in full in section 4.1.

3.2.2 Agency consultation

Table 3-2 Agency consultation results

Agency	Date	Consultation comments
TfNSW	*7th February 2022*	Amber (Traffic consultant) met with TfNSW to discuss the agency's submission and ensure proposed methodology and responses were acceptable.
Dubbo Regional Council	8th *March, 2022*	X-elio and NGH met with representatives from DRC to discuss and workshop the concerns raised by Council during the submissions process. Items discussed included: - Ancillary buildings - The proposed community benefits sharing program via a Virtual Planning Agreement - Subdivision arrangement - Site access arrangements - Road and intersection upgrades - Waste management - Biodiversity impacts. Detailed responses to DRC's submissions are discussed in section 4.2.
Dubbo Regional Council	*16th March, 2022*	Amber (Traffic consultation) met with Council's Infrastructure Delivery Manager to discuss Council concerns regarding Delroy Road that were raised in their submission and reiterated during above March workshop. Council maintained that their preference is for Delroy Road to be sealed and confirmed that they will by making a formal request for this. Council expressed that they've had a number of instances where they have allowed the access road for a project to remain unsealed and had conditions in place that require it to be maintained in a good order, and then at the end of the project the developer disappears with the road left in a poor condition. A detailed response to the DRC submissions, including on Delroy Road, are discussed in section 4.2.
Dubbo Regional Council	*16th March, 2022*	X-elio discussed DRC's site access concerns with Council's Building and Development Services Manager. Via email correspondence, Council re-iterated their submissions regarding site access and emphasised their request that portions of Delroy

Agency	Date	Consultation comments
		Road that deviates into private Lots 51 & 52 DP 755094 be dedicated to Council. A detailed response to the DRC submissions, including on Delroy Road, are discussed in section 4.2.

3.2.3 Register Aboriginal Parties consultation

In response to the submission provided by Heritage NSW, a minor change was made to the Aboriginal Cultural Heritage Assessment Report (ACHA) for the proposal. The two RAPs for the proposal have been provided copies of the updated ACHA on 9 February 2022. The updated ACHA was delivered with a cover letter outlining the minor change to the mitigation measures within the report. Refer to Section 4.2 for further details on the submission and mitigation measure change.

3.3 Further assessments

No further assessments were required to respond to the issues raised or due to any project updates. However, based on the submissions, the following specialist reports have been updated and attached as appendices to this Submissions Report:

- Biodiversity Development Assessment Report (BDAR; Appendix C).
- Traffic Impact Assessment (TIA; Appendix D).
- ACHA (Appendix E).

The updates to these specialist reports are in response to agencies submissions and are summarised in Section 4.2.

4. Response to submissions

4.1 Response to public submissions

This section considers the issues raised from the public submissions and provides a response to each issue, not each submission. A summary of the issues raised include:

- Visual amenity (1)
- Solar panels and glare (1)
- Lighting (1)
- Land use capability and property values (1)
- Consultation (1)
- Public amenity concerns (1)
- Flooding (1)
- Traffic (1) – safety, noise, traffic survey data and road conditions

With the two submissions, there was no overlap of concerns raised. One submission raised concerns regarding environmental impacts (i.e visual, glare, flooding, noise and dust), project infrastructure details, land use capability and consultation. The other submission raised concerns regarding the local road conditions and safety.

Table 4-1 Public submissions

Issue	Submission id	Detail of issue	Proponent response
Economic, environmental and social impacts			
Visual impact	SE-35251041	One submission received is from a neighbouring property on the north-western fence line of the proposal site. The submission has raised concerns regarding the visual impacts of the	Regarding views from this receiver towards the solar farm site, accompanied with the indicative layout, is sufficient to determine that views to this residence will not be prominent. Specific factors considered in making this assessment include:

Issue	Submission id	Detail of issue	Proponent response
		proposal on their property, specifically: • The main vegetation outlined as screening on the proposal site within the assessment for their property is a dead tree. The property would have a direct line of sight from their kitchen window, bathroom window and bedroom window, directly into the paddock where the panels are proposed to be erected. • The visual assessment also refers to current infrastructure that blocks views of the solar farm from the house. The infrastructure that is referred to is an old pig house, which may be demolished into the future.	• The elevation of the residence is approximately 288m ASL. • The elevation at the site's closest boundary is approximately 291m ASL. • The elevation rises to approximately 320m ASL some 400m from the site boundary and then falls to the east, which would obscure views of the eastern half of the site from this location. • The residence (R6) is located 180m west of the proposal site boundary and 306m from closest panel infrastructure (excluding perimeter fencing). • The trees and shrubs on the adjacent land appear well over 2m in height are located close to the receiver and are therefore highly effective in screening the views from the residence toward the site – with the exception of any gaps. In this gently undulating terrain, the existing vegetation screening and structures on the receiver's property will be highly effective in blocking views to the majority of the site's infrastructure. The distance to the receiver will ensure the low profile structures are not highly visible from the residence. It is acknowledged however, that the screening provided by this vegetation and structures are not located on the proposal site and therefore they cannot be controlled by the project. Additionally, there is a gap in the screening in front of the residence. In order that the project can exert more control over its

Issue	Submission id	Detail of issue	Proponent response
			impacts and provide more confidence in relation to them to this receiver a wire frame was prepared for the receiver. The receiver was shown the wireframe with details explaining the methodology and results. The wire frame model has also been provided separately to DPE and shows from R6 the landform is very slightly undulating with the centre of the site has slightly elevated area. Only panels west of the elevated area are visible to R6. Panels further east are screened by the topography. The results of the wireframe confirm that in this low relief terrain that the low profile infrastructure has a minor impact on the field of view, vertically, from R6. The wire frame is also useful to understand the horizonal extent of the array that will be visible from this location (in the absence of any screening effect of existing or proposed vegetation or structures). It confirms that about 60 degrees from a possible 180 degree view is perceivable, in the absence of existing or proposed vegetation or structures. The aerial photo inset shows clearly that, even disregarding the offsite vegetation near to the receiver, that the forested areas on the solar farm site will further limit the horizonal extent by a about 20 degrees, bringing extent to around 40 degrees. In summary, topography alone indicates that the house is located on flat terrain and is surrounded by gentle undulations which will play an important role in screening views to the east/northeast. Aerial imagery indicates riparian vegetation associated with a creek line to the east and southeast of the dwelling and this will play an important role in screening views towards the project. In addition to this, dense vegetation

Issue	Submission id	Detail of issue	Proponent response
			associated within the project site further to the east will also screen views in this direction. Based on a desktop assessment utilising a wire frame diagram, aerial imagery and photographs taken from the site by NGH, Moir LA has concluded visibility of the Project would be minimal. Intervening vegetation is likely to screen views to the project. In consultation with the receiver however, the Proponent has made an additional commitment to establish a visual set-back area to manage the operational visual impacts of the project on receiver R6. No above aground operational infrastructure, including solar panel arrays, would be constructed within this set-back area. This set back is effectively an exclusion zone to manage the operational impacts of the project on this receiver. Compliance with the set back commitment is shown in the updated indicative layout presented in Section 3.1 and an additional mitigation measure will now be committed to: • ***No above ground operational infrastructure would be constructed within the visual set-back area for R6 as mapped in*** Figure 3-1***. This set back is included manage the operational visual, glare and glint impacts of the project on this receiver.***
Solar panels and glare	SE-35251041	One submission received is from a neighbouring property on the north-western fence line of the proposal site. The submissions raised concerns regarding the solar panel specifications and glare, specifically: • The proposal does not specify the height	It is acknowledged that the level of detail presented in the EIS may not provide the certainty that would assist allay some of the concerns raised in this submission. While indicative layouts and dimensions are presented in the EIS, it is important to ensure there is sufficient flexibility in any approval received to construct the project most efficiently, once the commercial design and construction tendering process is

Issue	Submission id	Detail of issue	Proponent response
		of the panels, nor the angle at which they are to sit. If the panels are all facing north, the property is to the north west of the proposed site and will be impacted by glare off the panels, directly into our home, into our kitchen, bathroom and bedroom.	commenced. This high level of detail will be provided as part of the proposal meeting its consent conditions, if approved. However, the details that have been provided in the EIS are sufficient to assess and mitigate the impacts of the proposal and to address the uncertainty. Section 4.3.1 of the EIS outlines the solar panels and tracking systems would be less than 2.1m high. The panels are proposed to be on a single axis tracking system. Therefore, the angle of the panel will change throughout the day. The panels track in an east-west orientation. For this sensitive receiver dwelling there is no panels proposed directly west of the proposal site. The closest proposed panels are 306m south west of the dwelling. Additionally, solar panels are designed to absorb the sun energy and directly convert it to electricity. Current PV modules absorb approximately 93.5% of the light received. The solar panels are designed using anti-reflective solar glass effectively reducing reflectivity. Thin slivers of metal stripping on the face of the panels further reduce any potential glare issues that may occur. The level of glare and reflectance from the PV solar panels are considerably lower than the level of glare and reflectance of common surfaces, particularly those surrounding the proposed solar farm. The PV panels would reflect approximately 6.5% of energy which is less than typical rural environments which have a reflectivity of approximately 15-30%. Glare and glint are addressed in Section 7.1 of the EIS. There is potential for glare impacts from other onsite

Issue	Submission id	Detail of issue	Proponent response
			infrastructure depending on the sun angle. For this sensitive receiver it would potentially be the steel array mountings – array mounting would be steel or aluminium and PCUs. This receiver doesn't have views of the proposed new transmission line or onsite substation due to the topography. Any glare or glint from other infrastructure would be short term depending on the angle of the sun and time of the day. Nevertheless, the receiver's concerns are recognised. While no change has been made to the Development footprint for which consent is sought, as above, the Proponent has made an additional commitment to establish a visual set-back area to manage the operational visual impacts of the project on receiver R6. Compliance with the set back commitment is shown in the updated indicative layout presented in Section 3.1 and an additional mitigation measure will now be committed to: • ***No above ground operational infrastructure would be constructed within the visual set-back area for R6 as mapped in*** Figure 3-1***. This set back is included manage the operational visual, glare and glint impacts of the project on this receiver.***
Lighting	SE-35251041	There will be lights on the site which will be on during the night which will shine directly into our home. Allegedly these lights will be on a sensor once the project is complete, those lights will still shine directly in the direction of our home.	There would be no night lighting located around the solar array (refer to Section 4.4.4 of the EIS). Night lighting would be provided around the buildings, and in the high voltage substation but they would only be used on the rare occasions that staff are working on the site during the hours of darkness. This sensitive receiver has no views of this

Issue	Submission id	Detail of issue	Proponent response
			infrastructure components due to the topography. It is noted there may be some security lighting at critical locations around the perimeter of the site, but these would only be activated when the automatic security system senses an unauthorised site entry. Task lighting would be provided at PCU's. This would only be used during emergency night works and is unlikely to be noticeable to the sensitive receiver due to the distance from the PCU and existing screening in this location. In response to this submission, **the following additional measures will now be included:** • **V5 No security lighting to be installed on this perimeter of the project, within 500m of the residence.**
Land use capability	SE-35251041	One submission received, is from a neighbouring property on the western fence line, from the proposal site. The submission has raised concerns with the future development of their property and property values, specifically: • The owner would like to develop their property into the future such as subdivide. The solar farm would hinder their plans to develop and subdivide as no-one want to buy a block of land that looks directly on a solar farm. It is going to limit us to what we can do with this property in the future.	The visual assessment of the proposed solar farm has considered all approved dwellings and other key vantages that may be impacted by views of infrastructure. It is not possible to consider all future developments (and this is not required by the recently released visual assessment guidelines for utility solar, Draft Large-Scale Solar Energy Guideline, NSW Government, December 2021). To account for this however, the EIS considers 'land use compatibility' which is provides a better indication of the potential for land use conflicts in future (including impacts on land value). Under the *Dubbo Local Environmental Plan (LEP) 2011,* the property is zoned as RU 1 Primary Production and has a

Issue	Submission id	Detail of issue	Proponent response
		• The proposal is going devalue the property's land value.	minimum lot size is 800 ha. Clause 4.1 of the LEP outlines that the size of any lot resulting from a subdivision of land is not be less than the minimum lot size.. Clause 4.2 of the LEP does outline provisions for subdividing in RU1 land zone to smaller lot sizes than the minimum lot size. However the subdivision is not to include an additional dwelling if there is an existing dwelling. Therefore based on the provisions of the *Dubbo Local Environmental Plan (LEP) 2011* which apply to this submission's property, future subdivision of the property with more dwellings is unlikely unless the LEP is updated or the land zoning is changed. Section 7.4 of the EIS investigated the key land value drivers for lands surrounding the proposed solar farm. The key driver of land value is currently and has been historically, the agricultural productivity of the area. While in draft form, the *Proposed Infrastructure SEPP Amendments: Renewable Energy and Regional Cities* has also been considered in relation to the proposal. The purpose of the amendments is to protect land near regional cities, including Dubbo, from encroaching solar and wind developments and protect the character and visual landscape qualities of these areas. Proposed solar components for this project (i.e. panels, battery and substation) are all greater than 5km from the residential zones of Dubbo and are therefore not captured by this draft amendment. Solar farms and wind farms are considered to have some similarities in terms of their potential to impact surrounding property prices. It should be noted that wind farms are higher impact from a visual impact, noise and development footprint size perspective. Previous studies on windfarms and property

Issue	Submission id	Detail of issue	Proponent response
			value have found no conclusive evidence to support the claim that windfarms devalue nearby property on the basis of visual impacts (e.g. refer Henderson & Horning Pty Ltd 2006 *Land Value Impact of Wind Farm Development – Crookwell New South Wales and OEH 2016 Review of the Impact of Wind Farms on Property Values).* Regarding the site's agricultural value, the EIS notes that the proposed solar plant is a highly reversible development, involving relatively small areas of excavation for driven pile mounts (for the solar panels) perimeter access track and footings for inverters. After the operational life of the Proposal (expected to be around 30 years), the site can be returned to its existing agricultural capacity or alternative land use. Proposal commitments include a Rehabilitation Plan, based on onsite soil testing, which will ensure the site is returned to pre solar plant land capability. The proposal would not impact agricultural productivity of neighbouring land. Regarding visual amenity and lifestyle values, there are relatively few receivers with any views of the proposal. The proposal would have a minor to negligible for all receivers Visual amenity appears to be the key impact on rural lifestyle values. No other activities or values are expected to be impacted with regard to land value drivers. The additional commitments now made by the proposal above to further mitigate visual impacts in consultation with the landowner will assist to some extent to reflect the landowner's future plans for their property in a very site-specific way. **No changes to the proposal or mitigation measures are proposed in response to this concern.**

Issue	Submission id	Detail of issue	Proponent response
Public Amenity	SE-35251041	One submission received, is from a neighbouring property on the western fence line, from the proposal site. The submission has raised concerns regarding the noise, dust and privacy issues during the construction phase of the project. As well as the increased number of staff from Essential Energy (EE) accessing their property to inspect/view/access the panels. There is a common gate between the two properties which EE access.	Section 7.2 of the EIS assesses the potential noise impacts of the proposal during construction and operation. The noise assessment identified that this sensitive receiver is likely expected to experience exceedances of the noise management level during the construction works only. Modelling a worst case scenario, in terms of layout extent and concurrent equipment operation, exceedances were predicted for this receiver when: a) Site establishment and earthworks are within 380m of the receiver. b) Piling of panel supports and trenching for cabling are within 418m the receiver. c) Assembly of frames and panels, substation and transformers are within 380m the receiver. The receiver would not be impacted by the potential noise generated by the upgrade works along Delroy Road. The receiver would not experience any noise exceedances during the operation of the solar farm. The noise assessment outlines for the construction works listed above (a-c), would typically be completed over two to three days within 380m and 418m of the dwelling / building out of the approximately 540 day construction program. Regular work breaks would occur daily for staff management, survey, respite, meals and quality control. Construction works conducted beyond 418m of the dwelling building, would be below the noise management level. Considering the short duration of predicted noise exceedances, it was recommended that a feasible and reasonable approach towards noise

