Appendix 1.3 – EIS Submissions Cross Reference Table

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Table 1 provides breakdown of the public submissions received on the Draft EIS. Submissions have been categorised according to their public, government or NGO status, and have also been categorised according to which chapter of the SEIS they now relate to.

The far-right column in Table 1 indicates where, within the SEIS, each of the matters raised within these submissions has been.

Table 1: Submission Response Checklist

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
NT Police, Fire and Emergency Services							
1	Government	NT Police, Fire and Emergency Services	Human Health			The remote location of the operation is outside Northern Territory Fire and Rescue Services' (NTFRS) Emergency Response Area, which limits our ability to respond to an emergency in a timely manner. With regards to road crash/response, the MTFRS crews will respond as required within existing capacity as with any other crash. If the timeliness of that response does not adequately mitigate the risk for AAPowerLink Australia Assets Pty Ltd – Australia-Asia PowerLink Project, then self-funded measures should be implemented. The NTFRS is happy to advise AAPowerLink Australia Assets Pty Ltd on current capabilities in the vicinity of their operations to inform their risk assessment.	Section 14.9.1.1
NT Land Corporation							
2	Government	NT Land Corporation	Land Use and Transport	Future Land Use		The Corporation holds NT Portion 2626 for the purpose of ensuring the long term strategic benefits of the land are maintained. The Corporation currently views the Environmental Impact Statement as inadequate because it does not examine if the project will impact on the future usability of NT Portion 2626.	Section 12.10.3.2

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						The Litchfield Subregional Land Use Plan, contained within the NT Planning Scheme 2020, outlines opportunities for the future use of t NT Portion 2626. This includes urban development at Murrumujuk, strategic industry uses at Glyde Point, and grazing and agriculture uses to the east of NT Portion 2626.	
2	Government	NT Land Corporation	Land Use and Transport	Future Land Use		Of particular concern to the Corporation is: The impact that an Electrode may have on the future usability of land surrounding it (the Corporation understands that an Electrode is proposed for the eastern part of NT Portion 2626)	Section 12.10.3.2
2	Government	NT Land Corporation	Amenity	Noise and Vibration	Human Health	Noise and amenity impacts from the Darwin Converter Site – Figure 15-4 within Chapter 15 indicates tat there will be offsite noise impacts, which may reduce the future useability of land within the noise contours; and	Section 12.10.3.2
2	Government	NT Land Corporation	Amenity	Visual Amenity		Amenity impacts on the foreshore at Murrumujuk as a result of the Land Sea Joint Station – the infrastructure set within the 1.5 hectare site may impact on the visual amenity of the foreshore area and beach.	Section 12.10.3.2
2	Government	NT Land Corporation	Land Use and Transport	Future Land Use		Therefore, the Corporation seeks that the proponent examine if the project will impact on the future useability of NT Portion 2626, as envisaged by the Litchfield Subregional Land Use Plan. Until this matter is given consideration by the proponent, the	Section 12.10.3.2s

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						Corporation will view this statement as not satisfactory. The opportunity to discuss the Australia-Asia Powerlink Environmental Impact Statement is welcome.	
Heritage Branch – Territory Families, Housing and Communities							
3	Government	Heritage Branch – Territory Families, Housing and Communities	Culture and Heritage	Heritage		Heritage Branch has been in regular contact directly with the archaeological consultants for this project and have been monitoiring the progress made in terms of archaeological and other cultural heritage surveys. So far, the archaeological consultants have consulted with traditional owners and custodians for all areas that have been surveyed and that will continue for other areas that are yet to be surveyed, for various reasons.	Section 13.6.1.7
3	Government	Heritage Branch – Territory Families, Housing and Communities	Culture and Heritage	Heritage		Chapter 14 – Culture and Heritage from the Australia-Asia PowerLink Environmental Impact Statement is very comprehensive and has been informed by the AAPowerLink Heritage Impact Assessment Reports (HIAs) are very thorough and detailed and Heritage Branch has no concerns with any of the content at this point.	NA – no response required
3	Government	Heritage Branch – Territory Families,	Culture and Heritage	Heritage		Each of the Cultural HIAS includes the details of processes to disturb sites, the monitoring of significant features during the life of the project, and site specific mitigation measures for all sites that will be determined in consultation with site custodians	NA – no response required

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
		Housing and Communities				and Heritage Branch. Heritage Branch approves of these factors.	
3	Government	Heritage Branch – Territory Families, Housing and Communities	Culture and Heritage	Heritage		The archaeological consultants have also included the correct protocol in the event that human skeletal remains (burial/ancestral remains) are unearthed during construction activities.	NA – no response required
3	Government	Heritage Branch – Territory Families, Housing and Communities	Culture and Heritage	Heritage		There are a number of 'Cultural Heritage Risk Areas' that have been identified in parts of the proposal footprint that will require further definition and which will be surveyed prior to commencement of works and site protection measures will also be included in the Cultural Heritage Management Plan (CHMP). Heritage Branch approves of the recommendation to implement a CHMP, and it is noted that Sun Cable have agreed to the implementation of a Cultural Heritage Management Plan.	Section 13.6.1.9
3	Government	Heritage Branch – Territory Families, Housing and Communities	Culture and Heritage	Heritage		I understand that the maritime surveys as part of the proposed subsea cable route are to commence in June/July 2022, and that there is some flexibility in the final route selection to avoid direct impact to any subsea heritage features that may be discovered during surveys.	Section 13.6.1.11
3	Government	Heritage Branch – Territory Families,	Culture and Heritage	Heritage		These are the main points of interest for Heritage Branch in relation to this project, for the time being. We await further information in the form of reports about maritime surveys and other areas that have yet	Section 13.6.1.7

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
		Housing and Communities				to be completed. We are satisfied that all heritage and archaeological issues are being addressed.	
Department of Chief Minister and Cabinet							
4	Government	Department of Chief Minister and Cabinet	Stakeholder and Community	Transport		Where the Department of Infrastructure Planning and Logistics has indicated that traffic management plans are required, it is recommended that these be considered as part of the EIS process.	Section 12.10.4.1
Department of Industry, Tourism and Trade							
5	Government	Department of Industry, Tourism and Trade	Amenity	Visual Amenity		The Overhead Transmission Line from the solar precinct to the Darwin Converter Site (788kms) may present a visual amenity issue for visitors travelling along the highway in the sections where the OHTL is near the highway or travellers using the railway on the Ghan. The size of the transmission line poles is substantially larger than regular power poles meaning the poles may be highly visible to travellers. Given the extensive length of the OHTL it has potential to impact the visual amenity of a large expanse of outback. It was stated in the stakeholder consultation report at p. 47 that: “Stakeholders consultation report at p. 47 that: “Stakeholders generally accepted the explanation that it was more expensive and disruptive to the environment to underground the cables and that underground cables also lose more energy than over headlines” however, there was no further information provided in the EIS to expand on this explanation.	Section 10.10.2.2

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
5	Government	Department of Industry, Tourism and Trade	Whole of Environment	Infrastructure		The EIS states that: "a fibre optic cable will also be installed within the cleared footprint for the length of the OHTL. This may be buried in the OHTL corridor to a depth of up to 1.2m or strung with the powerline." (table 2.1 and page 2.2). As undergrounding the fibre optic cable would cause ground disruption, was it considered that if the fibre optic cable is to be buried the OHTL could be underground also?	Section 16.6.4.1
5	Government	Department of Industry, Tourism and Trade	Stakeholder and Community	Fishing		Fishing: The proponent states that: "The Subsea Cable System is expected to avoid high value fishing areas. Any disruption to recreational fishing is expected to be of a limited scale and duration. Sun Cable is doing further studies to understand whether its activities will impact on commercial fishing operations." (p.14). It is recommended that any further discussions around the impact on fishing includes fishing tourism operators. The appropriate representative body is the NT Guided Fishing Association (NTGFA).	Section 3.8.12.1
5	Government	Department of Industry, Tourism and Trade	Stakeholder and Community			Camps/Accommodation: we note that accommodation for the OHTL workforce will be in either existing accommodation in service centres/towns or mobile fly camps. The Stakeholder Consultation report shows that the proponent has conducted sktaholder consultation in regions affected by the project and this has included consultation with tourism accommodation providers. Tourism NT recommends that the proponent also engage with Tourism Top End and Tourism Central Australia, as the two major tourism representative bodies of the project area. It is important that this consultation	Section 3.8.4.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						continue as the project advances to give as much notice as possible to businesses and tourism bodies in order to plan around any impacts this may have to availability of tourism accommodation in the region.	
Department of Infrastructure, Planning and Logistics							
6	Government	Department of Infrastructure, Planning and Logistics	Whole of Environment	EIS Process		As the proponent is already aware, a number of applications will likely be required in the future under the Planning Act 1999. Application requirements under the Planning Act 1999 are as follows: Any leasing or subleasing of land in excess of 12 years will require subdivision approval. It is recommended that the proponent contact DIPL for further information. Any subdivision of land will require planning approval. Please contact Development Assessment Services (DAS) of DIPL to discuss development application requirements. Any coastal reclamation or dredging of Darwin Harbour and surrounding area (including any associated works on land) will be subject to the requirements of the relevant overlay in the NT Planning Scheme 2020. Any excavation or fill on zoned land will be subject to the requirements of the NT Planning Scheme 2020. Any development on zoned land may require planning approval (including overhead transmission lines). Please contact DAS to discuss if required.	Section 16.6.3.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						The development of an electrode site may require planning approval. Please contact DAS to discuss development application requirements for any potential conflict in land use with the surrounding area. It is noted the EIS states a future electrode site would for part of a supplementary EIS. A future recycling industry may require planning approval. Please contact DAS to discuss development application requirements. It is noted 'mobile accommodation camps' and 'mobile fly camps' have been discussed throughout the EIS. Please note any accommodation on zoned land may also require planning approval.	
6	Government	Department of Infrastructure, Planning and Logistics				It is noted that Figure 2-5: Map of sensitive receptors proximate to the AAPowerLink identifies sensitive receptors proximate to the AAPowerLink at a large scale. Future applications for planning approval where sensitive receptors are within close proximity to the AAPoweLink, should include maps at a zoomed in scale that have been ground truthed to information assessment.	Section 16.6.3.2
6	Government	Department of Infrastructure, Planning and Logistics	Land Use and Transport	Future Land Use		Section 15.3.3. Darwin Converter Site and Cable Transition Facilities and Table 15-3 Populated Place, Areas of Interest and Public Infrastructure Proximate to Darwin Converter Site and Cable Transition Facilities, considers existing sensitive environments. In addition to existing environments, a new urban area (Murrumujuk Township) will eventually be located to the north of the Converter Site as set out in the land use plan framework (Litchfield Subregional Land Use Plan 2016) for this area. When	Section 12.10.2.2

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						a future application for approval under the Planning Act 1999 is lodged for the Darwin Converter Site and Cable Transition Facilities, the application should address the compatibility of the Facilities with the nearby future urban area.	
6	Government	Department of Infrastructure, Planning and Logistics	Whole of Environment	EIS		Other NT Legislation and associated approvals to include Port Management Act 2015, specifically section 53, which requires approval to lay the High Voltage Direct Current (HVDC) cable from the Regional Harbour Master for Port of Darwin waters. Marine Act 1981, specifically section 188 requires approval to lay the cable from the Director Marine Safety for Northern Territory waters.	Section 16.6.3.3
6	Government	Department of Infrastructure, Planning and Logistics	Stakeholder and Community	Transport		Commitments to include: Intersections within the Northern Territory Government controlled road corridor to be built to DIPL standard and proposed borrow pit on Stuart Highway in vicinity of Powell Creek to be discussed with DIPL. Obtaining permits for all overweight or over-mass vehicle movements in accordance with DIPL's Transport and Civil Services Division (TCSD) permit process. Provide a transport management plan or traffic management plan outlining the access from the Northern Territory Government controlled roads, routes, duration, types of activities and anticipated impact on the Northern Territory Government	Section 12.10.2.4

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						controlled road reserves for TCSD review and approval prior to commencement of works. Specific areas, types of work and their impact is required to understand the risks. Transportation of materials is to be included. Depending on TCSD review of the transport and traffic management plan, TCSD may ask the developer to undertake intersection performance analysis or traffic impact assessment to understand impacts on the certain areas of road network. Provide intersection design where the HVDC Over Head Transmission Line crosses the Northern Territory Government controlled road reserve for review and approval. Inform the Harbour Master about the work as the work progresses to allow for notification to mariners.	
6	Government	Department of Infrastructure, Planning and Logistics	Land Use and Transport	Future Land Uses		DIPL seek an opportunity to review and comment on any deviations through Katherine, Pine Creek and Adelaide River from the existing railway corridor. Any proposal to access or develop Crown land should be discussed with Crown Land Estate of DIPL.	Section 12.10.2.6
6	Government	Department of Infrastructure, Planning and Logistics	Stakeholder and Community	Cumulative Impacts		The road corridor at Chinball Road/Stuart Highway intersection (approx. KP713.5) has a 265 m span. The average pole placement is 300-450 m. Provide further information to enable assessment of significance of impact to road users by outlining:	Section 12.10.2.8

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						Potential conflict for future road upgrades and proximity to HVDC; and Anticipated downtime to road network during stringing of cables and how impacts to traffic will be minimise. Include an outline of the emergency management procedures for cable breaks in the vicinity of roads in high wind areas (i.e. cyclone areas) detailing risk to motorists and resulting delays.	
6	Government	Department of Infrastructure, Planning and Logistics	Marine Environmental Quality		Community and Economy	This section outlines two route options (Route A and Route B) under consideration for the subsea cable in the nearshore part of the footprint from the Shore Crossing Site out to a common point of convergence approximately 45 km northwest of Darwin. Both options have been selected to avoid known areas of environmental sensitivity and recreational fishing values such as artificial reefs and wrecks. The current Subsea Cable System route, including two inshore route options, was selected based on review of available geophysical data. DIPL notes that further surveys of the near-shore Route options A and B are planned for early 2022 to confirm this approach. DIPL also notes that the Subsea Cable System will comprise up to six cables, installed individually or in a bundled configuration with spacing between the cables up to 200 m (for each cable), with actual spacing requirements to be determined in detailed design. The cables will either be laid on the seafloor or trenched into the seabed generally to a depth between 0.3 – 1 m (in certain circumstances it may	Section 8.10.1.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						be necessary to bury to 3 m depth), or protected with armouring as required, subject to various hazards and sea floor conditions along the route. DIPL notes that the location of current route Option A coincides with the location of potential, long term, dredged material disposal grounds. DIPL has engaged with the proponent in this regard and understands its preferred route is Option B. However, if Option A is to be considered, the proponent must demonstrate that these sites can still be used in future, as dredge material disposal sites after the subsea cables have been installed (i.e. that the installation of subsea cables does not preclude the use of these areas for a long term dredged material disposal ground). The developer is encouraged to continue to engage with DIPL if it intends to pursue Option A.	
6	Government	Department of Infrastructure, Planning and Logistics	Marine Environmental Quality			The section outlines 'The depth of burial will vary from 0.5 – 3 m and is dependent on the outcome of the Cable Burial Risk Assessment, which considers the sea floor properties and the risk of cable damage from anchoring and fishing gear.' To assess significance of the impact to the community in the marine/terrestrial interface, further information is required to: Inform what is the 'depth of burial' will be measured against (i.e. against Lowest Astronomical Tide); and Provide a Cable Burial Risk Assessment, which is important to understand and clarify risks in tidal areas.	Section 8.10.2.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						Include what protection measures will be implemented at the shore crossing to advise recreational users of the existence of subsea cables and mitigation measures to ensure cable protection.	
6	Government	Department of Infrastructure, Planning and Logistics	Amenity	Noise and Vibration		The section outlines that 'Cable laying can progress at speeds of up to around 500m per hour and will be performed on a 24-hour basis to ensure minimal navigational impact on other users and to maximise efficient use of applicable weather conditions and vessel and equipment time.' Noise impacts to marine users resulting from 24-hour works in the Subsea Cable System relating to marine users has not been assessed in the risk assessment (Appendix E). Provide a summary in the risk assessment to show risks have been adequately considered and mitigated appropriately.	Section 10.10.3.1s
6	Government	Department of Infrastructure, Planning and Logistics	Stakeholder and Community		Land Use and Transport	Discussion on marine transportation is not evident in the Community and Economy Factor.	Section 12.10.2.10
6	Government	Department of Infrastructure, Planning and Logistics	Whole of Environment	Future Land Use	Community and Economy	DIPL notes that cumulative impacts to marine users for the potential of future port development in the Gunn Point Mapping the Futures project have not been included.	Section 16.6.3.4

