Gara Battery Energy Storage System

Application Number: **02743** Commencement Date: **16/01/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Gara Battery Energy Storage System

1.1.2 Project industry type *

Energy Generation and Supply (renewable)

1.1.3 Project industry sub-type

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1.1.4 Estimated start date *

01/01/2026

1.1.4 Estimated end date *

31/12/2048

1.2 Proposed Action details

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

The proposed action is the development of the Gara Battery Energy Storage System (BESS), a large-scale battery storage facility, and associated infrastructure. This project is being undertaken by ACEnergy Pty Ltd to support the growing demand for renewable energy in Australia (Att 3_EIS_001D.pdf).

1. Project and Proposed Actions:

● The Gara BESS will be an approximately 400 MWAC/1,760 MWh battery energy storage system.

● The project includes the BESS infrastructure, an upgraded property access and internal driveway, a connecting electricity transmission line, and screening vegetation.

● The project is classified as State Significant Development (SSD) due to its purpose as electricity generating works with an estimated cost exceeding $30 million.

● The project is located in the New England Renewable Energy Zone (REZ)

2. Purpose of the Proposed Action:

● The primary goal is to develop a high-quality utility-scale BESS to support a future of decarbonization.

● The BESS will provide energy storage to support system strength and stability during and after disturbances to the National Electricity Market (NEM).

● The project aligns with the NSW Government's objectives to improve the affordability, reliability, and sustainability of energy by addressing the shortfall in firm capacity during peak demand

3. Activities to Deliver the Proposed Action:

● Pre-construction/Pre-clearing Activities:

○ Site investigations during and post development consent, including environmental assessments, archaeological surveys, and geotechnical investigation.

○ Vegetation clearing which would not require an offset (Attachment 'Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt', Section 8.2.3, Page 73), including the removal of 13.71 ha of native vegetation commensurate with PCT 3359 (Attachment 'Att3_EIS_001D.pdf', Section 6.1.3.1, Page 59).

● Construction/Clearing/Infrastructure:

○ Road upgrades, including upgrading the existing site access from Waterfall Way (Grafton Road) ((Attachment 'Att3_EIS_001D.pdf', Section Proposal, Page xiv).

○ Levelling and installation of foundations/supports for equipment.

○ Installation of a drainage system.

○ Transportation and installation of equipment including battery units, inverters, transformers, and switchgear.

○ Construction of an overhead transmission line including towers to connect the BESS to existing 330 kV powerlines.

○ Establishment of a storage area, internal access tracks, on-site parking, security fencing, and temporary construction laydown area.

○ Installation of noise walls.

● Ongoing Maintenance/Operations:

○ Operation of the BESS, which is expected to be primarily remote with minimal on-site staff.

○ Routine maintenance of the BESS infrastructure, including regular inspections and repairs.

●Decommissioning/Remediation Works:

○ Decommissioning of the BESS infrastructure at the end of its operational life, with an expected lifespan of up to 23 years.

○ Removal of all infrastructure and remediation of the site, aiming to return it to its pre-construction land and soil capability.

○ The potential replacement of batteries during the operational life of the project, with appropriate transport and disposal requirements for hazardous materials.

4. Land Tenure Arrangements:

● The development site is located across multiple land parcels, including:

○ Lot 1 DP246878, Lot 1 DP573787, Lots 144, 145 and 153 DP755826.

○ Lot 7003 DP1060212 and Lot 7009 DP1060213 (travelling stock reserves).

○ An unconstructed crown road reserve located between Lots 144 and 145 DP755826.

○ Waterfall Way (Grafton Road) road reserve.

● The land is primarily zoned as RU1 Primary Production under the Armidale Regional Local Environmental Plan 2012 (ARLEP).

● The development site is located within the New England REZ.

5. Direct and Indirect Environmental Impacts:

● Direct Impacts:

○ Impact on 13.71 ha of native vegetation.

○ Loss of habitat for native fauna, including impacts to three stick nests and four habitat trees containing hollows.

○ Potential impact on one entity at risk of serious and irreversible impact (SAII), White Box - Yellow Box - Blakely’s Red Gum Grassy Woodland and Derived Native Grassland.

● Indirect Impacts:

○ Increased edge effects on retained vegetation.

○ Potential for introduction and spread of weeds and pathogens.

○ Mobilization of sediments and contaminants into waterways.

○ Increased risk of fauna vehicle strikes during construction and operation.

○ Potential for habitat fragmentation.

6. Project Area and Footprint:

● The total development site area is approximately 34.37 hectares.

● The area accommodating the BESS infrastructure is approximately 13.5 hectares.

● The area within the study area to be directly impacted by the proposed development is approximately 22.89 ha.

○ 15.10 ha will be directly impacted by ground disturbance.

○ 8.23 ha will be partially impacted by the overhead connection route.

● Approximately 8.26 ha of the critically endangered ecological community would be retained in the Buffer Area.

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 Gara BESS project is subject to numerous Commonwealth and State legislations, planning frameworks, and policy documents. Their relevance to the project is detailed below:

Commonwealth Legislation:

● Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act): This Act is relevant because it protects Matters of National Environmental Significance (MNES). The project's Biodiversity Development Assessment Report (BDAR) identified the presence of a Candidate Endangered Ecological Community (CEEC), triggering the need to consult with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) to determine whether approval under the EPBC Act is required. The CEEC's presence necessitates careful consideration of potential impacts on this nationally significant ecological community.

● Native Title Act 1993: This Act is relevant to the project because it recognizes and protects Native Title. The ACHAR confirmed that no Native Title registered sites are impacted by the project. This ensures the project respects the rights and interests of Aboriginal people.

State Legislation:

●Aboriginal Land Rights Act 1983: Section 36 of this act allows the NSW Aboriginal Land Council to make claims for land on its own behalf or on behalf of Local Aboriginal Land Councils. No impacts to land the subject of an Aboriginal land claim as a result of the project.

● Biodiversity Conservation Act 2016 (BC Act) and Biodiversity Conservation Regulation 2017 (BC Regulation): These Acts outline the framework for addressing biodiversity impacts from development, including the Biodiversity Offset Scheme (BOS). The project's BDAR addresses the requirements of the BC Act, assessing impacts and proposing mitigation measures, including potential offset obligations.

● Contaminated Land Management Act 1997: Section 11 allows the EPA to declare land as significantly contaminated. A Preliminary Site Investigation (PSI) was completed, which found the site suitable for the project.

● Water Management Act 2000: This Act relates to water use and management. The project's assessments address potential impacts on groundwater and surface water resources, and any necessary approvals under this Act are discussed.

● Local Land Services Act 2013: This Act might be relevant to the project depending on whether it involves land managed by Local Land Services.

● Electricity Infrastructure Investment Act 2020: Section 19 allows the Minister to declare a renewable energy zone (REZ). The development site is located within a REZ.

● Environmental Planning and Assessment Act 1979: Section 1.3 outlines the objects of the Act. The EIS states that the proposed development is consistent with these, with the exception of object (d), which relates to the management of natural resources. Further, section 4.15(1) of the Act explains the consideration of the relevant provisions of any environmental planning instruments and for the project, no draft environmental planning instruments apply. Development control plans do not apply to SSD by way of clause 2.10 of the Planning Systems SEPP, no planning agreements or draft planning agreements apply as well. The proponent however will be required to prepare a submissions report in accordance with Appendix C to the SSD following the completion of the mandatory public exhibition period.

● Environmental Planning and Assessment Regulation 2021: Section 23 requires that the consent of all landowners be obtained and this was supplied via the major projects portal (NSW). Clause 192(1) lists the mandatory requirements of the environmental impact statement, including a summary, statement of objectives, description of the development, mitigation measures, and reasons justifying the project and these were discussed in Sections 1, 2.4, 3, 6, 7, and Appendix E of the EIS.

● Heritage Act 1977: Section 58 outlines the requirements of approvals for work impacting heritage items. The site has no listings or interim heritage orders. A Chance Finds Protocol will be developed following development consent in consultation with Heritage NSW.

● National Parks and Wildlife Act 1974: Section 90 outlines the need for an Aboriginal heritage impact permit, however, it is not required for SSD projects. The Aboriginal Cultural Heritage Assessment Report (ACHAR) indicates impacts to Aboriginal cultural heritage values are unlikely.

● Protection of the Environment Operations Act 1997: Outlines various environmental protection licenses. The proposed Gara BESS is not considered to require a license under this act.

● Roads Act 1993 : This act governs various activities within road reserves. The project will upgrade the existing access from Waterfall Way (Grafton Road) and approval is required under the Roads Act.

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. *

ACEnergy engaged in extensive public consultation for the Gara BESS EIS, involving various stakeholders to address concerns and develop strategies.

