Northern Territory Environment Protection Authority

# NOTICE OF DECISION AND STATEMENT OF REASONS

Section 55 of the *Environment Protection Act 2019* (EP Act)
Regulations 57(2)(b) and 63 of the Environment Protection Regulations 2020 (EP Regulations)

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| **Proposed action name** | Muckaty Solar Precinct |
| **Proponent name** | AAPowerLink Australia Assets Pty Ltd |
| **NT EPA reference** | EP2025/044 |
| **Nature of proposed action** | Energy (renewable) |
| **Description of proposed action** | The proposed action is to develop a large-scale solar generation and battery energy storage system precinct on Aboriginal freehold land owned by the Muckaty Aboriginal Land Trust in the Barkly Local Government Area.<br><br>The proposed action is located within NT Portion 5173 approximately 27 km west of the Stuart Highway, 121 km north of Tennant Creek and 81 km south of Elliot (Kulumindini).<br><br>Energy generated at the precinct will be dispatched through the Australia-Asia Powerlink Project's transmission system on Powell Creek Station.<br><br>The proposed project area is 135,857 ha, of which approximately 54,437 ha has been identified as potentially suitable for development.<br><br>The proposed action includes the development of:<br>• solar generation sites (including solar panels, local collector network, inverters, batteries, substations)<br>• transmission infrastructure (including switching station, and overhead transmission line)<br>• non-process infrastructure (including access roads, airfield, rail siding accommodation, borrow pits, laydowns, borefield).<br><br>Solar generation sites will be constructed in stages. Each generation site is expected to take approximately five years to construct and would operate for approximately 70 years following commissioning.<br><br>Temporary non-process infrastructure is expected to be progressively decommissioned when no longer required for use. Solar generation sites will be decommissioned and rehabilitated progressively at the end of each site's operational life. |
| **Person authorised to make decision** | Dr Paul Vogel AM, Chairperson<br><br>Northern Territory Environment Protection Authority (NT EPA)<br><br>Delegate of the NT EPA under section 36 of the Northern Territory *Environment Protection Authority Act 2012*. |
| **Decision** | **Standard environmental impact assessment is required** in accordance with section 55 of the EP Act and regulation 57(2)(b)(i) of the EP Regulations. |

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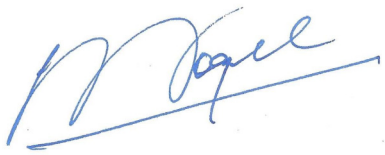
| | The method of environmental impact assessment to be by **environmental impact statement** in accordance with regulation 57(2)(b)(ii) of the EP Regulations. |
| **Signature** |  |
| **Date of decision** | 4 February 2026 |
| **Matters considered under EP Regulation 56** | The NT EPA has considered the following:<br>• the accepted referral (including the referral form, referral report and appendices)<br>• submissions received in relation to the referral information. |
| **Other matters considered** | The NT EPA has considered the following:<br>• additional information given under regulation 83 of the EP Regulations<br>• submissions received in relation to the additional information. |
| **Consultation** | Referral information:<br>• submission period: 29 October 2025 to 25 November 2025<br>• submissions received: 5 government authority submissions, and 10 public submissions.<br>Additional information:<br>• submission period: 6 January 2026 to 28 January 2026<br>• submissions received: 4 government authority submissions, one public submission.<br>Submissions are available on the NT EPA website. |

## Statement of Reasons

### Overview

The NT EPA considers that the proposed action has the potential to have a significant impact on environmental values associated with six environmental factors[1] as outlined below.

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| LAND | **Terrestrial environmental quality**<br>E-waste<br>Photovoltaic panels would be replaced every 40 years and batteries every 15 years, generating significant volumes of e-waste which has the potential to impact soil quality if stockpiled or disposed of in landfill. Soil quality may also be impacted through accidental leaks or spills of hydrocarbons, hazardous materials, and industrial and domestic waste. |

[1] NT EPA Environmental factors and objectives

Erosion

The proposed action involves the clearing of vegetation, earthworks for site preparation, and construction of solar fields and associated infrastructure. These activities would expose approximately 54,437 ha of desert sandplains and undulating plains leading to wind and water erosion. The placement of project infrastructure (including access roads, camp and airfield) would also increase the risk of soil erosion.

