Chapter 1 - Introduction

AAP01-000-GEG-GGEN-00002

Approved Rev	Approver Position	Signature	Date
00	Mark Branson Chief Development Officer		24 Nov 2022
	Jonathan Kent Program Development Manager		24 Nov 2022

Document revision history and tracking

Document Preparation

Rev	Status	Date	Prepared by	Position	Reviewed by	Position
A	For Review	8 Nov 2022	Jessica Miller	SEIS Coordinator	Jonathan Kent	Program Development Manager
					Joe Sheridan	Development Manager
					Mellissa Winfield	Development Integration Lead
B	For Approval	20 Nov 2022	Cecil Anthony Moll	Environmental Scientist	Luke Palfreeman	Chief Technical Principal, Environment
					Jessica Miller	SEIS Coordinator
					Jonathan Kent	Program Development Manager
00	For Use	24 Nov 2022	Jessica Miller	SEIS Coordinator	Mark Branson	Chief Development Officer
					Jonathan Kent	Program Development Manager

Revision history tracking record (Use after Rev 00)

Rev	Date	Description	Prepared by	Approved by

Contents

Tables

1 Introduction

1.1 Background and Purpose

AAPowerLink Australia Assets Pty Ltd is progressing an Environmental Impact Statement (EIS) for the components of Australia-Asia PowerLink project (AAPowerLink or the Project) which will be located within the Northern Territory (NT) and the Commonwealth (Cwth) Marine Area beyond the NT's Coastal Waters. The Project's Draft EIS is currently under assessment by the Northern Territory Environment Protection Authority (NT EPA) as per the *Environment Protection Act 2019* (NT) (*EP Act*).

On 28 September 2022, the Direction to prepare a Supplement to the Environmental Impact Statement (SEIS) draft was provided to the Proponent by the delegate of the NT EPA under Section 136(1) and Section 138(2) of the Environment Protection Regulations 2020 (NT) (EP Regulations) for the Project (EPA reference EP2020/002). Refer to Appendix 1.1 for further details of this Direction.

The Direction requested that the Proponent:

- Prepare a Supplement to the Draft EIS
- Address the submissions made on the Draft EIS in accordance with Clauses 135 and 136(1)(a) of the EP Regulations 2020
- Provide additional information as detailed in Attachment A of the Direction according to Clause 136(1)(b) of the EP Regulations 2020
- Ensure the NT EPA has sufficient information to complete the Environmental Impact Assessment (EIA) process.

This SEIS has been prepared in response to the Direction, in accordance with Appendix 1.2 (Requirement Checklist for Supplementary EIS). Appendix 1.5 identifies the environmental assessment team members involved in preparing this EIS.

The SEIS also responds to the regulator and public comments which were raised during the public exhibition period between 20 April and 15 July 2022 for the Draft EIS (refer to Section 1.2).

Appendix 1.1 provides a breakdown of where each matter raised in the Direction is responded to within this SEIS.

Chapter 2 of this SEIS provides a detailed description of how the Project's scope has been refined since the Draft EIS was prepared. Unless otherwise stated, no details of the Project's scope have been altered from the previous Chapter 2 Proposal Description which formed part of the Draft EIS. That is, Chapter 2 within this SEIS only describes components of the Project which have been refined or for which further information is now available.

Refinements that have been made to the Project's scope since the Draft EIS was prepared have been made as a result of the standard engineering design process which large scale projects are subject to. As this design process has progressed, knowledge of the Project's needs has necessitated some minor refinements as set out in Chapter 2. No changes to the Project's scope have been specifically made in response to submissions received, as a review of these submissions deemed this to be unnecessary.

As the Project is a Controlled Action under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwth) (*EPBC Act*), this SEIS has also been prepared according to Section 42 and Section 43 of the *EPBC Act* (refer to Appendix 1.4).

