

# Northern Tablelands Wind Farm

Application Number: **03122**

Commencement Date:  
**11/09/2025**

Status: **Locked**

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## 1. About the project

### 1.1 Project details

#### 1.1.1 Project title \*

Northern Tablelands 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 \*

01/01/2030

#### 1.1.4 Estimated end date \*

01/01/2065

## 1.2 Proposed Action details

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

Northern Tablelands Wind Farm will involve construction, operation, and decommissioning of a wind farm and BESS. The wind farm would consist of up to 76 wind turbines, which would supply up to 608 megawatts (MW,) and a BESS with a capacity of up to 800 MW/1,000 megawatt-hours (MWh) storage into the National Energy Market (NEM). The wind farm would be inter-connected via a series of underground and/or above ground cables connecting the wind turbines to a central substation, which would be located within the footprint for the proposed North Hub, to be constructed by EnergyCo as part of the New England REZ Network Infrastructure Project.

The project is approximately 18 kilometres (km) northwest of Armidale, New South Wales and 25 km north of Uralla and situated within the local government areas (LGAs) of Armidale Regional Council and Uralla Shire Council. The project would occupy an area of about 7,671 hectares (ha) entirely within the New England Renewable Energy Zone (REZ).

The project is intended to be constructed in a single stage, and would include the following key components:

- up to 76 wind turbines, with a maximum tip height of up to 300 metres (m) and a hardstand at the base of each turbine
- a BESS with a discharge rate of up to 800 MW, and a duration depth of up to 1000 MWh
- electrical infrastructure including:
  - up to three substations with a step-up facility
  - underground and overhead electrical reticulation connecting the wind turbines to the central substation
  - a high-voltage connection (330-kilovolt (kV) and 500 kV) to the New England REZ Network Infrastructure Project
- permanent on-site ancillary infrastructure:
  - operations and maintenance facility
  - internal access road network, with access and egress points from and to public roads
  - meteorological masts
  - utility and amenity services.
- potential upgrades to the surrounding local road network for the expected traffic volumes and oversize and/or over mass vehicles during construction, and maintenance during operation
- temporary construction ancillary infrastructure:
  - site compounds, laydown and storage areas
  - quarry sites for construction material (rock for access tracks and hardstands)
  - rock crushing facilities and concrete batching plants
  - temporary meteorological devices (such as meteorological masts)
  - potential construction workforce accommodation on-site.
- site access:
  - via Boorolong Road and Romani Road to the north, and Warrane Road to the east
  - transport route from Port of Newcastle to Boorolong Road and Romani Road would be via New England Highway to the east
- land tenure
  - the project area is freehold land, comprising 77 lots and owned by Origin Energy Power Limited.

The project area and associated disturbance footprint being investigated as part of the scoping phase is a conservative area for early assessment purposes and is likely to be reduced based on final project layout, in consideration of the outcomes of technical and environmental assessments completed for the EIS.

## **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? \***

### ***Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)***

The EPBC Act is administered by the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW). Under the EPBC Act, if the Minister determines that an action is a 'controlled action' which would have or is likely to have a significant impact on a Matter of National Environmental Significance (MNES) or Commonwealth land, then the action may not be undertaken without prior approval of the Minister.

Further flora and fauna studies will confirm biodiversity impacts. At this stage however, given the potential nature and scale of the project, and presence of EPBC Act listed TECs and threatened fauna species, an EPBC Act referral on the basis of potential to significantly impact MNES (i.e. threatened and migratory species) is being undertaken.

### ***Environmental Planning and Assessment Act 1979 (EP&A Act) New South Wales (NSW)***

The project will be assessed under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). It has an estimated development cost of more than \$30 million and is for the purpose of electricity generating works using wind power as an energy source. Accordingly, the project is State significant development (SSD) under Section 4.36 of the EP&A Act.

### ***Biodiversity Conservation Act 2016 (BC Act) NSW***

The project will impact on native vegetation and biodiversity values. SSD projects must enter the Biodiversity Offset Scheme (BOS) and a Biodiversity Development Assessment Report (BDAR) is required to assess biodiversity impacts following the Biodiversity Assessment Method (BAM 2020).

This is likely to trigger biodiversity offset liabilities for the project in accordance with the BC Act (and potentially EPBC Act), with any offset obligations achieved by:

- acquiring or retiring credits that are publicly available or setting up an onsite or offsite Stewardship Site under the BOS
- making payments into the Biodiversity Conservation Fund (generally only suitable for small credit liabilities to risk and premium associated costs)
- funding a biodiversity action that benefits the threatened entity(ies) impacted by the development.

### ***Local Land Services Act 2013NSW***

Under Division 5 clause 60(s) of the LLS Act clearing of native vegetation in a regulated rural area is authorised without any approval or other authority under this Part if it is clearing carried out by or on behalf of the landholder in accordance with a land management (native vegetation) code under this Division. The *Land Management (Native Vegetation) Code 2018* supports landholders undertaking productive and sustainable farming practices, while managing environmental risk. The draft native vegetation regulatory (NVR) map displays all available categories identified in the LLS Act. This includes:

- Category 1-exempt land (draft)
- Category 2-regulated land (draft)
- Category 2-vulnerable regulated land (in-force)
- Category 2-sensitive regulated land (in-force)
- Areas where category 2-sensitive and vulnerable regulated lands overlap (in-force).

The project area consists of:

- Category 1 exempt land – located within previously cleared areas in the valleys that exhibit existing disturbance for grazing. This is the second most dominant category in the project area
- Category 2 regulated land – occurs across the majority of the project area on slopes and ridgetops. This is representative of partially cleared to relatively intact woodland areas across the project area. This is the most dominant category in the project area

- Category 2 vulnerable regulated lands – occurs along riparian habitats and intact woodland on steep slopes. This occurs where the project area intersects riparian areas and within intact woodland in the south-west and south-east of the project area
- Category 2 sensitive regulated land – occurs in two small patches in the centre west of the project area, and a larger patch in the centre east of the project area
- Category 2-sensitive and vulnerable regulated lands areas occur where the above two categories overlap.

#### ***Fisheries Management Act 1994 NSW***

Key Fish Habitat is defined under the *Fisheries Management Act 1994* (FM Act) as aquatic habitat important to the maintenance of fish populations generally, and the survival and recovery of threatened aquatic species.

The project area contains mapped Key Fish Habitat for the Murray Darling Basin North. Key Fish Habitat coincides with the 3rd, 4th and 5th Strahler order streams within the project area. Tributaries of Tigers Gully, Teatree Creek, Dread Gully and Abington creek are mapped as 3rd order streams and Key Fish Habitat, which flow in a north-westerly direction. A small section of Haylock's Creek is mapped as Key Fish Habitat which flows in a south-westerly direction. Boorolong Creek and Toms Creek are the main permanently flowing creeks within the project area. They are mapped as 5th Strahler order streams and Key Fish Habitat and flow south across the centre and eastern border of the project area.

**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. \***

Preliminary consultation undertaken to date including key stakeholders. To date the following stakeholders have been engaged:

- Palgrove Pty Ltd - property manager and lessee (i.e. the property where the proposal is located)
- neighbouring landholders (up to 10 km)
- First Nations stakeholders
- community members and groups
- Armidale Regional Council and Uralla Shire Council
- University of New England
- emergency services
- recreation and tourism groups
- regional media
- environmental groups (New England Climate Action Group, New England Landcare, Sustainable Living Armidale)
- industry and local businesses
- State and Federal Members of Parliament
- government agencies (including the Biodiversity, Conservation and Science Directorate and Heritage Directorate).

The following themes were identified as a result of early engagement during the scoping phase for the project:

- potential property and transport access impacts during construction
- local road and bridge upgrades that may be undertaken as part of the project
- visual changes due to the presence of wind turbine infrastructure
- potential biodiversity impacts including native vegetation removal, carbon offsets and fauna management (particularly for bats, frogs and koalas)
- potential cumulative impacts, including construction fatigue and resource use (such as water, gravel etc)
- job and community benefit opportunities as part of the project.

Origin is committed to genuine ongoing community and stakeholder engagement that helps drive project development in a way that minimises potential environmental and social impacts. Continued engagement with the community and stakeholders will be carried out using a range of tools identified during the preparation of the EIS. This ongoing consultation will be guided by a Community and Stakeholder Engagement Plan for the project which includes the following activities:

- continued direct engagement with involved landholders and property owners
- advertising in local media regarding the project and how additional information can be obtained via the project website
- postal area mail-out to advise of project contact details as well as community information session details
- collaboration with EnergyCo in local, joint community sessions for efficient consultation related to Origin's project and the New England Renewable Energy Zone – North Hub.

General project information and feedback mechanisms would continue to be available during design development and preparation of the EIS. These mechanisms would be complemented with direct community and stakeholder engagement activities focused on:

- providing information and project updates at key stages during design development
- engagement with affected landowners and community groups about the project and key design decisions that may impact them
- engagement and coordination with EnergyCo and other renewable energy developers particularly around project interfaces and in relation to cumulative impacts
- engagement with regulatory agencies to ensure a complete and robust EIS.

The EIS will also be accompanied by an Aboriginal Cultural Heritage Assessment Report undertaken in consultation with registered Aboriginal parties. Origin has completed the first consultation step under Stage 1 of the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010) with the notification and registration period taking place between 29 April 2025 and 28 May 2025, and a total of 24 parties registering for the project.

