Raglan Battery Energy Storage System

Application Number: **02749** Commencement Date: **21/01/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Raglan Battery Energy Storage System

1.1.2 Project industry type *

Energy Generation and Supply (non-renewable)

1.1.3 Project industry sub-type

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1.1.4 Estimated start date *

01/04/2026

1.1.4 Estimated end date *

01/11/2027

1.2 Proposed Action details

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

Project Area - The proposed action encompasses a total project area of approximately 15 hectares (ha). The project area includes part of Lot 2 DS 507. The project area is proposed to be excised from Lot 2 DS 507 via a Reconfiguring a lot (RaL) process with Gladstone Regional Council.

Disturbance Footprint - the total proposed disturbance footprint is approximately 9.1 ha which encompasses all project infrastructure.

Avoidance area – the total avoidance area is 5.9 ha and is the balance of the project area minus the disturbance area

Study area - The ecology study area used for database searches includes a 20 km buffer from the Project area.

Proposed action description – This proposed action relates to the construction and operation of a Battery Energy Storage System (BESS), with an installed capacity of 500 MW and connection to the Raglan Substation. The BESS will be connected to the Raglan Substation via a single underground 275kV circuit and a new circuit breaker installed into an existing bay in the Raglan Substation.

Supporting infrastructure, contained within the disturbance footprint will comprise a switchyard in the centre of the BESS area with an indicative footprint of 0.08 ha. The switchyard will perform switching and transform voltage as well as contain monitoring and metering equipment. 33kV cables from the BESS will feed through two transformers, converting electricity between 33kV and 275 kV, allowing for the transmission of electricity to and from the adjacent Raglan Substation.

An operations and maintenance (O&M) building is proposed in the laydown area to facilitate the storage of spare parts and provide desk space and amenities for staff. The building will contain water tanks and a sewage system for use by staff. The size, type and location of these services has not been established and will be determined in the detailed design stage of the project. The O&M building will adhere to the requirements for buildings in the rural zone with respect to building heights and setbacks from boundaries.

Underground transmission lines will connect the BESS to the Raglan substation via the switchyard. The transmission lines will be accommodated within an easement approximately 20 m wide, that runs in a westerly direction, across Gentle Annie Road and into the substation.

The locality of the easement is subject to discussions with Powerlink, which are ongoing at the time of writing this report. It is noted that Powerlink's preference is for the underground cables to be located aligned with the northern boundary of its block, to minimise impact on potential future development of the substation. This request has been adhered to in the project layout.

Site access is proposed from a new access point adjoining the Gentle Annie Road and will consist of a single vehicle compact gravel crossover, with a minimum width of 4m wide, connecting to the main project area. Unsealed and permeable, the car parking area will be accommodated within the laydown area located adjacent to the BESS infrastructure.

Purpose of the proposed action - The Project will import electricity from the grid, which is then stored in the battery and subsequently exported for use in the grid during periods of peak demand. This action of shifting energy from periods of low demand, to peak demand when it is most needed, has the effect of balancing energy flows in the network and therefore improving network resilience and energy security for consumers.

Proposed action activities – To enable the site to accommodate the BESS and ancillary infrastructure, the action will include site preparation activities (vegetation clearing, topsoil stripping and stockpiling, fencing), construction activities (bulk civil earthworks such as trenching, benching, foundations, water management structures (as required), mechanical and electrical installation of all prefabricated operational equipment (including BESS containers, inverters, transformers, switch gear). Further detail (Att1, Section 8.1.1, Page 46) [Att1 – MNES Report]

Nature of activities and resultant impact- The Project area is regularly used for agricultural activities such as cattle grazing. The disturbance area has been mostly cleared and is comprised of non-remnant pastureland. Scattered paddock trees are interspersed throughout the project area. With the disturbance area designed to avoid areas identified as having MNES value where possible, the direct and indirect environmental impacts resulting from the proposed action activities are considered to be minimal.

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? *

The following Commonwealth approvals relevant to the project site that are being sought for the purpose of the proposed action include:

- *Environment Protection and Biodiversity Conservation Act 1999* Referral for determination of a not a controlled action as a result of no significant impact being identified to MNES via a self-assessment

The following EPBC Act related policies/guidelines that are applicable to the proposed action include:

- The self assessment process including detailed criteria has been used to assist in the decision of whether or not referral may be required and if the proposed action may have a 'significant' impact on MNES. *Significant Impact*

Guidelines 1.1: Matters of National Environmental Significance

Targeted survey guidelines and methods were adopted specific to mapping results, the following applicable by State and Commonwealth survey guidelines specific to the proposed action include:

- *Terrestrial Vertebrate Fauna Survey Guidelines for Queensland – Version 3.0 (Eyre et al. 2018).*
- *Survey guidelines for Australia's threatened reptiles (DSEWPC 2011)*
- *Survey guidelines for Australia's threatened mammals (DSEWPC 2011).*
- *Survey guidelines for Australia's threatened birds (DEWHA 2010).*
- *Referral guidelines for the vulnerable Koala (DoE 2014).*

The following State approvals relevant to the project site that are being sought for the purpose of the proposed action are included below. These are required as the Gladstone Regional Council (GRC) Planning scheme identifies the proposed land use (undefined - BESS) as impact assessable within the Rural Zone.