Issue	Submission id	Detail of issue	Proponent response
			management measures could be applied. The mitigation measures include consultation with the landowner, behaviour and equipment considerations and complaints procedure. Consultation will ensure that further actions to reduce noise levels are undertaken and the receiver is involved in this process. Section 8.10 of the EIS addresses potential air quality and dust impacts of the proposal. The sources of dust by the proposal includes: • Excavation and earthworks, such as ground-breaking, levelling (cutting and filling), piling works, trenching, etc. – generally, the impacts would be in discrete areas and located well away from receivers. • Vehicle movements over unsealed surfaces including internal and external access tracks. • Dust from uncovered stockpiled powdery materials or truckloads. The EIS found that air quality and dust impacts from construction works on the proposal site, are considered to be negligible due the proposed minor earthworks and the distance from receivers. The sensitive receiver is 340m from the proposal site. The impact for this sensitive receiver is also considered negligible due to its existing and proposed screening and with the implementation of mitigation measures outlined in the EIS. The mitigation measures include dust suppression by water application and covering vehicle loads. In the long term, dust generation would be reduced with the

Issue	Submission id	Detail of issue	Proponent response
			implication of the groundcover management plan, which ensure vegetation is established under the panels and in temporary disturbed areas. Regarding privacy and visual impacts, the additional commitments now made by the proposal above to further mitigate visual impacts in consultation with the landowner will assist to some extent to reduce the loss of privacy for the residents of this property. It is noted that Essential Energy will be involved in limited connection works within the solar farm site but there is no requirement by the solar farm to have EE visit additional properties. Essential Energy would only operate and maintain the new onsite substation for the proposal. They are not required to inspect the solar panels or adjacent land, for the construction or operation of the solar farm. The access track to the onsite substation is via the main entrance of the proposal site, Delroy Road. The Essential Energy would not require to go through any additional property to access the onsite substation. **No changes to the proposal or mitigation measures are proposed in response to this concern.**
Flooding	SE-35251041	One submission has raised concerns regarding a dam on their property and the flood impacts on the proposal site when the dam overflows.	Section 8.2 of the EIS summaries the site-specific hydrology report undertaken for the proposal, which includes two stages. It: 1. Assists the proponent design the proposal so that assets will not be adversely affected by floods (this is done based only on the existing catchment

Issue	Submission id	Detail of issue	Proponent response
			information). 2. Verifies that layout produced will not adversely affect local hydrology or exacerbate soil erosion due to run off (this modelling uses the indicative worst case layout so that it will be resilient to any design changes in detailed design). The hydrology report and its modelling outputs have verified the extent to which this dam floods. Within the proposal site, near to the dam, has a maximum flood depth of up to 0.5m for the 1% Annual Exceedance Probability (AEP; used to describe how likely a flood is to occur in a given year[2]) and a hazard rating of H2 to H3 (unsafe for vehicles). According to the flood modelling, the flooding is north of the solar panels proposed there. The project has been designed to have its panels and mounts as well as other key infrastructure avoid the modelled 1% AEP flood level (0.5m). To ensure the final layout reflects the flood modelling, specific design mitigation requirements form commitments of the project. Additionally, the project commits to relevant best practice guidelines for works within and near to waterways, including: • Guidelines for Watercourse Crossings on Waterfront Land (DPI, 2012) • Guidelines for Laying pipes and Cables in Watercourses on Waterfront Land (Office of Water, 2010)

[2] For example, a 1% AEP flood represents a 1% risk this flood level will be exceeded, in any one year.

Issue	Submission id	Detail of issue	Proponent response
			• *Why do fish need to cross the road? Fish Passage Requirements for Waterway Crossings* (Fairfull and Witheridge, 2003). • *Policy and Guidelines for Fish Friendly Waterway Crossings* (NSW DPI, 2003). It is also noted that there is not predicted to be a significant impact on flood behaviour within the floodplain as a result of the proposed works, with flood levels, depths, velocities and hazards remaining relatively unchanged. The change in maximum flood level and peak velocity resulting from the proposed development are anticipated to remain unchanged, due primarily to the infrastructure being located outside of areas subject to flooding. **No changes to the proposal or mitigation measures are proposed in response to this concern.**
Increased traffic – safety and noise	SE-35294519	One submission has raised concerns regarding the increase of traffic along Minore Road specifically noise, traffic safety and ability of Minore Road to cope with the increased traffic. Concerns specifically include: • The traffic survey data being from 2016. They note there has been an increase in traffic since 2016, specifically in residential traffic and trucks including B doubles. Minore Road is being used as a short cut for b doubles from Mitchell Highway, North Minore Road onto Minore	The traffic surveys were undertaken in 2020 and so provide a current basis for the traffic assessment. The Traffic Impact Assessment provides traffic modelling of the road network which demonstrates that the road network is able to readily accommodate the increase in traffic proposed to be generated during construction. It is also noted that construction traffic occurs outside of the peak times when the surrounding intersections are expected to accommodate a low level of traffic. As such, the intersections are expected to accommodate a lower level of traffic during the construction peak hour than the peak hour of

Issue	Submission id	Detail of issue	Proponent response
		road then via Dungary Road, Lonsdale Road, Sappa Bulga and the South onto the Parkes Highway. • An increase of an additional 157 vehicle movements per day with 72 during the peak hour be of a major safety issue to the regular users of Minore Road. Twenty four additional B double movements along that road will also be a major noise disturbance to the residents along Minore Road – the use of air brakes and changing of gears for slowing down and increasing of speed as approach and depart to the Delroy Road Minore Road intersection.	the surrounding road network. Safety along Minore Road and Delroy Road would be further managed through the implementation of the Construction Traffic Management Plan (T1) that forms a commitment of the project. The key measures of the plan include: • Neighbours of the solar farm be consulted and notified regarding the timing of major deliveries which may require additional traffic control and disrupt access. • Dwellings are located adjacent to Delroy Road along the access route. It is recommended that dust suppression measures be implemented within the vicinity of the dwelling to limit the impact to residents • Loading and unloading is proposed to occur within the work area. No street or roads will be used for material storage at any time. • Delivery of larger plant to occur outside of school bus service times and peak traffic times to prevent larger vehicles interacting with the school bus and congestion issues. • All vehicles will enter and exit the site in a forward direction. • Management of vehicular access to and from the site is essential in order to maintain the safety of the general public as well as the labour force. The following code is to be implemented as a measure

Issue	Submission id	Detail of issue	Proponent response
			to maintain safety within the site: ○ Utilisation of only the designated transport routes. ○ Construction vehicle movements are to abide by finalised schedules as agreed by the relevant authorities. • All permits for working within the road reserve must be received from the relevant authority prior to works commencing. • A map of the primary haulage routes highlighting critical locations. • An induction process for vehicle operators and regular toolbox meetings. • A complaint resolution and disciplinary procedure. • Local climatic conditions that may impact road safety of employees throughout all project phases (e.g. fog, wet and significant dry, dusty weather). The contractor is also required to prepare and implement a Haulage Plan for construction and decommissioning, including but not limited to: • Direction of traffic flow (both heavy and light). • Loads, weights and length of haulage and construction related vehicles and the number of movements of such vehicles. • Scheduling of deliveries of major components to minimise safety risks (on other local traffic). • Traffic controls (signage and site speed limit

Issue	Submission id	Detail of issue	Proponent response
			restrictions etc.). • All heavy vehicle movements to/from the access point are to be managed to ensure that only one inbound or outbound vehicle is travelling along the access route in the vicinity of the site at a time. • Heavy vehicle movements into and out of the proposal site will be controlled via traffic management means, including a traffic controller, temporary lowered speed limit and additional road signage alerting vehicles of truck movements in the area. Section 7.2 of the EIS assesses the potential noise impacts of the proposal during construction and operation. It included a road traffic noise assessment in accordance with the NSW 'Road Noise Policy' (RNP). The assessment found that the road traffic noise level contributions from the vehicle movements associated with the construction works are at least 1 to 6dB(A) below the applicable noise criterion based on dwellings being 30 to 155m from the roads. Therefore, traffic noise levels as a result of the construction works for the solar farm would not adversely contribute to the existing traffic noise levels at the most affected residences along the surrounding roads and require no specific mitigation. The proposal complies with the criteria for road traffic noise, for both construction and operation, as the expected traffic volumes during operation are expected to be less than proposed construction traffic volumes. Further discussions regarding the ability of Minore Road to cope with the increased traffic is addressed in the submission

Issue	Submission id	Detail of issue	Proponent response
			below. **No changes to the proposal or mitigation measures are proposed in response to this concern.**
Minore Road/Delroy Road	SE-35294519	One submission has raised concerns with the condition of Minore Road and Delroy Road and disagrees the roads would be able to accommodate the traffic from the proposed solar farm. Specifically, the submissions have raised the following concerns about Minore Road: • No upgrade has been undertaken for a considerable long time. The road is constantly being patched. • The road has no edge line marking, the shoulder edges drop away and culverts are not marked, which is a significant hazard when a B double is coming from the opposite direction. • Loose stones along the road are a hazard for oncoming vehicles if required to move over to make way for oncoming b double or large vehicles. • There are a significant amount of overhanging trees along the road which would cause issue for the higher b doubles using the road. Submission has proposed the following	The Traffic Impact Assessment provides traffic modelling of the road network which demonstrates that the road network is able to readily accommodate the increase in traffic generated during construction. However, the TIA and Section 7.6 of the EIS does acknowledge that part of the road network is currently in poor condition. As such, a number of recommendations have been made which includes resealing of the intersection of Minore Road and Delroy Road and an upgrade to the road surface and carriageway width of Delroy Road to accommodate simultaneous two-way truck movement. Prior to construction, a pre-condition survey (Dilapidation Report) of the relevant sections of the existing road network is proposed to be undertaken, in consultation with Council. During construction the sections of the road network utilised by the proposal are to be monitored and maintained to ensure continued safe use by all road users, and any faults attributed to construction of the solar farm would be rectified. At the end of construction, a post-condition survey would be undertaken to ensure the road network is left in the consistent condition as at the start of construction. 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.

Issue	Submission id	Detail of issue	Proponent response
		recommendations: • Minore Road be widened and road shoulders be upgraded. • The entire road is line marked including edge lines. • To reduce the noise impact and to also increase safety would be to install speed humps leading up to the intersection of Delroy and Minore – between our driveway and east towards Dungary Road. • Overhanging trees along Minore Road be trimmed accordingly. • Culverts going under Minore Road be clearly marked and have a safety assessment. The submission also raised concerns regarding flooding at the Delroy and Minore Road intersection by Whylandra Creek. Specifically what would the upgrade to the intersection do to the water movement.	The above measures are considered suitable to allow construction traffic associated with the solar farm to access the site. The upgrade of the Delroy and Minore Road intersection is minor and unlikely to change the hydrology or contours of the area. The upgrade includes the sealing of the first section of Delroy Road and installing a give way sign. No works are proposed on Minore Road. There are also no proposed changes to the intersection type or alignment. The sealing of the first section of Delroy Road may increase stormwater runoff in the area. However the additional sealed area would only be approximately 230m^2, therefore the increase runoff would be negligible and no different to the current conditions of Minore Road. **No changes to the proposal or mitigation measures are proposed in response to this concern.**
Procedural Matters			
Consultation	SE-35251041	One submission received is from a neighbouring property on the western fence line of the proposal site. The submission has raised	X-Elio undertook the following consultation with this specific landholder prior to lodgement of the EIS: • Two letter mail outs were undertaken to all sensitive

Issue	Submission id	Detail of issue	Proponent response
		concerns regarding the consultation undertaken for the project. Specifically, they were not consulted with and if they had been consulted with they would have raised their objection to the proposal.	receivers and surrounding neighbours September 2020 and 10 February 2021, including this residence • X-Elio called this residence on 23 April 2021 to but the number had been disconnected. • X-Elio undertook a door knock on 5 May 2021 and was successful in meeting the owners of this property. The owners acknowledged they were aware of the project (via discussions with the proposal site landowner) and they had no objection to the proposal. They were also interested in potential to be involved in the project (sell or lease). Since the end of the public exhibition period, X-Elio has conducted additional targeted consultation with this respondent in March 2022 to discuss and address their concerns. Refer 3.2.1 section. X-Elio have responded to their visual impact concerns, including establishing a visual set-back area, as detailed in this section previously. **No other changes to the proposal or mitigation measures are proposed in response to this concern.**

4.2 Response to agency submissions

Issue	Agency	Detail of issue	Proponent response
Crown Lands			
For use and access to Crown Roads	Crown Lands	No Crown land/roads/waterways are contained within the project footprint, however two Crown roads adjoin the project footprint, to the south and east of Lot 6 DP 755102. These roads may provide legal access to the development but may not provide practical access. The Department advises that these roads should not be relied upon for practical access to the project site. Should transmission lines need to be placed on or over Crown roads, the Department will need to be referenced prior to any use or occupation of any Crown roads or land, during the assessment phase.	The proposal will not impact on these two Crown roads that adjoin the proposal site, located south and east of Lot 6 DP 755102. All works would be located within the proposal site and along Delroy Road. Refer to Figure 3-1. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this concern.**
Delroy Road ownership	Crown Lands	It is noted in Table 1-2 of the Forest Glen Solar Farm EIS, Delroy Road is listed incorrectly as Crown Land/road. Delroy Road is a Local Government Authority	Noted. Dubbo Regional Council has confirmed in their submission for the proposal, that Delroy Road was transferred from the Crown to Council on 13 August 2021. **The following mitigation would be *removed* based on this submission:**

Issue	Agency	Detail of issue	Proponent response
		Road and Dubbo Regional Council is the controlling authority.	• **LU4 Consultation with DPIE-Crown Lands would be ongoing, and the following would be undertaken:** ○ **Prior to construction, a permit will be applied for to allow construction to commence within Delroy Road Crown road.**
Biodiversity Conservation Service			
Land category assessment	DPE BCS	BCS note that much of the project works are on land assessed as being Category 1 – Exempt Land. The land categorisation should be clearly justified and supported by evidence	An initial Land Category Assessment (LCA) was submitted to BCS on 11/5/2021. Feedback for this initial version was as follows: • The historic imagery used in the initial LCA used imagery from 1991 only as no imagery was available from 1990; BCS required the addition of pre-1990 imagery • There were two areas of concern for which BCS required evidence of lawful clearing, without which the areas would be required to be recategorized as Category 2 (regulated land). The LCA was amended to reflect these changes and appended to the Appendix A of the previously submitted BDAR. NGH have added an additional sub-section Appendix A2 to the BDAR including the letter from BCS and an image showing the areas of concern, in addition to the updated LCA in Appendix A1.
Plot data	DPE BCS	Data sheets for all plots should be provided. Data sheets for plots 17, 18, 19, 20, 21 and 22 are missing.	Noted. Numbering of all plots has been checked and plot data re-appended to Appendix B.1 of the updated BDAR. Refer Appendix C.
BAM calculator	DPE BCS	All data entry into the BAM calculator should be checked,	All BAM plot data has been checked. Errors have been identified and rectified in a new BAM-C case revision. This has led to slight changes in

Issue	Agency	Detail of issue	Proponent response
		errors corrected, and the final credit requirement recalculated. A crosscheck of data entered into the BAM calculator (BAM-C) reveals consistent errors. It is imperative that data collected in the field is accurately entered into the BAM-C as this influences the site integrity scores and thus the credit requirement of the development. Of 15 data sheets checked 13 had values that differed to those in the BAM-C. While many of the errors are small and unlikely to affect the final integrity scores (e.g. plots 3, 5, 6, 10 and 12) other errors are larger and have the potential to influence integrity scores (e.g. plots 1 and 2). It should be noted that an additional six data sheets were not available and could not be checked.	vegetation integrity scores for some vegetation zones, and consequently a change in ecosystem credit numbers. After updating the BAM-C case to reflect the changes: a. PCT 255 now generates 92 credits (previous 86) b. PCT 201 now generates 10 credits (previously 9)
BAM calculator	DPE BCS	As the credit requirement is to be recalculated, the revised and finalised credit report should be appended to the BDAR.	As above. The credit report has been be re-appended to the updated BDAR with final BAM-C changes. Refer Appendix C.