Whilst the topography of the project area is relatively flat, there are areas of moderate to steep slope. Given the large area proposed for clearing, the areas of moderate to steep slope would exacerbate potential risks and impacts from erosion and require management controls to minimise soil loss.

Erosion can result in land degradation and reduce the likelihood of successful rehabilitation following decommissioning of project infrastructure, or to localised and downstream sedimentation of surface water bodies.

**Terrestrial ecosystems**

Greater bilby

The project area sits at the northern extent of the arid lands of central Australia and contains large areas of habitat critical to the survival of the Tanami Desert population of the greater bilby. A long-term decrease in the size of the population is likely due to the predicted loss of foraging habitat. The construction and operation of extensive areas of infrastructure will also alter the local microhabitat and provide shelter and possible food/water resources for invasive species (red fox, feral cat) locally.

Significant vegetation

Sensitive and significant vegetation types including riparian vegetation, ephemeral swamps and wetlands, drainage depressions, and large hollow bearing trees, will largely be avoided through site selection processes. However, there is potential for direct and indirect impacts including degradation or loss of these vegetation types. The submission from the Flora and Fauna Division identified additional information requirements including but not limited to:

- assessment of ephemeral wetlands for their potential as habitat for waterbirds, wetland shorebirds or dry grassland favouring shorebirds
- review of the accuracy of creeks, drainage, ephemeral swamps and drainage depression mapping.

Waterbirds

The project area sits approximately 35 km south of the Lake Woods site of conservation significance, a large ephemeral wetland that provides habitat for up-to 100,000 water birds, including large numbers of migratory shorebirds, during suitable conditions. Several small ephemeral wetlands and waterways, some of which drain into Lake Woods, occur in the project area and support water birds. There is the potential for the solar precinct to impact migrating birds through the lake effect, a poorly understood phenomenon where solar panels interfere with visual navigation and can lead to birds colliding with solar panels causing mortality or facilitation of predation.

Other threatened species

The proponent identified three threatened species as being potentially impacted by the proposed action. The Flora and Fauna Division identified additional threatened species with a moderate to high likelihood of occurring within the project area that need further assessment to determine the potential for a significant impact.

| Potentially impacted | Impact requires further assessment |
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| Greater bilby (*Macrotis lagotis*)<br>Grey falcon (*Falco hypoleucus*)<br>Yellow-spotted monitor (*Varanus panoptes*) | Gouldian finch (*Chloebia gouldiae*)<br>Sharp-tailed sandpiper (*Calidris acuminata*)<br>Common greenshank (*Tringa nebularia*)<br>Australian painted snipe (*Rostratula australis*) |

The submission from the Department of Lands, Planning and Environment also indicates that additional work is needed to describe the existing environment in sufficient detail and the potential impacts to native vegetation and fauna, and to assess the significance of potential impacts. Further information is required to inform the assessment process, including but not limited to:

- surveys to determine the presence of Gouldian finches or potential Gouldian finch foraging habitat along Burke and Tomkinson creeks
- suitable nesting habitat for grey falcon.

WATER

**Hydrological processes**

Surface water

Lake Woods is one of the largest semi-permanent freshwater lakes in the Northern Territory and is considered a national high conservation value aquatic ecosystem which holds the largest area of lignum swamp in the NT. The project area is located approximately 30 km south of Lake Woods, at the southern-most extent of the Lake Woods inland sub-basin. Burke and Tomkinson Creeks drain to Lake Woods. The project area also contains several minor streams and drainage lines, as well as ephemeral wetlands and swamps.

The construction of a large area of photovoltaic panels is likely to alter the drainage and permeability of a significant area of land, and there is a high level of uncertainty on how the proposed action would affect surface flows, particularly during flood conditions.

Ground water

The project area overlaps the Wiso Basin, Tennant Creek Block and Kalkarindji Province aquifers. Water demand is estimated to be 1,860 ML/year for construction and 11.4 ML/year for operation of each solar generation site. The number of solar generation sites is not defined, and the total water use for the action is unknown. Water would be sourced through groundwater extraction, pending the results of groundwater studies. It is unclear from which aquifer the proponent intends to source groundwater. No surface water extraction is proposed.

The Water Resources Division submission highlights that there are information gaps in the referral, leading to uncertainty in relation to the proponent's conclusion that the proposed action would cause minor residual impacts to groundwater resources. Further information is required, including bore locations, timing and rate of groundwater extraction, and evidence to confirm the predicted absence of groundwater dependent ecosystems.

