South Coree BESS

Application Number: **02787** Commencement Date: **18/02/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

South Coree BESS

1.1.2 Project industry type *

Energy Generation and Supply (renewable)

1.1.3 Project industry sub-type

Solar Farm

1.1.4 Estimated start date *

01/10/2027

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. *

The Proposed Action is located approximately at 384 Broockmanns Road, Finley, located 6 km west of Finley within the Berrigan Shire Local Government Area (LGA) and situated in the Riverina Murry Region of NSW. The Proposed Action is situated 1km north east of the operational Finley Solar Farm (Att 1 Locality Map). The Proposed Action includes the construction, operation, and decommissioning of a Battery Energy Storage System (BESS) with a nominal capacity of up to 80 MW / 320 MWh and would supply electricity to the national electricity market during peak periods with an operational life of up to 30 years.

The Proposed Action would support grid stability, reliability and efficiency, important to the integration of greater renewable energy sources. It aims to minimise potential environmental impacts, through its design, construction, operation and decommissioning phases. As dictated by market demands and grid needs, the Project would:

- Provide new industries and opportunities to Finley and the broader region.
- Facilitate energy shifting or level out the imbalances between supply and demand, especially during peak demand periods.
- Improve voltage support and improved power quality.
- Provide stored electricity, to supply the Australian grid closer to main consumption areas.
- Better integrate the contribution of renewables.
- Reduce energy wastage (curtailment).

There are several terms associated with the Proposed Action include **Project Area**, **Disturbance Footprint** and **Avoidance Area** which are defined and expanded on below.

- ***Project Area*** – refers to the total Project site of 82.94 ha; the sum of the Disturbance Footprint and Avoidance Area equals the Project Area.
- ***Disturbance Footprint*** - this is the footprint that is directly or indirectly impacted by the Proposed Action and which covers an area of 13.80 ha. The disturbance footprint will included the battery containers, inverters, transformers, switchgear, control room, access tracks, site access point, onsite substation, connection point to the Finley Substation and associated substation upgrades, O&M buildings and all ancillary infrastructure.
- ***The Avoidance Area*** - refers to any area within the Project Area that does not intersect with the Disturbance Footprint and will not be cleared or disturbed during the course of the Proposed Action and will cover 69.14 ha

Project Lifecycle

Planned activities associated with the Project are listed below:

- **Stage 1 (Pre-construction):** The Project may include physical works ahead of the main construction phase including site access and track upgrades, installation of fencing, artefact salvage if required, geotechnical drilling and/or surveying and preparation of construction compounds and site facilities.
- **Stage 2 (Construction):** Delivery and construction of the BESS, substation and connection infrastructure. Earthworks would also include grading and compacting to form a suitable substrate for the installation of the BESS. The earthworks and excavations associated with the access tracks, buildings and cabling trenches would require removal of vegetation cover and soil disturbance in some areas.
- **Stage 3 (Post Construction)**: Commissioning and testing activities.
- **Stage 4 (Operation):** The operational lifespan could be up to 30 years. Activities undertaken during operation would include:
    - Infrastructure maintenance
    - Monitoring the performance of the BESS
    - Inspection of the installation
    - Routine preventative maintenance
- **Stage 5 (Post-Construction Rehabilitation):**
- **Stage 6 (Decommissioning):** The Project has a 30-year lease agreement with the landowner whereafter:

- An upgrade of the BESS could be undertaken and consequently either the project will need to request an extension or lodge a new development application. Alternatively, the Project would be dismantled and repurposed where possible. The battery containers would be removed, and the footings on which they are supported, would be removed. All buildings would be removed and underground cables where practicable.
- Batteries can be refurbished (overseas by the manufacturer) or recycled domestically for reprocessing. The shipping containers, cabling, transformers and switch gear are largely able to be reused or recycled. Some integrated plastic components may degrade over time to the point where they are not suitable for reuse, but these elements are minor. Gasses from the air conditioning and fire suppression systems can be captured and reused.
- The objective of decommissioning is to maximise recycling options and return the disturbed area to a safe, non-polluting and stable state. The broader area would remain suitable for continued agricultural or other land use options.

An indicative infrastructure layout is provided in Att 2.

