Hazeldean Battery Energy Storage System

Application Number: **02714** Commencement Date: **05/12/2024** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Hazeldean 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 *

01/05/2026

1.1.4 Estimated end date *

01/05/2060

1.2 Proposed Action details

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

Enervest Pty Ltd (Enervest) is proposing to develop the Hazeldean Battery Energy Storage Supply (BESS) Facility (the Project), approximately 4 km south-west of Kilcoy, Queensland in the Somerset Regional Council local government area (LGA). The Site will be accessed from Esk Kilcoy Road via the D'Aguilar Highway. The BESS is proposed to have a capacity of up to 800 MW and a duration of up to 2 hours and it will directly connect into the National Electricity Grid (NEG) at the north of the Project Area, where there is an existing high voltage transmission line owned and operated by Powerlink Queensland.

The Project area comprises of three lots and for the purposes of the report, the total Project Area is 185.92 ha (associated with the boundary of the host lots for the proposed Project, including the access track). The Project Footprint (associated with the proposed infrastructure area and the access track) is 22.81 ha. The Avoidance Footprint (the balance of the Project Area that is not within the Project Footprint) is 163.11 ha.

The Project Area, and Avoidance Footprint, contains one occupied homestead and other pastoral infrastructure such as farm dams and tracks.

The detailed design, specific layout and electricity generating capacity have not been finalised at this stage, including the specific type and number of batteries. These design decisions will not have a material impact on the development footprint in terms of the environmental and planning considerations.

The Project has been designed to ensure minimal environmental impacts, in keeping with the sustainable nature of the development for a Renewable Energy Facility. Accordingly, the existing environment; rural activities occurring on-site and off-site; proximity to existing electricity infrastructure; stormwater and flooding constraints; and visual impact have all been considered in the design development.

The Project infrastructure comprises a number of interlinked and integral components for the operation of the BESS. These components include:

- Batteries and inverters;
- Switch rooms;
- Harmonic filters;
- Transformers;
- 33KV circuit breakers;
- Laydown areas;
- 33kV switchgear;
- Fencing (security);
- 25m asset protection zone; and
- A substation adjacent to the existing 275kVA transmission line.

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? *

Queensland Energy and Jobs Plan

The Queensland Energy and Jobs Plan (the Plan), released in September 2022, sets targets for 70 per cent of Queensland's energy needs be met from renewable sources by 2032 and 80 per cent by 2035. The Plan sets out the following vision for Queensland's electricity system in 2035:

- At least 25 GW new and existing renewable energy.
- Gladstone grid reinforcement to support heavy industry to switch to renewable energy and decarbonise their operations.
- All publicly-owned coal-fired power stations operating as clean energy hubs by 2035, supported by a legislated Job Security Guarantee for energy workers.
- Two new world-class pumped hydro projects that together could deliver up to 7 GW of long duration storage.
- Around 1,500 km of new high voltage backbone transmission to move more power around the state.
- Up to 3 GW of low to zero emissions gas generation for periods of peak demand and backup security.
- A smarter grid to support over 11 GW of rooftop solar and around 6 GW of batteries in homes and businesses.

As renewable energy (i.e. wind and solar) is variable in nature, it needs to be 'firmed' meaning it must be stored when available and discharged when it is needed. The concept of 'firming' means matching the variable output of renewable generators to instantaneous demand, which may occur via battery storage or fast start 'dispatchable' generation, primarily gas-fueled generators, that can be switched on as required to meet demand.

The Queensland SuperGrid Infrastructure Blueprint which supports the Plan, recognises that Queensland will need at least 6,000 MW of long duration storage complemented by approximately 3,000 MW of grid-scale storage and up to 3,000 MW of new low-to-zero emissions gas-fueled plant to cover so-called 'dunkelflaute' conditions (times when little to no renewable energy generation from wind or solar is possible).

The Project will contribute towards the storage targets outlined in the Queensland Energy and Jobs Plan.

Commonwealth legislation

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) – MNES (listed threatened fauna species) are known to occur within the Project Area. This referral has been prepared in accordance with the Significant Impact Guidelines 1.1, and consideration of the Referral Guideline for Endangered Koala, and consideration of the EPBC Act Environmental Offsets Policy.