Engagement Strategy and Methods ('Att 2_Engagement Outcomes Report.pdf', Section 2.4)

The engagement strategy employed a variety of communication channels to enhance community and stakeholder participation, tailored to the project's scale and impact. Methods included both in-person and online approaches to reach a broader audience and accommodate preferred communication modes. Key activities during the scoping phase and EIS development in late 2023 which resumed in September 2024 included:

- Distribution of project update newsletters via post and email
- Provision of a toll-free information line, dedicated email, and project website
- Digital and print advertising in *The Armidale Express*
- Hosting in-person community information sessions, supported by flyers and news articles
- Conducting key stakeholder briefings and maintaining ongoing email and phone communication
- Implementing a community feedback survey

These diverse engagement methods ensured comprehensive data collection, aiding informed decision-making for the project.

Key issues raised by affected landowners, as detailed in Table 2-2 of the Engagement Report:

• Noise Impacts: Some landowners had concerns about the type, frequency, and nighttime emission of noise from the BESS. One resident noted that easterly winds could carry noise directly towards them. There was also concern about the decibel range that the project had to comply with.

• Visual Impacts: Several landowners raised concerns about visual impacts and agreed with the proposed boundary screening and suggested which local nurseries could be used. Questions were asked about the height of the BESS and its associated infrastructure.

• Construction Impacts: Some were concerned about noise, traffic, and environmental effects during construction

• Other concerns: Some community members were concerned about the visual impact of the BESS once operational. One survey respondent was concerned about operational impacts including noise. There were concerns about property devaluation, the source of the energy used, and the purpose of the batteries.

Project proponent's responses to these concerns included:

• Refined noise wall details

• Considered the location of visual screening

• Addressed concerns about traffic management

• One landowner suggested a taller noise wall, which was welcomed by the project team

• Two landowners agreed with the proposed noise wall colors.

Ongoing and Future Engagement

ACEnergy is committed to maintaining strong relationships with the local community and impacted neighbors. This commitment will continue through all project stages. During the public display of the EIS, ACEnergy, in collaboration with bd infrastructure, will:

- Distribute newsletters addressing key community insights
- Host online information sessions and in-person drop-in sessions, advertised in local media
- Conduct ongoing consultations with regulatory agencies to address issues raised during the EIS exhibition and prepare for the Response to Submissions (RTS)

- Monitor a dedicated community phone line and email for complaints and feedback
- Maintain the project website and social media channels
- Engage proactively with the media to raise community awareness about the project

ACEnergy Pty Ltd will ensure the community is informed about the EIS exhibition outcomes, responses to submissions, and the next project steps. By maintaining open communication lines, ACEnergy aims to address and mitigate any identified impacts and maximize project benefits for all stakeholders.

For more information on the above, please refer to Section 5.4 of the Environmental Impact Statement

Indigenous Stakeholder Engagement

Consultation with Aboriginal people is a crucial part of investigating and assessing Aboriginal cultural heritage. This process was conducted in accordance with clause 80C of the National Parks and Wildlife Amendment (Aboriginal Objects and Aboriginal Places) Regulation 2010 and the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010).

Opportunities for input into the cultural heritage values of the study area were provided through the ACHAR methodology, which included invitations for feedback on the methodology itself. Key consultation activities included:

Consultation Period: Conducted between February and September 2024 by Premise.

Field Survey: Undertaken in August 2024 by Premise and Registered Aboriginal Parties (RAPs).

A consultation log has been maintained throughout the assessment process, detailing all correspondence with the RAPs regarding the proposed works. For more detailed information, please refer to the file "Gara Battery Energy Storage System - Aboriginal Cultural Heritage Assessment." (Att 4_ACHAR_001E.pdf, Section 3, Page 15)

1.3.1 Identity: Referring party

Privacy Notice:

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

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

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

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

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

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

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

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	89628883447
Organisation name	ACENERGY PTY LTD
Organisation address	Level 3, 689 Burke Rd, Camberwell, VIC, 3124

Referring party details

Name	Wanping Bai
Job title	Senior Project Development Engineer
Phone	0468673543
Email	jane.bai@acenergy.com.au
Address	Level 3, 689 Burke Rd, Camberwell, VIC, 3124

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? *

Yes

Person proposing to take the action organisation details

ABN/ACN	89628883447
Organisation name	ACENERGY PTY LTD
Organisation address	Level 3, 689 Burke Rd, Camberwell, VIC, 3124

Person proposing to take the action details

Name	Wanping Bai
Job title	Senior Project Development Engineer
Phone	0468673543
Email	jane.bai@acenergy.com.au
Address	Level 3, 689 Burke Rd, Camberwell, VIC, 3124

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

No

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

No

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

ACEnergy has a strong history of responsible environmental management. To date, there have been no proceedings under any Commonwealth, State, or Territory laws for the protection of the environment or the conservation and sustainable use of natural resources brought against the company.

While ACEnergy does not have formal corporate environmental policies, we demonstrate a thorough understanding of environmental policies and requirements across various jurisdictions through our diverse portfolio of renewable energy projects. These include large-scale battery energy storage system (BESS) projects such as:

- Apsley BESS (NSW)
- Yanco BESS (NSW)
- Pine Lodge BESS (VIC)
- Glenbrae BESS (VIC)

In addition to these large-scale projects, we are actively involved in the development of solar farms and distribution-level battery projects. Our portfolio reflects a commitment to supporting Australia's transition to renewable energy by developing projects across various scales and technologies, each tailored to meet the specific needs of their respective communities and regions.

For all our projects, we have diligently adhered to relevant environmental legislation, planning regulations, and guidelines. This includes conducting detailed environmental impact assessments, engaging with regulatory bodies, and implementing best practices in environmental management throughout the project lifecycle.

Our commitment to sustainability is further exemplified by our proactive approach to addressing community concerns, working with environmental consultants, and ensuring compliance with all applicable laws and standards. Through these efforts, we strive to minimise environmental impacts and contribute positively to the conservation and sustainable use of natural resources.

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

ACEnergy is committed to responsible environmental management and sustainable development across its portfolio of renewable energy projects. While the company does not have a formal corporate environmental policy, our approach aligns with best practices and regulatory requirements to ensure environmentally responsible project delivery.

Our environmental planning framework is guided by:

Regulatory Compliance & Environmental Due Diligence:
ACEnergy adheres to all applicable Commonwealth, State, and Territory environmental laws and planning regulations. This includes undertaking comprehensive environmental impact assessments, biodiversity assessments, and risk mitigation strategies for each project.

Project-Specific Environmental Management:
Each ACEnergy project is developed in accordance with site-specific environmental considerations, incorporating measures to protect biodiversity, mitigate ecological impacts, and manage land use compatibility. Key projects demonstrating our commitment to environmental stewardship include:

- Apsley BESS (NSW)
- Yanco BESS (NSW)
- Pine Lodge BESS (VIC)
- Glenbrae BESS (VIC)

Stakeholder Engagement & Community Consultation:
We proactively engage with local communities, Traditional Owners, and relevant regulatory bodies to identify and address environmental concerns early in the project lifecycle.

Collaboration with Environmental Specialists:
ACEnergy works closely with environmental consultants, ecologists, and planning experts to integrate industry best practices into our project designs and operational frameworks.

Continuous Improvement & Sustainability Commitment:
Our commitment to sustainability extends beyond compliance, with a focus on minimising environmental impact, supporting habitat conservation, and contributing to Australia’s renewable energy transition.

To date, there have been no proceedings under any Commonwealth, State, or Territory environmental laws against ACEnergy. Our track record reflects a strong commitment to responsible environmental management and compliance with regulatory obligations.

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	89628883447
Organisation name	ACENERGY PTY LTD
Organisation address	Level 3, 689 Burke Rd, Camberwell, VIC, 3124

Proposed designated proponent details

Name	Wanping Bai
Job title	Senior Project Development Engineer
Phone	0468673543
Email	jane.bai@acenergy.com.au
Address	Level 3, 689 Burke Rd, Camberwell, VIC, 3124

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	89628883447
Organisation name	ACENERGY PTY LTD
Organisation address	Level 3, 689 Burke Rd, Camberwell, VIC, 3124
Representative's name	Wanping Bai
Representative's job title	Senior Project Development Engineer
Phone	0468673543
Email	jane.bai@acenergy.com.au
Address	Level 3, 689 Burke Rd, Camberwell, VIC, 3124

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.

Same as Referring party information.