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6	Government	Department of Infrastructure, Planning and Logistics	Whole of Environment	Future Land Use	Community and Economy	DIPL notes the developers' infrastructure may impact the type, and cost, of future utilities corridor (e.g. safe distance requirements between HVDC and other infrastructure such as gas).	Section 16.6.3.5
6	Government	Department of Infrastructure, Planning and Logistics	Whole of Environment	Future Land Use	Community and Economy	The proposed routing of the cable in the vicinity of the Cox Peninsula, Stuart Highway, future Strauss Water Treatment Plant and future Weddell Freeway will need careful consideration due to potential conflicts in that area. DIPL encourages the proponent to continue to engage in this regard.	Section 16.6.3.6
Coomalie Community Government Council							
7	Government	Coomalie Community Government Council	Stakeholder and Community	Safety		Lack of knowledge in the community regarding the project; - Lack of knowledge on the potential effects on human health, livestock and the environment.	Section 3.8.5.1
7	Government	Coomalie Community Government Council	Stakeholder and Community			Physical barrier risks to aircraft, medical aircraft and plant.	Section 14.9.2.1
7	Government	Coomalie Community Government Council	Stakeholder and Community			Risk mitigation measures regarding system failure and damage on community health and environmental safety;	Section 14.9.2.1

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7	Government	Coomalie Community Government Council	Stakeholder and Community			Concerns regarding EMF (electro-magnetic fields).	Section 14.9.2.1
7	Government	Coomalie Community Government Council	Stakeholder and Community			Concern regarding impacts on nesting raptors	Section 5.12.3.1
7	Government	Coomalie Community Government Council	Stakeholder and Community			The community has raised concerns with the Elected Members who encourage the proponents to release detailed responses to community concerns and to ensure an accessible, open process of information dissemination takes place to ensure all members of the community understand the projects intent, design and technical implications, the impacts on human and animal health, the environment and what measures are being put in place to mitigate these risks and/or dangers.	Section 3.8.5.1
Aboriginal Areas Protection Authority							
10	Government	Aboriginal Areas Protection Authority	Culture and Heritage	Sacred Sites		The Draft EIS states that sacred sites will be assessed in full by the AAPA through the Authority Certificate process that is underway pursuant to the Northern Territory Aboriginal Sacred Sites Act 1989. The Authority confirms that Sun Cable Pty Ltd has been engaging with the Authority in relation to applications for Authority Certificates relating to this proposal since 2020.	NA – no response requireds

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10	Government	Aboriginal Areas Protection Authority	Culture and Heritage	Sacred Sites		The Authority is currently processing nine Authority Certificate applications. Combined, these cover the Powell Creek area, the railway corridor, the transmission line corridor near Darwin, and the infrastructure at Murrumujuk. One further draft Authority Certificate application is underway for the Subsea Cable in NT waters and will be processed after it is finalised by the applicant.	NA - no response required
10	Government	Aboriginal Areas Protection Authority	Culture and Heritage	Sacred Sites		The Authority expects to receive further Authority Certificate applications for proposed electrodes and potentially for some areas near the railway line where the overhead cable is likely to divert away from the railway corridor. The Authority has ongoing regular engagement with Sun Cable Pty Ltd in regards to proposed activities and Authority Certificate applications.	Section 13.9.5.2
10	Government	Aboriginal Areas Protection Authority	Culture and Heritage	Sacred Sites		The Drat EIS implies that the mitigation measures for direct impacts to sacred sites is to comply with conditions for Authority Certificates. The Authority concurs with this, assuming that all activities associated with the proposal are addressed in Authority Certificates. If adequate supporting information is provided with the Authority Certificate applications, indirect impacts to sacred sites will also be accounted for in Authority Certificates.	Section 13.9.5.4
Department of Environment, Parks and Water Security							
8	Government	Department of	Terrestrial Ecosystems			The Department of Environment, Parks and Water Security (DEPWS) has assessed the information	Section 5.12.2.2

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
		Environment, Parks and Water Security				contained in the above application and provides the following comments: Flora and Fauna Division The Flora and Fauna Division reviewed the draft EIS and have provided comments in the attached table found at Appendix 1. It is recommended that the Northern Territory Environment Protection Authority (NT EPA) request further information, additional monitoring and further assessment of impacts to threatened species and sensitive vegetation as described in the table.	
8	Government	Department of Environment, Parks and Water Security	Marine Environmental Quality			Information on the existing environment should incorporate geomorphic and predicted mud, sand and gravel layers and data layers and interpretation of sediment chemistry characteristics (Nicholas et al 2019) available as part of the Darwin Harbour – Bynoe harbour habitat mapping program (data package – Siwabessy et al. 2020).	Section 8.10.3.1
8	Government	Department of Environment, Parks and Water Security	Marine Environmental Quality			Modelling the relationship between turbidity, measured as NTU, and light attenuation through the water column requires more detailed of components of total suspended solids (TSS), including particulate organic matter (PIM), particulate organic matter (POM) and the colour of dissolved organic matter (CDOM). These relationships are site specific and cannot be reliably transferred from other regions, especially not using Cardno (2013) derived	Section 8.10.4.1

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						relationships which were based on inner Darwin Harbour environments that are dominated by mangrove habitats. Until this relationship is established, the proponent cannot reliably place impacts to benthic primary producer habitats from elevated TSS and changes to light availability at the seafloor into context and set triggers for mitigation actions. The Flora and Fauna Division recommends that further data is sought and water quality monitoring is undertaken if necessary to establish: (a) the relationship between turbidity and light attenuation, and (b) the natural variability between seasons, so that appropriate TSS triggers for benthic primary producer habitats can be developed.	
8	Government	Department of Environment, Parks and Water Security	Marine Environmental Quality			Table 9-1 and Figure 9-2 seem to be incomplete. Geomorphic features from the Darwin Harbour – Bynoe Harbour habitat mapping project are not displayed in Figure 9-2. See Nichols et al (2019). Further, it is unclear how the proportion of each geomorphic feature intersecting the cable corridor is calculated in Table 9-1. Is this based solely on what was mapped b y Geoscience Australia or the whole corridor area? The Flora and Fauna Division recommends including geomorphic features from the Darwin Harbour – Bynoe Harbour habitat mapping project, and undertaking additional analysis of bathymetric data for which no geomorphic data are available, so that Table 9-1 will be more representative of features present.	Section 8.10.5.1

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8	Government	Department of Environment, Parks and Water Security	Marine Environmental Quality			It is unclear why Table 9-2 states that Shoal Bay is unsurveyed and sediments are "Thought to be sandy with scattered rocks and mud" even though the first paragraph of section 9.3.2.4 states that it was extensively surveyed as part of the Darwin Harbour – Bynoe Harbour habitat mapping project. Information on the existing environment should incorporate predicted mud, sand and gravel layers (Nicholas et al 2019) available as part of the Darwin Harbour – Bynoe Harbour habitat mapping program (data package – Siwabessy et al 2020).	Section 8.10.6.1
8	Government	Department of Environment, Parks and Water Security	Marine Ecosystems			The Draft EIS states: "Threatened and/or migratory species which may occur, or which utilise benthic habitat, within the area of influence include turtles (Loggerhead, Flatback and Olive-Ridley), Dugongs, Sea snakes, elasmobranchs, Estuarine Crocodiles, Pygmy Blue Whale, and Whale Shark" Although Appendix T (Marine Ecology Report) notes that Hawksbill turtles are likely present within the zone of influence, the Draft EIS seems to have omitted that they may occur in Shoal Bay. The Flora and Fauna Division recommends that the Hawksbill turtle is incorporated into the risk assessment for nearshore waters.	Section 9.10.10.1
8	Government	Department of Environment, Parks and Water Security	Marine Ecosystems			The Flora and Fauna Division supports Sun Cables commitment to undertake additional benthic surveys for either the southern or northern cable route to verify predicted modelling outputs and characterise the benthic physical environment. Besides characterising the benthic environment solely within the cable corridor, the proponent should map /	Section 9.10.11.1

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						characterise sensitive receptors within the zone of influence, in particular for benthic primary producer habitats (corals, macro-algae and seagrass, or a mixture of these communities). This will inform site selection for WQ monitoring sites to monitor TSS / SSC and light availability at the seafloor (see Factor Marine Environmental Quality) during and post cable laying activities within NT waters.	
8	Government	Department of Environment, Parks and Water Security	Marine Ecosystems			Turbidity will increase for about a month during cable laying activities in nearshore waters. To mitigate this impact, the Flora and Fauna Division recommends that, if possible, cable laying is confined to the late Wet, when nearshore waters generally have elevated total suspended sediments and seagrass habitats remain dormant until light availability at the seafloor improves at the start of the Dry and triggers seagrass regeneration (see factor Marine Ecosystems). The Flora and Fauna Division agrees with the conclusion in the draft EIS that the Dry season period is important for maintaining health of benthic primary producer habitats. Therefore, the Flora and Fauna Division recommends that, if possible, cable laying is restricted to the late Wet when monsoonal activity is at its greatest, where WQ is at its poorest, and when seagrass/maroalgal habitats remain dormant until light availability at the seafloor improves at the start of the Dry and triggers regeneration. Further, early Wet (September – December) is also considered unfavourable for cable laying as anecdotal evidence points towards this being a coral reproductive period,	Section 9.10.12.1

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						and elevated TSS up to 3.2 mg/L may cause decline of coral health through bleaching and tissue damage.	
8	Government	Department of Environment, Parks and Water Security	Marine Ecosystems			The draft EIS concluded that the residual impact to benthic habitats from direct disturbance or loss of benthic habitat is minor. The Flora and Fauna Division considers lumping benthic habitat into a single category is not appropriate. The potential impacts of cable laying on benthic species depend on biological processes including feeding mechanism, mobility, life history characteristics, stage of development and environmental conditions. These drivers are different for each community group (corals, macro-algae, seagrass and filter feeder communities). As such, the Flora and Fauna Division recommends that the draft EIS reviews impacts to each of the individual community types in terms of their tolerance to changing environmental conditions, the duration of these changes and mitigation options, such as timing of project activities to minimise their vulnerability to cable laying. The draft EIS briefly refers to WAMSI (2019) on page 10-32. However, it should apply the recommendations provided in various reports presented on the WAMSI Dredging Science Node1 in more detail, so there is a clearer understanding of site specific impacts and changes of environmental conditions specific to the individual sensitive receptors.	Section 9.10.13.1
8	Government	Department of Environment, Parks and	Marine Ecosystems		Terrestrial Ecosystems	Given the topography on Gunn Point peninsula is relatively flat, light pollution from Sun Cable's infrastructure may impact on migratory and threatened species. The Flora and Fauna Division	Section 9.11.3

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
		Water Security				recommends that infrastructure design follows National Light Pollution Guidelines.	
8	Government	Department of Environment, Parks and Water Security	Marine Ecosystems			Further, using time series plots and accompanying assessment in conjunction with sensitive receptors is not meaningful. Figures 10-7 and 10-8 seem to suggest that elevated TSS will not impact on sensitive receptors. However, it only can show the relationship between elevated TSS and WQO at a chosen site. The draft EIS cannot state with any confidence that a sensitive receptor is actually present at a chosen site, because it is based on predicted models. The use of the predictive benthic habitat map should be used carefully as there are known errors in the predictive benthic habitat model. For example, it is unlikely that coral exist at HC3 and HC4, as this location consists of large sand waves devoid of any benthos (DEPWS, towed video benthic habitat database). However, the substrate type (i.e. sand) does explain why elevated TSS are lower than other plots in Figure 10-7. For the draft EIS to relate modelled TSS concentrations to sensitive receptors, the Flora and Fauna Division recommends that further benthic habitat mapping is undertaken where sensitive receptors are likely to occur, followed by WQ sampling / monitoring at sites with known sensitive receptors. This will help establish the tolerance to TSS and setting of appropriate triggers for adaptive management.	Section 9.10.15.1
8	Government	Department of Environment, Parks and	Marine Environmental Quality	Sediment Modelling		Plume modelling undertaken and outputs in the draft EIS are acceptable, given the underlying data and assumptions, and modelling approach. However, the Western Australian Marine Institute – Dredging	Section 9.10.16.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
		Water Security				Science Program recommends that hydrodynamic model and associated plume / sediment transport modelling is undertaken in 3D rather than 2D4. Once the proponent has decided on the cable laying path and undertaken benthic and geotechnical surveys for the preferred path in Shoal Bay, the Flora and Fauna Division recommends that they revisit plume modelling and sediment transport modelling for the Shoal Bay cable laying campaign and consider using 3D modelling techniques in conjunction with the below mentioned long-term monitoring data.	
8	Government	Department of Environment, Parks and Water Security	Marine Environmental Quality			The draft EIS has not collected site-specific baseline WQ data. To mitigate this information gap, the draft EIS has used INPEX monitoring data from Lee Point, Lee Point Site 02. However, there is no explanation why this site was chosen above the INPEX monitoring site SPO 01 (Cardno, 2015, report L384-AW-REP-10204), which is located between the two proposed cable routes and is more likely to be representative of WQ within the cable corridors in Shoal Bay. However, if the southern route is chosen as the cable corridor, then Lee Point sites together with SPO 01 are adequate to inform risk assessment. The proposed monitoring program is unlikely to be suitable for setting triggers (e.g., for coral communities at Gunn Point). As such, the Flora and Fauna Division recommends further WQ monitoring at selected areas where receptors occur. These monitoring sites should preferably be established before able laying takes place, so that site specific triggers can be determined and an appropriate reactive monitoring program can be designed. If the monitoring program is implemented, then the design	Section 8.10.7.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						of the monitoring program should include establishing turbidity / light attenuation relationships (see above), as light condition will be the main driver for health of benthic primary producer habitat.	
8	Government	Department of Environment, Parks and Water Security	Marine Environmental Quality			The use of report cards should be used carefully. The DEPWS monitoring data underpinning the report cards is collected for surveillance or ambient purposes and the data is somewhat skewed for dry season and neap tidal conditions to mitigate the confounding influence of tide and season. The report cards applicability for spring tide and / or wet season is constrained.	Section 8.10.8.1
8	Government	Department of Environment, Parks and Water Security	Whole of Environment	Transport		It is unclear why there is a need for two different access routes if the bitumen access road is an all-weather road. The Flora and Fauna Division recommends removing one of the roads if feasible.	Section 16.6.2.1
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		Is there additional clearing required for construction camps, borrow pits and the concrete batching plant beyond the facilities and OHTL footprints? If so, this may require additional assessment.	Section 5.12.2.6
8	Government	Department of Environment, Parks and	Terrestrial Ecosystems	Fauna		In general, there is a lack of justification for the assessment of impacts on threatened fauna species. References are out of context or no evidence is provided for the statement being made. Potential	Section 5.12.2.8

