

Bookham Wind Farm and Battery

Application Number: 02809

Commencement Date:
07/03/2025

Status: Locked

1. About the project

1.1 Project details

1.1.1 Project title *

Bookham Wind Farm and Battery

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 *

01/04/2028

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. *

The Bookham Wind Farm (herein referred to as the 'Project') will assist in the delivery of more reliable, more affordable, and cleaner electricity. Furthermore, the Project will assist multiple State, Commonwealth and international renewable energy plans and policies in accelerating the clean energy revolution.

The Proposed Action is to construct, operate, and ultimately decommission and rehabilitate a commercial-scale wind farm anticipated to produce 594 megawatts (MW) of clean energy, powering the equivalent of approximately 300,000 NSW households each year. The Proposed Action would connect to either the existing 330 kV Yass to Lower Tumut transmission line and the 132 kV transmission line (line 970) or the proposed 500 kV HumeLink transmission line that is expected to transect the Action Area. The inclusion of a Battery Energy Storage System (BESS) will allow the Project to store, and dispatch scheduled and reliable energy to and from the National Electricity Market (NEM) during periods of high energy demand or low wind generation.

The electricity generated and dispatched by the Proposed Action would provide a significant carbon emissions saving relative to the electricity offset from NSW coal powered generation. Detailed descriptions of each component of the Project are provided in Appendix A.

The Project will involve the construction, operation and the eventual decommissioning of up to 99 Wind Turbine Generators (WTGs), BESS, and associated ancillary infrastructure, with a total capacity of 594 MW (Appendix E, Figure 1 and Appendix E, Figure 3).

The main components of the Project include:

- **Wind Turbine Generators** - including the siting of up to 99 WTGs
- **Transmission Works** - including new electricity transmission lines to connect the generation works to the existing electricity transmission network or new electricity transmission infrastructure and the construction and operation of new substations
- **BESS** - including the construction and operation of an Electrical Plant Compound to store and deploy energy at periods of wind intermittency with a capacity of 250 MW / 1000 MWh
- **Permanent Ancillary Infrastructure** - including (but not limited to) substations, internal access roads, utilities and communications infrastructure, operation & maintenance (O&M compounds), hardstands, meteorological masts, telecommunication facilities, utility services and external road upgrades (subject to blade sizing and transport routes). Hardstand refers to the area required adjacent to each WTG location for the assembly, erection, maintenance, repowering and/or decommissioning of a WTG. Surrounding the hardstand is an area of disturbance which is not a hardstand area but will be used for WTG component laydown and crane structure assembly (among other WTG erection and construction related activities) as well as cut and fill
- **Temporary Facilities and activities for use during the construction phase or for discrete maintenance activities during operations** - including site, construction compounds and worker accommodation, construction power supply, laydown areas, stockpiles, rock crushing and concrete batch plants, temporary roads and temporary meteorological masts
- **Electrical Connection** – a series of underground and overground transmission lines are proposed to transmit electricity generated by the WTGs to the selected transmission line transecting and/or adjoining the site. The preliminary electrical layout includes both underground and overhead reticulation connecting the WTGs, BESS and substations to the existing and/or proposed transmission network.

Operation:

The Project will operate 24 hours per day, seven days per week with the operations and maintenance team attending site during standard working hours, unless responding to an alarm, fault, or undertaking major maintenance works. Ongoing monitoring and maintenance would be required, including maintenance of the WTG, associated infrastructure, vegetation, and internal access tracks.

Decommissioning:

Dismantling the WTGs and transporting them offsite for disposal or reuse, with preference given to reusing or recycling WTG components where possible. Land impacted by the Project would be appropriately rehabilitated to near prior condition or to the condition of adjacent land at the time of decommissioning in consultation with the affected landholders. If not required for ongoing farming/fire access purposes, internal roads and hardstands would be covered with topsoil or removed.

This Referral uses the following terminology:

- **Proposed Action:** The Bookham Wind Farm development works
- **Action Area:** The land required for the Project as shown in red (Appendix E, Figure 1), and includes freehold land, Crown Land, Crown waterways, Crown roads and Council roads
- **Development Corridor:** This includes the area in which all proposed infrastructure and direct impacts of the Project will occur (Figure 3). The Development Corridor includes a 300 m buffer based on the Development Footprint at the time of the preparation of this Referral.

The Action Area is approximately 11,896 ha. The Development Corridor comprises 3,836 ha of the Action Area. The remaining 8,060 is the avoidance land.

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? *

Appendix A, and Table 1 page 7 provides the projects' alignment with strategic plans and policies and provides a summary of the relevant national, state, regional and local legislation and policy relevant to the Project.

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. *

The Proponent has been engaging with a broad range of stakeholders since 2021. At this stage, the Proponent has completed a variety of engagement activities with host landowners, surrounding neighbours, First Nations identified community members, Council and relevant State and Federal Government members and agencies including:

- creation of Project website for public access with key details of the Proposed Action.
- distributed a newsletter to the community containing Project details, an invitation to the open day and links to website.
- community drop-in session held on 22 October 2024 in Bookham. The session was attended by approx. 50-60 individuals.
- informing stakeholders of the lodgement of the Scoping Report through the Project website, community newsletter, email, phone and in-person.
- presentation to Yass Valley Council in April 2024.
- presentation to Onerwal Local Aboriginal Land Council in July 2024 and meeting with LALC members in February 2025.

There have been more than 1,080 stakeholder interactions as of February 2025.

A summary of the feedback received from the consultation and engagement undertaken to date is summarised in Appendix A, Table 2, page 7 and Appendix A, Table 3, page 8.