Project Impacts

The Project 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 Project 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. *

In mid-2024, Samsung C&T Renewable Energy Australia Pty Ltd began engaging 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:

- Set up of a website;
- Near neighbours were contacted via post and email;
- Interviews with targeted stakeholders;
- Hosting of community information drop-in sessions; and
- A community feedback survey;
- Stakeholder groups included:
    - Adjacent and near neighbours (i.e. residential properties within 4km);
    - Broader Community and Region (i.e. Finley Township including residents, businesses and organisations such as sporting clubs, and tourism groups);
    - Traditional Owners (i.e. Cummeragunja Local Aboriginal Land Council and Bangerang Aboriginal Corporation).
    - Berrigan Shire Council; and
    - Government Agencies and Utilities (i.e. DPHI, Local/State/ Federal MP, TransGrid, Department of Agriculture, Transport for NSW, NSW Fire and Rescue, NSW DCCEEW Water and Murray Irrigation.

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 26 August 2024. An advertisement was placed in the local newspaper, the *Southern Riverina News*,on 28 August 2024 seeking registrations of interest from Aboriginal people and organisations. An additional letter was sent on 25 October 2024.

Stage 2. On 25 October 2024, an *Assessment Methodology* document for the South Coree 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. No response regarding cultural information was received in response to the methodology.

The survey fieldwork was organised, and two of the seven registered groups were selected for fieldwork. The survey fieldwork was carried out on 10 December 2024 with representatives selected from the registered RAP groups.

Stage 4 The initial draft version of the Archaeological Heritage Assessment Report was provided to 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.

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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? *

No

Referring party details

Name	Tammy Vesely
Job title	Senior Project Manager
Phone	0452 151 752
Email	tammy.v@nghconsulting.com.au
Address	T3, Level 7, 348 Edward St, Brisbane City, Qld 4000

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 South Coree BESS Trust and it is a unit trust. The Trustee to the Trust is South Coree BESS Pty Ltd. The set up of the trust is still underway and a Trust Deed is not yet available.

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

The Environmental and Energy Policy has been attached to this referral (Att 3 - Samsung Environmental and Energy Policy).

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.

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.

Name	Tammy Vesely
Job title	Senior Project Manager
Phone	0452 151 752
Email	tammy.v@nghconsulting.com.au
Address	T3, Level 7, 348 Edward St, Brisbane City, Qld 4000