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
		Water Security				impacts should be assessed against the EPBC significant impact criteria.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems			There are several components for which there is a need for trenching, yet the impacts of trenching on fauna are not assessed. The Flora and Fauna Division recommends that the impact of trenching on fauna is assessed and management of risks are clearly defined.	Section 5.12.2.10
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		Impacts stated in the ToR that are not covered in the draft EIS assessment include: Direct disturbance of fauna and fauna habitat as a result of clearing Indirect impacts to fauna habitat due to changes to water quality, introduction or spread of weed or pathogens or pest species, fragmentation and edge effects Indirect impacts to fauna as a result of reduced habitat availability Direct impacts to fauna as a result of collision with overhead transmission lines	Section 5.12.2.12

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						Direct impacts to fauna as a result of collision with vehicles or equipment, including solar panels Changes to fauna behaviours as a result of noise or lighting from proposal areas, including potential glare from solar panels or the 'lake effect' (solar farm mistaken for a waterbody). The Flora and Fauna Division recommends that all impacts are assessed consistent with the ToR.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems		Project Description	Section 5.4.1.2 states that because the usual extent of Lake Woods is over 10km away, it is not considered to be within the area of influence. The ToR states that the 'lake effect' should be assessed as a potential impact. Waterbirds undertake regional movements between waterbodies within the NT and movements to waterbodies in other states, and move through the area during trans-continental migrations. The distance to Lake Woods is small in comparison to these movements and there is a high likelihood that waterbirds would regularly fly over the solar array. Therefore, it is suggested that Lake Woods is incorporated into the Area of Influence. Section 5.4.3.2 states that very few birds regularly migrate within Australia, as patterns are more 'boom and bust'. This does not fully characterize the dynamics of birds in the region of interest. As well as having high inter-annual variability ('boom and bust'), there is a seasonal component to surface water availability, and waterbird occurrence and abundance. The different reasons for movements of waterbirds in	Section 5.12.2.14

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						Australia to those in North America, where cited studies were undertaken, do not justify there being a lower risk to Australian species from solar arrays. The Flora and Fauna Division recommends that Lake Woods is incorporated into the Area of Influence, particularly in the context of waterbird movement to and from the lake over the solar array.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems			Food waste is addressed as a potential cause of an increase in pest animals. Additional water sources can also increase the activity of pest animals, both predators and herbivores, and should be addressed in the draft EIS.	Section 5.12.2.16
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		It is not clear whether night driving will be required for the Project. Night driving increases the risk of vehicle strike to the Greater Bilby and should be assessed / mitigated in parts of the development where this species occurs. Ideally, driving will be constrained to daylight hours.	Section 5.12.2.18
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		It is stated that noise will meet residential criteria ~600m from the works, but then states that the impact of noise and lighting on fauna will likely be limited to a few hundred meters from the source. It is also stated that the Darwin converter Site and Cable Transition Facilities footprints do not contain sensitive receptors to noise or lighting, and that desert landscapes are less likely to contain species that are sensitive to noise or lighting. These	Section 5.12.2.20

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						statements should be supported by literature and/or reference to project ecological studies.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		The assessment is focused on the OHTL utilities corridor. There is no assessment of if/how the powerline may impact birds that are moving across the landscape to or from Lake Woods that may be susceptible to powerline collision. Given the proximity of Lake Woods to the powerline, and the numbers of waterbirds that it can support in flood, this risk of collision should be included in the assessment and the risk potentially reduced through mitigation.	Section 5.12.2.22
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		No reference to literature has been provided to support the statement that bats are too small and agile to have a negative interaction with powerlines. This statement forms the basis of the conclusions regarding this issue throughout the chapter. Bat collisions with barbed wire fences indicate that linear structures can lead to collisions. The Flora and Fauna Division recommends that the assessment of potential for bat impact with powerlines is evidence-based.	Section 5.12.2.22
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		No individual assessment is provided for the following threatened fauna species listed in the ToR: Painted Honeyeater, Princess Parrot, Night Parrot, Brush-tailed Mulgara, White-throated Grass wren, Masked Owl (northern mainland), Red Goshawk, Partridge Pigeon (eastern), Crested Shrike-tit (northern), Nabarlek (Top End), Northern Quoll, Arnhem Leaf-nosed Bat, Black-footed Tree-rat (Kimberley and mainland Northern Territory),	Section 5.12.2.24

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						Northern Brush-tailed Phascogale, Water Mouse, Fawn Antechnius, Arnhem Land Gorges Skink, and Plains Death Adder. O particular n ote are the Black-footed Tree-rat (Kimberly and mainland Northern Territory), Fawn Antechinus and Masked Owl (northern mainland), which Stokeld et al. (2020) classify as high value species for the Gunn Point area. The Flora and Fauna Division recommends that individual impact assessments are described for all threatened fauna with a medium-high likelihood of occurrence within the Project footprint.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		No Greater Bilby sign was recorded during surveys of the Solar Precinct. However, there are known records of the species from the railway corridor in and close to the Solar Precinct footprint from 2008. An assessment based on one survey in the proposal footprint found that the Solar Precinct is unlikely to contain core habitat or support persistent/regular occurrence of the species, and that habitat suitability is 'marginal'. Based on the unpredictable movement ecology of bilbies and the proximity of the withheld records, the Flora and Fauna Division suggests that this species needs additional assessment. Given the previous records of Greater Bilbies at the solar Precinct, the Flora and Fauna Division suggests that this species needs additional assessment. Given the previous records of Greater Bilbies at the Solar Precinct, the Flora and Fauna Division recommends that follow-up surveys of the Solar Precinct footprint and suitable habitat along the proposed access roads are undertaken immediately prior to construction. The Flora and Fauna Division also recommends that the surveys incorporate a broader area around the	Section 5.12.2.26

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						Solar Precinct for context. The EIS states that habitat suitability at the Solar Precinct is marginal, because of a lack of palaeodrainage habitats which are considered more persistently suitable for Greater Bilbies, based on findings by Southgate et al. (2018). However, Southgate et al (2007) provide evidence of Greater Bilbies using a diversity of habitats including sand plain substrate in the northern part of the study area (Newcastle Waters) and in the south where they were more restricted to laterite / rock or drainage / calcrete. The statement used to justify the lack of habitat suitability at the Solar Precinct does not account for the differences in habitat use across the species distribution. A Greater Bilby population in this location is at the edge of the species range, and is considered an important population regardless of the perceived habitat suitability. The proposed access roads also pass through potential Greater Bilby habitat, and the potential for vehicle collision should be assessed. If Greater Bilbies are detected in any of the proposed project footprints the Flora and Fauna Division recommends that any burrows within the clearing footprint are avoided with a 20m buffer until no longer occupied. Subsequent clearing in the surrounding area should give consideration to allowing Greater Bilbies to safely vacate the development area (e.g., delaying clearing until burrow verified as not in use). The Flora and Fauna Division also recommends that night driving is avoided in areas with confirmed Greater Bilby activity and night works are avoided in all potential bilby habitat.	

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		A juvenile Gouldian Finch was recorded south of Lake Woods during SREBA surveys in 2021, suggesting this species inhabits and may breed in the area. There is potential breeding habitat (Eucalyptus leucophloia woodland) in the Ashburton Range, along with permanent springs and pastoral dams that Gouldian Finches use as water sources. This suggests that the Gouldian Finch may be present along the proposed access roads to the Solar Precinct, and this species should be assessed in relation to impacts from this component of the project. The Gouldian Finch has been recorded in more locations in the vicinity of the OHTL during the GBA and SREBA projects (2020-2022). As such, the distribution of foraging and breeding habitat extends further south through the Sturt Plateau bioregion and past the southern edge of Lake Woods. There are also recent records from the coastal Top End. Proposed access roads at the Solar Precinct traverse potential Gouldian Finch breeding habitat (Eucalyptus leucophloia woodlands in the Ashburton Range). Gouldian Finch habitat is also present along the OHTL north of Pine Creek to Gunn Point. As Gouldian Finches are Endangered under the EPBC Act, any population is considered an important population under the EPBC Significant Impact Guidelines. Therefore, the map of habitat provided in Figure 5-17 displays only part of the habitat requiring assessment for this Project. The Flora and Fauna Division recommends that the assessment of significant impact for Goudian Finches is undertaken to incorporate all potential Gouldian Finch habitat. The Flora and Fauna Division recommends that the	Section 5.12.2.28

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						cumulative impacts of habitat removal is assessed within a 20km buffer of the Project footprint.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		It is stated that Red Goshawk nests are conspicuous. However, Red Goshawk nests can be confused with the nests of other large raptors if observers are unfamiliar with the differences. The Flora and Fauna Division recommends that any active raptor nests are avoided if possible. If avoidance is not an option, further steps should be taken to confirm the identity of any active raptor nest.	Section 5.12.2.30
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		It is unclear as to why Merten's and Mitchell's Water Monitors are assessed here but Yellow-spotted Monitor is not. The Yellow-spotted monitor occurs along the entirety of the OHTL. The Flora and Fauna Division recommends that Yellow-spotted Monitors are also assessed.	Section 5.12.2.32
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		As discussed in a previous comment, the assessment that ghost bats will not be impacted by collision with powerlines is not well justified. Ghost Bats are much larger than other Microchiroptera and less able to avoid collision. While further justification is required for all bat species assessed, it is worth particular attention for the Ghost Bat. See recent review paper on Ghost Bats (Cramer et al. 2022) that discusses the collision of Ghost Bats with barbed wire fences. The Kohoonir Adit colony (400m from the proposed OHTL route) is the largest known Ghost Bat colony globally. If the project has significant impacts on this colony, the species is likely to be significantly impacted. Potential impacts from the	Section 5.12.2.22

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						OHTL include electrocution, collision and changes to flight patterns, predator and prey dynamics and foraging behaviour (although it is noted that the structure of the OHTL is planned to be such that electrocution should not be possible). Surveys undertaken by the Flora and Fauna Division around this colony have indicated that activity of Ghost Bats remains high at least 1km from the adit. The large numbers of this species and their high activity around the roost increases the risk that the OHTL poses. There is sufficient information about the species in relation to this roost that further field surveys are not required. However, a more thorough assessment of impact, and appropriate and justified mitigation measures should be provided. The standard practice for mitigating impacts of collision with linear structures such as powerlines and fences is the use of a visual cue, such as white bunting. The potential impacts to the Ghost Bat colony from construction activities should also be thoroughly assessed.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		The assessment of the potential for the proposal to lead to a long-term decrease in the size of an important population of the Howard River Toadlet only considers the impact of clearing within the footprint, not potential impacts from changed surface flow on habitat suitability. The mitigation measures covered under the criterion 'modify, destroy, remove, isolate or decrease the availability of quality of habitat to the extent that the species is likely to decline' do not specifically relate to Howard River Toadlet habitat. The Flora and Fauna Division recommends that additional information is provided on how much clearing of potential habitat is rquired and how any	Section 5.12.2.34

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						changes to surface flow will be mitigated. For this species, Stokel et al. (2020) state that this species is of high value and that outside of the Howard Sand Plains SoCS the disturbance of habitat should be avoided and that suitable habitat be retained and native vegetation buffers ≥ 250m be applied. Field surveys in areas with highly suitable habitat should be undertaken at an appropriate time if there is uncertainty in the occurrence of the species.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Fauna		The assessment of significant impacts to migratory species is not in line with the EPBC Significant Impact Guidelines. The migratory species that are also listed as threatened are not assessed in line with their threatened status under the EPBC Significant Impact Guidelines. The Flora and Fauna Division recommend that species are assessed consistent with the EPBC Significant Impact Guidelines	Section 5.12.2.8
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		The documentation provided is not adequate to assess the potential impacts to biodiversity from ancillary construction activities, landfills, dangerous goods/hazardous chemicals storage and additional infrastructure associated with the Project (i.e., location of hardstands, laydowns, warehousing, storage areas, additional compounds, weather stations etc. as outlined in Section 2.4.3.6 – Other ancillary facilities). These activities and construction potentially has a high likelihood of impacting surrounding biodiversity and the impact should be assessed prior to construction. The Flora and Fauna Division recommends that further information is provided in the Supplementary EIS regarding the location, extent and impact of the ancillary	Section 5.12.2.36

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						construction activities, landfills, dangerous goods/hazardous chemicals storages and additional infrastructure associated with the proposal. The potential impact on biodiversity along with avoidance and mitigation measures should be assessed for these activities.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosytems	Flora		The Department acknowledges that the routes of the OHTL corridor through Katherine, Pine Creek and Adelaide River are yet to be determined due to several constraints and route obstacles. While the Katherine and Pine Creek potential route deviations are within the 10km buffer of the OHTL corridor, the Adelaide River route deviation options are well over the 10km buffer (approx. 15km from the proposed OHTL corridor route in some places). It is unclear from the mapping and the documentation provided in Chapter 5 whether the potential impact of these route deviations have been considered in the EIS. The route deviations for Adelaide River intersect the following biodiversity values (at least): • Cycas armstrongii • Stylidium ensatum potential habitat • Helicteres macrothrix potential habitat	Section 5.12.2.38

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						The route deviations for Pine Creek intersect the following biodiversity values (at least): • Acacia praetermissa record • Stylidium ensatum potential habitat The Flora and Fauna Division recommends that further information is provided in the Supplementary EIS regarding the impact of the route deviation options. The impact on biodiversity along with avoidance and mitigation measures should be assessed for these options.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		The Flora and Fauna Division notes the occurrence of highly significant sandsheet heath (SSH) on the Howard Springs Sandplains. The Flora and Fauna Division recommends that information is provided on the types and extent of sensitive and significant vegetation proposed to be removed through the proposed development activities. The potential impacts on significant vegetation and proposed mitigation actions should also be outlined.	Section 5.12.2.42
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		There are inconsistencies in this table with respect to other chapters or appendices of this EIS. For example: the 'Value Rating' for Darwin Converter Site suggests that there are no threatened species within the impact footprint. Section 5.3.3. of Appendix P-3 indicates that Typhonium praetermissum is present within the Darwin Converter Site footprint. Additionally, the potential habitat for the threatened species Stylidium ensatum, Ptychosperma	Section 5.12.2.44