The Proponent will continue to engage and consult with all identified stakeholders during the preparation of the Environmental Impact Statement (EIS). This ongoing consultation will be guided by the Project's Stakeholder Engagement Plan (SEP) and in accordance with relevant legislation and guidelines (listed in Section 1.6 of the SEP). The SEP can be found on the Project's website (www.bookhamwindfarm.com.au). The feedback and participation from engagement and consultation activities will be used to further inform the environmental and social impact assessments for the Proposed Action.

1.3.1 Identity: Referring party

Privacy Notice:

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

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

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

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1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	87096512088
Organisation name	ECO LOGICAL AUSTRALIA PTY LTD
Organisation address	PO Box Q108. Sydney NSW 1230

Referring party details

Name	Belinda Failes
Job title	Ecologist
Phone	0292593707
Email	belle.failes@tetrattech.com
Address	PO Box Q108. Sydney NSW 1230

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 674936371

Organisation name BOOKHAM WIND FARM PTY LTD

Organisation address 6000 WA

Person proposing to take the action details

Name Alastair Smith

Job title General Manager, Development

Phone 0432 053 864

Email alastair.smith@squadronenergy.com

Address Level 1, 25 Bolton St, Newcastle NSW 2300 Australia

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

No

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

No

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

The Person (Bookham Wind Farm Pty Ltd) proposing the action has not been subject to any proceedings in any Local, State or Federal Court under Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources.

The Person is part of the broader Squadron Energy group and responsibly follows the health, safety, environment and security policies and framework of Squadron Energy. The Squadron Energy Environmental Policy is included as Appendix B, page 63.

Squadron Energy has a Compliance Management Policy to manage compliance in a proactive, efficient and effective manner. This policy assists in the management of risk, enhances existing business practices and is integral to performance and achieving our strategy. This policy has been included as Appendix C.

Squadron Energy has proven experience and expertise across the lifecycle of energy projects, working with local communities to lead the transition to Australia's clean energy future. Squadron Energy is a signatory to the Clean Energy Council's Community Engagement Best Practice Charter for Renewable Energy Developments. This involves a voluntary set of commitments that the Proponent will uphold when developing and operating clean energy projects to engage respectfully with the communities in which they plan and operate projects, to be sensitive to environmental and cultural values and to make a positive contribution to the regions in which they operate.

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

The Squadron Energy Environmental Policy is included as Appendix B and compliance management Appendix C, page 64.

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	674936371
Organisation name	BOOKHAM WIND FARM PTY LTD
Organisation address	6000 WA
Proposed designated proponent details	
Name	Alastair Smith
Job title	General Manager, Development
Phone	0432 053 864
Email	alastair.smith@squadronenergy.com
Address	Level 1, 25 Bolton St, Newcastle NSW 2300 Australia

1.3.4 Identity: Summary of allocation

✔ Confirmed Referring party's identity

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

ABN/ACN	87096512088
Organisation name	ECO LOGICAL AUSTRALIA PTY LTD
Organisation address	PO Box Q108. Sydney NSW 1230
Representative's name	Belinda Failes
Representative's job title	Ecologist
Phone	0292593707
Email	belle.failes@tetrattech.com
Address	PO Box Q108. Sydney NSW 1230

✔ Confirmed Person proposing to take the action's identity

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

ABN/ACN	674936371
Organisation name	BOOKHAM WIND FARM PTY LTD
Organisation address	6000 WA
Representative's name	Alastair Smith
Representative's job title	General Manager, Development
Phone	0432 053 864
Email	alastair.smith@squadronenergy.com
Address	Level 1, 25 Bolton St, Newcastle NSW 2300 Australia

✔ Confirmed Proposed designated proponent's identity

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

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

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

No

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

No

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

No

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

No

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

No

1.4 Payment details: Payment allocation

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

Person proposing to take the action

2. Location

2.1 Project footprint

Project Area: 11897.29 Ha **Disturbance Footprint:** 3837.71 Ha **Avoidance Area:** 8059.57 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

2 Fagan Drive, Bookham NSW AND 1170 Burrinjuck Road - Appendix A Section 2.2.1 and Appendix B

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 Action Area occurs on Freehold and Crown land with Council roads. Burrinjuck Road is owned by the NSW Government. Lots are provided in Appendix F, page 93.

3. Existing environment

3.1 Physical description

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

The Action Area is located approximately 30 km west of Yass in the Bookham area, within the South East Local Land Services (LLS) region of NSW. The Action Area is located within the Yass Valley Council LGA.

The approximate centre of the Action Area is 16 km west of Woolgarlo and 14 km southeast of Berremangra. It is approximately 57.2 km to Canberra. The total size of the Action Area is approximately 11,896 ha and the Development Corridor area is 3,836 ha (shown in Appendix E, Figure 3, Page 83). The Action Area includes the Action Area and road upgrades external to the Action Area with location and total area to be determined in accordance with blade sizing and transport routes based on EIS traffic assessment.

The entirety of the Action Area, including the Development Corridor, is currently zoned RU1 – Primary Production under the Yass Valley LEP (Appendix E, Figure 4, page 84). No changes to the land zoning are proposed to facilitate the Proposed Action as all proposed uses are permissible with consent. A majority of the lands to the north, east and west of the Action Area are also currently zoned as RU1 – Primary Production. Small patches of land zoned as R5 – Large Lot Residential, SP1 – Special Activities, and RE1 – Public Recreation are located to the north and a large area is zoned as C1 – National Parks and Nature Reserves to the south of the Action Area.

Access to the Action Area will be via the Hume Highway using an intersection onto private land identified through engagement with Transport for NSW (TfNSW). This will minimise or avoid the number of oversized and / or overmass vehicles using public roads within the Action Area boundary. Childowla Road and potentially Burrinjuck Road could be used for light vehicles during construction and operations.

