

# Palmer Wind Farm

Application Number: **02416**

Commencement Date:  
**23/05/2024**

Status: **Locked**

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## 1. About the project

### 1.1 Project details

#### 1.1.1 Project title \*

Palmer Wind Farm

#### 1.1.2 Project industry type \*

Energy Generation and Supply (renewable)

#### 1.1.3 Project industry sub-type

Wind Farm

#### 1.1.4 Estimated start date \*

01/10/2025

#### 1.1.4 Estimated end date \*

01/10/2058

### 1.2 Proposed Action details

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

Tilt Renewables is proposing to install 40 wind turbine generators (WTG) with a maximum tip height of 220 m and associated infrastructure, generally between the small rural townships of Palmer and Tungkillo, approximately 50 kilometres (km) east of Adelaide in South Australia (the Varied Project; Proposed Action) (See Att 1).

The area of the Proposed Action and surrounds is rural with land primarily used for grazing.

The purpose of the Proposed Action is to help reduce Australia's carbon footprint by generating up to 288MW of clean energy when constructed which is enough to power up to 144,000 South Australian homes. The Proposed Action will also bring investment and benefits focused on the surrounding community.

Tilt Renewables obtained Development Plan Consent for the Project (DA 711/072/14, 2014) from Mid Murray Council in December 2015. Following an appeal against the decision, the South Australian Environment, Resources and Development Court (ERDC) granted Development Plan Consent for the Project (with a layout incorporating up to 103 WTGs, with a maximum tip height of 165 metres (m) on 7 March 2018 (the Approved Project). The South Australian Supreme Court upheld the decision of the ERDC on 15 November 2019.

Following work to optimise the wind farm and adopt significant technological improvements that have been made since grant of the original Development Plan Consent for the Approved Project, Tilt Renewables proposes to vary the Approved Project to reduce its footprint and the number of WTGs from up to 103 WTGs to up to 40 WTGs and increase the maximum tip height from up to 165 m to up to 220 m (the Varied Project/Proposed Action). Consistent with the Approved Project, the Proposed Action is expected to generate approximately 288 megawatts (MW) of electricity, which will be fed into South Australia's electricity network via internal electrical transmission infrastructure to the existing Tungkillo Switching Station operated by ElectraNet.

The area of the Proposed Action is more than 5,000 hectares (ha) smaller than the Approved Project Area. This represents a reduction in land area of approximately 48 %, with an overall reduction in the total rotor-swept area of the WTGs of 26 % compared to the Approved Project.

The Proposed Action will consist of wind turbine generators along with associated infrastructure including substations, access tracks, transmission lines and underground cabling.

The Proposed Action has been subject to an iterative design process with consideration of the mitigation hierarchy to develop the proposed layout. The Proposed Action includes consideration of the "**Varied Project Area**" (**approx. 6,026 ha**) which includes a "**micro-siting area**" for project infrastructure (**approx. 1,666 ha**). Included within the micro-siting area is a defined "**disturbance footprint**" to represent the impacts that will occur as a result of the Proposed Action (**approx. 351 ha**). No project infrastructure or disturbance will occur outside the defined micro-siting area, resulting in an "**avoidance area**" of **approx. 4,360 ha** within the Varied Project Area.

The Proposed Action is summarised as follows:

- Up to forty (40) WTGs distributed approximately 13 km from north to south along the flank of the Eastern Mount Lofty Ranges,
- The WTGs are three-bladed, variable speed, pitch regulated machines with a rotor and nacelle mounted on a cylindrical steel tower,
- WTGs distributed in two clusters:
  - Area B (central) – 19 WTGs
  - Area C (southern) – 21 WTGs
- Maximum overall height of the WTGs (to blade tip) of up to 220 m, with a blade length of up to 90 m and the minimum distance of the tip of the blade to the ground being 40 m,
- Overall electricity generation capacity of approximately 288 MW,
- Each WTG sited within a hardstand area of approximately 80 m x 40 m,
- A network of internal access tracks of up to 10 m carriageway width, linking wind farm infrastructure and to provide access to and from public roads,
- Underground 33 kilovolt (kV) transmission cables and fibre optic cabling,
- Overhead 33 kV transmission lines comprised of up to 2 circuits (6 conductors) on a single pole with steel poles of up to 30 m in height and spaced approximately 250-300 m apart,

- Overhead 275 kV transmission line approximately 12 km in length, comprised of lattice towers and steel monopoles up to 55 m high and spaced approximately 300-600 m apart,
- Substation, operations, and maintenance facilities occupying a total site area of approximately 5.5 ha and consisting of:
  - Two permanent 33 kV / 275 kV substations, each approximately 150 m x 150 m,
  - Operations and Maintenance Facility of approximately 100 m x 100 m and including buildings, car park, and workshop.
- Up to 5 permanent meteorological masts of 130 m height.
- For transport of the wind turbine blades from Port Adelaide to the site entrance, there will be minimal vegetation removal to allow for access of oversize and overmass wind farm components along the delivery route. This includes two bends along Randell Road between Palmer and the site entrance as needing batters extended or investigation of a trailer engineering solution (lifting) to ensure clearance of the blade. The site entrance at the corner of Randell Road will also require vegetation clearance.

Tilt Renewables estimates that construction of the Proposed Action would commence late 2025 and be completed late 2027-mid 2028. The expected commercial life of the wind farm will be up to 30 years. Decommissioning of the Proposed Action would occur following the cessation of operations.

### **Construction activities:**

Pre-construction works will be undertaken where such activities will have no adverse impact on MNES or their habitat, including pre-clearance surveys and establishment of monitoring programs, mobilisation of plant and equipment, materials, and machinery prior to the start of construction. Pre-construction works will occur post approval throughout development of the Proposed Action to inform the detailed design. These works would be undertaken without triggering commencement of the Proposed Action.

The construction phase of the Proposed Action is likely to occur over approximately 24-30 months. Works during construction would be in accordance with a relevant environmental plans and management measures to ensure environmental impacts from construction are appropriately managed. Construction would commence with site preparation and establishment, upgrade and/or construction of internal access tracks and all other civil works, including preparation of hardstand areas, and laying of cable to allow for delivery of components and servicing. This would be followed by preparation of concrete and steel reinforced foundations. Public road upgrades would be completed progressively concurrent with a restricted commencement of road use and the commencement of on-site wind farm construction works. All road upgrade works, and on-site construction would be managed in compliance with the relevant approvals and management plans.

### **Operational activities:**

During operation of the Proposed Action, wind turbines and supporting infrastructure would require regular inspection and maintenance. During the initial operating years, operator attendance may be more regular while the wind farm operation is being optimised. Regular scheduled maintenance is required generally at three (3), six (6) and 12 monthly intervals. It is possible that major unexpected or unscheduled maintenance could take place during the life of the wind farm. All works during operations would occur in accordance with operational environmental management plans that would be developed during detailed design of the Proposed Action.

### **Decommissioning and rehabilitation activities:**

Decommissioning of the wind farm after the expected commercial life of 30 years would involve dismantling and removing the above ground wind turbine components, removing related infrastructure, covering and rehabilitating access roads and foundations. Decommissioning would involve reinstating similar road access arrangements to construction and would require access for large cranes and transport vehicles to dismantle and remove the turbines. Internal access roads may be retained where requested by landowners.

The decommissioning period is likely to be around 12 to 18 months, with significantly fewer truck movements than the construction phase. Rehabilitation activities at the end of the wind farms life are designed to reintegrate any disturbed area with the surrounding land and existing vegetation to a condition similar to that existing prior to construction, to ensure it is safe, stable and non-polluting. A rehabilitation program will be implemented, and periodical site monitoring will be undertaken for up to 2 years following decommissioning to ensure rehabilitation is successful in the longer term.

The activity that will potentially impact on Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is:

- Clearance of up to 350.93 hectares of vegetation which is partly considered suitable habitat for several EPBC Act listed threatened species.

An Ecological Impact Assessment (EIA) document has been prepared to support the EPBC Referral and it incorporates results from work carried out to date including historical ecological assessment work from 2012, and current work from 2022 onwards (**see Att 2**).

The EIA summarises key findings from the Flora and Fauna Impact Assessment (**see Att 3**), Bird and Bat Risk Assessment (**see Att 4**), Native Vegetation Clearance Data Report (**see Att 5**), and six seasonal bird and bat utilisation surveys carried out since spring 2022 (**see Att 6, 7, 8 and 9**).

It is acknowledged that previous ecological reports have assessed multiple iterations of the Varied Project Layout, therefore, the conclusions of previous reports may not align with the EIA. Where there are any inconsistencies in reporting, the information presented as part of the EIA (**Att 2**) prevails

### **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 applicable to the Palmer Wind Farm Project:

*Environment Protection and Biodiversity Conservation Act 1999*

An assessment of the direct and indirect impacts of the Proposed Action against the EPBC Act Significant Impact Guidelines 1.1 (Department of the Environment, Water, Heritage and the Arts 2013) determined that the construction and/or operation of the Proposed Action will not have significant impacts on any MNES. A detailed significant impact assessment was undertaken for the four species that are known or likely to occur within the Varied Project Area, being the Southern Whiteface, Diamond Firetail, Hooded Robin and Grey-headed Flying Fox.

Refer to **Att 2, Section 5, pages 40-88** for the significant impact assessment.

State legislation applicable to the Palmer Wind Farm Project:

*Native Vegetation Act 1991 (NV Act)*

The Proposed Action requires Native Vegetation Clearance approval to clear 350.93 ha of native vegetation. A preliminary clearance application has been prepared by EBS Ecology (**see Att 5**). The final application will be submitted under the *Native Vegetation Regulations 2017* (Regulation 12(34) – Infrastructure).

*Planning, Development and Infrastructure Act 2016 (PDI Act)*

The PDI Act repealed the *Development Act 1993*. The Act, along with the *Planning, Development and Infrastructure (General) Regulations 2017* and Planning and Design Code, provide the legislative framework for carrying out planning and development works within South Australia. The Planning and Design Code replaced all council development plans to become the single source of planning policy for assessing development applications. No development can be undertaken without an appropriate Development Approval being obtained from the relevant authority after an application and assessment process.

Tilt Renewables is currently undertaking a process to vary the Approved Project to reduce its footprint and the number of WTGs from up to 103 WTGs to up to 40 WTGs and increase the maximum tip height from up to 165 m to up to 220 m. The Variation Application (to vary the existing development plan consent) was lodged with the State Planning Commission on 27 February 2024. The Flora and Fauna Impact Assessment (**Att 3**) formed part of the Variation Application.