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						macarthurii, Cycas armstrongii, Helicteres macrothris and Typhonium praetermissum have not been mentioned in any of the relevant locations. The Flora and Fauna Division recommends reviewing all topics of the EIA result table including residual impact ratings for all impacts on threatened flora species.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Water		The potential impact of hydrological changes on vegetation communities and threatened species due to construction has not been assessed. The Flora and Fauna Division recommends including an assessment of the impact of hydrological changes on groundwater-dependent ecosystems and threatened species.	Section 5.12.2.46
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		There is highly suitable habitat for Stylidium ensatum present within the OHTL corridor. The Department acknowledges the proponent's recommendation to undertake surveys for Stylidium ensatum. Appropriate survey times for Stylidium ensatum are during the mid-late Dry season when the plant is flowering/fruiting. Further evidence is required to support the statement: 'it is unlikely that minor additional gaps in habitat will cause fragmentation into more populations;. The Flora and Fauna Division recommends that, following sureys, avoidance and minimization measures should be implemented for this species. The mitigation measures outlined in Table 5-11 should consider avoidance where possible.	Section 5.12.2.48

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		For Typhonoium praetermissum the Flora and Fauna Division recommends: • Targeted surveys at the appropriate time of year to optimize detection to assess and contextualise the potential significant impacts on the Typhonium praetermissum at the subpopulation and species level. • Include the results of targeted survey in the supplementary EIS and assessment of significant impact on the population and species. • Provide information on whether the design of the OHTL footprint will be altered to avoid impacts on plants (or the proportion of individual plants) within the footprint. • Clarify proposed actions to mitigate impacts and minimize loss of plants within the footprint. • Clarify whether the project design will be modified to avoid the loss of Typhoniuim plants (75 individuals) and proposed mitigation actions if the plants are impacted. Include and clarify the level of uncertainty in assessment of low risk of fragmentation.	Section 5.12.2.52
8	Government	Department of Environment, Parks and	Terrestrial Ecosystems	Flora		For Cycas armstrongii, the Flora and Fauna Division recommends:	Section 5.12.2.54

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
		Water Security				Targeted surveys to identify the extent of high density stands (>400m mature stems per hectare) within the project footprint and to assess the impact of removal on the broader population. Mature stems are considered all of those greater or equal to 50cm in height. Any proposed removal of plants should refer to the translocation guidelines for this species.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosytems	Flora		For Darwin palm Ptychosperma macarthurii the Flora and Fauna Division recommends: Further substantiation is required on the impact assessment regarding impact of destruction/removal of plants/loss of habitat for criteria 'Fragment the existing population into two or more populations'. Targeted surveys should be undertaken.	Section 5.12.2.56
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		For Utricularia dunstaniae 'General fieldwork' rather than targeted surveys is not suitable to detect this small and highly seasonal species which responds directly to wet season rainfall. The Flora and Fauna Division recommends the following for Utricularia dunstaniae:	Section 5.12.2.58

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						Provide further substantiation is required on the impact assessment regarding impact of destruction/removal of plants/loss of habitat for criteria 'Fragment the existing population into two ore more populations'. Undertake targeted surveys for Utricularia dunstaniae in the appropriate flowering season (i.e., January – May).	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		For Cleome insolata 'General fieldwork' rather than targeted surveys is not suitable to detect this species. The Flora and Fauna Division recommends targeted surveys for Cleome insolata in the appropriate fruiting/seeding season (i.e., March – April).	Section 5.12.2.60
8	Government	Department of Environment, Parks and Water foSecurity	Terrestrial Ecosystems	Flora		The 'Avoidance' section of this table for 'Loss of vegetation and habitat' impact states that 'no significant vegetation types is contained within the Solar Precinct' followed by 'Micro-siting of transmission towers to avoid significant vegetation where possible'. It is unclear whether there is or not significant vegetation within the Solar Precinct. The Flora and Fauna Division seeks clarification on whether there is significant vegetation within the Solar Precinct or not.	Section 5.12.2.62
8	Government	Department of Environment, Parks and	Terrestrial Ecosystems			The 'Monitoring' section of this table for 'Loss of vegetation and habitat' impact states for 'visual inspections during cleaning is within approved boundaries. Results recorded, along with any	Section 5.12.2.64

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
		Water Security				photographs'. The Flora and Fauna Division recommends the area to be cleared for the Solar Precinct is clearly flagged and marked on-ground so that it is clear to contractors where to clear and avoid clearing beyond approved boundaries. The 'Avoidance' section of this table for 'Threatened species (restricted range)' impact states that 're-routing the access track to avoid local occurrences (if present)'. The Flora and Fauna Division recommends that any areas known to support threatened flora species are clearly flagged and signposted as 'No-Go Zones' for Contractors to avoid.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		The Flora and Fauna Division recommends that the potential for cumulative impacts on the Typhonium praetermissum sub-population and species population be clearly outlined.	Section 5.12.2.52
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecoystems	Flora		Records and potential habitat for Acacia praetermissa are found within the Pine Creek route deviation options. The Flora and Fauna Division recommends reassessing the impact of the proposal on Acacia pratermissa in the Supplementary EIS following route option decisions.	Section 5.12.2.68
8	Government	Department of Environment, Parks and	Terrestrial Ecosystems	Flora		Records of Typhonium taylorii are found within 7km of the project footprint and potential habitat is likely to exist in the Howard Sand Plains. The Flora and Fauna Division recommends reassessing the	Section 5.12.2.70

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
		Water Security				likelihood of Typhonium taylorii preence in the Utilities corridor.	
8	Government	Department of Environment, Parks and Water Security	Culture and Heritage			Parks Division. The overhead power lines in Black Jungle may affect: Undefined Aboriginal cultural values and Sacred Sites.	Section 13.6.1.5
8	Government	Department of Environment, Parks and Water Security	Recreation			The high recreational values for hunters in Shoal Bay needs to be observed.	Section 3.8.1.1
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		The overhead power lines in Black Jungle may affect: Rainforest and associated threatened flora species such as Ptychosperma macarthurii Large areas of modelled habitat for Typhonium praetermissum Drainage lines, which have the potential to support Stylidium ensatum.	Section 5.12.2.72

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						Undefined Aboriginal cultural values and Sacred Sites.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		The Australian Government listed ecosystem degradation, habitat loss and species decline due to invasion of northern Australia by introduced gamba grass (Andropogon gayanus), para grass (Urochloa mutica), olive hymenachne (Hymenachne amplexicaulis), mission grass (Pennisetum polystachion) and annual mission grass (Pennisetum pediceallatum)' as a key threatening process (KTP) under the EPBC Act. This initiated the development of the Threat abatement plan (TAP) to reduce the impacts on northern Australia's biodiversity by the five listed grasses (TAP). All five species do or are likely to occur adjacent, upstream or within the OHTL and or Murrumujuk footprint.	Section 5.12.2.74
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		This report states " The purpose of this report is to identify and describe the relevant threatened species, significant vegetation types and threatening processes to such a degree as to be able to identify the need for any further surveys and to inform an impact assessment". As such, section 2.2. Significant Vegetation – The 5 grasses listed as a key threatening process should be discussed as they pose a direct threat to all listed vegetation types in this section. As noted by the proponent in other sections, the EPBC Act allows for the listing of threatened ecological communities and that a significant threat to these communities is the key threatening process of the 5 listed grasses. DEPWS advises that the 5 listed grasses are also a threat to	Section 5.12.2.76

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						threatened ecological communities. This should be noted.	
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		Split declaration: WMP does not have a clear definition of what a split weed declaration is and what it means for the plan. This is for Mimosa, Rubber Bush and Gamba grass.	Section 5.12.2.76
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		The plan covers a 120m buffer from the corridor centre along the railway line. However, it does not recognize any weeds outside this buffer area that may have an impact on the corridor (disturbed soils and vegetation). Weeds that occur on adjacent parcels or upstream of the subject area should be addressed. This includes prickly acacia on Murranjii Stn, Siam weed in the Top End areas at a minimum.	5.12.2.76
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		Buffel grass (Cenchrus ciliaris) is not declared in the NT but is of concern to some stakeholders in the Tennant reek region. Addressing this species in the WMP is recommended as it is in the Tennant Creek Regional Weed Strategy 2021 – 2026. The proponent should be aware of the fire risk to infrastructure from the introduction or spread of buffel grass in southern sections of the project. Buffel grass can be spread inadvertently and effective weed hygiene practices will be required to prevent further spread.	Section 5.12.2.78

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		Outside of the annual Weed Management Report, upon request from the NT Weed Management Branch all reports and or records pertaining to any specific weed related actions or incidents within the project areas should be made available within 5 business days.	Section 5.12.2.76
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Flora		The solar precinct and overhead transmission line within the Tennant Creek region occupies areas which are relatively weed free. It is important that the proponent implements strict weed hygiene practices during all stages and areas of development and operation. To maintain weed free areas and prevent weed spread. Weed hygiene declarations should be considered for all vehicles entering the development area as well as activities that may increase the introduction of new weeds.	Sections 5.12.2.76
8	Government	Department of Environment, Parks and Water Security	Terrestrial Ecosystems	Hydrological Processes		Groundwater Assessment has limited comments regarding improvement to this draft EIS. From a groundwater resources perspective, the proponent has shown adequate understanding of the existing environment and potential impacts to groundwater systems across the Project extent.	NA – no response required
8	Government	Department of Environment, Parks and Water Security	Whole of Environment			Pine Creek Oregon (typo) should read Pine Creek Orogen. Please ensure Orogen is spelled correctly throughout the draft EIS.	Section 16.6.2.2.

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
8	Government	Department of Environment, Parks and Water Security	Hydrological Processes			The proponent states that additional hydrogeological investigations will be undertaken prior to drilling and installation of water supply bores at the Powell Creek Station Solar precinct as well as the Darwin Converter Site. These additional hydrogeological investigations should include groundwater modelling to demonstrate that groundwater extraction for water supply will have no deleterious impact on groundwater levels at nearby receptors (e.g., stock bores and nearby springs). These additional investigations should be provided to the Minister / Department for assessment and review.	Section 6.10.1.4
8	Government	Department of Environment, Parks and Water Security	Hydrological Processes	EIS Process		It is also noted that the draft EIS does not include a proposed groundwater monitoring program for the Solar Precinct and the Darwin Converter Site. However, it is anticipated that the Surface and Groundwater Management Plan completed as part of the Construction Environmental Management Plan will include a groundwater monitoring program outlined for the construction and operational stages of the project.	Section 6.10.1.2
8	Government	Department of Environment, Parks and Water Security	Hydrological Processes	EIS Process		Detail is included regarding the requirements for the extraction of water in accordance with a license as per the requirements of the Water Act 1992. Impacts to surface water flows and interference with a waterway from the installation of the overhead power line is mitigated within the EIS through the use of existing service corridors and placement of overhead power poles away from a waterway.	NA – no response required

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8	Government	Department of Environment, Parks and Water Security	Inland Environmental Water Quality			No issues of concern requiring comment have been identified.	NA – no response required.
Department of Climate Change, Energy, the Environment and Water							
22	Government	Department of Climate Change, Energy, the Environment and Water	Whole of Environment	EIS Process		The Department notes that the proponent's CAN number and name have changed, This means that the legal identity of the person proposing to take the action has changed and has become a different person for the purposes of the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act). Under section 156F of the EPBC Act, the Department advises the current proponent to notify the Minister for the Environment of these changes in writing. Further detailed information about changing the proponent under the EPBC Act can be found here.	Section 16.6.1
22	Government	Department of Climate Change, Energy, the Environment and Water	MNES		Terrestrial Ecosystems	The Department notes that options for changes and additions to the project components (i.e., Overhead Transmission (OHT) Railway route deviations, addition of ground electrodes, subsea cable system route and alternative pre-sweeping) have been identified; however, the findings presented in the draft EIS do not over these changes or additions as the assessment is still ongoing. The Department notes that future changes to the project design must include a significant impact assessment on Matters of National Environmental Significance (MNES) and	Section 15.10.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						results in the Supplementary EIS. If appropriate consider submitting a variation under the EPBC Act.	
22	Government	Department of Climate Change, Energy, the Environment and Water	Terrestrial Ecosystems	Flora/fauna		The Department acknowledges that surveys of threatened species within the OHT Railway and Utilities Corridor are incomplete. Therefore, further surveys and analysis are required to draw final conclusions about the project's significant impacts on EPBC Act protected species. The proponent has committed to conducting targeted field surveys of restricted range threatened species to confirm their presence, location, and significance within the OHT Railway and Utilities Corridor and to provide the results in the Supplementary EIS. The Department strongly recommends including the following EPBC Act protected species and their respective suitable habitats in the targeted field surveys: • Red Goshawk (Erythrotriorchris radiatus) • Gouldian Finch (Erythrura gouldiae) • Greater Bilby (Macrotis lagotis) • Grey Falcon (Falco hypoleucos) • Howard River Toadlet (Uperoleia daviesae) • Northern Brushtail Possum (Trichosurus vulpecula amhemensis) • Black-footed Tree rat (Mesembriomys gouldii gouldii) • Northern Quoll (Dasyurus hallucatus)	Section 5.12.2

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						• Bare-rumped Sheath tailed bat (Saccolaimus nudicluniatus nudicluniatus) • Nabartek (Petrogale concinna canescens) • Fawn Antechinus (Antechinus bellus) • Plains Death Adder (Acanthopis hawker) • Partridge Pigeon (eastern subspecies) (Geophaps smithii smithii) • Threatened flora species such as Stylidium ensatum • Helicteres macrothrix The Department advises using the EPBC Act Significant Impact Guidelines 1.1 (significant impact guidelines) to assess the significance of project's impacts on the above listed species and their habitats, including areas adjacent to the project site. If applicable, please provide avoidance and mitigation measures and if necessary provide proposed offsets to compensate for residual significant impacts.	
22	Government	Department of Climate Change, Energy, the Environment and Water	Terrestrial Ecosystems	Flora		The Department notes that an inconsistent and very coarse scale has been used for vegetation mapping across the terrestrial components of the project (OHT Railway, Utilities Corridor, Darwin Converter Site and Cable Transition Facilities) except for the Solar Precinct footprint. Vegetation mapping have been described using outdated references (Lynch et al. 2012; Christin and Stewart 1968) and have not been ground-truthed. The Department is of the view that	Section 5.12.1.4

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						land systems mapping is insufficient to adequately identify threatened ecological communities and threatened species habitat. The Department highly recommends undertaking field vegetation surveys, particularly, along the OHT Railway and Utilities Corridor to confirm the presence, location and significance of the Threatened Ecological Community (TECT) Arnhem Plateau Sandstone Shrubland Complex, threatened flora species and critical or suitable habitat of threatened fauna species.	
22	Government	Department of Climate Change, Energy, the Environment and Water	Terrestrial Ecosystems	Flora/Fauna		The Department considers that the estimated loss of clearing 9.86 ha and 12.45 ha of known core foraging and breeding habitat of Gouldian Finch, respectively, is likely to result in a significant impact on the species due to a real chance to reduce its area of occupancy, disrupt a population's breeding cycle and adversely affect habitat critical to its survival. The Department highly recommends conducting field vegetation and targeted surveys to confirm the actual quantity of hectares of core foraging and breeding habitat of Gouldian Finch that will be directly impacts by the project. Additionally, the Department requests providing adequate avoidance and mitigation measures for the species, such as considering the timing of works to avoid the Gouldian Finch's breeding season etc. and if necessary, provide proposed offsets to compensate for residual significant impacts.	Section 5.12.1.6
22	Government	Department of Climate Change, Energy, the	Terrestrial Ecosystems	Fauna		The draft EIS states that there "is no current evidence of nest occurrence" of Grey Falcon within, or close to the Solar Precinct access roads, however, this evidence has not been ground-truthed. The	Section 5.12.1.8