## 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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**Confirm that you have read and understand this Privacy Notice \***

### **1.3.1.1 Is Referring party an organisation or business? \***

No

Referring party details

<b>Name</b>	Sarah Beitel
<b>Job title</b>	Senior Approvals Advisor
<b>Phone</b>	0405163842
<b>Email</b>	sarah.beitel@originenergy.com.au
<b>Address</b>	180 Ann St, Brisbane City, 4000, QLD, Australia

## 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** 674580717  
**Organisation name** NORTHERN TABLELANDS WF PROJECT PTY LTD  
**Organisation address** 2000 NSW

Person proposing to take the action details

**Name** Lauren Barnaby  
**Job title** Group Manager - Approvals Access and Social Advocacy  
**Phone** 0472879898  
**Email** lauren.barnaby@originenergy.com.au  
**Address** 180 Ann Street, Brisbane, 4000

**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. \***

Northern Tablelands WF Project Pty Ltd (NTWFP) as the trustee for Northern Tablelands WF Project Trust is a wholly owned subsidiary of Origin Energy Power Limited (OEPL), which in turn is held by Origin Energy Limited (OEL) an Australian Securities Exchange (ASX) listed entity. Please refer attached Trust Deed.

**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. \***

The Proponent is a wholly-owned subsidiary of Origin Energy Limited (Origin Energy), an environmentally responsible company committed to conducting its business in a manner which ensures high standards of environmental management and performance.

As Australia's largest energy retailer, Origin Energy has committed to achieve net-zero emissions by 2050. Origin Energy continues to implement the recommendations by the Task Force on Climate-related Financial Disclosures (TCFD) to disclose climate-related risks and opportunities. The established emissions reduction goals and climate change reporting commitments align with Origin Energy's strategic priority to effectively manage the transition to a low-carbon economy. Origin Energy is a member of the We Mean Business coalition with the aim of accelerating corporate action on climate change. In 2015 Origin Energy was the first energy company in the world to sign up to seven commitments as follows:

- Report climate change information
- Commit responsible corporate engagement in climate policy
- Adopt a science-based emissions reduction target
- Set measures to factor in a cost of carbon internally, to judge its effect on investment decisions to drive down carbon emissions
- Become Australia's leading renewable and low-carbon energy provider, helping customers to procure electricity from renewable sources and procure 100 per cent of energy from renewable sources for Origin Energy's office premises, and where possible, all other operations by 2050
- Reduce short-lived climate pollutants (SLCPs) (that contribute to greenhouse gas emissions)
- Remove commodity-driven deforestation from all supply chains.

As part of Origin Energy's sustainability objectives, Origin Energy aims to reduce the greenhouse gas intensity of its energy production and distribution and non-producing assets. Origin Energy also takes all feasible steps to eliminate or minimise any adverse impact that its activities have on the environment. More information about Origin Energy's environmental history and details about specific activities undertaken as part of its responsible environmental management is available in its annual Sustainability Reports on Origin Energy's website; **Sustainability reports - Origin Energy**.

Origin Energy and its subsidiaries have previously referred the following projects under the EPBC Act:

- EPBC 2025/10179 - Yanco Delta Wind Farm (NSW)
- EPBC 2025/10195 - Yanco Delta Wind Farm - Dinawan Transmission Line (NSW)
- EPBC 2024/09788 - Darling Downs Battery Energy Storage System (Qld)
- EPBC 2022/09293 - Shoalhaven Hydro Expansion (NSW)
- EPBC 2021/8956 - Eraring Battery Energy Storage System (NSW)
- EPBC 2010/5417 – Darling Downs Power Station 2 (Qld)
- EPBC 2009/4913 – Gas Pipeline Crossing at Mount Emu Creek (Vic)
- EPBC 2006/2881 – Water pipelines, Mortlake Power Station (Vic)
- EPBC 2005/1995 - Construction and operation of a gas fired power station (Qld)
- EPBC 2005/1984 – Victorian Generator Project (Vic)

The Proponent does not have any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against them.

### **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**

One of Origin Energy's core values is caring about its impact – on each other, the environment and the communities in which it works. Origin Energy's Health, Safety and Environment Policy describes how the company thinks about, plans and manages health, safety and environmental (HSE) risks and initiatives across the business.

The Proposed Action will be undertaken in accordance with Origin Energy's environmental policy and framework - [https://www.originenergy.com.au/wp-content/uploads/origin\\_our\\_approach\\_environment.pdf](https://www.originenergy.com.au/wp-content/uploads/origin_our_approach_environment.pdf)

Origin's Health Safety and Environment Policy is built around:

**Our principle duty of care** – We care about the wellbeing of our people and our impact on the environment.

**Our HSE aspiration** – To conduct our business in a way that causes no harm to the health and safety of people and has no unforeseen impacts to the environment.

Origin Energy is committed to protecting the environment and consequently manages health, safety and environment (HSE) matters as critical business activities. In support of Origin Energy's overarching Health, Safety and Environment Policy, Origin Energy's HSE Management System ensures that environmental risks associated with Origin's operations are either avoided or kept to as low as reasonably practicable. Origin Energy aims to comply with all environmental regulations and conditions attached to approvals to operate, and promptly reports any non-compliance to relevant authorities as part of its ongoing commitment of responsible environmental management.

The HSE Management System mandates the minimum performance-based outcomes for managing HSE risks and/or impacts and conforms to the requirements of ISO 14001.

The Origin Corporate Governance Structure assesses the environmental and social risks associated with operations and projects. Operations are managed using policies and procedures to control remaining environmental and social risks. Projects are developed with precautionary engineering and management measures in place to mitigate or manage key environmental and social risks. Local communities and other stakeholders are consulted through the life cycle of an asset to understand and manage the environmental, economic, and social impacts of activities and to maximise the benefits. Environmental and social risk management is subject to periodic audits and assurance.

### 1.3.3 Identity: Proposed designated proponent

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

Yes

Proposed designated proponent organisation details

**ABN/ACN** 674580717  
**Organisation name** NORTHERN TABLELANDS WF PROJECT PTY LTD  
**Organisation address** 2000 NSW

Proposed designated proponent details

**Name** Lauren Barnaby  
**Job title** Group Manager - Approvals Access and Social Advocacy  
**Phone** 0472879898  
**Email** lauren.barnaby@originenergy.com.au  
**Address** 180 Ann Street, Brisbane, 4000

## 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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Name	Sarah Beitel
Job title	Senior Approvals Advisor
Phone	0405163842
Email	sarah.beitel@originenergy.com.au
Address	180 Ann St, Brisbane City, 4000, QLD, Australia

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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	674580717
Organisation name	NORTHERN TABLELANDS WF PROJECT PTY LTD
Organisation address	2000 NSW
Representative's name	Lauren Barnaby
Representative's job title	Group Manager - Approvals Access and Social Advocacy
Phone	0472879898
Email	lauren.barnaby@originenergy.com.au
Address	180 Ann Street, Brisbane, 4000

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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

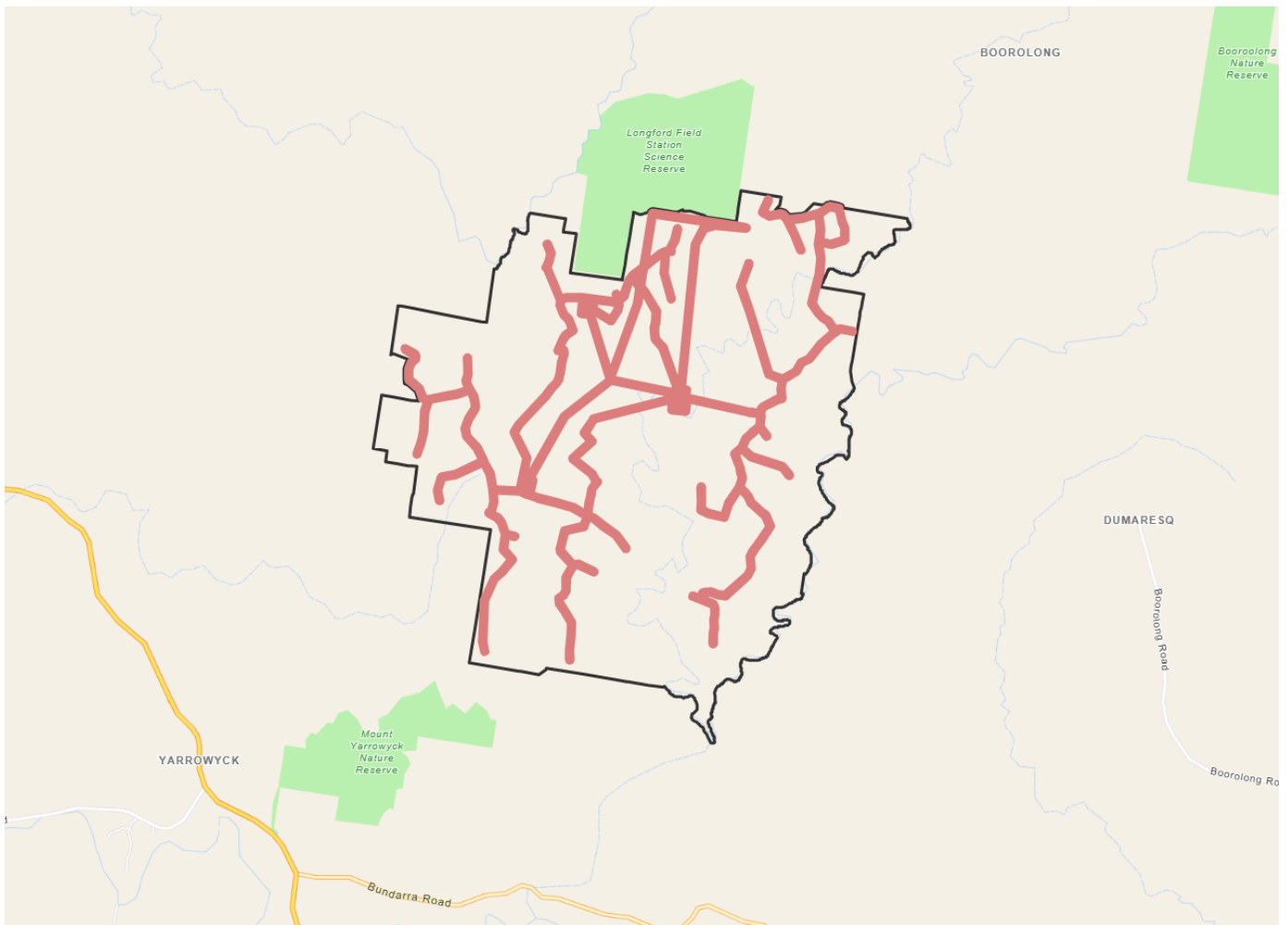
## 1.4 Payment details: Payment allocation

