Mangoplah BESS

Application Number: **02946** Commencement Date: **29/05/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Mangoplah BESS

1.1.2 Project industry type *

Energy Generation and Supply (renewable)

1.1.3 Project industry sub-type

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1.1.4 Estimated start date *

08/10/2027

1.1.4 Estimated end date *

08/10/2057

1.2 Proposed Action details

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

Project introduction

The Proposed Action is located approximately at 4178 Holbrook Road, Mangoplah, within the Wagga Wagga Local Government Area (LGA), approximately 3.1 kilometres (km) east of the township of Mangoplah and approximately 30.6 km south of the regional city of Wagga Wagga, New South Wales (NSW)(Att 1 Regional Context).

The Proposed Action includes the construction, operation and decommissioning of a Battery Energy Storage System (BESS) with a nominal capacity of up to 100 Megawatts (MW) / 400 Megawatt hours (MWh) and would supply electricity to the national electricity market during peak periods with an operational life of up to 30 years.

Project benefits

Energy storage technologies can unlock electricity generation growth in areas experiencing network constraints. They will also support on-demand energy needs as the network transitions to more renewable sources of energy.

The development of energy storage facilities projects aligns with both the NSW governments identification that batteries can (NSW Govenment, 2013):

'… increase the value of renewable energy to individuals, network operators and investors. Storage allows renewable energy investors to increase revenue by selling power at times of peak market prices as opposed to when the electricity is generated. This in turn places downward pressure on electricity prices by encouraging more supply at times of peak demand and reducing the need for additional distribution and transmission infrastructure.'

As well as these broader benefits, the Proposed Action will aim to:

- Assist Australia's energy transition from fossil fuels to renewable energy and contribute to achieving net-zero emissions by 2050.
- Provide system strength services to the transmission (and distribution) networks in the area and therefore, provide security of supply and safeguard the energy network.
- Increased economic activity locally and more broadly though grid investment.
- Delivering direct employment and labour opportunities.
- Avoid minimise, and mitigate adverse impacts on the environment and community during construction and operation.
- Establish a strong network of positive relationships within the local community.
- Make efficient use of existing electrical infrastructure, notably the existing 132 kilovolt (kV) transmission line that intersects the Project Area to minimise the need for additional easements.

The Proposed Action aims to construct and operate the Mangoplah BESS within a site that minimises potential environmental impacts. The land is sited within a suitable planning context, within proximity to existing electrical infrastructure, and on a location that maximises land use outside the central township.

Project area

The Lots involved include:

- Lot 222 DP754557
- Lot 225 and 228 DP754557 - site access from an existing private road off Holbrook Road
- Part of Lot 222 DP754557 would be leased from operation of the Proposed Action. As such, subdivision is not required for the Proposed Action.

The landholder is currently in consultation with Crown Lands to purchase crown lands located in between the involved land. It is expected that these crown roads will be closed prior to construction. However, if roads continue to exist at the commencement of construction, an appropriate licence or another form of access rights will be sought.

Project area, Disturbance footprint and Avoidance area

The sizes of the Project Area, Disturbance Footprint and Avoidance Area are listed below.

- Project Area - (Disturbance Footprint plus Avoidance Area) = 25.56 ha
- Disturbance Footprint - this is the area that is directly or indirectly impacted by the Proposed Action = 13.54 ha
- Avoidance Area - refers to the collective space within the Project Area that does not intersect with the Disturbance Footprint = 12 ha
- The sum of the Disturbance Footprint and Avoidance Area equals the Project Area.
- The area calculations of the Project Area, Disturbance Footprint and Avoidance Area differ very marginally from the areas calculated by the EPBC Act Business Portal itself under Section 2. This discrepancy is due to the difference between GIS software and is experienced on all referrals submitted by the referrer.

Project description

The infrastructure associated with the Proposed Action include the following:

- BESS - 100 MW / 400 MWh
  - 108 Tesla Megapack @xl
  - 27 4.6 MVA step-up transformers
  - 5 ring main units
  - 1 HV transformer
- Substation and switchyard
  - 33kV switch room
  - Auxiliary low-voltage transformer
  - 33/132kV Transformer
- Transmission line connections
  - 132 kV AC overhead line
- Site access
  - Main access is currently provided from the west via an unnamed private access road off Holbrook Road. This existing road will be upgraded and no new access roads to the site will be required.
  - The access point would require upgrading to enable safe entry and exit.
- Permanent ancillary infrastructure
  - Security fencing
  - Water tank
  - Pumpable sewage holding tank
  - Control room
  - Diesel generator
  - Onsite car parking
  - Internal access tracks
  - Landscaping
- Temporary works areas
  - Construction compound
  - Parking
  - Laydown areas
  - Draining
  - Bunding

An indicative infrastructure layout is provided in Att 2 (Project site and indicative layout).

Project lifecycle

Planned activities associated with the Proposed Action are listed below:

1. Site establishment & Construction (12 - 15 months)
2. Operation and maintenance - expected lifespan of 30 years
3. Decommissioning and rehabilitaiton - When that lifespan is reached (see above), an upgrade of the BESS could be undertaken and consequently either request an extension or lodge a new DA with a more current technology. If the site is not repowered at the end of its useful life, then it would be decommissioned.

Project Impacts

The Proposed Action will have direct and indirect impacts. The construction and operational phases have the potential to impact biodiversity values at the site that cannot be avoided via impact minimisation and avoidance measures. These would occur through direct impacts such as habitat clearance and associated noise and disturbance, and ongoing existence of infrastructure which may create barriers to movement.

