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Mr Roland Lee
Environmental Assessment Unit
Department of Lands, Planning and Environment
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DARWIN NT 0801

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Our Ref: DLPE2026/0180

Dear Mr Lee

**Re: Invite to comment - Draft Terms of Reference for the preparation of an EIS -
AAPowerLink Australia Assets Pty Ltd – Muckaty Solar Precinct**

The information submitted for the above draft Terms of Reference (ToR) has been assessed by the relevant divisions within the department and the following comments are provided:

Flora and Fauna Division

The Flora and Fauna Division has reviewed the draft ToR and provides comment in **Attachment 1**.

Environment and Heritage Division

Heritage Branch

The Heritage Branch has reviewed the draft ToR and provides comment in **Attachment 2**

Circular Economy Team

The proponent must consider the waste hierarchy including the circular economy in the design of this project. Below are some examples of what should be considered by the proponent.

- Design for circularity (from project design stage onwards);
- Maintenance-first approach;
- Component-level replacement;
- Repowering without full removal; and
- Maximise life (delay decommissioning).

Land Resources Division

Weed Management Branch

The Weed Management Branch has reviewed the draft ToR and provides comment in **Attachment 3**.

Vegetation Assessment Unit

Under section 2.2.5 (Construction, operation, and decommissioning) of the draft ToR, - spatial files defining the extent of the development area should be included under site layout maps.

All clearing of native vegetation should comply with the Northern Territory Planning Scheme Land Clearing Guidelines (NTPS LCG). Reference to these guidelines could also be included under section 2.4.1 (Terrestrial environmental quality).

The Atmospheric Processes section could include reference to the Northern Territory (NT) Government online Carbon Emissions Estimate Calculator, which can be used to estimate greenhouse gas emissions that may be associated with the clearing of native vegetation¹.

Land Management Unit

The draft ToR generally acknowledges the requirement for detailed erosion and sediment control plans (ESCP) for all stages of the project lifecycle, including construction, operation, and decommissioning rehabilitation, and restoration. The draft ToR recognises the best practice guidance.

The draft ToR acknowledges erosion and sediment control perspectives across several sections, including Section 2.4.1 (Terrestrial Environmental Quality), Section 2.4.2 (Terrestrial Ecosystems), and Section 2.4.3 (Hydrological Processes, which addresses both surface water and groundwater impacts to vegetation).

The proposed disturbance footprint, totalling approximately 54,000ha, includes areas in close proximity to, or encompassing, slopes greater than 2% (which is not recommended in the NTPS LCG), as well as watercourses and inundation areas. There are a number of potential inundation areas that have not been included within the proponents "avoidance areas" and are currently within the proposed disturbance footprint. The areas identified warrant further assessment, and the Land Management Unit recommends these areas be excluded from disturbance and buffers applied in accordance with the NTPS LCG. The Land Management Unit also notes that the proposed property boundary buffers are less than the recommended buffer distances outlined in the NTPS LCG.

The provision of high resolution, recent aerial imagery, LiDAR data and interpolated slope data is requested from the proponent, to support and inform the assessment process.

It is recommended that the ESCP, ongoing monitoring, and reporting will be overseen by an independent auditor given the size, duration and proximity to sensitive environmental receivers.

Mining Division

The Mining Division has reviewed the draft ToR and confirms that the advice previously provided on 27 November 2025 remains valid.

Environmental Regulation Division

The proponent should note that all persons are required to comply at all times with the General Environmental Duty under section 12 of the *Waste Management and Pollution Control Act 1998* (WMPC Act). To help satisfy the General Environmental Duty, the proponent is advised to take notice of the list of environmental considerations below. The list is not

¹ <https://nrmaps.nt.gov.au/carbon/carbon.html>

exhaustive, and the proponent is responsible for ensuring their activities do not result in non-compliance with Northern Territory (NT) laws.

A non-exhaustive list of environmental issues that should be considered to meet requirements under NT law are listed below:

1. **Dust:** The proposed activities have the potential to generate dust, particularly during the dry season. The proponent must ensure that nuisance dust and/or nuisance airborne particles are not discharged or emitted beyond the boundaries of the premises.
2. **Noise:** The proponent is to ensure that the noise levels from the proposed premises comply with the latest version of the NT EPA Northern Territory Noise Management Framework Guideline available online².