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

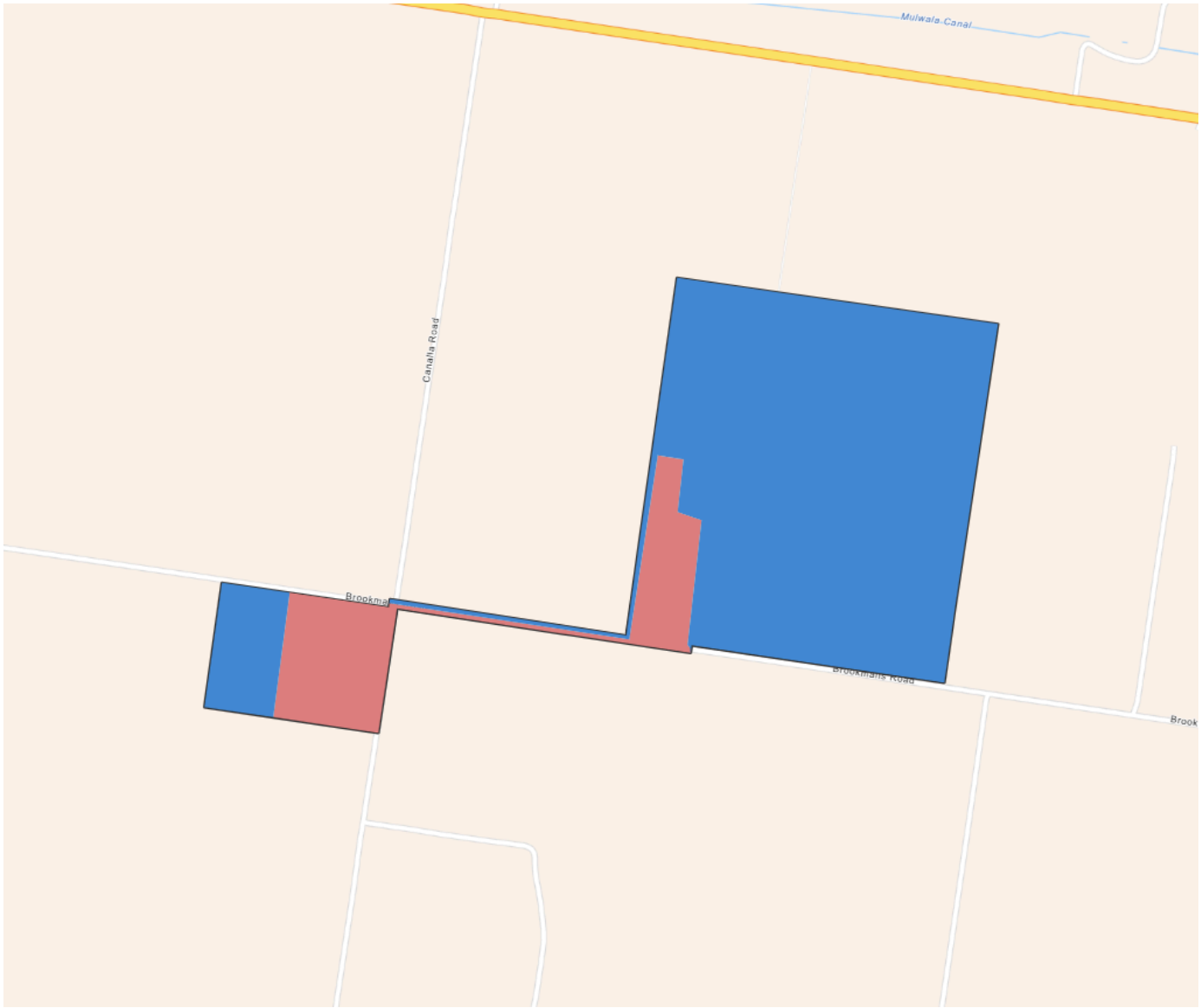
1.4 Payment details: Payment allocation

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: 82.94 Ha **Disturbance Footprint:** 13.80 Ha **Avoidance Area:** 69.14 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

384 Broockmanns Road, Finley NSW, 2713.

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 tenure of the land is described below:

- The BESS, internal access tracks, on-site substation and O&M buildings will be located on Lot 4 DP470920, zoned RU1 (Primary Landowner/ freehold). The Proponent currently has an ‘option to lease’ agreement with the landowner for this lot which is **freehold**.
- The connection to the Transgrid substation and upgrade of the substation itself is located on Lot B DP961693, zoned RU1 (Transgrid).
- Brookmanns Road, zoned SP2 (Berrigan Shire Council).
- No subdivision is proposed unless requested by the Network Provider.
- An access and transmission easement will be created.

3. Existing environment

3.1 Physical description

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

The Project Area is located at 384 Broockmanns Road, Finley, 6 km west of Finley within the Berrigan Shire LGA, in the Riverina Murry Region of NSW.

- The Project Area is located across the following:
  - Lot 4 DP470920, zoned RU1 (Primary Landowner)
  - Lot B DP961693, zoned RU1 (Transgrid)
  - Brookmans Road, zoned SP2 (Berrigan Shire Council)
  - No subdivision is proposed unless requested by the Network Provider
  - An access and transmission easement will be created.
  - Access to the Project Area will be facilitate via Broockmanns Road.
- The Project Area is situated 1 km north east of the operational Finley Solar Farm (Att 1 Locality Map).
- The Project Area is located approximately 39.2 km south southeast of the nominated South West Renewable Energy Zone (SWREZ), but not inside the REZ itself.
- Two other BESS projects are proposed in close proximity, namely the Finley BESS and the Berrigan BESS.
- The Murray Valley National Park is located approximately 18.2 km south of the Project Area.
- The Finley Railway Precinct is a listed item on the State Heritage Register and is located 5.2 km east of the Project Area. There are 15 items listed under the Local Environmental Plan (LEP) within the town of Finley, with the closest to the Project Area being the Finley Police Station, which is located 5 km east of the Project Area.
- The Project Area and surrounds have been irrigated and used for cropping for at least the last 100 years. This is facilitated by the Mulwala Canal which runs to the western and northern sides of the Project Area (within 500 m). The Mulwala Canal is the largest irrigation canal in the Southern Hemisphere, and supplies the southern Riverina towns of Berrigan, Finley, Bunnaloo and Wakool.
- The Project Area is rural farmland which has been predominantly cleared of overstorey vegetation.
- The Project Area is currently used for agricultural purposes (i.e. predominantly horse grazing), and includes a residence and several sheds.
- There are no mapped waterways within the Project Area though there is a farm dam within the affected Lot (i.e. Lot 4 DP470920).
- The Project Area and immediate surrounds are not mapped as flood prone land and there have been no recent major flood events.
- The entirety of the Project Area and surrounds are mapped as Class 3 in accordance with the Land and Soil Capability Scheme (LSC) (NSW OEH, 2012). This category is described as important for is capability to sustain cultivation on a rotational basis and be used for a range of crops.
- The Project Area is not located on identified Biophysical Strategic Agricultural Land.
- There is no mapped bushfire prone land across the Project Area or in close proximity and there have been no recent major bushfire events.
- There is no current exploration and mining title or lease across the Project Area.
- The Project Area is a combination of:
  - Native grassland (i.e. specifically derived PCT 76 (Western Grey Box tall grassy woodland); there are no mature trees in the Project Area, no hollow bearing trees, rocky habitats or other associated microhabitats).
  - Exotic dominated grassland
- Vegetation within a 500 m buffer zone of the Project Area is highly degraded and regularly trampled by horses/ livestock.
- Vegetation within the Project Area is of poor quality and derived grasslands within the Disturbance Footprint and areas adjacent to the Finley Substation and the Mulwala Canal have low vegetation integrity scores (<15), which under the NSW BAM-C does not produce any ecosystem credits or species credits for PCT 76 (Derived Western Grey Box woodland).