Direct impacts during the pre-construction and construction phases will results from activities including but not limited to vegetation clearing, and construction of internal access roads. Direct impacts include the following:

- Clearing for construction
  - reduction in community extent and integrity
  - clearing for construction: habitat loss, trampling, loss of individuals
- Habitat loss
  - displacement of resident fauna
- Injury or mortality of fauna

Indirect impacts that contribute to key threatening processes from the proposal include soil and water contamination, invasion of key emerging weeds, creation of barriers to fauna movement, or the generation of excessive dust, light or noise:

- Accidental clearing or impacts to vegetation can occur where clearing boundaries are not delineated, or where machinery or materials are stockpiled within driplines of trees.
- Edge effects can occur where works and/or development occur in close proximity to vegetation, and can include shading, invasion by exotic species, and increase in edge ratios as a result of clearing patches.
- Increased risk of starvation, exposure and loss of shade or shelter through vegetation removal and edge effects, potential exists for sheltering locations to be impacted.
- Reduced viability of adjacent habitat due to vehicle traffic.
- Transport of weeds and pathogens from the site to adjacent vegetation.
- Cumulative loss of breeding habitat and competition for remaining resources.
- Inhibition of nitrogen fixation and increased soil salinity as increased soil salinity has the potential to occur as a result of vegetation removal impacting groundwater, bringing salt to surface.
- Increase in predatory and pest animal species populations.
- Increased sediment load within waterways and soil movement have potential to occur as a result of construction works.
- Increased risk of fire.

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? *

Key NSW Planning Policy and Framework

Planning Systems State Environmental Planning Policy 2021 *Environmental Planning and Assessment Act 1979 (EP&A Act):*

Clause 20 of Schedule 1 of the SEPP SRD states that the following is considered a State Significant Development (SSD): *Development for the purpose of electricity generating works or heat or their co-generation (using any energy source, including gas, coal, biofuel, distillate, waste, hydro, wave, solar or wind power) that: (a) has a capital investment value of more than $30 million, or (b) has a capital investment value of more than $10 million and is located in an environmentally sensitive area of State significance.'*

The Proposed Action would have a capital investment cost estimate of more than $30 million and is therefore a SSD under division 4.7 of the EP&A Act. The Minister for Planning and Public Spaces is the consent authority for SSD and applications are assessed by the Department of Planning, Housing and Infrastructure (DPHI). However, under certain conditions the Independent Planning Commission (IPC) would be the consent authority.

Commonwealth Approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act):

The Proposed Action has the potential to impact upon matters of National Environmental Significance (MNES) including threatened species. The MNES Significant Impact Guidelines are utilised to help determine if the Proposed Action is likely to have a significant impact upon MNES.

Under Part 3 of the EPBC Act, approval from the Australian Government Minster for the Environment is required for:

- An action that is likely to have a significant impact on MNES.
- An action taken by a person on Commonwealth land that is likely to have significant impact on the environment.
- An action taken by any person outside of Commonwealth land that is likely to have significant impact of the environment on Commonwealth land.
- An action taken by a Commonwealth agency anywhere in the world that is likely to have a significant impact on the environment.

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. *

Engagement commenced in September 2024 with the community and key stakeholders to complete the initial stages of a NSW SSD planning application, known as a Scoping Report. This engagement established a strong foundation for the next phase (i.e. EIS phase) by gathering valuable insights from community members and stakeholders.

The communication and engagement activities applied a broad approach and developed stakeholder lists to assess the current state of community sentiment towards the Project while working through queries, concerns and identifying potential community benefit opportunities. Engagement during this phase included:

- Posted letters
- Emails
- Phone calls
- Distribution of fact sheets and FAQ information sheets
- Online surveys
- Face to face meetings and online meetings
- Project website

Stakeholders that were contacted included the following:

- Adjacent and near neighbours
- The broader community of Mangoplah including residents, businesses and community organisations
- Traditional owners including the Wagga Wagga Local Aboriginal Land Council, Bundyi Cultural Tours and Mawang Gaway
- Government agencies and utility owners
- Wagga City Council
- State and federally elected Members
- Schools, TAFES and universities
- Advocacy groups

Engagement with Indigenous Stakeholders

Consultation with Aboriginal stakeholders was undertaken in accordance with Section 60 of the National Parks and Wildlife Amendment (Aboriginal Objects and Aboriginal Places) Regulation 2019 and following the process outlined in the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (ACHCRP). The guide outlines a four-stage process of consultation as follows:

- Stage 1 – Notification of project proposal and registration of interest
- Stage 2 – Presentation of information about the proposed project
- Stage 3 – Gathering information about cultural significance
- Stage 4 – Review of draft cultural heritage assessment report

Stage 1. Letters outlining the development proposal and the need to carry out an ACHA were sent statutory authorities including Heritage NSW, as identified under the ACHCRP on 25 September 2024. An advertisement was placed in the local newspaper, the *Daily Advertiser*, on 25 September 2024 seeking registrations of interest from Aboriginal people and organisations.

Stage 2. On 5 December 2024, an *Assessment Methodology* document for the Mangoplah BESS ACHA was sent to all the registered RAPs by email. The Assessment Methodology provided details of the background, a summary of previous archaeological surveys and the proposed heritage assessment methodology. The document invited comments regarding the proposed methodology and sought any information regarding known Aboriginal cultural significance values associated with the Project Area and/or any Aboriginal objects contained therein.