3. **Erosion and Sediment Control (ESC):** The proponent must ensure that pollution and/or environment harm do not result from soil erosion.

ESC measures should be employed prior to and throughout the construction stage of the development. Larger projects should plan, install and maintain ESC measures in accordance with the current International Erosion and Sediment Control Association (IECA) Australia guidelines and specifications.

Where sediment basins are required by the development, the NT EPA recommends the use of at least Type B basins, unless prevented by site specific topography or other physical constraints.

Basic advice for small development projects is provided by the NT EPA document: Guidelines to Prevent Pollution from Building Sites³.

4. **Storage:** If an Environment Protection Approval or Environment Protection Licence is not required, the proponent should store liquids only in secure bunded areas in accordance with VIC EPA Publication 1698: Liquid storage and handling guidelines, June 2018⁴, as amended. Where these guidelines are not relevant, the storage should be at least 110% of the total capacity of the largest vessel in the area.

Where an Environment Protection Approval or Environment Protection Licence is required, the proponent must only accept, handle or store at the premises listed waste, including asbestos, as defined by the WMPC Act, in accordance with that authorisation.

5. **Site Contamination:** If the proposal relates to a change of land use or if the site is contaminated, including as a result from historical activities such as cyclones, a contaminated land assessment maybe required in accordance with the National Environment Protection (Assessment for Site Contamination) Measure (ASC NEPM). The proponent is encouraged to refer to the information provided on the NT EPA website⁵ and the NT Contaminated Land Guidelines⁶.
6. **Waste Management - Import and Export of Fill:** The proposed activities have the potential to generate fill and/or involve the importation of fill for use on-site. Untested fill material may already be present on the site. All fill imported or generated and exported as

² https://ntepa.nt.gov.au/_data/assets/pdf_file/0004/566356/noise_management_framework_guideline.pdf

³ https://ntepa.nt.gov.au/_data/assets/pdf_file/0010/284680/guideline_prevent_pollution_building_sites.pdf

⁴ <https://www.epa.vic.gov.au/sites/default/files/2025-05/Liquid-storage-and-handling-guide.pdf>

⁵ <https://ntepa.nt.gov.au/your-environment/contaminated-land>

⁶ https://ntepa.nt.gov.au/_data/assets/pdf_file/0020/434540/guideline_contaminated_land.pdf

part of the activity must either be certified virgin excavated natural material (VENM) or be sampled and tested in line with the NSW EPA Guidelines⁷

All imported fill material must be accompanied by details of its nature, origin, volume, testing and transportation details. All records must be retained and made available to authorised officers, upon request. The proponent should also consider the following NT EPA fact sheets: How to avoid the dangers of accepting illegal fill onto your land⁸, and Illegal Dumping - What You Need to Know⁹.

7. **Odour or Smoke:** The proposed activities may have the potential to create odours and/or smoke. The proponent must ensure that nuisance odours or smoke are not emitted beyond the boundaries of the premises.

Water Resources Division

There are no issues of concern requiring comment within the responsibilities of the Water Resources Division associated with the draft ToR. No further comment required.

Should you have any further queries regarding these comments, please contact the Development Coordination Branch by email DevelopmentAssessment.DLPE@nt.gov.au or phone (08) 8999 4446.

Yours sincerely



Maria Wauchope
Executive Director Land Resources

- Attachment 1** – Flora and Fauna comments
Attachment 2 – Heritage Branch comments
Attachment 3 – Weed Management Branch comments

⁷ <https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/virgin-excavated-natural-material>

⁸ https://ntepa.nt.gov.au/_data/assets/pdf_file/0005/285728/factsheet_avoid_danger_accepting_illegal_fill_to_your_land.pdf

⁹ https://ntepa.nt.gov.au/_data/assets/pdf_file/0008/285740/factsheet_illegal_dumping_what_you_need_to_know.pdf

Attachment 1

Submission on draft terms of reference

AAPowerLink Australia Assets Pty Ltd – Muckaty Solar Precinct

This submission is made under regulation 103 of the Environment Protection Regulations 2020

NT EPA reference number: EP2025/044

Government authority: Department of Lands, Planning and Environment – Flora and Fauna Division