- *Planning Act 2016* - Development Permit for a Material Change of Use (MCU) pursuant to the GRC Planning Scheme
    - Planning Regulation 2017: Schedule 8, Table 2 Planning scheme identifies the proposed land use (undefined - BESS) as impact assessable within the Rural Zone.
- *Planning Act 2016* – Reconfiguring a lot subject to an easement or near a substation site
    - Planning Regulation 2017: Schedule 10, Part 9
- *Planning Act 2016* - Material Change of a use of a premises near a State transport corridor or that is a future State transport corridor
- Planning Regulation 2017: Schedule 10, Part 9

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 addition to the legislatively required consultation, ACE Power is a signatory to the Clean Energy Council's Best Practice Charter for Renewable Energy Projects, which sets out 10 guiding principles for the development of renewable energy projects. As part of fulfilling those obligations, ACE Power commits to engaging with the local community, including Traditional Owners, to seek their views and input prior to submitting a development application.

The applicant is consulting the Traditional Owners (the Bailai, the Gurang, the Gooreng Gooreng and the Taribelang Bunda people) and are currently reviewing a Cultural Heritage Management Agreement (CHMA) for the Project.

The Applicant held a community consultation event for the local community in Raglan on Thursday 12 December 2024, to present the project and discuss any queries or concerns. Feedback on the proposed project from all community members was positive, and this event provided an opportunity to discuss local projects in the community which the Applicant could assist with.

A Community Stakeholder Engagement Plan (CSEP) is being prepared for the development and will guide consultation going forward.

1.3.1 Identity: Referring party

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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? *

Yes

Referring party organisation details	
ABN/ACN	28141736558
Organisation name	EMM CONSULTING PTY LIMITED
Organisation address	20Chandos Street St Leonards NSW 2065
Referring party details	
Name	Mark Ryan
Job title	Senior Environmental Consultant
Phone	07 3648 1200
Email	maryan@emmconsulting.com.au
Address	Level 1 87 Wickham Terrace Spring Hill 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	674620583
Organisation name	The Trustee for Raglan BESS Trust
Organisation address	2095 NSW

Person proposing to take the action details

Name	Shane Humphreys
Job title	Senior Development Manager – BESS Lead
Phone	0451 990 469
Email	shumphreys@acepower.com.au
Address	Suite 402, 39 East Esplanade, Manly NSW 2095

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. *

A trust deed was established on 31/01/2024 between Acis Settlements Pty Ltd. ACN 081 961 391 (Settlor) and Raglan BESS Pty Ltd ACN 674 620 583 (Trustee).

Further detail (Att 2 – Raglan BESS 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. *

- Raglan BESS Pty Ltd has a satisfactory record of responsible environment management. Raglan BESS Pty Ltd has a satisfactory record of responsible environment management
- Raglan BESS Pty Ltd has no past or present proceedings under Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources.
- Raglan BESS Pty Ltd does not have any actions previously referred under the EPBC Act, however ACE Power, through its subsidiaries has submitted a number of EPBC referrals, principally in relation to the Nebo BESS located at Nebo (EPBC Ref TBC), Yabulu BESS located near Townsville (EPBC Ref: 2022/09384), the Yabulu BESS transmission line (EPBC 2023/09722), the Yabulu solar farm (EPBC Ref: 2022/09426) and the Burdekin solar farm (EPBC Ref: 2017/7998). Therefore it is demonstrated that ACE Power, as the Raglan BESS Pty Ltd controlling entity, is continuing with its proactive approach to responsible environmental management by referring the Raglan BESS project for a controlled action decision.
- Raglan BESS Pty Ltd does not have a corporate environmental policy or framework, however uphold a high environmental standard in all works undertaken. This is reflected in the proactive approach ACE Power takes with referring all of its projects under the EPBC act, as well as the "avoidance" design principles which are followed at every site including Raglan where the project has been designed in such a way as to avoid impacts on MNES as much as possible.

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

Raglan BESS Pty Ltd does not have an official environmental policy at present.