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

Land use in the Project Area is currently mapped as irrigated cropping though not currently cropped, it is predominately used for horse grazing. The surrounding and immediately adjacent land use is dominated by irrigated cropping including associated infrastructure such as canals and channels. The surrounding landscape includes the arterial Riverina Highway which is a sealed two laned road.

Other uses in the surrounding area include electricity distribution, storage and generation:

- A 66 kV transmission line runs along the southern extent of the Project Area within the Broockmanns Road corridor.
- The Project Area is located in close proximity to the Finley Substation and the operational Finley Solar Farm.
- The proposed Finley BESS is located west of the Project Area in the adjacent lot.
- The proposed Berrigan BESS is located west of the proposed Finley BESS.

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

- The Mulwala Canal runs to the western and northern sides of the Project Area and is the largest irrigation canal in the Southern Hemisphere and supplies the southern Riverina towns for Berrigan, Finley, Bunnaloo and Wakool. It runs from Lake Mulwala for 156 km, across the Riverina Plain to Deniliquin.
- A search of the NSW State Heritage Inventory (SHI) database was conducted which indicated that there are no previously recorded Aboriginal Places listed under the NPW Act within the Berrigan LGA.
- There are nine heritage sites listed on the Register of National Estate (a non-statutory archive) within the Berrigan LGA. No items of national, Commonwealth or World Heritage significance are located within or adjacent to the Project Area.

There are no outstanding natural features and/or any other important or unique values that applies 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 elevation of the Project Area is approximately 108 m above sea level and the terrain is flat.

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.

Vegetation in the Project Area is of a very degraded quality, divided into paddocks and dominated by low quality native grasses and forbs (*Rytidosperma* and *Vittadinia* dominated). These grasses are not representative of a Plant Community Type (PCT), however, PCT 76 (*Western Grey Box tall grassy woodland on alluvial loam and play soils in the NSW South Western Slopes and Riverina Bioregion*) has been assigned due to remnant Grey Box trees in the surrounding area (i.e. outside of the Project Area) and the presence of understorey species. Derived grasslands have been assigned a Vegetation Integrity Score of 15. This is considered a low score, indicating the poor condition of the derived grassland. There are no mature trees, hollow bearing tress, fallen timber, rocky habitats or other associated microhabitats.

The access point to the BESS and roadside vegetation is dominated by exotics interspersed with scattered native grasses and forbs (i.e. 14% native cover). The groundcover within the Finley Substation Lot is highly degraded, low condition grassland. It is comprised predominantly of exotic vegetation, interspersed with scattered native flora.

From the perspective of Threatened Species, surveys confirmed the following:

- Spear Grass *(Austrostipa wakoolica); s*urveyed for and found to not be present in the Project Area.
- Slender Darling Pea *(Swainsona murrayana); s*urveyed for and found to not be present in the Project Area.
- Nyctophilus corbeni (Corben's Long-eared bat); determined as potentially present through Anabat Analysis however no habitat suitable for this species will be removed.
- Targeted surveys will be undertaken for Sloanes Froglet (*Crinia sloanei*) in July 2025 during the appropriate survey window.