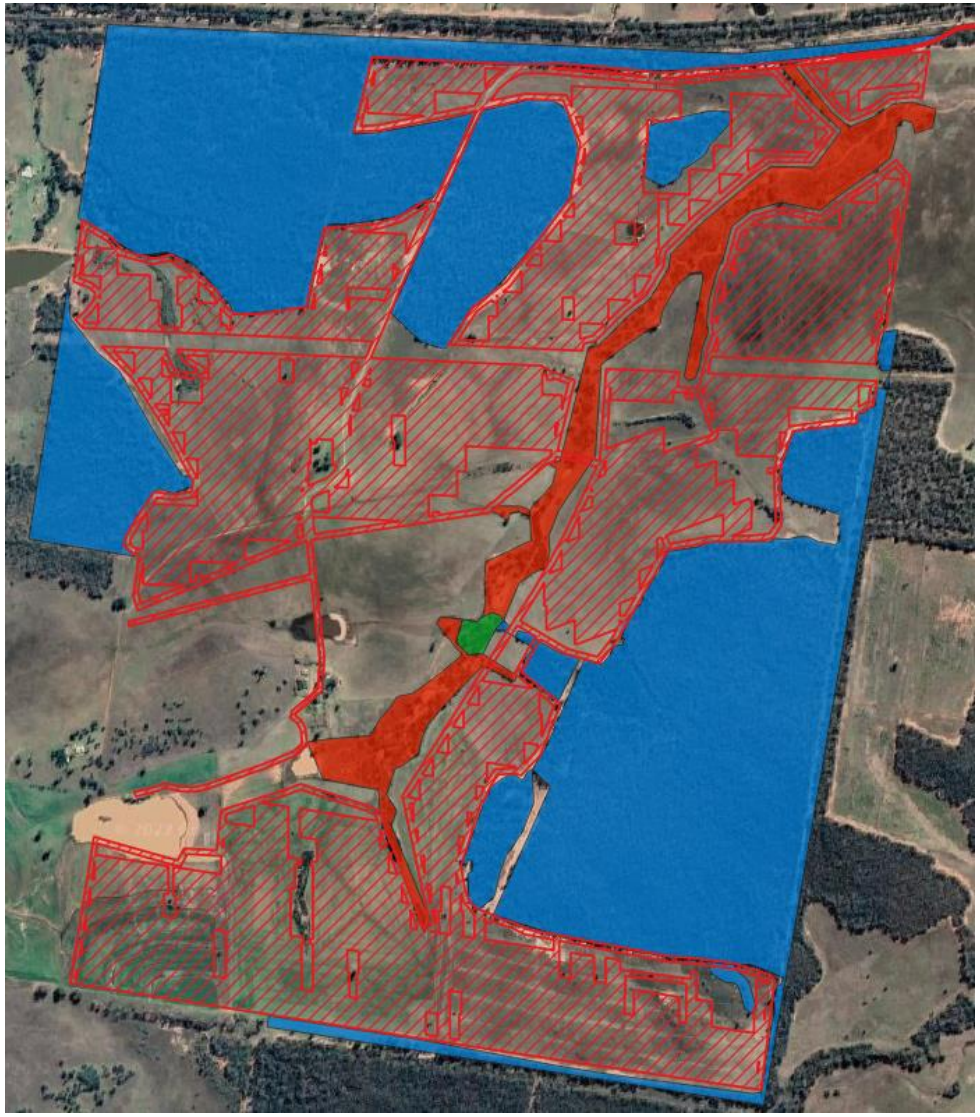
Issue	Agency	Detail of issue	Proponent response
		It is a requirement of the BAM that the proposal be submitted in the BAM-C and that the BAM credit report be provided in the BDAR. While the proposal in the BAM-C has been finalised, the credit reports in Appendix D of the BDAR indicate that the BAM Case Status is "open" and that it is "to be finalised". Although the information in the credit report reflects that in the BAM-C, care should be taken that files provided in the BDAR are up to date and correct.	
PCT 201	DPE BCS	More in-depth analysis of the vegetation type currently assigned as PCT 201 is required. The BAM requires the assessor to provide evidence of quantitative analysis of the site survey data to define the likely PCTs that occur within the development footprint. Section 3.2.1 of the BDAR outlines the methodology used to assign vegetation types to a PCT. Two PCTs were identified and the	It's acknowledged that the key indicator species for PCT 201, *E. conica*, was not identified in any of the BAM plots and so understand BCS's request for further justification. NGH maintain that the PCT 201 zone classification is correct, with the following justification to clarify our position: • *E conica/E populnea* were keyed out as a species which was observed inside the PCT zone during preliminary fieldwork on the proposal site. Both species were found between BAM plots 9 & 10. This information was used in conjunction with the BAM plots to identify PCT 201. • BAM plots are randomised (in accordance with the BAM 2020 methodology) and therefore it was by chance that *E conica* was not 'captured' within the zone as a species.

Issue	Agency	Detail of issue	Proponent response
		justification for their determination is provided in Tables 3-1 (PCT 255) and 3-2 (PCT 201). BCS accepts the justification for PCT 255 as reasonable however justification for PCT 201 (Fuzzy Box Woodland) is problematic. The presence of at least three canopy species which were identified within the vegetation zones allocated as PCT 201 (including outside of plots) resulted in the following three potential PCTs: • PCT 88 - Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion • PCT 101 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion • PCT 201 - Fuzzy Box Woodland on alluvial	• PCT 201 is a better match for Landform pattern description than PCT 88. PCT 88 which makes no reference to riparian characteristics other than to say alluvial plains. The landscape at the Proposal site is not an alluvial plain, but rather creek bed with banks. PCT 201 states landform element to include prior stream which is more suited to localised site conditions which included a 3m wide incised creek and some permanent water sections inside some parts of the creek. • PCT 201 had a stronger groundcover match of grasses and forbs to that of PCT 88. This updated justification is included within the BDAR within the appropriate BDAR chapter (3.2.3), and within Appendix J.

Issue	Agency	Detail of issue	Proponent response
		brown loam soils mainly in the NSW South Western Slopes Bioregion The rationale for the final selection was that "all three PCTs contained several matching upper, mid and ground strata species, however PCT 201 was selected over 88 and 101 given the higher number of matches (12 for PCT 201 compared with 10 for both PCT 88 and 101). Additionally, as this zone occurred as riparian vegetation, the landscape features of PCT 201 were considered a better match". Fuzzy Box *Eucalyptus conica*, a dominant canopy species in PCT 201, is not mentioned at all in the justification and does not seem to be recorded in any of the plot data. Conversely, PCT 88 contains three tree species that do occur with the mapped PCT area although it is suggested that the presence of Pilliga Box *E. pilligaensis* in BAM plots was considered likely to be encroachment from nearby PCT	

Issue	Agency	Detail of issue	Proponent response
		255 although this logic is not explored further. In light of the presence of the dominant canopy species for PCT 88 and absence of the primary dominant species in PCT 201 further justification of the choice of PCT for this vegetation is required.	
Eastern Pygmy-possum	DPE BCS	Eastern Pygmy-possum be included on the basis that they are known to occur in grassy woodlands and the presence of Eucalypts alone is sufficient to support populations in low densities. Eastern Pygmy-possum has been excluded based on "the absence of dense understorey across the Development Footprint. This species has been detected in a broad range of habitat types. However, habitat suitability is closely aligned with the presence of a dense midstory of shrubs, most commonly from the genera Banksia and Hakea which was absent across the Development Site". DPIE's Threatened	Under the BAM, species credits are generated unless: 1. They are excluded because habitat constraints required are not present, or 2. Habitat quality is sufficiently degraded such that they could not occur, or 3. Survey effort has demonstrated they are not present. In the case of the Eastern Pygmy-possum, with reference to principal 1 above, NGH agrees that while dense mid-storey is absent from all zones within Development Footprint, that some grassy woodland zones do occur that could constitute suitable habitat: PCT 255 and 201 woodlands, totalling 1.9 ha within the footprint. While much of this area is comprised of small slivers of vegetation where PCT 255 abuts the existing areas of disturbance at the site, PCT 201 contains larger more intact areas (refer Figure 1 below). NGH carried out spring surveys for nocturnal mammals which included spotlighting (over 2 nights by 2 ecologists for 3 person hours, targeting wooded areas) as well as inspecting all hollow-bearing trees within the Development Site. Stag watches were undertaken by 2 ecologists over 2 evenings at sunset for 3 person hours, targeting large trees in wooded areas. The survey period was mid November 2020.

Issue	Agency	Detail of issue	Proponent response
		Biodiversity Data Collection (TBDC) states that “although the species prefers habitat with a rich shrub understory, they are known to occur in grassy woodlands and the presence of Eucalypts alone is sufficient to support populations in low densities”. Based on this the Eastern Pygmy-possum should be included, and further assessment carried out.	This survey effort is considered sufficient to demonstrate, in accord with principal 3 above, that the species is not present and no species credits are relevant. The BDAR has been updated with regard to the Eastern Pygmy-possum assessment. No change to mitigation or offsets results from this change. This information is also provided in Appendix J of the updated BDAR.

Issue	Agency	Detail of issue	Proponent response
			

Issue	Agency	Detail of issue	Proponent response
			Figure 1: Blue, red, and green zones constitute potential Eastern pygmy possum habitat, shown bordering the Development Footprint (red hatching)
Species that cannot be surveyed	DPE BCS	If a species cannot be surveyed within the stipulated survey period presence should be assumed or an expert report prepared by an approved expert of that species provided. Surveys for species credit species need to be conducted at the optimum time for detection. Survey months for species are automatically populated in the BAM-C via the TBDC. These months were selected assuming 'average' conditions, and that the survey is undertaken using an appropriate method, time of day and conditions (based on relevant survey guidelines). Accredited Assessors can adjust survey timing if, for example, natural disturbances or climatic events are likely to alter the months when the species is most likely to be found however this needs to be justified. Species that required survey were all surveyed within the designated survey period except for *Pterostylis cobarensis* and	As above, under the BAM, species credits are generated unless: 1. They are excluded because habitat constraints required are not present, or 2. Habitat quality is sufficiently degraded such that they could not occur, or 3. Survey effort has demonstrated they are not present. In the case of *Pterostylis cobarensis,* survey effort has demonstrated they are not present. The species was surveyed for from 9-13 November 2020. While the BAM-C lists October as the survey month, the 'Habitat and Ecology' section of the NSW Threatened Biodiversity Data Collection (TBDC) states that it flowers from September to November. In this case, NGH contend that the survey timing was in accordance with the TBD and no species credits are generated – citing principal 3 above. In the case of *Indigofera efoliata,* it was surveyed from 9-13 November 2020. The BAM calculator lists September-October as the survey months and as this species is known to die back and not be visible above ground when not flowering, it is acknowledged that the survey may have been too late to detect this species. This species was presumed extinct until a sighting in 2021 and so is expected to be very rare. To address this uncertainty NGH, investigated further the areas of potential habitat (and impact) for this species. A GIS query of the development footprint shows this constitutes 1.53 ha of Zone 1 PCT 255 (which was selected in accord with Conservation Advice (2008) for the species which indicates stony ground and woodland vegetation as habitat). Zone 1 is a woodland community that the development footprint has been sited carefully

Issue	Agency	Detail of issue	Proponent response
		Leafless Indigo. The survey period for *Pterostylis cobarensis*, a species that is only detectable above ground for a relatively short period, is restricted to October and for Leafless Indigo, September to October.	to avoid as much as possible (refer Figure 1 showing the blue areas of Zone 1 versus the red hatched development footprint). The areas that the project cannot avoid are limited to very small fragments, on the periphery of the zone. In many cases vegetation mapping, which is coarse at this scale, is picking up overhanging canopy vegetation or a disturbed edge habitat, rather than intact woodland at this interface between the existing areas of disturbance and the woodland edge (refer to Figure 2 and photos shown in Figure 3 below that demonstrate the 1.53 ha is made up of degraded edge habitat.) Due to mapping practicalities for this large site, the development footprint does include several small slivers of this zone, that aggregate over the entire project to 1.53 ha. In consideration of the mapping accuracy, the disturbed edge of this vegetation at the interface and the habitat requirements of this species, NGH considers that this 1.53 ha is sufficiently degraded such that the species could not occur – citing principal 2 above. The BAM has been updated to reflect this. While the likelihood of *Indigofera efoliata* occurring on this degraded periphery is considered very low, NGH acknowledge the consequence of impact would be very high for this rare species, that was recently presumed extinct. The above justification and a further mitigation measure has been added to the BDAR to address this uncertainty and ensure no impacts occur to this species: **A preclearance survey would be conducted for *Indigofera efoliata* between September-October, in all areas of Zone 1 PCT 255, prior to project commencement. If this species is detected, all individuals (including an appropriate buffer) would be avoided, in consultation with BCS.** As there are no species experts for this species, the commitment includes consultation with BCS. It is noted that the risk of substantive impacts to the

Issue	Agency	Detail of issue	Proponent response
			project layout are considered very low, given the rarity of the species and the degraded state of areas peripheral areas of Zone 1 required to be impacted. This information is also provided in Appendix J of the updated BDAR.