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

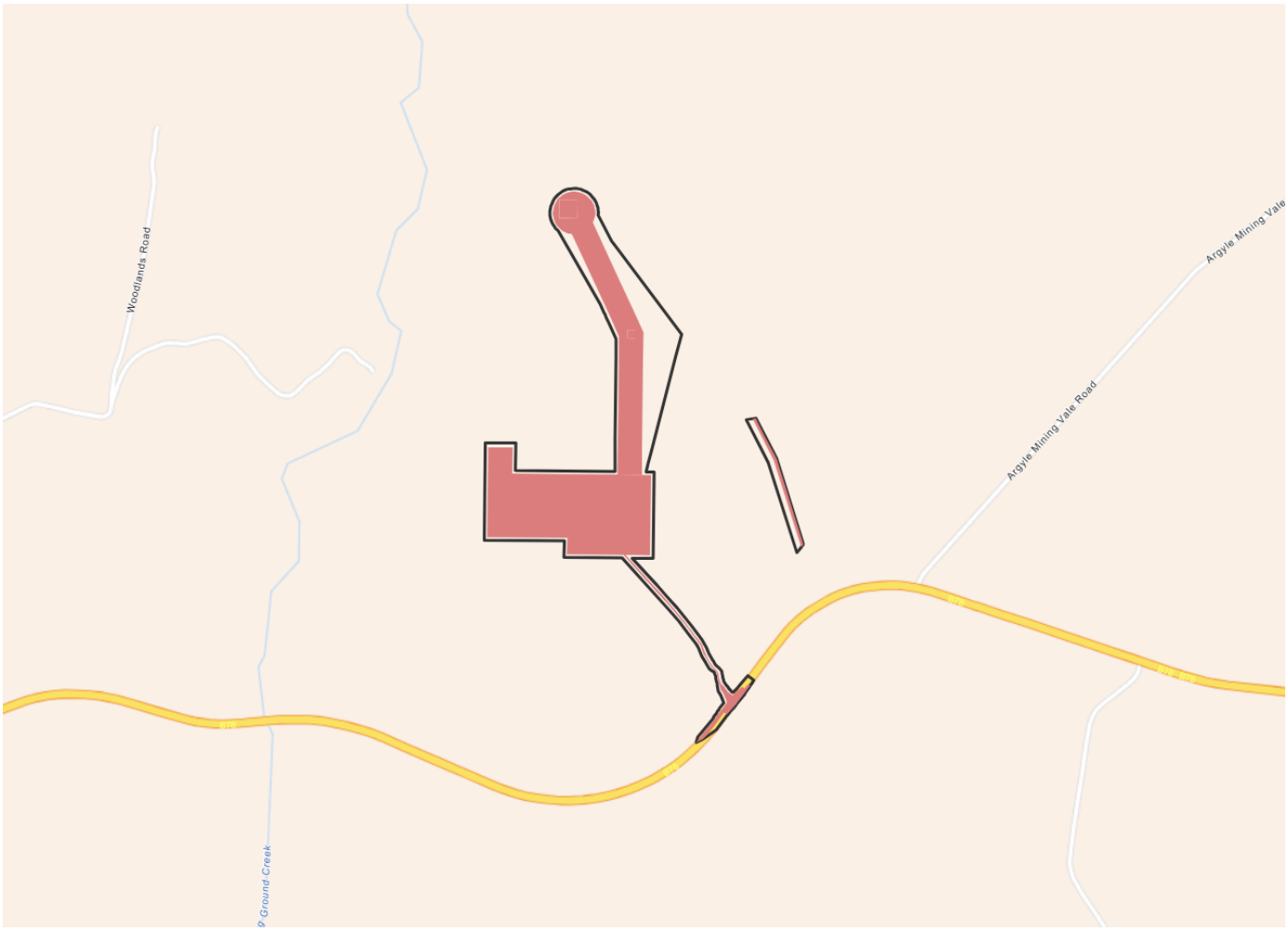
1.4 Payment details: Payment allocation

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

Referring party

2. Location

2.1 Project footprint



Project Area: 34.40 Ha **Disturbance Footprint:** 22.91 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

The proposed action is located at 86 Woodlands Road, Armidale, NSW. The project encompass

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 Gara Battery Energy Storage System (BESS) project is located on multiple land parcels with varying tenure arrangements. These include privately owned lots, crown land, road reserves, and travelling stock reserves. The project area also includes easements for infrastructure like pipelines and transmission lines. **ACEnergy is in the process of purchasing the land of 86 Woodlands Rd, Armidale for the Gara BESS Project.**

Here's a breakdown of the tenure for the project:

● Privately Owned Lots belonging to 86 Woodlands Rd, Armidale and will be purchased by ACEnergy:

- Lot 1 DP246878 and Lot 1 DP573787 Lots are owned privately but are subject to conditions and reservations in favor of the Crown, excluding minerals. Both lots also have mortgages to Greater Bank Limited.
- Lot 1 DP246878 has an easement for a pipeline, and has multiple easements for transmission lines and a right of carriageway. It is also subject to a caveat by Acenergy Pty Ltd.
- Lot 145 DP755826 is subject to reservations and conditions in favor of the Crown, excluding minerals. It is subject to easements for transmission lines. It also has a right of carriageway. It is also subject to a caveat by Acenergy Pty Ltd.

● Privately Owned Lots where electricity easement will be created for Gara BESS:

Lots 144 and 153 DP755826 are privately owned but subject to reservations and conditions in favor of the Crown, excluding minerals. Lots 144 and 153 DP755826 are subject to easements for transmission lines. * Lots 144 and 153 are subject to an easement for energy transmission lines.

● Crown Land:

- An unconstructed crown road reserve is located between Lots 144 and 145 DP755826.
- The project impacts Lot 7003 DP1060212 and Lot 7009 DP1060213 which are travelling stock reserves. These are reserves under the Crown Lands Act 1989, which restricts land dealings and may require consent from the Minister. These lots are also subject to undetermined Aboriginal Land Claims. Lot 7009 DP1060213 has a limited title, and boundaries have not been investigated by the Registrar General.
- A license or approval is required under the Crown Lands Management Act 2017 for the electrical connection that will traverse Lots 144 and 145. An approval to gain permanent legal right over the project access route is to be investigated in consultation with LLS, Crown Lands and NSWALC.

● The land titles may be associated with a crown tenure which is subject to payment of an annual rent.

● Road Reserves: The project impacts the Waterfall Way (Grafton Road) road reserve.

● Easements:

○ Various easements exist across the privately owned lots for pipelines and electricity transmission lines. These easements are vested in New South Wales Electricity Transmission Authority.

The project's development site covers approximately 34.37 hectares, while the BESS infrastructure itself occupies about 13.5 hectares.

3. Existing environment

3.1 Physical description

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

The development site, spanning approximately 34.37 hectares across seven lots, is primarily used for agricultural activities such as dryland grazing. The site is generally cleared of vegetation due to historical agricultural use, with remaining vegetation consisting of a mix of exotic grassland and native species. Planted vegetation is present towards the north and along Waterfall Way (Grafton Road). The site does not contain any dwellings and is subject to environmental constraints, including mapped bushfire-prone land in the southern part of Lot 1 DP246878. The study area for the project is approximately 34.37 hectares, including the land parcels above, while the subject land, which includes the areas to be directly impacted by the proposed development, covers about 22.89 ha. The subject land includes 15.10 ha to be directly impacted by ground disturbance, and 8.23 ha to be partially impacted by the overhead connection route. (Att 3_EIS_001D.pdf, Sec 1.2, Page 1)

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

The land is currently not utilized for commercial purposes however part of the land is used for grazing purposes. The proposed use involves developing a Battery Energy Storage System (BESS) on approximately 34.37 hectares of the site. This development will include the installation of battery storage units and associated infrastructure to support energy storage and distribution. The total land area is approximately 336 has (Att 8_Groundwater Assessment.pdf , Page 7, 9, & 11) and the total development site is 34.37ha. Approximately 13.5 ha of which will be the main BESS infrastructure area where the inverters, transformers, and auxiliary facilities will be located (Att 3, Figure 4 & 5) .

The Gara Battery Energy Storage System (BESS) project area has a history of agricultural use, and current land uses include primary production and road infrastructure. The proposed development will introduce a new industrial use for electricity generation. Although the current use is primary production, the BESS installation will be installed on land with least agricultural footprint.

Here's a breakdown of the existing and proposed uses:

● Existing Uses:

○ Primary Production/Agriculture: The land is currently used for agricultural activities such as dryland grazing of sheep and cattle. The land has been historically used for grazing, and winter crops such as Ryegrass, Fescue, Phalaris, and Clover have been grown in the northern and western paddocks. More recently, Cocksfoot, Chickery, Plantain and Peri grass have been introduced into the pasture mix.

○ Road Infrastructure: The Waterfall Way (Grafton Road) runs along the southern boundary of the development site.

○ Travelling Stock Reserves: The project area includes two travelling stock reserves (TSRs) (Lot 7003 DP1060212 and Lot 7009 DP1060213) which are used for the movement of livestock.

○ Other: The site contains a farm dam, fencing, and agricultural shedding. There is also a residential dwelling with associated infrastructure located in the central west of the host lot, outside of the development footprint.

○ Easements: The site includes easements for transmission lines and a pipeline.

● Proposed Uses:

○ Electricity Generation: The primary proposed use is the development of a 400 MW/1,760 MWh Battery Energy Storage System (BESS). This involves the installation of containerized lithium-ion batteries, inverter stations, and grid connection facilities. The BESS will store and distribute electricity, contributing to grid stability and renewable energy integration.