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

Referring party

## 2. Location

## 2.1 Project footprint



**Project Area: 7696.53 Ha Disturbance Footprint: 1515.63 Ha**

## 2.2 Footprint details

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

1188 Warrane Road, Boorolong, NSW 2350

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

New South Wales

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

No

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

The Proposed Action would be located on land that is predominantly freehold comprising 77 lots and owned by Origin Energy Power Limited. Additionally, the project area contains areas of Crown land 'paper roads'.

## 3. Existing environment

## 3.1 Physical description

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

The project is approximately 18 km northwest of Armidale, New South Wales, within the LGAs of Armidale Regional Council and Uralla Shire Council. The project would occupy an area of about 7,671 ha and occurs within the Armidale Plateau subregion of the New England Tablelands Interim Biogeographic Regionalisation for Australia (IBRA). This subregion is characterised by undulating to hilly plateaus at 1,100 m on Permian sedimentary rocks, intrusive granites and extensive Tertiary basalts.

Analysis of broadscale mapping indicates that project area comprises of a mix of native woodland predominantly along the ridgelines, hilly areas and slopes. Derived grassland and pasture occur where historical clearing has occurred for cattle grazing. Dominant vegetation includes *Eucalyptus melliodora* (Yellow Box), *Eucalyptus blakelyi* (Blakely's Red Gum), *Angophora floribunda* (Rough-barked Apple), and *Eucalyptus bridgesiana* (Apple Box) on sedimentary rocks. *Eucalyptus laevopinea* (Silver-top Stringybark), *Eucalyptus caliginosa* (New England Stringybark) are found on dry slope aspects. *Eucalyptus blakelyi* (Blakely's Red Gum), *Eucalyptus melliodora* (Yellow Box) and *Eucalyptus bridgesiana* (Apple Box) occur on moist, well-drained slopes, and Ribbon gum species occur on flats. Rockplate shrubland occurs on ridgelines of intrusive granites and are typified by *Eucalyptus prava* and a dense shrub layer. Major waterways such as Boorolong Creek and Toms Creek are lined with *Casuarina cunninghamiana* subsp. *Cunninghamiana*. The dominant land use within the project area is cattle farming.

Vegetation within the locality has been subject to historic grazing and clearing for agriculture as early as the 1830s which has subsequently led to gaps in connectivity and fragmentation within the landscape. However, within the project area there is still a large expanse of land which provides connectivity particularly along vegetated ridgelines connecting the northern extent of the project area to the south. There are two main ridgelines which begin at the northern boundary and provide a large buffer of vegetation connecting the project area to Bulagaranda (Mount Yarrowyck) Aboriginal Area, south-west of the project area.

There are multiple first to sixth Stahler order streams within the project area. The main permanently flowing tributaries are Boorolong Creek and Toms Creek which flow north to south across the centre and eastern edge of the project area. Boorolong Creek flows into the Gwydir River approximately 10 km south of the project area. First, second and third order sections of Rileys Creek, flowing into Boorolong Creek, intersect the project area in the north-east. The third order or greater streams are considered Key Fish Habitat for the Murray Darling Basin North under the NSW *Fisheries Management Act 1994*. All watercourses within the project area are a part of the Gwydir River catchment area. Watercourses would require buffers to avoid development impacts.

No wetlands are mapped within the project area, although there are several farm dams which supply a water resource to stock grazing over the land. The largest of the dams occurs along a section of Rileys Creek. The water body spans about 1 km by 150 m at the widest point. Farm dams may also provide habitat for a range of aquatic bird species which were observed utilising the dams during survey boundary investigations. The closest wetland is Little Llangothlin Nature Reserve, located 40 kilometres north-east of the project area, and not connected hydrologically to the project area. Little Llangothlin Nature Reserve is a Ramsar wetland.

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

The predominant existing land use within the project area is cattle farming. Physical structures also occur such as residential dwellings, staff accommodation facilities, shearing sheds, roads, fences, farm infrastructure and dams. Grazing/farming activities are expected to continue following completion of the proposed development.

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

High biodiversity value watercourses occur throughout the project area. Tributaries of Tigers Gully, Teatree Creek, Dread Gully and Abington Creek are mapped as third order streams and Key Fish Habitat by the Department of Primary Industries, which flow in a north-westerly direction. A small section of Haylock's Creek is mapped as Key Fish Habitat which flows in a south-westerly direction. Boorolong Creek and Toms Creek are the main permanently waterways intersecting the centre and eastern border of the project area. Boorolong Creek and Toms Creek are mapped as fifth Strahler order streams and Key Fish Habitat and flow into the Gwydir River.

Two EPBC Act listed threatened ecological communities are associated with the plant community types mapped within the project area being:

- White Box-Yellow Box- Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- New England Peppermint (*Eucalyptus nova-anglica*) Grassy Woodlands.

Both communities are listed as critically endangered under the EPBC Act and are likely to occur within the project area.

Patches of PCT 3359 and 3363, which are dominated by *Eucalyptus melliodora* (Yellow Box) and *Eucalyptus blakelyi* (Blakely's Red Gum), are likely to conform to the White Box-Yellow Box- Blakely's Red Gum Grassy Woodland and Derived Native Grassland. Additionally, areas that are lacking canopy cover but are dominant in native tussock grasses such as *Poa spp.* and *Rytidosperma spp.* may conform to the derived form of this community.

Patches of woodland along Boorolong Creek and Rileys Creek have occurrences of *Eucalyptus nova-anglica*, and may conform to the EPBC Act listed New England Peppermint (*Eucalyptus nova-anglica*) Grassy Woodlands threatened ecological community.

### **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 project area is dominated by moderate slopes (between 5 to 18 degrees), with some areas of more gentle slopes (less than 5 degrees), and some steep slopes (greater than 18 degrees) and crests/spurs. Elevation ranges between 960 m to 1,250 m Australian Height Datum (AHD), with the highest point in the southwestern parts of the project area.

Three main ridgelines run north-south through the middle of the project area with some higher peaks in the southwest parts of the project area. Terrain is predominantly undulating with some flat land occurring to the east.

Geology includes Permian sedimentary rocks, intrusive granites and extensive Tertiary basalts.

## 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.**

Flora and fauna surveys are ongoing within the project area.

Preliminary biodiversity surveys are documented within the Preliminary Biodiversity Assessment Report (RPS 2025), which is provided in **Attachment 1**. Flora and fauna data has been compiled through preliminary site assessment, document and database review including review of statewide vegetation mapping, flora and fauna records contained in the New South Wales BioNet database and Matters of National Environmental Significance (MNES) in the Protected Matters Search Tool (in **Appendix C of Attachment 1**). Desktop searches were undertaken in May 2024 and April 2025 for threatened species occurring within 10 km of the project area.

### Threatened Ecological Communities

Two EPBC Act listed Threatened Ecological Communities (TECs) are associated with the vegetation communities mapped within the project area being:

- White Box-Yellow Box- Blakely's Red Gum Grassy Woodland and Derived Native Grassland Critically Endangered Ecological Community (CEEC) and
- New England Peppermint (*Eucalyptus nova-anglica*) Grassy Woodlands CEEC.