Issue	Agency	Detail of issue	Proponent response
			

Issue	Agency	Detail of issue	Proponent response
			Figure 1: Blue zones constitute potential *Indigofera efoliata* habitat, shown bordering the Development Footprint (red hatching)  Figure 2: Small slivers of Zone 1 intersecting the Development Footprint

Issue	Agency	Detail of issue	Proponent response
			 Figure 3: The small slivers of Zone 1 that intersect the development footprint are not representative of the broader zone and are sufficiently degraded that they do not provide suitable habitat for *Indigofera efoliata*.
DPE Water and NRAR			
Pre-approval Water security requirements	DPE Water and NRAR	Where the water is to be sourced from a currently unauthorised source such as from new water take infrastructure on Whylandra Creek in the Wambalong Whylandra Creek Water source,	The proposal will not source water from Whylandra Creek in the Wambalong Whylandra Creek Water source. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this concern.**

Issue	Agency	Detail of issue	Proponent response
		an impact assessment of its construction and operation will be required. Due to limited entitlement availability in this water source the proponent needs to demonstrate the ability to acquire sufficient water entitlement.	
Pre-approval Water security requirements	DPE Water and NRAR	Provide clarification of the ability to obtain the necessary water volumes for the project either through accessibility from on-site sources or via an indication of an agreement from a water supplier.	Section 8.3 of the EIS outlines water use during construction and operation for the proposal. During construction, the EIS outlines that non-potable water during the 12-18 months construction period is estimated to be approximately 42 megalitres (ML). The water sources would be subject to determination by the construction contractor, however the EIS assesses a number of water source options. The indicative layout for solar farm infrastructure does not require any decommissioning of existing dams within the proposal footprint prior to construction. As such the eight dams located within the proposal site may be used to some capacity in the construction process depending on availability with the existing landowner. However the majority of water usage during the construction phase would be purchased from a suitably licenced contractors and trucked into site. If the dams onsite are to be used, the harvestable right was calculated as approximately 26.6ML. This represents 63% of the total non-portable water required for the construction phase. For water purchased off suitably licenced contractors, the water is likely to come from the Macquarie River above Burrendong which has 99 Water Access Licences (WALs). Purchase service agreements would be

Issue	Agency	Detail of issue	Proponent response
			established with local water suppliers by the contractor to truck water into the site. Potable water is expected to be sourced from a commercial water supplier via a service agreement, although the selection of the water supplier will be determined by the EPC Contractor. 8,032ML of unregulated water was made available in 2019/2020 of which 1,598ML were used. The water required for construction represents 0.52% of the of the volume available for that financial year. The impact of drawing the 42ML over the 12–18 month construction period is considered acceptable because ample remaining water is available in the system based on previous year's figures. It is estimated that up to 240kL would be required per year during operation and if insufficient water is collected on site from rainwater tanks and dams, water would be obtained commercially **Therefore, no changes to the proposal or mitigation measures are proposed in response to this concern.**
Post -approval recommendations	DPE Water and NRAR	• Ensure sufficient water entitlement is held in a water access licence/s to account for the maximum water take for each water source prior to take occurring. • Ensure that relevant nomination of work dealing applications for Water Access Licences proposed to account for water take by the project have been	The Proponent does not propose to obtain a Water Access Licence. Water will be sourced as part of construction procurement contracts and provided by a suitably licenced contractor. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this concern**

Issue	Agency	Detail of issue	Proponent response
		completed prior to the water take occurring. • Be aware of the rules of the relevant water sharing plans.	
Post -approval mitigation requirements	DPE Water and NRAR	• The proponent should prepare a Construction Environmental Management Plan (incorporating a Soil and Water Management Plan) prior to commencement of activities. This should include measures to address sediment and erosion control in accordance with the guideline; Managing Urban Stormwater: Soils and Construction (Landcom 2004). • Sediment basins should be designed in accordance with Landcom (2004) and will need to meet an excluded work definition in Sch 1(3) of the Water Management Regulation 2018 to be exempt from water licensing requirements. • Erosion and sedimentation mitigating measures and	Section 8.1 of the EIS has the following mitigation measure: S1: As part of the CEMP, a Soil and Water Management Plan (SWMP) (with erosion and sediment control plans) would be prepared, implemented and monitored during the proposal, in accordance with Landcom (2004), to minimise soil (and water) impacts. These plans would include provisions to: • Install, monitor and maintain erosion controls. • 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. • Manage topsoil 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; rationalise vehicle movements and restrict the location of activities that compact and erode the soils as much as practical. Any compaction caused during construction would be treated such that revegetation would not be impaired. • 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.

Issue	Agency	Detail of issue	Proponent response
		groundcover management should be designed to manage the soil erodibility risks during all stages of the project. • Watercourse crossings and other works within waterfront land should be in accordance with the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018).	• Areas of soil disturbed by the proposal would be rehabilitated progressively or immediately post-construction, reducing views of bare soil. S2: A Groundcover Management Plan would be developed in consultation with an agronomist and to ensure final land use includes perennial grass cover establishment across the site as soon as practicable after construction and maintained throughout the operation phase. The plan would cover: • Soil handling, restoration and preparation requirements. • Plant Species election. • Soil preparation. • Establishment techniques. • Maintenance and monitoring requirements. • Perennial groundcover targets, indicators, condition monitoring, reporting and evaluation arrangements – i.e. A target of 70% live grass cover would apply to protect soils, landscape function and water quality. Additional measures would be implemented where practical when live grass cover falls below 70%. Grass cover would be monitored on a fortnightly basis using an accepted methodology. • Contingency measures to respond to declining soil or groundcover condition. I.e. any grazing stock would be removed from the site when cover falls below the target of 70% live ground cover. • Identification of baseline conditions for rehabilitation following decommissioning. • Preserve the native composition as much as possible. The proposal also commits to the following measure from Section 7.3 of the EIS: • LU1: Undertake a baseline soil survey prior to construction to inform

Issue	Agency	Detail of issue	Proponent response
			construction and operational management measures to resist erosion and weed ingress. The soil survey results will assist in informing the SWMP and groundcover MP to manage potential soil erodibility risk. Section 8.2 of the EIS, outlines any proposed crossings (vehicular or service) of existing watercourses on the proposal site should be designed in accordance with the following guidelines, and in the case of vehicle crossing should preferably consist of bed level crossings constructed flush with the bed of the watercourse on first and second order watercourses to minimise any hydraulic impact: • Guidelines for Watercourse Crossings on Waterfront Land (DPI, 2012) • Guidelines for Laying pipes and Cables in Watercourses on Waterfront Land (Office of Water, 2010) • *Why do fish need to cross the road? Fish Passage Requirements for Waterway Crossings* (Fairfull and Witheridge, 2003). • *Policy and Guidelines for Fish Friendly Waterway Crossings (NSW DPI, 2003).* Noted regarding the sediment basin being exempt from water licensing requirements. The EIS (Section 8.3) commits the proponent to re-using collected stormwater (from dams or sediment basins) wherever possible. Due to the nature of solar farms (minor earthworks and flat topography) sediment basins are not a common control measure, and would be determined during the preparation of the Erosion and Sediment Control Plan as outlined above. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.**

Issue	Agency	Detail of issue	Proponent response
DPI Agriculture			
Requirements addressed	DPI Agriculture	The EIS notes the commitment to a soil survey to be undertaken on approval. This will provide information related to the construction phase of the project to assist witherosion and revegetation, but also baseline data that provides a basis to final land rehabilitation should the solar operation cease. This information will help in determining final soil and land condition targets as part of the closure plan. Section 7.3.2 (Page 170) notes the overview of tests to be undertaken. In addition to this testing for soil integrity for construction purposes should also take place. The commitment to a rehabilitation plan for final land use restoration (LU6, Page 297-8) is noted, with further details required if approved. • There is a commitment to the site being used for	Noted. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.**

Issue	Agency	Detail of issue	Proponent response
		continuing agricultural lands uses and as part of the management of the site's area. The proposed management of groundcover is addressed, and the development of a groundcover management planboth after construction and ongoing management (S2- Page 220) also will address these vegetation management issues. • We note the undertaking of a Land Use Conflict Risk Assessment with agriculture andother neighbouring landholding land uses (Section 7.3.2, Page 167). Although the risks are explained it shows the need for careful management of areas such as dust and noise especially in relation to the construction phase that	

Issue	Agency	Detail of issue	Proponent response
		require ongoing attention to avoid further conflict and complaint with neighbouring landholdings. • We also note the commitment to the removal of all below ground infrastructure to 500mm depth on final closure (Section 8.1.2, Page 219). This will assist the re-introduction of agricultural land use, and the potential for cropping should this take place. • The commitment to a pest and weed management plan is also noted during construction and operations (LU5, Page 297).	
Outstanding requirements	DPI Agriculture	The only outstanding issue is the claim that soil health and capability in comparison to current agricultural activities will improve as a result of the solar operation (Commitment rethe	Section 8.1 of the EIS, outlines that during operation, the primary land use would transition from agricultural land use to power generation. Grazing would be limited to the area within the Development footprint as a maintenance strategy to reduce biomass and assist weed management. There is mounting evidence to show that the 'resting' from agriculture and microclimate effects beneath the array will improve soil health and

Issue	Agency	Detail of issue	Proponent response
		Primary Production and Rural Development SEPP 2019, page 58). This is an ideal opportunity to measure the soil health and its capability as part of the baseline data to substantiate this, but also as an ongoing monitoring process that can take place during the operational phase of the solar farm. This may also be undertaken with the groundcover management plan actions.	capability. This would provide an opportunity for positive impacts on agricultural resources of the proposal site in areas outside of the Development footprint. In addition to the GMP that already forms a commitment of the project, a requirement to monitor the soils health is included. This would address an information gap for Australian solar farms. S2: A Groundcover Management Plan would be developed in consultation with an agronomist and to ensure final land use includes perennial grass cover establishment across the site as soon as practicable after construction and maintained throughout the operation phase. The plan would cover: • Soil handling, restoration and preparation requirements. • Plant Species election. • Soil preparation. • Establishment techniques. • Maintenance and monitoring requirements. • Perennial groundcover targets, indicators, condition monitoring, reporting and evaluation arrangements – i.e. A target of 70% live grass cover would apply to protect soils, landscape function and water quality. Additional measures would be implemented where practical when live grass cover falls below 70%. Grass cover would be monitored on a fortnightly basis using an accepted methodology. • Contingency measures to respond to declining soil or groundcover condition. I.e. any grazing stock would be removed from the site when cover falls below the target of 70% live ground cover. • Identification of baseline conditions for rehabilitation following decommissioning.

Issue	Agency	Detail of issue	Proponent response
			• Preserve the native composition as much as possible. In addition: • Provide a framework for periodic monitoring of soil health beneath the panels, to include in annual reporting for the project. **The mitigation measure has been updated and included in response to this submission.**
Environment Protection Agency			
Environmental Protection Licence	EPA	Based on the information provided, the proposal does not appear to require an environment protection licence under the *Protection of the Environment Operations Act 1997*. Furthermore, the EPA understands that the proposal is not being undertaken by or on behalf of a NSW Public Authority nor are the proposed activities other activities for which the EPA is the appropriate regulatory authority. In view of these factors, the EPA has no comments to provide on this project and no follow-up consultation is required.	Noted. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.**

Issue	Agency	Detail of issue	Proponent response
Heritage NSW			
Recommendations	Heritage NSW	Based on the assessment provided in the ACHAR, Heritage NSW supports the recommendations and findings of the assessment, however, with respect to Recommendation 4 - Heritage NSW recommends that it be revised to the following: 4. In the unlikely event that human remains are discovered during the construction of the Forest Glen Solar Farm, **all works must cease**, and the **NSW Police must** be notified immediately. Notification of Heritage NSW must occur once the NSW Police have been informed	Based on this submission, the mitigation measure was updated to: • In the unlikely event that human remains are discovered during the construction of the Forest Glen Solar Farm, **all works must cease**, and the **NSW Police must** be notified immediately. Notification of Heritage NSW must occur once the NSW Police have been informed. The updated measure is shown Appendix B but also updated within the ACHA provided in Appendix E. The two RAPs for the proposal have also been provided copies of the updated ACHA on 9 February 2022. The updated ACHA was delivered with a cover letter outlining the minor change to the mitigation measures within the report.
NSW Fire and Rescue			
PHA	NSW Fire and Rescue	FRNSW recommends a Preliminary Hazards Analysis (PHA) be undertaken as this will determine the approach and design of the recommended fire safety study.	Consultation with DPIE determined that, a BESS with capacity below 30MW/h does not require a PHA to be undertaken. As such the proposed 25MW/25MW/h BESS forecasted for installation at the Forest Glen SF does not require a PHA under these conditions. Additionally, the SEARs for proposal did not requests a PHA as part of the EIS. To ensure the approach and design of the recommended fire safety study

Issue	Agency	Detail of issue	Proponent response
			are appropriate, it is noted that FSS includes consultation with FRNSW. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.**
Fire Safety Study	NSW Fire and Rescue	In relation to the Battery Energy Storage System (BESS), specifically, Lithium-ion batteries, such fires involving Lithium-ion batteries present unique risks to attending firefighters. The recommendations below reflect these risks. To ensure that the fire prevention, detection, protection and firefighting measures are appropriate to the specific fire hazards and adequate to meet the extent of potential fires, a comprehensive Fire Safety Study (FSS) is recommended to be undertaken. That the FSS is developed in accordance with the requirements of Hazardous Industry Planning Advisory Paper No.2 (HIPAP No.2). That the FSS is required to be developed in consultation with	The following mitigation measure has been included in response to this submission: • **B14 Prior to operation, a Fire Safety Study (FSS) will be undertaken to ensure that the fire prevention, detection, protection and firefighting measures are appropriate to the specific fire hazards and adequate to meet the extent of potential fires from the BESS. The FSS will considers the operational capability of local fire agencies and the need for the facility to achieve an adequate level of on-site fire and life safety independence The FSS will be developed in accordance with the requirements of Hazardous Industry Planning Advisory Paper No.2 (HIPAP No.2) and consultation with FRNSW.**

Issue	Agency	Detail of issue	Proponent response
		FRNSW and to the satisfaction of the operational requirements of FRNSW. FRNSW recommend that the development of a FSS be a condition of consent. That the development of the FSS considers the operational capability of local fire agencies and the need for the facility to achieve an adequate level of on-site fire and life safety independence.	
Emergency Response Plan (ERP)	NSW Fire and Rescue	Should a fire or hazardous material incident occur, it is important that first responders have ready access to information which enables effective hazard control measures to be quickly implemented. FRNSW expectations align with section BF12 of the *Safeguards and Mitigations Measures* table on page 309 of the EIS and as such reiterate our recommendations in relation to an Emergency Response Plan (ERP) as follows: a. That a comprehensive ERP is	The following mitigation measure has been updated based on this submission: BF12 Prior to operation of the solar farm, **a comprehensive Emergency Response Plan (ERP) is to be developed for the site** in consultation with the RFS and Fire and Rescue NSW. This plan must include but not be limited to: • Specifically addresses foreseeable on site and off site fire events and other emergency incidents **(e.g. fires involving solar panel arrays, bushfires in the immediate vicinity or potential hazmat incidents).** • **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).** Risk control measures would include the level of personal protective clothing required to be worn, the minimum level of respiratory protection required, decontamination procedures, minimum

Issue	Agency	Detail of issue	Proponent response
		developed for the site. b. That the ERP specifically addresses foreseeable on-site and off-site fire events and other emergency incidents, (e.g. fires involving solar panel arrays, bushfires in the immediate vicinity or potential hazmat incidents). c. 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 power (either in its entirety or partially, as determined by risk assessment). d. Other risk control measures that	evacuation zone distances and a safe method of shutting down and isolating the PV system (either in its entirety or partially, as determined by risk assessment). • Outline other risk control measures that may need to be implemented in a fire emergency due to any unique hazards specific to the site. • Two copies of the ERP are stored in a prominent 'Emergency Information Cabinet' which is located in a position directly adjacent to the site's main entry point/s. Once constructed and prior to operation, the operator of the facility would contact the relevant local emergency management committee (LEMC).