Stage 3. The *Assessment Methodology* outlined in Stage 2 included a written request to provide any information that may be relevant to the cultural heritage assessment of the Project Area. It was noted that sensitive information would be treated as confidential.

The survey fieldwork was organised, and two of the registered groups were selected for fieldwork. The survey fieldwork was carried out on 17 February 2025 with representatives selected from the registered RAP groups.

Stage 4 The draft Archaeological Heritage Assessment Report is currently with the registered RAPs groups inviting comment on the results, the significance assessment and the recommendations post completion of the testing program.

1.3.1 Identity: Referring party

Privacy Notice:

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

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

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

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

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

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

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

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	57008116130
Organisation name	FYFE Pty Ltd
Organisation address	5000 SA

Referring party details

Name	Maddison Shaw
Job title	Senior Project Manager
Phone	0439 964 333
Email	Maddison.s@nghconsulting.com.au
Address	Suite 9.01, Level 9, 28 Foveaux St, Sydney, NSW, 2010

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	74661046331
Organisation name	SAMSUNG C&T RENEWABLE ENERGY AUSTRALIA PTY LTD
Organisation address	2000 NSW

Person proposing to take the action details

Name	Stephan Mitchell
Job title	Development Manager
Phone	0430203726
Email	stephan.mit@samsung.com
Address	Suite 8.04, Level 8, 227 Elizabeth Street Sydney NSW 2000

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. *

The Trust name is the Mangoplah BESS Trust and it is a unit trust. The Trustee to the Trust is Mangoplah BESS Pty Ltd (Att 3 Unit 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. *

There are currently no proceedings under Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against Samsung C&T Renewable Energy Australia Pty Ltd.
Samsung C&T Renewable Energy Australia Pty Ltd commenced renewable energy projects in 2022 and is a subsidiary of the Samsung conglomerate, based in Korea. Samsung is a global leader in innovative technology and sustainability. Samsung has successfully delivered similar renewable energy projects across Europe, Korea, Canada, and USA. Samsung has recently entered into the Australian renewable energy market and have been developing solar farm, BESS and other projects.

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

Samsung C&T Renewable Energy Australia Pty Ltd acknowledges the critical importance of eco-friendly activities in sustainable growth and commits to fulfilling its social responsibility by prioritising environmental impacts, such as climate change prevention, resource circulation and biodiversity conservation, throughout all of our business processes. Samsung C&T Renewable Energy Australia Pty Ltd recognises the importance of biodiversity conservation and seeks to minimise the impact of its business activities on ecosystems by engaging in biodiversity conservation efforts.
The Environmental and Energy Policy has been attached to this referral (Att 4 Samsung Environmental and Energy Policy).

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	74661046331
Organisation name	SAMSUNG C&T RENEWABLE ENERGY AUSTRALIA PTY LTD
Organisation address	2000 NSW

Proposed designated proponent details

Name	Stephan Mitchell
Job title	Development Manager
Phone	0430203726
Email	stephan.mit@samsung.com
Address	Suite 8.04, Level 8, 227 Elizabeth Street Sydney NSW 2000

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	57008116130
Organisation name	FYFE Pty Ltd
Organisation address	5000 SA
Representative's name	Maddison Shaw
Representative's job title	Senior Project Manager
Phone	0439 964 333
Email	Maddison.s@nghconsulting.com.au
Address	Suite 9.01, Level 9, 28 Foveaux St, Sydney, NSW, 2010

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	74661046331
Organisation name	SAMSUNG C&T RENEWABLE ENERGY AUSTRALIA PTY LTD
Organisation address	2000 NSW
Representative's name	Stephan Mitchell
Representative's job title	Development Manager
Phone	0430203726
Email	stephan.mit@samsung.com
Address	Suite 8.04, Level 8, 227 Elizabeth Street Sydney NSW 2000

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: 25.56 Ha **Disturbance Footprint:** 13.54 Ha **Avoidance Area:** 12.02 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

4178 Holbrook Road, Mangoplah, NSW

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 project would lease part of Lot 222 DP754557 from the primary associated landholder for the development and operation of the Proposed Action. The land is freehold and will host the BESS and all associated infrastructure.

The site would be accessed via the existing private road off Holbrook Road (of Lots 225 and 228 DP754557). This existing road will be upgraded and no new access roads to the site will be required.

The landholder is in consultation with Crown Lands to purchase crown lands (Att 5 Land ownership). It is expected these crown roads will be closed prior to construction. However, if roads continue to exist at the commencement of construction, an appropriate licence or another form of access rights will be sought

3. Existing environment

3.1 Physical description

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

The Project Area including the access road corridor contain a combination of cropped paddocks, derived grasslands, woodlands and exotic pasture. The Project Area where the BESS will be located is predominantly cleared of native vegetation and is dominated by exotic pasture. The access road corridor traverses through several landuses, notably grazing native vegetation (off Holbrook Road and again at the access), farm buildings/infrastructure and cropping.

There is a historic Exploration License (EL9347) across the Project Area. However, no current mineral and / or extractive licence exists.

The Project Area is located in bushfire prone category 3 (medium risk of bushfire), though there was no evidence of recent bushfires seen during site visits.