State legislation

- *Planning Act 2016* – the Project requires a development approval for a material change of use (MCU) for a Battery Storage Facility under the Somerset Regional Council (SRC) Planning Scheme.
- *Nature Conservation Act 1992* – a low-risk Species Management Program (SMP) will be required to be put in place to authorise impacts to animal breeding habitat for least concern species.
- *Water Act 2000* – the Project may require riverine protection permits where excavation and fill and/or vegetation clearing within a defined watercourse for works associated with watercourse crossings.
- *Aboriginal Cultural Heritage Act 2003* – requires anyone who carries out a land-use activity to exercise a cultural heritage duty of care by taking all reasonable and practical measures to ensure their activity does not harm Aboriginal cultural heritage. Two potential Aboriginal cultural heritage sites (unregistered) were identified outside of the Project Footprint. The results of the assessment and site inspection demonstrate that the Project Area has been subject to significant Ground Disturbance. Engagement with the local first nations group the Jinibara People Aboriginal

Corporation (JPAC) since 23 June 2023. JPAC has had a member on site, with a representative of their cultural heritage advisor on 13 March 2024, providing their desktop review and recommendations on next steps, and subsequent follow up. Engagement with JPAC is progressing.

- *Biosecurity Act 2014* - Field ecology surveys have identified the presence of pest plants and animals, including those with classifications under the Biodiversity Act. Weeds listed as weeds of national environmental significance were also noted during survey activities. Management and mitigation measures and plans will be developed to avoid the spread of weed and pest species.

Local Planning Scheme

The Project is considered under the Somerset Regional Council Planning Scheme and Council is the Assessment Manager for approvals under the planning scheme and Planning Act 2016.

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. *

A development application process is underway through the Planning Act 2016. Public advertising has been completed. Feedback from key stakeholders has been received and a response is currently being prepared for the issues raised.

The preparation of a detailed Community Engagement Plan is underway, with a response to submissions anticipated in January 2025.

1.3.1 Identity: Referring party

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

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1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	670963907
Organisation name	CI Hazeldean Project Co Pty Ltd
Organisation address	Level 6, 627 Chapel Street, South Yarra, VIC 3141

Referring party details

Name	Adam Galvin
Job title	Planning and Engagement Officer
Phone	1300 164 211
Email	adam.galvin@enervest.com.au
Address	Level 6, 627 Chapel Street, South Yarra, VIC 3141

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	670963907
Organisation name	CI Hazeldean Project Co Pty Ltd
Organisation address	Level 6, 627 Chapel Street, South Yarra, VIC 3141

Person proposing to take the action details

Name	Adam Galvin
Job title	Planning and Engagement Officer
Phone	1300 164 211
Email	adam.galvin@enervest.com.au
Address	Level 6, 627 Chapel Street, South Yarra, VIC 3141

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

No

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

Yes

1.3.2.16 Describe the nature of the trust arrangement in relation to the proposed action. *

The CI Hazeldean Project Trust (**Trust**) is the entity which owns the assets of the project, but as it is a trust, has no capacity to enter into contracts or assume legal responsibilities. The Trust acts through CI Hazeldean Project Co Pty Ltd (**Trustee**) which is a separate entity appointed to represent the Trust and control the Trust's assets and is permitted to assume rights, obligations and liabilities for and on behalf of the Trust.

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

The CI Hazeldean Project Co Pty Ltd is a responsible corporate citizen with no existing proceedings under a Commonwealth, State or Territory law for the protection of the environment or 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

The CI Hazeldean Project Co Pty Ltd does not presently have any corporate environmental policies or frameworks.