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
		Environment and Water				Department requests including management measures for this vulnerable species such as the involvement of a specialist for preclearing searches to identify potential suitable nesting trees and avoid them during the unsealed road construction.	
22	Government	Department of Climate Change, Energy, the Environment and Water	Terrestrial Ecosystems	Fauna		The Greater Bilby occurs in a wide range of habitat in the NT. The National recovery plan for the Greater Bilby considers the Tanami bioregion (West of Stuart Highway) as potential critical habitat of the species and the NT Fauna Atlas indicates that this species can be present in Ashburton land systems, which are present in the unsurveyed Solar Precinct unsealed road located just west of the Stuart Highway. Therefore, to verify the presence/absence of this species, the Department highly recommends conducting a targeted ground survey fo the Greater Bilby in the unsealed road area.	Section 5.12.1.10
22	Government	Department of Climate Change, Energy, the Environment and Water	Terrestrial Ecosystems	Electromagnetic Fields	Human Health	The Department considers that the temporary disturbance of approximately 25 ha of important intertidal habitat for migratory shorebirds to construct the Cable Transition Facility at Gunn Point Beach is likely to have significant impacts on migratory shorebirds. This reasoning is based on the size of important habitat that will be disturbed and the lack of information on successful reinstatement of intertidal habitats after installing underground electric cables. Therefore, please provide scientific information and/or examples of successful intertidal habitat recovery, recovery timing and analysis of the permanent thermal radiation and electromagnetic fields' effects on the recovery of intertidal habitats. Please provide further avoidance and mitigation	Section 5.12.1.12

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						measures to migratory shorebirds' important habits (e.g., construction should occur during the off season for migratory shorebirds, etc.). If, after providing avoidance and mitigation measures for migratory shorebirds, there are still residual significant impacts on their habitat please provide a proposed offset strategy for migratory shorebirds.	
22	Government	Department of Climate Change, Energy, the Environment and Water	Terrestrial Ecosystems	Fauna		The Conservation Advice of the Ghost bat indicates that this species is easily disturbed when roosting and may abandon sites where unregulated human vistiation occurs. Currently, one of the largest colonies is located in Kohinoor Adit at Pine Creek. The Kohinoor Adit is a permanent maternity roost for the Ghost bat and is located approximately 400 m to the west of the OHT Railway. The Department recommends reviewing updated information for the species to provide mitigation measures to minimise vibration and human disturbances during construction (e.g., defining exclusion/buffer zones surrounding the Kohoonir Adit, to avoid disturbance by human visitation to the cave during construction, imposing vibration limits, etc.). Additionally, please clarify if temporary or permanent barbed fences will be utilised during the construction of the OHT Railway. If barbed fences will be used in the project, please provide mitigation measures to avoid the collision of Ghost bats on the barbed fences.	Section 5.12.1.14
22	Government	Department of Climate Change, Energy, the	Terrestrial Ecosystems	Electro-magnetic Fields	Human Health	The project's operation will generate permanent electromagnetic fields (EMF) for approximately 70 years all along the terrestrial and marine components of the transmission lines. The Department considers that the effects of EMF's on EPBC Act threatened	Section 5.12.1.16

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
		Environment and Water				and migratory species have not been sufficiently addressed in the draft EIS. Therefore, the Department requires further analysis and discussion about the quantity, intensity, and distance of the emissions, long-term effects of these emissions on fauna behaviour, and cumulative impacts of the subsea cables on EPBC protected species. Please justify the conclusions with relevant scientific information and, if necessary, provide mitigation measures to reduce these impacts (e.g., suitable types of cables to reduce the emission of EMF).	
22	Government	Department of Climate Change, Energy, the Environment and Water	Marine Ecosystems			Due to the lack of knowledge of thermal radiation impacts, its long-term effects and cumulative impacts nearshore and offshore. The Department takes a precautionary approach and suggests that the proponent commits to monitoring these impacts along the subsea cables and implementing adaptive management measures to reinstate and recover the surrounding habitats that could be negatively impacted. Additionally, appropriate mitigation measures should be provided to minimise thermal radiation impacts such as cables buried at an appropriate distance from the seabed, etc.	Section 9.10.9.1
22	Government	Department of Climate Change, Energy, the Environment and Water	Marine Ecosystems	Fauna		The offshore component of the project sits within Commonwealth marine waters. This means that that a whole of environment assessment is required, and this assessment must include any relevant marine species not only EPBC Act protected species within Commonwealth waters. Therefore, the Department requires a discussion about substantial adverse effects of the project on population of any NT listed	Section 9.10.1.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						marine species (if any) that also occur within Commonwealth waters.	
22	Government	Department of Climate Change, Energy, the Environment and Water	Marine Ecosystems	Fauna		In Chapter 10 – Marine Ecosystems, several "impact mitigations and monitoring measures" reference a Marine Environment Management Plan. The effectiveness of these mitigation and monitoring measures cannot be adequately assessed without reviewing the Plan. The Department requests that this Plan be included in the Supplementary EIS for review and must not be inconsistent with the North Marine Parks Network Management Plan 2018.	Section 9.10.2.1
22	Government	Department of Climate Change, Energy, the Environment and Water	Marine Ecosystems	Fauna		The project crosses biologically important areas for the Pygmy Blue Whale (Balaenoptera musculus brevicauda), Whale Shark (Rhincodontypus) and the Flatback Turtle (Natator depressus). Therefore, the Department expects to see adequate avoidance and mitigation measures for these species in the Marine Environment Management Plan.	Section 9.10.3.1
22	Government	Department of Climate Change, Energy, the Environment and Water	Marine Ecosystems	Fauna		The Australian Snubfin Dolphin (Orcaella heinsohni), Indo-Pacific Bottlenose Dolphin (Tursiops aduncus) and Indo-Pacfici Humpback Dolphin (Sousa chinensis) are EPBC Act migratory species expected to be present and foraging in the Gunn Point region and Shoal area. Therefore, the Department expects to see adequate avoidance and mitigation measures for these species in the Marine Environment Management Plan.	Section 9.10.4.1

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22	Government	Department of Climate Change, Energy, the Environment and Water	Marine Ecosystems			In Table 10-7 of Chapter 10, it is unclear what is meant by areas of higher habitat value. Please define and expand on it in the context of habitat loss and degradation.	Section 9.10.5.1
22	Government	Department of Climate Change, Energy, the Environment and Water	Marine Ecosystems	Flora/Fauna		The Key Ecological Features which are located within and outside of the Ocean Shoals Marine Park are mentioned in section 10.3.2.2 Offshore Environmental Values (Chapter 10), however, the potential impacts to these Key Ecological Features haven't been addressed in the avoidance, mitigation and monitoring section. The Department request that consideration is given to these features.	Section 9.10.6.1
22	Government	Department of Climate Change, Energy, the Environment and Water	Marine Ecosystems	Fauna		The Department notes that there are no avoidance measures listed for direct fauna mortality/collision with vessels. The Department requests that further consideration is given to measures to avoid species which are known to occur in the area, including Flatback Turtle, Loggerhead Turtle, Olive Ridley Turtle, Pygmy Blue Whale and Whale Shark.	Section 9.10.7.1
22	Government	Department of Climate Change, Energy, the Environment and Water	Marine Ecosystems	Fauna		19. The Department notes that there are currently nil reporting requirements relating to incidents within the Oceanic Shoals Marine Park where marine fauna are impacted. Thus, the Department requests that measures are put in place to notify the Director or any incidents while the activity is undertaken. Suggested Reporting: Where a 'listed species; as defined by the Environment Protection and Biodiversity Conservation Regulations 2000, is injured or killed in	Section 9.10.8.1

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						undertaking the Activities, the proponent must notify the Director's Duty Office on 0419 293 465, as soon as practicable, and in any case no longer than 72 hours, following that event. If a list4ed species is inured or killed, the proponent must ensure that: a) all use of the equipment that injured or killed the listed species ceases immediately: and b) the activity does not resume without the written permission of the Director.	
22	Government	Department of Climate Change, Energy, the Environment and Water	Whole of Environment	EIS Process		20. The Department notes that the list of sub plans included in the Construction Environmental Management Plan (CEMP) can change based on the project approval conditions, detail design and micro-siting activities. However, Based on the project's proposed activities, the CEMP should include the following sub-plans • Environmental Emergency and Spill Response Plan • Air Quality Management Plan • Hazardous Materials and Waste Management Plan • Surface water and groundwater management plan • Weed management plan • Flora and Fauna Management Plan • Reinstatement plan, considering reinstating biologically important foraging areas for the Flatback Turtle (Nator depressus). Logger	Section 16.6.1.2

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						Turtle (Caretta Carreta) and Olive Ridely (Lepidochelys olivacea). • Marine Environment Management Plan • Bushfire Management plan • Erosion Sediment Control Plans, including sediment control measures for construction of the Shore Crossing Site, which will be regularly underwater due to tidal movements • Acid Sulfate Soil (ASS) Management Plans, particularly in the Adelaide River, Burrell Creek, Edit River and Katherine River sections of the OHT railway, and the section of high probability potential ASS just offshore of the beach. The Department requests that the CEMP and Operations Environmental Management Plans with their respective subplans be included in the Supplementary EIS to review their adequacy.	
22	Government	Department of Climate Change, Energy, the Environment and Water	Whole of Environment	EIS Process		21. The Department notes that some avoidance and mitigation measure are not expressed as clear commitments. For example, when stating “Avoiding clearing large hollow-bearing trees where possible”, “The final route selection process for the Solar Precinct access roads will avoid crossing locations that hold water for extended periods, riparian vegetation and aquatic vegetation, Where possible”, etc. The Department strongly recommends avoiding ambiguous language such as “where possible” when proposing avoidance and mitigation measures in the	Section 16.6.1.3

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						Management Plans especially in relation to EPBC protected species and their Habitats.	
22	Government	Department of Climate Change, Energy, the Environment and Water	Whole of Environment	EIS Process		22. In appendix C – Other Matters Required by Schedule 4 of the EPBC Regulations, the Department recommends reviewing and amending cross-referencing to ensure sections align with the relevant information required. For example, in section 1 'General Information' of Appendix C (page 1), letter (b) indicates that the designated proponent's full information can be fund in Chapter 1, Section 1.7. However Chapter 1, section 1.7, provides information on the stakeholder engagement instead of the designated proponent's full information.	Section 16.6.1.4
22	Government	Department of Climate Change, Energy, the Environment and Water	Stakeholder and Environment	SIMP		23. In Appendix J – Social Impact Management Plan section heading for 2.3 and 31 are missing from the document. The Department recommends inserting these section headings in the document including the missing content , or update the Table of Contents.	Section 3.8.2.1
22	Government	Department of Climate Change, Energy, the Environment and Water	Stakeholder and Environment	SIMP		24. In Appendix J – Social Impact Management Plan section 7 headings need adjustment. The Department recommends removing duplicate 7.2 and ensuring all section headings are in consecutive numerical order, and update Table of Contents.	Section 3.8.2.1
22	Government	Department of Climate Change,	Culture and Heritage	Heritage		In appendix V – Heritage Impact Assessment (HIA) – Solar Precinct four separate HIA documents are identified as being included in the HIA components of	Section 13.9.1.2

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		Energy, the Environment and Water				the EIS. However, only three HIS documents were included (Appendices V, W-1/W-2, and X). For transparency in the accredited assessment process, the Department recommends providing the HIA from the OHTL from the Solar Precinct to the Livingstone Chainage Corridor (Chainage 0 to 722)(as per (2) in the list of document on page 4 of Appendix V) in the Supplementary EIS.	
22	Government	Department of Climate Change, Energy, the Environment and Water	Culture and Heritage	Heritage		To complete the recommendations on cultural heritage set out in Appendix V, W-1, W-2 and X (HIA's), the Department proposes including the following inclusions: • Having an archaeologist's on site during construction to monitor ground disturbing activities at locations where undetected archaeological materials are likely to be present • Outcropping sediments rocks within the project area should be subject to a 100% sample survey, because the Archaeological Predictive Model predicts that this type of sediment contains high likelihood of archaeological materials. The Department suggests considering the above recommendations when preparing the Cultural Heritage Management Plan.	Section 13.9.1.2
22	Government	Department of Climate Change, Energy, the	Culture and Heritage		Noise/vibration	The Department recommends assessing the possible impacts of vibrations caused by construction and operation of the project (Solar Precinct, OHTL, and Subsea Cable System) near archaeological and	Section 13.9.2.1

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		Environment and Water				cultural heritage sites, particularly on historic structures, World War II infrastructure, Rock outcroppings potentially containing archaeological material, possible unexploded ordinance, and submerged landscapes.	
Environment Centre NT							
18	NGO	Environment Centre NT	Atmospheric Processes	Commercial	Community and Economy	1. Greenhouse gas emissions ECNT welcomes Sun Cable's objective to "minimise greenhouse gas emissions so as to contribute to the NT Government's target of achieving net zero greenhouse gas emissions by 2050". The estimation that the project will result in net emissions of -110 million CO2e is positive. However, ECNT retains major concerns regarding the foreshadowed supply of electricity to fossil fuel power generators. Chapter 12 raises the following possibility: "The AAPowerLink proposes to supply electricity to users in the Darwin-Katherine region, and although activities to support this are currently out of scope of the project, this could potentially include customers on the DKES as well as industrial customers, who typically utilise behind the meter power generation from non-renewable sources." In particular, ECNT is concerned by the objective of "Pursuing power purchase agreements with large fossil fuel power generators in the NT." The provision of power to the fossil fuel export industry may reduce emissions of the operations of those activities, but this emissions reduction is far outweighed by the continuation of those industries to export vast quantities of fossil fuels overseas and to the east coast of Australia.	Section 11.10.1.2

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						ECNT recognises that "GHG emissions outside of the scope of this estimate are those generated from activities outside of Australia" (12-5), however we submit that this should not preclude a consideration of the potential emissions profile of exporting industries that may be enabled by the provision of power, i.e., the LNG export industry. The exclusion of emissions generated outside of Australia from the project's estimations will distort the actual climate impacts of the provision of power to the fossil fuel industry, occluding the genuine damage that would occur should the proponent, for example, electrify the LNG export industry at Middle Arm.	
18	NGO	Environment Centre NT	Atmospheric Processes	Commercial	Community and Economy	As such, Sun Cable should not pursue any power purchase agreements that enable new fossil fuel projects or the expansion of existing fossil fuel projects. As it stands, a declaration that the proponent intends to seek pursue "power purchase agreements with large fossil fuel power generators in the NT" considerably undermines the proponent's social license. There are many scenarios under which Sun Cable pursuing power purchase agreements with fossil fuel projects will substantially increase overall emissions in the long term, all of which must be categorically avoided. If, for example, Sun Cable was the provide power to the Middle Arm Sustainable Development Precinct (MASDP) and electrify the production of petrochemicals using offshore and fracked gas as a feedstock, this could secure the demand for gas into the future and legitimise the further development of offshore gas reserves in the Timor Sea. Sun Cable must provide an early guarantee that it will not pursue agreements	Section 11.10.1.2