The Varied Project Area is located entirely within the Rural Zone, and not within any sub-zones. The Varied Project Area is subject to the following Overlays:

- Dwelling Excision
- Gas and Liquid Petroleum Pipelines
- Hazards (Bushfire – Medium Risk)
- Hazards (Flooding – Evidence Required)
- Heritage Adjacency
- Key Outback and Rural Routes
- Limited Land Division
- Murray-Darling Basin
- Native Vegetation
- Prescribed Water Resources Area
- River Murray Tributaries Protection Area
- State Heritage Place
- Water Resources

Within the Rural Zone, a Renewable Energy Facility is assessed as Code Assessed – Performance Assessed unless sited within an Overlay that triggers an assessment as Restricted Development (either the Significant Landscape Protection or Character Preservation District Overlay). The nearby Barossa Valley, Eden Valley and Marne River are within a Character Preservation District and are no longer impacted by the Varied Project Area. As the Varied Project Area is not located within either overlay, the correct assessment pathway is Code Assessed – Performance Assessed under the Planning and Design Code.

#### *National Parks and Wildlife Act 1972 (NPW Act)*

Under the NPW Act it is an offence to take a native plant or protected animal without approval. Threatened plant and animal species are listed in Schedules 7 (Endangered species), 8 (Vulnerable species) and 9 (Rare species) of the Act. Four conservation rated flora and fauna species listed on Schedules 7, 8, or 9 of the NPW Act are known to occur within the Varied Project Area (**Att 3, Section 6.2, pp 32-34**). Persons must comply with the conditions imposed upon permits and approvals. Flora and fauna surveys conducted for the Proposed Action have been conducted under the required flora collection permit.

#### *SA Landscape South Australia Act 2019 (LSA Act)*

A water affecting activity permit is likely to be required for the Proposed Action for construction of access tracks across creek lines. Tilt Renewables have committed to standard sediment and erosion control procedures as part of the environmental management plans which will ensure that actions will not alter the natural flow of water due to the Proposed Action and mitigate against sediment and erosion occurring, particularly around creek lines. Several Declared Weeds exist in the Varied Project Area. As part of environmental management plans, Tilt Renewables will employ standard weed hygiene procedures to ensure that Declared Weeds are not transported to the Varied Project Area or throughout the Varied Project Area. Animal diseases are present on some properties within the Varied Project Area. Strict hygiene measures will continue to be employed and will be enforced through the construction and operational environmental management plans throughout the life of the Proposed Action to ensure that animal diseases are not spread due to the action.

### *River Murray Act 2003*

The Varied Project Area encompasses parts of the Marne and Saunders catchments, with a number of creek lines running through the area. These are considered tributaries of the River Murray and are included within the River Murray Protection Area (*River Murray Act 2003*). The creek lines contain permanent to semi-permanent waterholes and may run for a longer period of time in wet years but are generally not permanently flowing. Surface and groundwater resources within the Varied Project Area fall within the Marne Saunders and Eastern Mount Lofty Ranges Prescribed Water Resource Areas.

In addition, a number of different heritage legislation is applicable to the Proposed Action (**see Att 10 and 11**). The commonwealth *Native Title Act 1993* (NTA) is part of the Commonwealth's response to the High Court's decision in *Mabo v Queensland (No.2)* and adopts the common law definition of native title, defined as the rights and interests that are possessed under the traditional laws and customs of Aboriginal people in land and waters. Searches of the SA Native Title Vision Web Map for information relating to the current Native Title status of the Varied Project Area, with this identifying there are currently no accepted Native Title claims relevant to the Proposed Action.

Provisions within the NTA allow for the states to develop their own Native Title legislation provided the state legislation does not conflict with the NTA. South Australia has enacted an alternative state 'right to negotiate' scheme authorised by the Commonwealth under section 43 of the NTA. There are no current Native Title claims relevant to the Proposed Action.

The Commonwealth *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (ATSIHPA) provides a mechanism for the Minister for Environment to make declarations regarding the protection of an Aboriginal area when the minister is not satisfied that under state or territory law there is effective protection of the area from a threat of injury or desecration. Declarations made under this Act involve restricting activities and/or access to an Aboriginal site. Under section 21H of the ATSIHPA it is an offence to conduct behaviour or partake in an action that contravenes a declaration made by the Minister.

If the requirements of the relevant state legislation are adhered to and sufficiently protect any Aboriginal heritage in the eyes of the Federal Minister, the ATSIHPA will not be relevant to the Proposed Action.

The *Aboriginal Heritage Act 1988* (AHA) is administered by the Attorney Generals Department – Aboriginal Affairs and Reconciliation (AGD-AAR). Any Aboriginal site, object or remains, whether previously recorded or not, are covered under the blanket protection of this Act. Under section 23 of the AHA it is an offence to damage, or interfere with an Aboriginal site, objects or remains unless written authorisation from the Minister for Aboriginal Affairs and Reconciliation has been obtained.

No AGD-AAR listed Aboriginal heritage sites exist within the Varied Project Area. All Aboriginal heritage sites are protected under the AHA, whether reported/registered or undocumented. Therefore, if a previously unknown Aboriginal heritage site is discovered during works and cannot be avoided, Ministerial authorisation under section 23 of the AHA will be required. Although not mandated by the AHA, a number of management options have been recommended to mitigate the assessed heritage risk. These include implementation of an Aboriginal site discovery procedure, site inductions and archaeologists on call to

identify potential discoveries during construction. In addition, Tilt Renewables is engaging with the Peramangk People to seek agreement on the direct management of Aboriginal heritage associated with the Proposed Action.

#### *Policy documents*

The construction and operation of Proposed Action's direct and indirect impacts to MNES were assessed against EPBC Act related guidelines, as shown in **Att 2**. This includes the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance (Department of the Environment, Water, Heritage and the Arts 2013), the EPBC Act Policy Statement 2.3: Wind farm industry (Department of the Environment, Water, Heritage and the Arts 2009) and the Referral Guidance for Peppermint box (*Eucalyptus odorata*) grassy woodland of South Australia and iron-grass natural temperate grassland of South Australia (Department of the Environment and Water Resources 2007).

### **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. \***

Significant consultation on the Proposed Action has occurred during both the initial State assessment and approval of the Approved Project. Consultation has continued following a decision to vary the project design parameters to reduce the overall number of WTGs and increase setbacks to neighbouring dwellings.

Project feasibility investigations commenced in June 2009, with key periods of consultation occurring between 2014 and 2015, leading to approval of the Project under the former *Development Act 1993*.

Consultation on the Varied Project/Proposed Action began in February 2023 and continues in 2024. All stakeholders were encouraged to review the design and changes to the Approved Project and to provide feedback.

Key consultation activities included:

- E-newsletter updates to the email distribution list
- Project website updates at [www.palmerwindfarm.com.au](http://www.palmerwindfarm.com.au)
- Briefings and letters to Mid Murray Council and councillors
- Briefings to local community groups
- Advertisements in the Barossa Leader and Murray Valley Standard in May and October 2023.
- Drop-in sessions held in Palmer, Tungkillo and Mount Pleasant. The sessions were held on the following dates:
  - 29 May 2023
  - 15 November 2023
  - 16 November 2023

Letters to more than 650 neighbours adjoining the proposed wind farm site:

- Round 1 – February 2023
- Round 2 – October 2023

Meetings and phone calls with direct neighbours and other members of the community.

Tilt Renewables engaged with several specific community groups listed below:

- Eastern Mount Lofty Ranges Landscape Guardians
- Lavender Federation Trail & South Australian Recreation Trails Inc.
- Mid Murray Landcare SA & River Murray International Dark Sky Reserve
- Bodhipala Monastery

While the level of contact with the community was high, the level of interest in the Proposed Action declined following communication of the significantly reduced Project Area. The majority of the interest in the Proposed Action was localised to the surrounding communities including Palmer, Tungkillo and to the immediate north of the Proposed Action.

General discussion points that arose during consultation with the general public include:

- Support for the reduction in turbines and Project Area
- Opposition to wind and solar in the region
- Support for wind farms and renewable energy sources
- Concerns about the construction and operation of the Proposed Action, with a focus on potential environmental, noise and visual impacts and how these would be managed
- Interest in benefit sharing initiatives
- General and specific questions about the Proposed Action

Tilt Renewables has a high level of engagement with landowners directly associated with the Proposed Action.

These landowners have regular contact with Tilt Renewables regarding development of the Proposed Action on their land and have had input into the basis of design for the Proposed Action to ensure compatibility with their ongoing property management requirements.

Since the grant of Development Plan Consent for the Approved Project, Tilt Renewables re-commenced contact with the Peramangk People in September 2022 via phone calls and emails. In those communications Tilt Renewables offered the Peramangk People an opportunity to discuss how the Peramangk People would like to be involved in the Proposed Action, noting their previous involvement throughout the planning of the Approved Project.

Various emails and phone calls to the Peramangk People have continued from 2022, throughout 2023 and into 2024. Project update letters were sent to the Peramangk People in November 2023. An online meeting was held with Tilt Renewables, South Australian Native Title Services and a representative from Peramangk on Monday 18 November 2023 to discuss the Proposed Action and the heritage matters relating to the Peramangk People.

Tilt Renewables will seek to continue engagement with the Peramangk People throughout the approvals process and during the construction phase of the Proposed Action, to ensure involvement of the Peramangk People in line with agreements with Tilt Renewables with the aim of protecting Aboriginal cultural heritage.

Tilt Renewables has taken an iterative approach to the design of the Proposed Action to incorporate feedback from the community and key stakeholders. This feedback has resulted in:

- The removal of three additional turbines in Area B of the Proposed Action
- Changes to the layout of the Proposed Action as a result of input and review from associated landowners
- Engagement with community members about sites identified to be of potential cultural or environmental significance
- Initiatives considered for inclusion in the Benefit Sharing Plan
- Stakeholder needs incorporated into planning for the delivery phase
- Production of additional photomontages for the Bodhipala Monastery, located to the north of the Varied Project Area
- The community being given access to visual and acoustic specialists at drop-in sessions to discuss any concerns and to explain how mitigation measures would work.

Tilt Renewables has engaged with local and State government departments on more than 20 occasions since October 2022 including Mid Murray Council, and State Government Department of Trade and Investment (DTI) and Department for Infrastructure and Transport (DIT).

It is noted that further to the above agency consultation, Tilt Renewables has had technical communications with third parties as relevant for the Proposed Action. These organisations include but are not limited to ElectraNet, SA Power Networks, SA Water and SEA Gas. Discussions with these parties have been centred around the technical design aspects of the Proposed Action and potential interactions with third party assets. Tilt Renewables has considered the technical consultation as part of the development of the Proposed Action and has not identified any aspects which may affect the overall viability of the Proposed Action throughout this consultation.