In preparing this SEIS, we acknowledge the traditional custodians throughout Australia and pay respect to their elders past and present. The Proponent is committed to ongoing engagement with stakeholders including Aboriginal groups and representative agencies, land holders, NT government regulators and the broader community to support the Project's positive impact on communities and people in the NT. The Proponent has worked with stakeholders to ensure that impacts to environmental, social and cultural values are avoided or reduced to the extent practicable. Stakeholder engagement undertaken to inform the Draft EIS, SEIS, Stakeholder Consultation Report (refer to Appendix 3.1), and Social Impact Management Plan (SIMP) (refer to Appendix 3.2) is detailed within Chapter 3 Stakeholder and Community Engagement. This includes details of how continual engagement over the life of the Project will be carried out. Where relevant, this SEIS contains details to address stakeholder feedback from engagement activities carried out to date, which is also summarized in Appendix 3.1.

The Project will continue to develop its relationship and work closely with the Northern Land Council (NLC) and Central Land Council (CLC) and negotiate voluntary Indigenous Land Use Agreements (ILUAs) to seek consent from Traditional Owners (TOs) and custodians. In 2020, an agreement with the NLC was established for the purpose of such negotiations, which included a costs agreement for the purpose of supporting the NLC to conduct consultation and engagement to seek consent for the Project.

1.2 Summary of Submissions

The Draft EIS was on public exhibition between 20 April until 15 July 2022. A total of 22 submissions were received, with eight of those coming from NT and Cwth regulators (refer to Appendix 1.3). Eleven submissions were also received from members of the public and community organisations. An additional three submissions were withheld from publication in accordance with Clause 269 of the EP Regulations. Appendix 1.3 identifies the key factors that the submissions focused on as described in the original Terms of Reference (TOR) for the Project. Individual comments and the Proponent's responses are provided throughout Chapters 4 to 16 of this SEIS. Appendix 1.3 provides a breakdown of where each individual submission has been responded to within this SEIS.

Full copies of each published submission received regarding the Project can also be viewed on the NT EPA's EIS Register website as follows:

https://ntepa.nt.gov.au/your-business/public-registers/environmental-impact-assessments-register/assessments-in-progress-register/australia-asia-powerlink-project.

1.3 Structure of Supplementary EIS

The structure of this SEIS largely follows the structure of the Draft EIS. However, some changes to chapter structure have been made for efficiency. Table 1-1 describes the chapters which are contained within this SEIS, along with their supporting appendices.

Table 1-1: Supplementary chapter and appendices structure

Chapter	Description
Chapter 1 – Introduction	This chapter sets out the intentions for the SEIS as per the relevant requirements of the *EP Act*, EP Regulations, the *EPBC Act*, and the NT EPA Direction. It also provides a summary of the EIA methodology which was previously detailed within Chapter 3 of the Draft EIS. There are several new appendices which have been prepared in support of this SEIS, which are as follows: • Appendix 1.1 NT EPA Direction Response • Appendix 1.2 Requirement Checklist for Supplementary EIS • Appendix 1.3 EIS Submissions Cross Reference Table • Appendix 1.4 Requirements of the *EP Act* Section 42 and Section 43 • Appendix 1.5 EIS Team.
Chapter 2 – Project Refinement	This chapter provides an overview of the Project refinements to the project description since the Draft EIS was submitted. Any minor refinements of project components are explained in detail including activities associated with the construction, operation, and decommissioning of the infrastructure.
Chapter 3 – Stakeholder and Community	Chapter 3 responds to the NT EPA's objective for Community and economy factor as follows: *Enhance communities and the economy for the welfare, amenity, and benefit of current and future generations of Territorians.* This chapter outlines the Stakeholder and Community Engagement which has been undertaken as per *Guidelines for proponents – community engagement* (NT EPA, 2021). It complements the Social Impact Assessment (SIA) and preliminary SIMP provided as Appendices I and J of the Draft EIS by referencing a new Stakeholder Consultation Report (refer to Appendix 3.1) and updated SIMP (refer to Appendix 3.2).
Chapter 4 – Terrestrial Environmental Quality (TEQ)	Chapter 4 responds to the NT EPA's objective for the TEQ factor as follows: *Protect the quality and integrity of land and soils so that environmental values are supported and maintained.* This chapter assesses the potential impacts to the quality and integrity of land and soils associated with the Project. It details the assessment of refined project elements as described in Chapter 2, with reference to the newly prepared Constraints Planning and Field Development Procedure (refer to Appendix 4.1).

