Tuckeroo Battery Connection Project

Application Number: **03172** Commencement Date: **02/10/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Tuckeroo Battery Connection Project

1.1.2 Project industry type *

Energy Generation and Supply (non-renewable)

1.1.3 Project industry sub-type

Transmission Line

1.1.4 Estimated start date *

01/04/2026

1.1.4 Estimated end date *

31/12/2028

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

Proposed action overview

Powerlink Queensland (Powerlink)* is proposing to construct and operate a new underground transmission line and associated infrastructure, between the proposed Tuckeroo BESS Pty Ltd (AGL Energy) Tuckeroo Battery Energy Storage System (BESS) Facility and the existing Western Downs Substation.

This project, known as the 'Powerlink Tuckeroo Battery Connection Project' (the proposed action) is located at Hopeland, Queensland, within the Western Downs Regional Council (WDRC) local government area (LGA). Attachment 1 – Powerlink Tuckeroo Battery Connection MNES Report, Figure 1.1, page 16 shows the location of the proposed action.

The proposed action comprises the following key infrastructure components:

- Establishment of a new 275 kilovolt (kV) underground transmission line, approximately 1.8 km in length, from the Tuckeroo Battery facility to the existing Western Downs Substation

- Associated infrastructure, including access tracks and construction laydown areas (located within the extent of the disturbance footprint).

The Powerlink owned and operated Western Downs Substation is also required to be reconfigured to create a separate connection bay and feeder bay for connection of the underground transmission line within an existing terminal site. These works are limited to electrical infrastructure installation, as such they do not form part of the proposed action. Creation of new stockpile areas and site offices (portable) will be established within areas already disturbed by existing infrastructure.

*Powerlink Queensland is the registered business name of Queensland Electricity Transmission Corporation Limited (ABN: 82 078 849 233).

Purpose of the proposed action

The project will enable connection of the approved Tuckeroo BESS Facility located at 16 Mile Hall Road, Hopeland (Lot 1 on RP117442) to the primary energy supply grid at the existing Western Downs Substation located at Banana Bridge Road, Hopeland (Lot 4 on RP176346).

The Tuckeroo BESS Facility will provide firming capacity to the National Electricity Market, as well as additional services to assist grid stability, allowing for up to 2,000 megawatt-hour (MWh) within Hopeland, Queensland. All required development and environmental approvals for the Tuckeroo BESS Facility are being assessed under separate applications.

Proposed action activities

Construction activities involved in undertaking the proposed action include:

- Vegetation clearing for safety and operations.

- Preparing areas for underground transmission line assembly.

- Excavating a trench along the cable route, usually 1.5 m to 2 m deep.

- Stockpiling excavated material safely for later backfilling, with erosion control in sensitive locations.

- Conducting inspections and safety tests before commissioning.

- Removal of construction equipment and progressive rehabilitation of all disturbed areas that will not accommodate permanent infrastructure.

Operational phase activities for the proposed action include:

- Traffic movement to and from the underground transmission line.

The underground transmission line is designed to operate with minimal intervention. During operations, general practice is for maintenance staff to carry out scheduled inspections of the transmission line and access tracks every two to four years, depending on risk of vegetation growth. These inspections (patrols) are typically progressed by vehicle. Additional inspections may be required to perform activities, such as emergency repairs.

Direct and indirect impacts

The areas associated with the proposed action comprise of the following:

The Project area is 606.67 ha and consists of four land parcels where the proposed action will be located, including: Lot 1 on RP117442, Lot 1 on RP176346, Lot 3 on RP176346 and Lot 4 on RP176346.

The disturbance footprint represents the design footprint of the underground transmission line and associated infrastructure, between the Tuckeroo Battery Facility and the existing Western Downs Substation. The disturbance footprint is 6.72 ha and includes the physical extent of all proposed permanent and temporary infrastructure.

The potential for both direct and indirect impacts on matters of national environmental significance (MNES) resulting from Powerlink undertaking the proposed action has been addressed through this referral package.

Land use

The surrounding region is heavily developed and primarily supports agriculture, resources, renewable energy and electricity transmission infrastructure, with Western Downs Substation, Kogan Creek Coal Mine and Kogan Creek Power Station located nearby. The Project area is highly modified, currently used for cattle grazing and electricity transmission infrastructure. The majority of the disturbance footprint comprises cleared land and non-remnant vegetation types, including isolated trees and mixture of native/exotic grass species.

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

No

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

Commonwealth legislation

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act):

MNES are protected under the EPBC Act. The proposed action has been referred under the EPBC Act, anticipating a 'not a controlled-action' determination due to no significant impact being identified to MNES. The guidelines used to inform the ecological field survey work and MNES Report are further detailed in Attachment 1 – Powerlink Tuckeroo Battery Connection MNES Report, Section 11 References, page 130-134.

Queensland legislation

Aboriginal Cultural Heritage Act 2003 (ACH Act):

Under the ACH Act, Powerlink is required to exercise a duty of care to take all reasonable and practical measures to avoid harming Aboriginal cultural heritage. Powerlink has an existing 'Whole-of-Country' Cultural Heritage Management Agreement (CHMA) with the Barunggam People, which was executed on 11 August 2019. This CHMA is recognised as 'another agreement' under Part 3, Section 23(3) of the ACH Act and sets out the agreed procedures as well as terms and conditions through that Powerlink can fulfil its 'cultural heritage duty of care'.

Biosecurity Act 2014 (Biosecurity Act):

The proposed action will be required to meet the General Biosecurity Obligations under the Biosecurity Act, managed through the development and implementation of an Environmental Management Plan (EMP)/ Construction Environmental Management Plan (CEMP).

Electricity Act 1994 (Electricity Act):

As a transmission entity, Powerlink is required to promote a safe, efficient, and reliable supply and use of electricity, while also considering the environmental effects of its activities under the transmission authority.

Electricity Safety Act 2002 (Electricity Safety Act):

As a transmission entity Powerlink must seek to prevent death, injury and destruction caused by electricity.

Environmental Offsets Act 2014 (EO Act):

The EO Act prescribes conditions and processes for offsets for impacts to prescribed environmental matters which include MNES, matters of state (MSES) and local environmental significance (MLES).

*Environmental Protection Act 1994 (*EP Act) and Environmental Protection Regulation 2019 (EP Regulation):

Powerlink will comply with the general environmental duty in the EP Act, particularly when undertaking activities with the potential to cause environmental harm.

Nature Conservation Act 1992 (NC Act):

The NC Act provides for the creation and management of protected areas, the protection of native wildlife and regulates the clearing of native plants. The proposed action may require Species Management Programs to protect and manage animal breeding places.

Planning Act 2016 (Planning Act), Planning Regulation 2017 and Western Downs Planning Scheme (April 2019):

The Planning Act establishes a framework and overarching policy for land use planning and development assessment in Queensland. The Project is located within the WDRC LGA and the Western Downs Planning Scheme is the applicable local planning instrument for the area. A development application for a Material Change of Use for a Transmission Line assessable under the Western Downs Planning Scheme was

submitted to WDRC on 28/05/2025 (Application Number: 030.2025.00000368.001) and was approved on 14 August 2025. The underground transmission line subject to this development application is located within the boundaries of Lot 1 on RP117442 and Lot 1 on RP176346.

A Community Infrastructure Designation (CID) has been granted over Lot 3 on RP176346 and Lot 4 on RP176346 for the Western Downs 275/500 kV Substation (Infrastructure Designation reference 452). Therefore, construction of the underground transmission line within these lots does not trigger requirement for assessment under the Western Downs Planning Scheme. WDRC are supportive of the proposed underground transmission line within the 'Special Industrial Area' (strategic area) under the Western Downs Local Government Strategic Plan for Economic Growth. Powerlink also intend to lodge a development application for operational works for earthworks, vegetation clearing and infrastructure in the latter part of 2025.

Queensland Heritage Act 1992 (QH Act):

The QH Act provides for the conservation of Queensland's cultural heritage for the benefit of the community and future generations. Should the proposed action unearth an archaeological artefact that is an important source of information about an aspect of Queensland history, it must be reported to the Department of the Environment, Tourism, Science and Innovation (DETSI).

State Planning Policy 2017 (SPP):

The SPP outlines State interests that serves as the overarching policy for regional and local planning schemes. The development assessment process will consider the SPP against the proposed action.

Vegetation Management Act 1999 (VM Act) and Planning Act:

Clearing vegetation for construction or maintenance of infrastructure listed in Schedule 5 of the Planning Act is considered exempt clearing work if it occurs on designated premises, as described in Schedule 21, Part 1, Section 14(a) of the Planning Regulation 2017. Since the regulated native vegetation that needs to be cleared for this Project is located within such designated premises, a development application for operational works for the clearing of native vegetation is not triggered. The category B native vegetation area within the disturbance footprint is 0.25 ha.

Further detail on the primary approvals that will be obtained for the proposed action is provided in Attachment 1 – Powerlink Tuckeroo Battery Connection MNES Report, Section 3 Legislative framework, page 20.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

Powerlink is committed to effective and genuine stakeholder and landholder engagement practices guided under its Stakeholder Engagement Framework which outlines the company's commitment to transparent, inclusive, and responsive communication with its diverse stakeholders to build trust and support informed decision-making. It emphasises early engagement, genuine consideration of feedback, and continuous improvement in stakeholder relationships. Engagement activities have been undertaken with stakeholders to inform the Project as summarised below.

Regulatory authority engagement

Western Downs Regional Council:

Engagement with WDRC was undertaken in April 2025 as the relevant local government planning authority for the proposed action. This one-hour meeting confirmed the development application requirements for the Project, including confirmation on use definition, zone, level of assessment and technical investigation required.