## 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.

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Alternatively, email us at [privacy@awe.gov.au](mailto:privacy@awe.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**

101038331

**Organisation name** TILT RENEWABLES AUSTRALIA PTY LTD

**Organisation address** 3000 VIC

Referring party details

**Name** Natalie Taggart

**Job title** Senior Environment and Development Planner

**Phone** 0434198455

**Email** natalie.taggart@tiltrenewables.com

**Address** L24/600 Bourke St, Melbourne VIC 3000

## 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** 101038331

**Organisation name** TILT RENEWABLES AUSTRALIA PTY LTD

**Organisation address** 3000 VIC

Person proposing to take the action details

**Name** James Beckett

<b>Job title</b>	Manager, Planning and Environment
<b>Phone</b>	0419 631 905
<b>Email</b>	james.beckett@tiltrenewables.com
<b>Address</b>	L24/600 Bourke St, Melbourne, VIC 3000

**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? \***

Yes

**1.3.2.16 Describe the nature of the trust arrangement in relation to the proposed action. \***

Tilt Renewables Australia Pty Ltd is proposing the action in its role as trustee for Palmer Wind Farm Project Trust. **See Att 12.** Note that Att 12 (Trust Deed Poll) is not publicly available due to confidentiality reasons, as it contains sensitive information pertaining to the private and financial matters of the trust beneficiaries.

**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. \***

**Environmental management history**

Originally part of New Zealand based company, Trustpower, which had its beginnings in 1924 as a local power authority and has been active in Australia since 2001, Tilt Renewables was established in October 2016 as the result of the company demerger. In August 2021, Tilt Renewables' Australian business was acquired by PowAR, an influential renewable energy platform dedicated to driving large-scale renewable energy projects across Australia.

Tilt Renewables has a strong track record developing wind energy facilities in Australia and New Zealand, including wind farms across Queensland, New South Wales, Victoria, South Australia and Western Australia. Tilt Renewables has an existing asset base of 347 operating turbines across seven wind farms, with a total installed capacity of 1,158 MW. Tilt Renewables' pipeline of renewable energy proposals have the potential to produce more than 3,300 MW of additional renewable generation capacity.

In this respect, Tilt Renewables:

- Uses and, in many instances, modifies natural resources to generate electricity,
- Owns, maintains and enhances / expands a network of significant physical resources,
- Supplies an essential service to commercial and domestic consumers, which in turn enables these parties to provide for their social and economic well being,
- Contributes to decarbonisation of the Australian economy.

Tilt Renewables aims to operate in a manner that maximises potential positive environmental effects, while minimising the incidence and source of negative (or adverse) environmental effects. In order to achieve this, Tilt Renewables' actions that may affect the environment are governed by Tilt Renewables' Environmental Policy (**see Att 13**).

Tilt Renewables is committed to sustainability and ensuring that we uphold our corporate responsibility to our people, environment, the community, and our investors. The company recognises the need to balance business growth and investor returns with protecting and enhancing the environment, the safety and well-being of our people and the communities in which we operate. Tilt Renewables has a Sustainability Policy that ensures the principles of sustainability are embedded in everyday decision-making and operational processes, as well as our long-term corporate plans and strategies. The Tilt Renewables Sustainability Policy is provided in **Att 14**.

### **Past or present proceedings under laws**

The Palmer Wind Farm Project was approved by the Mid Murray Council's Development Assessment Panel in December 2015. The approval decision was subsequently appealed at the Environment, Resources and Development Court (ERD Court). On 7 March 2018, the ERD Court made judgement to uphold the approval, subject to additional conditions. Following this decision there was a Supreme Court Appeal of the ERD Court decision and a hearing was held in February 2019. The Supreme Court delivered the judgement on 15 November 2019 to uphold the decision of the ERD Court to approve the Palmer Wind Farm Project.

### **Previous EPBC Act referrals**

Tilt Renewables, and its associated subsidiary companies that are trading as Tilt Renewables, have several EPBC Act referrals currently under assessment under the EPBC Act, including:

- Waddi Wind Farm (Waddi Wind Farm Pty Ltd) – EPBC 2023/09639: Controlled action currently being assessed by way of Preliminary Documentation
- Liverpool Range Wind Farm (Tilt Renewables Australia Pty Ltd) – EPBC 2022/09416: Controlled action currently being assessed by way of Public Environment Report

These current applications have associated historic referrals and/or EPBC Act Approvals, with the current referrals assessing changes and updated design parameters relevant to the proposed projects.

Other historical EPBC Act referrals and controlled action decisions by related body corporates include:

- Rye Park Wind Farm (Rye Park Renewable Energy Pty Ltd) – EPBC 2020/8837: Approved subject to conditions
- Dundonnell Wind Farm (Dundonnell Wind Farm Pty Ltd) – EPBC 2012/6657: Approved subject to conditions

- Salt Creek Wind Farm (Salt Creek Wind Farm Pty Ltd) – EPBC 2016/7763: proposed action is not a controlled action.

### **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**

Tilt Renewables is committed to protecting the environment by incorporating environmental considerations into all decision making and to manage its operations in a legally compliant and environmentally responsible manner. The environmental principles that Tilt Renewables is committed to under its Environmental Policy are extracted below:

- Consider the environmental context for development, construction and operations activities and seek to minimise the environmental impacts of Tilt Renewables' operations.
- Comply with applicable legal obligations and any related planning and environmental approval conditions for each project/asset.
- Implement systems, standards and processes to enable all activities to be carried out with regard to Tilt
- Renewables' environmental principles, including regular reviews to continually improve environmental performance.
- Keep abreast of trends in technology, regulations and community attitudes, adapting and innovating in response to a rapidly changing society, including planning for climate change.
- Develop measurable environmental objectives and targets (through a risk-based approach to environmental management), including regular reviews to continually improve Tilt Renewables' environmental performance.
- Communicate and promote environmental awareness and work with stakeholders to ensure positive environmental outcomes and minimise the risk of operational environmental incidents.
- Engage quickly and effectively to respond to environmental incidents should they occur.
- Appoint capable people with appropriate skills and experience to carry out their work in a manner that is compatible with sound environmental performance.
- Provide adequate resources, equipment and training to enable employees at all levels to fulfil their responsibilities in relation to the environment and their work practices.
- Adopt measures to identify and ensure the efficient use of resources and energy, and minimisation of emissions and waste.

**(See Att 13).**

As part of the principles of the Tilt Renewables Sustainability Policy, the company seeks to protect biodiversity and nature, among other environmental, social and governance objectives. Tilt Renewables undertakes to monitor and minimise our impact on nature and biodiversity while ensuring compliance with relevant legal obligations and standards. Tilt Renewables commits to best practice biodiversity and nature management through site-specific management plans relevant to the biodiversity and nature values of each site in which we work.

**(See Att 14).**

### **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	
<b>ABN/ACN</b>	101038331
<b>Organisation name</b>	TILT RENEWABLES AUSTRALIA PTY LTD
<b>Organisation address</b>	3000 VIC
Proposed designated proponent details	
<b>Name</b>	James Beckett
<b>Job title</b>	Manager, Planning and Environment
<b>Phone</b>	0419 631 905
<b>Email</b>	james.beckett@tiltrenewables.com
<b>Address</b>	L24/600 Bourke St, Melbourne, VIC 3000

### 1.3.4 Identity: Summary of allocation

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#### Confirmed Referring party's identity

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

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ABN/ACN	101038331
Organisation name	TILT RENEWABLES AUSTRALIA PTY LTD
Organisation address	3000 VIC
Representative's name	Natalie Taggart
Representative's job title	Senior Environment and Development Planner
Phone	0434198455

Email natalie.taggert@tiltrenewables.com

Address L24/600 Bourke St, Melbourne VIC 3000

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### 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.

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ABN/ACN	101038331
Organisation name	TILT RENEWABLES AUSTRALIA PTY LTD
Organisation address	3000 VIC
Representative's name	James Beckett
Representative's job title	Manager, Planning and Environment
Phone	0419 631 905
Email	james.beckett@tiltrenewables.com
Address	L24/600 Bourke St, Melbourne, VIC 3000

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### 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.

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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? \***

No

## 1.4 Payment details: Payment allocation

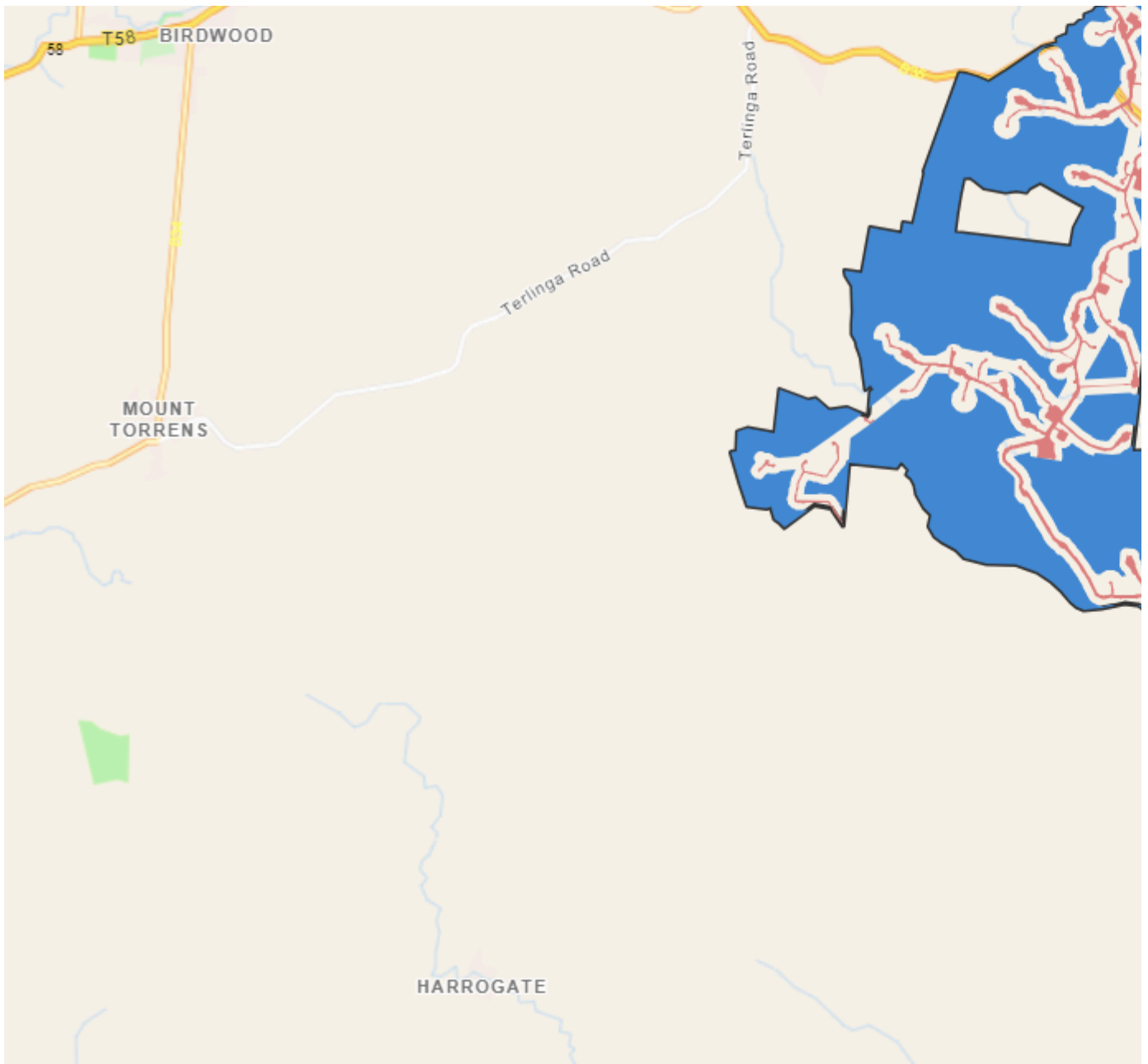
**1.4.11 Who would you like to allocate as the entity responsible for payment? \***