Section of terms of reference	Theme / issue	Comment
Section 2.4.2	Terrestrial Ecosystems	The draft ToR requests the proponent to provide the following information: “descriptive field verified spatial information (i.e. maps, geospatial data) of sensitive and significant vegetation including riparian areas, wildlife corridors, wetlands, closed forests and groundwater dependent ecosystems (in accordance with the NT Land Clearing Guidelines).” The Flora and Fauna Division recommends that the wording is revised to: “descriptive field verified spatial information (i.e. maps, geospatial data) of sensitive and significant vegetation and significant features as described in the NT Planning Scheme Land Clearing Guidelines.”
Section 2.4.2	Terrestrial Ecosystems	The draft TOR requires the proponent to provide an “identification of all species of conservation significance, including restricted range and data deficient species in addition to threatened species listed under the <i>Territory Parks and Wildlife Conservation Act 1976</i> (TPWC Act) and EPBC Act, which have the potential to occur. Assess the likelihood of occurrence for all species that are known or likely to occur.” It is recommended that this is revised to: “identification of all species of conservation significance, including restricted range and data deficient species in addition to threatened species listed under the <i>Territory Parks and Wildlife Conservation Act 1976</i> (TPWC Act) and/or the EPBC Act, which have the potential to occur. Assess the likelihood of occurrence for all species that are known or <u>have the potential</u> to occur”.
		The draft ToR requires: “descriptive information (i.e. maps, geospatial data) and field verification for all species of conservation significance, including restricted range species, data deficient species and listed terrestrial threatened flora and fauna and migratory species known, or considered likely to occur. This must include, at a minimum:

Environmental impact assessment under the Environment Protection Act 2019

		the type, value, sensitivity, quality and geographic extent of suitable habitat (hectares), landscape context, listing status (TPWC Act, EPBC Act), threatening processes, estimates of population size, abundance and distribution” The Flora and Fauna Division notes that some information requirements (extent of suitable habitat, landscape context, estimates of population size, abundance and distribution) may not exist for data deficient species. “Condition” is a more appropriate term than “quality” in relation to habitat.
Section 2.4.2	Terrestrial Ecosystems	The draft ToR requires: “descriptive information that clearly outlines the survey and identification effort undertaken, including estimates of population parameters used to evaluate the local and regional context for potential impacts from the proposal. At a minimum, the fauna species considered must include:”. The Flora and Fauna Division considers that the list of fauna includes threatened species that are unlikely to be significantly impacted by the proposal. It is recommended that the list is revised to ensure the Environmental Impact Statement (EIS) is focused on the key species that have the potential to be significantly impacted by the proposal, or this is linked to the outcome of the likelihood assessment.
Section 2.4.2	Terrestrial Ecosystems	The draft ToR requires: “identification of any critical or important areas for flora and fauna taxa of conservation significance including consideration of the importance of both small and large areas of habitat, habitat connectivity (e.g. wildlife corridors) and their location likely to be important for maintaining terrestrial ecological integrity and functioning”. This dot point is hard to interpret. A suggested rewording is: “identification of areas of important habitat for species of conservation significance. This includes a description and quantification of the area of habitat and its connectivity at the local and regional scale.”
Section 2.4.2	Terrestrial Ecosystems	The draft ToR requires information on “the known and potential presence of species (identified as target species in preliminary terrestrial ecology studies for the proposal under the TPWC Act) must be described, including but not limited to plants, mammals, reptiles, amphibians, invertebrates”. This requirement appears to be duplicated and is covered under the section requiring information on “conservation dependent and threatened species”.
Section 2.4.2	Terrestrial Ecosystems	The draft ToR requires the proponent to include: “the likely occurrence of listed migratory species associated with Lake Woods and surrounding wetlands must be described”. It is unclear why this is included in the draft ToR in addition to the previous requirement for information about migratory species. The proposal is over 45km from Lake Woods, and it is unclear what features “and surrounding wetlands” refers to.