○ Associated Infrastructure: The development will also include:

■ Access roads and car parks.

■ Security fencing.

■ Switching station and control rooms.

■ Underground or overhead transmission line approximately 1km in length to connect to the existing 330kV transmission line.

■ Vegetation screening around the BESS and at a distance to the east.

○ Potential Future Use: The project is designed to be compatible with future agricultural uses after decommissioning. ACEnergy also considers the option of gifting partial land to the RFS for a new fire shed.

● Land Use Compatibility:

○ The development is located on land zoned RU1 Primary Production under the Armidale Regional Local Environmental Plan (LEP). Electricity generating works are generally prohibited in this zone, but the project is permitted with consent under the State Environmental Planning Policy (Transport and Infrastructure) 2021.

○ The Agricultural Land Utility Assessment (ALUA) concludes that the site has low agricultural suitability and that removing land for the BESS will not significantly impact agricultural production.

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

The Gara Battery Energy Storage System Project has several notable features and values.

● Vegetation:

Native Vegetation: Despite historical clearing, the site contains patches of remnant native vegetation, including scattered woodland and derived native grasslands. The native vegetation is consistent with Plant Community Type (PCT) 3359 New England Hills Stringybark-Box Woodland. (Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 4, Page 23)

Threatened Ecological Community (TEC): This PCT is representative of the White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland, which is listed as a critically endangered ecological community (CEEC) under both the NSW Biodiversity Conservation Act 2016 (BC Act) and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). (Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 4.3.9 & 4.3.10, Page 36-37)

Exotic Grassland: A significant portion of the site consists of exotic grasslands, a result of past agricultural activities. (Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 4.3.4 & 4.3.5, Page 25-26)

Planted Vegetation: There is planted vegetation, including windbreaks, along Waterfall Way and towards the north of the development site. (Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 4.3.4 & 4.3.5, Page 25-26)

● Waterways:

First Order Streams: Two unnamed first-order streams traverse the northern portion of the site, running east to west, under the proposed overhead connection route. These are considered likely historical overland flows lacking key habitat features for native aquatic species. They are at least 100 meters from the BESS infrastructure ((Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 3, Page 19)

Burying Ground Creek: This creek is located approximately 700 meters to the west of the site, and the first order streams are tributaries of it. ((Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 1.3, Page 8)

Gara River: The Gara River is located approximately 2.6 kilometers east of the site. (Att 4_ACHAR_001D.pdf, Sec 4.3, Page 23)

Commissioners Waters: This waterway is located to the south of the development site. (Att 4_ACHAR_001D.pdf, Sec 4.3, Page 23)

Constructed Dam: There is a large constructed dam located within the central portion of the site, which may present a foraging habitat for waterbirds and amphibians. (Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 3 and Sec 5.1.3, Page 19 and 41)

No Wetlands: The site does not contain any local wetlands. (Att 3_EIS_001D.pdf, Sec 6.1.1, Page 54)

● Habitat:

Limited Habitat Features: The exotic grasslands on the site have limited biodiversity value due to the lack of complex vegetation structure, hollow-bearing trees, and aquatic habitat. (Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 5.1.3, Page 41)

Potential Foraging Habitat: Areas of derived native grassland and scattered woodland vegetation provide potential foraging habitat for mobile threatened fauna, including arboreal mammals and woodland birds. (Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 5.1.3, Page 41)

● Landscape:

Undulating Topography: The site has a flat to undulating topography, gently sloping to the north-west.

Rural Landscape: The site is located in a rural area with low rolling hills, and the surrounding landscape includes pastures, dwellings, and sheds.

Transmission Lines: Existing transmission lines that traverse the land influence the landscape character of the area.

Remnant Woodland: Remnant woodland exists along Waterfall Way and on the slopes of Lots 144 and 153 DP 755826, and on the western boundary in Lot 1 DP573787.

● Threatened Species:

Potential Habitat: Although no threatened species were detected, the site contains potential habitat for species like the Koala, which is listed as endangered under both the BC Act and the EPBC Act (Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 5.1.4, Page 42). It is also considered potential habitat for Dichanthium setosum (Bluegrass), Thesium australe (Australe Toadflax) and Callistemon pungens (Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 5.1.2, Page 40)., and for woodland birds such as the Brown Treecreeper and Speckled Warbler (Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 5.1.3, Page 41).

Callistemon Pungens: Four individual Callistemon pungens plants, listed as vulnerable under the EPBC Act, were identified within the study area, but would not be directly impacted by the project. (Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf, Section 5.2.3, Page 51)

Lack of Key Habitat Features: The site generally lacks key habitat features that are important for threatened species.

Mobile Threatened Fauna: It is possible that mobile threatened species may use the study area as part of a broader network of habitats within the locality.

● Other Values:

New England Renewable Energy Zone (REZ): The project is located within the New England REZ, making it strategically important for renewable energy infrastructure.

Proximity to Infrastructure: The site's proximity to existing electrical infrastructure, including the Armidale Transgrid Substation and transmission lines, is a key factor for its suitability for a BESS.

Agricultural Land Use: While the site is currently used for grazing, it is not mapped as containing any land identified via Strategic Regional Land Use Policy including Strategic Agricultural Land.

No Heritage Listings: The development site does not contain any mapped items of heritage significance and is not mapped as containing sensitive biodiversity.

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 development site is located in an undulating, rural locality, which may influence the design and construction of the proposed BESS infrastructure. The BESS Site has been chosen in a relatively flat area of the property. The gradient and topography will be considered in the planning and development process to ensure stability and accessibility.

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.

Overview of Flora, Fauna, and the Existing Ecosystem

The affected area, referred to as the Study Area, is located approximately nine kilometers southeast of Armidale, New South Wales. The site is primarily used for grazing sheep and is characterized by a mix of native and exotic vegetation. (Att 6, section 1.3)

Plant Communities and Their Condition (Att 6, section 4.3.5)

The dominant plant community in the Study Area is the New England Hills Stringybark-Box Woodland (PCT 3359). This community has been impacted by historical and current grazing practices, resulting in varying levels of vegetation condition. Five vegetation zones have been identified:

Vegetation Zone 01 (VZ 01): Good Condition Woodland located primarily within the road reserve. This zone features a relatively intact woodland structure with mature canopy trees, a sparse shrub layer, and a groundcover dominated by native grasses and forbs.

Vegetation Zone 02 (VZ 02): Moderate Condition Woodland consisting of small, fragmented patches of woodland impacted by grazing. The canopy is sparse, the shrub layer is largely absent, and the groundcover shows a moderate diversity of native species.

Vegetation Zone 03 (VZ 03): Moderate Condition Grasslands representing areas where the canopy and shrub layers have been removed due to past agricultural practices. However, this zone still supports a moderate diversity of native grasses and forbs.

Vegetation Zone 04 (VZ 04): Low Condition Woodland characterized by a sparse canopy, a limited midstory, and a groundcover dominated by exotic vegetation.

Vegetation Zone 05 (VZ 05): Planted Vegetation primarily composed of non-native species.

In addition to these zones, significant portions of the Study Area are classified as exotic grassland due to the high coverage of non-native grasses and forbs.

Threatened Ecological Communities (Att 6, section 4.3.9 & 4.3.10)

The good to moderate condition vegetation zones (VZ 01, VZ 02, and VZ 03) within the Study Area exhibit characteristics consistent with the Critically Endangered Ecological Community (CEEC) listed under both the NSW Biodiversity Conservation Act 2016 (BC Act) and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). This community is known as White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland.

Key diagnostic canopy species, such as Yellow Box (Eucalyptus melliodora) and Blakely’s Red Gum (Eucalyptus blakelyi), are present in these zones. The presence of native groundcover species and the potential for natural regeneration further support their classification as CEEC.

Fauna

The Study Area supports a variety of fauna, including 33 common species documented during field surveys (Att 6, section 5.4.1). These species include:

Birds: 26 species were observed.

Mammals: Three species were observed, including the Common Brushtail Possum, Common Ringtail Possum, and Sugar Glider.

Amphibians: Three species were observed.

Reptiles: One species, the Eastern three-toed skink, was observed.

Although no threatened fauna species listed under the BC Act or EPBC Act were detected during the assessment, suitable habitat exists for several species (Att 6, section 5.1.3):

Brown Treecreeper (Climacteris picumnus victoriae) - listed as vulnerable under the BC Act.

Speckled Warbler (Chthonicola sagittata) - listed as vulnerable under the BC Act.

Koala (Phascolarctos cinereus) - listed as endangered under both the BC Act and EPBC Act. While the Study Area is mapped as core Koala habitat by the Armidale Strategy, it does not meet the definition of potential Koala habitat under the Koala SEPP 2020.

Habitat Features and Considerations (Att 6, section 5.1.3)

The Study Area contains habitat features such as hollow-bearing trees, stick nests, and a large constructed dam. These features provide important resources for various fauna species.

The presence of exotic grasslands reduces the overall habitat suitability for many native species.