Referring party

# 2. Location

## 2.1 Project footprint





Maptaskr © 2024

Powered By Esri - Sources: Esri, TomTom, Garmin, F...

## 2.2 Footprint details

### 2.2.1 What is the address of the proposed action? \*

Title Ref: CT5153/319; Lot 74 Borthwick Brae Road, Palmer SA 5237

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

South Australia

### 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? \*

Land tenure across the Proposed Action is freehold.

The Proposed Action is planned across 65 land parcels (listed below) consisting of 20 private landowners.

Parcel	Title Reference
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D26866 A1	5144/864
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D20944 A74	5153/319
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F157755 A30	5297/468
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F157755 A31	5297/468
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F157755 A32	5297/468
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F157755 A33	5297/468
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H171000 S481	5385/990
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H171000 S482	5385/990
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F169891 A142	5404/721
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F204303 A91	5405/94
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F204303 A92	5405/94
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F204303 A93	5405/94
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F204303 A94	5405/94
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F204303 Q95	5405/94
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F204303 Q96	5405/94
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D47145 A62	5408/141
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H171000 S214	5409/144
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F157574 A39	5421/814
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F157582 A47	5421/813
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F157583 A48	5421/812
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H171000 B480	5421/815
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H171000 S241	5433/293
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H171000 S242	5433/294
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H171000 S243	5433/702
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H171000 S211	5473/924
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H171000 S72	5479/260
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H171000 S358	5578/297
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F169873 A124	5732/435
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F217815 A200	5756/275
F217815 A201	5756/276
F217815 A202	5756/277
F217815 A203	5756/278
F217815 A204	5756/279
F217815 A205	5756/280
H170500 S344	5761/336
H171000 S513	5762/33
F218333 A17	5844/707
F218333 A18	5844/707
F218333 A19	5844/707
F218333 A20	5844/707
F218333 A21	5844/707
F218333 A22	5844/707
F169981 A232	5861/704
R4658 AA	5866/948
F43319 A23	5874/60
F169983 A234	5876/758
D1648 A9	5895/897
F169884 A135	5895/323
D20944 A75	5897/853
F169886 A137	5899/987
F43319 A20	5906/60
F43319 A21	5906/61
F43319 A22	5906/62
F43319 A26	5906/64
F43319 Q24	5906/63
F43319 Q25	5906/63
H171000 S483	6055/389
H171000 S485	6055/390
F157552 A17	6081/943
H171000 S488	6088/441
D17736 A102	6120/424
D113198 A10	6184/936
D119394 A20	6217/616

## 3. Existing environment

### 3.1 Physical description

#### 3.1.1 Describe the current condition of the project area's environment.

The Proposed Action/Varied Project is located on the far eastern slopes of the Mount Lofty Ranges in South Australia. It lies on the drier side of the ranges within a 'rain shadow' (DEW, 2022) and adjoins the plains of the Murray River. The Murray River lies to the east, 17 km from the Varied Project Area. The Varied Project Area lies within a rural zone which is subject to continuous grazing practices mainly by sheep but also mixed livestock grazing (free range pigs, horses, goats, cattle). Removal of moss rocks for landscaping supplies and minor areas of cropping also occur.

The Interim Biogeographical Regionalisation of Australia (IBRA) identifies geographically distinct bioregions based on common climate, geology, landform, native vegetation, and species information. The bioregions are further refined into subregions and environmental associations. The Varied Project Area is located in the Kanmantoo IBRA bioregion, Fleurieu subregion, and Eden Valley and Scotts Hill environmental associations (see Att 3, Section 3.2, pp 9-10).

The subregions within which the Varied Project Area occur have been historically subject to landscape scale vegetation clearing. Approximately 12 % (45,372 ha) of the Fleurieu IBRA Subregion and approximately 6% (3,934 ha) and 10% (9,673 ha) of the Eden Valley and Scotts Hill IBRA Environmental Association respectively are mapped as remnant vegetation. Of this, 24% (10,865 ha), 3% (100 ha) and 5% (464 ha) is formerly conserved and protected, respectively (see Att 3, Section 3.2, pp 9-10).

Similarly, the landscape in Varied Project Area has been extensively cleared. Of the 350.93 ha Disturbance Footprint, 301.28 ha (94.1 %) comprises vegetation associations that are poor or very poor-quality (Att 2, Section 4.1.3, pp 23-25).

Remnant woodland vegetation and habitat for woodland birds is generally restricted within smaller patches and located within the south of the Varied Project Area. Sparse remnant *Eucalyptus fasciculosa* (Pink Gum) trees on the ridges in the south are generally in a declining condition, with no evidence of regeneration occurring likely due to ongoing grazing practices.

Broad areas of very poor quality grassland within the Palmer Wind Farm Varied Project Area have been classed as native vegetation due to the South Australia NV Act and its guidelines, whereby vegetation is considered native if more than 5 % of the composition is native species (not necessarily dominated by native species). Therefore, vegetation of very low quality is often classed as native vegetation in South Australia where it would be classed as exotic vegetation in other states. (Att 2, section 3.5, page 14).

The grasslands within the Varied Project Area and open woodlands with sparse remnant *Eucalyptus camaldulensis* (River Redgum) are generally in very poor to poor condition as assessed using the Bushland Assessment Method (NVC, 2020). The best vegetation condition within the Varied Project Area is classed as moderate condition as compared to pre-european benchmark. Of the moderate condition vegetation, two of the three associations are avoided by the Disturbance Footprint with the third association, being *Eucalyptus camaldulensis* woodland over *Acacia pycnantha* shrubland and *Austrostipa* sp., subject to impact by up to 2.36 ha as part of the Proposed Action (see Att 2, Section 4.1).

The two vegetation associations in moderate condition that have been avoided as part of the Proposed Action are as follows:

- The *Lomandra effusa* with *Austrostipa sp.* grassland and mixed exotics which is not a Threatened Ecological Community (TEC) and is in the south of the Varied Project Area.
- 52.44 ha of *Xanthorrhoea quadrangulata* grassland with *Austrostipa sp.* in the south of the Varied Project Area

In addition, a TEC in poor to moderate condition has been avoided by the Proposed Action:

- Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia – The 29.63 ha patch within the south of the Varied Project Area which was identified as the EPBC listed Critically Endangered 'B class' TEC.

In summary, the vegetation of the Varied Project Area is generally in very poor condition, with areas of higher quality vegetation almost entirely avoided by the Disturbance Footprint.

Large outcrops of granite boulders occur through the northern part of the Varied Project Area.

**(see Att 2, Section 4.1, pp 23-27).**

The main access road which traverses the Varied Project Area is Randell Road which is a sealed road that passes from Tungkillo to Palmer and on to Mannum at the Murray River. Other unsealed roads that exist throughout the Varied Project Area and are largely used by private landowners (generally not accessed by the public) are Borthwick Brae Road in the north, Camel Hump Road and Ayres Road through the central area and Bottroff Hill Road in the south.

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

The Varied Project Area is privately owned and primarily used for grazing of sheep and cattle. The zoning or use of the land is not proposed to change due to the Proposed Action and it is expected that current land uses will coexist with the Proposed Action, consistent with other contemporary wind energy developments in Australia.

Tilt Renewables maintains open discussions with landholders regarding the preferred siting of infrastructure on their properties and the existing agricultural land uses will continue alongside the Proposed Action during operations.

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

No outstanding natural features are located within or proximal to the Proposed Action.

The notable natural features of Reedy Creek gorge and Harrison Creek Gorge are outside of the Varied Project Area to the east. These steeply incised gorges have been avoided through the design and consultation process.

The State Heritage Listed Granite Boulders Geological Site (SHR 13197) is located within the Varied Project Area with frontage to Randell Road. There are no proposed modifications or direct impacts to this site (**see Att 10, section 5.1, pp 10**).

### **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 topography of the Varied Project Area can be described as hills and valleys comprising alternating subparallel hilly ridges and valleys with a north – south trend. Elevation generally declines from the north of the Disturbance Footprint (near Scotts Hill) which is 470m above sea level to the south of the Disturbance Footprint which is as low as 235 m above sea level.

## **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.**

An updated Protected Matters Search Tool Report was generated on 18 March 2024 with a 10 km buffer from the Varied Project Area. This report would include January 2024 updates to threatened and migratory species listings. A copy of the PMST report is provided within **Att 2, Appendix 1, pp 136-149**.

#### **Flora:**

The Proposed Action has been extensively investigated through historical and contemporary flora and vegetation surveys. A total of 13 vegetation associations have been mapped across the Varied Project Area from flora surveys undertaken in Spring 2022 by EBS Ecology (**see Att 6**) in accordance with the Bushland Assessment Method (BAM; NVC, 2020). A total of 19 sites were surveyed using this method, with locations chosen based on differences in vegetation composition and condition, with additional targeted searches undertaken for potential TECs listed under the EPBC Act (**Att 2, section 3.5, pp 14-18**).