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	674620583
Organisation name	The Trustee for Raglan BESS Trust
Organisation address	2095 NSW

Proposed designated proponent details

Name	Shane Humphreys
Job title	Senior Development Manager – BESS Lead
Phone	0451 990 469
Email	shumphreys@acepower.com.au
Address	Suite 402, 39 East Esplanade, Manly NSW 2095

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	28141736558
Organisation name	EMM CONSULTING PTY LIMITED
Organisation address	20Chandos Street St Leonards NSW 2065
Representative's name	Mark Ryan
Representative's job title	Senior Environmental Consultant
Phone	07 3648 1200
Email	maryan@emmconsulting.com.au
Address	Level 1 87 Wickham Terrace Spring Hill 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	674620583
Organisation name	The Trustee for Raglan BESS Trust

Organisation address	2095 NSW
Representative's name	Shane Humphreys
Representative's job title	Senior Development Manager – BESS Lead
Phone	0451 990 469
Email	shumphreys@acepower.com.au
Address	Suite 402, 39 East Esplanade, Manly NSW 2095

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

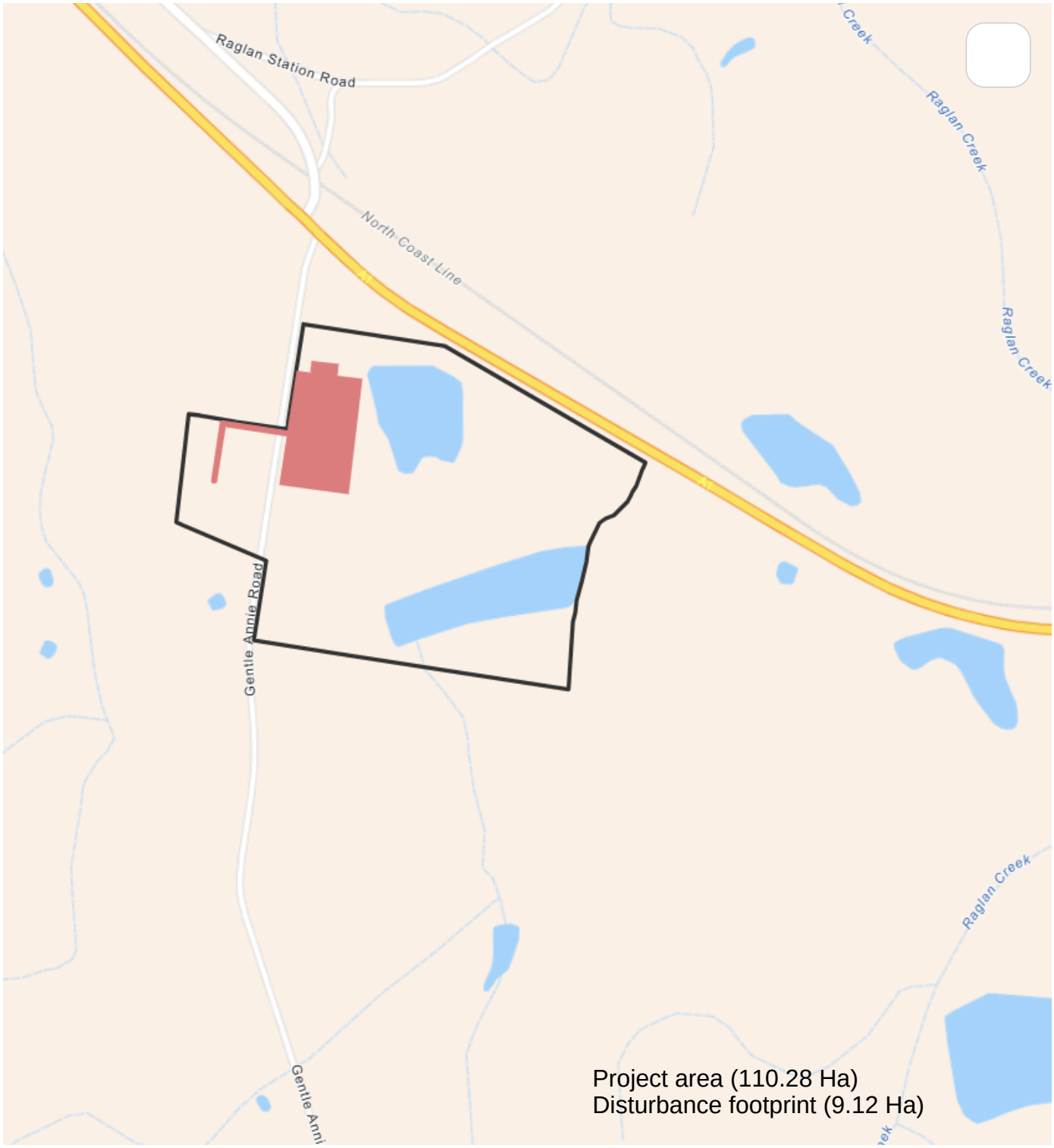
1.4 Payment details: Payment allocation

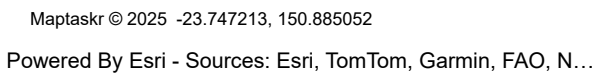
1.4.11 Who would you like to allocate as the entity responsible for payment? *