The Action Area comprises exotic grassland, exotic pasture, planted native vegetation, rocky outcrops, waterbodies and remnant native vegetation. The mosaic of remnant native vegetation patches were present in a variety of conditions ranging from low to high. The poor condition patches lacked structural complexity and were dominated by exotic species. A majority of the Action Area has been previously cleared and pasture improved for livestock grazing. The subject land also contains numerous water bodies in the form of streams, rock pools and drainage lines in varying conditions; however, a majority are in poor condition with minimal fringing vegetation. Rocky outcrops are scattered throughout the subject land, on both ridgelines and flats, with some of these areas including large boulders. The subject land has an extensive history of use for agricultural purposes including ongoing cattle grazing, which has contributed to the overall poor ecological values present.

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

The Action Area is currently used primarily for agriculture, including farming and grazing operations, and is within the Oak Creek catchment, a tributary of the Murrumbidgee River. Whilst the Murrumbidgee River does not flow through the Action Area, multiple tributaries do. The Burrinjuck Dam and its impounded reservoir Lake Burrinjuck are also located to the south of the Action Area.

The Action Area which occupies exotic grassland, pasture, planted natives, rocky outcrops, waterbodies and remnant native vegetation will be repurposed and used as a windfarm. This will involve the construction, operation and the eventual decommissioning of up to 99 WTGs, BESS, and associated ancillary infrastructure, with a total capacity of 594 MW. Some existing cleared areas will be utilised, and some WTGs will be constructed within remnant native vegetation. However, the majority of the remnant native vegetation will be retained and will not be used for any future purposes.

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

The Action Area comprises exotic grassland, exotic pasture, planted natives, rocky outcrops, waterbodies and remnant native vegetation. Large areas of the Action Area have been previously cleared for agricultural purposes. As a result of the previous land use, the cleared areas are dominated with exotic flora species and range from exotic grassland to exotic midstorey and canopy. The fringes of the previously cleared area where native vegetation is present was generally in weedy condition with high levels of weed infestation in the midstorey. As the distance increases from the cleared land, the vegetation condition also increases, with areas containing remnant native vegetation in moderate and high conditions. Remnant native vegetation present within the Action Area included woodland and forest vegetation communities characterised by *Eucalyptus* species dominating the canopy. Plant Community Types (PCTs) identified within the Development Corridor included:

- PCT 3376 Southern Tableland Grassy Box Woodland
- PCT 3540 Southwest Foothills Stringybark-Box Grassy Forest
- PCT 3541 Southwest Ranges Stringybark Exposed Forest
- PCT 3730 Bondo Slopes Dry Stringybark Forest
- PCT 4088 Southwest Riverflat Red Gum Forest.

A variety of rocky outcrops have been observed across the Action Area. These rocky outcrops have ranged from areas of loose rocks, collections of large boulders on top of hills and along ridge lines where the rocks were scattered down slope in all directions. Majority of these rocky ridge lines ran from north to south; however, some ran from east to west.

The South East region also provides a range of natural landscapes from the foothills of the Snowy Mountains through to the flat dry inland plains of Hay and Carrathool, covering an area of 80,545 km² (Regional Development Australia, 2018). The region can be characterised by scenic landscapes, natural environments, and productive forests, including the following protected areas within a 20 km radius of the Action Area:

- Burrinjuck Nature Reserve
- Black Andrew Natural Reserve
- Oak Creek Nature Reserve
- Wee Jasper Nature Reserve
- Bungongo State Forest
- Wee Jasper State Forest
- Red Hill State Forest
- Brindabella National Park.

The Action Area borders the Burrinjuck Nature Reserve to the south and is otherwise characterised by largely agricultural lands that are privately owned.

The Action Area is within the Murrumbidgee catchment. The Murrumbidgee River, a major tributary of the Murray-Darling River system, drains much of southern NSW and is adjacent to the southwest portion of the Action Area. The Murrumbidgee is regulated downstream of Burrinjuck Dam, located to the south of the Action Area, with the Tumut, Gudgenby, Naas, Molonglo, Queanbeyan, Cotter, and Yass rivers as key tributaries. The Tumut River, the Murrumbidgee's largest tributary, is regulated downstream of Blowering Dam and forms part of the Snowy Hydro Scheme. The Murrumbidgee River is located to the south of the Action Area. Additionally, the Action Area contains several tributaries, including:

- Jugiong Creek
- Bogolong Creek
- Ponds Creek
- Oaks Creek
- Limestone Creek
- Carrolls Creek.

To the south of the Action Area is Burrinjuck Nature Reserve which covers an area of 5,382 ha and was established under the *National Parks and Wildlife Act 1974*. Other nature and flora reserves exist in proximity to the Action Area. These include Black Andrew Nature Reserve, Oak Creek Nature Reserve, Wee Jasper Nature Reserve and Old Jeremiah Flora Reserve located within Bungongo State Forest.

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 Action Area is characterised by steep to rolling hills, located between 400 m Australian Height Datum (AHD) and 700 m AHD. The lowest elevation point is <300 m Above Sea Level (ASL). The areas of lower elevation can be found in the southwestern and northern boundaries of the action area where the elevation rises steadily towards the centre of the Action Area. Heading southwards, the gradient then rises incrementally until reaching a maximum of 1,000 m towards the southeastern boundary of the Action Area.

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.

summary of methods

A desktop review has been undertaken including:

- A 10 km search for Matters of National Significance (MNES) using the Protected Matters Search Tool (PMST) (5 July 2024)
- A 10 km BioNet search for Commonwealth listed threatened species, populations and TECs (26 July 2024)

The PMST search initially returned a total of 58 MNES, comprising 12 threatened flora and 46 threatened fauna species listed as threatened or migratory under the EPBC Act either known or likely to occur within 10 km of the Action Area. This list was then reviewed against BioNet Atlas of NSW Wildlife records within a 10 km radius of the Action Area. Of the 12 threatened flora and 46 threatened fauna, three (3) threatened flora species and 14 threatened fauna species had been recorded within a 10 km radius of the Action Area (according to BioNet) (Appendix E, Figure 9, page 89):

Flora

- *Ammobium craspedioides* (Yass Daisy), listed as vulnerable
- *Caladenia concolor* (Crimson Spider-orchid), listed as vulnerable
- *Grevillea iaspicula* (Wee Jasper Grevillea), listed as endangered.