Environmental impact assessment under the *Environment Protection Act 2019*

Section 2.4.2	Terrestrial Ecosystems	The draft Tor requires the proponent to describe “the existing condition of habitat and vegetation communities, including significant and sensitive habitats and potential habitats for threatened species listed under TPWC Act and EPBC Act must be described along with any existing threatening processes”. This dot point is duplicated with other requirements in the table and could be removed.
Section 2.4.2	Terrestrial Ecosystems	The draft ToR requires information on the “direct, indirect and cumulative impacts to Lake Woods associated with the proposal, including those resulting from altered surface water flows, groundwater use and sediment transport”. The proposal is over 45km from Lake Woods and there appears to be no feasible pathway for impact in relation to surface water, groundwater or sediment. It is recommended that this requirement is removed.
Section 2.4.2	Terrestrial Ecosystems	The draft ToR requires the EIS to: “Identify areas of habitat critical to the survival of listed threatened species, particularly those necessary for activities such as foraging, breeding, roosting, or dispersal. Include areas essential for the long-term maintenance of the species, with consideration of the preservation of species, important populations, key populations for genetic diversity, and efforts related to population reintroduction or recovery.” This section appears to be duplicated in the table, and it should be removed, or incorporated into a single section.
Section 2.4.2	Terrestrial Ecosystems	The draft ToR states that “All mitigation measures should be substantiated and in accordance with best practice, including advice from relevant NTG advisory agencies. All clearing of native vegetation should comply with the NT Land clearing Guidelines.” The Flora and Fauna Division recommends that reference to the NT Land Clearing Guidelines is removed or modified. The Land Clearing Guidelines are guidelines, and allow for discretion and are subordinate to environmental approvals made under the <i>Environment Protection Act 2019</i>.

Attachment 2

Submission on draft terms of reference

AAPowerLink Australia Assets Pty Ltd – Muckaty Solar Precinct

This submission is made under regulation 103 of the Environment Protection Regulations 2020

NT EPA reference number: EP2025/044

Government authority: Department of Lands, Planning and Environment – Environment and Heritage Division - Heritage Branch

Section of terms of reference	Theme / issue	Comment
Section 2.4.6, Table 8, Pages 26–28).	Terminology	Section 2.4.6 broadly interchanges between the phrases ‘culture and heritage values’, ‘culture heritage values’, and ‘cultural heritage values’. Recommend refining these to a single term and consider defining this term in the ToR. A common term used for assessments intended to capture culturally significant places or features that fall outside the <i>Heritage Act 2011</i> or the <i>Northern Territory Aboriginal Sacred Sites Act 1989</i> is ‘cultural landscape mapping’, which may be suitable to include instead.
Section 2.4.6, Table 8, ‘Environmental values’ (pages 26–27)	General Comments	Recommend replacing “describe” with identify in the following line: <i>Describe the local Aboriginal communities and traditional owners within (or in proximity to) the proposal area and any native title claims.</i> Recommend that environmental values and their statutory obligations are directly linked, and the reference of “undertake a study” should read “undertake independent studies that...” in the following section: <i>Undertake a study that includes surveys to identify, describe and characterise existing culture and heritage values that may be affected by the proposal, including but not limited to:</i> – <i>Aboriginal sacred sites</i> (as defined by the <i>Northern Territory Aboriginal Sacred Sites Act 1989</i> and/or the <i>Aboriginal Land Rights (Northern Territory) Act 1976</i>). – <i>Heritage places and objects</i> (as defined by the <i>Heritage Act 2011</i>). Please note that the following points are not areas that the Heritage Branch can regulate under the <i>Heritage Act 2011</i>, and that these areas would fall to the NT EPA to regulate and enforce: – <i>cultural values associated with any native title claim applications and determinations in potentially affected areas outside the immediate proposal area</i> – <i>cultural practice areas</i> – <i>environmental values and areas important under Aboriginal tradition.</i> The following two sections are unclear and may need revision if “cultural heritage values” terminology is re-defined: • <i>Discuss the suitability of studies, surveys and investigations used to identify culture heritage values. Provide results of studies (e.g. archaeological and anthropological investigations and surveys, statutory/regulatory processes, consultations and other research) undertaken to inform the information provided in the EIS.</i>