Chapter	Description
Chapter 5 – Terrestrial Ecosystems	Chapter 5 responds to the NT EPA's objective for the Terrestrial ecosystems factor as follows: *"Protect terrestrial habitats to maintain environmental values including biodiversity, ecological integrity and ecological functioning."* This chapter discusses the significance of potential impacts to terrestrial ecosystems (i.e., flora and fauna) associated with the Project. It details the assessment of refined project elements as described in Chapter 2, with reference to the following new appendices: • Appendix 5.1 Supplementary Ecology Report - Part 1 - Threatened Species • Appendix 5.2 Supplementary Ecology Report - Part 2 • Appendix 5.3 Weed Management Plan • Appendix 5.4 OHTL Vegetation Management Framework • Appendix 5.5 Memorandum Riparian Vegetation Analysis.
Chapter 6 – Hydrology	Chapter 6 responds to the NT EPA's objectives for the Hydrological processes and Inland water environmental quality factor as follows: *Protect the hydrological regimes of groundwater and surface water so that environmental values including ecological health, land uses, and the welfare and amenity of people are maintained,* and: *Protect the quality of groundwater and surface water so that the environmental values including ecological health, land uses, and the welfare and amenity of people are maintained.* This chapter combines the previous Chapter 6 (Hydrological Processes) and Chapter 7 (Inland Water Environmental Quality) from the Draft EIS into one consolidated chapter to assess impacts to all surface and groundwater resources. It describes and assesses the significance of potential impacts to the hydrological regimes of surface water and groundwater associated with the Project. It details the assessment of refined project elements as described in Chapter 2, with reference to the newly prepared Groundwater Assessment – Solar Precinct (refer to Appendix 6.1).
Chapter 7 – Aquatic Ecosystems	Chapter 7 responds to the NT EPA's objectives for the Aquatic ecosystems factor as follows: *Protect aquatic habitats to maintain environmental values including biodiversity, ecological integrity and ecological functioning.* This chapter describes and assesses the significance of potential impacts to aquatic ecosystems associated with the Project, which include all freshwater habitats and species that live in freshwater environments. Riparian and wetland habitats are discussed where relevant and are also assessed in Chapter 5 Terrestrial Ecosystems.

Chapter	Description
	It details the assessment of refined project elements as described in Chapter 2, with reference to the following new appendices: • Appendix 5.1 Supplementary Ecology Report - Part 1 - Threatened Species • Appendix 5.2 Supplementary Ecology Report - Part 2 • Appendix 5.5 Memorandum Riparian Vegetation Analysis.
Chapter 8 – Marine Environmental Quality	Chapter 8 responds to the NT EPA's objectives for the Marine environmental quality factor as follows: *Protect the quality and productivity of water, sediment and biota so that environmental values are maintained.* This chapter describes and assesses the significance of potential impacts to water, sediment, and biota in the marine environment (Marine environmental quality) associated with the Project. However marine ecosystems are more specifically considered within Chapter 9. It details the assessment of refined project elements as described in Chapter 2, with reference to the following new appendices: • Appendix 8.1 Marine Cable Burial Risk Assessment (CONFIDENTIAL) • Appendix 8.2 Guardian Geomatics Interim Report (CONFIDENTIAL) • Appendix 8.3 Sediment Sampling and Analysis Plan Implementation Report (SAPIR)
Chapter 9 – Marine Ecosystems	Chapter 9 responds to the NT EPA's objectives for the Marine ecosystems factor as follows: *Protect marine habitats to maintain environmental values including biodiversity, ecological integrity and ecological functioning.* This chapter describes and assesses the significance of potential impacts to marine habitats and species associated with the Project. It details the assessment of refined project elements as described in Chapter 2, with reference to the following newly prepared Memorandum - Benthic Video Footage Analysis (Appendix 9.1).
Chapter 10 – Amenity	Chapter 10 responds to the EPA's objectives that relate to the Air quality environmental factor and the Community and economy factor as follows: *Protect air quality and minimise emissions and their impact so that environmental values are maintained,* and: *Enhance communities and the economy for the welfare, amenity and benefit of current and future generations of Territorians.* This chapter assesses the potential impacts to the amenity of Territorians as a result of visual impacts, air quality, noise and vibration, light spill and glint associated with the Project.