### Threatened Fauna

One EPBC Act listed threatened fauna species has been identified in the project area being the Diamond Firetail (*Stagonopleura guttata*; Vulnerable). Previous records of the White-throated Needletail (*Hirundapus caudacutus*) have been recorded at Rileys Creek dam in the northeast of the project area and multiple occurrences of the Koala (*Phascolarctos cinereus*) have been recorded outside of the project area on neighbouring properties and public roads. A total of 30 threatened and/or migratory fauna species were deemed to have a moderated or greater likelihood of occurrence within the project area based on habitat suitability as follows:

- Booroolong Frog (*Litoria booroolongensis*)- Endangered
- Yellow-spotted Tree Frog (*Litoria castanea*) - Critically Endangered
- Glandular Frog (*Litoria subglandulosa*) – Vulnerable
- Stuttering Frog (*Mixophyes balbus*) - Vulnerable
- Regent Honeyeater (*Anthochaera phrygia*) - Critically Endangered
- Southern Whiteface (*Aphelocephala leucopsis*) – Vulnerable
- Fork-tailed Swift (*Apus pacificus*) - Vulnerable
- Australasian Bittern (*Botaurus poiciloptilus*) - Endangered
- Sharp-tailed Sandpiper (*Calidris acuminata*) – Vulnerable, migratory
- South-eastern Glossy Black-Cockatoo (*Calyptorhynchus lathami lathami*) – Vulnerable
- Brown Treecreeper (eastern subspecies) (*Climacteris picumnus victoriae*) – Vulnerable
- Latham's Snipe (*Gallinago hardwickii*) – Vulnerable, migratory
- Painted Honeyeater (*Grantiella picta*) - Vulnerable
- White-throated Needletail (*Hirundapus caudacutus*) – Vulnerable, migratory
- Swift Parrot (*Lathamus discolor*) - Critically Endangered
- Hooded Robin (south-eastern form (*Melanodryas cucullata cucullate*) – Endangered
- Australian Painted Snipe (*Rostratula australis*) - Endangered
- Diamond Firetail (*Stagonopleura guttata*) - Vulnerable
- Common Greenshank (*Tringa nebularia*) – Endangered, migratory
- Large-eared Pied Bat (*Chalinolobus dwyeri*) - Endangered
- Spotted-tailed Quoll (*Dasyurus maculatus*) – Endangered
- Corben's Long-eared Bat (*Nyctophilus corbeni*) - Vulnerable
- Greater Glider (*Petauroides volans*) – Endangered
- Yellow-bellied Glider (*Petaurus australis*)- Vulnerable
- Brush-tailed Rock-wallaby (*Petrogale penicillata*) - Vulnerable
- Koala (*Phascolarctos cinereus*) – Endangered

- Grey-headed Flying-fox (*Pteropus poliocephalus*) – Vulnerable.
- Western Sawshelled Turtle, Bell's Turtle (*Myuchelys bellii*) - Endangered
- Border Thick-tailed Gecko (*Uvidicolus sphyrurus*)- Vulnerable
- Murray Cod (*Maccullochella peelii*) – Vulnerable.

### Threatened Flora

No EPBC Act listed threatened flora species have been identified in the project area. Fourteen threatened flora species were deemed to have a moderate or greater likelihood of occurrence within the project area based on habitat suitability as follows:

- *Acacia pubifolia* (Velvet Wattle) - Vulnerable
- *Boronia granitica* (Granite Boronia) – Endangered
- *Caladenia amnicola* - Endangered
- *Callistemon pungens* - Vulnerable
- *Dichanthium setosum* (Bluegrass) - Vulnerable
- *Diuris pedunculata* (Small Snake Orchid) – Endangered
- *Eucalyptus caleyi* subsp. *Ovendenii* (Ovenden's Ironbark) - Vulnerable
- *Eucalyptus mckieana* (McKie's Stringybark) - Vulnerable
- *Eucalyptus nicholii* (Narrow-leaved Black Peppermint) - Vulnerable
- *Eucalyptus rubida* subsp. *barbigerorum* (Blackbutt Candlebark) – Vulnerable
- *Picris evae* (Hawkweed) - Vulnerable
- *Pimelea venosa* (Bolivia Hill Rice-flower) - Endangered
- *Thesium austral* (Austral Toadflax) – Vulnerable
- *Vincetoxicum forsteri* (*Tylophora linearis*) - Endangered.

The project area contains the following key fauna habitats:

- Watercourses, dams and localised wetlands or soaks providing aquatic habitat for waterbird species, amphibian species, fish and turtle species.
- Extensive woodland provides fruiting and flowering trees including mistletoes and winter flowering eucalyptus, providing seasonal foraging habitat for nectivorous bird and mammal species; stand of *Allocasuarina* lining waterways provides specialist feeding habitat for granivorous bird species; and koala feed trees.
- Hollow bearing trees are generally limited to small hollow sizes (5-10 cm) which would provide breeding habitat for small arboreal mammals and birds.

Plentiful ground logs and rock outcrops would provide sheltering habitat for reptile species and ground mammals.

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

Rapid vegetation assessment was undertaken in May 2024 at 54 of the 76 proposed turbine locations. An additional 21 vegetation plots were undertaken in January 2025. Vegetation mapping was aided by existing state vegetation type mapping, analysis of rapid vegetation assessment, tree canopy species mapping and analysis of full floristic plot data to determine the best fit Plant Community Type (PCT). Vegetation mapping is ongoing, however, in this preliminary phase 17 native PCTs are mapped within the project area:

- PCT 3344: New England Ribbon Gum Grassy Forest
- PCT 3351: Armidale Creekflat Snow Gum Woodland-Scrub
- PCT 3353: Guyra Silvertop Stringybark Moist Forest
- PCT 3359: New England Hills Stringybark-Box Woodland
- PCT 3363: Western New England Blakely's Red Gum-Box Grassy Forest
- PCT 3702: Northwest New England Ranges Caley's Ironbark Woodland
- PCT 3705: Western New England Hills Apple-Stringybark Forest
- PCT 3710: Western New England Hills Orange Gum-Ironbark Forest
- PCT 3722: Western New England Box-Tumbledown Gum Grassy Forest
- PCT 3724: Western New England Caley's Ironbark-Tumbledown Gum Forest
- PCT 3725: Western New England Ranges Orange Gum-Blackbutt Forest
- PCT 3727: Western New England Silvertop Stringybark Forest
- PCT 3728: Western New England Hills Blackbutt-Stringybark Forest
- PCT 3729: Western New England Youmans Stringybark Shrub Forest
- PCT 3854: New England Rockplate Shrubland
- PCT 4125: New England Youmans Stringybark-Box Forest
- PCT 4142: New England Hills Red Gum-Stringybark Shrub Forest

About half the project area is dominated by derived native grassland where historical clearing and grazing has removed the canopy and mid stratum however native grasses persist. Derived native grassland is dominated by native species such as *Rytidosperma* spp., *Anthosachne scabra*, *Lachnagrostis filiformis*, *Bothriochloa macra*, *Dichelachne* spp. and *Juncus* spp. The other half of the project area contains diverse woodland communities in varying condition. Intact woodland is common across steeper slopes and ridges, whilst on gentler slopes and undulating hills the woodland communities display grazing impacts such as disturbance or clearing of midstorey vegetation. A variety of PCTs are typical of dry slope aspects including PCT 3728, 3727, 3729, 3359. These PCTs are dominant in an assemblage of stringybarks (*Eucalyptus caliginosa*, *Eucalyptus youmanii*, *Eucalyptus laevopinea*), box gums (*Eucalyptus melliodora*, *Eucalyptus bridgesiana*, *Eucalyptus banksii*) and *Eucalyptus andrewsii* (New England blackbutt). The vegetation grades into PCT 3363 on moist, well drained slopes with dominant eucalyptus being *Eucalyptus blakelyi* (Blakely's Red Gum) and *Eucalyptus melliodora* (Yellow Box). Rockplate shrubland (PCT 3854) occurs on ridgelines of intrusive granites and is characterised by a canopy of *Eucalyptus prava* and a dense shrub layer. Major waterways such as Boorolong Creek and Toms Creek are lined with *Casuarina cunninghamiana* subsp. *Cunninghamiana* typical of PCT 4080.

Soils across the project area consist of Yellow Earths predominately along the rises across. Soils become gradually more clayey with depth, are weakly structured and are not as well drained. Red-Yellow Podzolic Soils occur along Boorolong Creek which are a poor soil with many limitations, including low soil pH, low clay content, low aggregate stability, low nutrient content, and susceptibility to compaction. Organic matter is the only indicator of fertility in these soils. The soil is highly erodible and more acidic on the surface than subsoil. Yellow Podzolic Soils are less fertile soils that occur within the valleys predominately on the western side of the project area. Lithosols occur along a distinct ridge in the southwest of the project area. A type of azonal soil consisting chiefly of unweathered or partly weathered rock fragments, usually found on steep slopes.

## 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.

A desktop search was conducted on 13 August 2024 to identify whether any recorded heritage is present within the project area. No National heritage, Commonwealth heritage, State heritage items, or items listed on a Section 170 Heritage Register or the heritage schedule of the Uralla Local Environmental Plan 2012 were identified within the project area.

A search of the heritage schedule of the Armidale Local Environmental Plan 2012 identified one item of local significance within the project area being the 'Homestead, "Warrane"' (I246) demonstrating historical, aesthetic and representative value.

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

The project area is located on the traditional lands of the Nganyaywana; also known as the Anaiwan people, who have lived in the region for more than 6,000 years (Horton, 1994).