		• Provide maps showing the location and extent of cultural heritage values in the potentially affected area (including sacred sites, heritage places and objects, traditional owner land and cultural practice areas). The maps of cultural heritage values must include the location and boundaries of each component Please note, the proponent has previously been given the below advice regarding their archaeological surveys. The Heritage Branch considers this advice to still be in effect. <i>"The Heritage Branch notes the proponent's commitment to completing the Cultural Heritage Management Plan (CHMP), in keeping with the approval conditions of EP2020/002-001 under the Northern Territory Environmental Protection Act 2019 and EPBC 2020/8818 of the Environment Protection and Biodiversity Conservation Act 1999. However, it is an expectation of the Heritage Branch that the CHMP will be provided with sufficient time to provide review and comment before on-site works commence.</i> A 2021 archaeological survey within the application area commissioned by the proponent included the following recommendation: 6. Sun Cable should undertake clearance surveys of all Cultural Heritage Risk Areas outlined in Table 10 above, to ensure each area has been adequately inspected prior to construction. a. Clearance surveys should be undertaken well in advance of the construction phase to allow for appropriate mitigation strategies to be implemented. The Heritage Branch notes that eight of the 'Cultural Heritage Risk Areas' in Table 10 of this report fall within the application area. The expectation of further archaeological surveys within these 'Cultural Heritage Risk Areas' have been noted through published Environmental Protection Agency (EPA) responses, including submissions submitted on 14 June 2022 and 08 December 2023. The Heritage Branch expects that these areas will be surveyed and the report submitted for review and comment before any on-site works commence. The results of additional archaeological surveys should be incorporated into the CHMP.
Section 2.4.6, Table 8– 'Potential significant impacts and risks' (page 27-28)	General Comments	Recommend reviewing the term "cultural heritage values" as per previous comments. Recommend changing the following to "protected Aboriginal archaeological places and objects": • significant Aboriginal cultural heritage places and objects (e.g. artefact scatters, shell middens, earth mounds, quarries, stone arrangements, petroglyphs, rock shelters, rock art, etc.) Please note, the following places are not regulated by the Heritage Act 2011 and will need to be assessed to the satisfaction of the NT EPA only. • "traditional and/or contemporary Aboriginal values (including sacred sites) or uses of land (e.g. hunting and ceremonial use) due to construction, operation or maintenance activities" • tangible and intangible impacts to cultural values and landscapes due to cultural connection to country... • the duration, magnitude, and extent of potential significant impacts to cultural heritage values • the extent of any temporary or permanent land access or use restrictions for cultural practices (Heritage Branch cannot regulate this)

	• <i>cumulative impacts from the proposal on cultural heritage values (as per previously mentioned), including the incremental destruction of heritage places or objects that may occur in the proposal area.</i> • <i>intergenerational impact on cultural connection, access to cultural areas, sacred sites and the perception of a place's cultural heritage value once it has been altered.</i> Recommend clarifying whether the following refers to declared heritage places under the <i>Heritage Act 2011</i>. If it is meant in broader terms, it may be worth clarifying what this encompasses, and who the informants for these places are. • <i>non-Aboriginal cultural heritage sites and values during project construction, operation, and maintenance activities.</i> Recommend that the following is rewritten to highlight that all Aboriginal archaeological places are automatically protected, and that any proposed works to impact a protected place can only occur with an approved works approval. • <i>methods for locating salvage or removal of any cultural heritage objects within the proposal area</i> Recommend that the following is amended to replace 'Heritage Branch' not 'Heritage Unit': • <i>Provide details of consultation with the Aboriginal Areas Protection Authority, DLPE Heritage Unit...</i>
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Attachment 3

Submission on draft terms of reference

AAPowerLink Australia Assets Pty Ltd – Muckaty Solar Precinct

This submission is made under regulation 103 of the Environment Protection Regulations 2020

NT EPA reference number: EP2025/044

Government authority: Department of Lands, Planning and Environment – Land Resources Division - Weeds Branch

Summary: The comments provided below identify gaps in the draft ToR relating to the land theme in general, and the threats from weeds in particular. Disturbance of land predisposes the subject land to invasion from weed species, including those identified to be present in the vicinity. It is noted that the draft ToR do not currently include explicit requirements for the proponent to develop or implement a weed management plan covering the project area for the duration of operations. It is recommended that a weed management plan clearly demonstrating the threats and relevant mitigation measures is included as a part of this EIS.

Section of terms of reference	Theme / issue	Comment
2.4	Land: Weed Management	• In the desktop evaluation conducted previously, records were found of species that are declared weeds in the NT within the subject land. • According to the <i>Weeds Management Act 2001</i>, landholders have a general duty to control weeds on land they hold. It is recommended that the proponent provides a clear weed management plan in the EIS that addresses the likely spread of weeds already in the vicinity, or those that may be introduced during the operations. • The comments previously provided by the Weed Management Branch on 27 November 2025 remain valid.