The Study Area is part of a fragmented landscape due to historical clearing for agriculture. However, surrounding patches of vegetation connecting to larger tracts of vegetation and National Parks would be retained.

The roadside vegetation along Waterfall Way may act as a movement corridor for some species, including Koalas.

This information provides a comprehensive overview of the flora and fauna, as well as the overall ecosystem, within the affected Study Area.

Field survey conducted include Vegetation Mapping, Plant Community Type Identification, Vegetation Zones and Integrity, and Floristic Identification and Nomenclature. These surveys were conducted on multiple dates and inclusions are as follows (Att 6, section 4.2):

Vegetation Mapping: The vegetation was mapped using a combination of rapid data points (RDPs), walking transects, and aerial photography. RDPs involved recording dominant species, structure, and condition using a handheld GPS. Walking transects were used to verify homogenous polygons in floristic composition and condition. The RDPs and survey tracks were overlaid with aerial photography to clarify vegetation boundaries.

Plant Community Type Identification: The native vegetation was determined to be commensurate with PCT 3359 New England Hills Stringybark-Box Woodland. The floristic description and justification for this allocation are discussed further in the report, with photographs of the site's general features provided in Section 4.3.7 of BDAR (Attachment: ‘Att 6_HBT0229_BDAR_GaraBESS_Armidale_V4.0_Final_opt.pdf’).

Vegetation Zones and Integrity: Vegetation zones were delineated based on Section 4.3 of the BAM (Biodiversity Assessment Method). A vegetation zone is defined as a relatively homogenous area of the same vegetation type and broad condition. Nineteen plots/transects were used to collect site condition data for composition, structure and function. The number of sample plots exceeded the minimum survey effort required by the BAM.

Floristic Identification and Nomenclature: Plant identification and naming were based on Harden (1992, 1993, 2000 and 2002) with subsequent revisions as published on NSW PlantNet

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

The Gara Battery Energy Storage System (BESS) project area exhibits a complex vegetation profile significantly altered by historical agricultural activities, primarily grazing. Native vegetation is present but fragmented and in varying conditions, coexisting with extensive areas of exotic grassland.

Soil Conditions (Att 6, Table 2):

The project site predominantly features Yellow Podzolic Soils and Kurosols, characterized by brown silty loam surface soils and bright yellow-brown medium clay subsoils. These soils are deemed marginal for agriculture, possessing low agricultural productivity potential. A soil physical characteristic assessment, conducted in August 2024, revealed no evidence of contamination, asbestos, plant stress, or unhealthy vegetation. However, the undulating landscape presents a risk of contamination mobilization via surface water runoff.

Native Vegetation (Att 6, Table 2):

Overall Coverage: Native vegetation constitutes approximately 33% (500 ha) of the 1,500 m landscape buffer. Within the project site itself, native vegetation is considerably less extensive.

Plant Community Types (PCTs): Initial mapping indicated three PCTs: PCT 3352 (Armidale Quartz Hills Stringybark Forest), PCT 3359 (New England Hills Stringybark-Box Woodland), and PCT 3344 (New England Ribbon Gum Grassy Forest). However, further assessment revealed that all native vegetation, whether grassland or woodland, is best classified as PCT 3359.

Vegetation Zones (VZs): The BDAR delineated five VZs based on vegetation condition and composition: VZ 01 (Good Condition Woodland), VZ 02 (Moderate Condition Woodland), VZ 03 (Moderate Condition Grasslands), VZ 04 (Low Condition Woodland), and VZ 05 (Planted Vegetation). Extensive areas were also classified as non-native vegetation, dominated by exotic perennial grasses and forbs.

Vegetation Integrity: Vegetation Integrity (VI) scores varied significantly across VZs. VZ 01 showed a high VI score (79.8), reflecting good condition, while VZ 04 and the exotic grasslands had very low VI scores (6.6 and 5.2 respectively), indicating degraded condition. VZs 02 and 03 had moderate VI scores (53.4 and 36.6, respectively).

Threatened Ecological Communities (TECs): The VZs (01, 02, and 03) exhibit characteristics consistent with the Critically Endangered Ecological Community (CEEC): White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland. The presence of key diagnostic canopy species like Eucalyptus melliodora (Yellow Box) and Eucalyptus blakelyi (Blakely's Red Gum) further supports this classification.

Threatened Flora and Fauna: The BDAR identified several threatened flora species with a moderate likelihood of occurrence within the VZs: Dichanthium setosum (Bluegrass) and Thesium australe (Australe Toadflax), both vulnerable under the BC Act and EPBC Act. Callistemon pungens, vulnerable under the EPBC Act, was also found outside the Subject Land. The presence of scattered mature native trees in the project area potentially offers foraging habitat for some threatened fauna. The potential for Koala habitat is discussed but ultimately deemed to be low.

Exotic Vegetation (Att 6, 4.3.4):

The project area contains significant areas of exotic grassland with low native plant diversity and cover. Common exotic species include Cupressus sp. (Conifer Pine), Cotoneaster glaucophyllus (Cotoneaster), Dactylis glomerata (Cocksfoot), and others.

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.

The Gara BESS project do not have locations within the Commonwealth heritage places overseas or other internationally recognized heritage sites.

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

No significant Aboriginal sites were discovered within the project area itself during the archaeological survey. The survey, conducted on August 6, 2024, by a Premise archaeologist, a Registered Aboriginal Party (RAP) representative, and an ACEnergy representative, comprehensively covered various landforms, but yielded no evidence of Aboriginal occupation. This absence of findings, coupled with the low ground visibility and the relatively flat landscape, led to the conclusion that the archaeological potential of the study area is low.

However, the ACHAR acknowledges the presence of Aboriginal cultural values across all landscapes, and recognizes the significance of sites located outside the immediate project area.

(Att 4, section 14)

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 hydrology of the Gara BESS project area is characterized by a combination of surface water features and groundwater systems, influenced by the local topography and climate.

Surface Water:

● Catchment (Att 7, section 1.2): The project site is located within the Macleay River catchment. Specifically, it sits within the catchment of Burying Ground Creek, which runs to the east of the development site. This creek flows south towards Commissioners Waters, which then joins the Gara River.

● Waterways (Att 7, section 6.1.1, page 54): Several unnamed waterways, including two first-order streams, traverse the northern portion of the site in an east-to-west direction. These waterways are considered likely to be historical overland flows with limited key habitat features for native aquatic species. There are also a number of minor tributaries that run through the site.

● Flood Risk (Att 7, section 9.2.3): The development site is not mapped as a flood planning area. However, a surface water assessment, including hydraulic and hydrologic modeling, has been undertaken to assess flood risks. The modelling considered various flood events, including the 5% AEP, 1% AEP, Probable Maximum Flood (PMF), and 0.5% and 0.2% AEP events, the latter being used as proxies for assessing climate change.

○ The modelling indicated that the site is at a low risk of riverine flooding, being located on a ridge of the Burying Ground Creek catchment and outside the riverine PMF extent.

○ The modeling indicates that the site is susceptible to shallow surface water flows, with peak depths within the site ranging from 0.03 to 0.09 meters during a 1% AEP event. The maximum depth of flooding within the proposed BESS area is not predicted to exceed 0.1m in the 1% AEP event.

● Runoff (Att 7, section 9.2.2): The site is characterized by undulating land, and surface runoff generally flows from the south-east to the north-west, split across minor tributaries. The proposed BESS development includes some cut and fill, and the construction of a basin in the north-west corner of the site, to collect and treat runoff.

● Flood Mitigation (Att 7, section 9.2.3): Recommendations to manage flood risk include: raising sensitive infrastructure on concrete footings to 300mm above finished ground level, extending an existing pipe under the access track at Waterfall Way, incorporating drainage channels within the BESS area to control surface runoff, and ensuring that the location of electricity poles is outside of mapped flood depths.

Groundwater:

Aquifer (Att 8, section 3.4.1): The development site is located within the New England Fold Belt Coast Groundwater Source, which is a fractured rock aquifer. Groundwater is contained within and moves through fractures in the rock.

Recharge (Att 8, section 3.4.1): Groundwater in this region is typically recharged through rainfall infiltration.

Yield (Att 8, section 3.4.1): Yields from the aquifer are generally low, typically around 1 L/s, but can reach up to 10 L/s in highly fractured fault systems.

Groundwater Levels and Quality (Att 8, section 3.4.1): The depth to water is greater than 19 m, and the water quality is generally low in salinity and recorded as ‘potable’.

Minimal Impact (Att 8, section 4.3): The proposed development is expected to have minimal impact on groundwater. The project will not require any significant excavation below the water table, nor will it involve the extraction of groundwater during either the construction or operation stages. As such, the project is not expected to cause drawdown to the groundwater table.

Groundwater Dependent Ecosystems (GDEs) (Att 8, section 3.5.2): There are no high priority HEVAE GDEs within 1 km of the development site boundary. Additionally, no GDEs are listed in the Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016- New England Fold Belt Coast Water Source, in the area near the development.