Department of Climate Change, Energy, the Environment and Water (DCCEEW):

An initial pre-referral meeting was held with the DCCEEW and Powerlink on 20 June 2025. The purpose of the meeting was for Powerlink to introduce the proposed action and seek further comment from DCCEEW. Powerlink provided DCCEEW with the Project description and key technical findings from ecological surveys undertaken to date.

A second pre-referral meeting was held on 4 September 2025 to discuss the project, survey findings, and how to address facilitated impacts in the referral for the Tuckeroo Battery and BESS Connection projects. All guidance has been addressed in the referral submission.

Traditional Owner group engagement

The Barunggam People are the Aboriginal Party for the land where the Project is located. Powerlink has undertaken comprehensive cultural heritage management activities, including assessments, consultations, cultural heritage surveys and ongoing engagement with the Barunggam People and their technical advisors, resulting in agreements and strategies to protect Indigenous cultural heritage throughout the Project.

Powerlink has an existing 'Whole-of-Country' Cultural Heritage Management Agreement (CHMA) with the Barunggam People which was executed on 11 August 2019. This CHMA is recognised as 'another agreement' under Part 3, Section 23(3) of the ACH Act and sets out the agreed procedures as well as terms and conditions through which Powerlink can fulfil its 'cultural heritage duty of care'.

Customer engagement (connection point)

Powerlink is in regular communication with AGL Energy regarding the connection point for the Tuckeroo BESS Facility and the proposed action.

1.3.1 Identity: Referring party

Privacy Notice:

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

The Department of Climate Change, Energy, the Environment and Water (the department) collects your personal information (as defined by the Privacy Act 1988) through this platform for the purposes of enabling the department to consider your submission and contact you in relation to your submission. If you fail to provide some or all of the personal information requested on this platform (name and email address), the department will be unable to contact you to seek further information (if required) and subsequently may impact the consideration given to your submission.

Personal information may be disclosed to other Australian government agencies, persons or organisations where necessary for the above purposes, provided the disclosure is consistent with relevant laws, in particular the Privacy Act 1988 (Privacy Act). Your personal information will be used and stored in accordance with the Australian Privacy Principles.

See our Privacy Policy to learn more about accessing or correcting personal information or making a complaint.

Alternatively, email us at privacy@dcceew.gov.au.

☑ **Confirm that you have read and understand this Privacy Notice ***

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	39008488373
Organisation name	GHD PTY LTD
Organisation address	145 Ann Street, Level 9, Brisbane, QLD 4000, Australia

Referring party details

Name	Laura Shobbrook
Job title	
Phone	+61 7 3316 3506
Email	Laura.Shobbrook@ghd.com
Address	145 Ann St

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

No

1.3.2.2 Is Person proposing to take the action an organisation or business? *

Yes

Person proposing to take the action organisation details

ABN/ACN	82078849233
Organisation name	QUEENSLAND ELECTRICITY TRANSMISSION CORPORATION LIMITED (trading as Powerlink)
Organisation address	33 Harold Street, Virginia QLD 4014

Person proposing to take the action details

Name	Samantha Pintara
Job title	Senior Environmental Advisor
Phone	0473 501 432
Email	samantha.pintara@powerlink.com.au
Address	33 HAROLD STREET VIRGINIA QLD 4014

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

Powerlink is a Queensland Government Owned Corporation that owns, develops, operates and maintains the high-voltage electricity transmission network in Queensland. Powerlink's network extends 1,700 km from Cairns to the New South Wales border, and comprises 15,449 circuit km of transmission lines and 152 substations.

Powerlink has a strong record of responsible environmental management. There are no past or current legal proceedings against Powerlink under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources.

Powerlink has previously referred the following actions to the DCCEEW (note: this is not an exhaustive list):

-2025/10128: Borumba to Halys Transmission Connection Project

-2025/10246: Gawara Baya Wind Farm Connection Project

-2024/10044: Calvale to Calliope River Transmission Line Reinforcement Project

-2024/10065: Reid River to Hughenden 500 kV Transmission Line

-2021/9060: Genex Kidston Connection Project

-2011/5801: Paynes Road, Ebenezer - Construction of a Linesman Training Facility

-2010/5615: Springdale to Blackwall Transmission Line Project

-2010/5346: 275/132kVTransmission Line Replacement Project

-2009/5229: Construction of Calliope River 275kV and 132kV Bulk Supply Substation

-2009/4840: 275 kV Double-Circuit Transmission Line - Woolooga Substation and New Substation

-2008/4479: Larapinta to Algester Transmission Line and Larapinta Substation

-2008/4390: 275kV Transmission Line from Ross Substation to Strathmore Substation

-2007/3230: Spring Gully to Braemar High Voltage Transmission Line Development.

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

Powerlink's Health, Safety & Environmental Policy (Attachment 2 – Powerlink Health, Safety & Environmental Policy) emphasises the prevention or minimisation of harm to the environment as a core commitment. The policy outlines several key areas of focus to achieve its environmental objectives:

Sustainable Decisions:

Powerlink decisions are informed by data and insights. Powerlink considers the impacts and opportunities of their decisions on the environment and the reliability of their network. Powerlink builds collaborative partnerships to create a positive impact in the community and for their people.

Agile Delivery:

Powerlink are constantly adapting their systems to respond to the changing requirements and risks of our work. Powerlink's systems are relevant for their people to use. Powerlink focuses on improving the effectiveness of critical processes and controls in their work and builds resilience into our operations aligned with our commitment to our people, customers, contractors, communities and the environment.

Empowered People and Learning:

Powerlink trusts their people who are empowered to use their expertise and create improvements in their work. Powerlink takes every opportunity to learn, share and continuously improve how they work.

Healthy and Engaged Workforce:

Powerlink leads with genuine care for their people and wants everyone to go home safe and well every day. Powerlink creates a constructive and engaging workplace so that their people can thrive. Powerlink enable their people to make positive health and wellness choices at work and at home.

Powerlink systematically monitors its compliance obligations and business requirements related to the environment. It has systems in place to develop, resource, monitor, and continuously improve its environmental commitments and objectives. This includes planning, design, construction, operation and maintenance of an electrically safe network.

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

Yes

Proposed designated proponent organisation details

ABN/ACN	82078849233
Organisation name	QUEENSLAND ELECTRICITY TRANSMISSION CORPORATION LIMITED (trading as Powerlink)
Organisation address	33 Harold Street, Virginia QLD 4014

Proposed designated proponent details

Name	Samantha Pintara
Job title	Senior Environmental Advisor
Phone	0473 501 432
Email	samantha.pintara@powerlink.com.au
Address	33 HAROLD STREET VIRGINIA QLD 4014

1.3.4 Identity: Summary of allocation

Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

ABN/ACN	39008488373
Organisation name	GHD PTY LTD
Organisation address	145 Ann Street, Level 9, Brisbane, QLD 4000, Australia
Representative's name	Laura Shobbrook
Representative's job title	
Phone	+61 7 3316 3506
Email	Laura.Shobbrook@ghd.com
Address	145 Ann St

Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	82078849233
Organisation name	QUEENSLAND ELECTRICITY TRANSMISSION CORPORATION LIMITED (trading as Powerlink)
Organisation address	33 Harold Street, Virginia QLD 4014
Representative's name	Samantha Pintara
Representative's job title	Senior Environmental Advisor
Phone	0473 501 432
Email	samantha.pintara@powerlink.com.au
Address	33 HAROLD STREET VIRGINIA QLD 4014

Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

Yes

1.4.10 Enter purchase order number *

2124697

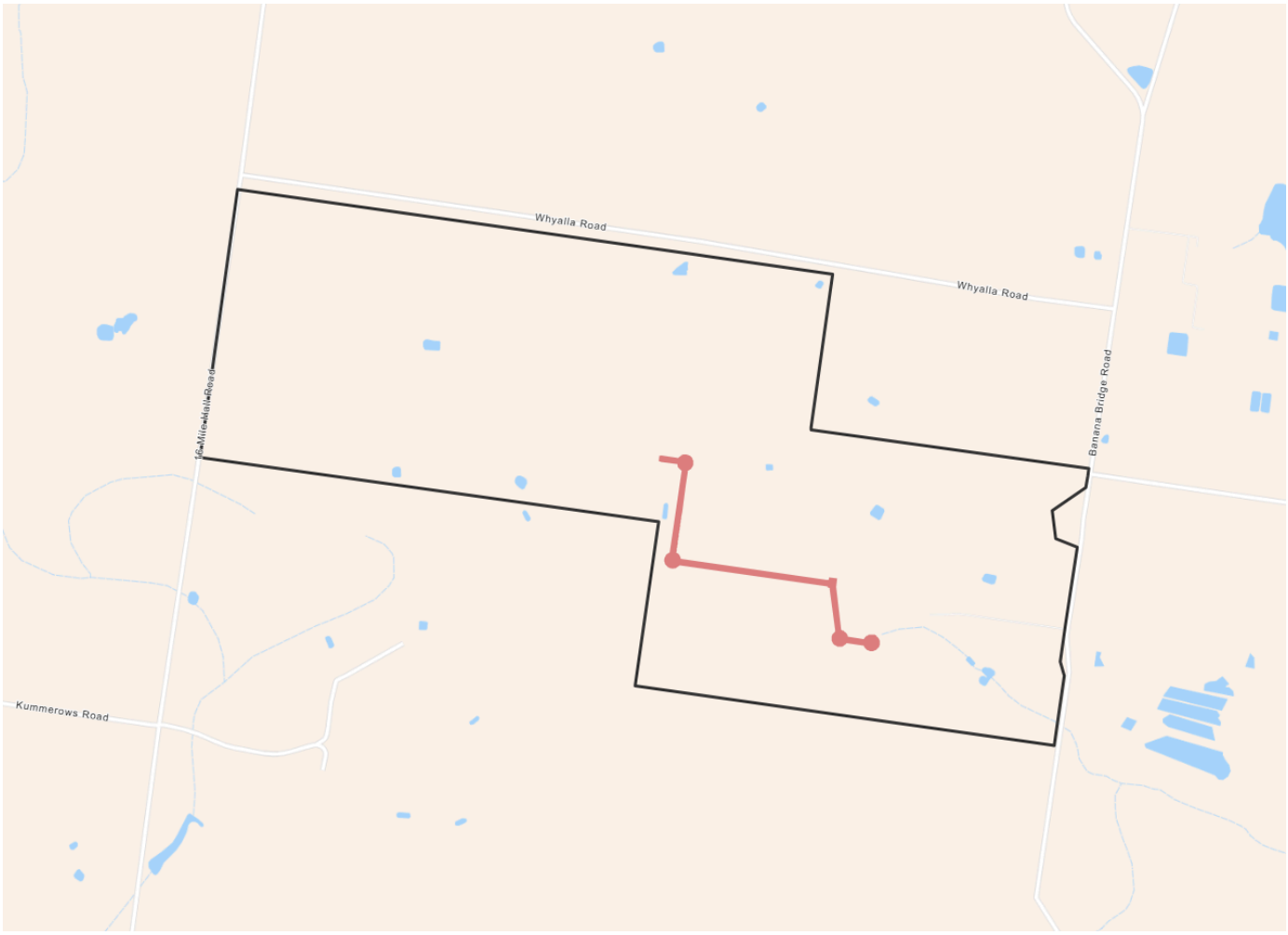
1.4 Payment details: Payment allocation

1.4.11 Who would you like to allocate as the entity responsible for payment? *

Person proposing to take the action

2. Location

2.1 Project footprint



Project Area: 606.13 Ha **Disturbance Footprint:** 6.73 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

16 Mile Hall Road Whyalla Road and Banana Bridge Road Hopeland

2.2.2 Where is the primary jurisdiction of the proposed action? *

Queensland

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

The proposed action intersects four land parcels legally described as Lot 1 on RP117442, Lot 1 on RP176346, Lot 3 on RP176346 and Lot 4 on RP176346. The properties are all privately owned, with Lot 1 on RP117442 owned by AGL Energy (Tuckeroo BESS Pty Ltd) and the other land parcels owned by Powerlink (Queensland Electricity Transmission Corporation). All land parcels are freehold land in tenure. Powerlink will register an easement over the underground transmission line corridor, where the infrastructure passes into the AGL Energy owned property (Lot 1 on RP117442) and to the BESS.

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area’s environment.

Location

The Project area is located 10 km south of Brigalow, 12 km north of Kogan and 18 km West of Warra in Southern Queensland. The Project area covers approximately 606.67 ha and the disturbance footprint for the proposed action covers approximately 6.72 ha.

Zoning

Under the WDRC Strategic Plan, the Project area is classified as a strategic ‘Special Industry Area’, which is suitable for high-impact industries including renewable energy projects and electricity transmission infrastructure. Lot 1 on RP117442, 1 on RP176346 and Lot 3 on RP176346 are zoned ‘Rural’, with Lot 4 on RP176346 zoned ‘Community Facilities and Recreation’ (including Western Downs Substation) under the Western Downs Planning Scheme (April 2019).

Access

Entry/exit to the work front for the proposed action will be via existing public road network (Banana Bridge Road) and existing access tracks within the Project area will be utilised to minimise the requirements for any additional disturbance. These areas are not included in the disturbance footprint.

New access tracks are required for construction, operation and maintenance of the underground transmission line and will be located within the extent of the disturbance footprint. New access tracks will be constructed to provide dry weather one tonne (t) four-wheel-drive access, as per Powerlink’s design guidelines.

Current land use

The Project area is highly modified, currently used for cattle grazing and electricity transmission infrastructure. Columboola-Western Downs 275 kV overhead transmission line, Ulinda-Western Downs 275 kV underground transmission line and Western Downs Substation intersect both the Project area and disturbance footprint.

The disturbance footprint is clear of buildings. Two artificial dams are situated within Lot 1 on RP176346, however; both sit outside the disturbance footprint. Similarly, a wind mill structure is on Lot on 1RP117442, however; it is also outside the disturbance footprint.

The Project area broadly contains of a mixture of cleared native/exotic grasslands, juvenile Eucalypt regrowth and smaller areas of remnant woodlands/forests. Historically, the west of the Project area has been used for cattle grazing and the east of the Project area has been used for Powerlink operations. Majority of the disturbance footprint comprises cleared land and non-remnant vegetation types, including isolated trees and a mixture of native/exotic grass species. There is one mapped minor watercourse within the Project area, intersecting Lot 4 on RP176346 and Western Downs Substation, although this does not intersect the disturbance footprint.

The disturbance footprint encompasses an area of 6.72 ha and is comprised of the following terrestrial habitats:

- 2.48 ha cleared land with scattered trees

- 2.37 ha eucalypt open woodland

- 1.88 ha highly modified areas.

Further detail on the physical environment and landscape with relevance to the proposed action is provided in Attachment 1 – Powerlink Tuckeroo Battery Connection MNES Report, Section 5 Description of the landscape, pages 32 - 34.

3.1.2 Describe any existing or proposed uses for the project area.

The surrounding region is heavily developed and supports agriculture, resources, renewable energy and electricity transmission infrastructure, with Western Downs Substation, Kogan Creek Coal Mine and Kogan Creek Power Station located nearby. The Project area has been used for cattle grazing activities since the 1940s and more recently Powerlink operations. The Project area is located directly adjacent to renewable energy projects including Hopeland Solar Farm (proposed 350 MW) and Ulinda Park BESS Facility (constructed as 150 MW).

An underground transmission line connecting the Ulinda Park BESS Facility to Western Downs Substation is located within the disturbance footprint. The proposed land use will not change substantially, expect in areas directly used for the proposed action.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

The Project area does not impact any outstanding natural features or protected areas.

The nearest protected areas to the proposed action include Dalby State Forest (18 km south-east), Condamine State Forest (38 km west) and Barakula State Forest (43 km north). These parks contain a rich mosaic of vegetation communities and provide known habitat for threatened species. They are also located within a mapped Queensland statewide terrestrial biodiversity corridor.

There is one mapped minor watercourse within the Project area, intersecting Lot 4 on RP176346 and Western Downs Substation, although this does not intersect the disturbance footprint. The nearest mapped major watercourse is Kogan Creek, located 4 km east, flowing into the Condamine River.

Within the broader region, it is considered unlikely that the disturbance footprint will interrupt fauna movement through the landscape or fragment patches of suitable habitat. On a local scale, as seen in Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Figure 5.1 Landscape overview, pages 32- 34, a connectivity corridor likely runs in a north-south direction along the eastern side of the disturbance footprint where vegetation provided a largely intact movement pathway for fauna. To the west of the proposed action, imagery and mapping indicate that the landscape is largely cleared, reducing the likelihood of fauna moving through the disturbance footprint in an east–west direction. Given the project's location within an already disturbed area, its proximity to existing habitat patches, and the absence of any permanent physical barriers, impacts to connectivity and movement corridors are expected to be minimal.

Further detail on the natural features and landscape with relevance to the proposed action is provided in Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 5 Description of the landscape, pages 32-34.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The Project area is generally flat and has an elevation ranging from 322.5 m Australian Height Datum (AHD) to 320 m AHD.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

Desktop and field assessments

Comprehensive ecological desktop and field assessments were undertaken by GHD for the proposed action. The desktop assessment included a review of literature, publicly available datasets and mapping to broadly characterise and identify MNES that may occur within 10 km of the Project area. Three field surveys were undertaken throughout 2024 and 2025 for the proposed action. These field surveys were carried out in accordance with the relevant guidelines and, where possible, timed to align with the seasonal occurrence and peak activity period of threatened and migratory species potentially occurring in the survey area. The survey area used in the field surveys extended over four land parcels and is approximately 164.71 ha.

Further detail regarding the desktop and field assessment methodologies undertaken by GHD is provided in Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 4.3 Field assessment, Pages 22-27.

Vegetation communities

Three broad habitat types have been identified within the Project area. All habitat types have been impacted to some degree by historic disturbance, including through ongoing cattle grazing and vegetation clearing:

- Eucalypt open woodland on sandy plains: Mature canopy trees and hollow-bearing trees in low abundance. Vegetation containing *Eucalyptus moluccana*, *Eucalyptus populnea*, *Eucalyptus crebra*, *Angophora leiocarpa*, *Allocasuarina luehmannii* and *Callitris glaucophylla*. Supports scattered *Opuntia tomentosa.* Comprises of low-density shrub layer, grassy understory, with a mixture of native and exotic grass species. Has a low density of logs, timber piles, woody debris and other ground-level microhabitats. Mistletoe in varying densities throughout the area.

- Buloke woodland on sandy plains: Dominated by *Allocasuarina luehmannii*. Lacks mature canopy trees due to regrowth condition and supports scattered *Callitris glaucophylla, Eucalyptus moluccana*, *Eucalyptus populnea* and *Opuntia tomentosa.* Comprises of grassy understory, a mixture of native and exotic grass species and low density of logs, timber piles, woody debris and other ground-level microhabitats. Mistletoe is occasional throughout the area.

- Artificial dams and cleared land: Aligns with cattle dams and were artificially constructed. They have marginal wetland values. This area has been historically cleared and along the fringes of the area is isolated trees and grasses. The ground-level habitats are cleared and lacking structural complexity and there is a mixture of native and exotic grass species.

Based on the PMST report (dated 15 August 2025), five threatened ecological communities (TECs) were identified with potential to occur within the study area. Of these, none were confirmed during field surveys as they did not meet key diagnostic criteria, with the required dominant canopy species generally absent from vegetation patches. The required canopy species (*Eucalyptus populnea*) for the Poplar Box Grassy Woodland on Alluvial Plains TEC was confirmed within some field-verified vegetation patches of the survey area. However, these vegetation patches were confirmed to be established within Land zone 5 (Tertiary-early Quaternary loamy and sandy plains and plateaus), which does not align with key diagnostic criteria for the Poplar Box Grassy Woodland on Alluvial Plains TEC. No TECs were subsequently progressed through to significant impact assessment, as following field-verification they were identified as ‘highly unlikely’ to occur, in accordance with the likelihood of occurrence (LOO) assessment framework as referenced in Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Appendix B - LOO.