The Project Area sits entirely within the Land and Soil Capability Assessment statewide mapping as Class 4 Moderate capability land, however, the small area of 10.4 ha to be impacted by the proposed action is unlikely to significantly detract from the 387,808 ha of Class 4 land in the broader Wagga Wagga LGA nor is it likely to lead to fragmentation of Class 4 land within the landscape.

There is no Biophysical Strategic Agricultural Land mapped within or near the Project Site.

There was no evidence of recent bushfire or flood events.

The Project Area is located within land zoned as Primary Production (RU1) under the Wagga Wagga Local Environmental Plan (LEP). Electricity generation is permissible with consent in this land zone. Section 2.36(1)(b) of the State Environmental Planning Policy (Transport and Infrastructure) 2021, NSW states development for the purpose of electricity generating works may be carried out by any person with consent on any land in a non-prescribed residential zone.

Refer to Att 6 Current land use.

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

Wagga Wagga sits within the Riverina, located in southwestern NSW, a significant agricultural region stretching from the foothills of the Snowy Mountains northwest through the Murrumbidgee River catchment to the flat, arid plains of Hay and Carrathool.

The Murrumbidgee River plays a vital role in the region, supplying water to major food production hubs within the Murrumbidgee Irrigation Area and Coleambally Irrigation Area (Green et al., 2011). Together, these areas contribute over one-quarter of NSW's total fruit and vegetable output and are among Australia's largest exporters of bulk wines. The natural resources of the Riverina region are of significant value to its residents, supporting both dryland and irrigated farmland that ranks among the most productive in NSW. Key agricultural activities within the region include rice cultivation, wheat and canola production, and pastoral operations.

The South West Renewable Energy Zone (REZ), situated within the Riverina, is poised to drive employment, improve energy connectivity and accessibility, and support energy-intensive industries such as high-value agriculture and manufacturing. The REZ declaration will likely further concentrate renewable energy development in the Riverina region. Already, there are several solar and wind developments in the area, including the Gregadoo Solar Farm, Livingstone Solar Farm, Belhaven BESS and Bomen Solar Farm (operational). State-significant Projects within the Wagga Wagga City Council Area also includes the Hume Link and Project Energy Connect, which feature major transmission line and grid upgrades that are partly within the Wagga Wagga region.

The township of Mangoplah is within the Wagga Wagga City Local Government Area located close to two major population centres. The surrounding landscape is characterised by rural farmlands, agricultural fields and Burkes Creek to the north. A high voltage transmission line intersects the Project Area north to south and the sealed two-lane Holbrook Road is located to the west.

The Project Area is dominated by open cropping and grazing areas as is the immediate surrounding land use. There are two mapped dams, connected by an ephemeral 1st order steam on the western extent of the surrounding area (Att 7 Hydrology).

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

Areas of Outstanding Biodiversity Value are special areas identified as having irreplaceable biodiversity value of critical importance to the state of NSW, Australia or internationally (DCCEEW (NSW), 2024). These areas are declared by the Minister of the Environment and placed on a public register.

Areas of Outstanding Biodiversity Value currently listed on the public register include:

- Gould's Petrel – critical habitat declaration
- Little Penguin population in Sydney's North Harbour – critical habitat declaration
- Mitchell's Rainforest Snail in Stotts Island Nature Reserve – critical habitat declaration
- Wollemi Pine – critical habitat declaration

None of these declared areas occurs within or in proximity to the Project Area.

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 surrounding topography is flat with elevation of 275 meters above sea level and remains consistent in a westerly direction for more than 5 km. The elevation increases to the east at approximately 3 km within the boundary of the Livingstone National Park, with highest elevation at 480 meters above sea level.

3.2 Flora and fauna

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

Plant Community Types and Threatened Ecological Communities / Critically Endangered Ecological Community

A Critically Endangered Ecological Community faces an extremely high risk of extinction in the immediate future (i.e. within the next 10 years), while a Threatened Ecological Community faces a high risk of extinction in the medium to long term (i.e. generally within the next 20 - 50 years). Critically endangered communities are in much more immediate danger than those classified as threatened.

Two Plant Community Types (PCT) and one associated Threatened Ecological Community (TEC) were confirmed within the Project Area as described below:

- PCT 76: *Western Grey Box tall grassy woodland on alluvial loam and clay soils in the NSW South Western Slopes and Riverina Bioregions.*
    - This PCT is generally associated with EPBC Act *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia.*
        - Approximately 0.15 ha of PCT 76 as a derived grassland is form is located within the western part of the Disturbance Footprint near the access road intersection of Holbrook Road however this patch **does not** qualify as the EPBC Act Listed TEC.
        - Approximately 0.32 ha of PCT 76 as a woodland form occurs in the Project Area, outside the Disturbance Footprint. This patch **does** qualify as the EPBC act listed TEC. This TEC has been avoided by the proposal.
- PCT 277: *Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion*.
    - This PCT is generally associated with EPBC Act *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland* (Critically Endangered Ecological Community) (CEEC).
        - The total area of PCT 277 with the Project Area is 6.93 ha.
        - The Disturbance Footprint will remove 1.85 ha of PCT 277
            - However, within that area only 0.57 ha is confirmed as the EPBC Act Listed CEEC
                - Within that area only 0.22 ha will be removed as part of the Proposed Action.
        - There are two distinct patches located outside of the Project Area of this EPBC Act List CEEC totalling 7.14 ha.

Refer to Att 8 (Plant Community Types), Att 9 (EPBC Act Threatened Ecological Communities) and Att 10 (Avoid and Minimse).