Person proposing to take the action

2. Location

2.1 Project footprint





2.2 Footprint details

2.2.1 What is the address of the proposed action? *

55167 Bruce Highway, RAGLAN, QLD, 4697 (Lot 2 on DS 507)

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

Queensland

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 area is Freehold land.

3. Existing environment

3.1 Physical description

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

The project area is comprised of a rural allotment which is used for grazing and has a network of vehicle access tracks. The project area has largely been cleared and converted to/managed as pastureland though there are small patches of vegetation which are predominately remnant and regrowth. Some of the vegetation within the Project disturbance footprint meets the definitions of remnant condition RE 11.3.4 based on the height and cover of the canopy trees. This is in the form of several large paddock trees, which may be up to 50 years old with some having a diameter at breast height (DBH) of 50cm, though these trees are by no means dominant within the project disturbance footprint. The majority of the vegetation occurs as regrowth trees, which would likely be approximately 10 to 30 years old with a DBH of 15 to 30 cm on average.

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

Prior land use - The Project area has historically been used for agricultural purposes such as cattle grazing.

Current land use – Grazing land

Proposed land use – BESS, switchyard and laydown area. The Project will result in the use of part of Lot 2 for the purpose of the BESS. The lot is proposed to be reconfigured to excise the BESS project area and create a new lot. The agricultural grazing currently undertaken on Lot 2 will continue.

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

Vegetation - Vegetation within the project area has largely been cleared and converted to managed pastureland. Remaining native vegetation is predominantly remnant and regrowth. The entirety of the Study Area contains disturbed grassland and sparse open woodland vegetation conforming to RE 11.3.4 Eucalyptus tereticornis and/or Eucalyptus spp. woodland on alluvial plains. Canopied vegetation within the area has been highly modified and is presently characterised by scattered Eucalyptus species with an absent mid stratum and groundcover of mostly exotic and improved pasture grasses.

Watercourses and wetlands - Lot 2 DS 507 is bound by Raglan Creek to the east and contains a number of ephemeral watercourses and water storages. In proximity to the Project disturbance footprint, there is a dam and a hydrologically modified, ephemeral wetland.

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 Project area is relatively flat with elevation of approximately 20 m. Within the wider allotment, elevation rises in an easterly direction to a small hill at an elevation of approximately 80 m. Elevation rises gradually in a southerly direction to approximately 30 m.

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.

Surveys – Field surveys of the project area were undertaken in October 2024. Survey effort, timing and the climactic conditions at the time of field surveys are described in (Att1, Section 7.1 Page 17 [Att1 – MNES Report]. No survey limitations were identified during the survey period.

Survey results – vegetation communities - Within the project area there is one Regional Ecosystem RE 11.3.4 *Eucalyptus tereticornis* and/or *Eucalyptus spp.* woodland on alluvial plains. There is also non-remnant vegetation within the project area.

(Att1, Section 7.2, Page 18, Table 7.2) [Att1 – MNES Report]

Survey results Flora – Flora surveys across the Project area did not identify any threatened flora species.

Survey results Pest Flora - The Disturbance footprint is characterised by a highly disturbed, predominantly exotic shrub layer of Lantana sp. (*Lantana camara* and *Lantana montividensis*) and ground layer of introduced grass species including Thatch Grass *(Hyparrhenia rufa subsp. Rufa*), Giant Rat's Tail Grass (*Sporobolus pyramidalis*) and Indian Bluegrass (*Bothriochloa pertusa*).

Fauna survey results –Targeted fauna surveys across the Project area identified one threatened fauna species:

- Squatter Pigeon - one squatter pigeon (*Geophaps scripta scripta*) was observed 450 m outside the Project area.

Additionally, two other species were not recorded but are considered likely to occur based on the suitability of habitat and the species' wide-ranging migratory and nomadic nature.