Issue	Agency	Detail of issue	Proponent response
		may need to be implemented in a fire emergency due to any unique hazards specific to the site should also be included in the ERP. e. That two copies of the ERP (detailed in recommendation 6 (a) above) are stored in a prominent 'Emergency Information Cabinet' which is located in a position directly adjacent to the site's main entry point/s.	
NSW Rural Fire Service			
No comments	NSW Rural Fire Service	The NSW Rural Fire Service holds no objection to the proposed development proceeding, subject to the original conditions in the correspondence dated 23 November 2020 (NSW RFS Ref: DA20201020003862-SEARS-1) being in place to achieve the requirements of *Planning for Bush Fire Protection 2019.*	Noted. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.**
Transport for NSW			
Site access	TfNSW	The Traffic Impact Assessment	All access will be via Newell Highway, Minore Road, and Delroy Road as

Issue	Agency	Detail of issue	Proponent response
		dated July 2021 only relates to the Minore Road/Newell Highway intersection being utilised for access to the site. Clarification is required as to if the Narromine Road/North Minore Road access will be utilised for site access during any stage of the project.	per the haulage route presented in Section 7.6 of the EIS. Site traffic is not proposed to utilise North Minore Road. This would be further managed through the implementation of the CTMP and specifically the Haulage Plan: T3 A Haulage Plan would be developed and implemented during construction and decommissioning, including but not limited to: • Direction of traffic flow (both heavy and light). • Loads, weights and length of haulage and construction related vehicles and the number of movements of such vehicles. • Scheduling of deliveries of major components to minimise safety risks (on other local traffic). • Traffic controls (signage and site speed limit restrictions etc.). • All heavy vehicle movements to/from the access point are to be managed to ensure that only one inbound or outbound vehicle is travelling along the access route in the vicinity of the site at a time. • Heavy vehicle movements into and out of the proposal site will be controlled via traffic management means, including a traffic controller, temporary lowered speed limit and additional road signage alerting vehicles of truck movements in the area. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.**
Railway line	TfNSW	The adjacent rail corridor is managed by ARTC. Consultation with ARTC is required to determine the impacts of the subject modification on the Main Western Line in accordance with	Subdivision 2 of the *State Environmental Planning Policy (Infrastructure) 2007* outlines provisions for notification or other requirements for development in or adjacent to rail corridors and interim rail corridors. Clause 85 applies to any development on land that is in or immediately adjacent to a rail corridor, if the development: a) Is likely to have an adverse effect on rail safety.

Issue	Agency	Detail of issue	Proponent response
		the relevant rail provisions of the State Environmental Planning Policy (Infrastructure) 2007 and Development Near Rail Corridors and Busy Roads – Interim Guideline (2008).	b) Involves the placing of a metal finish on a structure and he rail corridor concerned is used by electric trains. c) Involves the use of a crane in air space above any rail corridor. d) Is located within 5 metres of an exposed overhead electricity power line that is used for the purpose of railways or rail infrastructure facilities. Clause 86 outlines any development (other than development to which clause 88 of the Infrastructure SEPP applies) that involves the penetration of the ground to a depth of at least 2m below ground level (existing) on land that is: a) Within or above a rail corridor; or b) Within 25m (measured horizontally) of a rail corridor; or c) Within 25m (measured horizontally) of the ground directly below a rail corridor d) Within 25m (measured horizontally) of the ground directly above an underground rail corridor The proposed solar farm site access along Delroy Road does not intersect the railway line, though some portions do intersect the railway corridor. No ground-penetrating works would be conducted in these portions of Delroy Road. The closest works to the rail corridor would be the upgrade works to the intersection of Delroy Road and Minore Road. However, the works are approximately 50m from the rail corridor and are unlikely to involve excavations to below 2m. No works are proposed within 25m of the rail corridor. The transport route to site is from Dubbo along Minore Road to Delroy Road. The proposal will not have traffic travelling along Minore Road from the west via Minore village or North Minore Road. Therefore, the *Development Near Rail Corridors and Busy Roads – Interim*

Issue	Agency	Detail of issue	Proponent response
			Guideline (2008) does not apply to the proposal due to the distance from the railway corridor. X-Elio has sent a letter to ARTC to inform them of the project and this evaluation. DPE sent a submission request to ARTC. No submission was provided by the time of submission report lodgement. **No changes to the proposal or mitigation measures are proposed in response to this concern.**
'Worst case scenario' modelling	TfNSW	TfNSW notes the traffic generation assessment and modelling identified in the Traffic Impact Assessment dated July 2021 for the Newell Highway/Minore Road intersection is based on shuttle buses providing transport for most staff to and from the site. TfNSW requires the traffic assessment and modelling to be based on a 'worst case scenario' to determine the appropriate treatment until a commitment has been made to use shuttle buses as the main form of transport. The TIA and supporting electronic copies of modelling files are required to be amended to reflect the 'worst case scenario'.	An additional assessment for the Newell Highway and Minore Road has been provided within Section 4.3.2 of the revised Traffic Impact Assessment (Appendix D) which assesses the intersection assuming no shuttle buses will be used for the proposal. For the purposes of this assessment, it has conservatively been assumed that the vehicle occupancy for staff vehicles accessing the site is 2.0 staff per vehicle. As such, the site is expected to generate an additional 50 right turn movements from Newell Highway in the morning peak and 50 left turn movements from Minore Road in the evening peak. The results of the SIDRA analysis are summarised below. The assessment demonstrates that the intersection is able to readily accommodate the additional increase in traffic without the use of shuttle buses.

<table>
<tr><th>Issue</th><th>Agency</th><th>Detail of issue</th><th>Proponent response</th></tr>
<tr><td></td><td></td><td></td><td>Table 4: SIDRA Analysis Results Summary – Worst Case Scenario
<table>
<tr><th colspan="2" rowspan="2">Movement</th><th colspan="3">AM Peak</th><th colspan="3">PM Peak</th></tr>
<tr><th>Average Delay (sec)</th><th>95% Queue (m)</th><th>Level of Service</th><th>Average Delay (sec)</th><th>95% Queue (m)</th><th>Level of Service</th></tr>
<tr><td rowspan="2">Newell Highway Northern Leg</td><td>Through</td><td>0.0</td><td>0.0</td><td>A</td><td>0.0</td><td>0.0</td><td>A</td></tr>
<tr><td>Right Turn</td><td>6.3</td><td>0.8</td><td>A</td><td>7.0</td><td>12.4</td><td>A</td></tr>
<tr><td rowspan="2">Minore Road</td><td>Right</td><td>10.9</td><td>1.8</td><td>B</td><td>16.9</td><td>2.4</td><td>C</td></tr>
<tr><td>Left</td><td>5.9</td><td>5.0</td><td>A</td><td>6.1</td><td>10.3</td><td>A</td></tr>
<tr><td rowspan="2">Newell Highway Southern Leg</td><td>Through</td><td>0.0</td><td>0.0</td><td>A</td><td>0.0</td><td>0.0</td><td>A</td></tr>
<tr><td>Left</td><td>5.6</td><td>0.0</td><td>A</td><td>5.6</td><td>0.0</td><td>A</td></tr>
</table>
Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.</td></tr>
<tr><td>Traffic count survey</td><td>TfNSW</td><td>A breakdown of the traffic count survey undertaken on Tuesday 8 December 2020 is required to clearly demonstrate the peak periods.</td><td>A breakdown of the full survey results is provided within the appendices of the updated TIA (Appendix D).
Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.</td></tr>
<tr><td>Swept path analysis plans</td><td>TfNSW</td><td>A swept path analysis on scaled plans is required in accordance with Austroads turning templates to demonstrate that the largest vehicle likely to utilise the Newell Highway/Minore Road intersection (and any other intersection proposed for access) can perform all manoeuvres throughout the</td><td>A swept path assessment has been undertaken for the Newell Highway / Minore Road intersection using the AutoTurn software package which is presented in Appendix E of the updated TIA (Appendix D). The swept path assessment has been based on a B-Double which represents the worst-case vehicle expected to access the site (excluding OSOM vehicles) and demonstrates simultaneous two-way movement is provided at the intersection.
Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.</td></tr>
</table>

Issue	Agency	Detail of issue	Proponent response
		intersection.	
Permits	TfNSW	Prior to transporting any oversized or over mass loads, the applicant shall obtain a permit for an oversized and over mass load from the RMS Special Permits Unit in Glen Innes.	Based on the submissions, the following mitigation measure has been included for traffic: **T7 Prior to transporting any oversized or over mass loads, the applicant shall obtain a permit for an oversized and over mass load from the RMS Special Permits Unit in Glen Innes.**
Traffic route	TfNSW	Consideration of the impacts to the state road network and identification of appropriate measures to mitigate the impact. In this regard, a traffic analysis needs to be undertaken to identify the impacts using SIDRA intersection modelling at the intersections of Newell Highway/Mitchell Highway and Newell Highway/East Street. Notes: • The analysis needs to be supported with current traffic count data, with turn movement diagrams at the intersection for the AM and PM peak. The count needs to separate light and heavy	Following discussions with TfNSW Officers who provided the response on 7 February 2022, it was agreed that the surrounding intersections are expected to operate in a suitable manner given they are located further from the site where construction traffic will be further disbursed, and the traffic volumes will be lower. Further, the construction traffic occurs outside of the peak times when the surrounding intersections are expected to accommodate a low level of traffic. As such, the intersections are expected to accommodate a lower level of traffic during the construction peak hour than the peak hour of the surrounding road network. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.**

Issue	Agency	Detail of issue	Proponent response
		vehicles. • Assumptions for traffic generation should be in accordance with RTA Guide to Traffic Generating Developments and associated updated surveys or appropriate justified. • Distributions to and from the development need to be justified. • The base (existing case) SIDRA models needs to be calibrated with observations of delay and queue lengths. Electronic copies of modelling files need to be provided to TfNSW for review.	
Treatment/upgrades	TfNSW	A strategic design for any identified access treatments/upgrades needs to be prepared to clarify the scope of works, demonstrate a compliant design can be constructed within the road reserve and allow the	Following the completed SIDRA analysis and swept path assessment for the intersection of Newell Highway and Minore Road (addressing submissions above), no intersection upgrades are required or proposed. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.**

Issue	Agency	Detail of issue	Proponent response
		consent authority to consider any environmental impacts of the works. These impacts include traffic and road safety impacts as well as other impacts such noise, flora and fauna, heritage, and impact to community.	
Dubbo Regional Council			
Ancillary buildings	Dubbo Regional Council	There has been a lack of detail for the type, size and location of the permanent ancillary buildings to be constructed as part of such development. To date no suitably scaled site plan to identify the buildings likely to be proposed for the administration/maintenance facilities has been submitted. Whilst it is recognised that the full extent and design of the support buildings is unlikely to be able determined accurately, it does not prevent the Proponent from providing an indicative layout of probable construction that may be required. Such detail will assist Council or a private registered certifier when receiving	As a State Significant Development, the detail presented in the EIS can often seem very high level. It is acknowledged that this may not provide the certainty that would assist Council in terms of the usual level of input they would provide into local development consents. While indicative layouts and dimensions are presented in the EIS, it is important to ensure there is sufficient flexibility in any approval received to construct the state significant project most efficiently. This is achieved through a commercial design and construction tendering process post approval. Further detail will be provided as part of the project meeting its consent conditions, if approved. This will required submission of detailed plans of the final layout of the development to the Secretary. The consent conditions if approved, are also expected to require construction in accordance with the relevant requirements of the Building Code of Australia and specify that the Applicant obtain construction and occupation certificates for the development under Part 6 of the EP&A Act. **No changes to the proposal or mitigation measures are proposed in response to this concern.**

Issue	Agency	Detail of issue	Proponent response
		construction certificate applications for any such buildings, in verifying that such works constitute part of the State Significant Development Consent, and will not require additional development consents.	
Community Benefit Sharing Program	Dubbo Regional Council	The information provided by the Proponent includes that they are seeking to implement a Community Benefit Sharing Program. It is unsure as to what this means, overall program objectives and available level of funding for such a program. Council can advise that staff have recently met with the Proponent to discuss this issue and the overall development. This included a discussion around the fact that a Planning Agreement will be sought between Council and the Proponent. It is also anticipated that Council will meet again with the Proponent in the coming weeks to further discuss such an agreement and terms. It would be appreciated if the Department of	Noted. To date X-Elio has undertaken the following activities in reference to the Community Benefit Sharing Program: • June 2021 – X-Elio opened discussions with Council's Manager Building and Development Service, to see if Dubbo Regional Council were interested in putting together a community benefit planning policy. X-Elio were advised this is definitely something the council are interested to implement. The Council shared their policy regarding the programs. • June-July 21 – General discussions and questions about the policy between Council and X-Elio were undertaken. • August 21 – X-Elio introduced to Manager Growth Planning who is now the main contact to come to an agreement on this plan. • November 21 – X-Elio met virtually with Manager Growth Planning to further discuss funding options, amounts, timeframes etc of any agreement. Overall general positive discussions with further details to be decided early 2022. • Early Feb 2022 – X-Elio reached out to Manager Growth Planning to fine tune details of any agreement. Expected virtual meeting mid February 2022 to finalise these details. • Mid Feb 2022 – X-Elio met virtually with Manager Growth Planning

Issue	Agency	Detail of issue	Proponent response
		Planning, Infrastructure and Environment acknowledge the fact that Council has commenced working towards this outcome with the Proponent and condition as part of any development approval for this outcome to be achieved. As part of these discussions, Council has raised the issue of housing for the consideration of the Proponent and what possible mechanisms could exist to assist the housing issues currently being experienced in the Dubbo and Wellington communities. Council is happy to further advise the Department of the deliberations of such discussions. However, to achieve this outcome, the support of the Department for the Planning Agreement to progress is strongly urged.	to further discuss about the Planning Agreement scheme and X-Elio agreed to make an initial benefits proposal to the Council by early March. • March 2022 – X-Elio sent to Manager Growth Planning a preliminary proposal setting out details such as amount of funds, term of agreement, structure of the community benefit fee and preferred potential initiatives for Council consideration. The Council confirmed it would review the proposal and provide further feedback on steps moving forward. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.**
Ancillary buildings	Dubbo Regional Council	The EIS identifies that works will have to be undertaken by Essential Energy, in particular the construction of the new substation. Under the *Environmental Planning & Assessment Act (EP&A Act*),	While components of the substation will become an Essential Energy owned asset, as they are required for the state significant project they must be described and assessed within the EIS. This ensures the project is fully described, feasible and all impacts it may incur have been identified, assessed and considered manageable. As above, the project specific detail cannot be provided at this stage but the key parameters indicated in the EIS

Issue	Agency	Detail of issue	Proponent response
		Essential Energy constitutes the Crown and thus their work would be Crown building work and would not require a Construction Certificate. Further, their work would generally be 'Development without Consent' under the Infrastructure SEPP. Consequently, as the EIS will be required to address requirements of the various statutes, there is no reason why the EIS cannot identify the works associated with the State Significant Development that will be undertaken as Crown building work for the purposes of section 6.28 of the EP&A Act.	have allowed a thorough assessment of all physical and amenity impacts likely to result from construction and operation, meeting the proponent's obligation under part 4 of the EP&A Act. In addition, illustrative drawings have been provided to Council to show similar buildings at another solar farm site. Separate from the solar farm approval being sought under Part 4, it is likely that Essential Energy will also complete a Review of Environmental Factors under Part 5 of the EP&A Act, for these works when the detailed design requirements are known to meet their obligations under the Act. This is not required by or related to the SSD approval. **No changes to the proposal or mitigation measures are proposed in response to this concern.**
Subdivision and access	Dubbo Regional Council	The EIS identifies that the subject property is intended to be subdivided into three (3) allotments – Lot A for Essential Energy's new substation; Lot B being the intended area to be leased by the Proponent; and Lot C being the land to be retained by the existing landowner. With respect to Lot C, it will comprise four (4) separate parcels which are	The project intends to create a right of carriage way to link the Lot C land parcels to enable landowner access during the Project's construction and operation. This will be done in consultation with the landowner reflecting the final project design, post approval. Additionally, as described in Section 3.1, Delroy Road has recently been gazetted as a local Council road. However, portions of it traverse private freehold (Lots 51/ DP755094 and Lot 52/DP755094). Refer Figure 3-2. Following Council consultation, the Proponent has sought and obtained landowner consent to establish a right of carriageway , to ensure legal access to the Proposal site across these sections. A land owner consent for right of access through Lot 52 has been provided to DPE with this