1.

2. Fauna

- *Aphelocephala leucopsis* (Southern Whiteface), listed as vulnerable
- *Aprasia parapulchella* (Pink-tailed Legless Lizard), listed as vulnerable
- *Callocephalon fimbriatum* (Gang-gang Cockatoo), listed as endangered
- *Climacteris picumnus victoriae* (Brown Treecreeper (south-eastern subspecies)), listed as vulnerable
- *Dasyurus maculatus maculatus* (Spotted-tailed Quoll (SE mainland population)), listed as endangered
- *Grantiella picta* (Painted Honeyeater), listed as vulnerable
- *Litoria booroolongensis* (Booroolong Frog), listed as endangered
- *Melanodryas cucullata cucullata* (South-eastern Hooded Robin), listed as endangered
- *Petaurus australis australis* (Yellow-bellied Glider (south-eastern)), listed as vulnerable
- *Phascolarctos cinereus* (Koala), listed as endangered
- *Polytelis swainsonii* (Superb Parrot), listed as vulnerable
- *Pteropus poliocephalus* (Grey-headed Flying-fox), listed as vulnerable
- *Stagonopleura guttata* (Diamond Firetail), listed as vulnerable
- *Synemon plana* (Golden Sun Moth), listed as vulnerable.

1.

A likelihood of occurrence assessment has been undertaken to determine other MNES that have the potential to occur within the Action Area based on the data collected by preliminary surveys (Appendix B). In addition to the MNES listed above, an additional seven (7) species were considered likely to occur within the Action Area:

- *Calyptorhynchus lathami lathami* (South-eastern Glossy Black-Cockatoo), listed as vulnerable
- *Delma impar* (Striped Legless Lizard), listed as vulnerable
- *Leucochrysum albicans* subsp. *tricolor* (Hoary Sunray), listed as endangered
- *Pomaderris cotoneaster* (Cotoneaster Pomaderris), listed as endangered
- *Prasophyllum petilum* (Tarengo Leek Orchid), listed as endangered
- *Swainsona recta* (Small Purple-pea), listed as endangered
- *Thesium australe* (Austral Toadflax), listed as vulnerable

1. Preliminary field surveys identified *Ammobium craspedioides* (listed as vulnerable under the EPBC Act), Superb Parrot and Diamond Firetail occurring within the Development Corridor, as well as habitat features that have the potential to serve as habitat for other MNES. Habitat features identified during the preliminary field surveys are listed in the table in Appendix A, page 18.

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

The Action Area is located within the Inland Slopes subregion of the South Western Slopes Bioregion, and within the Bondo and Murrumbateman subregions of the South Eastern Highlands Bioregion (Interim Biographic Regionalisation for Australia). The South Western Slopes Bioregion is characterised by foothills and isolated ranges comprising the lower inland slopes associated with the Great Dividing Range. The Inland Slopes subregion is characterised by steep, hilly and undulating ranges and Granite basins and confined river valleys with terrace remnants. The South Eastern Highlands Bioregion is typically characterised by rugged hills and stony slopes. The Bondo and Murrumbateman subregions are commonly characterised by plateaus with rounded hills and peaks, along with meandering streams.

Additionally, three NSW Mitchell Landscapes occur across the Action Area:

- Upper Murrumbidgee Gorge
- Boorowa Volcanics (90% cleared)
- Marilba Range (84% cleared).

Boorowa Volcanics is the dominant Mitchell Landscape (Appendix E, Figure 5, page 85).

Soil landscapes within the region are generally derived from volcanic rock, consisting of predominantly rolling hills with permanent erosional streams and tributary networks.

The Action Area is approximately 11,896 ha. The Development Corridor comprises 3,836 ha of the Action Area and contains 1,287.71 ha of remnant native vegetation and 2,547.98 ha of cleared lands/planted natives/exotic vegetation/built structures. This includes 520.47 ha of unvalidated vegetation at the time of preparing this report.

PCT identification targeted the Development Corridor and was completed through preliminary observations with Rapid Data Points (RDP) noting dominant characteristics of an area including classification of landform, vegetation formation and dominant canopy species, as well as 60 Vegetation Integrity (VI) plots in accordance with the NSW Biodiversity Assessment Method (BAM; DPIE, 2020). Best fit PCTs were then allocated based upon results from the RDP and plots.

A total of five (5) PCTs have been validated as occurring within the Development Corridor (Appendix A, Table 4, page 22 and Appendix E, Figure 6, page 86). PCTs were broadly categorised into four vegetation conditional classes:

- High
- Moderate
- Low
- Derived Native Grassland (DNG).

Of the five (5) PCTs present within the Development Corridor, one PCT, being PCT 3376 Southern Tableland Grassy Box Woodland, has the potential to be associated with a TEC under the EPBC Act. This PCT has potential to meet the criteria for listing under the EPBC Act.

PCT 3376 Southern Tableland Grassy Box Woodland can be associated with *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland* under the EPBC Act. The EPBC Act Approved Conservation Advice (DCCEEW 2023) contains key diagnostic characteristics and minimum condition thresholds that a patch of the community must meet to be considered part of the EPBC Act listed TEC. PCT 3376 in high, moderate and DNG conditions have been assumed to meet the criteria for listing under the EPBC Act for *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland*. Additional surveys will confirm the extent of the EPBC Act listed *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland*.