Of the five TECs potentially occurring within the Project Area, a single TEC was identified within the south east of the Varied Project Area, being approximately 29.6 ha of Peppermint Box (*Eucalyptus odorata*) grassy woodlands of South Australia (PBGW). Infrastructure has been sited to completely avoid direct impacts to the TEC. The reduction to the Varied Project Area has also achieved complete avoidance of direct impacts to the Iron-grass Natural Temperate Grassland of South Australia TEC, which is known to occur to the north of Area B (outside the Varied Project Area) (**Att 2, Section 4.1.4, pp 25-26**).

No EPBC Act listed threatened flora species were identified as 'likely' or 'highly likely' to occur in the Project Area and no EPBC Act listed flora species have been identified in surveys undertaken to date either for the Varied Project Area or the Approved Project Area. Further information on threatened flora species is provided in **Att 2, Section 4**.

Past and contemporary surveys identified two flora species as threatened under the South Australian *National Parks and Wildlife*, but not listed under the EPBC Act, within the Varied Project Area:

*Act 1972* (NPW Act) within the Varied Project Area, being:

- Pink Gum (*Eucalyptus fasciculosa*) (Rare status)
- Hairy-tails (*Ptilotus erubescens*) (Rare status)

Hairy-tails were recorded in 2013 but were not recorded within the Varied Project Area during 2022 surveys.

The Proposed Action has been designed to minimise works in the southern extent of the Varied Project Area, in line with EBS Ecology's recommendation to avoid potential impacts on identified Rare Pink Gum Woodland as far as practicable. The Proposed Action has undergone multiple iterations in order to finalise the layout with avoidance of approximately 93.5% of the Rare Pink Gum Woodland that is identified within the Varied Project Area. (**Att 2, Section 7.1 and Executive Summary - mitigations table**).

#### **Fauna:**

Targeted and opportunistic fauna surveys have been conducted for the Proposed Action, both historically and more recently between 2022 and 2024.

Initial surveys were intended to validate the historic survey records, including the presence and use of previously recorded Wedge-tailed Eagle (*Aquila audax*) and Peregrine Falcon (*Falco peregrinus*) nest locations. Additional survey effort focused on bird utilisation of the Varied Project Area and targeted threatened species.

The assessment has identified the primary class of fauna that could be impacted within the Varied Project Area are bird species, with the only other MNES species likely to occur within the Varied Project Area being the Grey-headed Flying-fox (*Pteropus poliocephalus*) (EPBC Act – Vulnerable; NPW Act - Rare).

With respect to bird species, EBS Ecology established fourteen bird survey sites within the Varied Project Area and have been undertaking seasonal bird utilization surveys since Spring 2022 in addition to bird surveys that occurred between 2013-2014. Six contemporary seasonal bird utilisation surveys have been undertaken across the Varied Project Area.

Two species protected under the EPBC Act have been identified within the Varied Project Area:

- Southern Whiteface (*Aphelocephala leucopsis*) (EPBC Act: Vulnerable, NPW Act: not listed)
- Diamond Firetail (*Stagonopleura guttata*) (EPBC: Vulnerable, NPW Act: Vulnerable)

Southern Whiteface have been recorded regularly in the north and south of the Varied Project Area in grasslands and woodland.

Diamond Firetails have been recorded in the south of the Varied Project Area in woodland.

For further specific information on the occurrence of these species within the Varied Project Area refer to **Att 2, Section 5, pp 40 - 88**.

An additional EPBC listed species which has not been recorded within the Varied Project Area, but which is likely to occur based on suitable habitat and nearby records is the:

- Hooded Robin (*Melanodryas cucullata cucullata*) (EPBC Act: Endangered; NPW Act: Rare)

Hooded Robin was recorded in Area A, more than 10 km north of the Varied Project Area in 2013) but has not been recorded within the Varied Project Area.

Whilst suitable foraging habitat is likely to occur for the Grey-headed Flying-fox (*Pteropus poliocephalus*) (EPBC Act – Vulnerable; NPW Act - Rare), there is no breeding habitat or permanent roost within 20 km. The nearest permanent roost is at Adelaide Botanic Park which is approximately 50 km from the Varied Project Area. Only a small amount of successful breeding occurs at Adelaide Botanic Park roost due to high mortality from heat stress.

Three species listed as threatened under the NPW Act have been recorded within the Varied Project Area:

- Peregrine Falcon (*Falco peregrinus*) (NPW Act: Rare) – one individual was recorded flying in the north of the Varied Project Area in February 2024; Nests of this species have been recorded in gorges outside of the Varied Project Area in the 2012-2014 EBS Ecology surveys.
- Black Falcon (*Falco subniger*) (NPW Act: Rare) – one individual was observed flying near bird survey site 6 in the central part of the Varied Project Area in February 2024.
- Elegant Parrot (*Neophema elegans*) (NPW Act: Rare) have been recorded multiple times at multiple locations in the southern half of the Varied Project Area including at bird survey site 13 in February 2024;

Tilt Renewables has commitments and conditions in relation to State approvals enforcing setbacks to both Wedge-tailed Eagle (*Aquila audax*) and Peregrine Falcon (*Falco peregrinus*) nest locations.

Of the 10 Wedge-tailed Eagle nests in or near the Approved Project Area, only one WTE nest is located within the Varied Project Area. The Varied Project design has ensured that a 1 km buffer has been applied from turbines to Wedge-tailed Eagle nests. The Varied Project Area also avoids 2 additional Peregrine Falcon nests, compared to the Approved Project, and the two remaining nest sites located within the Varied Project Area are between 1 km and 1.5 km from the nearest turbine of the Varied Project (**Att 3, Section 7.4.4 and Section 9**).

Additional ecological matters identified by the desktop assessment and past and current surveys include weeds declared under the *Landscape South Australia Act 2016*.

Further information on the fauna values of the Varied Project Area is provided in **Att 2, Section 4 and 5**.

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

As previously identified, 13 broad vegetation associations were identified across the Varied Project Area in accordance with the BAM (NVC, 2020). Three were associated with Area B and 10 vegetation associations were present within Area C. *Austrostipa sp.* grassland and *Eucalyptus spp.* woodland were the most dominant vegetation associations across the Varied Project Area.

Land within the Varied Project Area is generally cleared for agricultural purposes. Under the NV Act and its guidelines, vegetation is considered native in South Australia if more than 5 % of the composition is native. It does not need to be dominated by native vegetation. Therefore, vegetation of very low quality is often classed as native vegetation in South Australia. This is the case for the broad areas of grassland within the Varied Project Area that has been classed as native vegetation of very poor quality.

The total proposed clearance associated with the Proposed Action amounts to 350.93 ha of native vegetation. Most of the proposed clearance (301.44 ha) is located in very poor grassland areas or non-native vegetation, representing 85.8% of the total clearance area. The best vegetation condition score within the Varied Project Area is moderate condition. Areas with moderate quality vegetation have been preferentially avoided with only 2.36 ha of moderate quality vegetation impacted. This represents disturbance to 0.7 % of moderate condition vegetation within the Varied Project Area.

Refer to **Att 2, Appendix 4** for a table of vegetation associations within the Varied Project Area and their condition score.

Seven Declared Weeds under the LSA Act or Weeds of National Significance have been recorded within the Varied Project Area. This reflects the current agricultural land use of the Varied Project Area.

Existing access tracks and areas of prior disturbance have been incorporated into the project design where possible (noting the designs and geometry requirements for the transportation of WTG components) to further minimise impacts to native vegetation. Areas of temporary vegetation clearance will be rehabilitated according to strategies detailed within a Construction Environmental Management Plan (CEMP) that will be written for the Project.

## 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 Varied Project Area or which may be impacted by the Proposed Action.

Independent Heritage Consultants (IHC) was engaged to undertake a gap analysis and heritage desktop assessment for the Proposed Action (IHC 2023) which was summarised into a summary letter (**Att 11**) due to sensitive information for the purposes of the Variation Application. Further to the gap analysis and heritage desktop assessment, IHC was engaged by Tilt Renewables to prepare a Heritage Impact Assessment (HIA) (**Att 10**) in relation to the State Heritage Listed Granite Boulders Geological Site (SHR 13197) located within the Varied Project Area.

In relation to Historic Heritage, the disturbance footprint of the Proposed Action is to be located adjacent to the State Heritage Listed Granite Boulders Geological Site located on the Adelaide-Mannum Road in Palmer. There are no proposed modifications or direct impacts to this site (IHC 2023) (**Att 10, Section 5.1, page 10**). Works are to be managed to avoid indirect impacts and all temporary disturbance associated with the construction of the Proposed Action will be rehabilitated once works are complete.

The HIA undertaken for the Proposed Action concluded that the proposed works have been designed to be appropriate to the setting and minimise project impacts to the geological formation that constitutes the listing. The Proposed Action will have minor impacts on the cultural values of the Granite Boulders Geological site. However, increased access to and rehabilitation of the adjacent areas are likely to enhance the importance of the place to the community (IHC 2023). (**Att 10, Section 6**)

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

The Palmer Wind Farm (proposed action) is located within the traditional lands of the Peramangk Aboriginal group. The Peramangk Aboriginal group does not have a native title claim lodged over its asserted traditional land. The Varied Project Area has been subjected to extensive archaeological and anthropological surveys conducted in collaboration with the Peramangk community, represented for heritage matters by the Mannum Aboriginal Community Association Incorporated (MACAI). This engagement and survey effort occurred between 2009 and 2014 by Australian Cultural Heritage Management (ACHM) and Peramangk representatives when the Approved Project was being investigated. As part of these surveys for the Approved Project, ACHM recorded over 300 potential archaeological sites within the Approved Project Area. No ethnographic sites were recorded at this time.

IHC reviewed historic assessments undertaken for the Approved Project between 2023 and 2024 and identified that 48 of the sites recorded by ACHM fall within the Varied Project Area. IHC undertook a site verification archaeological inspection for the Proposed Action and did not identify any new Aboriginal archaeological heritage sites within the micro-siting area of the Varied Project Area. All of the potential archaeological sites identified by ACHM were inspected and verified, and none were found to be Aboriginal archaeological sites (IHC 2023) (**Att 11**).

Engagement with the Peramangk community re-commenced from 2022 regarding working together on the Varied Project. As the Varied Project Area falls within the original area surveyed and consulted on by ACHM and Peramangk representatives and will not impact any ethnographic sites, no further ethnographic/anthropological surveys are deemed to be required. However, engagement with Peramangk representatives will continue throughout the approval process as well as through construction and operation of the Project, to ensure Aboriginal heritage and values of the Peramangk community are protected.

It is noted that the Heritage Summary Letter (**Att 11**) was prepared for the purpose of the Palmer Wind Farm Variation Application, which was lodged with the South Australian State Planning Commission in February 2024. This document will be made public through the Variation Application assessment process. Noting that documentation containing sensitive information about Aboriginal heritage cannot be shared publicly, the Heritage Summary Letter (Att 11) is intended to provide a high-level summary of the heritage assessments conducted for the Varied Project. Consequently, Att 11 does not contain sensitive information and is suitable for public release.