Potential Contamination (Att 8, section 4.3.2): Although the risk of contamination from leaks or spills is low, mitigation measures are recommended, such as bunding of chemical storage, site drainage and sedimentation basins, and spill kits for cleaning up chemical, oil and fuel spillages. Site management plans would also include response protocols for leaks and groundwater monitoring bores should they be necessary.

The above summary comes from the attached groundwater study 'BNTL01386_0002-REP-001-2 ACEnergy Gala BESS - GW.pdf'.

4. Impacts and mitigation

4.1 Impact details

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

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

4.1.1 World Heritage

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

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

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

—

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

No

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

No World Heritage site inside the project area.

4.1.2 National Heritage

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

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

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

—

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

No

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

No National Heritage Sites Identified: The Aboriginal Cultural Heritage Assessment Report (ACHAR) and the Biodiversity Development Assessment Report (BDAR) extensively survey the project area and its surroundings for cultural and natural heritage. Neither report mentions the presence of any sites listed on the National Heritage List or the Commonwealth Heritage List. The ACHAR specifically states that a review of these lists revealed no such sites within the study 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. *

No Ramsar Wetlands Identified: The Biodiversity Development Assessment Report (BDAR) and the Aboriginal Cultural Heritage Assessment Report (ACHAR) thoroughly survey the project area and its vicinity for significant environmental and cultural features. Neither report identifies any wetlands of international importance (Ramsar sites) within or near the project area. The BDAR specifically assesses the presence of wetlands, concluding that there are no mapped coastal wetlands or areas classified as coastal environments within the study area. It also confirms the absence of any local wetlands that might be considered under the BAM framework.

4.1.4 Threatened Species and Ecological Communities

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

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

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

Threatened species

Direct impact	Indirect impact	Species	Common name
No	No	Anthochaera phrygia	Regent Honeyeater
No	No	Aphelocephala leucopsis	Southern Whiteface
No	No	Aprasia parapulchella	Pink-tailed Worm-lizard, Pink-tailed Legless Lizard
No	No	Arthraxon hispidus	Hairy-joint Grass
No	No	Bertya sp. Clouds Creek (M.Fatemi 4)	
No	No	Botaurus poiciloptilus	Australasian Bittern
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	Yes	Callistemon pungens	
No	No	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo
No	No	Chalinolobus dwyeri	Large-eared Pied Bat, Large Pied Bat
No	Yes	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
No	Yes	Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)
No	Yes	Dichanthium setosum	bluegrass
No	No	Diuris eborensis	
No	No	Erythrotriorchis radiatus	Red Goshawk
No	No	Euastacus simplex	Simple Crayfish, Small Mountain Crayfish
No	No	Eucalyptus mckieana	McKie's Stringybark
No	No	Eucalyptus nicholii	Narrow-leaved Peppermint, Narrow-leaved Black Peppermint
No	No	Euphrasia arguta	

Direct impact	Indirect impact	Species	Common name
No	No	Falco hypoleucos	Grey Falcon
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Grantiella picta	Painted Honeyeater
No	Yes	Haloragis exalata subsp. velutina	Tall Velvet Sea-berry
No	Yes	Hirundapus caudacutus	White-throated Needletail
No	No	Lathamus discolor	Swift Parrot
No	No	Litoria castanea	Yellow-spotted Tree Frog, Yellow-spotted Bell Frog
No	No	Litoria piperata	Peppered Tree Frog
No	No	Litoria subglandulosa	New England Tree Frog, Glandular Frog
No	No	Melanodryas cucullata cucullata	South-eastern Hooded Robin, Hooded Robin (south-eastern)
No	No	Neophema chrysostoma	Blue-winged Parrot
No	No	Petaurus australis australis	Yellow-bellied Glider (south-eastern)
No	No	Petrogale penicillata	Brush-tailed Rock-wallaby
No	Yes	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	Picris evae	Hawkweed
No	No	Pseudomys novaehollandiae	New Holland Mouse, Pookila
No	No	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Rostratula australis	Australian Painted Snipe
No	No	Saltuarius moritzi	New England Leaf-tailed Gecko, Moritz's Leaf-tailed Gecko
No	No	Stagonopleura guttata	Diamond Firetail
No	Yes	Thesium australe	Austral Toadflax, Toadflax

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	New England Peppermint (Eucalyptus nova-anglica) Grassy Woodlands
Yes		White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

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

Yes

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

The Gara Battery Energy Storage System (BESS) project has both direct and indirect impacts on threatened species and ecological communities, primarily due to the removal of native vegetation and potential habitat disturbance. The project's impacts are assessed under both the NSW Biodiversity Conservation Act 2016 (BC Act) and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

Direct Impacts:

● Vegetation Clearing (Att 6, section 7.1): The project will result in the direct clearing (or partial clearing) of 13.71 hectares of native vegetation. This includes:

7.75 ha of native vegetation directly impacted by ground disturbance for the BESS and transmission line infrastructure.

5.96 ha of native vegetation partially impacted by the transmission line easement.

● Impact on Threatened Ecological Communities (TECs) (Att 6, section 7.2): The vegetation to be cleared is identified as PCT 3359 New England Hills Stringybark-Box Woodland. This vegetation meets the criteria of a Critically Endangered Ecological Community (CEEC) known as White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland, which is listed under both the EPBC Act and the BC Act.

The project would directly impact 5.22 ha and partially impact on 5.25 ha of this CEEC.

Approximately 8.26 ha of the CEEC would be retained within a buffer area.

● Fauna Habitat Removal (Att 6, section 7.3): The clearing will remove stick nests and hollow-bearing trees that potentially provide habitat for native fauna.

Indirect Impacts (Att 6, section 7.4):

● Edge Effects: The project has the potential to increase edge effects, which can degrade the quality of adjacent native vegetation through changes in microclimate, increased light penetration, and weed invasion.

● Introduction of Weeds and Pathogens: Construction and operational activities can lead to the spread of weeds and pathogens, further degrading the health of native vegetation.

● Sediment and Contaminant Runoff: Construction activities could cause mobilized sediments and contaminants to enter waterways, impacting downstream aquatic environments.

● Fauna Vehicle Strikes: An increase in vehicle movement during construction and operation may increase the risk of vehicle strikes on local fauna.

● Habitat Fragmentation: Although the area is already fragmented, the project may further impact habitat connectivity by creating barriers to fauna movement. While important movement corridors and higher quality vegetation in nearby National Parks would be retained, the project has the potential to further fragment habitat for native fauna.

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

Yes

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

The proposed action is likely to have a significant impact as a result of an assessment based on the Significant Impact Criteria (Att 6, Appendix G). The assessment is outlined below:

EPBC Act Significant Impact Guidelines

The following pertains to Assessments of Significance for direct or indirect impacts to EBPC Act listed threatened species, populations and communities. The following community has been assessed in accordance with the EPBC Act MNES Significant Impact Guidelines 1.1 (DotE 2013).

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

Critically Endangered and Endangered Ecological Communities

An action is likely to have a significant impact on a critically endangered or endangered ecological community if there is a real chance or possibility that it will:

Is the action likely to reduce the extent of an ecological community?

Yes. The project would reduce the extent of the TEC within the Subject Land directly by 5.22 ha (ground disturbance) and partially by 5.25 ha (transmission line easement) and would retain approximately 8.26 ha within the buffer area.

Will the action fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines?

Yes. The woodlands and native grasslands within the Subject Land (VZ 01, VZ 02, and VZ 03) contain a moderate to high coverage of native groundcover species (mainly grasses, forbs and ferns) and a partially reduced or absent canopy and shrub layer. Given that the integrity of the vegetation has been adversely affected by historical agricultural impacts and the current land use (grazing), better- quality woodland remnants occur in the surrounding landscape. Although the CEEC would be slightly fragmented by the project the retained vegetation and the vegetation within the easement (everything below four meters would be retained) would maintain connectivity to a larger patch of the CEEC to the northeast of the Subject Land and preserve the patch.

Will the action adversely affect habitat critical to the survival of the ecological community?

Yes. Under the National Recovery Plan for the TEC (DECCW 2010), habitat critical to the survival of the TEC is considered areas that meet the minimum condition criteria under its listing and conservation advice (TSSC 2006). The project would directly impact 5.22 ha (ground disturbance) and partially impact 5.25 ha (transmission line easement) and would retain approximately 8.26ha within the buffer area. The retained vegetation would be managed and improved through the implementation of a vegetation management plan (VMP).

Will the action modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community’s survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns?

The project would implement stormwater and surface water controls as part of its integrated stormwater and floodplain management strategy. Detention basins and stormwater infrastructure are not expected to have any significant implications on the hydrological regime which supports current Box Gum Grassy Woodland vegetation. Source controls, such as sediment fencing, will be

implemented along the boundary of the Subject Land to mitigation erosion and prevent the transport of debris during construction works. The implementation of weed management through a VMP would aim to improve the future condition of the woodland and reduce the potential for erosion.