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 search of available historic heritage registers was undertaken within 10 km of the Action Area including:

- Commonwealth Heritage List
- National Heritage List
- NSW State Heritage Inventory
- Yass Valley LEP 2013.

There were no World, Commonwealth or National heritage sites identified as being within the Action Area. Several State heritage items are listed within the Bookham township, the closest being approximately 1.1 km from the Development Corridor:

- Yass Valley Item Number: A286 (Narrangullen stone arrangement)
- Yass Valley Item Number: A291 (Bogolong iron smelter blast furnace)
- Yass Valley Item Number: I037 (Bookham Public Cemetery)
- Yass Valley Item Number: I038 (Bookham station and cemetery)
- Yass Valley Item Number: I039 (Bookham Recreation Ground)
- Yass Valley Item Number: I040 (Bookham Uniting Church)
- Yass Valley Item Number: I041 (Bogolong-homestead and woolshed (former Bogolong Inn))
- Yass Valley Item Number: I042 (Bookham Soldiers – Memorial Hall)
- Yass Valley Item Number: I043 (St Columba's Catholic Church (former))
- Yass Valley Item Number: I044 (Bookham Inn (former))
- Yass Valley Item Number: I058 (Burrinjuck Dam).

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

The Action Area is located on the approximate boundary between the traditional lands of the Wiradjuri and Ngunnawal people. An Aboriginal Heritage Information Management System (AHIMS) database search was undertaken on 5 April 2024 covering the Action Area.

The AHIMS search identified 167 Aboriginal sites and no Aboriginal places recorded within the search parameters, with 39 sites located within the boundaries of the Action Area. Five Potential Archaeological Deposits (PAD) are in proximity to the Development Corridor. Three of these PADs have previously been excavated in 2023. The remaining two, AHIMS ID 51-4-0097 and AHIMS ID 51-4-0101, are outside the Development Corridor and would not be impacted by the proposed design.

There are no Native Title Determinations of Indigenous Land Use Agreements or Native Title Claims within the Action Area.

3.4 Hydrology

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

The Action Area is within the Murrumbidgee River catchment area with both the Murrumbidgee and Yass Rivers adjacent to the site on the southwest and southeast, respectively. The Burrinjuck Dam and its impounded reservoir Lake Burrinjuck are located to the southwest of the Action Area. The Murrumbidgee and Yass Rivers do not enter the Action Area. The Ponds Creek, Oak Creek, Limestone Creek, Burnt Hut Creek, Carrols Creek, and Bogolong Creek all run through the Action Area and constitute 5th and 6th order watercourses in accordance with the Strahler System, and tributaries of the Murrumbidgee and Yass Rivers (Appendix E, Figure 8, page 88).

Surface water in the Action Area is regulated by the Water Sharing Plan for the Murrumbidgee Regulated River Water Source 2003 which covers approximately 1,200 km of regulated rivers and creeks below Burrinjuck and Blowering Dams, including the Oak Creek System. Groundwater is regulated by the Lower Murrumbidgee Groundwater Sharing Plan, which is managed by the Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016 and the NSW Government, who manages licensed water for the environment.

4. Impacts and mitigation

4.1 Impact details

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

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

4.1.1 World Heritage

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

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

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

—

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

No

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

*

No. There are no world heritage properties in the Action Area or Development Corridor.

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.

*

No. There are no National heritage properties in the Action Area or Development Corridor.

4.1.3 Ramsar Wetland

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

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

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

Direct impact	Indirect impact	Ramsar wetland
No	No	Banrock Station Wetland Complex
No	No	Hattah-Kulkyne Lakes
No	No	Riverland
No	No	The Coorong, and Lakes Alexandrina and Albert Wetland

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

No

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

*

The Action Area is in the Murrumbidgee River catchment area and there are no RAMSAR wetlands located within this catchment. The closest RAMSAR wetland is located > 500 km downstream of the Development Corridor.

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>Ammobium craspedioides</i>	Yass Daisy
No	No	<i>Amphibromus fluitans</i>	River Swamp Wallaby-grass, Floating Swamp Wallaby-grass
No	No	<i>Anthochaera phrygia</i>	Regent Honeyeater
Yes	Yes	<i>Aphelocephala leucopsis</i>	Southern Whiteface
Yes	Yes	<i>Aprasia parapulchella</i>	Pink-tailed Worm-lizard, Pink-tailed Legless Lizard
Yes	Yes	<i>Caladenia concolor</i>	Crimson Spider-orchid, Maroon Spider-orchid
No	No	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper
No	No	<i>Calidris ferruginea</i>	Curlew Sandpiper
Yes	Yes	<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo
No	No	<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat, Large Pied Bat
Yes	Yes	<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (south-eastern)
No	No	<i>Crinia sloanei</i>	Sloane's Froglet
Yes	Yes	<i>Dasyurus maculatus maculatus</i> (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)
Yes	Yes	<i>Delma impar</i>	Striped Legless Lizard, Striped Snake-lizard
No	No	<i>Euastacus armatus</i>	Murray Crayfish
No	No	<i>Falco hypoleucos</i>	Grey Falcon
No	No	<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe
Yes	Yes	<i>Grantiella picta</i>	Painted Honeyeater
No	No	<i>Hirundapus caudacutus</i>	White-throated Needletail
Yes	Yes	<i>Keyacris scurra</i>	Key's Matchstick Grasshopper