- Koala - Evidence of Koala (e.g. scats and scratches) was not recorded during the field assessment. Furthermore, review of occurrence records for the species show that koala has not been recorded historically in the locality (<10km), although there are historical records of the species in the broader region and a contemporary record (within the last 20 years) approximately 25km SW of the Study Area.
- White-throated Needletail - White-throated needletail (Hirundapus caudacutus) was not recorded within the Study Area during the field survey, but they are considered to have potential to occur based on the suitability of habitat and the species' wide-ranging migratory and nomadic nature.
- Fork tailed Swift (Apus pacificus) was not recorded within the Study Area during the field survey, but they are considered to have potential to occur based on the suitability of habitat and the species' wide-ranging migratory and nomadic nature.

Further detail (Att1, Section 7.4, Page 36, Table 7.2) [Att1 – MNES Report]

Groundwater dependent ecosystems - A review of WetlandMaps did not identify mapping of any groundwater dependent ecosystems (GDEs) within the project area. The project is not expected to impact on GDEs. No groundwater is proposed to be extracted and appropriate spills response will be in place to ensure any seepage does not occur. As a result, there is no impact to groundwater expected.

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

The native vegetation within the project area has largely been cleared and converted to/managed as grazing land and is predominately remnant and regrowth RE 11.3.4 *Eucalyptus tereticornis* and/or *Eucalyptus spp.* woodland on alluvial plains.

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.

Commonwealth heritage places or other places recognised to have heritage values are not applicable to the Project area.

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

The Bailai, the Gurang, the Gooreng Gooreng and the Taribelang Bunda people are the traditional custodians of the land on which the Proposed action is located.

No native title determination or cultural heritage sites are known within the Project Area. A Cultural Heritage Assessment will be prepared for the project along with an Indigenous cultural clearance survey will be undertaken in association with the Widi Group prior to any onsite disturbance.

3.4 Hydrology

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

The Project area is within the Fitzroy catchment basin and is bound by Raglan Creek to the East and exhibits a number of non-perennial watercourses and water storages. In proximity to the project area, there is a dam, and a rural water storage fed by a non-perennial watercourse.

Hydrology and hydraulic modelling of the project has been undertaken. This assessment included the 1% AEP model scenario. Outcomes of the hydraulic flood study informed design refinements and indicate that the Project will not generate any actionable or offsite impacts relating to adverse flood.

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

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

4.1.1 World Heritage

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

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

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

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

No

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

There are no World Heritage areas within 50km of the Project area. Therefore the action will not have any direct and/or indirect impact on World Heritage protected matters.

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. *

The project will not have a significant impact to National Heritage protected matters as there are no identified matters within 50 km of the Project area.

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.

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

No

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

The project will not have any impact to Ramsar Wetlands protected matters as there are no identified matters within 50 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	Bosistoa transversa	Three-leaved Bosistoa, Yellow Satinheart
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
No	No	Cossinia australiana	Cossinia
No	No	Cupaniopsis shirleyana	Wedge-leaf Tuckeroo
No	No	Cycas megacarpa	
No	No	Cycas ophiolitica	
No	No	Cyclopsitta diophthalma coxeni	Coxen's Fig-Parrot
No	No	Dasyurus hallucatus	Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu]
No	No	Delma torquata	Adorned Delma, Collared Delma
No	No	Denisonia maculata	Ornamental Snake
No	No	Dichanthium setosum	bluegrass
No	No	Egernia rugosa	Yakka Skink
No	No	Elseya albagula	Southern Snapping Turtle, White-throated Snapping Turtle
No	No	Erythrotriorchis radiatus	Red Goshawk
No	No	Eucalyptus raveretiana	Black Ironbox
No	No	Falco hypoleucos	Grey Falcon
No	No	Furina dunmalli	Dunmall's Snake
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe

Direct impact	Indirect impact	Species	Common name
Yes	No	Geophaps scripta scripta	Squatter Pigeon (southern)
No	No	Hemiaspis damelii	Grey Snake
No	Yes	Hirundapus caudacutus	White-throated Needletail
No	No	Leichhardtia brevifolia	
No	No	Macroderma gigas	Ghost Bat
No	No	Neochmia ruficauda ruficauda	Star Finch (eastern), Star Finch (southern)
No	No	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew
No	No	Nyctophilus corbeni	Corben's Long-eared Bat, South-eastern Long-eared Bat
No	No	Petauroides volans	Greater Glider (southern and central)
No	No	Petaurus australis australis	Yellow-bellied Glider (south-eastern)
Yes	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	Poephila cincta cincta	Southern Black-throated Finch
No	No	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Rheodytes leukops	Fitzroy River Turtle, Fitzroy Tortoise, Fitzroy Turtle, White-eyed River Diver
No	No	Rostratula australis	Australian Painted Snipe
No	No	Samadera bidwillii	Quassia
No	No	Turnix melanogaster	Black-breasted Button-quail