## 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. \*

The Varied Project Area encompasses parts of the Reedy Creek and Milendella Creek surface water catchments, with a number of ephemeral creek lines running through the area. These are considered tributaries of the River Murray and are included within the River Murray Protection Area (*River Murray Act 2003*). Reedy Creek occurs within the south-eastern corner of the Varied Project Area and the Reedy Creek Swamp is located approximately 6-10 km east of the Varied Project Area, adjoining the River Murray. Other named creeks passing through the Varied Project Area include Baker Creek, Harrison Creek and Talbot Creek which feed into Reedy Creek.

A surface water modelling assessment has been used to inform siting of relevant project infrastructure, including wind turbines, substations and access tracks. Wind turbines and substation infrastructure are not proposed in identified drainage lines and risks from potential flooding and stormwater inundation will continue to be addressed during the detailed design stage. The siting of WTGs maintains natural hydrological systems and is not expected to negatively impact upon the quantity, quality, depth, or directional flow of surface water and groundwater.

No drainage lines within the Varied Project Area hold water permanently. Once construction activities have been completed, all operational vehicles will be limited to undertaking maintenance activities from the defined access tracks. It is anticipated that these maintenance activities will not significantly increase the incidence of erosion and sediment transfer along existing drainage lines or ephemeral creeks.

The Varied Project Area is 40 km upstream of a Wetland of International importance, being the RAMSAR listed Coorong and Lakes Alexandrina. No direct or indirect impacts to this RAMSAR site are anticipated. (**Att 2, Section 6.4, p 123**).

The Proposed Action is located within the Eastern Mount Lofty Prescribed Water Resources Area and the Northern Kanmantoo Groundwater Management Zone, which seek to maintain the health and natural flow paths of surface water, watercourses and wells within this designated land. A water licence and water access entitlement would be required for the extraction and use of water for the Proposed Action in these areas.

The Proposed Action is located outside of the Mount Lofty Ranges Water Protection Area and identified water priority areas.

## 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	No	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.

—

**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 known World Heritage places located within or proximate to the Proposed Action. The Proposed Action is unlikely to have any direct or indirect impacts to World Heritage.

**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.

—

**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 known National Heritage places located within or proximate to the Proposed Action. The Proposed Action is unlikely to have any direct or indirect impacts to National Heritage.

### 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
No	No	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.

\*

The Coorong and Lakes Alexandrina and Albert Wetland (Ramsar listed) is located approximately 40 km from the Varied Project Area.

The Varied Project Area is not located within a wetland area and contains no watercourses that flow directly into any Wetlands of International Importance. The Varied Project Area is within the Murray Darling Basin boundary which feeds into the Murray River upstream of the Coorong and Lakes Alexandrina and Albert Wetland which is 40 km downstream. The Varied Project is unlikely to significantly impact on this downstream wetland or the Murray River as impacts to tributaries and groundwater are not expected to occur as part of the Varied Project.

Wind turbines and substation infrastructure are not proposed in identified drainage lines and risks from potential flooding and stormwater inundation will continue to be addressed during the detailed design stage of the Proposed Action to further mitigate potential impacts. The siting of WTGs maintains natural hydrological systems and is not expected to negatively impact upon the quantity, quality, depth, or

directional flow of surface water and groundwater. Furthermore, suitable erosion and sediment control structures will be designed and installed during the construction of the Proposed Action and progressive surface stabilisation and rehabilitation of disturbed areas will occur.

Should groundwater or surface water extraction be proposed as part of the detailed design of the Proposed Action, a water licence and water access entitlement will be obtained under the LSA Act, ensuring the ongoing sustainable use of water resources within the relevant surface and groundwater catchments.

**(Att 2, Section 6.4, p 123).**

#### 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	<i>Acacia menzelleri</i>	Menzel's Wattle
No	No	<i>Acacia retinocarpa</i>	Neat Wattle, Resin Wattle (SA)
No	Yes	<i>Aphelocephala leucopsis</i>	Southern Whiteface
No	No	<i>Aprasia pseudopulchella</i>	Flinders Ranges Worm-lizard
No	No	<i>Botaurus poiciloptilus</i>	Australasian Bittern
No	No	<i>Caladenia argocalla</i>	White-beauty Spider-orchid
No	No	<i>Caladenia concolor</i>	Crimson Spider-orchid, Maroon Spider-orchid
No	No	<i>Caladenia tensa</i>	Greencomb Spider-orchid, Rigid Spider-orchid
No	No	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper
No	No	<i>Calidris ferruginea</i>	Curlew Sandpiper
No	No	<i>Craterocephalus fluviatilis</i>	Murray Hardyhead
No	No	<i>Dodonaea procumbens</i>	Trailing Hop-bush
No	No	<i>Dodonaea subglandulifera</i>	Peep Hill Hop-bush
No	No	<i>Euphrasia collina</i> subsp. <i>osbornii</i>	Osborn's Eyebright
No	No	<i>Falco hypoleucos</i>	Grey Falcon

<b>Direct impact</b>	<b>Indirect impact</b>	<b>Species</b>	<b>Common name</b>
No	No	<i>Galaxias rostratus</i>	Flathead Galaxias, Beaked Minnow, Flat-headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow
No	No	<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe
No	No	<i>Glycine latrobeana</i>	Clover Glycine, Purple Clover
No	No	<i>Grantiella picta</i>	Painted Honeyeater
No	No	<i>Hirundapus caudacutus</i>	White-throated Needletail
No	No	<i>Isodon obesulus obesulus</i>	Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern)
No	No	<i>Leipoa ocellata</i>	Malleefowl
No	No	<i>Litoria raniformis</i>	Southern Bell Frog,, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog
No	Yes	<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin, Hooded Robin (south-eastern)
No	No	<i>Nannoperca australis</i> Murray-Darling Basin lineage	Southern Pygmy Perch (Murray-Darling Basin lineage)
No	No	<i>Neophema chrysostoma</i>	Blue-winged Parrot
No	No	<i>Olearia pannosa</i> subsp. <i>pannosa</i>	Silver Daisy-bush, Silver-leaved Daisy, Velvet Daisy-bush
No	No	<i>Pedionomus torquatus</i>	Plains-wanderer
No	No	<i>Polytelis anthopeplus monarchoides</i>	Regent Parrot (eastern)
No	No	<i>Prasophyllum pallidum</i>	Pale Leek-orchid
No	Yes	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox
No	No	<i>Rostratula australis</i>	Australian Painted Snipe
No	No	<i>Senecio macrocarpus</i>	Large-fruit Fireweed, Large-fruit Groundsel
No	Yes	<i>Stagonopleura guttata</i>	Diamond Firetail
No	No	<i>Swainsona pyrophila</i>	Yellow Swainson-pea
No	No	<i>Thelymitra epipactoides</i>	Metallic Sun-orchid

Direct impact	Indirect impact	Species	Common name
No	No	<i>Thelymitra matthewsii</i>	Spiral Sun-orchid
No	No	<i>Tiliqua adalaidensis</i>	Pygmy Blue-tongue Lizard, Adelaide Blue-tongue Lizard
No	No	<i>Tringa nebularia</i>	Common Greenshank, Greenshank
No	No	<i>Zoothera lunulata halmaturina</i>	South Australian Bassian Thrush, Western Bassian Thrush

### Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Iron-grass Natural Temperate Grassland of South Australia
No	No	Peppermint Box ( <i>Eucalyptus odorata</i> ) Grassy Woodland of South Australia

#### 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. \*

Of the 40 EPBC threatened species and two EPBC threatened ecological communities identified by the PMST, the Proposed Action may indirectly impact on four threatened species but is unlikely to directly impact on these.

Two EPBC threatened species are known to occur within the Varied Project Area:

- Southern Whiteface (*Aphelocephala leucopsis*) (EPBC Act Vulnerable, NPW Act not listed)
- Diamond Firetail (*Stagonopleura guttata*) (EPBC Act Vulnerable, NPW Act Vulnerable)

An additional EPBC Act listed fauna species, the Hooded Robin (*Melanodryas cucullata cucullata*) (EPBC Act Endangered, NPW Act Rare), was historically observed outside of the Varied Project Area, and as such was determined as likely to occur within the Varied Project Area due to the presence of suitable habitat.

Likely foraging habitat of one additional species is present, Grey-headed Flying-fox (*Pteropus poliocephalus*) (EPBC Act Vulnerable, NPW Act Rare), although it has not been recorded and is not likely to occur within the Varied Project Area.

A detailed significant impact assessment was undertaken for the four species that are known or likely to occur (Southern Whiteface, Diamond Firetail, Hooded Robin and Grey-headed Flying Fox), with this impact assessment being presented in **Att 2, Section 5, pp 40-88**.

It is considered that the primary risks to these species is in relation to the direct removal of potential open woodland habitat and mature trees within the related vegetation associations during construction of the Proposed Action, with the risks in relation to the operation of the Proposed Action being assessed as low.

The proposed action will impact 0.55% of the Area of Occupancy for the Southern Whiteface; 0.19% of the Area of Occupancy for the Diamond Firetail; and 0.16% of the Area of Occupancy for the Hooded Robin. Whilst some habitat loss will occur from construction of the proposed action, the completed significant impact assessment, and broader ecological assessment for these four species has not identified the potential for a significant impact to any MNES from the construction, operation or decommissioning of the Proposed Action.

No other MNES are likely to be directly or indirectly impacted by the Varied Project as the Varied Project Area has been adequately surveyed and no other MNES have been detected during ecological surveys. Consideration of the other listed EPBC Act threatened species and TECs are presented in **Att 2, Section 5 and 6**.

#### **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. \***

Of the four MNES that are known or likely to occur within the Palmer Wind Farm Project, significant impact criteria is not triggered. A significant impact assessment has been undertaken for each of the four MNES in accordance with the Significant Impact Guidelines 1.1 (Department of the Environment, Water, Heritage and the Arts 2013) and according to the Conservation Advice and Recovery Plan for each species:

##### **Southern Whiteface:**

As Southern Whiteface are distributed over a broad continuous area of mainland Australia, it is unlikely that the small groups recorded within the northern and southern portion of the Varied Project Area represent an important population. It is unlikely that the small groups recorded in the Varied Project area are a key source population either for breeding or dispersal, populations that are necessary for maintaining genetic diversity, and/or populations that are near the limit of the species range (Department of the Environment, Water, Heritage and the Arts 2013).