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	670963907
Organisation name	CI Hazeldean Project Co Pty Ltd
Organisation address	Level 6, 627 Chapel Street, South Yarra, VIC 3141

Proposed designated proponent details

Name	Adam Galvin
Job title	Planning and Engagement Officer
Phone	1300 164 211
Email	adam.galvin@enervest.com.au
Address	Level 6, 627 Chapel Street, South Yarra, VIC 3141

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	670963907
Organisation name	CI Hazeldean Project Co Pty Ltd
Organisation address	Level 6, 627 Chapel Street, South Yarra, VIC 3141
Representative's name	Adam Galvin
Representative's job title	Planning and Engagement Officer
Phone	1300 164 211
Email	adam.galvin@enervest.com.au
Address	Level 6, 627 Chapel Street, South Yarra, VIC 3141

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

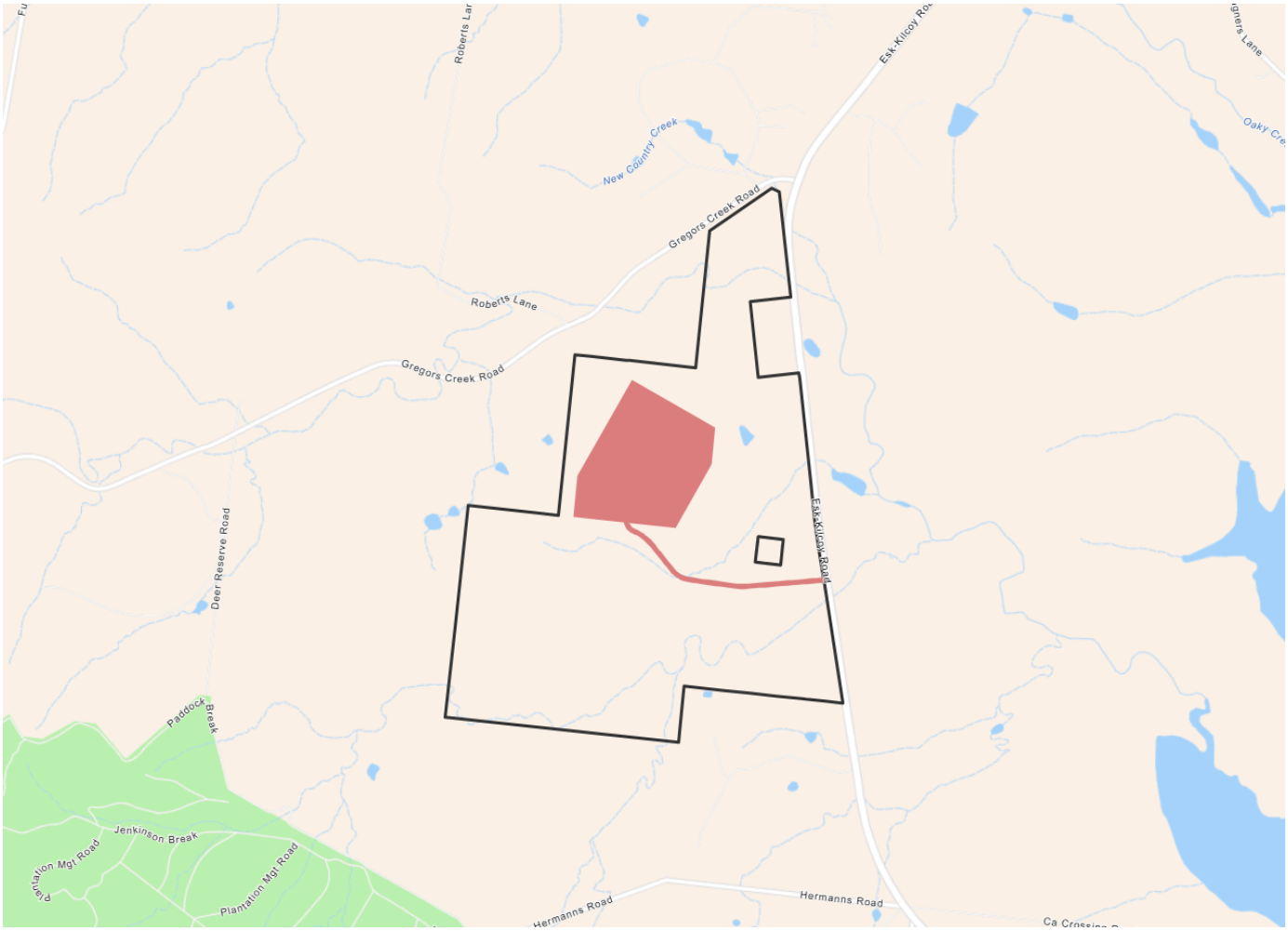
1.4 Payment details: Payment allocation

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

Person proposing to take the action

2. Location

2.1 Project footprint



Project Area: 185.92 Ha **Disturbance Footprint:** 22.81 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