Issue	Agency	Detail of issue	Proponent response
		not contiguous with each other. Further, three (3) of the four (4) parcels have no public road access. Consequently, it will be necessary for 'Rights of Carriageway' to be created to provide the landowner with legal access to each of these parcels across Lot B.	Submissions Report. **No changes to the proposal or mitigation measures are proposed in response to this concern.**
Delroy Road	Dubbo Regional Council	Delroy Road is a gravel road and is owned and maintained by Council. This was transferred from the Crown to Council on 13 August 2021 as per Gazette Notice (attached). The road formation is mostly contained within the road reserve, however there are departures where the physical road formation is located on private property. This portion of the physical road shall be dedicated as road reserve lots, with sketch provided. This shall include the dedication of part (2 km) of the Crown Road Transfer to Council. A report to Council (Local Government Act Cl.377) would be required for a mandate to have the	While no works are proposed in the section of Delroy Road that departs from the mapped road reserve, the project includes the requirement for minimum of 6.5m road width and suitable surface for that part of Delroy Road which extends outside of the existing road reserve to pass over Lots 51 and 52 in DP755094 to facilitate access to the site. The works proposed to the portion of the road which passes over Lots 51 and 52 in DP755094 are limited to minor grading and resurfacing, only where required to achieve the minimum requirements. We note that the Council's submission refers to part of Delroy Road also extending over Lot 1 in DP 1199623, however, the proponent does not consider that any part of Delroy Road as constructed passes over Lot 1 in DP 1199623. The project proposes to carry out the upgrades outlined above on the existing part of Delroy Road which extends outside of the existing road reserve to pass over Lots 51 and 52 in DP755094 to enable access to the site. The proponent will negotiate appropriate arrangements with the landowner to authorise the road upgrade works on, and the use of the portion of Delroy Road which passes over Lots 51 and 52 in DP755094 for

Issue	Agency	Detail of issue	Proponent response
		land dedicated to Council. After which an ISEPP 'DA exempt' Subdivision Certificate could be used.	vehicles associated with the project. As the proponent is not the owner of Lots 51 and 52 and has no rights to procure that the landowner dedicates this portion of Delroy Road to Council to regularise the existing tenure situation for the public road, this does not form part of the project. It is open to Council to separately acquire that part of Lots 51 and 52 in DP755094 which are crossed by Delroy Road should it wish to regularise the existing public road tenure situation for Delroy Road, but this is not required for the project. **No changes to the proposal or mitigation measures are proposed in response to this concern.**
Planning instruments	Dubbo Regional Council	The EIS fails to recognise the draft Planning Instrument being the merging of *Dubbo Local Environmental Plan 2011* and *Wellington Local Environmental Plan 2012*.	It is understood that Dubbo Regional Council are proposing to merge the existing *Dubbo Local Environmental Plan 2011* and *Wellington Local Environmental Plan 2012*. This is in response to the merging of the Dubbo City and Wellington Council's back in 2016. It is understood that the proposed LEP is with DPIE for review and gazettal. Based on the proposed provision changes, the updated LEP is unlikely any implications on the proposal as the changes don't relate to the projects land zoning or other requirements for the project under the LEP.
Biodiversity	Dubbo Regional Council	With regard to biodiversity, it appears that a blanket Category 1 (exempt) classification has been applied to all cleared land, regardless of the quality of the groundcover and with no evidentiary support provided. Category 1 must have been cropped since 1990 and no	The LCA has been provided to BCS and feedback has been obtained. NGH have since amended the LCA to address BCS requirements, including on Cat 1 – Exempt Land a described previously. The amended LGA is attached as Appendix A.1 to the updated BDAR. Refer Appendix C.

Issue	Agency	Detail of issue	Proponent response
		evidence has been offered to support this.	
Site access	Dubbo Regional Council	A Traffic Impact Assessment of the construction traffic is required at the intersection of Minore Road and the Newell Highway and the roundabout with St Andrews Drive.	In response to TfNSW submissions above, an updated SIDRA and swept path assessment was undertaken for the Newell Highway / Minore Road intersection which is presented in the updated TIA (Appendix D). The intersection of Newell Highway and Minore Road is expected to accommodate a higher level of traffic and have lower capacity compared to the intersection of Minore Road and St Andrews Drive given it is sign controlled. The SIDRA results for the intersection of Newell Highway and Minore Road indicates the intersection has ample capacity even with the solar farm traffic and as such the intersection of Minore Road and St Andrews Drive is expected to operate with a good level of service. **No changes to the proposal or mitigation measures are proposed in response to this concern.**
Minore Road	Dubbo Regional Council	A dilapidation report to be undertaken on Minore Road prior to construction and repairs be made to the preconstruction condition of Minore Road.	Section of 7.6 of the EIS, includes the existing mitigation measures: • T4 The proponent would 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. This report is to address all road related infrastructure. Reports must be prepared prior to commencement 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. Such work shall be undertaken at a time agreed upon between the Proponent and relevant road authorities.

Issue	Agency	Detail of issue	Proponent response
			• T5 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. It is underscored that these are the strong commitments of a State Significant Development and that there is a high level of certainty regarding the ability of the proponent to implement these actions. To fail to do so would place the project in breach of its consent, pending project approval. **No changes to the proposal or mitigation measures are proposed in response to this concern.**
Delroy Road	Dubbo Regional Council	• Delroy Road shall be upgraded from the site access to the intersection of Delroy and Minore Roads (including the bridge underpass) with priority given to Minore Road traffic. • Carriageway widths and elements are to be based on Austroads' Guide to Road Design for both the construction and end use traffic for a rural road. • Seal Delroy Road from Minore Road to the entrance to the proposed development (30L Delroy Road). • As part of the construction phase, attention will be	Delroy Road is expected to accommodate up to 227 vehicle movements per day during peak construction periods, and 202 vehicle movements per day during the average construction period. Unsealed roads would typically be considered for sealing when they accommodate between 200 and 500 vehicle movements per day. The *Australian Road Research Board Best Practice Guide for Unsealed Roads 2* notes that roads may warrant paving when maintenance costs increase to unacceptable levels, in wet climates, or when economic or social benefits are evident. Given the expected traffic volume on the local roads is typically in the order of 200 vehicles per day and the increase in traffic is only temporary it is considered acceptable for Delroy Road to remain unsealed. Additionally, given Delroy Road only services 7 dwellings it is considered acceptable and in line with the ARRB Guideline for the surface to remain unsealed. The Proposal is a classified state significant development. The Proponent has already established strong commitments to conduct independent road dilapidation surveying and reporting, including along Delroy Road.

Issue	Agency	Detail of issue	Proponent response
		required to assist the movement of large vehicles at this intersection.	It is recommended that a review be undertaken of the local road network used by the project prior to construction and the carriageway be widened in accordance with the minimum road widths outlined within Table 3.10 of the ARRB Guide. Therefore, it is recommended that Delroy Road be provided with a carriageway width of 6.5 metres. The proposed road width will allow large trucks associated with the delivery of plant or vehicles associated with the surrounding agricultural uses to pass each other. **No changes to the proposal or mitigation measures are proposed in response to this concern.**
Traffic mitigation measures	Dubbo Regional Council	From an engineering perspective it is acknowledged that there will be an increase in traffic during construction. The network is considered as being able to accommodate a mix of traffic types and volumes. In this regard Council is considering: • Proposing a reduced speed limit for the development's heavy vehicle traffic to 80km/h (in the 100km/h zone) and 50km/h along Delroy Road should be applied to the haulage route from the Newell Highway. • We are also proposing	The EIS outlines the following mitigation measure would address these recommendations from council: T3 A Haulage Plan would be developed and implemented during construction and decommissioning, including but not limited to: • Direction of traffic flow (both heavy and light). • Loads, weights and length of haulage and construction related vehicles and the number of movements of such vehicles. • Scheduling of deliveries of major components to minimise safety risks (on other local traffic). • Traffic controls (signage and site speed limit restrictions etc.). • All heavy vehicle movements to/from the access point are to be managed to ensure that only one inbound or outbound vehicle is travelling along the access route in the vicinity of the site at a time. • Heavy vehicle movements into and out of the proposal site will be controlled via traffic management means, including a traffic controller, temporary lowered speed limit and additional road signage alerting vehicles of truck movements in the area.

Issue	Agency	Detail of issue	Proponent response
		strategically placed “trucks caution“ symbolic type warning signs could be installed along Minore Road for enhanced awareness.	In response to DRC concern, measure T3 will be amended to add the additional commitment: • **DRC will be consulted in the preparation of the Haulage Plan.** In addition, measure T1 will be amended to add the additional commitment: • **DRC will be consultation in the preparation of the Construction Traffic Management Plan.**
North Minore Road	Dubbo Regional Council	North Minore Road is a Road Train Route to the North Minore Silos, from and returning to the Mitchell Highway. It is likely that B-Doubles could shortcut access between the Mitchell and Newell Highways as indicated by a resident submission. It is noteworthy that Transport for NSW in their submission has called out the need to do more analysis: • Council is not aware of a significant increase in B-Doubles on this route. Traffic counters on these roads would be required to prove that assertion. B-Double vehicles will need to be under permit for access to the Solar Farm.	All access will be via Newell Highway, Minore Road, and Delroy Road as per the haulage route presented in Section 7.6 of the EIS. Site traffic is not proposed to utilise North Minore Road. No works are required or would take place on North Minore Road. This would be further managed through the implementation of the CTMP and specifically the Haulage Plan: T3 A Haulage Plan would be developed and implemented during construction and decommissioning, including but not limited to: • Direction of traffic flow (both heavy and light). • Loads, weights and length of haulage and construction related vehicles and the number of movements of such vehicles. • Scheduling of deliveries of major components to minimise safety risks (on other local traffic). • Traffic controls (signage and site speed limit restrictions etc.). • All heavy vehicle movements to/from the access point are to be managed to ensure that only one inbound or outbound vehicle is travelling along the access route in the vicinity of the site at a time. • Heavy vehicle movements into and out of the proposal site will be controlled via traffic management means, including a traffic controller, temporary lowered speed limit and additional road

Issue	Agency	Detail of issue	Proponent response
		• General Truck and Dog access is legally permitted on all roads with Performance Based Standards (PBS) vehicles under a permit. It is worth noting that the whole of the Local Government Area (LGA) and Dubbo urban area has experienced a significant increase in Truck and Dog vehicles.	signage alerting vehicles of truck movements in the area. **Therefore, no changes to the proposal or mitigation measures are proposed in response to this submission.**
Waste	Dubbo Regional Council	The EIS makes reference to various waste facilities within Dubbo, but all commercial waste shall be directed to the Whylandra Waste and Recycling Centre.	It is understood that council would like all commercial waste shall be directed to the Whylandra Waste and Recycling Centre as the only appropriate facility. However, due to the long term nature of these projects and to allow flexibility if waste facilities change over time the waste facilities would be determined during the preparation of the Waste Management Plan post approval as outlined below. The mitigation measure has been updated to include the plan is to be developed in consultation with Ccouncil. The mitigation measure within Section 8.7 of the EIS includes: WR1 A Waste Management Plan (WMP) would be developed **in consultation with Dubbo Regional Council** 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.

Issue	Agency	Detail of issue	Proponent response
			• Provision of toilet facilities for onsite workers and identify that 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).

5. Updated project justification

5.1 Benefits of and needs for the proposal

The Forest Glen Solar Farm has been designed with the following objectives, as set out in the EIS:

- Select a site that is suitable for solar PV generation, connection to the grid network and environmental constraints
- Assist to mitigate the effects of climate change through the transition to renewable energy.
- Meet and exceed all relevant environmental and regulatory requirements for the proposal, in collaboration with key stakeholders.
- Provide local and regional employment opportunities and other social benefits during the construction and operation of the facility.
- Include on site energy storage to support the high voltage transmission network.

The development of the renewable energy source on the Forest Glen SF proposal site would:

- Assist the NSW and Commonwealth Governments to meet Australia's renewable energy targets.
- Provide a clean and renewable energy source to assist in reducing greenhouse gas emissions.
- Generate electricity that have a minimal negative impact on cultural and environmental impacts.
- Generation of enough clean, renewable energy for about 40,000 average NSW homes per annum.
- Displace approximately 164,000 metric tonnes of carbon dioxide, currently generated by non-renewable sources per annum.
- the area where the Forest Glen solar farm is proposed, has been identified by the AEMO as a Renewable Energy Zone (REZ), and if approved, the proposal would provide electricity close to an identified consumption centre, thus, providing local and regional employment opportunities and other social benefits during all stages of the project.

5.2 Ability to be approved

The EIS and this SR indicate that the proposal can be approved, subject to the identified mitigation measures. In summary, this is because:

- The proposal meets relevant planning requirements.
- The environmental risks associated with the proposal are well understood and manageable. Specifically:
    - The proposal has demonstrated consideration of avoidance and minimisation of key environmental features as part of the layout and mitigation strategy development. In response to the site's key constraints, the proposal:
        - Avoided higher quality areas of native vegetation onsite including:
            - 12.9ha of PCT 201 Fuzzy Box Woodland on alluvial brown loam soils mainly in the NSW South Western Slopes Bioregion

  - 19.6ha of PCT 255 Mugga Ironbark - Buloke - Pillga Box - White Cypress Pine shrubby woodland on sandstone in the Dubbo region, south-western Brigalow Belt South Bioregion
  - 0.1ha of PCT 81 Western Grey Box - cypress pine shrub grass shrub tall woodland.
- Buffered waterways in accordance with their classification and the "Guidelines for Riparian Corridors on Waterfront Land", for 2nd order and above streams, to minimise impacts on hydrology and water quality. Excepting required crossings, these areas will be avoided. Rehabilitation of impacts required in these areas will be with reference to best practice guidelines.
- Avoided existing electricity easements 20m either side of the existing transmission line, approximately 10.2ha.

- The impacts are largely reversible, and offsetting would be undertaken to ensure an overall 'not net biodiversity loss' outcome for the proposal.
- The principles of ecologically sustainable development have been incorporated in the design, construction and ongoing operations of the development.

Consideration has been given to the compatibility of the proposal with the existing electricity network and the compatibility of the site for the generation of solar energy. This ensures construction and operating costs are reduced, maximising the viability of the proposal and its contribution to meeting energy needs into the future. Considerations during initial site investigations included:

- Proximity to and capacity of the electrical transmission network
- Availability of an abundant solar resource
- Availability of suitable land (i.e. topography, aspect, presence of native vegetation)
- Suitability in terms of the interests of other stakeholders and the environment.

The consequences of not proceeding with the proposed Forest Glen Solar Farm would result in:

- Loss of opportunity to reduce GHG emissions and move towards cleaner renewable electricity generation
- Loss of a renewable energy supply that would assist in reaching the NSW renewable energy targets
- Loss of additional electricity generation and supply into the National grid
- Loss of social and economic benefits created through the provision of direct and indirect employment opportunities during the construction and operation of the solar farm.