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						of this kind that serve to enable the continuation of fossil fuel developments.	
18	NGO	Environment Centre NT	Atmospheric Processes	Commercial	Community and Economy	Whilst ECNT recognises that commercial decisions around the supply of power to industrial customers are "currently out of scope for the project", ECNT believes these decisions are such fundamental importance to the project's stated objective to "minimise greenhouse gas emissions" that it would be remiss to not discuss them at this stage of the project. In short, if power from the Australia-Asia Powerlink Project is provided to the gas industry to electrify gas processing, gas export, and the production of petrochemicals using fracked gas a a feedstock, this would constitute such an egregious departure from the original intent and objective of the project that it would undermine the proponent's stated intentions to meet the net zero target, and indeed scupper the Territory's possibility of meeting this target at all. The intended positive impact of the project, stated in Table 12.3 as being an "Overall reduction in GHG emissions from generation of renewable energy", requires the imposition at an early stage of a clearly defined framework establishing the nature of industries to which power will and will not be provided.	Section 11.10.1.2
18	NGO	Environment Centre NT	Atmospheric Processes		Terrestrial Ecosystems	2. The mitigation hierarchy – avoid, mitigate, offset ECNT is concerned that the EIS does not apply the mitigation hierarchy appropriately, particularly with respect to the offsetting of residual impacts. This is the case for	Section 11.10.1.2

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						biodiversity impacts and greenhouse gas emissions. With respect to greenhouse gas emissions, ECNT notes that the Project footprint is vast, at approximately 13800 hectares. Sun Cable's Greenhouse Gas Management Plan states that 3 million tonnes of greenhouse gas emissions will be generated in the first four years of the project, and half a million tonnes over the life of the project." However, Chapter 12 of the EIS states that "Offsets pertaining to atmospheric processes are not required as there are no overall residual negative impacts relating to GHG emissions from the AAPowerLink project when emissions over the Project's life cycle are contemplated." ECNT believes that the emitting activities of the Project, such as land-clearing, should be independently and directly offset, and that it is inadequate for the proponent to rely on "avoided emissions". ECNT rejects 'avoided emissions' as a category of offset. To achieve the goal of being a "net zero infrastructure project" the proponent must develop and implement a GHG offset strategy that proposes genuine offsetting of emissions from e.g., land clearing.	
18	NGO	Environment Centre NT	Marine Ecosystems			a) Marine Ecosystems: Shoal Bay remains the most at risk near shore marine ecosystems under the current AA Powerlink proposal. Shoal Bay consists of a large network of drying sandbars interlaced with tidal channels and fringed by large, healthy mangrove ecosystems. The	Section 9.10.17.1

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						rocky reef at the end of Tree Point provides unique habitat for the region and attracts a wide variety of reef fish that would otherwise be absent. The Shoal Bay ecosystem is an important nursery system for a wide array of species because of the productive marcotidal habitat offering protection from predation during any tide level. Many species present are not accounted for in Appendix T (Marine ecology report). For example, juvenile stages of the commercially valuable narrow-barred Spanish mackerel (Scomberomorus commerson) can be found in significant numbers within Hope Inlet during the dry season indicating the importance of protecting this habitat for commercial fishing. Recreationally important species such as Northern Mulloway, Bluenose Salmon, Golden Trevally, Queenfish, Barramundi and Mudcrabs are prolific within the area and present some of the most exciting fishing opportunities within the grater Darwin region.	
18	NGO	Environment Centre NT	Marine Ecosystems			Protected coastal dolphins are regularly sighted within Shoal Bay and a Dolphin protection zone exists within Hope inlet. Large pods of the Vulnerable listed Australian Humpback Dolphins (Sousa Sahulensis) frequent the coastline between Gunn point and Hope Inlet and these dolphins regularly hunt within Hope Inlet during high tide. Sightings of Snubfin Dolphins (Orcaella heinsohni) are also common but usually found further offshore.	Section 9.10.18.1
18	NGO	Environment Centre NT	Marine Ecosystems			Elasmobranch species are also very common within Shoal Bay with sightings of large Winghead Sharks (Eusphyra blochii) and subsequent captures of newly	Section 9.10.19.1

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						born juveniles along the shoreline indicating the region is critical breeding/nursery habitat for the species (pers obs J Fowler, pers comm P. Kyne). Winghead Sharks are globally endangered and Vulnerable listed in Australia and yet the desktop report conducted for this EIS (Appendix T) does not consider these species. Clearly further biodiversity survey s of the region a required and the desktop report provided in the EIS is not adequate to assess protected species impacts.	
18	NGO	Environment Centre NT	Marine Environmental Quality			(b) seasonality and water temperature Little attention is given to minimising the impacts on important marine species during cable laying activities. Species movement within Shoal Bay is dominated by tidal movement and water te3mperature. During the wet season water temperatures usually range from 30 – 32 degrees which exceeds the tolerance levels for many species in shallow inshore environments. Throughout the past 5 year wet season water temperatures during January to March have been so high that there has been an absence of most large predatory fish. At the onset of easterly trade winds in April/May water temperatures rapidly drop and large numbers of species such as Bluenose Salmon and Northern Mulloway move into shallower waters in Shoal Bay. Many species reach peak spawning activity during the early wet season which may mean significant quantities of fish larval stages are present. Fish larvae experience greater morbidity when exposed to sediment plumes than adult fish as their gills are poorly developed and less capable of clearing particulate matter. Further research is required to	Section 8.10.10.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						identify low periods of predator abundance and spawning activity so that impacts from cable laying activities in the near shore environment can be minimised.	
18	NGO	Environment Centre NT	Marine Environmental Quality			(c) Tidal Influence Tidal movement is also poorly considered in this EIS. Tidal information within Appendix S relies on data from one IMOS buoy in the middle of the Beagle Gulf providing a very coarse indication of currents. Tidal movement within Shoal Bay is far more complex that what is captured by the single IMOS buoy as significant currents exist along the shoreline and are influenced by water draining out of Hope Inlet and the prominent reef at Tree Point. As Hope Inlet completely dries out on low spring tides nearly all marine species leave Hope Inlet and move across the cable corridor. Cable laying activity during periods of spring tides may very well exacerbate sediment deposition on surrounding coral and seagrass substrate on either side of the Murrumujuk site and have the greatest impact on marine species. Metocean data loggers should be deployed to ascertain optimal times for cable laying activities which take into consideration the observations listed above.	Section 8.10.9.1
18	NGO	Environment Centre NT	Marine Ecosystems		Human Health	(d) Thermal Radiation The impacts of thermal radiation is poorly considered in the EIS. Providing examples of heat impacts from HVDC cables in Bass Strait, Baltic Sea and Monterey Bay, California provides a poor indication of potential impacts in the much hotter tropical seas of the Beagle	Section 9.10.21.1

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						Gulf. With sea temperatures reaching new heights in norther Australia in recent years, a corridor of increased temperature along the seafloor may well act as a barrier to bottom dwelling species. Further data is required to assess the impacts of thermal radiation throughout the cable corridor in the Beagle Gulf and the Timor Sea.	
18	NGO	Environment Centre NT	Marine Ecosystems	Electro-magnetic Fields	Human Health	(e) Electromagnetic Radiation Shoal Bay and the Beagle Gulf contains large numbers of bottom dwelling elasmobranchs such as Rays and Guitar fish. These large species are a very important part of the inshore marine ecosystem as they modify habitat by digging holes and lough through the soft substrate in search of food. Creating multiple bands of electromagnetic radiation across tidal streams may well affect behavioural patterns of these bottom dwelling species as they are highly evolved to detect prey in soft substrate. Impacts on bottom dwelling elasmobranchs may have profound effects on ecosystem productivity as they are the largest and most abundant animals in the nearshore environment. Further research is essential to understand how elasmobranch behaviour may be affected in the shallow tropical seas of norther Australia as current research is limited to Bass Strait in Tasmania. The assumption of a minor impact of cable operation (table 10-8) from heat and EMR cannot be scientifically justified with the evidence provided.	Section 9.10.20.1

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18	NGO	Environment Centre NT	Terrestrial Ecosystems	Flora/fauna		3. Terrestrial Biodiversity impacts ECNT is concerned by the scant assessment provided of impacts of the projects on terrestrial biodiversity, and proposals to mitigate or offset these impacts. The project is one of the largest projects every undertaken in the Territory in terms of it's spatial footprint. The amount of land which will be cleared is vast, at approximately 13,800 hectares (12,000 hectares for the Solar Precinct, 1,734 hectares for the OHTL, and 64.5 hectares at the Darwin Converter and Cable Transition Facilities).	Section 5.12.4.2
18	NGO	Environment Centre NT	Terrestrial Ecosystems	Flora/fauna		Despite its size, the impacts of the Project on terrestrial biodiversity are, by and large, minimised in the EIS. In addition, it appears that in many cases biodiversity surveys have not been undertaken at all, or are not yet complete. This makes it impossible to appraise the likely impacts of the Project on biodiversity, including Sun Cable's proposals to monitoring, mitigate or offset these impacts.	Section 5.12.4.4
18	NGO	Environment Centre NT	Terrestrial Ecosystems	Flora/fauna		ECNT notes that land clearing is a fundamental pressure on the environment. Land clearing causes the loss, fragmentation and degradation of native vegetation, and a variety of impacts on soils (e.g. erosion, salinity, loss of nutrients and acidification) and disrupts essential ecosystems processes. Threats to biodiversity from land clearing and habitat loss are one of the greatest threats to threatened species in Australia, and to the environment more generally.	Section 5.12.4.6

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						Recent research which indicates the Northern Australia's tropical savannas are one of 19 ecosystems in Australia that meet the criteria of being under collapse. Bergstrom et al. suggest that it is imperative to understand how different threatening processes combine cumulatively (acting in what they term "threat webs") to further threaten Australia's collapsing ecosystems. As habitats become increasingly fragmented, populations become more vulnerable to other threatening processes. Such as climate change, changes in stream flow regimes, predation by invasive species and destructive fires, and they lose the ability to recolonise suitable habitat. The Northern Territory Government's published guidance material makes clear that, while Northern Australia has the largest and most intact tropical savanna system in the world, this value could be "readily compromised by excessive removal of native vegetation." Further, this guidance makes clear that the highly seasonal environment of norther Australia means that it is more important to retain a higher proportion of native vegetation in the landscape than for a less seasonal environment. The guidance refers to research undertaken for the Department in 2009 which showed significant impacts on biodiversity at a landscape scale (approximately 3000 ha) if more than 50% of native vegetation is cleared. In particular, the research notes that clearing of this extent "may reduce the diversity of plants and animals to a point where some populations may fall to unsustainable levels."	

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18	NGO	Environment Centre NT	Terrestrial Ecosystems	Flora/fauna		Very little analysis is provided in the EIS of the biodiversity impacts of clearing 12,000 ha of native vegetation at the Solar Precinct, beyond a statement that "the loss of such an area is likely to have a minor impact on regional diversity" (p 5-34). This is inadequate, and inconsistent with the research above. The impacts of habitat fragmentation at the Solar Precinct are "not assessed".	Section 5.12.4.6
18	NGO	Environment Centre NT	Terrestrial Ecosystems	Edge effects		Similarly, there is no analysis given of the edge effects for clearing from the Project as a whole, except for a statement that: "it is assumed that the open, sparsely vegetated habitats within the Solar Precinct footprint will not experience any significant or substantial edge effects – certainly not such that will impact at an ecosystem level" (p 5-38). This is an inadequate and likely incorrect assumption. As acknowledged by the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory, next to nothing is known about "edge effects" of clearing in the Northern Territory. A proliferation of habitat edges can impact the abiotic environment (including microclimate, light and wind) for up to 500 m or more from cleared areas, significantly increasing the area impacted by a project.	Section 5.12.4.8
18	NGO	Environment Centre NT	Terrestrial Ecosystems			The Fracking Inquiry acknowledged this significant knowledge gap and recommended studies be undertaken regarding the impacts of habitat fragmentation on biodiversity. Baseline studies are thus currently underway as part of the Fracking Inquiry to understand the biodiversity baselines and projected impacts of proposed development in the	Section 5.12.4.10

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						region. A GISERA study is currently underway to understand and manage impacts to biodiversity from land clearing and edge effect5s associated with roads and pipelines in the Beetaloo Basin. Sun Cable should, at the very least, refer to this research and explain its relevant or otherwise to its project.	
18	NGO	Environment Centre NT	Terrestrial Ecosystems	Flora/fauna		ECNT is concerned by Sun Cable's proposal for the OHTL to intersect (and therefore clear) the following areas of high biodiversity value and conservation significance (see page 5-34): • Manton Dam Recreation Area (18 ha) • Black Jungle Conservation Reserve (3.1 ha) • Shoal Bay Coastal Reserve (6.1 ha) • Yinberrie Hills site of conservation significance (42 ha) • Shoal Bay site of conservation significance (18 ha) • Howard Sand Plains site of conservation significance (18 ha); and • Adelaide River coastal floodplain (13 ha). Of note, the Project includes an area which has been categorised as "high risk" and "moderate" on biodiversity at Gunn Point (5-35).	Section 5.12.4.12
18	NGO	Environment Centre NT	Terrestrial Ecosystems	Flora/fauna		There is little in the EIS to demonstrate how biodiversity impacts will be avoided, mitigated or offset.	Section 5.12.4.14

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						No rationale is given for why some areas of high biodiversity value and conservation significance must be cleared, or what alternatives have been considered.	
18	NGO	Environment Centre NT	Terrestrial Ecosystems	Flora/fauna		There are few references to buffers being required for sensitive vegetation or any assessment of indirect impacts given (for example in the high conservation significance areas of Gunn Point). A one line explanation is given for why wildlife corridors that would provide connectivity at the Solar Precinct have not been pursued: "wildlife corridors were considered but were ruled out as a major fire risk for the proposal infrastructure and because they could cause shading of the arrays." These shortcomings must be interrogated and addressed.	Section 5.12.4.16
18	NGO	Environment Centre NT	Terrestrial Ecosystems	Flora/fauna		ECNT is concerned about the risks to the Kohoonir Adit colony of ghost bats, which is the largest known maternity site for Ghost Bat and will be located just 400 m to the west of the OHTL. While Sun Cable accepts this is an important population, it makes assumptions about the impact of construction and operation of the Project (principally, the overhead transmission lines) on this colony. For instance, Sun Cable sates that the species is too small to have negative interaction with powerlines, and that the only way the proposal could have a negative impact is through noise disturbance during construction. This assumption must be interrogated and substantiated.	Section 5.12.4.18