Field Surveys

Several surveys were undertaken between September 2024 - April 2025 and included the following:

(refer to Att 11 Survey Summary).

- Rapid vegetation assessments
- Habitat assessments, such as Hollow Bearing Trees, fallen timber, aquatic habitat
- Vegetation Plots
- Flora surveys
- Fauna surveys with targeted field surveys for the following EPBC Act listed species:
    - Key's Matchstick Grasshopper - *Keyacris scurra* - not found during field surveys - no Key's Matchstick Grasshopper, or evidence of Key's Matchstick Grasshopper were noted within the Project Area
    - Koala - *Phascolarctos cinereus* - no Koalas, or evidence of Koalas were noted within the Project Area

Surveys still to be undertaken for EPBC Act listed species include several species for which presence will be assumed untill surveys are completed:

Flora

- Eyebright (*Euphrasia arguta*) - CE under EPBC Act
- *Prasophyllum sp. Wybong* - CE under EPBC Act
- Tarengo Leek Orchid (*Prasophyllum petilum*) - E under EPBC Act
- Sand-hill Spider Orchid (Caladenia arenaria) - E under EPBC Act
- A spear-grass (*Austrostipa wakoolica*) - E under EPBC Act
- Leafless Indigo (*Indigo efoliata*) - E under EPBC Act
- Small Purple-pea (*Swainsona recta*) - E under EPBC Act
- Yass Daisy (*Ammobium craspedioides*) - V under EPBC Act

Fauna

- South-eastern Glossy Black Cockatoo (*Calyptorhynchus lathami lathami*) - V under EPBC Act
- Pink-tailed Legless Lizard (*Aprasia parapulchella*) - V under EPBC Act
- Sloane's Froglet (*Crinia sloanei*) - E under EPBC Act
- Striped Legless Lizard (*Delma impar*) - V under EPBC Act
- Pink Cockatoo (*Lophochroa leadbeateri*) - E under EPBC Act
- Superb Parrot (*Polytelis swainsonii)* - V under EPBC Act
- Golden Sun Moth (*Synemon plana*) - V under EPBC Act

LiDAR Surveys

Lots 225 and 228 DP754557 provide site access from the existing private road off Holbrook Road. This existing road will be upgraded to facilitate delivery of equipment and movement of construction/ emergency vehicles. No new access roads to the site will need to be cleared. Results from topographical surveys were overlain with vegetation surveys to identify a constructible area that would be required for access but that would avoid clearing of EPBC Act Listed Vegetation as far as possible (refer to Att 10 Avoid and minimise).

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

Regional Geological Context

The Project Area falls within the Inland Slopes subregion, which is characterised by landforms composed of steep, hilly and undulating ranges and granite basins. The associated geology comprises Ordovician to Devonian folded and faulted sedimentary sequences with inter-bedded volcanic rocks and large areas of intrusive granites. Occasional basalt caps and confined river valleys with terrace remnants also occur. Shallow stony soils occur on steep slopes, texture contrast soils grading from red subsoils are present on upper slopes to yellow subsoils on lower slopes. Alluvial sands, loams and clays also occur. Vegetation occurring in this subregion includes open forests and woodlands (SEED, 2024). Across suitable landscapes, the following vegetation communities occur:

- Blakely's Red Gum on lower slopes, merging west to Yellow Box, Grey Box and White Cypress Pine
- Red Stringybark is present on upper slopes with Black Cypress Pine, Kurrajong, Red Ironbark, White Gum, White Box, Yellow Box
- Rough-barked Apple on flats with River Oak occurs on upper tributaries and River Red Gum occurs on lower and larger streams.

Bioregion

The Project Area falls within the NSW South Western Slopes Bioregion and within the Inland Slopes subregion across two Mitchell landscapes:

- Wonga Hills and Ranges
    - Wonga Hills and Ranges occurs on Ordovician siltstone, slate, quartzite and phyllite. Landscape morphology includes rolling hills, low rises and ridges, with a general elevation of 250 to 370 m and local relief of 50 m. Occurs on stony, thin red and brown texture-contrast soils merging to yellow harsh texture-contrast soils on valley floors. Subsoil contains high salinity levels, with brackish flows in small creeks. Vegetation includes woodlands of Tumbledown Red Gum (*Eucalyptus dealbata*), Red Stringybark (*Eucalyptus macrorhyncha*) and Grey Box (*Eucalyptus microcarpa*) on slopes. Yellow Box (*Eucalyptus melliodora*), White Box (*Eucalyptus albens)* and occasional Blakely's Red Gum (*Eucalyptus blakelyi*) occurs on flats with Kangaroo Grass (*Themeda triandra*) and Plains Grass (*Austrostipa aristiglumis*) (DECCW, 2002).
- Brokong Plains
    - Brokong Plains occurs on Quaternary alluvial plains, with a general elevation of 170 m and local relief of <10 m. Soils are red-brown texture-contrast. This Mitchell landscape has been extensively cleared and cropped. Vegetation formerly included Grey Box (*Eucalyptus microcarpa*), Yellow Box (*Eucalyptus melliodora*), Blakely's Red Gum (*Eucalyptus blakelyi*) and White Cypress Pine (*Callitris glaucophylla*) woodland to open forest (DECCW, 2002).

Project Area Geological Context

There are no caves, crevices, cliffs or other areas of geological significance within or adjacent to the subject land. This was determined through the several site visits from 2024 to 2025 in conjunction with aerial imagery.