The Forest Glen Solar Farm would result in numerous benefits, local and regional, and has been developed to ensure the benefits are spread into the longer term, reflecting community expectations specific to this proposal. It provides a balance between technological, energy and environmental aspects, while retaining the flexibility required in the final design stage of the proposal. Furthermore, the proposal is consistent with the principles of ESD and forms an important part of Australia's transition to renewable energy generation. It is considered justifiable and acceptable.

6. References

DPI. (2012, July). *Guidelines for Watercourse Crossings on Waterfront Land .* Retrieved from NSW Department o f Primary Industries - Office of Water: https://www.industry.nsw.gov.au/__data/assets/pdf_file/0019/160471/licensing_approvals_controlled_activities_watercourse_crossings.pdf

Office of Water. (2010, August). *Guidelines for laying pipes and cables in watercourses.* Retrieved from NSW Office of Water: http://www.water.nsw.gov.au/__data/assets/pdf_file/0004/547168/licensing_approvals_controlled_activities_laying-pipes_cables.pdf

Appendix A Submission register

Group	Name	Section where issues addressed in submissions report
Public Authorities	Crown Lands	Section 4.2
	DPE BCS	Section 4.2
	DPE Water and NRAR	Section 4.2
	DPI Agriculture	Section 4.2
	EPA	Section 4.2
	Heritage NSW	Section 4.2
	NSW Fire and Rescue	Section 4.2
	TfNSW	Section 4.2
	RFS	Section 4.2
Council	Dubbo Regional Council	Section 4.2
Individuals	Name withheld (SE-35251041; R6)	Section 4.1 – visual amenity, solar panels and glare, lighting, land use capability and property values, consultation, public amenity, flooding
	(SE-35294519)	Section 4.1 - traffic

Appendix B Updated mitigation measures

The mitigation measures contained in this report comprise proposal-specific safeguards, recommendations from specialist assessment reports and reference to a range of best practice guidelines and regulatory requirements. The measures are to be incorporated in proposal plans and designs, contract specifications and the Construction Environmental Management Plan, Operation Environmental Management Plan and Decommissioning Environmental Management Plan as appropriate. The mitigation measures are consolidated below. Where measures are relevant to more than one environmental aspect, they are cited only once under the most relevant aspect, to avoid duplication.

ID	Safeguards and mitigation measures	C	O	D
Visual amenity and landscape character				
V1	The materials and colour of onsite infrastructure would, 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: • Proposed new buildings will be non-reflective and in eucalypt green, beige or muted brown. • Pole mounts will be non-reflective. • Security fencing posts and wire would be non-reflective.	Design		
V2	Ongoing consultation to be undertaken with R4 and the Dubbo Model Aero Club	C	O	D
V3	Existing vegetation should be retained and protected, where possible, during the works to maintain the existing level of screening.	C		
V4	Night lighting would be minimised to the maximum extent possible (i.e. manually operated safety lighting at main component locations).		O	
V5	***No above ground operational infrastructure would be constructed within the visual set-back area for R6 as mapped in*** Figure 3-1***. This set back is included manage the operational visual, glare and glint impacts of the project on this receiver.***	C	O	
V6	**No security lighting to be installed on this perimeter of the project, within 500m of the residence.**	**Design**		
Noise and vibration				

ID	Safeguards and mitigation measures	C	O	D
NV1	A Noise Management Plan would be developed as part of the CEMP. The plan would include, but not be limited to: • Use less noisy plant and equipment where feasible and reasonable. • Plant and equipment to be properly maintained. • Provide special attention to the use and maintenance of 'noise control' or 'silencing' kits fitted to machines to ensure they perform as intended. • Strategically position plant on site to reduce the emission of noise to the surrounding neighbourhood and to site personnel. • Avoid any unnecessary noise when carrying out manual operations and when operating plant. • Any equipment not in use for extended periods during construction work should be switched off. • Complaints procedure deal with noise complaints that may arise from construction activities. Each complaint would need to be investigated and appropriate noise amelioration measures put in place to mitigate future occurrences, where the noise in question is in excess of allowable limits. • Establish good relations with people living in the vicinity of the site at the beginning of proposal and maintain. Keep people informed, deal with complaints seriously and expeditiously. The community liaison member of staff should be adequately experienced.	C		
Compatibility with existing land uses				
LU1	Undertake a baseline soil survey prior to construction to inform construction and operational management measures to resist erosion and weed ingress.	PC		
LU2	Consultation would be undertaken with Essential Energy regarding connection to the substation and design of electricity transmission infrastructure.	C	O	D
LU3	Consultation with proposal site exploration licence holders regarding the proposal and potential impacts.	C	O	D
~~**LU4**~~	~~**Consultation with DPIE-Crown Lands would be ongoing, and the following would be undertaken:**~~ ~~**Prior to construction, a permit will be applied for to allow construction to commence within Delroy Road Crown road.**~~	~~**PC**~~		
LU5	A pest and weed management plan would be prepared to manage the occurrence of priority weeds and pest species across the site during construction and operation. The plans must be prepared in accordance with Dubbo Regional Council and NSW	C	O	

ID	Safeguards and mitigation measures	C	O	D
	DPI requirements.			
LU6	A Rehabilitation Plan would be prepared to ensure the array site is returned to at least or better than pre-solar farmland and soil capability during the decommissioning stage. The plan would be developed with reference to the base line soil testing (completed prior to construction) and with input from an agronomist to ensure the site is left stabilised, under a cover crop or other suitable ground cover. The soil survey would be based on: • *Australian Soil and Land Survey Handbook* (CSIRO, 2009) • *Guidelines for Surveying Soil and Land Resources* (CSIRO, 2008). *The land and soil capability assessment scheme: second approximation (OEH, 2012).*	C		D
Social and economic impacts				
SE1	• Liaison with local industry representatives to maximise the use of local contractors, manufacturing facilities, materials.	C		
SE2	Liaison with local representatives regarding accommodation options for staff, to minimise adverse impacts on local services.	C		D
SE3	• Liaison with local tourism industry representatives to manage potential timing conflicts with local events.	C		D
SE4	The Community Consultation Plan 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 proposal and proposal benefits. • Protocols to inform relevant stakeholders of potential impacts (haulage, noise, air quality etc.). • Protocols to respond to any complaints received.	C		D
SE5	• The Proponent will consult with local employment agencies and training organisations and where practicable, will consider supporting training and apprenticeships.	C	O	D
Biodiversity (Flora and fauna)				
B1	Timing works to avoid critical life cycle events such as breeding or nursing: • Hollow bearing tree removal should be timed to avoid August-November - breeding season for the highest number of	C		

ID	Safeguards and mitigation measures	C	O	D
	species.			
B2	Instigating clearing protocols including pre-clearing surveys, daily surveys and staged clearing, the presence of a trained ecological or licensed trained spotter catcher during clearing events: • Staged clearing, supervised by Ecologist or trained spotter catcher to allow for resident fauna to relocate or be relocated where required	C		
B3	Relocation of habitat features (fallen timber, hollow logs and embedded rock) from within the Development Site: • All embedded rock, fallen timber and hollow logs should be relocated outside of the construction area under the supervision of an Ecologist or spotter catcher.	C		
B4	Induct all staff prior to construction to identify vegetation to be retained, prevent inadvertent damage and reduce soil disturbance: Approved clearing limits to be clearly delineated with temporary fencing or similar prior to construction commencing. No stockpiling or storage within dripline of any mature trees. No stockpiling or storage within riparian buffers.	PC C		
B5	Clearing protocols that identify vegetation to be retained, prevent inadvertent damage and reduce soil disturbance; for example, removal of native vegetation by chainsaw, rather than heavy machinery, is preferable in situations where partial clearing is proposed: Documented clearance protocols to mark and protect vegetation to be retained. Use handheld machinery where possible and have elevated work platform check hollows prior to tree felling	PC		
B6	Install temporary fencing to protect significant environmental features such as riparian zones: • Prior to construction commencing, exclusion fences and signage would be installed around identified exclusion zones.	C		
B7	Hygiene protocols to prevent the spread of weeds or pathogens between infected areas and uninfected areas: • Ensure machinery and equipment as clean and free from pathogens and weeds prior to entering site.	C		
B8	Preparation of a Biodiversity Management Plan (BMP) for the site to include: • How to remove and dispose of vegetation and topsoil containing weeds declared under the Biosecurity Act 2015	C	O	

ID	Safeguards and mitigation measures	C	O	D
	during and after construction. • Reporting any occurrences of pathogens such as Myrtle Rust and Phytophthora • Identification and protection of biodiversity exclusion zones during construction and operation.			
B9	Sediment barriers and spill management procedures to control the quality of water runoff released from the site into the receiving environment: • An erosion and sediment control plan would be prepared and implemented. • Spill management procedures would be implemented. • Stormwater management plan prepared and implemented.	C		
B10	**A preclearance survey would be conducted for *Indigofera efoliata* between September-October, in all areas of Zone 1 PCT 255, prior to project commencement. If this species is detected, all individuals (including an appropriate buffer) would be avoided, in consultation with BCS.**	C		
Traffic, transport and safety				

T1	A Construction Traffic Management Plan (CTMP) will be prepared prior to construction commencing by the appointed contractor. The CTMP will provide additional information regarding the traffic volumes and distribution of construction vehicles that is not available at this time, including:
	• Road transport volumes, distribution and vehicle types broken down into:
	  ○ Hours and days of construction.
	  ○ Schedule for phasing/staging of the project.
	• The origin, destination and routes for:
	  ○ Employee and contractor light traffic.
	  ○ Heavy vehicle traffic.
	  ○ Oversize and over mass traffic.
	The following provides recommended measures that should be adopted within the CTMP to minimise the impact of construction traffic along the road network:
	• Neighbours of the solar farm be consulted and notified regarding the timing of major deliveries which may require
		PC		

ID	Safeguards and mitigation measures	C	O	D
	additional traffic control and disrupt access. • Dwellings are located adjacent to Delroy Road along the access route. It is recommended that dust suppression measures be implemented within the vicinity of the dwelling to limit the impact to residents • Loading and unloading is proposed to occur within the work area. No street or roads will be used for material storage at any time. • Delivery of larger plant to occur outside of school bus service times and peak traffic times to prevent larger vehicles interacting with the school bus and congestion issues. • All vehicles will enter and exit the site in a forward direction. • Management of vehicular access to and from the site is essential in order to maintain the safety of the general public as well as the labour force. The following code is to be implemented as a measure to maintain safety within the site: o Utilisation of only the designated transport routes. o Construction vehicle movements are to abide by finalised schedules as agreed by the relevant authorities. • All permits for working within the road reserve must be received from the relevant authority prior to works commencing. • A map of the primary haulage routes highlighting critical locations. • An induction process for vehicle operators and regular toolbox meetings. • A complaint resolution and disciplinary procedure. Local climatic conditions that may impact road safety of employees throughout all project phases (e.g. fog, wet and significant dry, dusty weather). **Dubbo Regional Council will be consultation in the preparation of the Construction Traffic Management Plan.**			
T2	The intersection of Minore Road and Delroy Road is to be upgraded to formalise the intersection to ensure vehicle movements are undertaken in a safe manner and to accommodate the increase in traffic generated by the solar farm. The proposed upgrades are shown within Appendix C of the EIS and includes: • Provide a minimum carriageway width of 6.5 metres for Delroy Road;	PC, C		

ID	Safeguards and mitigation measures	C	O	D
	• Seal the first part of Delroy Road to allow vehicles to safely exit Minore Road; • Providing Give Way signage and line marking for vehicles exiting Delroy Road.			
T3	A Haulage Plan would be developed and implemented during construction and decommissioning, including but not limited to: • Direction of traffic flow (both heavy and light). • Loads, weights and length of haulage and construction related vehicles and the number of movements of such vehicles. • Scheduling of deliveries of major components to minimise safety risks (on other local traffic). • Traffic controls (signage and site speed limit restrictions etc.). • All heavy vehicle movements to/from the access point are to be managed to ensure that only one inbound or outbound vehicle is travelling along the access route in the vicinity of the site at a time. Heavy vehicle movements into and out of the proposal Site will be controlled via traffic management means, including a traffic controller, temporary lowered speed limit and additional road signage alerting vehicles of truck movements in the area. **Dubbo Regional Council will be consulted in the preparation of the Haulage Plan.**	C	O	D
T4	The proponent would 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. This report is to address all road related infrastructure. Reports must be prepared prior to commencement 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. Such work shall be undertaken at a time agreed upon between the Proponent and relevant road authorities.	PC		D
T5	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		D
T6	Obtain a Section 138 Consent from the relevant council/agency to carry out works within the road reserve.	C		D
T7	**Prior to transporting any oversized or over mass loads, the applicant shall obtain a permit for an oversized and over mass load from the RMS Special Permits Unit in Glen Innes.**	C		D

ID	Safeguards and mitigation measures	C	O	D
Soils				
S1	As part of the CEMP, a Soil and Water Management Plan (SWMP) (with erosion and sediment control plans) would be prepared, implemented and monitored during the proposal, in accordance with Landcom (2004), to minimise soil (and water) impacts. These plans would include provisions to: • Install, monitor and maintain erosion controls. • 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. • Manage topsoil 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; rationalise vehicle movements and restrict the location of activities that compact and erode the soils as much as practical. Any compaction caused during construction would be treated such that revegetation would not be impaired. • 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. Areas of soil disturbed by the proposal would be rehabilitated progressively or immediately post-construction, reducing views of bare soil.	C		
S2	A Groundcover Management Plan would be developed in consultation with an agronomist and to ensure final land use includes perennial grass cover establishment across the site as soon as practicable after construction and maintained throughout the operation phase. The plan would cover: • Soil handling, restoration and preparation requirements. • Plant Species election. • Soil preparation. • Establishment techniques. • Maintenance and monitoring requirements. • Perennial groundcover targets, indicators, condition monitoring, reporting and evaluation arrangements – i.e. A target of 70% live grass cover would apply to protect soils, landscape function and water quality. Additional measures would	C	O	D

ID	Safeguards and mitigation measures	C	O	D
	be implemented where practical when live grass cover falls below 70%. Grass cover would be monitored on a fortnightly basis using an accepted methodology. • Contingency measures to respond to declining soil or groundcover condition. I.e. any grazing stock would be removed from the site when cover falls below the target of 70% live ground cover. • Identification of baseline conditions for rehabilitation following decommissioning. • Preserve the native composition as much as possible • **Provide a framework for periodic monitoring of soil health beneath the panels, to include in annual reporting for the project.**			
S3	The array would be designed to allow sufficient space between panels to establish and promote groundcover beneath the panels and allow for implementation of weed controls.	Design		
S4	A Spill and Contamination Response Plan would be developed as part of the overall Emergency Response Plan to prevent contaminants affecting adjacent surrounding environments. The plan would include measures to: • Respond to the discovery of existing contaminants at the site (e.g. pesticide containers or asbestos), including stop work protocols and remediation and disposal requirements. • Requirement to notify the EPA for incidents that cause material harm to the environment (refer s147-153 of the POEO Act). • Manage the storage of any potential contaminants onsite. • Mitigate the effects of soil contamination by fuels or other chemicals (including emergency response and the EPA notification procedures and remediation. • Ensure that machinery arrives on site in a clean, washed condition, free of fluid leaks. • Prevent contaminants affecting adjacent pastures, dams, water courses and native vegetation. • Monitor and maintain spill equipment. Induct and train all site staff.	C	O	D
S5	The transformers will be filled with oil, and waterproof bunds built around them to manage oil spills.	Design		