4439 Esk Kilcoy Road, Hazeldean, Queensland 4515

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

Queensland

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

The applicable lots are:

- Lot 13 on SP294647
- Lot 8 on SP155141
- Lot 5 on RP90047

All lots are held in freehold tenure by private landholders.

3. Existing environment

3.1 Physical description

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

Project Location and Land use/zoning

The Project is located on privately-owned properties in Hazeldean, within the Somerset Region Local Government Area (LGA) and is zoned Rural under the Somerset Regional Council (SRC) Planning Scheme. The Project is located within the Rural Zone under the SRC Planning Scheme and is considered to be consistent with the intent of the zone as it will provide a diversified use of the rural land and, once decommissioned, the land will be returned to potential use for rural purposes. Once construction is completed, other rural uses (i.e. grazing) may continue to occur within the area.

Site Description

The subject site lies approximately 20 km west of the D'Aguilar Range, on a relatively flat rural landscape. Elevation changes within the site are generally associated with water features within the site, which generally flow west to east across the site, ultimately draining into New Country Creek, to the east of the Project area. The Project area is situated entirely within the Stanley River sub-basin of the Brisbane catchment, and 3 km from the Somerset dam.

In accordance with the Queensland State vegetation mapping, mapped under the *Vegetation Management Act 1999*, the Project area is entirely mapped as Category X non-remnant vegetation. Within the proposed Project Footprint, the vegetation is primarily characterised by open pasture grassland that is currently being utilised for cattle grazing. There are also several small patches of immature vegetation (covering approximately 1.4 ha) that does not yet meet the requirements of regrowth vegetation (50% of benchmark canopy cover and 70% of benchmark height). These juvenile patches are dominated by *Corymbia tessellaris* and *Eucalyptus crebra*. Additionally, several large hollow-bearing trees (*Eucalyptus tereticornis*) and the occasional *Eucalyptus melanophloia* and Fig tree were also observed throughout the Project area, outside of the Project footprint.

One occupied homestead is located within the Project Area. The homestead is located adjacent to the access track, to the south-east of the proposed infrastructure area. Other pastoral infrastructure such as farm dams and tracks are located throughout the Project Area. A 275 kVA transmission line owned and operated by Powerlink Queensland runs north-west to south-east through the Project area. Fences are currently in place along the boundary of the Project Area where cattle are currently grazed.

Vegetation throughout the Project area has been previously cleared or significantly thinned, likely to support cattle grazing, which has been the predominant historical land use of the Site, in addition to logging. The patches of immature regrowth vegetation are in proximity to the watercourse features within the site.

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

Existing Land Use

The Project area has historically been cleared to support cattle grazing. The Project area contains an occupied homestead, and a 275kVA transmission line, which runs north-west to south-east across the Project area, and pastoral infrastructure including farm dams, cattle yards, and farm tracks.

Surrounding land uses are predominantly rural, protected areas, and residential, with notable landmarks including:

- Deer Reserve State Forest 1.5 km south;
- Kilcoy township 2.5 km to the north-east; and
- Deer Reserve Conservation Park 10 km to the south.

Proposed Land Use

The proposed land use within the Project area consists of the Project elements described in **Section 1.2 of this Referral**, mainly battery energy storage systems, substations, and access tracks. In accordance with the SRC Planning Scheme, the proposed land use will be a battery storage facility.