Vegetation

Native vegetation cover was calculated using a 1500 m radius around the proposed BESS area with an additional 500 m buffer around the access road leading from Holbrook Road to the Project Area. Native vegetation cover inside this buffer was determined through vegetation stratification and field survey according to the BAM 2020. Native vegetation outside this assessment area was determined using NSW State Native Vegetation mapping (DCCEEW (NSW), 2024) with adjustments made for local observations made during field work.

The native vegetation cover within the assessment area was calculated to be 173.52 ha out of a total area of 1120.90 ha.

The Project Area is predominantly cleared of native vegetation and is dominated by exotic pasture. The access road corridor traverses through grazing native vegetation off Holbrook Road and at the access.

Habitat Connectivity

Existing habitat connectivity within the Project Area is highly fragmented due to the presence of agricultural land uses. Roadside vegetation along Holbrook Road provides patchy connectivity between the Project Area and the Paper Forest located approximately 3.5 km south. Two patches of native vegetation are present close to the entrance to the Project Site via Holbrook Road. These patches running along the north and south sides of the access road / development footprint within the Project Site. Native grasses are established in close proximity to the access road on both sides and connects to each of these patches. However, canopy connectivity is quite limited as these patches are neighboured by only slight strands of native trees as well as some scattered trees that tend to follow mapped waterways.

A patch of mature native *Eucalyptus sp.* are present in the northern section of the Project Area. This patch connects with a thin line of native trees that continue to connect to riparian vegetation along Burkes Creek which eventually connects to Livingstone National Park located around 8 km east of the Project Area.

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.

No Commonwealth Heritage places intersect the Project Area.

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

There are no previously recorded Aboriginal sites within or in close proximity to the Project Area.

The survey of the Project Site by archaeologists and RAP representatives identified four new Aboriginal sites with stone artefacts within the Project Area and a modified tree located approximately 45 m north of the Project Area. These four new stone artefacts will be impacted by the proposed development whilst the single modified tree will be avoided.

No other values have been identified that would be affected by the Proposed Action.

No areas within the Project Area were identified to have potential for archaeological deposits or high archaeological sensitivity. Based on the topography, generally shallow soils, consideration of existing disturbance and the predictive archaeological model from the local area it was determined that there is a low potential for subsurface Aboriginal archaeological deposits with high densities of cultural material within the Project Area. Further investigations (such as subsurface test excavation) for Aboriginal heritage were determined not to be 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. *

Paperbark Creek

Paperbark Creek is the only named waterway which runs though the Project Area from the northwest to the south along the proposed access track. Paperbark Creek is Strahler Order 5 and designated Key Fish Habitat. This creek branches off from Burkes Creek located to the north of the Project Area. All other stream orders that intersect with the Project Area are branches from the Paper Forest Creek. These branches were mostly dry when targeted fauna surveys were conducted, however, *Juncus sp.* and other wetland species were found along where these branches would flow through the Project Area. This suggests that in large rainfall events, water does flow through these areas of the site.

Burkes Creek

Burkes Creek runs along the northern boundary of the northern lot 222 (DP754557). Which continues down and travels out of the eastern side of the Assessment Area. Riparian vegetation is present along Burkes Creek.

Refer to Att 7 Hydrology.

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.

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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. *

No World Heritage Areas have been identified in the Project Area or within 10 km of the Project.

4.1.2 National Heritage

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

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

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

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

No

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

No National Heritage Places are present in the Project Area nor within 10 km of the Project.

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. *

There are no wetlands located in the Project Area and no Ramsar Wetlands located within 10 km of the Project Area.

4.1.4 Threatened Species and Ecological Communities

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

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

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

Threatened species

Direct impact	Indirect impact	Species	Common name
No	No	Anthochaera phrygia	Regent Honeyeater
Yes	No	Aphelocephala leucopsis	Southern Whiteface
Yes	No	Aprasia parapulchella	Pink-tailed Worm-lizard, Pink-tailed Legless Lizard
No	No	Botaurus poiciloptilus	Australasian Bittern
No	No	Brachyscome muelleroides	Mueller Daisy
Yes	No	Caladenia concolor	Crimson Spider-orchid, Maroon Spider-orchid
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
Yes	No	Callocephalon fimbriatum	Gang-gang Cockatoo
Yes	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
Yes	No	Crinia sloanei	Sloane's Froglet
No	No	Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)
No	No	Euastacus armatus	Murray Crayfish
No	No	Falco hypoleucos	Grey Falcon
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Grantiella picta	Painted Honeyeater
No	No	Hirundapus caudacutus	White-throated Needletail
Yes	No	Lathamus discolor	Swift Parrot
No	No	Litoria raniformis	Southern Bell Frog, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog

Direct impact	Indirect impact	Species	Common name
No	No	Macquaria australasica	Macquarie Perch
Yes	No	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	Pedionomus torquatus	Plains-wanderer
No	No	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
Yes	No	Polytelis swainsonii	Superb Parrot
Yes	No	Prasophyllum petilum	Tarengo Leek Orchid
No	No	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Rostratula australis	Australian Painted Snipe
No	No	Senecio macrocarpus	Large-fruit Fireweed, Large-fruit Groundsel
Yes	No	Stagonopleura guttata	Diamond Firetail

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia
No	No	Weeping Myall Woodlands
Yes	No	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. *

Two Plant Community Types (PCT) and one associated Threatened Ecological Community / Critically Endangered Ecological Community (TEC) were confirmed within the Project Area as described below:

PCT 76: Western Grey Box tall grassy woodland on alluvial loam and clay soils in the NSW South Western Slopes and Riverina Bioregions

- Only 0.15 ha of PCT 76 as a derived grassland is located within the western part of the Disturbance Footprint near the access road intersection with Holbrook Road. This patch **does not** qualify as a EPBC Listed TEC. However the relevance of the removal of this habitat is its potential use by Threatened Species.