Will the action cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting?

Direct impacts resulting from the project (5.22 ha) are moderate, however, they are not expected to substantially change the species composition of the ecological community. The transmission line easement is mainly comprised of grassland and woodland patches with a relatively sparse tree canopy. Impacts would be largely limited to the selective removal of individual trees and shrubs and would allow for the retention of native groundcover species (mainly comprised of grasses, forbs and sedges) within this area.

No regular burning or flora and fauna harvesting would occur during the construction and operational stages of the project. The project does have the potential for indirect impacts (such as weed incursion) to cause a change, or decline, in native species composition of the ecological community. The mitigation measures presented in the BDAR aim at reducing the likelihood of this happening so that the functionality of the ecological community is retained.

Will the action cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to:

a. assisting invasive species, that are harmful to the listed ecological community, to become established, or

b. causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community, or?

As mentioned above, indirect impacts (such as weed incursions, erosion, accidental clearing, etc.) have the potential to reduce the integrity of the ecological community. These impacts would be controlled through the mitigation measures presented in the BDAR. The mobilisation of pollutants and chemicals, such as fertilisers, through runoff are to be mitigated through the stormwater design process during the construction and operational phase of the project.

Will the action interfere with the recovery of an ecological community?

Yes, to a minor extent. The project would result in the loss of 5.22 ha of moderate condition White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland to facilitate the construction and operation of the Gara BESS. A large portion of the CEEC totalling 12.90 ha, within the buffer area 8.26 ha and the transmission line easement 5.25 ha, would be retained and subject to ongoing management under a VMP with the aim of restoring the integrity of the ecological community and improving its condition over time.

Conclusion

The Subject Land includes areas in which complete ground disturbance would occur for the BESS and transmission line infrastructure and areas in which only partial disturbance (the transmission line easement) would occur. The ground disturbance would impact approximately 5.22 ha, and the partial disturbance would impact approximately 5.25 ha of moderate condition White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grasslands, which occurs throughout the Subject Land.

All CEEC vegetation within the transmission line easement that is below four meters would be retained and subject to ongoing management under a VMP. Impacts would be largely limited to the selective removal of individual trees and shrubs and would allow for the retention of native groundcover species (mainly comprised of grasses, forbs and sedges) within this area.

The project footprint has been reduced by approximately 1.4 ha and has undergone several redesigns to avoid the majority (approximately 66%) of this ecological community occurring within the Study Area (Buffer Area) and retain connectivity to a large patch of the CEEC located to the north east of the transmission

line.

Potential indirect impacts during the construction and operational phases would be controlled through mitigation measures presented in the BDAR and other supporting project reports, to ensure that the integrity of the CEEC is not compromised. The implementation of a VMP for the partially retained and retained areas of the Study Area would aim to improve the integrity of the ecological community and retaining its functionality within the surrounding agricultural landscape.

Consultation with an EPBC Act Departmental Environment Assessment Officers will be undertaken by the proponent to determine whether or not a proposed action will need formal assessment and approval under the EPBC Act and to discuss possible options available for the proposed action that may reduce the potential for significant impacts on the protected matter, as the CEEC also meets the NSW BC Act listed CEEC White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions and would also incur an offset obligation under State environmental legislation.

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

Yes

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

ACEnergy is considering the Gara BESS Project as a controlled action because it could be considered based on the potential impacts on Matters of National Environmental Significance (MNES). Reasoning as follows:

1. Presence of a Critically Endangered Ecological Community (CEEC) (Att 6, section 7.2): The BDAR identifies the presence of the White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC on the project site. This CEEC is a likely MNES under the EPBC Act.

2. Potential for Impact (Att 6, section 7.2): While mitigation measures are in place, the BDAR acknowledges the possibility of impacts to the CEEC. The assessment notes that some loss of the CEEC is unavoidable and that offsets will be required. The EPBC Act requires assessment for actions that are likely to have a significant impact on MNES, even with mitigation.

3. State Significant Development (SSD) Status: The project's classification as an SSD under the NSW Environmental Planning and Assessment Act 1979 (EP&A Act) does not preclude it from also being a controlled action under the EPBC Act. The two acts operate in parallel, with the EPBC Act overlaying state legislation where MNES are concerned.

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

The Gara BESS project proposes several avoidance and mitigation measures to minimize impacts on the White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC, a Matter of National Environmental Significance (MNES) under the EPBC Act. The project's design aims to avoid and minimize clearing impacts to native vegetation wherever possible. Specific measures include (Att 6, section 6):

● Redesigning the BESS compound, access, and overhead sub-transmission connection route to reduce the area of direct impact to native vegetation and threatened species habitat. This significantly reduced the impact footprint, ensuring the total retention of 7.51 ha and partial retention of 5.25 ha of the CEEC.

● Selecting the Subject Land strategically because it is already impacted by grazing and contains predominantly exotic grassland vegetation.

● Clearly delineating the boundaries of the project footprint to prevent unnecessary clearing. Appropriate fencing will be installed to prohibit entry into retained vegetation areas and minimize indirect impacts such as dust and rubbish spreading into the forest.

● Implementing a range of mitigation measures to address residual impacts identified in the Biodiversity Development Assessment Report (BDAR). These measures are detailed in Table 15 of the BDAR (Att 6, Table 15). Examples of these measures include:

○ Limiting pesticide use to avoid contamination of watercourses.

○ Implementing speed limits within the site.

○ Separating the construction site from retained native vegetation.

○ Controlling light pollution to minimize impacts on wildlife.

○ Minimizing noise pollution during construction and operation.

○ Dust control measures including covering loads, amending operations in excessive wind conditions, use of water tankers, and truck wheel washes.

○ Erosion and sediment control measures in accordance with Managing Urban Stormwater guidelines.

● Providing biodiversity offsets in the form of nest boxes at a ratio of 2:1 within retained land to compensate for the removal of bird nests and habitat trees. Further details on offset requirements are in Table 17 of the BDAR.

● Ongoing vegetation management through a Vegetation Management Plan (VMP) for retained areas to improve the integrity and functionality of the remaining ecological community.

It's crucial to note that while the project aims to avoid and minimize impacts, some loss of the CEEC is unavoidable. The project acknowledges this and proposes offsets to compensate for this unavoidable impact. The project will be subject to additional approvals under the EPBC Act and the NSW Biodiversity Conservation Act 2016 to address these matters.

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

The project will require biodiversity offsets for impacts on native vegetation as described in the BDAR report attached (Att 6, section 8.2.1). Specifically, offsets are required for vegetation zones (VZ01, VZ02, VZ03, and VZ05) that have a Vegetation Integrity (VI) Score greater than or equal to 20.

The offsets will be calculated using ecosystem credits, which are required for the impacted vegetation zones. The exact number of ecosystem credits required is mentioned in Table 17 of the report attached: A total of 236 credits required broken down into 13 credits from PCT 3359 (VZ 01), 55 credits from PCT 3359 (VZ 02), 155 credits from PCT 3359 (VZ 03), 13 credits from PCT 3359 (VZ 05).

No species credit obligation is incurred, as there are no direct impacts to species credit species or their breeding habitat. However, impacts to threatened species and their habitats would be offset through the management and maintenance of the retained land.

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. *

No Migratory Species Identified: The Biodiversity Development Assessment Report (BDAR) and the Aboriginal Cultural Heritage Assessment Report (ACHAR) comprehensively survey the project area and its surroundings for significant environmental and cultural features. Neither report identifies the presence of any migratory species listed under international agreements within or near the project area. The assessments focus on threatened species and ecological communities present within Australia.

4.1.6 Nuclear

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

No

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

The proposed Gara BESS project is highly unlikely to have any direct or indirect impact on Nuclear side of things. The project is focused on renewable energy and in supporting the Australian Renewable Energy transition.

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 proposed Gara BESS project is highly unlikely to have any direct or indirect impact on Commonwealth Marine Area protected matters. The project is located inland in Armidale, NSW, on land zoned RU1 – Primary Production. The project site is described as being on a ridge in the Burying Ground Creek catchment, and its assessments focus on terrestrial ecosystems.

4.1.8 Great Barrier Reef

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

No

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

The proposed Gara BESS project is highly unlikely to have any direct or indirect impact on Commonwealth Marine Area - Great Barrier Reef protected matters. The project is located inland in Armidale, NSW, on land zoned RU1 – Primary Production. The project site is described as being on a ridge in the Burying Ground Creek catchment, and its assessments focus on terrestrial ecosystems.

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

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

No

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

The proposed Gara BESS project is highly unlikely to have any direct or indirect impact on water resources in relation to large coal mining or coal seam gas (CSG) development. The project is a battery energy storage system (BESS) located inland in Armidale, NSW, far from any known large coal mines or CSG operations. The project's activities primarily involve the construction and operation of the BESS facility and associated infrastructure. There is no mining or gas extraction involved.