Direct impact	Indirect impact	Species	Common name
No	No	Lathamus discolor	Swift Parrot
Yes	Yes	Litoria booroolongensis	Booroolong Frog
No	No	Litoria raniformis	Southern Bell Frog,, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog
No	No	Lophochroa leadbeateri leadbeateri	Major Mitchell's Cockatoo (eastern), Eastern Major Mitchell's Cockatoo
No	No	Macquaria australasica	Macquarie Perch
Yes	Yes	Melanodryas cucullata cucullata	South-eastern Hooded Robin, Hooded Robin (south-eastern)
No	No	Neophema chrysostoma	Blue-winged Parrot
No	No	Nyctophilus corbeni	Corben's Long-eared Bat, South-eastern Long-eared Bat
No	No	Petauroides volans	Greater Glider (southern and central)
Yes	Yes	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
Yes	Yes	Polytelis swainsonii	Superb Parrot
Yes	Yes	Pomaderris cotoneaster	Cotoneaster Pomaderris
Yes	Yes	Prasophyllum petilum	Tarengo Leek Orchid
Yes	Yes	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Pycnoptilus floccosus	Pilotbird
No	No	Rostratula australis	Australian Painted Snipe
No	No	Senecio macrocarpus	Large-fruit Fireweed, Large-fruit Groundsel
Yes	Yes	Stagonopleura guttata	Diamond Firetail
Yes	Yes	Swainsona recta	Small Purple-pea, Mountain Swainson-pea, Small Purple Pea
Yes	Yes	Synemon plana	Golden Sun Moth
Yes	Yes	Thesium australe	Austral Toadflax, Toadflax

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Grey Box (<i>Eucalyptus microcarpa</i>) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia
No	No	Natural Temperate Grassland of the South Eastern Highlands
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. *

Threatened Ecological Communities

Preliminary field surveys identified vegetation occurring within the Development Corridor that may correspond to a TEC listed under the EPBC Act.

The current Development Corridor may result in impacts to 166.55 ha of *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland*. During the EIS stage, additional surveys will confirm the extent of EPBC Act listed *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland* and the Development Footprint will be refined to minimise impacts to this TEC, where feasible.

For the purposes of this assessment, the application of the significant impact criteria has assumed that 166.55 ha of the community could be cleared.

Threatened species

Preliminary field surveys have identified the occurrence of *Ammobium craspedioides* (Yass Daisy), *Polytelis swainsonii* (Superb Parrot) and *Stagonopleura guttata* (Diamond Firetail) within the Development Corridor. It is noted that only preliminary surveys have been completed, and targeted threatened species surveys will be conducted in the future which may confirm the presence of additional threatened species.

The Project has the potential to further impact the following additional MNES, which have been previously identified within the vicinity of the Action Area or determined as having the potential to occur based on likelihood of occurrence assessment:

- *Aphelocephala leucopsis* (Southern Whiteface)
- *Aprasia parapulchella* (Pink-tailed Legless Lizard)
- *Caladenia concolor* (Crimson Spider-orchid)
- *Callocephalon fimbriatum* (Gang-gang Cockatoo)
- *Calyptorhynchus lathami lathami* (South-eastern Glossy Black-Cockatoo)
- *Climacteris picumnus victoriae* (Brown Treecreeper (south-eastern))
- *Dasyurus maculatus maculatus* (Spotted-tailed Quoll (SE mainland population))
- *Delma impar* (Striped Legless Lizard)
- *Grantiella picta* (Painted Honeyeater)
- *Grevillea iaspicula* (Wee Jasper Grevillea)
- *Leucochrysum albicans* subsp. *tricolor* (Hoary Sunray)
- *Litoria booroolongensis* (Booroolong Frog)
- *Melanodryas cucullata cucullata* (South-eastern Hooded Robin)
- *Petaurus australis australis* (Yellow-bellied Glider (south-eastern))
- *Phascolarctos cinereus* (Koala)
- *Pomaderris cotoneaster* (Cotoneaster Pomaderris)
- *Prasophyllum petilum* (Tarengo Leek Orchid)
- *Pteropus poliocephalus* (Grey-headed Flying-fox)
- *Swainsona recta* (Small Purple-pea)
- *Synemon plana* (Golden Sun Moth)
- *Thesium australe* (Austral Toadflax).

The final impact to threatened species habitat is unknown as the Project has yet to go through the detailed design phase. The final Project Development Footprint will be guided by the location of threatened species habitat and will seek to avoid impacts where possible.

An assessment of potential direct and indirect impacts based on the indicative Development Corridor for these species is provided Appendix A Table 5, page 34 and provides an estimate of the potential area of impact to listed threatened species that are known or have potential to occur within the Action Area (as determined through field survey undertaken to date and the Likelihood of Occurrence Assessment (Appendix D, page 65-80). Impact areas are based on associated mapped PCTs within the Action Area.

The PCT associations are based on the NSW Threatened Species Profile Database and the BAM calculator. All PCT associations are for foraging habitat only unless specified otherwise. Only species or TEC that have an EPBC Act status have been included in the impact table provided in Table 5.

The BDAR which will form part of the EIS and will include an assessment of significance of impacts to EPBC Act listed threatened species and communities and migratory species, in accordance with the *EPBC Act Policy Statement 1.1 Significant Impact Guidelines (2013): Matters of National Environmental Significance* and the *Draft Referral Guidelines for 14 birds listed as Migratory Species under the EPBC Act (2015)*.

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. *

Threatened ecological communities

White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Box Gum Woodland) was recorded within the Action Area during preliminary field surveys. This TEC is associated with vegetation mapped as PCT 3376 within the Action Area. The Action Area may affect up to 166.55 ha Box Gum Woodland TEC through vegetation clearing to facilitate the construction and operation of the Action Area. Considering that this TEC may occur within the Action Area, the significant impact criteria was applied with respect to Box Gum Woodland and concluded that the Project may result in a significant impact to this TEC.

The Action Area may remove up to 166.55 ha of Box Gum Woodland within the Development Corridor. The significant impact criteria was applied with respect to Box Gum Woodland and concluded that the Action Area may result in a significant impact to this TEC (Appendix A, Table 6 page 34). More information on this species is provided in Appendix A, Section 4.1.4.5, page 32-37.