Chapter	Description
	Many of these matters were previously considered within Chapter 11 (Air Quality) and Chapter 13 (Community and Economy) of the Draft EIS. This new Chapter 10 details the assessment of refined project elements as described in Chapter 2, with reference to the following new appendices: • Appendix 10.1 Landscape and Visual Amenity Impact Assessment
Chapter 11 – Atmospheric Processes	Chapter 11 responds to the NT EPA's objective for the Atmospheric Processes factor, which is as follows: *Minimise GHG emissions so as to contribute to the NT Government's aspirational target of achieving net zero GHG emissions by 2050 and adapt to a changing climate to protect ecological integrity and maintain the welfare and amenity of people.* This chapter assesses the potential for significant adverse impacts to the environment resulting from greenhouse gas (GHG) emissions and assesses the potential contribution of the Project to the Northern Territory Government's (NTG's) target of achieving net zero GHG emissions by 2050 (NTG, 2020). It details the assessment of refined project elements as described in Chapter 2.
Chapter 12 – Land Use and Transport	Chapter 12 responds to the NT EPA's objective for the Community and economy factor, which is as follows: *Enhance communities and the economy for the welfare, amenity, and benefit of current and future generations of Territorians*. This chapter assesses the potential impacts to current and future land uses, utilities, traffic, and transport (including air and marine transport). Many of these matters were previously considered within Chapter 13 (Community and Economy) of the Draft EIS. This new Chapter 12 details the assessment of refined project elements as described in Chapter 2, with reference to Project refinements presented in Ch2 and the newly prepared Land Based Electrode Technical Report (Appendix 12.1).
Chapter 13 – Culture and Heritage	Chapter 13 responds to the NT EPA's objective for the Culture and heritage factor, which is as follows: *Protect sacred sites, culture and heritage.* This chapter assesses the potential impacts to culture and heritage. It also responds to findings on sites/places/objects of cultural and/or heritage significance. It details the assessment of refined project elements as described in Chapter 2, with reference to the newly prepared Cultural Heritage Management Plan (CHMP) Framework (Appendix 13.1).

Chapter	Description
Chapter 14 – Human Health	Chapter 14 responds to the NT EPA's objective for the Human health factor, which is as follows: *Protect the health of the NT population.* This chapter describes and assesses the significance of potential impacts to human health associated with the Project. Human health impacts identified during consultation for further consideration or potentially impacted by Project refinements proposed in Chapter 2 include: • Elevated PM_{10} dust and NO_2 pollutants above assessment criteria levels outside the project footprint • Electromagnetic fields (EMF) and Electromagnetic Interference (EMI) impacts • The Overhead Transmission Line (OHTL) interactions with aircraft • Bushfire and cyclone risks • Low level humming or buzzing noises.
Chapter 15 – Matters of National Environmental Significance (MNES)	This chapter addresses the information requirements for assessing whether the Project is likely to have a significant impact upon the following MNES: • Listed threatened species and communities • Listed marine and/or migratory species • Cwth marine area. The Project was determined to be a controlled action on 30 November 2020, and the decision on assessment approach was made on 21 January 2021. The Project is being assessed by an accredited assessment under the *EP Act* at the level of an EIS. This chapter is supported by Appendix 15.1 EPBC Checklist.
Chapter 16 – Whole of Environment	This chapter provides a summary of the impact assessment findings and discusses predicted outcomes in relation to the NT EPA's environmental objectives and the principles of environment protection and management under the *EP Act*. It also responds to public submission comments which relate to "whole of Project" matters. This new Chapter 16 is supported by the following new appendices: • Appendix 16.1 Impact Assessment Table – Construction • Appendix 16.2 Impact Assessment Table – Operations.
Chapter 17 – Environmental Management	This Chapter provides a collated list of all mitigation and monitoring measures identified during the preparation of this SEIS. The identified environmental mitigation and monitoring strategies have been categorised for implementation during construction and operation activities by environmental factor.
Chapter 18 – Reference List	This chapter provides the overall reference list for all Seis chapters.