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 proposed Gara BESS project is unlikely to have any direct impact on Commonwealth land protected matters. The project files' extensively detail the project's footprint and planned activities. The project site primarily uses privately owned land (Lots 1 DP246878, Lot 1 DP573787, Lot 145 DP755826, Lot 144 DP755826, and Lot 153 DP755826), and the access route will impact two travelling stock routes (Lot 7003 DP1060212, Lot 7009 DP1060213) and cross a Crown road reserve between Lots 144 and 145 DP755826. However, the sources indicate that Crown Lands consent as a landowner is no longer required, and that the necessary approvals will be sought through other pathways such as licenses. There is no indication that the project directly impacts any other Commonwealth-protected lands.

4.1.11 Commonwealth Heritage Places Overseas

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

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

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

—

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

No

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

The Gara BESS Project is highly unlikely to have any direct or indirect impact on Commonwealth Heritage Places Overseas as the project site does not have any Commonwealth Heritage Place within the project area and its boundaries.

4.1.12 Commonwealth or Commonwealth Agency

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

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

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

- Threatened Species and Ecological Communities (S18)

Conclusion on the likelihood of unlikely significant impacts

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

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

4.3 Alternatives

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

No

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

An alternative activity for the proposed action was not feasible due to several key reasons:

Minimal Environmental Footprint: Battery Energy Storage Systems (BESS) have the smallest environmental footprint compared to other renewable energy projects. This makes BESS the most suitable option for minimizing ecological disruption on the selected land.

Company Expertise and Focus: Our company specializes in BESS technology, ensuring that we can deliver the highest quality and most efficient project. Shifting focus to another type of renewable energy project would not leverage our core competencies and could compromise project success.

Optimal Land Use: The selected land is ideally suited for BESS due to its specific characteristics, including topography, accessibility, and proximity to existing infrastructure. Other renewable energy projects might require more extensive land modifications or additional infrastructure, leading to greater environmental and financial costs.

Efficiency and Reliability: BESS provides a reliable and efficient means of energy storage, crucial for balancing supply and demand in the energy grid. This reliability is essential for the stability of the local energy supply and cannot be matched by alternative renewable energy activities on this site.

Regulatory and Community Considerations: BESS projects typically face fewer regulatory hurdles and community opposition compared to other renewable energy projects, such as wind or solar farms. This ensures smoother project implementation and greater acceptance by local stakeholders.

Given these considerations, BESS is the best and most practical use of the land, aligning with both environmental and operational goals.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 3_EIS_001D.pdf Gara BESS Environmental Impact Statement	13/12/2024	Yes	High
#2.	Document	Att 3_EIS_001D_Redacted.pdf Environmental impact statement - Redacted version	13/12/2024	No	High
#3.	Document	Att 3_EIS_Appendix A - SEARs.pdf EIS Appendix A	19/07/2024	No	High
#4.	Document	Att 3_EIS_Appendix C - Detailed maps and plans.pdf EIS Appendix C	20/12/2024	No	High
#5.	Document	Att 3_EIS_Appendix F - Land Titles.zip EIS Appendix F	20/12/2024	Yes	High
#6.	Document	Att 3_EIS_Appendix G - Traffic Impact Assessment.pdf EIS Appendix G	22/11/2024	No	High
#7.	Document	Att 3_EIS_Appendix H - OSOM Route Assessment.pdf EIS Appendix H	19/11/2024	No	High
#8.	Document	Att 3_EIS_Appendix I - BDAR.pdf EIS Appendix I	25/02/2025	No	High
#9.	Document	Att 3_EIS_Appendix J - Preliminary hazard analysis.pdf EIS_Appendix J	28/02/2025	No	High
#10.	Document	Att 3_EIS_Appendix K - ALUA.pdf EIS Appendix K	25/11/2024	No	High
#11.	Document	Att 3_EIS_Appendix L - Land use conflict assessment.pdf EIS Appendix L		No	High
#12.	Document	Att 3_EIS_Appendix M - ACHAR [REDACTED].pdf EIS Appendix M redacted ACHAR		No	High
#13.	Document	Att 3_EIS_Appendix M - ACHAR.pdf EIS Appendix M original ACHAR		Yes	High
#14.	Document	Att 3_EIS_Appendix N - Visual Impact Assessment.pdf EIS Appendix N		No	High
#15.	Document	Att 3_EIS_Appendix O - Noise Impact Assessment.pdf EIS Appendix O		No	High
#16.	Document				

		Att 3_EIS_Appendix P - Groundwater Assessment Report.pdf EIS Appendix P		No	High
#17.	Document	Att 3_EIS_Appendix Q - Surface Water Assessment Report.pdf EIS Appendix Q		No	High
#18.	Document	Att 3_EIS_Appendix R - PSI.PDF EIS Appendix R		No	High
#19.	Document	Att 3_EIS_Appendix S - Bushfire Assessment.pdf EIS Appendix S		No	High
#20.	Document	Att 3_EIS_Appendix T - Social Impact Assessment.pdf EIS Appendix T		No	High
#21.	Document	Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf Biodiversity development assessment report for Gara BESS	25/02/2025	No	High

1.2.7 Public consultation regarding the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 2_Engagement Outcomes Report.pdf Gara BESS Engagement Outcomes Report	12/12/2024	No	High
#2.	Document	Att 3_EIS_001D.pdf Gara BESS Environmental Impact Statement	12/12/2024	Yes	High
#3.	Document	Att 4_ACHAR_001E.pdf Gara BESS Aboriginal Cultural Heritage Assessment Report	26/02/2025	Yes	High
#4.	Document	Att 5_ACHAR_001E_Redacted.pdf Gara BESS Aboriginal Cultural Heritage Assessment Report - REDACTED	26/02/2025	No	High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 3_EIS_001D.pdf Gara BESS Environmental Impact Statement	12/12/2024	Yes	High

3.1.2 Existing or proposed uses for the project area

	Type	Name	Date	Sensitivity	Confidence

#1.	Document	Att 3_EIS_001D.pdf Gara BESS Environmental Impact Statement	12/12/2024		High
#2.	Document	Att 8_Groundwater Assessment.pdf Gara BESS Groundwater Assessment	21/11/2024	No	High

3.1.3 Natural features, important or unique values that applies to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 3_EIS_001D.pdf Gara BESS Environmental Impact Statement	12/12/2024		High
#2.	Document	Att 4_ACHAR_001E.pdf Gara BESS Aboriginal Cultural Heritage Assessment Report	25/02/2025		High
#3.	Document	Att 5_ACHAR_001E_Redacted.pdf Gara BESS Aboriginal Cultural Heritage Assessment Report - REDACTED	25/02/2025	No	High
#4.	Document	Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf Biodiversity development assessment report for Gara BESS	25/02/2025		High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf Biodiversity development assessment report for Gara BESS	25/02/2025		High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf Biodiversity development assessment report for Gara BESS	25/02/2025		High

3.3.2 Indigenous heritage values that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 4_ACHAR_001E.pdf Gara BESS Aboriginal Cultural Heritage Assessment Report	25/02/2025	Yes	High

#2.	Document	Att 5_ACHAR_001E_Redacted.pdf Gara BESS Aboriginal Cultural Heritage Assessment Report - REDACTED	25/02/2025	No	High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 7_Flood Study.pdf Gara BESS Surface Water Assessment Report	20/11/2024	No	High
#2.	Document	Att 8_Groundwater Assessment.pdf Gara BESS Groundwater Assessment	20/11/2024	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 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf Biodiversity development assessment report for Gara BESS	25/02/2025	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf Biodiversity development assessment report for Gara BESS	24/02/2025	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf Biodiversity development assessment report for Gara BESS	24/02/2025	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 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf Biodiversity development assessment report for Gara BESS	24/02/2025	No	High

4.1.4.11 (Threatened Species and Ecological Communities) Proposed offsets relevant to avoidance or mitigation measures

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 6_HBT0229_BDAR_GaraBESS_Armidale_V5.0_Final_opt.pdf Biodiversity development assessment report for Gara BESS	24/02/2025		High

5.2 Declarations

Completed Referring party's declaration

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

ABN/ACN	89628883447
Organisation name	ACENERGY PTY LTD
Organisation address	Level 3, 689 Burke Rd, Camberwell, VIC, 3124
Representative's name	Wanping Bai
Representative's job title	Senior Project Development Engineer
Phone	0468673543
Email	jane.bai@acenergy.com.au
Address	Level 3, 689 Burke Rd, Camberwell, VIC, 3124

☑ 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, **Wanping Bai of ACENERGY PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

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

Completed Person proposing to take the action's declaration

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

Same as Referring party 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, **Wanping Bai of ACENERGY 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, **Wanping Bai of ACENERGY PTY LTD**, the Person proposing the action, consent to the designation of **Wanping Bai of ACENERGY PTY LTD** 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. *

✔ 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, **Wanping Bai of ACENERGY 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. *