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

The Project Area is located within the Riverina Bioregion which covers the alluvial fans of the Lachlan, Murrumbidgee and Murray Rivers west of the Great Dividing Range and extends down the Murray. The red-brown and grey clays in the bioregion support grassland communities that are nationally significant. Calcareous, sandy soils, that tend to be feature of adjacent bioregions, are also present in the Riverina and support mallee communities. Given these soil profiles and since the Project Area is located on the outer edge of the floodplains, it is probable that soils within this area are comprised of red-brown to grey clays. This is confirmed by Mitchell landscape descriptions identify the area as comprising red brown texture-contrast soils with deep coarse sands in former stream channels with sandy levees and grey, brown and red cracking clays in depressions.

The Project Areas and its surrounds are mapped as Class 3 in accordance with the Land and Soil Capability Scheme. This category is described as important for its capability to sustain cultivation on a rotational basis and be used for a range of crops. The Project Area is not located on identified Biophysical Strategic Agricultural Land.

The Project Area is dominated by low quality native grasses and forbs (*Rytidosperma* and *Vittadinia* dominated) that are not representative of a Plant Community Type (PCT). However due to remnant grey box trees in the surrounding landscape, PCT 76 (*Western Grey Box tall grassy woodland on alluvial loam and play soils in the NSW South Western Slopes and Riverina Bioregion*) has been assigned, noting a vegetation integrity score of less than 15.

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.

- Based on the underlying geology of the Project Area there is unlikely to be deposits of material suitable for stone artefact manufacture in the local vicinity. It is likely that the lack of suitable raw materials available locally would mean any artefacts that are present were likely manufactured from material that was brought in from elsewhere.
- The topography of the Project Area comprises a single flat plain landform with no landforms features that are considered to be archeologically sensitive.
- As no waterways are located within the Project Area and because the higher order waterways are at located at least 19 km away, it is highly unlikely that certain Aboriginal sites (i.e., midden, hearths) will be identified within the Project Area, as the focus of subsistence activities is more likely to have taken place within proximity to more permanent water sources.
- There is very little potential for old growth native trees to be located within and/or adjacent to the Project Area that have the potential to contain evidence of Aboriginal cultural modification.

3.4 Hydrology

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

- There are no permanent waterways traversing the Project Area and it is not located within a mapped flood prone area. There is an ephemeral canal (i.e the Mulwala Canal) in the south of the Project Area which is only inundated when water delivery is required. There is one farm dam noted in the Project Area.
- The Project Area is not located on mapped Flood Prone Land.
- National Groundwater Information System mapping indicate that are no groundwater bores located on site and the Project Area is not mapped within an area of known groundwater vulnerability, acid sulphate soil presence or notable salinity.

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	NSW Central Murray State Forests
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	Amphibromus fluitans	River Swamp Wallaby-grass, Floating Swamp Wallaby-grass
No	No	Anthochaera phrygia	Regent Honeyeater
No	No	Aphelocephala leucopsis	Southern Whiteface
No	No	Aprasia parapulchella	Pink-tailed Worm-lizard, Pink-tailed Legless Lizard
No	No	Austrostipa wakoolica	
No	No	Botaurus poiciloptilus	Australasian Bittern
No	No	Brachyscome muelleroides	Mueller Daisy
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
No	Yes	Crinia sloanei	Sloane's Froglet
No	No	Euastacus armatus	Murray Crayfish
No	No	Falco hypoleucos	Grey Falcon
No	No	Galaxias rostratus	Flathead Galaxias, Beaked Minnow, Flat-headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Grantiella picta	Painted Honeyeater
No	No	Hirundapus caudacutus	White-throated Needletail
No	No	Lathamus discolor	Swift Parrot
No	No	Lepidium aschersonii	Spiny Peppercress
No	No	Lepidium monoplocoides	Winged Pepper-cress

Direct impact	Indirect impact	Species	Common name
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
No	No	Melanodryas cucullata cucullata	South-eastern Hooded Robin, Hooded Robin (south-eastern)
No	No	Neophema chrysostoma	Blue-winged Parrot
No	Yes	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)
No	No	Polytelis swainsonii	Superb Parrot
No	No	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Rostratula australis	Australian Painted Snipe
No	No	Sclerolaena napiformis	Turnip Copperburr
No	No	Senecio macrocarpus	Large-fruit Fireweed, Large-fruit Groundsel
No	No	Stagonopleura guttata	Diamond Firetail
No	No	Swainsona murrayana	Slender Darling-pea, Slender Swainson, Murray Swainson-pea
No	No	Swainsona plagiotropis	Red Darling-pea, Red Swainson-pea