PCT 277: White Box-Yellow Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion.

- The sum of PCT 277 within the Project Area is 6.93 ha.
    - Approximately 1.85 ha of PCT 277 sits within the Disturbance Footprint and will be directly impacted.
        - Within that area only 0.22 ha confirmed as the EPBC Act Listed CEEC will be removed as part of the Proposed Action.
- There are bigger areas of intact PCT 277 which classify as the EPBC Act List CEEC located outside of the Project Area. These areas are collectively 7.14 ha and this demonstrates that the area being removed by the Proposed Action is relatively small.

Refer to Att 8 Plant Community Types and Att 10 Avoid and minimise.

Threatened Species

Targeted surveys have not been completed and therefore presence has been assumed for the following threatened species based on associated PCTs and the presence of potential habitat.

Refer to Att 12 Assessment of Significance and Att 13 Species Impact Area.

Flora

- Eyebright (*Euphrasia arguta*) - CE under EPBC Act
- *Prasophyllum sp. Wybong* - CE under EPBC Act
- Tarengo Leek Orchid (*Prasophyllum petilum*) - E under EPBC Act
- Sand-hill Spider Orchid (*Caladenia arenaria*) - E under EPBC Act
- A spear-grass (*Austrostipa wakoolica*) - E under EPBC Act
- Leafless Indigo (*Indigo efoliata*) - E under EPBC Act
- Small Purple-pea (*Swainsona recta*) - E under EPBC Act
- Yass Daisy (*Ammobium craspedioides*) - V under EPBC Act

Fauna

- South-eastern Glossy Black Cockatoo (*Calyptorhynchus lathami lathami*) - V under EPBC Act
- Pink-tailed Legless Lizard (*Aprasia parapulchella*) - V under EPBC Act
- Gang-gang Cockatoo (*Callocephalon fimbriatum*) - E under EPBC Act
- Sloane's Froglet (*Crinia sloanei*) - E under EPBC Act
- Striped Legless Lizard (*Delma impar*) - V under EPBC Act
- Pink Cockatoo (*Lophochroa leadbeateri*) - E under EPBC Act
- Superb Parrot (*Polytelis swainsonii*) - V under EPBC Act
- Golden Sun Moth (*Synemon plana*) - V under EPBC Act
- Corben's Long-eared Bat (*Nyctophilus corbeni*) - V under EPBC Act

The impact areas however are small and the Assessments of Significance have concluded that no significance impacts are likely to occur for any of the species.

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

No

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

Assessments of significance have been undertaken for several species as listed below (refer to Att 11). Each Assessment of significance considers the following:

- Are there any known records from the Project Area or surrounds?
- Has the species been confirmed absent through surveys or is presence being assumed based on association with suitable habitat (i.e. PCT 277 and PCT 76). In several instances targeted surveys are proposed to be undertaken in Spring 2025 during the appropriate species survey window.
- How much habitat will be impacted due to the Proposed Action and is that habitat classified as breeding or foraging or both.
- Will the Proposed Action:
    - reduce the area of occupancy of the species
    - fragment an existing population into two or more populations
    - adversely affect habitat critical to the survival of a species
    - disrupt the breeding cycle of a population
    - modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline
    - result in invasive species that are harmful to a critically endangered or endangered species becoming established in the critically endangered or endangered species' habitat
    - introduce disease that may cause the species to decline
    - interfere with the recovery of the species.

The Assessments of Significance undertaken for the species listed above all concluded that the Proposed Action was unlikely to have a significant action.

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

No

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

Impacts to Threatened Ecological Communities/ Critically Endangered Ecological Communities

The Project Area designated for the BESS and its ancillary infrastructure is entirely comprised of exotic vegetation. The access road from Holbrook Road intersection to the primary Project Area where the BESS will be located is a mix of exotic and native vegetation. Two PCT were confirmed in the access road namely PCT 76 and PCT 277 and of that only 0.22 ha of PCT 277 which is confirmed as the EPBC Listed CEEC will be impacted. This was achieved through careful design and survey work to ensure the Disturbance Footprint for the access road would impact as little of the CEEC as possible.

Due to the very small size of the MNES to be impacted we consider that the Proposed Action should be determined as Not Controlled.

Impacts to Threatened Species

The Assessments of Significance undertaken for Threatened Species identified in the EPBC Act Protected Matters Search Tool and listed above concluded that the Proposed Action was unlikely to have a significant action on any threatened species.

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. *

Avoidance

Access to the Project Area will be off a private road off Holbrook Road across Lots 225 and 228 DP754557 with no new access roads to the site needing to be cleared. LiDAR surveys were undertaken across these two lots and the results were overlain with vegetation surveys, the purpose of which was to identify an appropriate, constructible route, whilst minimising impact to native vegetation and particularly to EPBC Act CEEC. Refer to Att 12 EPBC Act Listed TEC retained and only 0.22 ha being impacted.