Norman Tindale (1974) recorded the location of the Anaiwan as being within the “New England tableland from Guyra and Ben Lomond south to Uralla and Moombie Range; northwest to Tingha; at Bendemeer and Armidale”. Clayton-Dixon (2019) notes that the Anēwan (Anaiwan) language group was located near Armidale. Yaniwan and Anēwan are part of the same group of languages.

The project is located within the Armidale Local Aboriginal Land Council (LALC) and the Guyra LALC. There are no native title claims or determinations within the project area.

Watercourses within the project area would have been suitable to support either long-or short-term occupation. Numerous unnamed ephemeral drainage lines are also present although many of these are V-shaped gullies which would not have held water except immediately following rainfall.

Previous studies within the New England Tablelands region (Belshaw 1978, Davidson 1978, EMM 2018, Flood 2010) indicate that:

- Gently inclined slopes are generally hospitable landforms; however, their archaeological potential often relies on proximity to reliable watercourses
- Moderate to steep slopes are a degrading landform, especially in the project area where vegetation removal has accelerated soil loss. These landforms are unsuitable for occupation and Aboriginal objects recorded in such landforms are likely to be in a secondary context
- Steeper slopes are often distant to water and are unsuitable for occupation
- Ridgelines and spurs were commonly used as pathways and for ceremonial purposes. Any sites associated with such landforms are likely to have a low artefact density and a low complexity of tool types as the sites are either one-off events or only infrequently used
- Ridge and crest landforms in proximity to more major creeks, such as those within the project area, were favoured occupation locations. Should Aboriginal objects be recorded in these landforms, they are likely to be surface manifestations and likely displaced from their primary depositional context
- The New England Tablelands have a high number of ceremonial sites and the distribution of ceremonial sites and Bora grounds across the landscape is somewhat unpredictable as the choice of their location appears to be based on spiritual reasons rather than simply landscape features and resources
- There is a general lower frequency of culturally modified trees recorded within the New England Tablelands however can be recorded anywhere with a greater likelihood near to reliable watercourses.

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) database was completed for the project on 9 August 2024. The search identified one rockshelter with art (Aboriginal site 20-3-0025 [Merrifield Strathroy]) located in the project area, however the site card details indicated it is located 12 km west of the project area and would not be impacted.

The project area is situated northeast of the Bulagaranda Aboriginal Area, known formerly as the Mount Yarrowyck Nature Reserve. Bulagaranda translates to ‘turkey dreaming’ and encompasses approximately 600 ha of land. The area is a significant place to the Anaiwan community and is part of their song lines with several significant Aboriginal sites present including one Aboriginal rock art site.

Further investigations will be undertaken as part of the Aboriginal Cultural Heritage Assessment Report (ACHAR) for the EIS. A site survey will be undertaken with the assistance of the Aboriginal community to identify any Aboriginal objects that may be present, as well as identifying any landforms where subsurface archaeological deposits may be present or any areas/landforms of cultural significance. The results of the survey will indicate whether test excavation at any specific landforms is warranted.

## 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. \*

There are multiple first to sixth Strahler order streams within the project area. The main permanently flowing tributaries are Boorolong Creek and Toms Creek which flow north to south across the centre and eastern edge of the project area. Boorolong Creek flows into the Gwydir River approximately 10 km south of the project area. First, second and third order sections of Rileys Creek, flowing into Boorolong Creek, intersect the project area in the north-east. The third order or greater streams in the project area are considered Key Fish Habitat for the Murray Darling Basin North under the NSW *Fisheries Management Act 1994*.

All watercourses within the project area are a part of the Gwydir River catchment area. Medium potential Groundwater Dependent Ecosystems occur along Boorolong Creek and Toms Creek consisting of PCT 84 River Oak - Rough-barked Apple - red gum - box riparian tall woodland (wetland) of the Brigalow Belt South and Nandewar Bioregions.

No wetlands are mapped within the project area, although there are several farm dams which supply a water resource to stock grazing over the land. The largest of the dam occurs along a section of Rileys Creek. The water body spans about 1 km by 150 m at the widest point.

The closest Ramsar Wetland is the Little Llangothlin Nature Reserve, located 40 km north-east of the project area and not connected hydrologically to the project area. Little Llangothlin Nature Reserve is a Ramsar wetland, its significance due to the wetland being one of the few high-altitude freshwater lagoons in New South Wales in near-natural condition. Gwydir Ramsar wetlands are also located 230 km north-west from the project area.

## 4. Impacts and mitigation

## 4.1 Impact details

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

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

### **4.1.1 World Heritage**

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

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

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

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

No

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

\*

There are no World Heritage Properties within, or proximate to the Project Area which could be impacted by the Proposed Action.

### **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 National Heritage Places within, or proximate to the Project Area which could be impacted by the Proposed Action.

### **4.1.3 Ramsar Wetland**

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

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

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

Direct impact	Indirect impact	Ramsar wetland
Yes		Banrock Station Wetland Complex
Yes		Gwydir Wetlands: Gingham and Lower Gwydir (Big Leather) Watercourses
Yes		Riverland
Yes		The Coorong, and Lakes Alexandrina and Albert Wetland

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

No

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

\*

No Ramsar Wetlands occur within the project area. The closest Ramsar Wetland is the Little Llangothlin Nature Reserve, located 40 km north-east of the project area, and not connected hydrologically. Little Llangothlin Nature Reserve is a Ramsar wetland, its significance due to the wetland being one of the few high-altitude freshwater lagoons in New South Wales in near-natural condition. The Little Llangothlin Nature Reserve is in the headwaters of the Clarence River catchment and is a Tableland Semi-permanent Shallow Wetland high priority Groundwater Dependent Ecosystem.

The project area is within the Gwydir River catchment area and waterways within the project area generally flow in a southwest direction away from the Little Llangothlin Nature Reserve Ramsar site. Due to the scope of the project, the lack of connectivity and large distance between the project area and Little Llangothlin Nature Reserve Ramsar site, it is highly unlikely that direct or indirect impacts to the wetlands will occur as a result of the proposed action.

**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
Yes	Yes	<i>Acacia pubifolia</i>	Velvet Wattle
Yes	Yes	<i>Anthochaera phrygia</i>	Regent Honeyeater
Yes	Yes	<i>Aphelocephala leucopsis</i>	Southern Whiteface
No	No	<i>Aprasia parapulchella</i>	Pink-tailed Worm-lizard, Pink-tailed Legless Lizard
No	No	<i>Arthraxon hispidus</i>	Hairy-joint Grass
Yes	Yes	<i>Boronia granitica</i>	Granite Boronia
Yes	Yes	<i>Botaurus poiciloptilus</i>	Australasian Bittern
No	No	<i>Cadellia pentastylis</i>	Ooline
Yes	Yes	<i>Caladenia amnicola</i>	
Yes	Yes	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper
No	No	<i>Calidris ferruginea</i>	Curlew Sandpiper
Yes	Yes	<i>Callistemon pungens</i>	
Yes	Yes	<i>Calyptorhynchus lathami lathami</i>	South-eastern Glossy Black-Cockatoo
Yes	Yes	<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat, Large Pied Bat
Yes	Yes	<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (south-eastern)
Yes	Yes	<i>Dasyurus maculatus maculatus</i> (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)
Yes	Yes	<i>Dichanthium setosum</i>	bluegrass
Yes	Yes	<i>Diuris pedunculata</i>	Small Snake Orchid, Two-leaved Golden Moths, Golden Moths, Cowslip Orchid, Snake Orchid
No	No	<i>Erythroriorchis radiatus</i>	Red Goshawk
No	No	<i>Euastacus maccai</i>	Terrestrial Crayfish

<b>Direct impact</b>	<b>Indirect impact</b>	<b>Species</b>	<b>Common name</b>
Yes	Yes	<i>Eucalyptus caleyi</i> subsp. <i>ovendenii</i>	Ovenden's Ironbark
Yes	Yes	<i>Eucalyptus mckieana</i>	McKie's Stringybark
Yes	Yes	<i>Eucalyptus nicholii</i>	Narrow-leaved Peppermint, Narrow-leaved Black Peppermint
Yes	Yes	<i>Eucalyptus rubida</i> subsp. <i>barbigerorum</i>	Blackbutt Candlebark
No	No	<i>Euphrasia arguta</i>	
No	No	<i>Falco hypoleucos</i>	Grey Falcon
Yes	Yes	<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe
Yes	Yes	<i>Grantiella picta</i>	Painted Honeyeater
Yes	Yes	<i>Hirundapus caudacutus</i>	White-throated Needletail
Yes	Yes	<i>Lathamus discolor</i>	Swift Parrot
Yes	Yes	<i>Litoria booroolongensis</i>	Booroolong Frog
Yes	Yes	<i>Litoria castanea</i>	Yellow-spotted Tree Frog, Yellow-spotted Bell Frog
Yes	Yes	<i>Litoria subglandulosa</i>	New England Tree Frog, Glandular Frog
Yes	Yes	<i>Maccullochella peelii</i>	Murray Cod
Yes	Yes	<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin, Hooded Robin (south-eastern)
Yes	Yes	<i>Mixophyes balbus</i>	Stuttering Frog, Southern Barred Frog (in Victoria)
Yes	Yes	<i>Myuchelys bellii</i>	Western Sawshelled Turtle
No	No	<i>Neophema chrysostoma</i>	Blue-winged Parrot
Yes	Yes	<i>Nyctophilus corbeni</i>	Corben's Long-eared Bat, South-eastern Long-eared Bat
Yes	Yes	<i>Petauroides volans</i>	Greater Glider (southern and central)
Yes	Yes	<i>Petaurus australis australis</i>	Yellow-bellied Glider (south-eastern)
Yes	Yes	<i>Petrogale penicillata</i>	Brush-tailed Rock-wallaby
Yes	Yes	<i>Phascolarctos cinereus</i> (combined populations of Qld, NSW and the	Koala (combined populations of Queensland, New South Wales and the