1.4 Proponent Name

1.4.1 EPBC Referral Nomenclature

The Project had been previously referred to the former Department of Agriculture, Water and the Environment (DAWE) (now Department of Climate Change, Energy and the Environment – DCCEEW) in 2020 under the *EPBC Act*. At the time of making that referral, the entity proposing to take the action was described as **Sun Cable Pty Ltd**. For the purposes of this EPBC referral, the Proponent continues to be **Sun Cable Pty Ltd**.

1.4.2 *EP Act* Nomenclature

Section 1.1 of the Draft EIS stated the following:

> *The Proponent for the proposed project is AAPowerLink Australia Assets Pty Ltd (ACN 653 396 948), the entity owning the Australian assets of the AAPowerLink and is a wholly-owned subsidiary of Sun Cable Pty Ltd (ACN 623 991 006). The Proponent's trading name is 'Sun Cable', which henceforth is used in this draft EIS to refer to the Proponent for the proposal.*

AAPowerLink Australia Assets Pty Ltd is the Proponent for the purposes of this EIS and SEIS made under the *EP Act*.

1.4.3 Nomenclature in this SEIS

To avoid confusion, this SEIS has used the term "Proponent" throughout.

Table 1-2 sets out the full details for both of the company names identified in Section 1.4.1 and Section 1.4.2 above.

Table 1-2: EPBC Act and EP Act Proponent Names

***EPBC Act* Proponent Name**	***EP Act* Proponent Name**
Sun Cable Pty Ltd	AAPowerLink Australia Assets Pty Ltd
ACN: 623 991 006	ACN: 653 396 948
ABN: 99 623 991 006	ABN: 99 653 396 948
Current status: registered	Current status: registered
Postal Address:	Level 31, 85 Castlereagh Street, Sydney NSW 2000

1.5 Assessment Methodology

Chapter 3 of the Draft EIS describes in detail the EIA process which was followed in preparing the Draft EIS. This same process was followed in preparing the EIA which is set out within this SEIS. This SEIS was prepared using the qualified and experienced project team set out within Appendix 1.5. As set out within Chapter 3 of the Draft EIS, the objectives of the EIA process were to:

- Identify potentially significant impacts that could result from the activities that will occur at each location and at each stage of the development
- Determine the actions that can be feasibly and practically undertaken by the Proponent to avoid or mitigate these impacts
- Evaluate the significance of residual environmental impacts that are likely to occur and (if required) provide for offsets.

This SEIS considers potential impacts to environmental matters protected under both the *EP Act* and the *EPBC Act*.

The Project's previous referrals to the NT EPA and former DAWE (now DCCEEW) confirmed that there are 12 environmental factors and three MNES requiring assessment.

Table 1-1 above sets out how the chapters within this SEIS respond to either one or two environmental factors as defined by the NT EPA. Appendix 1.3 also identifies which environmental factors each of the submission matters is focused on.

The three MNES which were identified in the Project's Controlled Action determination are:

- Listed threatened species and communities (Section 18 and Section 8A of the *EPBC Act*)
- Listed marine and/or migratory species (Section 20 and Section 20A of the *EPBC Act*)
- Cwth marine environment – from the edge of the territorial waters to the edge of the Australian Continental Shelf (Section 23 and Section 24A of the *EPBC Act*).

Chapter 15 further considers the Project's potential interactions with these MNES.

Section 42 of the *EP Act* describes the purpose of the EIA process in the NT, which was followed in the preparation of this SEIS (refer to Appendix 1.4). Other guidelines that were followed include:

- International Principles of Environmental Assessment Best Practice (IAIA, 1999)
- Guidelines for Preparing an EIS (NT EPA, 2021)
- MNES – Significant Impact Guidelines 1.1 (DEWHA, 2013)
- AS/NZS 31000:2009 Risk Management – Principles and Guidelines
- HB 203:2012 Managing environment-related risk.