Flora

***Ammobium craspedioides* (Yass Daisy)**

Ammobium craspedioides (Yass Daisy) was recorded within the Action Area and Development Corridor during preliminary field surveys. Potential habitat in the form of PCTs 3376, 3540, 3541 and 3730 was present within the Action Area. The Project may remove up to 1,384.95 ha of potential *A. craspedioides* habitat across the Development Corridor through vegetation clearing to facilitate the construction and operation of the Project. Considering that this species may occur within the Action Area, the significant impact criteria was applied with respect to the *A. craspedioides* and concluded that the Project may result in a significant impact to this species.

Targeted surveys for the *A. craspedioides* were not conducted across the Action Area. However, preliminary surveys identified this species as occurring within the Action Area and Development Corridor. As such, assumptions were made about the areas of potential habitat in the Development Corridor for this species. A precautionary approach has been taken and assumed that PCTs 3376, 3540, 3541 and 3730 in all recorded condition classes could provide habitat for the species, which would account for 1,384.95 ha of the Development Corridor (Appendix E, Figure 6, page 86).

The Action Area may remove up to 1,384.95 ha of potential *A. craspedioides* habitat through vegetation removal within the Development Corridor. The significant impact criteria was applied with respect to the *A. craspedioides* and concluded that the Action Area may result in a significant impact to this species (Appendix A, Table 7 page 39). More information is provided for this species in Appendix A, Section 4.1.4.5, page 37 -41.

OTHER MNES - more information provided in Appendix A, Section 4.1.4.5, page 41-42.

Caladenia concolor (Crimson Spider-Orchid) has been identified by recent historical records in the landscape surrounding the Development Corridor. The species population occurring in Burrinjuck Nature Reserve grows in open forest habitat with a canopy dominated by *Eucalyptus* species including *Eucalyptus dives* (Broad-leaved Peppermint), *E. goniocalyx* (Long-leaved Box) and *E. macrorhyncha* (Red Stringybark) (TSSC 2016a and NSW TSSC 2011). The species is listed as vulnerable under the EPBC Act.

Grevillea iaspicula (Wee Jasper Grevillea) has been identified by recent historical records in the landscape surrounding the Development Corridor. The species is restricted to the Wee Jasper-Burrinjuck area where it grows on steep slopes, rock crevices around cave entrances, steep rocky hillsides or at the base of cliffs (DEWHA 2008). The species is listed as endangered under the EPBC Act.

Pomaderris cotoneaster (Cotoneaster Pomaderris) has the potential to occur within native vegetation validated by preliminary field surveys within the Development Corridor. The species occurs in south-eastern Australia where it occurs in a wide range of forest and woodland habitats (DAWE 2021c). The species is listed as endangered under the EPBC Act.

Prasophyllum petilum (Tarengo Leek Orchid) has the potential to occur within native vegetation validated by preliminary field surveys within the Development Corridor. The species is only known from five sites in south-eastern NSW and one site in the ACT, where it occurs grassy woodlands and grasslands (DAWE 2021d). The species is listed as endangered under the EPBC Act.

Swainsona recta (Small Purple-pea) has the potential to occur within native vegetation validated by preliminary field surveys within the Development Corridor. The species occurs in south-eastern NSW and the ACT in predominately grassy woodlands but sometimes grassy open forest (DCCEEW 2023g). The species is listed as endangered under the EPBC Act.

Thesium australe (Austral Toadflax) has the potential to occur within native vegetation validated by preliminary field surveys within the Development Corridor (DoE 2013). The species occurs in south-eastern Australia. *T. australe* occurs in grassland or woodland communities where it is semi-parasitic on the roots of grassland species (DoE 2013). The species is listed as vulnerable under the EPBC Act.

Fauna - more information provided in Appendix A, Section 4.1.4.5, page 42 - 44.

Litoria booroolongensis (Booroolong Frog) has been identified by recent historical records in the landscape surrounding the Development Corridor. The species is listed as endangered under the EPBC Act.

Birds

Aphelocephala leucopsis (Southern Whiteface) has been identified by recent historical records in the landscape surrounding the Development Corridor. The species is listed as vulnerable under the EPBC Act.

Callocephalon fimbriatum (Gang-gang Cockatoo) has been identified by recent historical records in the landscape surrounding the Development Corridor. The species is listed as endangered under the EPBC Act.

Climacteris picumnus victoriae (Brown Treecreeper (south-eastern)) has been identified by recent historical records in the landscape surrounding the Development Corridor. The species is listed as vulnerable under the EPBC Act.

Grantiella picta (Painted Honeyeater) has been identified by recent historical records in the landscape surrounding the Development Corridor. The species is listed as vulnerable under the EPBC Act.

Melanodryas cucullata cucullata (South-eastern Hooded Robin) has been identified by recent historical records in the landscape surrounding the Development Corridor. The species is listed as endangered under the EPBC Act.

Polytelis swainsonii (Superb Parrot) has been identified within the Development Corridor. The species is listed as vulnerable under the EPBC Act. The Proposed Action may impact up to 262.44 ha of potential Superb Parrot habitat.

Stagonopleura guttata (Diamond Firetail) has been identified within the Development Corridor. The species is listed as vulnerable under the EPBC Act. The Proposed Action may impact up to 1,142.88 of potential Diamond Firetail habitat.

Mammals

Dasyurus maculatus maculatus (Spotted-tailed Quoll (SE mainland population)) has been identified in recent historical records in the landscape surrounding the Development Corridor. This subspecies is listed as endangered under the EPBC Act.

Petaurus australis australis (Yellow-bellied Glider (south-eastern)) has been identified in recent historical records in the landscape surrounding the Development Corridor. The species is listed as vulnerable under the EPBC Act.

Phascolarctos cinereus (Koala) has been identified in recent historical records in the landscape surrounding the Development Corridor. The species is listed as endangered under the EPBC Act.