Mitigation

A summary of the proposed mitigation and management measures include but are not limited to the following:

- Implementation of pre-clearance surveys
- Implementation of relevant management plans including:
    - A Biodiversity Management Plan
    - Construction Environmental Management Plan

Adaptive management during construction and operation will be receptive to any new and relevant data that may arise through ongoing assessment and monitoring and is key to the successful implementation of the relevant management plans. This will allow ongoing flexibility to manage objectives, allow for relevant feedback and modifications. Construction management plans will have an adaptive management component.

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

No MNES listed under the EPBC Act has been identified as having the potential to be significantly impacted by the Proposed Action. As such, the proposal is not considered to require referral or offsets in accordance with the EPBC Offsets Policy.

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. *

The proposed action is not likely to have a direct or indirect impact on any migratory species, as there are no records of migratory species within the Project Area.

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 controlling provision is not present in the Project 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.

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

No

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

The controlling provision is not present in the Project 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 controlling provision is not present in the Project Area.

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 controlling provision is not present in the Project 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.

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

No

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

The controlling provision is not present in the Project Area.

4.1.11 Commonwealth Heritage Places Overseas

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

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

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

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

No

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

The controlling provision is not present in the Project Area.

4.1.12 Commonwealth or Commonwealth Agency

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

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

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

None

Conclusion on the likelihood of unlikely significant impacts

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

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

4.3 Alternatives

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

No

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

Alternative site locations

An alternative site within the Greater Hume LGA was considered. However, the Project Area was chosen as it provides:

- Sufficient levels of available capacity on the grid distribution system
- Proximity to an existing 132 kV transmission line
- Appropriate location on land zoning that permits for the development of a BESS with consent
- Appropriate siting of the BESS on low-condition exotic farming land
- Appropriate transport access to Holbrook Road and to the Project Area off Holbrook Road
- Only seven non-associated receivers within 4 km of the Disturbance Footprint
- Low land use conflict.

Once the general area was selected by the PPA, the only alternative option is to not undertake the Project. This is reflected as Option 1.

Do nothing

The do-nothing option considers the consequences of not carrying out the Proposed Action. The strategic need for the Project is justified to address the state's current need for storage methods that address grid firming to support climate change commitments that are moving away from reliance on fossil fuels. Not undertaking the Project would not assist in the transition away from fossil fuel reliant energy production.

The do-nothing option would not generate the environmental impacts required to construct and operate the BESS however, no impacts were concluded to be substantive, or lead to long term negative impacts to the environment and community.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 Regional Context.pdf Locality Map	02/06/2025	No	High
#2.	Document	Att 2 Project site and indicative layout.pdf Project site and indicative layout	05/06/2025	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 3 Project trust deed.pdf	20/03/2025	Yes	

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	Att 4 Samsung Environmental and Energy Policy_Sustainability_Samsung.pdf Samsung Environmental and Energy Policy	21/03/2025	No	High

2.2.5 Tenure of the action area relevant to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 5 Land ownership.pdf Land ownership and tenure of the Project Area.	05/06/2025	Yes	High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 6 Current Land Use.pdf Current land showing the primary BESS area (crops and exotic vegetation) and the existing access road	29/05/2025	No	High

3.1.2 Existing or proposed uses for the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 7 Project Area Hydrology.pdf Project Area Hydrology	20/05/2025	No	High

3.2.1 Flora and fauna within the affected area

Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 10 Avoid and minimise.pdf Avoidance of Threatened Ecological Communities within the Disturbance Footprint	06/06/2025	No	High
#2.	Document	Att 11 Survey Summary.pdf Survey Summary	30/05/2025	No	High
#3.	Document	Att 8 Plant Community Types.pdf Plant Community Types	06/06/2025	No	High
#4.	Document	Att 9 EPBC Threatened Ecological Community.pdf EPBC Listed Threatened Ecological Community located within the Disturbance Footprint	06/06/2025	No	High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 7 Project Area Hydrology.pdf Project Area Hydrology	19/05/2025	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 10 Avoid and minimise.pdf Avoidance of Threatened Ecological Communities within the Disturbance Footprint	05/06/2025	No	High
#2.	Document	Att 12 Assessment of Significance.pdf Assessments of Significance	30/05/2025	No	High
#3.	Document	Att 13 Species Impact Area.pdf Threatened species impact area	02/06/2025	No	High
#4.	Document	Att 8 Plant Community Types.pdf Plant Community Types	05/06/2025	No	High

5.2 Declarations

Completed Referring party's declaration

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

ABN/ACN	57008116130
Organisation name	FYFE Pty Ltd
Organisation address	5000 SA
Representative's name	Maddison Shaw
Representative's job title	Senior Project Manager
Phone	0439 964 333
Email	Maddison.s@nghconsulting.com.au
Address	Suite 9.01, Level 9, 28 Foveaux St, Sydney, NSW, 2010

☑ 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, **Maddison Shaw of FYFE 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	74661046331
Organisation name	SAMSUNG C&T RENEWABLE ENERGY AUSTRALIA PTY LTD
Organisation address	2000 NSW
Representative's name	Stephan Mitchell

Representative's job title	Development Manager
Phone	0430203726
Email	stephan.mit@samsung.com
Address	Suite 8.04, Level 8, 227 Elizabeth Street Sydney NSW 2000

☑ 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, **Stephan Mitchell of SAMSUNG C&T RENEWABLE ENERGY AUSTRALIA PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

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

✔ 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, **Stephan Mitchell of SAMSUNG C&T RENEWABLE ENERGY AUSTRALIA PTY LTD**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

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