The key steps in the EIA process are described in Table 1-3 to Table 1-8.

The results of the EIA for the construction and operations phases of the Project are collated in the registers provided in Appendices 16.1 and 16.2, and the results relevant to each environmental factor are summarised in the relevant SEIS chapter. Social impacts and opportunities were assessed separately as part of a stand-alone SIA process undertaken by a qualified SIA practitioner. The SIA uses a bespoke set of assessment criteria that incorporate community/stakeholder perceptions and provide for the assessment of both impacts and opportunities. The approach and methods used, and findings, are detailed in Appendices 3.1 and 3.2, and are summarised in Chapter 3 Stakeholder and Community Engagement.

Table 1-3 Key steps in the EIA process adopted for the Project

Key Steps in the EIA Process	
Step 1	**Characterise environmental values/sensitive receptors** The spatial boundaries for the EIA were established initially by defining a 'proposal footprint' and 'area of influence' for each environmental factor, which was then refined through the EIA process. The environmental values and sensitive receptors within the assessment boundaries were identified and characterised by the SEIS team, based on findings from field surveys, consultation with stakeholders and desktop review. The assessment focussed on identifying: • Parts of the environment that are rare, endemic, unusual, important, or otherwise valuable • Any parts of the environment that are particularly sensitive or vulnerable to impacts • History of disturbance/impact and current condition. Accepted field baseline survey methods and guidelines were used where relevant. Stakeholder consultation described in Chapter 3 was also used to identify environmental values and sensitive receptors.
Step 2	**Identify and assess potential impacts** Potential impacts assessed in the SEIS were identified with reference to the 28 September Direction issued by the NT EPA, issues raised by stakeholders, and the professional judgement of the EIS team based on their knowledge and understanding of the Project's components and potential interactions with the receiving environment. For each project component described in Chapter 2 Project Refinement, events/incidents that have potential to cause environmental impacts were identified by the SEIS team. Direct, indirect, offsite, upstream and cumulative impacts were considered based on knowledge and understanding of cause-and-effect pathways for impacts to each environmental factor. Impacts were assessed using predictive models, baseline characterization of the existing environmental condition and/or professional judgement of cause-effect relationships, with the level of assessment determined by the degree of risk posed to environmental values.
Step 3	**Apply impact avoidance and mitigation measures** Impact avoidance and mitigation measures were determined by applying the hierarchies for environmental decision-making and waste management section set out in Division 2 of the *EP Act*. Where possible this involved siting and designing the Project to avoid adverse impacts on the environment. Where avoidance was not feasible or practicable, management options were identified by the SEIS team to mitigate adverse impacts to the greatest extent practicable. Options were developed with reference to accepted design standards and guidelines where available, compliance with regulatory standards, advice received from stakeholders and the SEIS team's experience with respect to the feasibility, practicality, and effectiveness of implementing such measures.

Key Steps in the EIA Process	
Step 4	**Assess residual impacts** After considering the implementation of avoidance and mitigation measures, potential residual impacts were assessed. For each potential impact the 'likelihood' and 'intensity' of residual impacts were rated using the criteria provided in Table 1-4 and Table 1-5. For each potential impact, any information gaps/uncertainties that preclude reliable assessment, as well as any uncertainty about the effectiveness of proposed controls were identified. Each impact was assigned a level of certainty using the categories in Table 1-7.
Step 5	**Evaluate significance of residual impacts** The significance of residual impacts was then evaluated taking into consideration the sensitivity, value, and quality of the receiving environment (environmental context) using the criteria provided in Table 1-6. For impacts that were rated as having a low level of certainty, the precautionary principle was adopted, and a higher residual impact rating assigned. Residual impact ratings were assigned as described in Table 1-8. The ratings indicate whether the residual impact is likely to be significant based on the findings of the EIA. However, it is the role of the NT EPA to determine if an impact is 'significant'. Significance of impacts to listed threatened and migratory species was undertaken with reference to the EPBC Significant Impact Guidelines 1.1 (DEWHA 2013) and *EPBC Act* Policy Statement 3.21 – Industry guidelines for avoiding, assessing, and mitigating impacts on *EPBC Act* listed migratory shorebird species (DOE 2015).

