



Ms Kylie Fitzpatrick
Manager Environmental Assessment
Department of Environment, Parks and Water Security
Northern Territory Environment Protection Authority
PO Box 3675
PARAP NT 0820

Dear Ms Fitzpatrick

Comments on the Draft Environmental Impact Statement – Australia-ASEAN Power Link, NT

Thank you for your email of 29 April 2022 inviting the Department to comment on the Draft Environmental Impact Statement (Draft EIS) for the Australia-Asia PowerLink project proposal. The Department notes that the proposal is being assessed under an accredited assessment by the Northern Territory Environment Protection Authority under the *Environment Protection Act 2019* (NT).

The Department has reviewed the Draft EIS and our comments are provided at [Attachment A](#).

If you have any questions, or require further information, please contact Gisella Marquez by phone on (02) 6274 1529 or email to Gisella.MarquezDonayre@awe.gov.au and cc: EADSAandNTSection@environment.gov.au

Yours sincerely

A handwritten signature in black ink, appearing to read 'Tanya Stacpoole'.

Tanya Stacpoole
Director
SA/NT Assessments Section
Environment Assessments West (WA, SA, NT) Branch

19 July 2022



Attachment A

1. The Department notes that the proponent's ACN 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 *Environment 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](#).
2. 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 cover 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 recommends presenting this assessment's results in the Supplementary EIS. If appropriate, consider submitting a variation under the EPBC Act.

Comments related to EPBC Act protected matters:

3. 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 (*Erythrotriorchis radiatus*)
 - Gouldian Finch (*Erythrura gouldiae*)
 - Greater Bilby (*Macrotis lagotis*)
 - Grey Falcon (*Falco hypoleucos*)
 - Howard River Toadlet (*Uperoleia daviesae*)
 - Northern Brushtail Possum (*Trichosurus vulpecula arnhemensis*)
 - Black-footed Tree-rat (*Mesembriomys gouldii gouldii*)
 - Northern Quoll (*Dasyurus hallucatus*)
 - Bare-rumped Sheath-tailed bat (*Saccolaimus nudicluniatus nudicluniatus*)
 - Nabarlek (*Petrogale concinna canescens*)
 - Fawn Antechinus (*Antechinus bellus*)
 - Plains Death Adder (*Acanthophis hawkei*)
 - 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.



4. 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; Christian and Stewart 1968) and have not been ground-truthed. The Department is of the view that 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 (TEC) Arnhem Plateau Sandstone Shrubland Complex, threatened flora species and critical or suitable habitat of threatened fauna species.
5. The Department considers that the estimated loss or clearing of 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 impacted 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.
6. 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 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.
7. 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 the 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 for the Greater Bilby in the unsealed road area.
8. 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 measures for migratory shorebirds' important habitat (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.
9. The [Conservation Advice of the Ghost bat](#) indicates that this species is easily disturbed when roosting and may abandon sites where unregulated human visitation 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 400m 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.

10. 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 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).
11. 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.
12. The offshore component of the project sits within Commonwealth marine waters. This means 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 populations of any NT listed marine species (if any) that also occur within Commonwealth waters.
13. 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](#).
14. The project crosses biologically important areas for the Pygmy Blue Whale (*Balaenoptera musculus brevicauda*), Whale Shark (*Rhincodon typus*) 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.
15. The Australian Snubfin Dolphin (*Orcaella heinsohni*), Indo-Pacific Bottlenose Dolphin (*Tursiops aduncus*) and Indo-Pacific 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.
16. 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.
17. 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 requests that consideration is given to these features.

18. 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.
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 of 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 undertaking the Activities, the proponent must notify the Director's Duty Officer on 0419 293 465, as soon as practicable, and in any case no longer than 72 hours, following that event. If a listed species is injured 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.
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, detailed 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 area for the Flatback Turtle (*Natator depressus*), Logger Turtle (*Caretta caretta*) and Olive Ridley (*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, Edith 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.

21. The Department notes that some avoidance and mitigation measures 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 Management Plans specially in relation to EPBC protected species and their habitats.
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 found in Chapter 1, Section 1.7. However, Chapter 1, section 1.7, provides information on stakeholder engagement instead of the designated proponent's full information.

General comments on draft EIS:

23. In **Appendix J – Social Impact Management Plan** section headings for 2.3 and 3.1 are missing from the document. The Department recommends inserting these section headings in the document including the missing content, or update Table of Contents.
24. In **Appendix J – Social Impact Management Plan** section 7 headings need adjustments. The Department recommends removing duplicate 7.2 and ensure all section headings are in consecutive numerical order, and update Table of Contents.
25. In **Appendix V – Heritage Impact Assessment (HIA) – Solar Precinct** four separate HIA documents are identified as being included in the HIA components of the EIS. However, only three HIA documents are included (Appendices V, W-1/W-2, and X). For transparency in the accredited assessment process, the Department recommends providing the HIA for OHTL from the Solar Precinct to the Livingstone Chainage Corridor (Chainage 0 to 722) (as per (2) in the list of documents on page 4 of Appendix V) in the Supplementary EIS.
26. To complement the recommendations on cultural heritage set in **Appendix V, W-1, W-2 and X (HIAs)**, the Department proposes including the following inclusions:
 - a) having an archaeologist on site during construction to monitor ground disturbing activities at locations where undetected archaeological materials are likely to be present.
 - b) outcropping sedimentary 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.

27. The Department recommends assessing the possible impacts of vibration caused by construction and operation of the project (Solar Precinct, OHTL, and Subsea Cable System) near archaeological and cultural heritage sites, particularly on historic structures, World War II infrastructure, rock outcroppings potentially containing archaeological material, possible unexploded ordnance, and submerged cultural landscapes.