Pteropus poliocephalus (Grey-headed Flying-fox) has been identified in recent historical records in the landscape surrounding the Development Corridor. The species is listed as vulnerable under the EPBC Act.

Reptiles

Aprasia parapulchella (Pink-tailed Legless Lizard) has been identified in recent historical records in the landscape surrounding the Development Corridor. The species is listed as vulnerable under the EPBC Act.

Delma impar (Striped Legless Lizard) has the potential to occur within native vegetation validated by preliminary field surveys within the Development Corridor. The species is listed as vulnerable under the EPBC Act.

Insects

Synemon plana (Golden Sun Moth) has been identified in recent historical records in the landscape surrounding the Development Corridor. The species is listed as vulnerable under the EPBC Act.

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. *

The Proposed Action has the potential to affect the entities discussed in Appendix A, Section 4.1.4.5 pages 32 - 44 through clearing of remnant native vegetation.

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. *

Further surveys are still required to validate the remaining vegetation located within the Development Corridor, which will identify any areas containing remnant native vegetation. Following this, targeted threatened species surveys will be undertaken throughout the Development Corridor. The results of these surveys will be detailed in the Biodiversity Development Assessment Report (BDAR) for the Action Area. The BDAR and EIS will provide avoidance and mitigation measures undertaken for the Action Area.

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

Potential offset opportunities for the Proposed Action will be determined following targeted threatened species surveys and preparation of the BDAR. These will be determined following generation of credit requirements following submission of the Project case in the online BAM Calculator.

4.1.5 Migratory Species

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

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

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

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

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

No

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

*

It is unlikely that suitable habitat exists within the Development Corridor that would support migratory species based on the preliminary surveys. A likelihood of occurrence assessment was undertaken for each migratory species produced by the PMST report (Appendix D, page 65-80).

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.

*

No. There are no nuclear related matters within the Action Area.

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.

*

No. There are no Commonwealth Marine Areas within the Action 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.

*

No. The Action Area is not located within proximity to the Great Barrier Reef.

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

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

No

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

*

No. There is no coal mining or coal seam gas related water source within the Action Area.

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.

Direct impact	Indirect impact	Commonwealth land area
No	No	Commonwealth Land - Australian Telecommunications Commission

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.

*

No. The PMST search returned four (4) telecommunication towers as occurring within the Action Area. However, none of these are located within the Development Corridor. No impacts will occur to these protected matters.

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.

*

No. The Action Area is not located overseas.

4.1.12 Commonwealth or Commonwealth Agency

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

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

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

- Threatened Species and Ecological Communities (S18)

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)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

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

No

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

Several key areas were considered when selecting the Action Area for the Action Area, including:

- Suitability of the Action Area as a wind resource
 - Environmental impacts
 - Access to an electricity network
 - Land suitability
 - Socio-economic impacts on local communities
1. Wind resources at the Action Area have been monitored since 2022 and modelling using long-term reference data shows wind speeds are high and consistent, demonstrating the viability of the Proposed Action. Existing 66 kV, 132 kV and 330 kV transmission lines occur within the Action Area, all of which could be considered as a means for connection to an electrical network. Additionally, it has been proposed that the Project could potentially connect to the proposed 500 kV HumeLink project which would be undertaken by Transgrid which would connect Wagga Wagga, Bannaby and Maragle.
 2. The Project will adopt the avoid, minimise, mitigate and offset hierarchy of controls to manage potential environmental impacts which will be further detailed in future associated reports, including an environmental impact statement. The current design for the Development Corridor has been decided based on known constraints and follows environmental design criteria by locating in areas of predominantly cleared land, maintaining vegetation buffers and avoiding ridgelines.
- The surrounding area of the Action Area has a low population density, reducing potential noise and visual impacts of the Proposed Action. Further analysis and monitoring of impacts will be studied further throughout the life of the project. The Action Area is also located close to population centres of Yass, Gundagai and Canberra, which are well established to cater for an increase in workforce, having previous experience in similarly large projects.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	17/03/2025	No	Medium

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025		Medium

1.2.7 Public consultation regarding the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025		Medium

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025		Medium

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025		Medium

2.2.5 Tenure of the action area relevant to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025		Medium

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025		Medium

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document				

Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025	Medium
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3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025		Medium

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025		Medium

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025		Medium

4.1.4.5 (Threatened Species and Ecological Communities) Why you consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025		Medium

4.1.4.8 (Threatened Species and Ecological Communities) Why you think your proposed action is a controlled action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025		Medium

4.1.5.3 (Migratory Species) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix A B C D E F_V1.pdf Supporting documents for referral	16/03/2025		Medium

5.2 Declarations

✔ Completed Referring party's declaration

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

ABN/ACN	87096512088
Organisation name	ECO LOGICAL AUSTRALIA PTY LTD
Organisation address	PO Box Q108. Sydney NSW 1230
Representative's name	Belinda Failes
Representative's job title	Ecologist
Phone	0292593707
Email	belle.failes@tetrattech.com
Address	PO Box Q108. Sydney NSW 1230

☒ 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, **Belinda Failes of ECO LOGICAL AUSTRALIA PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

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

✔ Completed Person proposing to take the action's declaration

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

ABN/ACN	674936371
Organisation name	BOOKHAM WIND FARM PTY LTD
Organisation address	6000 WA
Representative's name	Alastair Smith

Representative's job title	General Manager, Development
Phone	0432 053 864
Email	alastair.smith@squadronenergy.com
Address	Level 1, 25 Bolton St, Newcastle NSW 2300 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. *

☒ I, **Alastair Smith of BOOKHAM WIND FARM 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. *

☒ Completed Proposed designated proponent's declaration

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

Same as Person proposing to take the action information.

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

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

☒ I, **Alastair Smith of BOOKHAM WIND FARM 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. *