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community
No	No	Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions
No	No	Poplar Box Grassy Woodland on Alluvial Plains
No	No	Weeping Myall Woodlands

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. *

Based on the results of the desktop assessment, ground-truthing of fauna habitat and targeted fauna surveys, the Project area is considered to provide potential habitat for the following species:

- Koala
- Squatter pigeon

As the Koala and Squatter Pigeon are considered known to occur in the region, they will be potentially impacted by the project. Habitat clearing area calculations are:

- the removal of 1.4 ha of Koala breeding habitat and 6.8 ha of dispersal habitat
- the removal of 4.9 ha of Squatter Pigeon breeding/foraging habitat and 0.8 ha of dispersal habitat.

Calculations of fauna habitat impacted by the proposed action are presented in (Att1, Section 7.3, Page 21, Table 7.3) [Att1 – MNES Report].

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. *

Koala - Koala activity was not recorded in the Project area. The Project footprint will result in a minor loss of 8.2 ha of low-quality potential habitat. Habitat to be cleared comprises predominantly *Eucalyptus tereticornis* and/or *Eucalyptus spp.* woodland on alluvial plains which presents as a sparse community within the Project area impacted by previous land clearing. This marginal habitat also includes areas of non-remnant dispersal habitat dominated by weeds.

The planned sequential clearing of habitat in any remnant woodland to be cleared will provide any Koalas present the opportunity to safely move into adjacent habitats. A sequential clearing protocol where fauna spotter-catchers are present during clearing will ensure Koalas are not harmed during clearing and there are safe movement opportunities.

Due to the low likelihood of Koala being present and the mitigation measures to be put in place (including staging of clearing), the Project is not expected to result in a long-term decrease in the size of the Koala population. Furthermore, the Project is not expected to significantly impact processes essential to the health and survival of the koala population in the locality, such as: breeding opportunities, dispersal function, genetic diversity, and provision of potential climate refugia as temperatures rise with climate change and the species range potentially contracts towards the coast.

The koala significant residual impact assessment is detailed in (Att1, Section 10.1.7, Page 37, Table 10.1) [Att1 – MNES Report].

Squatter Pigeon - The species occurs in grassy woodlands which remain abundant across much of its range including the project area. Squatter pigeon also occur in disturbed areas cleared for cattle grazing and along access tracks.

Preferred habitats are located within wooded portions of the Project area which support more suitable foraging conditions. The central part of the Project area in which the majority of Project infrastructure is located is dominated by dense pasture grass cover and is unsuitable habitat for the species. As such, Squatter Pigeon are unlikely to use the resources within the Project area for breeding over the more suitable habitat/better quality breeding habitat located in the surrounding land where one specimen was recorded during surveys. Whilst generally sited to avoid potential breeding and dispersal habitat, the project disturbance footprint will require the removal of approximately 0.15 ha of mapped as dispersal habitat. Given significant areas of habitat will be retained to the east of the project area, it is unlikely that the Project will modify the species habitat dramatically.

The squatter pigeon significant residual impact assessment is detailed in (Att1, Section 7.4, Page 36, Table 7.2) [Att1 – MNES Report].

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. *

Given the limited impact to habitat within the Project disturbance footprint, the Project should not be classified as a controlled action. While Koalas and Squatter Pigeons are known to occur in the region and a squatter pigeon was recorded 450 m east of the Project disturbance footprint, the Project has undertaken careful design to minimise residual impacts to only 1.4 ha of Koala breeding habitat and 6.8 ha of dispersal habitat and 4.9 ha of Squatter Pigeon breeding/foraging habitat and 0.8 ha of dispersal habitat.

The environment within the disturbance footprint is already modified and sits within a broader landscape, suggesting sporadic use of the affected habitat by these species. Importantly, through avoidance and mitigation measures, the Project has effectively reduced its potential impact, meeting and aligning with the significant residual impact criteria. Therefore, the Project's limited, non-significant effect on Koala and Squatter Pigeon populations and habitat supports the case for it not to be considered a controlled action.

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

Following the field verification of vegetation communities within the project area, the location of the BESS and associated infrastructure including transformers were revised to avoid areas of regrowth eucalypt woodland that supported larger areas of Koala dispersal habitat. By micro-siting the BESS and substation, project impacts associated with vegetation clearance and habitat removal were avoided.