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18	NGO	Environment Centre NT	Terrestrial Ecosystems	Flora/fauna		ECNT is also concerned by the paucity of biodiversity surveys undertaken by Sun Cable. For example, there appears to have been just one targeted survey undertaken in the Solar Precinct (of the Greater Bilby). In other cases, surveys are yet to be undertaken. For example, Chapter 5 states that: "there is currently insufficient spatial information available to confirm whether the proposal is likely to have a significant impact on eight threatened species. That information will be collected in first half of 2022, for inclusion in the Supplementary EIS. Preliminary significant impacts assessments in this chapter conclude that it is possible that the sub-population of Typhonium praetermissum within the Darwin Converter Site and Cable Transition Facilities could be impacted upon, with 6.8% of the subpopulation recorded within the direct disturbance footprint." (5-92). It is unclear why or how the EIS has been submitted in the absence of this information.	Section 5.12.4.4
18	NGO	Environment Centre NT	Terrestrial Ecosystems	Flora/fauna		ECNT submits that there must be baseline studies undertaken of native vegetation, threatened species and ecological communities, water quality and quantity, aquatic ecosystems, terrestrial ecosystems, and social and cultural studies, or integration of the baseline studies undertaken as part of the Strategic Regional Environmental Baseline Assessment into the EIS.	Section 5.12.4.20
18	NGO	Environment Centre NT	Stakeholder and Community			5. Justice and engagement concerns Sun Cable's early indication that they wish to avoid the predominate frame of exploitative industry	Section 3.8.8.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						practice is welcome but must be supported by tangible commitments. Appendix I of the Social Impact Assessment identifies that numerous stakeholder groups raised concerns with the project related to energy justice and the nature of benefit that would be experienced by communities residing near the project area.	
18	NGO	Environment Centre NT	Stakeholder and Community			Material and direct benefits must be felt by the communities in and near the Project. Communities along each area of the project, from the solar precinct, along the overhead transmission line, and at the Darwin converter site, experience a range of socio-economic disadvantages, including, relevantly, energy poverty. It is reasonable that these communities may have an expectation that their energy needs will be addressed by a large-scale solar project on or near their land.	Section 3.8.8.1
18	NGO	Environment Centre NT	Stakeholder and Community			It is welcome to see the proponent's plans for the development of a "Territory Benefit Plan, Preliminary Social Impact Management Plan, and Regional (Aboriginal) Legacy Strategy", but ECNT expects a more detailed commitment to the affected communities surrounding the nature and extent of benefits they can expect to receive from this development. At the very least, a timeline which details when the contents of these plans may be available should be produced, so that communities currently being engaged in consultation can assess the expected benefits to them whilst they are being consulted.	Section 3.8.8.1

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18	NGO	Environment Centre NT	Stakeholder and Community			6. Local employment quotas Chapter 13 recognises "the importance of training, capacity-building, and employment for local people"; to this end, ECNT recommends that the proponent consider implementing local employment quotas for the project to concretise the commitment to addressing unemployment in the relevant regions.	Section 3.8.7.1
18	NGO	Environment Centre NT	Whole of Environment			7. Copper usage ECNT notes that the volume of copper required for the construction of the project is likely to be significant. The increase in demand for copper will mean a greater de3mand placed on the extraction of this mineral. This is problematic insofar as the Northern Territory's mining laws are not currently6 fit-for-purpose, and internationally the extraction of copper is frequently associated with environmental and human rights impacts. Whilst an initial increase in demand for some minerals may be unavoidable, ECNT encourages Sun Cable to develop a plan for the sustainable sourcing of copper, including an investigation of the possibility of using recycled materials wherever possible. It is paramount that Sun Cable makes commitments to ensure ethically sourced materials at each stage of the supply chain for the materials of the project.	Section 16.6.4.1
18	NGO	Environment Centre NT	Atmospheric Processes		Whole of Environment	8. Responsiveness to climate impacts ECNT is concerned that the Appendix E – Impact Assessment Register does not contain the phrase	Section 11.10.1.6

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						"climate change" even once. Given the 70-year project span, contingency planning for various climate scenarios must be integral to impact assessment and risk planning and mitigation processes of the proponent. Sites that are mentioned as being potential customers for electrification, such as Middle Arm's industrial hub, will be underwater due to climate change before ethe conclusion of the project's lifespan. ECNT urges the proponent to more thoroughly embed an awareness of escalating and severe climate impacts into the project plan and the Supplementary EIS.	
18	NGO	Environment Centre NT	Hydrological Processes			9. Hydrological processes Appendix N contains modelling that shows the possibility of flooding during extreme weather events could see Lake Woods "swell such that it would inundate a small portion of the north-east corner of the Solar Precinct." As have been observed with floods around Australia recently, the frequency of extreme weather events has increased and will continue to increase as a result of climate change, and so the possibility of flooding of the Solar Precinct Site mu8st be seriously engaged with. ECNT notes that climate change assessment in Appendix N is based on "the midpoint of the percentage rainfall increase" from IPCC modelling. However, modelling under different, including more severe scenarios should be conducted.	Section 6.10.2.2

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18	NGO	Environment Centre NT	Aquatic Ecosystems			10. Coastal erosion and sea level rise Whilst modelling has been undertaken for the possibility of flooding at Lake Woods, similar modelling should be undertaken for coastal erosion and sea level rise at the Darwin Convertor stie at Murrumujuk. It is mentioned that Erosion and Sediment Control Plans will be implemented; these plans should include climate modelling. Sun Cable should be aware that coastal erosion is intensifying in Shoal Bay with the large sand spit at Tree Point being washed away earlier this year, now Tree Point would more accurately called Tree Island. Dozens of large Casuarina trees were also washed away at nearby Lee Point in February 2022 and 5 meters of beach front was lost. Further evidence of coastal erosion can be seen within Hope Inlet (behind the proposed converter site) as the mangrove fringe is steadily collapsing. These impacts occurred during a period of no tropical cyclone activity. The storm surge modelling developed in 2010 and present in Appendix S, 3.7.2, is out of date and needs to be remodelled on current sea level observations. For a project expecting to operate until 2070 serious consideration will need to be given as to whether Murrumujuk is an appropriate site.	Section 7.10.2.2
18	NGO	Environment Centre NT	Culture and Heritage	Heritage		11. Culture and heritage impacts Chapter 14 states that “As there were no archaeological materials present, archaeological significance assessment was not undertaken.” ECNT notes that the appendix acknowledges that “to date no Pleistocene occupational areas have been recorded in the surrounding region however, some	Section 13.9.6.2

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						potential has been noted at Lake Woods", and as such recommends further investigation of the potential archaeological significance of the solar precinct area. ECNT does not believe that the proponent has engaged with the "Newcastle Waters Region: Community Report" (2019) by the Centre of Australian Biodiversity and Heritage. In this report it is noted that there are times in the past that Lake Woods was much larger than present, indicated by the presence of old shoreline ridges. The historical spatial expanse of Lake Woods contains much historical and cultural evidence, and is highly valuable for scientific, archaeological and climatic studies. Archaeological investigations that commenced in 2019 within this historic shoreline by the Centre of Excellence for Australian Biodiversity and Heritage indicate that potentially thousands of undocumented heritage sites are located within the catchment of Lake Woods (CABAH, 2019). It may be the case that a full archaeological survey needs to be undertaken prior to approval or construction; this possibility should be investigated.	
Anonymous Public Submission (9)							
9	Public	Anonymous (9)	Amenity	Visual Impact		In considering the Australia-Asia Powerlink EIS, Chapter 13 "Community and Economy" p4 figure 13-2 Key dimensions of social impacts (Munday 2020) the chart references the living environment – specifically the "amenity issues, noise, dust, pollution, aesthetics of landscape." We believe that the towers will have a	s

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						catastrophic effect on the living environment over the entire site, with a continuous low-level noise, visual pollution and diminished visual appeal of the surrounding landscape.	
9	Public	Anonymous (9)	Amenity	Visual Impact		We also refer to the Australia-Asia Powerlink EIS, chapter 2 “Project Description”, p4 and pp-49-50 that the tower structures will be postponed every 300-400 metres along the utility corridor. We have a 3-kilometre corridor that will have around ten giant towers built on. The highest point on our property is 83m above sea level. With the towers reaching up to 60 metres in height these enormous towers will be visible across the whole ridge and will create a negative aesthetic quality in what is currently a naturally beautiful rural landscape.	Section 10.10.9.2
Brigid Robertson							
11	Public	Brigid Robertson	Amenity	Visual Amenity	Noise and Vibration Electro-magnetic Fields	I object to overhead powerlines going past my property. If you must use Alverly Road, put them underground. It will devalue my property and be an eyesore as well as noisy and potential health problems.	Section 10.10.6.1
Anonymous Public Submission (12)							
12	Public	Anonymous (12)	Amenity	Visual Amenity	Stakeholder and Community	I object to electrical pylons going past my property. Put them underground or somewhere else. They are an eyesore, will devalue my property.	Section 10.10.9.2

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NT Field and Game							
13	Public	NT Field and Game	Terrestrial Ecosystems	Fauna	Visual Amenity	NT Field and Game has taken a keen interest in this project from time to time the final stage of its route was diverted from Livingstone to Gunn Point beach as much of this area is magpie goose and waterfowl habitat. Field and Game members are concerned that the overhead transmission lines (OHTL) will pose fatal bird strike consequences for birds with large wingspans like magpie gease, brolga and jabiru, especially where it intersects with Black Jungle Reserve and traditional flight paths from Quambi Lagoon and Melacca Swamp to the coastal floodplain of Shoal Bay Coastal Hunting reserve. We have contended that the variation from Litchfield to Gunn Point should be undergrounded creating a utilities pipeline that would become a future asset that could also include water, power, communications infrastructure that the township of Murrumujuk could utilise in years to come. The 44m high towers will be an eyesore especially where they pass within 200m to 300m of Lambell's Lagoon. The sway of these cables can be quite expensive. This is what causes the major threat to our large birds as do wind turbines on brolgas in western Victoria. I am insure of this sway has been mitigated by a reduction in the spans between towers as the corridor clearance seems to have been drastically reduced since our last meeting. I believe the undergrounding could also reduce the need to keep the corridor cleared for the next 70 years too. This ongoing disturbance will surely distribute weeds like gamba. This would reduce the ongoing costs of maintenance and the threat of cyclone damate to the OHTLs and towers. It appears	Section 5.12.5.1

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						that the subsea cable stretching from Gunn Point to Singapore, a distance of 4200 km will be buried in a trench, so it seems entirely feasible to mee that undergrounding this 67km from Livingstone to Gunn Point is not too much of an ask by our government to save our large birds, visual amenity and prevent weed intrusion.	
13	Public	NT Field and Game	Hydrological Processes	Inland Water Quality		Other issues that I have noted in the EIS are the AAPowerLink could have a residual impacts associated with alteration of the hydrological regime of the seasonal swamp located immediately south-west of the Darwin Converter Site at Gunn Point, and could have a residual impact to water quality in the seasonal swamp located immediately south-west of the Darwin Converter Site associated with increases in turbidity caused by erosion impacts predicted under the Terrestrial environmental quality factor.	
Anonymous Public Submission (14)							
14	Public	Anonymous (14)	Amenity	Visual Amenity	Stakeholder and Community	As a resident of Herbert I feel that land valuation will decrease substantially with overhead powerlines in close proximity to residential areas. The lines should be placed underground or well out of residential areas.	Section 10.10.9.2
Sharon Scur							
15	Sharon Scur	Public	Sharon Scur	Amenity	Visual Amenity	I support the Australia-Asia Powerlink Project in principle but have concerns about the impact of the HV powerlines and submarine cable on our pristine	Section 10.10.8.1

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						environment. Cutting a swathe through the Northern Territory for overhead powerlines has the potential to create an ugly scare on the landscape. The easement/corridor will affect local residents and their peaceful amenity. The need for weed management will be critical. Tourism operators will be impacted, taking tourists to the outback and all they can is hundreds of kilometres of ugly powerlines. I believe consideration should be given to laying underground cables.	
15	Sharon Scur	Public	Sharon Scur	Marine Ecosystems	Fauna/Flora	In relation to the submarine cable I have concerns about the impact on the sea floor. We have seen the impact of the submarine gas cable on Darwin harbour, the beaches no longer white due to the sludge, loss of sea grass for the dugongs. We used to see dugongs in the harbour but we don't anymore and fishing was good in the harbor and along the nearby coastline but not anymore. I believe relevant studies must be undertaken to identify the best route for both overland and undersea cables to mitigate the risks that are posed to our natural environment.	Section 9.10.22.1
15	Sharon Scur	Public	Sharon Scur			Thank you for the opportunity to make a submission. Greater community consultation should be occurring in relation to the project.	Section 3.8.16.1
Michelle Nicholson							

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16	Public	Michelle Nicholson	Human Health	Electro-magnetic		I do however, object to the decision that the NT EPA has made regarding the diversion of the overhead transmission towers through the rural utilities corridor. How wide is the utilities corridor. How wide is the utilities corridor on Alverly Road Noonamah? We already have major cables and optical fibre in the area. Will the telecommunications be affected if towers are taken down the utilities corridor for the rural area? The telco communications are very unreliable in this area now! How many additional rural residents will be disrupted if these towers are in the utilities corridor in the rural area rather than in its original rail corridor route?	Section 14.9.5.1
16	Public	Michelle Nicholson	Human Health		Land Use and Transport	The towers are from 35 to 45 meters high! How are the Air Tractors supposed to service the rural area when there is a bushfire? They fly over my property on Alverly Rd at the very low altitude when there is a bush fire. When these Air Tractors are full, I believe that they would struggle to maneuver around thee towers & lines. This decision to take the transmission towers down the rural utilities corridor would be putting many lives at risk.	Section 14.9.5.1
16	Public	Michelle Nicholson	Terrestrial Ecosystem			There are many mango orchards which bring fruit bats & magpie geese & other critters to the area that enjoy the fruit. We currently experience regular power disruptions due to bat and bird impact on power lines. Bats hanging on these lines could cause major disruption to transmission.	Section 5.12.7.1

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16	Public	Michelle Nicholson	Human Health	Electro-magnetc Fields	Noise and Vibration	Constant humming noise from the towers has potential to adversely affect wildlife let alone the humans living close by. The potential adverse effects on humans of high voltage EMFs also remain to be fully evaluated!	Section 14.9.5.1
Anonymous Public Submissions (17)							
17	Public	Anonymous (17)	Stakeholder and Community	Consultation		Background As a resident of Litchfield, on a property along the proposed Over Head Transmission Line (OHTL) corridor, I will firstly state that I have not been personally contacted by Sun Cable as an affected stakeholder. I am disappointed that many affected stakeholders have been contacted so late in the piece, or not at all. However, I will commend Sun Cable for the breadth and detail of their documentation, which has been an interesting and educational read. I do not doubt the efforts they have gone to, and the scope of works, especially in consultation with Traditional Land Owners. That being said, I have been informed that the Wulna Traditional Owners are opposed to this project variation.	Section 3.8.13.1
17	Public	Anonymous (17)	Stakeholder and Community	Consultation		There are 20 associated documents uploaded to the NT EPA website landing page for project for the referral stage, and 54 Environmental Impact Study (EIS) documents for the assessment stage, and another 15 other documents, which are all extensive. I have not been able to read them all. It is unlikely that affected residents will have been able to do so either,	Section 3.8.13.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						with only week's notice before closure of public comment.	
17	Public	Anonymous (17)	Amenity	Visual Amenity		The reserved NTG Utilities corridor that has neem earmarked for this project under the variation forced by the NTG in diverting the converter site away from Middle Arm to Murrumujuk/Gunn Point, has been my greatest concern and focus for my submission as an affected resident in Lloyd Creek. The proposed OHTL follows the rail way to Livingstone, where is bears to the East across the Stuart Highway, following the NTG Utilities corridor reserved in the Litchfield Subregional Land Use Plan (LSLUP). According to the maps, it is proposed that the OHTL will pass by my property approximately just 1000m (1km) away – which sounds like a lot but is a stones-throw for rural residents, who have driveways longer than this!	Section 10.10.9.2
17	Public	Anonymous (17)	Whole of Environment	EIS Process		The power line capacity at peak generation is expected at 6.4GW, and forecast to be 17GW. Presumably this means bolstering the infrastructure with more cables as the project grows. Operating capacity is expected between 525-600kV. This submission focuses on the community, air quality, eco system, and cultural heritage impacts.	Section 16.6.7
17	Public	Anonymous (17)	Amenity	Visual Amenity	Stakeholder and Community	I believe I will be negatively impacted by the construction and associated activities of the OHTL, and for the 70 year expected duration I will no doubt see the top portion of several pylons during the day, which no doubt will be illuminated at night. Standing well over 40m high, they will tower over the native	Section 10.10.9.2