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions
No	No	Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia
No	No	Natural Grasslands of the Murray Valley Plains

Direct impact	Indirect impact	Ecological community
No	No	Weeping Myall Woodlands
No	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. *

- Threatened flora surveys were carried out in late spring, early summer 2024, and found no threatened flora species present.
    - Spear Grass *(Austrostipa wakoolica); s*urveyed for and found to not be present in the Project Area.
    - Slender Darling Pea *(Swainsona murrayana); s*urveyed for and found to not be present in the Project Area.
- In terms of threatened fauna *Nyctophilus corbeni* (Corben's Long-eared bat) was determined as potentially present through ANABAT analysis and targeted surveys will be undertaken for Sloanes Froglet (*Crinia sloanei*) in July/August 2025, during the appropriate survey window. The surveys will take place in the form of call playback, spotlighting and acoustic recorder to confirm the presence in areas of potential habitat (Mulwala canal and the farm dam).
- The derived grasslands present within the Disturbance Footprint and the areas adjacent to the Finley substation and the Mulwala canal came back with low vegetation integrity scores (<15), which under the BAM-C does not produce any ecosystem credits or species credits for PCT 76 (Derived Western Grey Box woodland).

Impacts to Threatened Species

- No direct impacts are anticipated for either Corben's Long-eared Bat or Sloane's Froglet as the vegetation within the Project Area provides no breeding habitat for either species, and foraging habitat for both species is of poor quality.
- Both these species could be indirectly impacted:
    - Through impacts to foraging habitat for Corben's Long-eared Bat (i.e. across the Project Area) which, as mentioned above is of poor quality
    - Through indirect impacts to foraging habitat for Sloane's Froglet (i.e. located at the farm dam and the Mulwala Canal both of which are located outside the Disturbance Footprint.
    - Through indirect impacts to the Farm dam which provides breeding habitat. There is a high possibility the Mulwala Canal would be unsuitable as foraging habitat given the high sides and depth of the canal, the presence of dominant exotic ephemeral vegetation and the flow of water in the canal itself which is ephemeral (i.e. water is only present when needed by users). When water is present it is likely to be too fast flowing for use as foraging habitat.

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. *

The potential impact to Sloane's Froglet and Corben's Long-eared Bat will be indirect in nature and are summarised below:

- The Project Area and its immediate surrounds are already impacted through the presence of existing overhead powerline and infrastructure.
- No breeding habitat will be removed as part of the proposed Action.
- Foraging habitat for Corben's Long Eared Bat whilst potentially present across the Project Area is of a low quality.
- Potential foraging habitat for Sloane's Froglet, located outside of the Disturbance Footprint may be indirectly impacted though it's notable that the species is yet to be confirmed on site and that the Mulawala Canal is likely to be unsuitable for foraging or breeding as previously mentioned.
- The BESS itself will not present any impacts to either species during the operational phase.

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. *

No direct impacts are anticipated for any MNES as a result of the Proposed Action.

Two species may potentially be indirectly impacted as a result of the Proposed action noting the vegetation in the Project Area would provide poor quality foraging habitat for Corben's Long-eared bat, no foraging habitat for Sloane's Froglet and zero breeding habitat for either 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. *

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 species listed under the EPBC Act have 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. *

The location proposed was initially selected following a detailed desktop analysis of the region which considered:

- Access to a transport corridor;
- Proximity to an existing substation; and
- Low environmental constraints.

This Project Area provides an optimal combination of:

- Sufficient available capacity on the grid distribution system;
- Proximity to a grid connection;
- Low potential impacts to biodiversity and heritage values;
- Low potential social impacts, such as noise and visual;
- High potential for community acceptance;
- Existing access off the Riverina Highway;
- Low land use conflict.

No alternative site access points have been considered due to the suitability of an established site access point from Brookmans Road.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1 Locality Map.png Locality Map	06/01/2025	No	High
#2.	Document	Attachment 2 Layout Map.png Layout map	06/01/2025	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 3 - Samsung Environmental and Energy Policy_Sustainability_Samsung.pdf Samsung Environmental and Energy Policy	21/03/2025	No	High

5.2 Declarations

Completed Referring party's declaration

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

Name	Tammy Vesely
Job title	Senior Project Manager
Phone	0452 151 752
Email	tammy.v@nghconsulting.com.au
Address	T3, Level 7, 348 Edward St, Brisbane City, Qld 4000

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

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

☑ By checking this box, I, **Tammy Vesely**, 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. *