Threatened species: flora

Seven EPBC Act listed threatened flora species were identified with potential to occur within the study area based on the PMST report. No EPBC Act listed threatened flora species were confirmed present during field surveys. No EPBC Act listed threatened flora species were subsequently progressed through to

significant impact assessment, as following field-verification they were identified as ‘highly unlikely’ or ‘unlikely’ to occur, in accordance with the LOO assessment framework.

Further information on the flora survey methodology is provided in Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 4.3.2 Description of terrestrial flora survey methods, Page 22.

Sparse densities of invasive weeds were observed within the survey area during field surveys, including *Opuntia tomentosa* (Velvety tree pear) (refer to Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 6.1.1.7 Introduction and spread of invasive species, Page 39).

Threatened species: fauna

23 EPBC Act listed threatened fauna species were identified with potential to occur within the study area based on the PMST report. No EPBC Act listed threatened fauna species were confirmed present during field surveys. Seven EPBC Act listed threatened fauna species were subsequently progressed through to significant impact assessment, as following field-verification habitat values were identified as ‘potential’ to occur, in accordance with the LOO assessment framework. These include:

- Koala (*Phascolarctos cinereus*) – Endangered

- Glossy black-cockatoo (south-eastern) (*Calyptorhynchus lathami lathami*) – Vulnerable

- Painted honeyeater (*Grantiella picta*) – Vulnerable

- White-throated needletail (*Hirundapus caudacutus*) – Vulnerable; Migratory

- South-eastern long-eared bat (*Nyctophilus corbeni*) – Vulnerable

- Yakka skink (*Egernia rugosa*) – Vulnerable

- Dunmall’s snake (*Furina dunmalli*) – Vulnerable.

Further information on the fauna survey methodology is provided in Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 4.3.3 Description of terrestrial fauna survey methods, Page 23-24.

Evidence of five invasive fauna species were observed within the survey area during field surveys, including feral cat (*Felis catus*), wild dog (*Canis familiaris*), cane toad (*Rhinella marina*), European rabbit (*Oryctolagus cuniculus*) and feral pigs (*Sus scrofa*) (refer to Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 6.1.1.7 Introduction and spread of invasive species, Page 39).

Migratory species

Nine EPBC Act listed migratory species were identified with potential to occur within the study area based on the PMST report. No EPBC Act listed migratory species were confirmed present during field surveys. Two EPBC Act listed threatened migratory species, Fork-tailed swift (*Apus pacificus*) (Migratory) and White-throated Needletail (*Hirundapus caudacutus*) (Vulnerable, Migratory), were subsequently progressed through to significant impact assessment, as following field-verification they were identified as ‘potential’ to occur, in accordance with the LOO assessment framework.

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

The Project disturbance footprint (approximately 6.72 ha) occurs within a flat, to an undulating landscape of clay and sandy plains and primarily supports non-remnant (Category X under the VM Act) exotic grasslands habitat with isolated/sparse trees (approximately 6.48 ha, 96.5% of disturbance footprint) (see Attachment 1 – Powerlink Tuckeroo Battery Connection MNES Report, Section 5 Description of landscape – Figure 5.1, page 35). Some small areas (approximately 0.25 ha, 3.5% of disturbance footprint) of remnant (Category B under the VM Act) vegetation were noted within the Project disturbance footprint, and presented as open woodland with some scattered, older growth individuals throughout. Within woodlands, the ground layer was generally sparse with frequent areas of leaf litter/bare soil devoid of vegetation. A combination of exotic and native grasses comprised the majority of the ground layer. The canopy of the open woodland vegetation is dominated by *Eucalyptus moluccana*, with the additional presence of *Eucalyptus populnea*, *Angophora leiocarpa*, *Eucalyptus crebra*, *Allocasuarina luehmannii* and *Callitris glaucophylla*. Arboreal habitats including tree hollows, exfoliating bark, fissures and arboreal termitaria were limited, and those hollows present, were generally small in size. Immediately prior to the transmission line's easterly connection to the Western Downs Substation, vegetation changes to high-value regrowth, which is defined as Category C under the VM Act. This regrowth vegetation presents as a lower mix canopy of Eucalypt/Callitris/Allocasuarina species, over a generally absent ground layer, with infrequent, patchy native grass cover. The disturbance footprint does not impact on Category C vegetation.

Although limited, the open woodland closest to Western Downs Substation supported the greatest fauna values including arboreal habitats and terrestrial values such as leaf litter, woody debris, and man-made log-piles. Outside of the woodland habitats, fauna ecological values were restricted to the sparse, standalone trees and shrubs, and an undulation surface, creating areas where water pools and natives sedges can survive. These gilgai like depressions did not support cracking black soils and were generally dominated by exotic grasses.

No TECs have been confirmed to occur within the Project area.

Geology and soils

According to Queensland Globe 2025, there are no soil conservation plans or designated strategic cropping areas mapped within the Project area. Queensland Globe 2025 surface geology mapping describes the geology of the Project area as follows:

- The western portion of the Project area's lithology is from the quaternary age. The surface geology is described as sand, red sandy soil, silt and some gravel; floodout and sheet sand with some alluvium. The rock types is stratified unit including volcanic and metamorphic.

- The eastern portion of the Project area's lithology is from the late Jurassic age. The surface geology is described as sand, red sandy soil, silt and some gravel; floodout and sheet sand with some alluvium. The rock types is stratified unit including volcanic and metamorphic.

The Project area is mapped as comprising of sodosols soils on the Australian Soil Resource Information System (ASRIS). These soils have a texture between sandy to loamy surface soil and the clay subsoil. The surface is generally hard setting and brown to dark grey in colour. There is likely to be a pale subsurface layer directly overlying the clay subsoil. The clay subsoil has a coarse structure and ranges in colour from red brown through yellow to grey. The pH for the soils can range from neutral to strongly acid while the subsoil is usually strongly alkaline. Further information on the vegetation description within the Project area is provided in Attachment 1 – Powerlink Tuckeroo Battery Connection MNES Report, Section 5 Description of landscape, pages 32-34.

3.3 Heritage

3.3.1 Describe any Commonwealth Heritage Places Overseas or other places recognised as having heritage values that apply to the project area.

There are no Commonwealth heritage places within the 10 km search radius as per the Protected Matters Search Tool (PMST) search as per See 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report' in Appendix A – Desktop search results.

Queensland Globe (Queensland Government 2025), Queensland Heritage Layer, identified that the Project area does not intersect any mapped Queensland Heritage Places and does not adjoin any mapped Queensland Heritage Places.

The Project area does not intersect any mapped local heritage places and does not adjoin any mapped local heritage places, as per the Western Downs Planning Scheme.

3.3.2 Describe any Indigenous heritage values that apply to the project area.

The Barunggam People are the Aboriginal Party for the land where the Project is located. Powerlink has undertaken comprehensive cultural heritage management activities, including assessments, consultations, cultural heritage surveys and ongoing engagement with the Barunggam People and their technical advisors, resulting in agreements and strategies to protect Indigenous cultural heritage throughout the Project.

A desktop cultural heritage assessment has been undertaken for the Project using the Aboriginal and Torres Strait Islander Cultural Heritage (ATSICH) Database and Register search. The results of the desktop cultural heritage assessment did not identify any records for existing Indigenous or non-Indigenous cultural heritage objects or places within the Project.

Powerlink holds a 'Whole-of-Country' Cultural Heritage Management Agreement (CHMA) with the Barunggam People which was executed on 11 August 2019. This CHMA is recognised as 'another agreement' under Part 3, Section 23(3) of the ACH Act, and sets out the agreed procedures as well as terms and conditions through which Powerlink can fulfil its 'cultural heritage duty of care'.

Powerlink remains committed to ongoing engagement with the Barunggam People to meet its obligations under the ACH Act.

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

No hydrology assessments have been undertaken for the proposed action, however, there are no nearby creeks or rivers affecting the Project area, and existing surface water features such as farm dams will remain unaffected. While a portion of Lot 1 RP117442 (north-west corner) is mapped as a potential flood hazard area under the Western Downs Planning Scheme 2017, this lies well outside the disturbance footprint and poses no risk to the Project. The site is located within the Murray-Darling Basin, specifically in the Condamine River sub-catchment. A review of Queensland Globe mapping identified no registered groundwater bores within the disturbance footprint, and while a terrestrial Groundwater Dependent Ecosystem (GDE) is mapped in the eastern portion of the underground transmission line corridor, the Project will not use or interfere with groundwater during construction or operation. Additionally, there are no Ramsar (internationally significant) wetlands within the Project area.

The Project area does not contain any major rivers, wetlands or creeks running through the Project area, however approximately 2 km east of the Project Area's most southeastern boundary sees a major tributary (Kogan Creek) that flows east, connecting to the Condamine River. Given the distance from the Project area and the construction environmental management measures which include erosion and sediment controls, there is unlikely to be any impacts to this waterway as a result of the proposed action.

Further information on the hydrology description within the Project area is provided in Attachment 1 – Tuckeroo Battery MNES Report', Section 5.5 Hydrology, page 34.

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section	Controlling provision	Impacted	Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	No	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes
S20	Migratory Species	Yes	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	No	Yes
S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no recorded world heritage properties within or adjacent to the Project area within a 10 km radius as identified in the EPBC Act Protected Matters Report (see ‘Attachment 1 – Powerlink Tuckeroo Connection MNES Report’ in Appendix A - Desktop searches). The proposed action is not considered to have direct and/or indirect impacts to world heritage sites.