Table 1-4 Likelihood categories and criteria

Likelihood Category	Criteria
Unlikely	The impact is not expected to occur because there are no sources of impact associated with the Project's activities, and/or no pathways or receptors present. The impact has not been reported in association with similar development activities.
Possible	The impact would not occur as part of normal operations but could occur in association with incidents and emergencies and/or there is some uncertainty as to whether the impact is likely to occur due to information gaps in relation to the impact source, pathways, or receptors (e.g., unknown archaeological finds). The impact has been reported to occur in association with incidents and emergencies that have occurred on similar development activities.
Likely	The impact will occur in most circumstances. The impact is known to occur on similar development activities of similar scale, size and complexity.

Table 1-5 Intensity (severity) ratings and criteria

More Severe → Less Severe			
Scale: The spatial extent of the impact, considering both the impact footprint (direct disturbance) and/or area of influence, including (indirect disturbance)			
Widespread Impact Affects more than 1,000 ha or extends more than 10 km from activities.	**Regional Impact** affects up to 1,000 ha or areas 1-10 km from activities.	**Localised** Impact affects limited areas (up to 100 ha)	**Limited** Impact affects a small area (less than 10 ha) in the immediate proximity of activities.
Magnitude: The degree or amount of change from natural conditions			
Major Relevant thresholds or criteria for environmental protection are exceeded to the point that environmental values are impaired and the ecological function and/or extent of sensitive receptors are affected.	**Moderate** Relevant thresholds or criteria for environmental protection are reached or slightly exceeded, but environmental values, ecological integrity and function, including sensitive receptors, are not affected.	**Minor** Impact is measurable but relevant thresholds or criteria for environmental protection are met.	**Negligible** No discernible impact on existing environmental conditions.
Duration: The frequency of the impact and the time over which the impact persists			
Permanent **I**rreversible impact is enduring; values are unlikely to recover.	**Long Term** Impact occurs over an extended period covering the construction and operational phases, values eventually recover	**Medium Term** Impact occurs intermittently and/or only during the construction phase, after which values recover.	**Short Term** Impact occurs sporadically and/or lasts for a few days to weeks, after which values recover

Table 1-6 Environmental value ratings and criteria

High Value → **Low Value**			
Context: Sensitivity, value and quality of the environment including consideration of significance to stakeholders and beneficial uses			
High Very sensitive land uses, or receptors are present that have very limited resilience to change **AND/OR** Environment contains values that are important at a regional or national scale.	**Medium** Sensitive land uses or receptors are present but have some resilience to change. **AND/OR** Environment contains values that are important at a local scale and/or have beneficial use.	**Low** Environment is intact (has inherent value as an undisturbed landscape). **AND** There are no sensitive receptors or land uses present. **AND** The environment does not contain any aspects that are valuable or otherwise important or unique.	**Very Low** Environment is degraded. **AND** There are no sensitive receptors or land uses present. **AND** The environment does not contain any aspects that are valuable or otherwise important, or unique.

Table 1-7 Certainty ratings and criteria

Rating	**Criteria**
Low	Limitations in baseline data and/or impact assessment and/or the effectiveness of proposed controls is not certain. Further work or adaptive management process is required to adequately assess and mitigate impacts to As Low As Reasonably Practicable (ALARP).
High	There is an acceptable level of certainty in relation to the values/receptors present and the scale, magnitude, and duration of impacts to those values/receptors. High confidence in effectiveness of mitigation measures and technical study inputs.