Direct impact	Indirect impact	Species	Common name
		ACT)	Australian Capital Territory)
Yes	Yes	<i>Picris evae</i>	Hawkweed
Yes	Yes	<i>Pimelea venosa</i>	Bolivia Hill Rice-flower
No	No	<i>Polytelis swainsonii</i>	Superb Parrot
No	No	<i>Potorous tridactylus tridactylus</i>	Long-nosed Potoroo (northern)
No	No	<i>Pseudomys novaehollandiae</i>	New Holland Mouse, Pookila
Yes	Yes	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox
No	No	<i>Rostratula australis</i>	Australian Painted Snipe
Yes	Yes	<i>Stagonopleura guttata</i>	Diamond Firetail
Yes	Yes	<i>Thesium australe</i>	Austral Toadflax, Toadflax
Yes	Yes	<i>Tringa nebularia</i>	Common Greenshank, Greenshank
Yes	Yes	<i>Uvidicolus sphyrurus</i>	Border Thick-tailed Gecko, Granite Belt Thick-tailed Gecko
Yes	Yes	<i>Vincetoxicum forsteri</i>	

### Ecological communities

Direct impact	Indirect impact	Ecological community
Yes	Yes	New England Peppermint ( <i>Eucalyptus nova-anglica</i> ) Grassy Woodlands
Yes	Yes	White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

**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. \***

The construction of wind turbine infrastructure, electrical infrastructure, access roads and associated temporary and permanent ancillary infrastructure for the operation of the project would require clearing of vegetation and earthworks. The preliminary disturbance area (inclusive of a 200 m wide survey corridor) associated with the project footprint and based on the current indicative layout is 1,508 ha. The survey boundary adopted for this assessment represents a precautionary extent and does not reflect the final disturbance footprint, which will be subject to further refinement as the project progresses.

The preliminary biodiversity assessment (Attachment 1) has determined the following MNES are at potential risk of impact:

### Threatened Ecological Communities

- White Box-Yellow Box- Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC
- New England Peppermint (*Eucalyptus nova-anglica*) Grassy Woodlands CEEC.

### Threatened Fauna

One EPBC Act listed threatened fauna species has been identified in the project area being the Diamond Firetail (*Stagonopleura guttata*; Vulnerable). Previous records of the White-throated Needletail (*Hirundapus caudacutus*) have been recorded at Rileys Creek dam in the northeast of the project area and multiple occurrences of the Koala (*Phascolarctos cinereus*) have been recorded outside of the project area on neighbouring properties and public roads. A total of 30 threatened/migratory fauna species were deemed to have a moderated or greater likelihood of occurrence within the project area based on habitat suitability as follows:

- Booroolong Frog (*Litoria booroolongensis*)- Endangered
- Yellow-spotted Tree Frog (*Litoria castanea*) - Critically Endangered
- Glandular Frog (*Litoria subglandulosa*) – Vulnerable
- Stuttering Frog (*Mixophyes balbus*) - Vulnerable
- Regent Honeyeater (*Anthochaera phrygia*) - Critically Endangered
- Southern Whiteface (*Aphelocephala leucopsis*) – Vulnerable
- Fork-tailed Swift (*Apus pacificus*) - Vulnerable
- Australasian Bittern (*Botaurus poiciloptilus*) - Endangered
- Sharp-tailed Sandpiper (*Calidris acuminata*) – Vulnerable, migratory
- South-eastern Glossy Black-Cockatoo (*Calyptorhynchus lathami lathami*) – Vulnerable
- Brown Treecreeper (eastern subspecies) (*Climacteris picumnus victoriae*) – Vulnerable
- Latham's Snipe (*Gallinago hardwickii*) – Vulnerable, migratory
- Painted Honeyeater (*Grantiella picta*) - Vulnerable
- White-throated Needletail (*Hirundapus caudacutus*) – Vulnerable, migratory
- Swift Parrot (*Lathamus discolor*) - Critically Endangered
- Hooded Robin (south-eastern form (*Melanodryas cucullata cucullate*) – Endangered
- Australian Painted Snipe (*Rostratula australis*) - Endangered
- Diamond Firetail (*Stagonopleura guttata*) - Vulnerable
- Common Greenshank (*Tringa nebularia*) – Endangered, migratory
- Large-eared Pied Bat (*Chalinolobus dwyeri*) - Endangered
- Spotted-tailed Quoll (*Dasyurus maculatus*) – Endangered
- Corben's Long-eared Bat (*Nyctophilus corbeni*) - Vulnerable
- Greater Glider (*Petauroides volans*) – Endangered
- Yellow-bellied Glider (*Petaurus australis*)- Vulnerable
- Brush-tailed Rock-wallaby (*Petrogale penicillata*) - Vulnerable
- Koala (*Phascolarctos cinereus*) – Endangered
- Grey-headed Flying-fox (*Pteropus poliocephalus*) – Vulnerable
- Western Sawshelled Turtle, Bell's Turtle (*Myuchelys belli*) - Endangered
- Border Thick-tailed Gecko (*Uvidicolus sphyrurus*)- Vulnerable

- Murray Cod (*Maccullochella peelii*) – Vulnerable.
  - *Acacia pubifolia* (Velvet Wattle) - Vulnerable

### Threatened Flora

No EPBC Act listed threatened flora species have been identified in the project area. Fourteen threatened flora species were deemed to have a moderated or greater likelihood of occurrence within the project area based on habitat suitability as follows:

- *Boronia granitica* (Granite Boronia) – Endangered
- *Caladenia amnicola* - Endangered
- *Callistemon pungens* - Vulnerable
- *Dichanthium setosum* (Bluegrass) - Vulnerable
- *Diuris pedunculata* (Small Snake Orchid) – Endangered
- *Eucalyptus caleyi* subsp. *Ovendenii* (Ovenden's Ironbark) - Vulnerable
- *Eucalyptus mckieana* (McKie's Stringybark) - Vulnerable
- *Eucalyptus nicholii* (Narrow-leaved Black Peppermint) - Vulnerable
- *Eucalyptus rubida* subsp. *barbigerorum* (Blackbutt Candlebark) – Vulnerable
- *Picris evae* (Hawkweed) - Vulnerable
- *Pimelea venosa* (Bolivia Hill Rice-flower) - Endangered
- *Thesium austral* (Austral Toadflax) – Vulnerable
- *Vincetoxicum forsteri* (*Tylophora linearis*) - Endangered.

The action may result in a direct and long-term impact on the occurrence, extent and coverage of threatened species and threatened ecological communities. Indirect impacts may include the loss of feeding, refuge and breeding habitat for threatened fauna, including habitat fragmentation and the loss of habitat connectivity. Fragmentation and loss of connectivity for threatened ecological communities may also occur, with carry on effects such as reduced gene flow between flora communities. Direct and indirect impacts during the construction phase may include clearing, changes to water flow, sedimentation, dust deposition, erosion, weed introduction and/or spread, vehicle/machinery strike, light and noise pollution, shading and vibration from the movement of equipment and vehicles.

White Box-Yellow Box- Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC is an EPBC Act listed CEEC in the form of PCT 3359 and PCT 3363. This CEEC is common throughout the project area, and it is estimated that there is 107 hectares of White Box-Yellow Box- Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC in the project area that may be impacted. The project would result in direct (i.e., clearing) and indirect impacts of this CEEC community. A further 480 hectares may meet the listing under a derived grassland condition. Additional survey and vegetation mapping will ascertain the extent of this CEEC within the project area.

New England Peppermint (*Eucalyptus nova-anglica*) Grassy Woodlands CEEC may occur in the project area where there is a dominance of *Eucalyptus nova-anglica* in the canopy. The project may result in direct (i.e., clearing) and indirect (i.e., fragmentation) impacts of this CEEC community. Additional survey and vegetation mapping will ascertain the extent of this CEEC within the project area.

Operational impacts to threatened and protected bird and bat species are primarily associated with the risk of mortality through turbine collision, barotrauma impacts and barrier effects through behavioural avoidance of infrastructure. Species most at risk are those that frequent the rotor sweep area and/or species with potential for ongoing population impacts once the project is operational. This includes:

- Migrating bats and birds, as a single migration event through the wind farm may affect a significant proportion of the local population
- Flocking birds, where a higher number of mortalities could occur in one event
- Colonial roosting bats, as removal of one roosting site may affect a local population
- High-flying microbats, particularly those of conservation concern.

- Raptors which use landform features such as ridges and slopes for ascendance and soaring through updrafts. They also manoeuvre close to blades to prey on carrion below. These species are at low density in the landscape and removal of even one breeding pair may be significant at a local level
- Waterbirds, which may be less able to manoeuvre around moving turbine blades
- Scavenger species such as raptors and passerines attracted by crops, livestock or carrion may be more frequent at wind farms resulting in an increased risk collision risk.