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no recorded national heritage properties within or adjacent to the Project area within a 10 km search radius as per the Protected Matters search (see ‘Attachment 1 – Powerlink Tuckeroo Connection MNES Report’ in Appendix A - Desktop searches). The proposed action is not considered to have direct and/or indirect impacts to world heritage sites.

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Ramsar wetland
Yes		Banrock Station Wetland Complex
Yes		Narran Lake Nature Reserve
Yes		Riverland
Yes		The Coorong, and Lakes Alexandrina and Albert Wetland

4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

No Ramsar Wetland sites are located within the Project area. Four Ramsar Wetland sites have been identified in proximity to the Project area based on PMST results including (see ‘Attachment 1 – Powerlink Tuckeroo Connection MNES Report’ in Appendix A - Desktop searches):

- Banrock station wetland complex (1200–1300 km upstream from the Project area)

- Narran Lake Nature Reserve (400–500 km upstream from the Project area)

- Riverland (1200–1300 km upstream from the Project area)

- The Coorong, and lakes Alexandrina and Albert Wetland (1400–1500 km upstream from the Project area).

No direct or indirect impacts are expected to these Ramsar Wetland sites identified, due to their substantial distance from the proposed action (i.e. located over 400 km away).

Further, the implementation of construction environmental management measures will also reduce the risk and potential for harm on the receiving environment from the proposed action (i.e. Powerlink’s EMP, CEMP, including Erosion and Sediment Control Plan (ESCP)).

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

Direct impact	Indirect impact	Species	Common name
No	No	Adclarkia cameroni	Brigalow Woodland Snail
No	No	Adclarkia dulacca	Dulacca Woodland Snail
No	No	Anomalopus mackayi	Five-clawed Worm-skink, Long-legged Worm-skink
No	No	Aphelocephala leucopsis	Southern Whiteface
No	No	Cadellia pentastylis	Ooline
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
Yes	Yes	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo
No	No	Chalinolobus dwyeri	Large-eared Pied Bat, Large Pied Bat
No	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
No	No	Dasyurus hallucatus	Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu]
No	No	Delma torquata	Adorned Delma, Collared Delma
No	No	Dichanthium setosum	bluegrass
Yes	Yes	Egernia rugosa	Yakka Skink
No	No	Erythrotriorchis radiatus	Red Goshawk
No	No	Falco hypoleucos	Grey Falcon
Yes	Yes	Furina dunmalli	Dunmall's Snake
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Geophaps scripta scripta	Squatter Pigeon (southern)
Yes	Yes	Grantiella picta	Painted Honeyeater
No	No	Hemiaspis damelii	Grey Snake

Direct impact	Indirect impact	Species	Common name
Yes	Yes	Hirundapus caudacutus	White-throated Needletail
No	No	Homopholis belsonii	Belson's Panic
No	No	Lathamus discolor	Swift Parrot
No	No	Lepidium monoplocoides	Winged Pepper-cress
Yes	Yes	Nyctophilus corbeni	Corben's Long-eared Bat, South-eastern Long-eared Bat
No	No	Petauroides volans	Greater Glider (southern and central)
No	No	Petaurus australis australis	Yellow-bellied Glider (south-eastern)
Yes	Yes	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
No	No	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Rostratula australis	Australian Painted Snipe
No	No	Stagonopleura guttata	Diamond Firetail
No	No	Turnix melanogaster	Black-breasted Button-quail
No	No	Xerothamnella herbacea	

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Brigalow (Acacia harpophylla dominant and co-dominant)
No	No	Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions
No	No	Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland
No	No	Poplar Box Grassy Woodland on Alluvial Plains
No	No	Weeping Myall Woodlands

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

A detailed LOO assessment was undertaken for all MNES identified in the desktop ecological assessment to determine MNES 'confirmed present', 'known' to occur, 'likely' to occur, or with the 'potential' to occur within the Project disturbance footprint (refer to 'Attachment 1 – Powerlink Tuckeroo Battery Connection MNES Report, Appendix B – Likelihood of occurrence).

The following seven EPBC Act listed threatened fauna species were identified as 'potentially' occurring within the Project area and therefore with the potential to be directly or indirectly impacted by the Project.

Further detail on the potential impacts from the proposed action on applicable MNES is provided in Attachment 1 – Powerlink Tuckeroo Battery Connection MNES Report, Section 8 MNES Impact assessments, pages 45-125).

Koala (*Phascolarctos cinereus*)

The koala, listed as endangered under the EPBC Act, occurs at low densities in the Project area, with the nearest historical record 2.3 km north-east (1992). Though remnant and regrowth eucalypt habitat exists, targeted surveys have not detected koalas or their signs. The landscape is highly fragmented due to agriculture and infrastructure. Project design has focused on avoiding high-quality habitat, using already disturbed lands for infrastructure.

Potential impacts include minor habitat loss and fragmentation, temporary noise and light disturbance, and a slight increase in risks like vehicle strikes and predation. The disturbance footprint will result in the loss of 2.65 ha of foraging and 3.91 ha of dispersal habitat, but these are not expected to cause lasting population declines. Mitigation measures such as sequential clearing with fauna spotters, speed controls, and management plans for dust and invasive species will minimise risks.

A significance of impact assessment against the Significant Impact Guidelines 1.1 undertaken for the species determined that the proposed action is considered **unlikely** to have a significant impact on the koala, given the disturbance footprint has been designed to minimise impacts on critical foraging and dispersal habitat (see 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.1 Koala, pages 45-58).

Glossy Black-Cockatoo (South-Eastern) (*Calyptorhynchus lathami lathami*)

The glossy black-cockatoo, listed as Vulnerable under the EPBC Act, lacks suitable breeding habitat like hollow-bearing eucalypts within the disturbance footprint. The nearest recent record is 14.5 km away, and affected habitat is mainly regrowth and non-remnant, offering limited foraging but lacking key features such as mature she-oaks and nesting hollows.

The project footprint avoids high-value habitats, affecting only 2.01 ha of low-value foraging area. Potential effects include minor habitat loss, construction disturbance, and invasive species. Mitigation such as limited clearing, no-go zones, fauna spotters, and biosecurity will reduce risks.

A significance assessment against the Significant Impact Guidelines 1.1 found the action is **unlikely** to significantly impact the glossy black-cockatoo, given the abundance of better habitat nearby, the small and carefully chosen project footprint, and robust mitigation (see 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.2 Glossy black-cockatoo, pages 58-69).

Painted honeyeater (*Grantiella picta*)

The painted honeyeater, classified as vulnerable under the EPBC and NC Acts, has a scattered south-eastern Australian range and depends on mistletoe woodlands. No individuals were found during surveys, though suitable habitat exists in the south-east, and historical records suggest the species may persist locally and regionally.

Potentially 4.50 ha of suitable habitat will be impacted, with the project design largely avoiding high-value vegetation. The bird's mobility and the abundance of nearby habitat mean this small loss is unlikely to affect the population or key life processes.

Potential impacts include minor habitat loss, risk of injury during clearing, invasive species, and indirect effects like dust. However, these risks are reduced by clearing limits, staged removal, fauna spotters, and management plans, making long-term impacts unlikely.

A significance of impact assessment against the Significant Impact Guidelines 1.1 undertaken for the species and the proposed action is **unlikely** to have a significant impact on the painted honeyeater, as a result of the disturbance footprint avoiding HCSS and minimising impacts to potentially suitable foraging habitat, and through the implementation of appropriate general environmental control measures (see 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.3 Painted honeyeater, pages 69-79)

White-throated needletail *(Hirundapus caudacutus)*

The white-throated needletail, listed as vulnerable and migratory, forages mainly in the air over a range of habitats. No individuals were detected during surveys, and the area lacks suitable roosting habitat. The project will affect 2.37 ha of treed regrowth and 6.72 ha of foraging area, but these small changes and indirect impacts are unlikely to affect the local or regional population due to the species' mobility and broad foraging range.

Mitigation measures include the avoidance of high-value vegetation, restricting clearing to the minimum necessary, demarcation of no-go zones, and prompt rehabilitation of temporary construction areas (see 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.4 White-throated needletail, pages 79-87). A significance of impact assessment against the Significant Impact Guidelines 1.1 undertaken for the species and the proposed action is considered **unlikely** to have a significant impact on the white-throated needletail, as a result of the disturbance footprint avoiding HCSS and higher values foraging resources, and through the implementation of appropriate general environmental control measures.

South-eastern long-eared bat (SELEB) *(Nyctophilus corbeni)*

The south-eastern long-eared bat, listed as vulnerable under the EPBC Act, mainly inhabits inland woodlands with box, ironbark, and cypress pine, often roosting in dead trees within mature vegetation. Surveys in the disturbance footprint and surrounds did not detect the species, though Nyctophilus genus calls were recorded near the Western Downs substation.

Suitable habitat in the disturbance footprint is limited, with higher quality patches in the south-east. Project design avoids most high-value vegetation, resulting in 1.89 ha suitable habitat impacted, largely in previously cleared zones. Potential impacts minor habitat loss, fragmentation, and disturbance are reduced by targeted surveys, vegetation retention, and management measures.

Assessment under the Significant Impact Guidelines 1.1 found the project's avoidance and minimal habitat loss means the proposed action is **unlikely** to significantly affect the south-eastern long-eared bat (see 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.5 South-eastern long-eared bat, pages 87-96.

Yakka Skink (*Egernia rugosa)*

The Yakka skink, listed as vulnerable, inhabits open forests and woodlands in Queensland, sheltering in rock crevices, logs, and animal burrows. No individuals or colonies were detected in the disturbance footprint, with most suitable habitat outside the project footprint and 2.01 hectares of marginal habitat, largely already cleared, will be affected. Main threats include habitat loss and predators. Mitigation includes avoiding key habitat, staged clearing, site rehab, pest control, and pre-clearance surveys.