The majority of the Varied Project Area represents potential habitat for the Southern Whiteface, given the broad habitat requirements and mobile nature of the species, which uses a range of habitat features for perching, foraging and nesting including fence lines, boulders, trees and shrubs (including planted trees and declared weed species).

At a bioregional scale, larger clusters of Southern Whiteface records occur to the south of the Varied Project Area and to the north of the Varied Project Area.

Within the Varied Project Area, approximately 94 % (approximately 5,675 ha) of potential suitable Southern Whiteface habitat has been avoided. The action does not propose to change the surrounding land use to a more intensive use which removes habitat features. It is unlikely that the action will lead to a long term decrease in the size of an important population.

Southern Whiteface are low risk of collision with wind turbines as they are low flying and have not been recorded as part of historic or contemporary BBUS surveys within the RSA of the wind turbines. Collision and impact from transmission line infrastructure is assessed as unlikely due to the species co-existence with a significant number of transmission lines in the current local landscape.

**See Att 2, Section 5.1, pp 40-57.**

### **Diamond Firetail**

Within the southern portion of the Varied Project Area, small groups of Diamond Firetail have been observed during utilisation surveys undertaken between 2022 and 2024.

The Diamond Firetail habitat within the Varied Project Area aligns with the woodland vegetation associations, which represent approximately 3,499 ha of the total Varied Project Area. Of this area, the Proposed Action will disturb up to 48.61 ha (1.39%), with 98.6% of potential habitat within the Varied Project Area being avoided. Suitable woodland habitat, including *Eucalyptus camaldulensis* and *Allocasuarina verticillata* open woodland over exotic grasses and forbs, has overstorey species present but is sparse and in poor condition. *Allocasuarina verticillata* only makes up a very small percentage of the cover. Impacts from the Proposed Action will not reduce the area of occupancy or adversely impact on habitat critical to the survival of the species.

Diamond Firetail have not been observed flying at RSA height of the wind turbines during bird utilisation surveys and there is a low risk of collision with wind turbines. While an impact to Diamond Firetail may occur at a local population or individual level, the action is unlikely to lead to a long-term decrease in the size of an important population.

**See Att 2, Section 5.2, pp 58-71.**

### **Hooded Robin**

Within the Varied Project Area there is 3,965 ha of suitable habitat, however, Hooded Robins have not been observed within the Varied Project Area in historic or contemporary surveys. Given they are generally sedentary species, it is unlikely that a local population occurs within the Varied Project Area.

Hooded Robin habitat within the Varied Project Area aligns with the woodland vegetation associations, which represent approximately 3,499 ha of the total Varied Project Area. Of this area, the Proposed Action will disturb up to 48.61 ha (1.39%), with 98.6% of potential habitat within the Varied Project Area being avoided.

Additionally, given the number of limited records of Hooded Robin within 10 km of the Varied Project Area and the northern Kanmantoo IBRA bioregion, the action is unlikely to lead to a long-term decrease in the population of Hooded Robin. The Hooded Robin is considered unlikely to collide with WTG blades and have been assessed as low risk of WTG impacts from collision.

**See Att 2, Section 5.3, pp 72-81.**

### **Grey-headed flying-fox**

In South Australia, there are two Grey-headed Flying-fox colonies (as of 2019), which are located at Adelaide Botanic Park in Adelaide (20,000 individuals in 2024) and Millicent in the State's southeast (approximately 4,000 individuals) (DEW 2024). The Adelaide Botanic Park camp is the closest of these colonies to the Varied Project Area being approximately 50 km to the west.

Considering the high mobility of the species, the large extent of similar and suitable foraging habitat within close proximity to the Nationally important camp in Adelaide Botanic Park, and the small proportion of habitat removal required for the Varied Project, being 48.61 ha (or 1.39% of the total potential habitat within the Varied Project Area), it is unlikely that the Proposed Action will significantly impact on the long-term breeding success or population size of the Grey-headed Flying-Fox.

Foraging movements of the important population at Adelaide Botanic Park are estimated to have a maximum foraging distance of 9.5km from the camp, with most foraging occurring within a 4km distance of the camp (Boardman et. al., 2021). Due to this, the potential habitat associated with the Proposed Action is unlikely to represent foraging habitat for an important population.

See Att 2, Section 5.4, pp 82-88.

**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 a controlled action as no Significant Impact is triggered for any MNES. Mitigation measures will be implemented to minimise ecological impacts and ensure they are minor and not of a significant extent.

**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. \***

Extensive efforts to avoid and minimise impacts to habitat have been undertaken by Tilt Renewables over the life of the Project to date resulting in the proposal of the Proposed Action, which has identified, avoided and minimised impacts to MNES and broader ecological values of the subject site.

This process has been informed by a significant body of site-specific ecological investigations spanning 12 years, between 2012 and 2024, which have underpinned the characterisation of the associated flora, vegetation and fauna values of the subject site. This has provided adequate baseline information to confidently predict and evaluate potential environmental impacts associated with the construction and operation of Varied Project.

An iterative design process has been undertaken for the Proposed Action, including 27 design iterations where several have aimed to avoid or minimise impacts to ecological values and MNES. This iterative design process has resulted in the following:

- A reduction in the Approved Project Area to the Varied Project Area by 48 %
- A reduction in the RSA of WTGs from the Approved Project to the Varied Project by 26 %
- High confidence in the disturbance area as well as the subsequent avoidance area that covers an area of 4,360.37 ha outside of a micro-siting area within the Varied Project Area (noting the micro-siting area is a buffer placed around the disturbance footprint and is only to reduce impacts further than what is currently presented).
- The Varied Project Area was designed to avoid and exclude the Iron-grass Natural Temperate Grassland of South Australia TEC from within the Project Area entirely.
- The Disturbance Footprint was designed to completely avoid direct impact to the 29.63 ha patch of *Eucalyptus odorata* mallee woodland over *Austrostipa* sp. TEC in the south-east of the Varied Project

Area.

- Avoidance of all areas of Lomandra grassland.
- Avoidance of woodland areas as far as practicable.
- Placement of infrastructure within poorer quality grasslands where possible.
- The increase of the minimum blade ground clearance of WTG from 35 m to 40 m which is expected to further minimise the risk of collision strike with birds, in particular low flying woodland birds.

In relation to the construction and operation of the Proposed Action, Tilt Renewables has commitments relevant to State-based approvals to prepare a suite of management plans that will form part of the environmental management framework for the Proposed Action. These include but are not limited to a Construction Environmental Management Plan and Operational Environmental Management Plan or relevant sub-plans, which will address the following matters (relevant to the stage of development):

- Community consultation; Compounds and ancillary facilities management; Construction noise and vibration; Operational noise management; Traffic management; Soil and water quality management (including erosion control); Air quality and dust management; Aboriginal and European heritage management; Soil contamination, hazardous material and waste management; Hazard and risk management; Site rehabilitation; Bird and bat management; Weed and pest management; Biosecurity management; Health and safety; Fire and bushfire risk management; Telecommunication and Digital TV interference; and Decommissioning.

Additional commitments for minimising impacts during further detailed design, construction and operation also include the following:

- Further detailed design of the project will include consideration of minimising impacts to mature trees in woodland habitat (as part of infrastructure micro-siting within the defined Micro-siting Area).
- The authorised Disturbance Footprint will be clearly defined and demarcated on appropriate plans, as well as on-site, and all site personnel responsible for vegetation removal to be fully briefed on the removal task during toolbox meetings.
- Clearing will be conducted at low speeds and towards the adjacent vegetation extents to provide the opportunity for ground dwelling fauna species to disperse into the adjacent vegetation.
- Where impacts to mature trees will occur, an appropriately qualified and experienced ecologist will undertake preclearance surveys with fauna spotter catchers as part of standard pre-construction measures.
- If native fauna is encountered during clearing works it should, initially, be allowed to make its own way from the works area. However, if this is not possible or practicable, a qualified wildlife handler will be contacted to relocate it.
- Vehicle speeds traversing the Varied Project Area will be low (<40 km/hr) to reduce the risk of fauna collision. Any incidents of fauna injury will be recorded.
- Tilt Renewables will conduct bird monitoring including a bird strike monitoring programme and adaptive management as part of a Bird and Bat Management Plan at selected turbines, including woodland vegetation associations, during the operational phase of the Palmer Wind Farm to monitor for impacts to woodland birds.
- Construction contractors will follow measures outlined in a CEMP to limit and prevent the introduction and spread of introduced plants and pathogens.
- All waste generated by the proposed action is to be adequately contained and regularly removed from the Varied Project Area by licensed waste contractor. Waste disposal receipts or certificates are to be retained as proof of disposal.
- Suitable erosion and sediment control structures will be designed and installed during the construction of the Varied Project and progressive surface stabilisation and rehabilitation of disturbed areas will occur.
- A rehabilitation program will be implemented, and periodical site monitoring will be undertaken for up to 2 years following decommissioning to ensure rehabilitation is successful in the longer term.

- Appropriate operational fire and emergency procedures will be employed to minimise fire risk from the operation of the Varied Project and overhead transmission line easements will be periodically inspected to monitor and maintain regrowth of encroaching vegetation.

See Att 2, Section 5.1.7, Section 5.2.7, Section 5.3.7, Section 7 and Section 8.1.

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

As the Proposed Action is not expected to be a Controlled Action due to significant impacts being avoided, minimised and mitigated, with mitigation measures reducing the residual impacts to negligible, no EPBC offset requirements are anticipated.

**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
No	No	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	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Hirundapus caudacutus	White-throated Needletail
No	No	Motacilla cinerea	Grey Wagtail
No	No	Motacilla flava	Yellow Wagtail
No	No	Myiagra cyanoleuca	Satin Flycatcher

Direct impact	Indirect impact	Species	Common name
No	No	Tringa nebularia	Common Greenshank, Greenshank

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

No

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

\*

No EPBC migratory species have been recorded within the Varied Project Area or flying over the Varied Project Area during ecological surveys to date. No important habitat for migratory species is present within the Varied Project Area or is close to the Varied Project Area and no downstream impacts are expected to occur, therefore a direct or indirect impact is unlikely to occur.

**See Att 2, Section 6.3, pp 121-122.**

**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 is not a nuclear action.

#### **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.

—

##### **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 located within or proximate to the Proposed Action, therefore direct or indirect impacts to Commonwealth Marine Areas are unlikely.

#### **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 located in South Australia and is not proximate to the Great Barrier Reef.

#### **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 coal seam gas and it is not a large coal mining development.

#### **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.

—

**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 on or proximate to Commonwealth Land, therefore this matter is not impacted.

**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.

—

**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 does not impact a Commonwealth Heritage Place Overseas, therefore this matter is not impacted.