ID	Safeguards and mitigation measures	C	O	D
S6	A protocol would be developed in relation to discovering buried contaminants within the proposal site (e.g. pesticide containers). It would include stop work, remediation and disposal requirements.	C	O	D
Watercourses and hydrology				
W1	The design of buildings, equipment foundations and footings for electrical componentry and panel mounts would be designed to avoid the 1% AEP flood level to minimise impacts from potential flooding including: • The solar array mounting piers would be designed to withstand the forces of floodwater (including any potential debris loading) up to the 1% AEP flood event plus 500mm freeboard, giving regard to the depth and velocity of floodwaters. • The tracking axis for solar tracking modules would be located above 1% AEP flood event plus 500mm freeboard. • The mounting height of the solar module frames would be designed such that the lower edge of the module is clear of the predicted 1% AEP flood level. • All electrical infrastructure, including inverters, would be located above the 1% AEP flood level plus 500mm freeboard. Where electrical cabling is required to be constructed below the 1% AEP flood level it would be capable of continuous submergence in water. • The proposed perimeter security fencing would be constructed in a manner which does not adversely affect the flow of floodwater and should be designed to withstand the forces of floodwater, or collapse in a controlled manner to prevent impediment to floodwater. • Fencing across the primary watercourse traversing the proposal site would be avoided (two separate fenced compounds on either side of the watercourse would be undertaken where required). • The finished floor level of all buildings should be a minimum of 500mm above the 1% AEP flood level. • Waterway exclusion zones would be marked as no go zones and included in the CEMP.	Design		
W2	All buildings and structures (including solar arrays) associated with the proposal should be located outside high hazard areas (H5 and above) where they may be vulnerable to structural damage and have significant impact on flood behaviour.	Design		
W3	As the proposal site is flood affected it is recommended that: Flood warning signs and flood level indicators should be placed on each approach to any proposed watercourse crossings that is subject to inundation. A Business Floodsafe Plan be prepared for the development to ensure the safety of employees during flood events in general	C	O	D

ID	Safeguards and mitigation measures	C	O	D
	accordance with the NSW SES "Business Floodsafe Toolkit and Plan".			
W4	Any road crossings on watercourses within the proposal site would be of the type defined in Table 2 of the Hydrological and Hydraulic Analysis Report was prepared by Footprint NSW Pty Ltd in Appendix F of the EIS. Any proposed crossings (vehicular or service) of existing watercourses on the subject site should be designed in accordance with the following guidelines, and in the case of vehicle crossing should preferably consist of bed level crossings constructed flush with the bed of the watercourse on first and second order watercourses to minimise any hydraulic impact: • Guidelines for Watercourse Crossings on Waterfront Land (DPI, 2012)Guidelines for Laying pipes and Cables in Watercourses on Waterfront Land (Office of Water, 2010) • *Why do fish need to cross the road? Fish Passage Requirements for Waterway Crossings* (Fairfull and Witheridge, 2003). • *Policy and Guidelines for Fish Friendly Waterway Crossings* (NSW DPI, 2003).	Design		
W5	Within the floodplain access roads should be constructed as close to natural ground levels as possible so as not to form an obstruction to floodwaters. The surface treatment of roads should be designed giving regard to the velocity of floodwaters to minimise potential for scouring during flood events.	C		
W6	An Emergency Response Plan incorporating a Flood Response Plan would be prepared in consultation with RFS and SES prior to construction covering all phases of the proposal. The plan would: • Detail who would be responsible for monitoring the flood threat and how this is to be done. • Detail specific response measures to ensure site safety and environmental protection. • Outline a process for removing any necessary equipment and materials offsite and out of flood risk areas (i.e. rotate array modules to provide maximum clearance of the predicted flood level). • Consider site access in the event that some tracks become flooded. • Consider appropriate vehicles used to transport staff to and from site, with 4WDs being the preferred vehicle. • Establish an evacuation point. • Define communication protocols with emergency services agencies. • The condition of the private track exiting to Lagoon Creek Road will be monitored in collaboration with the landowner	C	O	D

ID	Safeguards and mitigation measures	C	O	D
	throughout the life of the solar farm and be available to the project needs in the case of emergency.			
Water use and water quality				
WQ1	All fuels, chemicals, and liquids would be stored at least 40m from any waterways or drainage lines, not on sloping land and would be stored in an impervious bunded area.	C	O	D
WQ2	The refuelling of plant and maintenance would be undertaken in impervious bunded areas on hardstand areas only.	C	O	D
WQ3	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	O	D
WQ4	All potential pollutants stored on-site would be stored in accordance with HAZMAT requirements and bunded.	C	O	D
WQ5	An incident management procedure to address any spills and pollution incidents will be developed and implemented. The procedure would be incorporated into the Construction and Operation Environmental Management Plans and include a requirement to notify EPA for incidents that cause material harm to the environment (refer s147-153 Protection of the Environment Operations Act).	C	O	D
WQ6	Ensure appropriate drainage controls are incorporated into the design to minimise the area of disturbance, runoff and pollutant generation.	Design		
WQ7	If groundwater is to be intercepted at any stage of the development the proponent must obtain the relevant entitlement and approval where required prior to any extraction.	C	O	D
WQ8	Re-use of collected stormwater (from dams or sediment basins) should be considered wherever possible.		O	
WQ9	Inspect stormwater control measures before and after rainfall of more than 10mm in 24 hours and at least quarterly.	C	O	D
WQ10	Water supply agreements would be secured in consultation with Dubbo Regional Council and/or local water suppliers prior to construction to ensure adequate water supply is secured for construction and operation.	C	O	
Bush fire				

ID	Safeguards and mitigation measures	C	O	D
BF1	Dangerous or hazardous materials would be stored and handled in accordance with AS1940-2004: *The storage and handling of flammable and combustible liquids*.	C	O	D
BF2	Develop a BFEMOP to include but not be limited to: • detailed measures to prevent or mitigate fires igniting; • work that should not be carried out during total fire bans; • availability of fire-suppression equipment, access and water; • storage and maintenance of fuels and other flammable materials; • notification of the local NSW RFS Fire Control Centre for any works that have the potential to ignite surrounding vegetation, proposed to be carried out during a bush-fire fire danger period to ensure weather conditions are appropriate; • and appropriate bush fire emergency management planning. In developing the BFEMOP, NSW RFS and FRNSW would be consulted on the volume of water supplies, fire-fighting equipment maintained on-site, fire truck connectivity requirements, proposed APZ and access arrangements, communications, vegetation fuel levels and hazard reduction measures.	C	O	D
BF3	An APZ of minimum 10m would be maintained between remnant or planted woody vegetation and solar farm infrastructure. The APZ around the perimeter of the site would incorporate a 4m wide gravel access track. Average grass height within the APZ would be maintained at or below 5 centimetres on average throughout the August - March fire season. Average grass height outside the APZ, including beneath the solar array, would be maintained at or below 10 centimetres throughout the fire season.	C	O	
BF4	The overhead powerlines at the site would be managed by maintaining appropriate vegetation clearance limits to minimise potential ignition risks, in accordance with the *ISSC 3 Guideline for Managing Vegetation Near Power Lines*.		O	
BF5	A non-combustible (steel or concrete) water storage tank should be installed adjoining the main internal access road, or nearby the BS, for fire-fighting and other non-potable water uses, with a 65mm Storz outlet, a metal valve and a minimum of 20,000 litres reserved for fire-fighting purposes, in accordance with PBP.	C		
BF6	Appropriate fire-fighting equipment would be held on site to respond to any fires that may occur at the site during construction.	C		

ID	Safeguards and mitigation measures	C	O	D
	This equipment would include fire extinguishers, a 1000 litre water cart (fitted with suitable hosing, fittings and diesel firefighting pump) retained on site on a precautionary basis, particularly during any blasting and welding operations. Equipment lists would be detailed in Work Method Statements.			
BF7	The NSW RFS and Fire and Rescue NSW would be provided with a contact point for the solar farm, during construction and operation.	C	O	
BF8	Following commissioning of the solar farm, the local NSW RFS and Fire and Rescue brigades would be invited to an information and orientation day covering access, infrastructure, firefighting resources on-site, fire control strategies and risks/hazards at the site		O	
BF9	The perimeter access track would comply with the requirements of property access roads in accordance with Table 5.3b of the PBP. All access and egress tracks on the site would be maintained and kept free of parked vehicles to enable rapid response for firefighting crews and to avoid entrapment of staff in the case of bush fire emergencies. Access tracks would be constructed as through roads as far as practicable. Dead end tracks would be signposted and include provision for turning firefighting vehicles.	C	O	D
BF10	A Hot Works Permit system would be applied to ensure that adequate safety measures are in place. Fire extinguishers would be present during all hot works. Where practicable hot works would be carried out in specific safe areas (such as the Construction Compound temporary workshop areas).	C	O	D
BF11	Machinery capable of causing an ignition would not be used during bushfire danger weather, including Total Fire Ban days.	C	O	D
BF12	Prior to operation of the solar farm, **a comprehensive Emergency Response Plan (ERP) is to be developed for the site** in consultation with the RFS and Fire and Rescue NSW. This plan must include but not be limited to: • Specifically addresses foreseeable on site and off site fire events and other emergency incidents **(e.g. fires involving solar panel arrays, bushfires in the immediate vicinity or potential hazmat incidents).** • **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).** Risk control 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	PC,C	O	

ID	Safeguards and mitigation measures	C	O	D
	shutting down and isolating the PV system (either in its entirety or partially, as determined by risk assessment). • Outline other risk control measures that may need to be implemented in a fire emergency due to any unique hazards specific to the site. • Two copies of the ERP are stored in a prominent 'Emergency Information Cabinet' which is located in a position directly adjacent to the site's main entry point/s. • Once constructed and prior to operation, the operator of the facility would contact the relevant local emergency management committee (LEMC).			
BF13	Fire risks associated with the lithium-ion energy storage facility would include: • Locating the Energy Storage Facility as far as practicable from any sensitive receptors or large stands of vegetation. • Installing reliable automated monitoring (voltage and temperature), alarm and shutdown response systems. • Installing reliable integrated fire detection and fire suppression systems (inert gas). • Ensuring the battery containers are not vulnerable to external heat effects in the event of a bushfire. • Designing appropriate separation and isolation between battery containers and between batteries and other infrastructure, including gravel surfacing around the facility for a minimum 10m in accordance with APZ. • Compliance with all relevant guidelines and standards. • Preparation of a specific Battery Fire Response Plan, under the general BFEMOP, in consultation with fire authorities, fire suppression experts and in reference to relevant standards and guidelines. Facilitation of first responder training in the management of Lithium-ion battery fires at the site for local brigades.		Design	
B14	**Prior to operation, a Fire Safety Study (FSS) will be undertaken to ensure that the fire prevention, detection, protection and firefighting measures are appropriate to the specific fire hazards and adequate to meet the extent of potential fires from the BESS. The FSS will considers the operational capability of local fire agencies and the need for the facility to achieve an adequate level of on-site fire and life safety independence The FSS will be developed in accordance with the requirements of Hazardous Industry Planning Advisory Paper No.2 (HIPAP No.2) and consultation with FRNSW.**		O	
Aboriginal Heritage				

ID	Safeguards and mitigation measures	C	O	D
AH1	Further archaeological assessment would be required if the proposal activity extends beyond the area assessed in this report. This would include consultation with the registered Aboriginal parties and may involve further field survey.	C	O	D
AH2	No ground disturbing activities or removal of remnant vegetation is to occur outside the survey area as outlined in Figure 8-26 of the EIS.	C	O	D
AH3	During construction and ongoing use of the Forest Glen Solar Farm, the unexpected finds procedure outlined in Appendix B of the ACHA report must be followed.	C	O	D
AH4	In the unlikely event that human remains are discovered during the construction of the Forest Glen Solar Farm, **all works must cease**, and the **NSW Police must** be notified immediately. Notification of Heritage NSW must occur once the NSW Police have been informed.	C	O	D
Historic Heritage				
HH1	Should an item of historic heritage be identified, Heritage NSW (NSW Department of Premier and Cabinet) must be contacted prior to further work being carried out in the vicinity.	C	O	D
Resource use and waste generation				
WR1	A Waste Management Plan (WMP) would be developed **in consultation with Dubbo Regional Council** 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 identify that 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

ID	Safeguards and mitigation measures	C	O	D
WR2	Septic system is installed and operated according to the Dubbo Regional Council regulations.	C	O	
Electric and Magnetic Fields (EMFs)				
E1	All electrical equipment would be designed in accordance with relevant codes and industry best practice standards in Australia.	Design		
E2	All design and engineering would be undertaken by qualified and competent person/s with the support of specialists as required.	Design		
E3	Design of electrical infrastructure would minimise EMFs.	Design		
Hazardous materials and development				
H1	Dangerous or hazardous materials would be stored and handled in accordance with AS1940-2004: *The storage and handling of flammable and combustible liquids* and the ADG code where relevant.	C	O	D
H2	Protocols would be developed for lithium-ion battery storage, maintenance, and incident response to mitigate Li-ion fire risks.	C	O	D
H3	The transportation of new and waste lithium-ion batteries would comply with the requirements of the Dangerous Goods Code, including specific 'special provisions' and 'packing instructions' applying to the transportation of Li-ion batteries.	C	O	D
H4	**Prior to operation, a Fire Safety Study (FSS) will be undertaken to ensure that the fire prevention, detection, protection and firefighting measures are appropriate to the specific fire hazards and adequate to meet the extent of potential fires from the BESS. The FSS will considers the operational capability of local fire agencies and the need for the facility to achieve an adequate level of on-site fire and life safety independence The FSS will be developed in accordance with the requirements of Hazardous Industry Planning Advisory Paper No.2 (HIPAP No.2) and consultation with FRNSW.**		**O**	
Air quality and climate				
A1	Track width of internal tracks would be minimised during detailed design.	Design		
A2	The Community Consultation Plan will be implemented to promote information sharing for air quality and include a complaints	C	O	D

ID	Safeguards and mitigation measures	C	O	D
	process: • Notification of relevant stakeholders defined. An accessible complaints process with a timely response protocol.			
A3	Dust control measures, including on site access roads and ground cover management will be specified in the CEMP and Decommissioning Environmental Management Plan (DEMP) and may include water applications or other means as required.	C	O	D
A4	Dust generation by vehicles accessing the site and earthworks at the site would be suppressed using water applications or other means as required.	C		D
A5	Vehicle loads of material which may create dust would be covered while using the public road system.	C		D
A6	All vehicles and machinery used at the site would be in good condition, fitted with appropriate emission controls and comply with the requirements of the POEO Act, relevant Australian standards and manufacturer's operating recommendations. Plant would be operated efficiently and turned off when not in use.	C	O	D
A7	Fires and material burning is prohibited on the proposal site.	C	O	D
Cumulative impacts				
C1	The proponent would liaise with representatives of Maryvale, Dunedoo, Wollar, Mumbill, Suntop and Gilgandra, Burrendong and Uungula wind/ solar farm developments to manage impacts on local services, accommodation and businesses.	C		
C2	Accommodation and Employment Strategy for the development in consultation with Council. This strategy must: • Propose measures to ensure there is sufficient accommodation for the workforce associated with the development; • Consider the cumulative impacts associated with other State significant development projects in the area, including nearby mines; • Investigate options for prioritising the employment of local workers for the construction and operation of the development, where feasible; and Include a program to monitor and review the effectiveness of the strategy over the life of the development, including regular monitoring and review during construction.	C		

Appendix C Updated BDAR

Appendix D Updated TIA

Appendix E Updated ACHA