Further to this avoidance by design, the following general measures will be implemented to avoid and mitigate environmental impacts:

- Vegetation clearing will be limited to those areas required for earthworks and construction of the Project.
- Vegetation clearing boundaries will be clearly demarcated.
- Sequential clearing of woody vegetation will occur to minimise impacts on native fauna.
- Vehicles on site will be limited to approved access roads and tracks. Further impact management, mitigation and monitoring measures are detailed within (Att1, Section 7.4, Page 36, Table 7.2) [Att1 – MNES Report].

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

Due to the current modified state of the environment within the Project disturbance footprint and the surrounding land, and the probable sporadic utilisation of the habitat present, the project is not expected to result in a significant impact to MNES. As a result, it is anticipated to be determined as ‘not a controlled action’ and does not trigger the requirement for designated offset provision

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	Yes	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	Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
No	No	Crocodylus porosus	Salt-water Crocodile, Estuarine Crocodile
No	No	Cuculus optatus	Oriental Cuckoo, Horsfield's Cuckoo
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	Yes	Hirundapus caudacutus	White-throated Needletail
No	No	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew
No	No	Pandion haliaetus	Osprey

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

Yes

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

Based on the results of the desktop assessment, ground-truthing of fauna habitat and targeted fauna surveys, the Project area is considered to provide potential habitat for the following species:

- White-throated Needletail
- Fork-tailed Swift

The White-throated Needletail and Fork-tailed Swift were not recorded within the action area during the field survey but are considered likely to occur based on the suitability of habitat and the species' wide-ranging migratory and nomadic nature.

Habitat clearing area calculations as they relate to each of the species above are:

- White-throated Needletail foraging habitat of 9.1 ha (Could occur anywhere above the whole site where there are airborne insects, although the habitat is generally suboptimal).
- Fork-tailed Swift foraging habitat of 9.1 ha (Could occur anywhere above the whole site where there are airborne insects).

Calculations of fauna habitat impacted by the proposed action are presented in (Att1, Section 7.4, Page 36, Table 7.2) [Att1 – MNES Report].

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

No

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

White-throated Needletail - As White-throated Needletails are almost exclusively aerial, direct impacts are not expected to occur as a result of the Project. The species does not breed in Australia so there is no impact on breeding habitat. As an aerial feeder, habitats for foraging are diverse and occur over woodland, cleared areas, urban environments, etc. Although some vegetation clearing will occur during Project construction, there are extensive areas of retained vegetation throughout the Study Area, and cleared habitats are still utilised by the species.

Roost site use is sporadic, temporary and across a broad area (i.e. not involving regular or repeated roost sites) and if it occurs in the general area, it is likely to be in areas of higher quality habitat outside the Study Area. Suitable roost trees (large mature trees) in the nearby area are located adjacent to the dam which is avoided by the Project. It is unlikely that the habitat attributes within the Project disturbance footprint meets the definition of 'habitat critical to the survival of the species'.

Further detail (Att1, Section 10.3, Page 44-45, Table 10.3) [Att1 – MNES Report].

Fork-tailed Swift - The Fork-tailed Swift is a non-breeding visitor to all states and territories of Australia. It is almost exclusively aerial and occurs over inland plains and sometimes above foothills or in coastal areas. They mostly occur over dry or open habitats, including riparian woodland and tea-tree swamps, low scrub, heathland or saltmarsh. They are also found at treeless grassland and sandplains covered with spinifex, open farmland and inland and coastal sand-dunes.

Fork-tailed Swift was not recorded during the field assessment, however the species forages over nearly all mainland habitats and is hence considered with potential to forage over the Study Area and Project disturbance footprint. No habitat map has been prepared for this species as it is an aerial insectivore that spends most of its time foraging aerially and could occur anywhere over the Study Area. As a wide-ranging nomadic species, foraging habitat also provides a surrogate for dispersal habitat. As fork-tailed swift arrive and disperse over a broad front across the whole of Australia, but mainly over inland plains, it is impossible to predict on a long-term basis any patterns of utilisation of a given site, although focal features such as wetlands may attract a large number of insect prey.

As described above, as swifts are almost exclusively aerial, direct impacts to their habitat are not expected to occur as a result of the Project.

Further detail (Att1, Section 10.4, Page 47-48, Table 10.4) [Att1 – MNES Report].

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

No

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

The migratory species that are relevant to the action all identified not to have a significant impact as there is unlikely direct impact expected as a result of habitat clearing. There is no evidence to indicate a population of any of the aforementioned species in the project area, this is likely due to the project are not being suitable for breeding, dispersal or maintaining genetic diversity in the species. As such the species' occurrence on the Project area is unlikely to constitute an ecologically significant proportion of the population. Under this circumstance, these migratory species should not determine that the proposal to be a controlled action.