A significance of impact assessment against the Significant Impact Guidelines 1.1 undertaken for the species determined that the proposed action is considered **unlikely**to have a significant impact on Yakka skink, as a result of the disturbance footprint avoiding all suitable habitat (including HCSS), and through the

implementation of appropriate general environmental control measures (see 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.7 Yakka skink, page 104-114.

Dunmall's Snake *(Furina dunmalli)*

Dunmall's snake, listed as vulnerable under the EPBC Act, was not found during surveys, and no important habitat was identified within the disturbance footprint. The area to be impacted 1.66 ha of low-value habitat does not contain critical features for the species' survival. The project avoids high-value areas and applies mitigation like limited clearing, microhabitat retention, minimised disturbance, and pre-clearance surveys. These measures are expected to limit risks to the species during construction and operation.

An assessment against the Significant Impact Guidelines 1.1 determined that the Project is **unlikely** to result in significant adverse impacts on Dunmall's snake (see 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.8 Dunmall's snake, pages 114-125).

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

No

4.1.4.6 Describe why you do not consider this to be a Significant Impact. *

Significant impact assessments were undertaken for each MNES considered ‘confirmed present’, ‘likely’ or ‘potential’ to occur within the disturbance footprint. Significant impact assessments were completed against the Commonwealth Significant Impact Guidelines 1.1 (DoE 2013) and determined that the proposed action is unlikely to have a significant impact on any MNES, largely due to the siting and design in areas of pre-existing disturbance resulting in avoidance of most critical habitat.

Further detail on the significant impact assessments with relevance to the proposed action is provided in Attachment 1 – Powerlink Tuckeroo Battery Connection MNES Report, Section 8 MNES Threatened Fauna Species, pages 45-12[LS1] 5).

Outcomes of significant impact assessments completed for the proposed action are summarised below.

Koala (Significant impact unlikely)

Koalas were not observed during field surveys, and no evidence of their use of the area was found. Potential impacts include injury or death during clearing, habitat loss and fragmentation, increased risk of dog attacks, and fire. The action will affect 2.65 ha of critical foraging habitat and 3.91 ha of dispersal habitat in a landscape already fragmented by past development and land use. The disturbance footprint is placed in existing cleared or non-remnant areas, avoiding DNRMMRRD-mapped remnant vegetation and key koala habitat where possible. Only small sections of verified remnant and high-value regrowth will be impacted, with most works in non-remnant vegetation. Key mitigation includes siting to avoid most critical habitat, minimising the impact area by using existing clearings, and avoiding higher-value vegetation. Clearing will be strictly limited, with controls to prevent unnecessary disturbance and ensure works are clearly marked and communicated.

The Project is unlikely to have a significant impact on the koala. Justification for this assessment is detailed in ‘Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.1.11 Significance of impact assessment (koala), page 55.

Glossy black-cockatoo (south-eastern) (Significant impact unlikely)

Whilst suitable habitat for the glossy black-cockatoo (south-eastern) was initially confirmed present within the disturbance footprint, selective placement of the disturbance footprint has since permitted all suitable habitat be avoided. As such no habitat will be lost as a result of the clearing for this proposed action.

Indirect impacts are appropriately managed through key mitigations measures such as Project design prioritised avoiding critical habitat and areas with high ecological value to minimise impact on the glossy black-cockatoo. Additional mitigation measures will focus on minimising habitat disturbance, carefully managing construction impacts, preventing harm to wildlife, and controlling the spread of invasive species throughout the Project area.

As a vulnerable listed species, it is noted that local populations are not considered to be important populations.

The Project is unlikely to have a significant impact on the glossy black-cockatoo as the disturbance footprint has been designed to avoid direct impacts to the glossy black-cockatoo (south-eastern). Justification for this assessment is detailed in Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.2.11 Significance of impact assessment (glossy black-cockatoo), page 66).

Painted honeyeater (Significant impact unlikely)

The construction and operation of the proposed action will result in the minimal loss of 4.50 ha of suitable habitat. Additionally, the proposed action has been designed and located to utilise existing cleared areas, avoid habitat critical to the survival of the species and DNRMMRRD mapped remnant vegetation. The loss of this suitable habitat, determined not to be HCCSS is unlikely to interfere substantially with the species

recovery given large tracts of vegetation and suitable habitat available within the local and regional landscape. Mitigation measures such as implementation of appropriate general environmental control measures such as maintaining connectivity and implementation of a Powerlink's EMP and CEMP..

As a vulnerable listed species, it is noted that local populations are not considered to be important populations.

The Project is unlikely to have a significant impact on the Painted honeyeater. Justification for this assessment is detailed in 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.3.11 Significance of impact assessment painted honeyeater, page 77).

White-throated needletail (Significant impact unlikely)

No ridgelines occur within the disturbance footprint or surrounding landscape. Nor is there large tract of remnant vegetation that may be utilised for roosting or for important foraging habitat. The species does not breed in Australia and the limited individuals historically recorded is unlikely to represent an ecological important proportion of the population that may be important for genetic diversity, long-term maintenance of the species or an important for foraging, breeding, roosting, or dispersal. Therefore, habitat within the disturbance footprint is not considered to contain habitat critical to the survival of the species (i.e. roosting habitat). Measures to mitigate impact include avoidance in design (areas of pre-existing disturbance and reduced habitat values were preferentially chosen) and measures such as avoiding high-value vegetation, limiting vegetation clearing, clearly marking no-go zones, and rehabilitating disturbed areas.

As a vulnerable listed species, it is noted that local populations are not considered to be important populations.

The Project is unlikely to have a significant impact on the white-throated needletail. Justification for this assessment is detailed in 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.4.11 Significance of impact assessment (white-throated needletail), page 84).

South-eastern long-eared bat (SELEB) (Significant impact unlikely)

The proposed action has been designed and located to utilise existing cleared areas and to avoid DNRMMRRD mapped remnant vegetation, and habitat critical to the survival of the species. The proposed action will result in the loss of 1.89 ha of suitable habitat, however, the magnitude of habitat loss is localised and in the context of the broader landscape, unlikely to result in extensive loss of foraging or roosting resources. Hollow-bearing trees within the disturbance footprint is limited and will be avoided as part of the design, where possible. Where this cannot be avoided, potential injury and mortality to individuals will be mitigated through targeted pre-clearance surveys with all areas of potential roosting habitat cleared under the supervision of suitably qualified and experienced fauna spotter-catchers. As such, the proposed action is unlikely to lead to a long-term decrease in the size of an important population of the SELEB.

As a vulnerable listed species, it is noted that local populations are not considered to be important populations.

The Project is unlikely to have a significant impact on the South-eastern long-eared bat. Justification for this assessment is detailed in 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.5.11 Significance of impact assessment South-eastern long-eared bat, page 96).

Yakka skink (Significant impact unlikely)

The disturbance footprint avoids all suitable habitat (including HCSS) and appropriate environmental control measures will be implemented. Mapped suitable habitat intersecting remnant vegetation (Category B) is considered important and thus critical habitat for the species based on suitable microhabitats and criteria outlined in significant impact guidelines. However, this important habitat and HCSS lie outside the disturbance footprint, so no HCSS is present within it. Where possible, microhabitat features (woody debris,

rocks) will be retained and relocated outside the footprint. Invasive pests, such as feral dogs, cats, pigs, and cane toads, are already present in the survey area. To limit the impact of invasive species, controls for weeds and pests will be implemented as part of Powerlink's EMP and the CEMP.

As a vulnerable listed species, it is noted that local populations are not considered to be important populations.

The Project is unlikely to have a significant impact on the yakka skink. Justification for this assessment is detailed in 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.7.11 Significance of impact assessment (yakka skink), page 111.

Dunmall's snake (Significant impact unlikely)

The disturbance footprint avoids all suitable habitat (including HCSS) and environmental controls will be implemented. No important habitat exists within the disturbance footprint or broader survey area, nor does it support an important population. Where possible, microhabitat features (such as woody debris and fallen timber) will be retained and placed outside the footprint. Targeted pre-clearance surveys, supervised by qualified fauna spotter-catchers, will help minimise potential injury and mortality to individuals in affected microhabitats. Therefore, the action is not expected to cause a long-term decrease in the Dunmall's snake population.

As a vulnerable listed species, it is noted that local populations are not considered to be important populations.

The Project is unlikely to have a significant impact on the dunmall's snake. Justification for this assessment is detailed in (see 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.8.11 Significance of impact assessment (Dunmall's snake), page 123).

4.1.4.7 Do you think your proposed action is a controlled action? *

No

4.1.4.9 Please elaborate why you do not think your proposed action is a controlled action. *

The proposed action is not anticipated to be a controlled action, as it is unlikely to result in a significant impact on MNES, specifically EPBC Act listed threatened fauna species (refer to Attachment 1 – Powerlink Tuckeroo Battery Connection MNES Report, Section 9 Summary of impacts on MNES, page 127).

As part of design phase, the disturbance footprint has been sited and designed to avoid direct and indirect impacts on MNES. Mitigation and management measures will be implemented during construction phase to further manage any potential environmental impacts from the Project (refer to Attachment 1 – Powerlink Tuckeroo Battery Connection MNES Report, Section 7 Avoidance, minimisation, mitigation and management, pages 41-42).

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

Powerlink has applied a hierarchy of management principles to avoid, minimise, mitigate and manage potential impacts MNES throughout the planning and design of the proposed action.

For avoidance, minimisation, mitigation and management measures see Attachment 1 – Powerlink Tuckeroo Battery Connection MNES Report, Section 7 Avoidance, minimisation, mitigation and management, pages 41-42. The Project has been located to avoid areas of high ecological value, with preference given to already disturbed areas. Areas of remnant and mature regrowth vegetation were avoided wherever practicable, as they support important habitat features such as hollows and dense vegetation.