Most woodland birds and bats forage within canopy and move below the turbine height, therefore are considered a lower risk of direct impact, however, would experience indirect impacts through changes in foraging habitat and habitat exclusion (Ellerbrok et al. 2022, Ellerbrok et al. 2023, BL&A 2017, Smales 2006). Sedentary woodland species are more likely able to be avoided early in the project design or assessed thoroughly to confirm that impacts are manageable.

The two closest operational wind farms to the project area are White Rock Wind Farm, approximately 60 km north, and Sapphire Wind Farm, approximately 75 km north of the project area. Ongoing bird and bat monitoring has been occurring since 2017 and White Rock Wind Farm and 2018 at Sapphire Wind Farm. No management trigger (i.e., mortality of a threatened bird or bat species or high numbers of non-threatened species) has occurred during the monitoring at the Sapphire Wind Farm and the result from the monitoring program and the mortality estimates suggested it is unlikely that mortalities of any species would significantly impact these populations on a state level, regional level or overall. Highest mortalities have occurred to the Wedge-tailed Eagle (*Aquila audax*) which is an at-risk species due to its frequency within the rotor sweep area. However, the Wedge-tailed Eagle is not considered to meet the criteria of a threatened species under NSW State or Commonwealth legislation. The White-throated Needletail (*Hirundapus caudacutus*; Vulnerable) is considered an at-risk species due to its soaring height. One mortality of the White-throated Needletail has been recorded at the White Rock Wind Farm, though it is considered the impact to this species remains low and the loss of one individual is considered to have a negligible impact on the overall population. The White-striped Freetail Bat (*Tadarida australis*) and Gould's Wattled Bat (*Chalinolobus gouldii*) are the most commonly impacted bat species in eastern Australia (Bennet et al. 2022). This is related to their habit of foraging at height above the tree line leading to this species being regularly impacted at wind farms in south eastern Australia, though neither meeting the criteria for a threatened species. Ongoing seasonal bird and bat utilisation surveys within the project area will provide baseline monitoring data and allow for detailed assessments of operation risk to threatened and protected bird and bat species.

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

\*

Yes

#### **4.1.4.5 Describe why you consider this to be a Significant Impact. \***

It is estimated that the proposed action could impact up to 217 ha of White Box-Yellow Box- Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC direct (i.e., clearing) and indirect (i.e., fragmentation) impacts. A further 598 ha may meet the listing under a derived grassland condition. Additional survey and vegetation mapping will ascertain the extent of this CEEC within the project area.

Additionally, the native vegetation present may provide potential foraging and sheltering habitat for five threatened frog species, 34 threatened bird species, eight threatened mammal species, eight threatened microbat species, two threatened reptiles and one threatened fish and may provide habitat for 18 locally occurring threatened flora species which have habitat within the project area or have been historically sighted within the locality.

One EPBC Act listed threatened fauna species has been identified in the project area being the Diamond Firetail (*Stagonopleura guttata*; Vulnerable). Ongoing targeted flora and fauna studies will confirm impacts to threatened flora and fauna species.

With reference to the significant impact criteria guidelines, impacts have the potential to occur to threatened species and ecological communities in relation to the following:

Direct impacts:

- Long-term decrease in a population size
- Adversely affect habitat critical to the survival of a species
- Disrupt the breeding cycle of a species
- Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline

Indirect impacts:

- Long-term decrease in a population size
- Disrupt the breeding cycle of a species.

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

Yes

#### **4.1.4.8 Please elaborate why you think your proposed action is a controlled action. \***

Further flora and fauna studies will confirm biodiversity impacts, during the preparation of the Environmental Impact Statement and Biodiversity Development Assessment Report, which will be subject to ongoing avoidance and minimisation efforts. At this stage given the potential nature and scale of the project and expected residual impacts, an EPBC Act referral on the basis of potentially significantly impacts to Commonwealth listed species and one community is considered warranted.

Thus, on the basis of potential significant impacts to threatened species and ecological communities, the proposed action is considered likely to be a Controlled Action.

#### **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. \***

The key mandate for a project assessed under the New South Wales Biodiversity Assessment Method 2020 (BAM) is to demonstrate how impacts have first been avoided; mitigation and offsets are considered only after no further avoidance is possible. For a wind farm development on undulating terrain, requiring a primarily linear impact footprint and with some flexibility to avoid important features, avoidance is considered highly feasible in response to further detailed survey results.

The design development process for the project would be completed in consideration of:

- alternative modes or technologies that would avoid or minimise impacts on biodiversity values
- alternative routes that would avoid or minimise impacts on biodiversity values
- alternative locations that would avoid or minimise impacts on biodiversity values.

Considerations to be included as the development is refined include:

- micro-siting access, transmission routes and turbine locations to avoid threatened ecological communities, important areas of habitat, higher condition areas of vegetation and minimise fragmentation of habitat.
- location of larger impacts footprints (i.e. ancillary infrastructure) located in areas of lower quality vegetation such as areas void of canopy cover.
- buffering key habitat features and collision risk features including known threatened species habitat, waterways, farm dams and areas of high bird and bat activity.
- identify and maximise avoidance of potential bird and bat movement corridors across the landscape.

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

The New South Wales Biodiversity Offset Scheme and EPBC Act Environmental Offsets Policy (Commonwealth of Australia 2012) are expected to apply to the assessment, generating an offset requirement for the project. An appropriate mechanism to satisfy the project's offset credit obligation will be established.

As part of the BAM process, detailed ecological surveys and further investigation and assessment would be undertaken including:

- offset calculations to determine the offset obligation of the project
- offset planning, to ensure the offset obligation can be met
- preparation of a Biodiversity Offset Strategy during the assessment phase.

Suitable biodiversity stewardship sites, within the project area and externally would be pursued during the assessment period to provide confidence in the ability to offset project impacts. Offset obligations may also be met purchasing credits through the Biodiversity Credit Supply Fund or by making a payment into the Biodiversity Conservation Fund.

#### **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	<i>Actitis hypoleucos</i>	Common Sandpiper
Yes	Yes	<i>Apus pacificus</i>	Fork-tailed Swift
Yes	Yes	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper
No	No	<i>Calidris ferruginea</i>	Curlew Sandpiper
No	No	<i>Calidris melanotos</i>	Pectoral Sandpiper
Yes	Yes	<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe
Yes	Yes	<i>Hirundapus caudacutus</i>	White-throated Needletail
No	No	<i>Motacilla flava</i>	Yellow Wagtail
Yes	Yes	<i>Tringa nebularia</i>	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? \***

Yes

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

Migratory species known or predicted to occur within the project area include the Fork-tailed Swift, Sharp-tailed Sandpiper, Latham's Snipe, White-throated Needletail and Common Greenshank. Whilst none have been recorded within the project area during preliminary surveys, there are multiple farm dams with marshy habitats such as Rileys Creek dam that may provide refuge for migratory shorebirds. Additionally, the proximity of the project area to important wetlands such as the Dumaresq Dam to the east and Little Llangothlin Nature Reserve in the north increases the likelihood of potential for flyovers. Previous occurrences of the White-throated Needletail have been recorded within the project area. This species, along with the Fork-tailed swift is determined to be most at-risk due to its foraging patterns along edges of lower pressure systems within the rotor sweep area.

Species most at risk are considered to be those with potential for ongoing population impacts once the project is operational, this includes migrating (local, regional, international) or nomadic waterbirds, which may be less able to manoeuvre around operational turbine blades. One movement through the operational wind farm may have a local population-level impact on some species. The White-throated Needletail is considered an at-risk species due to its soaring height within the rotor sweep area and use of updrafts, though the scale of impact at the population level requires further investigation.

The two closest operational wind farms to the project area are White Rock Wind Farm, approximately 60 km north, and Sapphire Wind Farm, approximately 75 km north of the project area. Ongoing bird and bat monitoring has been occurring since 2017 and White Rock Wind Farm and 2018 at Sapphire Wind Farm. One mortality of the White-throated Needletail has been recorded at the White Rock Wind Farm, though it is considered the risk to this species remains low and the loss of one individual is considered to have a negligible impact on the overall population.

Impacts to migratory species are also likely to occur as a result of cumulative impacts relating to the numerous large scale renewable energy developments in the region potentially creating barriers to local and region scale movement patterns. Barriers to local migratory movement between regional areas may be an indirect impact.

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

\*

Yes

**4.1.5.5 Describe why you consider this to be a Significant Impact. \***

Given the potential nature and scale of the project, significant impacts may occur to migratory species that occur within the project area or have habitats within the project area such as the Fork-tailed Swift, Sharp-tailed Sandpiper, Latham's Snipe, White-throated Needletail and Common Greenshank. Potential impacts may arise from turbine strikes and/or isolation from foraging habitats within the project area.

With reference to the significant impact criteria guidelines, impacts have the potential to impact migratory species in relation to the following:

- substantially modify, destroy or isolate an area of important habitat for a migratory species. Potential impacts to important habitat include the modification or destruction of habitat utilised by a migratory species occasionally or periodically within a region that supports an ecologically significant proportion of the population of the species and habitat utilised by a migratory species which is at the limit of the species range.