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

Following the field verification of vegetation within the Study Area, the siting of the BESS was revised and moved northwards to avoid denser areas of eucalypt woodland canopy that may support potential Koala and Squatter Pigeon habitat. By micro-siting the BESS, project impacts to MNES associated with vegetation clearance and habitat removal have been reduced.

Further to this avoidance by design, the following general measures will be implemented to avoid and mitigate environmental impacts:

- Vegetation clearing will be limited to those areas required for earthworks and construction of the Project.
- Vegetation clearing boundaries will be clearly demarcated.
- Sequential clearing of woody vegetation will occur to minimise impacts on native fauna.
- Vehicles on site will be limited to approved access roads and tracks.

Further impact management, mitigation and monitoring measures are detailed within (Att1, Section 9, Page 32-34,) [Att1 – MNES Report].

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

As the migratory species are almost exclusively aerial, direct impacts to their habitat are not expected to occur as a result of vegetation clearance associated with the Project. There is very limited potential the species could roost in woodland across the Project area as the trees are generally not mature enough, and these species favours larger trees often on ridgelines. Roost site use is sporadic, temporary and across a broad area (i.e. not involving regular or repeated roost sites)

As a result of the negligible impact to MNES, it is anticipated a ‘not a controlled action’ and does not trigger the requirement for designated offset provision

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. *

Nuclear is not relevant or applicable to this action.

4.1.7 Commonwealth Marine Area

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

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

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

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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 action is unlikely to have a direct and/or indirect impact on Commonwealth Marine Areas as none are located within 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 action is unlikely to have a direct and/or indirect impact the Great Barrier Reef as it is not located within the ecology study area or in close proximity to the project.

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. *

Not applicable – the project does not involve coal mining development or coal seam gas.

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. *

Not applicable – the project area does not include Commonwealth land.

4.1.11 Commonwealth Heritage Places Overseas

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

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

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

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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. *

Not applicable – the project area does not affect Commonwealth Heritage Places Overseas.

4.1.12 Commonwealth or Commonwealth Agency

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

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

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

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 Project site was selected following a process of feasibility and other assessments. It presents favourable grid connectivity, does not impact good quality agricultural land, has no nearby sensitive receivers and impacts to ecological values can be readily avoided and minimised. The proponent has an option to purchase in place over the land, and does not currently have any other land under control in the area.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

Type	Name	Date	Sensitivity	Confidence

#1.	Document	Att 1 - MNES Report.pdf Ecology Assessment for the Raglan BESS Development Application	15/12/2024	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 2 - Raglan BESS Trust Deed.pdf	30/01/2024	Yes	

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - MNES Report.pdf Ecology Assessment for the Raglan BESS Development Application	15/12/2024	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 1 - MNES Report.pdf Ecology Assessment for the Raglan BESS Development Application	15/12/2024	No	High

4.1.4.6 (Threatened Species and Ecological Communities) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - MNES Report.pdf Ecology Assessment for the Raglan BESS Development Application	15/12/2024	No	High

4.1.4.10 (Threatened Species and Ecological Communities) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - MNES Report.pdf Ecology Assessment for the Raglan BESS Development Application	15/12/2024	No	High

4.1.5.2 (Migratory Species) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - MNES Report.pdf Ecology Assessment for the Raglan BESS Development Application	15/12/2024	No	High

4.1.5.6 (Migratory Species) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - MNES Report.pdf Ecology Assessment for the Raglan BESS Development Application	15/12/2024		High

4.1.5.10 (Migratory Species) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - MNES Report.pdf Ecology Assessment for the Raglan BESS Development Application	15/12/2024	No	High

5.2 Declarations

Completed Referring party's declaration

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

ABN/ACN	28141736558
Organisation name	EMM CONSULTING PTY LIMITED
Organisation address	20Chandos Street St Leonards NSW 2065
Representative's name	Mark Ryan
Representative's job title	Senior Environmental Consultant
Phone	07 3648 1200
Email	maryan@emmconsulting.com.au
Address	Level 1 87 Wickham Terrace Spring Hill 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, **Mark Ryan of EMM CONSULTING PTY LIMITED**, 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	674620583
Organisation name	The Trustee for Raglan BESS Trust
Organisation address	2095 NSW
Representative's name	Shane Humphreys

Representative's job title	Senior Development Manager – BESS Lead
Phone	0451 990 469
Email	shumphreys@acepower.com.au
Address	Suite 402, 39 East Esplanade, Manly NSW 2095

☑ 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, **Shane Humphreys of The Trustee for Raglan BESS Trust**, 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, **Shane Humphreys of The Trustee for Raglan BESS Trust**, 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. *