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						savannah woodland I currently enjoy views of from my veranda, and may have the potential to spoil the night sky views too. How will the visual amenity affect my property value? I am not the only resident concerned by this question.	
17	Public	Anonymous (17)	Stakeholder and Community	Recreation	Terrestrial Ecosystems	Recreation Impact on access to recreational fishers, and impact on fish populations in affected areas, including the popular Fenton Patches artificial reef area. Have AFANT been engaged for comment? Additionally, at least one stretch of the Alverly Road section of the Utilities corridor may impact land-based recreational fishers.	Section 3.8.12.1s
17	Public	Anonymous (17)	Stakeholder and Community	Recreation		Access/recreational use of Gunn Point Beach/Murrumujuk coastal area may be impacted, especially during construction, for recreational visitors including campers, and also residents of Tree Point Community (currently under consultation).	Section 3.8.12.1
17	Public	Anonymous (17)	Terrestrial Ecosystems	Flora/fauna		What effect will these power lines and pylons erected for the OHTL have on birds, particularly waterfowl that flock between mango farms in the Arnhem Highway vicinity to areas such as Lambells Lagoon, Black Jungle, and Shoal Bay Coastal reserves? Hunting reserves at Lambells, Shoal Bay, and Howard Springs might be impacted. NT Field and Game have already made public comment on this concern.	Section 5.12.8.2

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
17	Public	Anonymous (17)	Human Health	Safety		Safety To what extent could the OHTL infrastructure affect fires in the region of the Utilities corridor? This could be from introduced weed species such as gamba, which are known to increase intensity of fires. The land in the Lloyd Creek/Noonamah region has been burnt every single year, for the past 11 years on record according to documentation. Will project boundaries affect fire-fighting access during construction or thereafter? Have Bushfires NT been engaged for comment?	Section 14.9.6.6
17	Public	Anonymous (17)	Human Health	Electro-magnetic Interference		Power lines are known to affect communications signals. In the Lloyd Creek, Elizabeth Valley, Noonamah region, communications are already extremely poor. This is no exaggeration. Some properties have no mobile phone signal whatsoever, some residents have paid for additional personal infrastructure to be installed at their properties to have a 'reliable' phone or internet connection. Many, if not most, internet connections are achieved though Fixed Wireless, mobile, or Satellite connections, and there is little fixed line infrastructure. Residents are often isolated and there are already concerns regarding the ability to call for emergency assistance when required. I state this as a resident affected by all of the above points, and I am not alone. Have telecommunications experts been engaged for comment?	Section 14.9.6.4

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17	Public	Anonymous (17)	Human Health	Electro-magnetic Interference		Additionally, UHF is also used for communication, especially by emergency services. Have Bushfires NT, Volunteer Fire Brigade Captions, or NT PFES been engaged for comment?	Section 14.9.6.4
17	Public	Anonymous (17)	Human Health	Safety		The proposed OHTL crosses the Stuart Highway, following the NTG Utilities corridor reserved in the LSLUP, which is just North of the Hughes airstrip, used during the dry season by crucial fire-fighting planes. Have Bushfires NT been consulted about the impact to their aviation?	Section 14.9.6.6
17	Public	Anonymous (17)	Human Health	Safety		Weather Interaction Whilst the pylons themselves may have added grounding to protect from damage by lightning strikes, the area around my property has significant strikes each wet season, presumably due to the nature of the geology. Could these pylons increase the threat of lightning strikes nearby to my property or others, posing a safety risk and financial risk? Are there any risks for surrounding residents associated with cyclones.	Section 14.9.6.6
17	Public	Anonymous (17)	Amenity	Air Quality	Human Health	Air Quality Dust I already have an issue with dust from the mine access road that backs onto my property. This road is maintained by mining companies, and I have existing complaint records with the NT EPA for the lack of dust management performed by mine operators using this road consistently and predominantly throughout the dry season. I am concerned that this road may be utilised for	Section 14.9.6.8

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						construction and maintenance traffic to access portions of the Utilities corridor, and dust will therefore become an increasing problem for my family, who have chronic lung conditions.	
17	Public	Anonymous (17)	Amenity	Noise and Vibration		Noise As above, what noise impact will I have during construction of the OHTL pylons in the vicinity of my home, just 1km away, will this be weekdays, weekends, night times. I Am not sure what this might mean for my hoe amenity.	Section 10.10.9.4
17	Public	Anonymous (17)	Human Health	Electro-magnetic Fields		Emissions Certain atmospheric conditions often cause high voltage cables to emit a buzzing/humming sound. There are also high levels of Electro-Magnetic Frequency (EMF) around these cables. What impact will noise/EMF emitted from the cables have on my family?	Section 14.9.6.2
17	Public	Anonymous (17)	Terrestrial Ecosystems	Flora		Eco System Clearing Associated native vegetation land clearing and ground preparation during construction will negatively impact an extensive range of vulnerable and threatened species within the are of the OHTL section between Livingstone and Murrumujuk, and the converter precinct site itself. Some of these species' visit or grow, on or near, my property.	Section 5.12.8.4

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
17	Public	Anonymous (17)	Terrestrial Ecosystems	Fauna		Vulnerable Species I note that the Partridge Pigeon has been missed in much of the documentation, which is a vulnerable species, as has the Black Footed Tree Rat, both of which I have recorded on my property and in the woodland vicinity. I also note that the Howard River Toadlet is referred to as 'flora' in at least one table contained in the EIS.	Section 5.12.8.2
17	Public	Anonymous (17)	Terrestrial Ecosystems			Conservation Areas The OHTL proposed in the Utilities corridor directly impacts the Priority Protection Area established in the Howard Sandplains Site of Conservation Significance, and Black Jungle Conservation Reserve. These areas are recognised as having high biodiversity value, and NT Department of Environment recommends avoiding clearing or direct impact in and around those areas, requiring mitigation with buffer zones.	Section 5.12.8.4
17	Public	Anonymous (17)	Marine Ecosystems		Stakeholder and Community	Although it has not been the focus of my assessment under time constraints, I am concerned about the environmental impacted around the coastal zone of Murrumujuk, which is virtually untouched in terms of development on land, and under sea. As a recreational fisher, a day out on the water is not just about catching fish, but enjoying the many rare and special encounters with dolphins, dugongs, and other species we have recorded seeing in the area. These are exceedingly rare in the wider Darwin Harbour region following other coastal industry and sea-traffic impacts.	Section 9.10.23.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
17	Public	Anonymous (17)	Whole of Environment	EIS Process		Cultural Heritage Known Sites In the OHTL corridor between Livingstone and Murrumujuk alone, there are 34 known archaeological sites, 11 isolated artefacts, 4 culturally significant landscape features, and 33 cultural Heritage Risk Areas. These include a range of sacred sites, WWII sites, and other important evidence of human historic habitation, which links all people with the history of their country and ancestors. The documentation admits that any attempt to divert the OHTL around these sites will likely result in disturbing others. Although not mentioned, I note this would be highly likely to require additional NT Planning permissions for rezoning and/ or clearing, and private land owner permission.	Section 16.6.8.1
17	Public	Anonymous (17)	Hydrological Processes	EIS Process		Additional Concerns Water I have some concerns regarding the use of water in construction by way of private land owner permission to tap into existing bores. Will there be extensions of existing water extraction licences in order to fulfil their responsibilities and monitor groundwater consumption and forecasts?	Section 6.10.4.2
17	Public	Anonymous (17)	Whole of Environment			Feasibility How is the concept of an environmentally friendly project to produce and supply power feasible?	Section 16.6.7
17	Public	Anonymous (17)	Terrestrial Ecosystems			Given that Sun Cable acknowledge that the variation in the route of the OHTL corridor will involve significant clearing of a 66km stretch of	Section 5.12.8.4

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						predominantly native vegetation, 20m wide, and additional cleared area for each pylon of 100m x 60m. How will native vegetation be "reinstated" to ensure a reduced corridor following construction, of a 6 wide, and 1m x 6m around each pylon?	
17	Public	Anonymous (17)	Whole of Environment	Climate Change	Atmospheric Processes	In addition, how will this project help to achieve the NTG net zero target if the majority of the generated power is sent to Singapore and not the NT?	Section 11.10.2.2
17	Public	Anonymous (17)	Whole of Environment	EIS Process		Request I request that this project variation to the OHTL route is not deemed feasible by the NT Environmental Protection Agency.	Section 16.6.7
17	Public	Anonymous (17)	Land Use and Transport	Future Land Use		I also request that the NT Government re-evaluates the Litchfield Subregional Land Use Plan (LSLUP) given the identified risks to significant sites in the reserved NTG Utilities corridor between Livingstone and Murrumujuk. It is apparent that this corridor is not appropriate for any level of infrastructure and should be removed from aby future projects to prevent companies repeating studies and assessments, time and again.	Section 12.10.6.2
Bobby Flanagan							
18	Public	Bobby Flanagan	Amenity	Visual Impact	Stakeholder and Community	Change to the route of the proposed Sun Cable or to have it installed undergrounding minimizing the impact to us as residents and the local flora and fauna. The consultation with the residents on this	Section 10.10.5.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						project has been nil, it was not until our local member brought this to our attention via social media that I was communicated about the proposal, as originally was still under the impression it was going to Middle Arm. I speak for myself and behalf of the residents when I say we are not against development in the NT or the project as a whole, however are strongly against the cable being installed above ground and request it to be installed underground from when it leaves the Stuart Highway until it is out of any residential properties, including properties proximity.	
Matthew James Farmer							
19	Public	Matthew James Farmer	Stakeholder and Community			The consultation with the residents on this project has been nil, with regards to other projects in the areas such as the mango hill road upgrade, residents were personally visited and well communicated on the works, pamphlets and project information was attached to residents properties and community briefing were held. I work away a fair bit, and have been isolated with COVID inn QLD, it was not until our local members brought this to our attention via social media that I was communicated about the proposal, as originally was still under the impressions it was going to Middle Arm. I speak for myself when I speak for myself and behalf of the residents when I say we are not against development in the NT or the Project as a whole, however are strongly against the cable being installed above ground and request it be installed underground where it leaves the Stuart Highway until it is out of any residential properties, including rural properties proximity. Can we please	Section 10.10.7.1

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						arrange a meeting with residents and all stakeholders to discuss and derive an agreement.	
19	Public	Matthew James Farmer	Visual Amenity		Stakeholder and Community	Negative impact on the property values due to the large above ground towers supporting the cable being an eye sore and taking the beauty of nature away from the properties in the Elizabeth Valley and other areas on the the proposed route.	Section 10.10.7.1
19	Public	Matthew James Farmer	Amenity	Noise and Vibration	Visual Amenity	Increased noise Pollution due to high winds through the cables and towers disrupting the peaceful environment that we as residents all moved out to the rural to enjoy and make part of our lives	Section 10.10.7.1
19	Public	Matthew James Farmer	Human Health	Safety		Increased potential for lightning strikes causing wild bushfires through the Noonamah area caused by lighting strikes, in previous years some of the fires have gone through the Elizabeth River causing huge damage to fauna and flora as well as causing property damage and endangering lives.	Section 14.9.4.1
19	Public	Matthew James Farmer	Terrestrial Ecosystems	Fauna		To birds flying through the area in their natural migration route, personally I can account for 50-100 magpie geese, whistler ducks, Burdekin ducks, Jabiru's and other bird species who make my property home for large portions of the year in my paddocks, the proposed route would endanger this and have the potential to cause loss of bird life due to collision to the lines/towers	Section 5.12.6.1
Anonymous Public Submission (21)							

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
21	Public	Anonymous (21)	Human Health	Electro-magnetic Fields		Above ground power lines create huge EMF when Hi8gh Voltage power is present. This has been proven to have health risks such as Leukemia to people that are exposed to it, the proposed rout is along the bus route where many children wait and walk along when making their way to and from school, in addition to this many residents ride bikes, walk dogs, conduct fitness activities along this proposed route.	Section 14.9.6.2
21	Public	Anonymous (21)	Amenity	Visual Amenity	Stakeholder and Community	The proposed sun cable project being run above ground poses multiple significant impacts on the residents, flora and fauns who are in proximity to its suggested route. These impacts include but are not limited to. Negative impact on property values due to the large above ground towers supporting the cable being an eye sore and taking the beauty of nature away from properties in the Elizabeth Valley and other areas on the proposed route.	Section 10.10.9.2
21	Public	Anonymous (21)	Amenity	Noise and vibration		Increased noise pollution due to high winds through the cables and towers disrupting the peaceful environment that we as residents all moved out to the rural to enjoy and make part of our life.	Section 10.10.9.4
21	Public	Anonymous (21)	Terrestrial ecosystems	Fauna		To birds flying through the area in their natural migration route, personally I can account for 50-100 magpie gees, whistler ducks, Burdekin ducks, Jabiru's and other bird species who many my property home for large portions of the year in my paddocks, the proposed route would endanger this	Section 5.12.8.2

Submission ID	Stakeholder Type	Stakeholder Name	Submission Theme	Submission Sub-theme	Submission Additional Theme	Submission Comment	Where addressed in SEIS
						and have the potential to cause loss of bird life due to collision to the lines/towers	
21	Public	Anonymous (21)	Terrestrial ecosystems	Fauna		Endangerment to the habitat of the animal residents that live in the area such as the Northern Quoll, Antilopine Wallaroo, wallabies, native snakes, native lizards to name a few.	Section 5.12.8.4
21	Public	Anonymous (21)	Amenity	Visual Amenity		The consultation with the r4esidents on this project has been nil, with regard to other projects in the area such as the mango road upgrade, residents were personally visited and well communicated on the works, pamphlets and project information was attached to residents properties and community briefings were held. I speak for myself and behalf of the residents when I say we are not against development in the NT or the Project as a whole, however are strongly against the cable being installed above ground and request it be installed underground where it leaves the Stuart Highway until it is out of any residential properties, including rural properties proximity. Can we please arrange a meeting with residents and all stakeholders to discuss and derive an agreement.	Section 10.10.7.1

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suncable.energy

SUN CABLE AUSTRALIA-ASIA PowerLink

Singapore

61 Robinson Road
#09-04
Singapore 068893

Jakarta

The South Quarter Building, Tower C,
Mezzanine Level, Jl RA Kartini Kav 8,
Cilandak, Jakarta Selatan 12430

Darwin

Suite 3, Level 17
19 The Mall
Darwin NT 0800

Sydney

Level 31,
85 Castelreagh Street
Sydney NSW 2000

Brisbane

Level 3,
900 Ann Street
Fortitude Valley QLD 4006

info.nt@suncable.energy