## 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? \*

Yes

**4.3.2 Do you have an alternative timeline you are proposing for your proposed action? \***

No

**4.3.3 Briefly describe why an alternate timeline for your proposed action was not possible.**

\*

The Proposed Action will help reduce Australia's carbon footprint by generating up to 288MW of clean energy when constructed which is enough to power up to 144,000 South Australian homes. The Proposed Action will also bring investment and benefits focused on the surrounding community. The only time line considered is to commence as soon as possible as this will contribute to Australia's renewable energy targets.

The Proposed Action has been in the planning phase for 15 years, with substantial design updates and ecological considerations incorporated and any further delays are not considered to be of benefit to the Proposed Action.

**4.3.4 Do you have an alternative location you are proposing for your proposed action? \***

No

**4.3.5 Briefly describe why an alternative location for your proposed action was not possible. \***

When searching for potential wind farm sites, a number of selection criteria are applied to potential wind farm sites in order to determine site suitability. They include environmental, social, technical and operational criteria, such as good wind resource, proximity to a feasible electricity connection point, separation from places of residence, land availability, low ecological and heritage values. The site of the Proposed Action was targeted due to its ability to meet all above-mentioned required criteria, ahead of other possible locations in the wider region.

Alternative locations or orientations of the indicative disturbance area is not possible. To minimise requirements for clearing native vegetation, the Proposed Action has been designed to ensure future infrastructure would be positioned within previously disturbed areas, wherever practicable. Due to improvements in wind turbine technology, the Proposed Action will achieve the same generation capacity with fewer turbines than previously considered layouts, such as the Approved Project.

During the 15-year planning phase, alternative areas were considered, including Area A of the Approved Project, which is north of the Varied Project Area. Area A had higher ecological values in the form of higher quality vegetation, an additional TEC (Iron-grass Natural Temperate Grassland of South Australia ecological

community), higher number of raptor nests and additional threatened fauna records. (**Att 3, Section 5.3.2, Section 7.3.1, Section 7.4.4, Section 8.2.3**).

Further local siting constraints for wind farm developments include the nearby Barossa Valley, Eden Valley and Marne River are within a Character Preservation District in which wind farm developments are restricted. The Proposed Action avoids these districts and increases the setback distances to the relevant character preservation areas. Minimum set-backs from dwellings are also required in South Australian planning systems that further restrict the ability to refine and amend the layout of the Proposed Action.

The Varied Project Area has been through numerous design iterations to arrive at the current wind farm layout which has minimised impacts to woodland and the better-quality vegetation and avoided impacts to threatened ecological communities. The Proposed Action improves ecological outcomes to an existing approved project and therefore does not propose to be located on any other land.

#### **4.3.6 Do you have alternative activities you are proposing for your proposed action? \***

No

#### **4.3.7 Briefly describe why an alternative activity for your proposed action was not possible. \***

Tilt Renewables previously gained Development Plan Consent for a wind farm with 103 turbines at maximum blade tip of 165 m as part of the Approved Project. The Proposed Action now includes 40 turbines at maximum blade tip of 220 m. This results in a total reduction of rotor-swept area of 26 % and has allowed the reduction in the project area and impacts to visual amenity and ecological impacts over a broader area whilst consolidating the impact into a smaller area.

The reduced number of larger turbines are able to produce the same amount of power with reduced amenity and environmental impacts. The Proposed Action is an improved alternative to the already Approved Project and does not allow for approval of a different activity. Therefore, no other alternative activity is possible within the environmental constraints or within the parameters of the approval that the action has been designed within.

### **4.3.4 Alternatives: Impact and mitigation**

#### **4.3.4.1 Do these alternatives have a different impact, avoidance, or mitigation measure compared to what you have already provided? \***

No

## 4.3.5 Alternatives: Considered alternatives

**4.3.5.1 Do you have any other alternative actions, including not taking the action, that you have considered but are not proposing as part of this referral? \***

Yes

**4.3.5.2 Describe the details of this possible alternative that you have considered but are not proposing. \***

The Proposed Action has an existing approval (the Approved Palmer Wind Farm Project) and the varied project (the proposed action) proposes to vary the design in order to develop a similar wind farm generating similar energy (288MW) with reduced impacts to the environment and broader community of the region. Due to the 15-year process in which the wind farm initially originated and has been designed, there is now no alternative other than not building the wind farm which is not proposed as it is crucial that Australia's renewable energy targets are met through the urgent development of more renewable energy.

## 5. Lodgement

### 5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1_Proposed Action_PMWF Layout.pdf Map showing the layout of the Proposed Action	19/02/2024	High	High
#2.	Document	Att 2_PMWF_EPBC_EIA_May_2024.pdf Ecological Impact Assessment report that summarises the body of ecological work undertaken for the Project.	16/05/2024	High	High
#3.	Document	Att 3_PMWF_F&F_Impact Assessment.pdf Flora and Fauna Impact Assessment that was prepared to support the Variation Application to the State Planning	25/02/2024	High	High

Commission, under the Planning, Development and Infrastructure Act 2016.				
#4.	Document	Att 4_PMWF_Bird&Bat_Risk Assessment.pdf Bird and Bat Risk Assessment for the Proposed Action.	25/02/2024	High
#5.	Document	Att 5_PMWF_NVC Data Report.pdf Preliminary Native Vegetation Clearance Data Report prepared to support the Variation Application and to fulfil requirements under the Native Vegetation Act 1991.	26/02/2024	High
#6.	Document	Att 6_PMWF_BUS_Spring22_Summer23_Autumn23.pdf Bird Utilisation Survey Report for PMWF for Spring 2022, Summer 2023 and Autumn 2023.	30/11/2023	High
#7.	Document	Att 7_PMWF_BUS_Winter23.pdf Bird Utilisation Survey Report for PMWF for Winter 2023.	05/02/2024	High
#8.	Document	Att 8_PMWF_BUS_Spring23.pdf Bird Utilisation Survey Report for PMWF for Spring 2023	16/05/2024	High
#9.	Document	Att 9_PWMF_BUS_Summer24.pdf Bird Utilisation Survey Report for PMWF for Summer 2024.	16/05/2024	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	Att 10_PMWF_HIA.pdf Heritage Impact Assessment prepared for the Palmer Wind Farm Variation Application	31/01/2024	High	High
#2.	Document	Att 11_PMWF_Heritage Summary Letter.pdf Heritage Summary Letter prepared for the Palmer Wind Farm Variation Application	31/01/2024	High	High
#3.	Link	EPBC Act Policy Statement 2.3 : Wind farm industry <a href="https://www.dcceew.gov.au/environment/epbc/publications/epbc-act-policy-statement-2.3-wind-farm-industry">https://www.dcceew.gov.au/environment/epbc/publications/epbc-act-policy-statement-2.3-wind-farm-industry</a>			High
#4.	Link	Peppermint box (Eucalyptus odorata) grassy woodland of South Australia and iron-grass natural temper <a href="https://www.dcceew.gov.au/environment/epbc/publications/peppermint-box-eucalyptus-odorata-grassy-woodland-of-south-australia-and-iron-grass-natural-temper">https://www.dcceew.gov.au/environment/epbc/publications/peppermint-box-eucalyptus-odorata-grassy-woodland-of-south-australia-and-iron-grass-natural-temper</a>			High

1.3.2.16 (Person proposing to take the action) Nature of the trust arrangement in relation to the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 12_PMWF Trust Deed.pdf	04/10/2022	High	High

1.3.2.17 (Person proposing to take the action) Proposer's history of responsible environmental management

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Type	Name	Date	Sensitivity	Confidence
#1.	Document Att 13_Tilt_Env_Policy_Nov_23.pdf Tilt Renewables' Environmental Policy	31/10/2023	High	High
#2.	Document Att 14_Tilt_Sustainability_Policy_Nov_2023.pdf Tilt Renewables' Sustainability Policy	31/10/2023	High	High

### 3.1.1 Current condition of the project area's environment

Type	Name	Date	Sensitivity	Confidence
#1.	Link Biological Databases of South Australia <a href="https://www.environment.sa.gov.au/topics/science..">https://www.environment.sa.gov.au/topics/science..</a>		High	
#2.	Link Bushland Assessment Manual <a href="https://www.environment.sa.gov.au/topics/native-..">https://www.environment.sa.gov.au/topics/native-..</a>		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.	Link Grey-headed flying foxes <a href="https://www.greenadelaide.sa.gov.au/discover/nat..">https://www.greenadelaide.sa.gov.au/discover/nat..</a>		High	
#2.	Link Significant Impact Guidelines 1.1 - Matters of National Environmental Significance <a href="https://www.dcceew.gov.au/environment/epbc/publi..">https://www.dcceew.gov.au/environment/epbc/publi..</a>		High	
#3.	Link Spring foraging movements of an urban population of grey-headed flying foxes ( <i>Pteropus poliocephalus</i> ) <a href="https://academic.oup.com/jue/article/7/1/juaa034..">https://academic.oup.com/jue/article/7/1/juaa034..</a>	21/01/2021	High	

## 5.2 Declarations

### Completed Referring party's declaration

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

ABN/ACN	101038331
Organisation name	TILT RENEWABLES AUSTRALIA PTY LTD
Organisation address	3000 VIC

Representative's name	Natalie Taggert
Representative's job title	Senior Environment and Development Planner
Phone	0434198455
Email	natalie.taggert@tilt Renewables.com
Address	L24/600 Bourke St, Melbourne VIC 3000

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

I would like to receive notifications and track the referral progress through the EPBC portal. \*

By checking this box, I, **Natalie Taggert of TILT RENEWABLES AUSTRALIA 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. \*

I would like to receive notifications and track the referral progress through the EPBC portal. \*

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### 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.

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ABN/ACN	101038331
Organisation name	TILT RENEWABLES AUSTRALIA PTY LTD
Organisation address	3000 VIC
Representative's name	James Beckett
Representative's job title	Manager, Planning and Environment
Phone	0419 631 905
Email	james.beckett@tilt Renewables.com
Address	L24/600 Bourke St, Melbourne, VIC 3000

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

I would like to receive notifications and track the referral progress through the EPBC portal. \*

I, **James Beckett of TILT RENEWABLES AUSTRALIA PTY LTD**, 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. \*

I would like to receive notifications and track the referral progress through the EPBC portal. \*

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### **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.

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Same as Person proposing to take the action information.

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

I would like to receive notifications and track the referral progress through the EPBC portal. \*

I, **James Beckett of TILT RENEWABLES AUSTRALIA PTY LTD**, 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. \*

I would like to receive notifications and track the referral progress through the EPBC portal. \*