Table 1-8 Residual impact ratings

Ratings and Description
Minor: A minor residual impact is unlikely to be significant.
A minor impact generally has two or more of the following characteristics: Scale: Limited/Localised Magnitude: Negligible/Minor Duration: Short-term/ Medium-term/Reversible. **OR** There are no sensitive receptors or land uses present, and the environment does not contain any aspects that are valuable or otherwise important or unique (i.e., Very Low/Low rating), and there is moderate to high degree of certainty about the likelihood and intensity of the impact, and the effectiveness of proposed mitigation measures.
Moderate: A moderate residual impact has potential to be significant. The significance depends on the acceptability of the impacts and the effectiveness of mitigation measures
A moderate impact generally has two or more of the following characteristics: Scale: Localised/Regional Magnitude: Moderate Duration: Medium-term/Long-term **AND/OR** There are sensitive receptors or land uses present, or environmental aspects that are valuable or otherwise important or unique (i.e., Medium-High value rating), and there is a low degree of certainty about the impact, and the effectiveness of proposed mitigation measures.
Major: A major residual impact is likely to be significant. The level of acceptability will depend on offsets or benefits compensating for the impact
Impact generally has two or more of the following characteristics: Scale: Regional/ Widespread Magnitude: Moderate/Major Duration: Long-term/Permanent **AND** There are sensitive receptors or land uses present, or environmental aspects that are valuable or otherwise important or unique (i.e., Medium-High value rating).

1.6 Conclusion

Since the submission and public exhibition of the Draft EIS in April 2022, the Project has received public and government advisory agency comments. Since that time, some refinements have also been made to the Project's engineering design. This SEIS therefore addresses the comments from stakeholders and government agencies whilst also assessing the potential impacts of these design refinements. Where required, mitigation measures have also been updated to reflect these project refinements (refer to Chapter 17 Environmental Management of this SEIS).

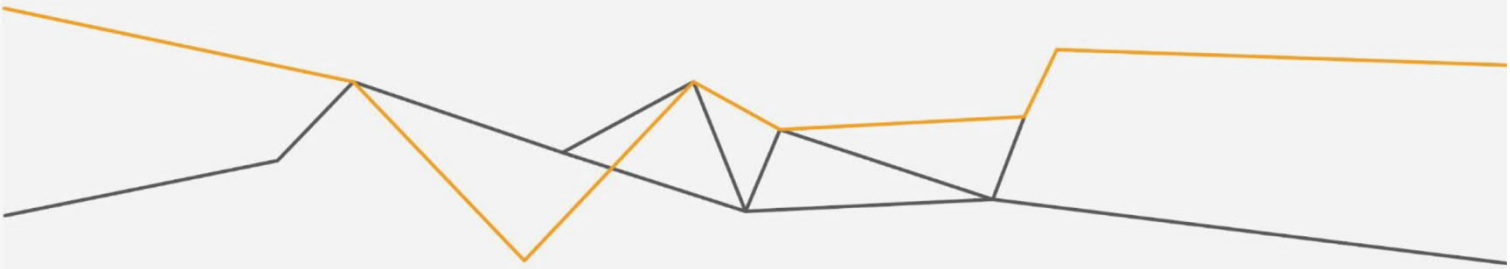
The overall outcomes of the SEIS indicate the Project's environmental risk level has not significantly changed. As engineering design of the Project continues, further design refinements will occur. However, these are also anticipated to result in minor to negligible changes to the Project's overall environmental impact. The EIA process as continued within this SEIS demonstrates that the Project can be implemented consistent with the principles of environment protection and management within Part 2 of the *EP Act*, and without causing any substantial, detrimental effect on the NT EPA achieving its environmental objectives. The outcomes of the impact assessment process documented in this SEIS for MNES protected under the *EPBC Act* also demonstrate that the Project is unlikely to have a significant impact on any MNES.

The Project will continue to be guided by Chapter 17 Environmental Management in the Draft EIS and updated in this SEIS, which establishes a framework for the Project's Environmental and Social Management System (ESMS), Construction Environmental Management Plan (CEMP), SIMP, Operations Environmental Management Plan (OEMP) and Decommissioning and Rehabilitation Plan. This framework will guide the development of future Environmental Management Plans (EMPs) and sub-plans to be developed and implemented for all phases of the Project. The Project will also be subject to various secondary approvals processes, and the Proponent is committed to working with both the NTG and Cwth Government to secure such approvals in accordance with suitable management conditions.

Overall, the Proponent is committed to delivering this significant and transformational renewable energy project, with an appropriate level of management throughout the life of the Project, to ensure potential impacts to the environment are identified and suitably mitigated.

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