Bird utilisation studies during the preparation of the EIS will identify impacts to migratory species. The findings will inform a collision risk assessment which will be subject to ongoing avoidance and minimisation efforts.

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

Yes

**4.1.5.8 Please elaborate why you think your proposed action is a controlled action. \***

Further bird utilisation studies during the preparation of the EIS and Biodiversity Development Assessment Report will identify and quantify potential impacts to migratory species. The findings will inform a collision risk assessment which will be subject to ongoing avoidance and minimisation efforts. At this stage given the potential nature and scale of the project and expected residual impacts, an EPBC Act referral on the basis of potentially significantly impacts to Commonwealth listed migratory species is considered warranted.

Thus, on the basis of potential significant impacts to migratory species, the proposed action is considered likely to be a Controlled Action.

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

Avoiding and minimising potential environmental and social impacts has been considered through the project's development from site selection to development and refinement of a preliminary wind farm layout. The preliminary wind farm layout is based on maximising the potential wind resource across the site, and an initial biodiversity assessment of the proposed turbine locations was undertaken based on a risk ranking matrix.

The initial risk assessment identified eight wind turbines located in areas with very high ecological constraints, 18 wind turbines with high constraints, 30 wind turbines with moderate constraints, and 20 wind turbines with low ecological constraints.

Noting that the initial risk review was based predominantly on existing State vegetation mapping (NSW DCCEEW, 2025) and some preliminary biodiversity field survey, one wind turbine initially located in a patch of intact and high condition threatened ecological community was moved east to an area that has previously been cleared and disturbed. This turbine location has been surveyed and the State vegetation mapping at that turbine location has been validated by field survey.

The other highly constrained turbine locations, where the State vegetation mapping is yet to be validated by detailed field survey will continue to be refined through the EIS as the biodiversity assessment progresses, and existing data is ground-truthed and targeted surveys progress.

Additional strategies to avoid and minimise other potential environmental and social impacts include:

- selecting a site close to the proposed transmission infrastructure associated with the New England REZ to minimise the development footprint associated with transmission and other ancillary infrastructure
- developing a wind farm layout and entering into a lease agreement that allows for the continuation of existing agricultural activities
- refining a layout that avoids the locally heritage-listed Warrane Homestead.

The principles of avoiding and minimising environmental and social impacts will continue to be the key consideration as the project develops through the EIS, and in consultation with relevant regulatory stakeholders, Armidale Regional Council and Uralla Shire Council, and the local community and neighbouring properties.

The key mandate for a project assessed under the New South Wales Biodiversity Assessment Method 2020 (BAM) is to demonstrate how impacts have first been avoided; mitigation and offsets are considered only after no further avoidance is possible. For a wind farm development on undulating terrain, requiring a primarily linear impact footprint and with some flexibility to avoid important features, avoidance is considered highly feasible in response to further detailed survey results.

The design development process for the project would be completed in consideration of:

- alternative modes or technologies that would avoid or minimise impacts on migratory species
- alternative locations that would avoid or minimise impacts on migratory species.

Considerations to be included as the development is refined include:

- micro-siting access, transmission routes and turbine locations to avoid important areas of habitat for migratory species, higher condition areas of vegetation and minimise fragmentation of habitat
- location of larger impacts footprints (i.e. ancillary infrastructure) located in areas of lower quality vegetation such as areas void of canopy cover
- buffering key habitat features and collision risk features including known threatened migratory species habitat, waterways, farm dams and areas of high bird and bat activity.
- identify and maximise avoidance of potential bird and bat movement corridors across the landscape.

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

The New South Wales Biodiversity Offset Scheme and EPBC Act Environmental Offsets Policy (Commonwealth of Australia 2012) are expected to apply to the assessment, generating an offset requirement for the project. An appropriate mechanism to satisfy the project's offset credit obligation will be established.

As part of the BAM process, detailed ecological surveys and further investigation and assessment would be undertaken including:

- offset calculations to determine the offset obligation of the project
- offset planning, to ensure the offset obligation can be met
- preparation of a Biodiversity Offset Strategy during the assessment phase.

Suitable biodiversity stewardship sites within the project area and external locations would be pursued during the assessment period to provide confidence in the ability to offset project impacts. Offset obligations may also be met purchasing credits through the Biodiversity Credit Supply Fund or by making a payment into the Biodiversity Conservation Fund.

**4.1.6 Nuclear**

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

No

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

\*

The Proposed Action does not involve or relate to nuclear activities.

**4.1.7 Commonwealth Marine Area**

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

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

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

—

**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.**

\*

The Proposed Action does not occur within or in proximity to a Commonwealth Marine Area.

**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 will not directly impact the Great Barrier Reef, nor is it located in a reef draining catchment. No impacts are expected on the Great Barrier Reef because of the Proposed Action.

**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 is not a large coal mining development or coal seam gas 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 will not impact Commonwealth Land.

#### **4.1.11 Commonwealth Heritage Places Overseas**

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

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

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

—

**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 Project Area contains no Commonwealth heritage places, World Heritage Properties, or National Heritage Places.

**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:

- Threatened Species and Ecological Communities (S18)
- Migratory Species (S20)

### 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)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

## 4.3 Alternatives

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

No

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

Origin has been investigating potential renewable energy projects in the New England REZ since December 2021 when the REZ was declared by the NSW Government. Origin has undertaken preliminary investigations and discussions with landholders and key stakeholders as part of the feasibility assessment and site due diligence.

Consideration of site options and layouts has considered various factors including technical feasibility, and potential or perceived impacts on the local community and the environment. Supported by the findings of the feasibility assessment and due diligence, Origin purchased the proposed site in July 2023 based on the following:

- quality of the wind resource in the area
- suitability of the land for project infrastructure
- strong connection point into the NEM
- alignment with strategic plans for the wider region.

Since the purchase of the site, no other site locations have been considered further, however the preliminary turbine layout has been informed by ongoing assessment and refinement to avoid and minimise potential environmental and social impacts.

The proposed site is suitable for the development of a wind farm for the following reasons:

- the property is entirely owned by OEPL
- it is in the declared New England REZ, where the project would contribute to the future development of the REZ
- the North Hub would be co-located within the project area, and it is close to the proposed New England REZ Network Infrastructure Project corridor. This would allow for the renewable energy generated from the project to be dispatched to the NEM without significant additional transmission infrastructure and the associated development footprint
- it is in a moderate wind resource area consistent with Global Wind Atlas (2024)
- it is easily accessible via the New England Highway
- it is consistent with the RU1 – Primary Production / RU2 – Rural Landscape zoning and would meet the objective of the zones to encourage sustainable primary industry production.

A preliminary wind farm layout was developed following the purchase of the project site by OEPL and was focused on maximising the potential wind resource across the site. The project area has since been subject to initial investigations at the scoping phase and preliminary biodiversity and cultural heritage assessments have identified various sensitive and high-value biodiversity areas.

The preliminary layout has been reviewed and refined in response to the findings of the initial investigations to avoid and minimise potential impacts at an early stage. One initial turbine location has been refined to avoid an area of vegetation, and access tracks and associated electrical reticulation have been relocated to utilise existing farm access tracks and cleared areas as much as possible.

The design revisions are, by nature, an iterative process based on information from wind monitoring, environmental assessment, landholder feedback and broader community consultation among other considerations. The design refinement process will be ongoing as further information becomes available through the EIS and its supporting technical studies. Ongoing refinement will focus on the following key principles:

- avoiding potential environmental and social impacts as a priority
- minimising potential impacts that cannot be 'designed out' whilst maximising wind energy production and the viability of the project

incorporating feasible and reasonable management measures into construction, operations and decommissioning to appropriately manage potential residual impacts.

# 5. Lodgement

## 5.1 Attachments

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	CONFIDENTIAL_Trust Deed.pdf	30/01/2024	Yes	

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Sustainability Reports <a href="https://www.originenergy.com.au/about/sustainabi..">https://www.originenergy.com.au/about/sustainabi..</a>			High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Environment Management Approach <a href="https://www.originenergy.com.au/wp-content/uploa..">https://www.originenergy.com.au/wp-content/uploa..</a>			High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att1_Preliminary Biodiversity Assessment Report.pdf This document improves the accuracy and resolution of likely biodiversity constraints early in the assessment process; thereby facilitating project design (i.e. impact avoidance approach) while minimising the potential for significant project risk.	15/09/2025	No	High

## 5.2 Declarations

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## Completed Referring party's declaration

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

---

Name	Sarah Beitel
Job title	Senior Approvals Advisor
Phone	0405163842
Email	sarah.beitel@originenergy.com.au
Address	180 Ann St, Brisbane City, 4000, QLD, Australia

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, **Sarah Beitel**, 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	674580717
Organisation name	NORTHERN TABLELANDS WF PROJECT PTY LTD
Organisation address	2000 NSW
Representative's name	Lauren Barnaby
Representative's job title	Group Manager - Approvals Access and Social Advocacy
Phone	0472879898
Email	lauren.barnaby@originenergy.com.au
Address	180 Ann Street, Brisbane, 4000

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, **Lauren Barnaby of NORTHERN TABLELANDS WF PROJECT 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, **Lauren Barnaby of NORTHERN TABLELANDS WF PROJECT 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. \*