Potential impacts will be reduced further through strategies such as micro-siting during detailed design, restricting clearing to only what is necessary, and constructing in stages so that only small areas are disturbed at a time. Temporary impact areas will be reinstated progressively.

Mitigation measures will be implemented through Powerlink's Environmental Management Plan (EMP), which will inform the contractor's Construction EMP (CEMP). Powerlink's EMP addresses aspects such as vegetation clearing, fauna protection, erosion and sediment control, biosecurity, waste, air quality, and noise. Pre-clearance surveys, no-go zones, and trained fauna spotters will be used to protect native species during construction. Species-specific mitigations are included for listed fauna such as the koala, glossy black-cockatoo, and yakka skink, among others.

See 'Attachment 1 – Powerlink Tuckeroo Connection MNES report' for the following sections that outline measures that have been undertaken or proposed to avoid and minimise impact to relevant MNES through preliminary planning and design measures and controls to be implemented during construction and operation (also referred to in Attachment 3 – Powerlink Environmental Management Plan).

Attachment 1 – Powerlink Tuckeroo Connection MNES report, Koala - Section 8.1.9 Measure to avoid, reduce or mitigate impacts, pages 52-54.

Attachment 1 – Powerlink Tuckeroo Connection MNES report, Glossy black-cockatoo (south-eastern) - Section 8.2.9 Measure to avoid, reduce or mitigate impacts, pages 64-66.

Attachment 1 – Powerlink Tuckeroo Connection MNES report, Painted honeyeater - Section 8.3.9 Measure to avoid, reduce or mitigate impacts, pages 75-76.

Attachment 1 – Powerlink Tuckeroo Connection MNES report, White-throated needletail - Section 8.4.9 Measure to avoid, reduce or mitigate impacts, pages 83-84.

Attachment 1 – Powerlink Tuckeroo Connection MNES report, South-eastern long-eared bat - Section 8.5.9 Measure to avoid, reduce or mitigate impacts, pages 94-95.

Attachment 1 – Powerlink Tuckeroo Connection MNES report, Yakka skink - Section 8.7.9 Measure to avoid, reduce or mitigate impacts, pages 109-111.

Attachment 1 – Powerlink Tuckeroo Connection MNES report, Dunmall's snake - Section 8.8.9 Measure to avoid, reduce or mitigate impacts, pages 121-122.

Preliminary planning measures

In the selection of the location for the proposed transmission line, consideration was given to pre-existing disturbed areas and areas with limited habitat values. Areas of higher value vegetation were avoided to the extent practicable. In progressing the proposed action, the following design decisions were implemented:

- Proposed development location: Progressive environmental assessments have been undertaken for the proposed action across the survey area (including the disturbance footprint). Undertaking environmental assessments enabled Powerlink to select the best-fit disturbance footprint to reduce the extent of impact from the disturbance footprint, in particular, minimising impact to areas of significance or important habitats for threatened species and other wildlife.

- Access track within the length of the disturbance footprint to facilitate access

- Remnant vegetation: Most remnant vegetation has been avoided as part of the design phase for the Project (0.25 ha of remnant vegetation (Category B under the VM Act) to be removed). Avoidance of this vegetation has been prioritised in the design of the disturbance footprint, as it has the potential to provide a higher density of microhabitats, including hollows for native and threatened species.

- Mature regrowth vegetation: Most mature regrowth vegetation has been avoided as part of the design phase of the Project. Avoidance of this vegetation has been considered in the design of the disturbance footprint, as this regrowth vegetation has the potential to provide additional microhabitats, including hollows, for native and threatened species.

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

No environmental offsets are being proposed, as the Project is not considered to result in a significant impact to EPBC Act listed threatened species or ecological communities as discussed in Section 4.1.4.6.

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Species	Common name
No	No	Actitis hypoleucos	Common Sandpiper
Yes	Yes	Apus pacificus	Fork-tailed Swift
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Calidris melanotos	Pectoral Sandpiper
No	No	Cuculus optatus	Oriental Cuckoo, Horsfield's Cuckoo
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
Yes	Yes	Hirundapus caudacutus	White-throated Needletail
No	No	Motacilla flava	Yellow Wagtail
No	No	Pandion haliaetus	Osprey

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.5.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

Two migratory species were identified to have the potential to occur within the Project area; the fork-tailed swift (migratory under the EPBC Act) and the white-throated needletail (threatened and migratory under the EPBC Act). All other migratory species were assessed as unlikely to occur due to a lack of suitable habitat and historic records.

Fork-tailed swift (*Apus pacificus*)

The fork-tailed swift (*Apus pacificus*) is listed as migratory under the EPBC Act. This species is a non-breeding visitor to Australia, typically present from October to May, with records distributed from Cooktown to the New South Wales border, and occasional sightings across the Gulf Country and Cape York Peninsula. It is highly aerial, foraging at altitudes from 1 to 300 metres above a broad range of open and wooded habitats. The species does not rely on terrestrial habitat for roosting or breeding, being almost exclusively aerial during its time in Australia. Within the survey area, the fork-tailed swift was not recorded during field surveys and historical records are limited, with the nearest cluster located 11 km to the south from 1974 to 1983.

Assessment of the disturbance footprint indicates that it is not likely to support an ecologically significant proportion of the fork-tailed swift population, as defined by Commonwealth guidelines (i.e. 100–1,000 individuals or 0.1–1% of the global population). Given the species' wide-ranging and migratory nature, as well as the absence of resident or breeding populations in the survey area, the proposed action is unlikely to affect any important population or key source population for the species. Habitat within the disturbance footprint is not considered critical to the survival of the fork-tailed swift, since the species is not reliant on any specific terrestrial features within the area and the local habitat does not support significant aggregations.

Potential impacts associated with the proposed action are minor, largely limited to the clearing of around 6.72 hectares of terrestrial habitat beneath suitable aerial foraging areas, as well as possible exposure to localised noise and light. However, the fork-tailed swift’s foraging behaviour occurs well above ground level, and its transient use of the area reduces the likelihood of significant impact. The proposed Project has incorporated measures to avoid and minimise disturbance to higher value vegetation and has implemented management plans to mitigate risks such as the introduction of invasive species and changes to fire regimes.

A significance of impact assessment against the Significant Impact Guidelines 1.1 undertaken for the species determined that the proposed action is considered **unlikely** to have a significant impact on the fork-tailed swift, as a result of the disturbance footprint avoiding HCSS and higher values foraging resources, and through the implementation of appropriate general environmental control measures (see ‘Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.6.11 Significance of impact assessment (fork tailed swift), page 103).

White-throated needletail (*Hirundapus caudautus*)

The white-throated needletail (*Hirundapus caudautus*) is listed as migratory under the EPBC Act. NOTE: This species is also listed as a threatened species as per EPBC Act Significant Impact Guidelines 1.1 (see above). This species is a trans-equatorial migrant that is a non-breeding while in Australia during the December to February, with records widespread across eastern and south-eastern Australia into coast regions of Queensland and NSW while widespread in Victoria, Tasmania and south-eastern South Australia. The species is almost exclusively aerial and can occur over 1,000 m in height across a range of habitats, including woodlands, open forest, rainforest, heathland, partly cleared pastures and agricultural land during their time in Australia. The species was not detected during the field surveys and there are limited historical records with the nearest recoding 9.8 km north-east from 2000 and 11 km south-west from 1983.

The assessment of the disturbance footprint indicates that it is not likely to support an ecologically significant proportion of the white-throated needletail population, as defined by Commonwealth guidelines (i.e. 100–1,000 individuals or 0.1–1% of the global population). Due to the white-throated needletail's highly mobile and migratory behaviour, and the lack of evidence for resident or breeding populations within the survey area, the proposed activity is unlikely to impact any significant or source population of the species. Furthermore, the habitat within the disturbance footprint is not considered critical to the species' survival, as the white-throated needletail does not depend on specific terrestrial features in the area, nor does the local habitat support notable groupings.

The potential impacts of the proposed action are considered minor, primarily involving the clearing of approximately 6.72 hectares of terrestrial habitat located beneath suitable aerial foraging zones. There may also be limited exposure to localised noise and light. However, given that the white-throated needletail typically forages at high altitudes and only uses the area transiently, the likelihood of significant impact is low. The Project has incorporated avoidance and minimisation strategies targeting higher-value vegetation and has implemented management plans to address potential risks such as invasive species introduction and altered fire regimes.

A significance of impact assessment against the Significant Impact Guidelines 1.1 undertaken for the species determined that the proposed action is considered **unlikely** to have a significant impact on the white-throated needletail, as a result of the disturbance footprint avoiding HCSS and higher values foraging resources, and through the implementation of appropriate general environmental control measures (see 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.4.11 significance of impact assessment (white-throated needletail), page 84).

4.1.5.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

No

4.1.5.6 Describe why you do not consider this to be a Significant Impact. *

A significant impact assessment was undertaken of the Project's potential impacts on MNES that are considered likely or potential to occur within the Project area. The assessment was made against the EPBC Act Significant Impact Guidelines 1.1 (DoE 2013) and determined that the Project is unlikely to have a significant impact on any MNES value largely due to the avoidance of most critical habitat. Further information regarding the significant impact assessment that was undertaken can be found in 'Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 8.6 Fork-tailed swift, pages 98-103. This section includes a comprehensive significant impact assessment for the fork tailed swift.

Fork-tailed swift (Significant impact unlikely)

The proposed action is considered unlikely to have a significant impact on the fork-tailed swift, as a result of the disturbance footprint avoiding HCSS and higher values foraging resources, and through the implementation of appropriate general environmental control measures. The proposed action will result in minor localised losses of vegetation in an area that is already impacted by historical land-clearing and fragmentation. As part of the Project's construction and operation phase, the implementation of Powerlink's EMP and a CEMP will manage invasive pests and weeds. These management plans will include strict vehicle hygiene measures. The proposed action is unlikely to result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the migratory species.