The construction of large area of photovoltaic panels is likely to alter the permeability of a significant area, and the impact on groundwater recharge is unknown.

AIR

**Atmospheric processes**

Carbon emissions would be generated from clearing of 54,437 ha of vegetation and through vehicle emissions during construction and operation. The proponent suggests that greenhouse gas emissions generated during land clearing and preparation, and construction and operations, would be offset within the first few years of operation. However, there is

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| | insufficient information to assess the significance of impacts from the proposed action on atmospheric processes. |
| PEOPLE | **Community and economy**<br>The proposed action is on Aboriginal Freehold Land (Muckaty Aboriginal Land Trust (ALT)). The Barkly Regional local government area incorporates the towns of Elliott and Tennant Creek and has a total population of approximately 6,316 people, of which the majority (4,051, 64%) identify as Aboriginal. Traditional Owners of the Muckaty ALT generally live within the region.<br>Construction of each solar generation site is expected to take at least five years and would require approximately 3,500 full time equivalent (FTE) employees. Operation would require approximately 100 FTE employees The proposal includes construction and operation of a 3,000-person worker accommodation camp. The workforce would predominantly be fly-in fly-out and housed at the camp.<br>The proponent committed to "maximising jobs and business opportunities for local people in the Barkly region and NT more broadly". The proponent anticipates that an agreement would be reached with the Muckaty ALT owners.<br>There are likely to be significant direct and indirect impacts associated with mobilisation of the construction workforce to the remote Barkly region, including increased pressure on logistic services such as air and road freight and essential services, especially health and emergency services. |
| | **Culture and heritage**<br>Avoidance areas have been identified for known Aboriginal Sacred Sites and Restricted Work Areas within the project area. However, there has been limited research undertaken in the proposal area and there are knowledge gaps regarding Aboriginal sacred sites.<br>It is unclear from the referral information whether there are any Aboriginal sacred sites within the proposed disturbance areas and further information is required to demonstrate that the proposal would not result in direct or indirect disturbance or destruction of sites of cultural significance. The proponent has committed to applying for an Authority Certificate under the *Northern Territory Aboriginal Sacred Sites Act 1989*. |

The NT EPA considered other environmental factors during its consideration of the referral and additional information. However, the impact on those factors was not considered to be significant.

**Justification**

A standard assessment by environmental impact statement is required because:

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| Regulation 59 (a) | the significance of the potential impacts of the proposed action as described above. |
| Regulation 59 (b) | the need to improve the NT EPA's level of confidence in predicting potential significant impacts of the proposed action taking into account the extent and currency of existing knowledge, particularly in relation to the:<br>• the significance of impacts to threatened species and habitats in the project area<br>• the benefits to the NT of the proposed action, including to the NT Government's greenhouse gas emissions target |

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| | • information about social and cultural impacts that may arise through engagement and consultation with communities affected by the proposed action, including Aboriginal communities |
| Regulation 59 (c) | the need to develop measures to avoid, mitigate or manage potential significant impacts, and increase the NT EPA's confidence in the effectiveness of the proposed measures, with respect to:<br>• potential impacts from extensive vegetation clearing<br>• potential impacts to waterways including ephemeral wetlands/ swamps from disturbance from construction and operation of project infrastructure<br>• potential impacts to groundwater resources from water abstraction required for construction and operation of the project infrastructure<br>• potential social and cultural impacts |
| Regulation 59 (d) & (e) | the extent of community engagement that has occurred, and whether it is sufficient to ensure that affected communities and individuals understand the proposed action and its potential impacts, including cumulative impacts. This includes avoidance of negative social and economic impacts and maximisation of benefits. |

**Conclusion**

The NT EPA considers that the proposed action has potential for a significant impact on six environmental factors, and that environmental impact assessment is required. Further information is required to enable the NT EPA to complete its assessment. The method of assessment is environmental impact statement.

In making its decision under section 55 of the EP Act and regulation 57 of the EP Regulations, the NT EPA has considered the:

- accepted referral, and submissions made under regulations 52 and 53 (regulation 56 of the EP Regulations)
- additional information requested under regulation 83 and submissions received under regulation 85
- objects under section 3 of the EP Act
- purpose of the environmental impact assessment process in section 42 of the EP Act
- general duty of proponents in section 43 of the EP Act
- matters in regulation 56 of the EP Regulations
- criteria in regulation 59 of the EP Regulations.