The Project is unlikely to have a significant impact on the fork-tailed swift. Justification for this assessment is detailed in 'Attachment 1 – Powerlink Tuckeroo Connection MNES report, Section 8.6.11 Significance of impact assessment (fork tailed swift), page 103'.

White-throated needletail (Significant impact unlikely)

The proposed action is considered unlikely to have a significant impact on the white-throated needletail, as a result of the disturbance footprint avoiding HCSS and higher values foraging resources, and through the implementation of appropriate general environmental control measures. The proposed action will result in minor localised losses of vegetation in an area that is already impacted by historical land-clearing and fragmentation. As part of the Project's construction and operation phase, the implementation of Powerlink's EMP and a CEMP will manage invasive pests and weeds. These management plans will include strict vehicle hygiene measures. The proposed action is unlikely to result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the migratory species.

The Project is unlikely to have a significant impact on the fork-tailed swift. Justification for this assessment is detailed in Attachment 1 – Powerlink Tuckeroo Connection MNES report, Section 8.4.11 Significance of Impact assessment (White-throated needletail), page 84.

4.1.5.7 Do you think your proposed action is a controlled action? *

No

4.1.5.9 Please elaborate why you do not think your proposed action is a controlled action. *

The Project is considered unlikely to have a significant impact on the fork-tailed swift, as a result of the disturbance footprint avoiding habitat critical to the survival of the species (HCSS) and higher values foraging resources, and through the implementation of appropriate environmental control measures. Due to the broad range of habitat types this species utilises for forging, complete avoidance of foraging habitat was unachievable, however the habitat within the Disturbance footprint likely holds lower foraging value for the species due to the lack of diversity and complexity of habitat to hold food resources.

Two MNES migratory species - the fork-tailed swift and the white-throated needletail were assessed against Commonwealth Significant Impact Guidelines 1.1 (DoE 2013): and it was determined that the proposed action is **unlikely** to have a significant impact on any MNES migratory values largely due to the avoidance of most critical habitat.

As part of design phase, the disturbance footprint has been sited to avoid impacting critical habitat for the MNES. During the construction phase, a Project area-specific CEMP and ESCP will be developed and implemented by construction contractors, in accordance with legislative requirements and environmental measures detailed in the 'Attachment 1 – Powerlink Tuckeroo Battery MNES Report, Section 7 Avoidance, minimisation, mitigation and management measures, pages 41-42'. The CEMP will be based on Powerlink's EMP (see Attachment 3 – Powerlink Environmental Management Plan).

4.1.5.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

See 'Attachment 1 – Powerlink Tuckeroo Battery MNES Report, Section 7 avoidance, minimisation, mitigation and management measures, pages 41-42' for measures that have been undertaken or proposed to avoid and minimise impact to the fork-tailed swift and white-throated needletail.

The Project is considered unlikely to have a significant impact on the fork-tailed swift and white-throated needletail, because of the Disturbance footprint avoiding habitat critical to the species' survival (HCSS) and higher foraging resources, and through the implementation of appropriate environmental control measures. Due to the broad range of habitat types this species utilises for forging, complete avoidance of foraging habitat was unachievable, however the habitat within the Disturbance footprint likely holds lower foraging value for the species due to the lack of diversity and complexity of habitat to hold food resources.

The primary strategy for avoidance and mitigation for the fork-tailed swift and white-throated needletail was avoidance. This was achieved by carefully selecting the locations for development infrastructure within areas already disturbed or with low habitat value. Higher value vegetation and more important foraging habitats were deliberately avoided wherever possible, ensuring that the disturbance footprint affected areas less critical to these species. While it was not entirely possible to avoid all foraging habitat, the chosen areas within the footprint provide limited value to the fork-tailed swift and white-throated needletail due to their lack of habitat diversity and food resources.

4.1.5.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

No environmental offsets are being proposed, as the Project is not considered to result in a significant impact to migratory species.

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action does not include nuclear activities.

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no Commonwealth marine areas within or surrounding the Project area within a 10 km radius.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action is not located within any area associated with the Great Barrier Reef and the Project is unlikely to result in direct or indirect impacts to the Great Barrier Reef as the existing catchment flows inland.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action does not involve mining or coal seam gas.

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action is not located near or within Commonwealth land.

4.1.11 Commonwealth Heritage Places Overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action is not located near or within Commonwealth heritage places overseas.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

None

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Threatened Species and Ecological Communities (S18)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

Powerlink conducted a comprehensive assessment of alternative alignment for the proposed transmission line during the early planning stages, focusing on minimising disturbance to MNES. The disturbance footprint subject to the EPBC Referral was chosen as it uses areas previously cleared of vegetation, maximising habitat integrity while minimising environmental impact. It also provides the closest feasible connection to the existing Western Downs Substation from the location of the Tuckeroo Battery facility.

Assessment of disturbance footprint location in the current Project area

The location for the disturbance footprint was selected after careful consideration of several key factors that align with both environmental and land use requirements. The terrain with disturbance footprint is characterised as flat to slightly undulating sandy plains. This is the preferred topographical character for the disturbance footprint as it makes construction activities more efficient and minimises the need for extensive land clearing and earthworks. Additionally, the disturbance footprint has been located to avoid, were possible, areas of established vegetation. Vegetation with the disturbance footprint is characterised as predominantly exotic grasslands with scattered trees and/or regrowth vegetation. By considering the extent and maturity of native vegetation within the disturbance footprint, the proposed action further reduces potential environmental impacts, as there is less disruption to native habitats and ecosystems. This, in turn, assists in the preservation of the local biodiversity and meeting environmental conservation guidelines.

The disturbance footprint has been progressively refined through multiple design iterations and field surveys to minimise impacts on mature vegetation and threatened species habitat. The proposed action is now largely confined to the existing disturbance footprint and vegetation dominated by exotic plant species. This disturbance footprint avoids, as far as is feasible, mapped and field verified remnant vegetation, including sensitive areas north of the substation.

For additional information on the assessment of alternatives, see ‘Attachment 1 – Powerlink Tuckeroo Connection MNES Report, Section 2 Assessment of alternatives , page 19’.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	02/10/2025	No	High

1.2.6 Commonwealth or state legislation, planning frameworks or policy documents that are relevant to the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

1.3.2.18 (Person proposing to take the action) If the person proposing to take the action is a corporation, provide details of the corporation’s environmental policy and planning framework

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 2_Powerlink Health, Safety and Environmental Policy.pdf Powerlink’s Health, Safety & Environmental Policy emphasises the prevention or minimisation of harm to the environment as a core commitment. The policy outlines several key areas of focus to achieve its environmental objectives	31/07/2024	No	High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

3.1.3 Natural features, important or unique values that applies to the project area

	Type	Name	Date	Sensitivity	Confidence

#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

3.3.1 Commonwealth heritage places overseas or other places that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance	01/10/2025		High

(MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

4.1.1.3 (World Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

4.1.2.3 (National Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

4.1.3.3 (Ramsar Wetland) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

4.1.4.2 (Threatened Species and Ecological Communities) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

4.1.4.6 (Threatened Species and Ecological Communities) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

4.1.4.9 (Threatened Species and Ecological Communities) Why you do not think your proposed action is a controlled action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

4.1.4.10 (Threatened Species and Ecological Communities) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High
#2.	Document	Attachment 3_Powerlink Environmental Management Plan.pdf Provides the required standard operational controls to be implemented to meet Powerlink’s environmental objectives during the construction, operation, maintenance and decommissioning of the Project	05/09/2025	No	High

4.1.5.2 (Migratory Species) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance	01/10/2025		High

(MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

4.1.5.6 (Migratory Species) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

4.1.5.9 (Migratory Species) Why you do not think your proposed action is a controlled action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High
#2.	Document	Attachment 3_Powerlink Environmental Management Plan.pdf Provides the required standard operational controls to be implemented to meet Powerlink’s environmental objectives during the construction, operation, maintenance and decommissioning of the Project	04/09/2025		High

4.1.5.10 (Migratory Species) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025		High

4.3.8 Why alternatives for your proposed action were not possible

	Type	Name	Date	Sensitivity	Confidence

#1.	Document	Attachment 1_Powerlink Tuckeroo Battery Connection MNES Report.pdf Report prepared to assess Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).	01/10/2025	High

5.2 Declarations

Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

ABN/ACN	39008488373
Organisation name	GHD PTY LTD
Organisation address	145 Ann Street, Level 9, Brisbane, QLD 4000, Australia
Representative's name	Laura Shobbrook
Representative's job title	
Phone	+61 7 3316 3506
Email	Laura.Shobbrook@ghd.com
Address	145 Ann St

☑ Check this box to indicate you have read the referral form. *

☑ Check this box to confirm these are the correct identification details. *

☑ By checking this box, I, **Laura Shobbrook of GHD PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	82078849233
Organisation name	QUEENSLAND ELECTRICITY TRANSMISSION CORPORATION LIMITED (trading as Powerlink)
Organisation address	33 Harold Street, Virginia QLD 4014
Representative's name	Samantha Pintara

Representative's job title	Senior Environmental Advisor
Phone	0473 501 432
Email	samantha.pintara@powerlink.com.au
Address	33 HAROLD STREET VIRGINIA QLD 4014

☑ Check this box to indicate you have read the referral form. *

☑ Check this box to confirm these are the correct identification details. *

☑ I, **Samantha Pintara of QUEENSLAND ELECTRICITY TRANSMISSION CORPORATION LIMITED (trading as Powerlink)**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

✔ Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

☑ Check this box to indicate you have read the referral form. *

☑ Check this box to confirm these are the correct identification details. *

☑ I, **Samantha Pintara of QUEENSLAND ELECTRICITY TRANSMISSION CORPORATION LIMITED (trading as Powerlink)**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.