The selection of an appropriate site for a proposed battery storage facility is a critical aspect to its successful development. Several key criteria were taken into consideration during the site selection process to ensure the Project aligns with best practices in environmental stewardship, grid connectivity, and overall feasibility. The following were considered in determining the site was appropriate for the Project:

- Highly modified environment, through historical grazing uses, demonstrating that the site has reduced environmental values compared with other locations in the region that are less disturbed.
- Relatively flat topography as a flat terrain simplifies the construction process, reduces grading and earthwork requirements, and optimises the overall efficiency of the of the battery energy storage facility layout. This consideration contributes to the project's cost-effectiveness and feasibility.
- Existing road access for transportation of project components.
- Proximity to existing grid infrastructure to reduce the footprint of transmission infrastructure and reduces the need for extensive new transmission lines, minimising environmental disruption and enhancing project efficiency.

Since the early design stages of the Project, the proponent has made several commitments that have guided the design of the Project's Project Footprint, including avoiding (where practicable) vegetation on site.

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

There are no outstanding natural features or other important or unique values that apply to the Project area. The Deer Reserve State Forest is 1.5 km south of the Project area.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The site slopes gently from an elevation of approximately 160 m AHD in the south-west to approximately 135 m AHD in the north-west. The proposed project is not located within a marine area.

3.2 Flora and fauna

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

The Project area has been historically cleared for grazing land uses and it is predominately open pasture grassland. The clearing of vegetation has been predominantly maintained with some areas subject to immature native regrowth, including regrowth *Corymbia* and *Eucalyptus*. The Project area also contains the occasional *Eucalyptus melanophloia* and Fig tree.

Vegetation assessments were undertaken between the 11-13 March 2024 across the Project Area and Project Footprint. The purpose of these surveys was to verify the location, extent, and condition of vegetation across the site.

The PMST identified 32 flora species and 3 threatened ecological communities as potentially occurring within the Project area. No threatened flora was recorded within the Project area during the vegetation assessment and ground-truthing vegetation confirmed that the diagnostic criteria for TECs is not present on site.

Further information on the methodology and results of the vegetation assessment can be found at **Att. 1, Section 2, pg. 3-7 (Methodology), Att. 1, Section 3, pg. 8 (Results)** and **Att. 1, Appendix C (Likelihood of occurrence)**.

Fauna

The PMST identified 33 EPBC Act listed fauna species, including 18 birds, 2 fish, 2 frogs, 1 insect, and 10 mammals. As a result of the likelihood of occurrence assessment, 20 species were considered likely or potential to occur. Other species were considered unlikely to occur. The results of the likelihood of occurrence assessment can be found at **Att. 1, Appendix C (Likelihood of occurrence)**.

Fauna surveys conducted across the Project area and Project Footprint from 11-13 March 2024 were undertaken to target the species considered as likely, or with potential, to occur. Surveys for MNES fauna were conducted in accordance with relevant Commonwealth Department's guidance material for threatened mammals, birds, reptiles, and bats. A number of different survey methods were used to consider all potential species. The fauna survey effort and methods are summarised in **Att. 1, Section 2, pg. 3-7 (Methodology)**.

During the survey effort, a total of 35 fauna species were observed within the Project area. No MNES threatened fauna species were observed. The species were predominantly listed as least concern under the Queensland *Nature Conservation Act 1992* (NC Act) and not listed under the EPBC Act. A pest fauna species, Common myna (*Acridotheres tristis*), was identified during the surveys.

Based on field survey observations and desktop assessment, the Project area is considered unlikely to support an important population or an important area of habitat for any species listed as threatened or migratory under the EPBC Act. However, due to the broad criteria used by DCCEEW to identify Koala habitat, a conservative approach has been undertaken and further assessment of impacts to koala (although deemed unlikely) have been addressed in **Section 4.1** of this Referral.

Five Marine bird species listed under the EPBC Act were identified in surveys of the Project area including:

- Australasian Pipit (*Anthus novaeseelandiae*) – listed as Marine;
- Black-faced Cuckoo-shrike (*Coracina novaehollandiae)* – listed as Marine;
- Magpie Lark (*Grallina cyanoleuca*) – listed as Marine;
- Nankeen kestrel (*Falco cenchroides)* – listed as Marine*;*
- Whistling Kite – (*Haliastur sphenurus)* – listed as Marine*;*

Due to the location of the proposed action being outside of a marine environment, marine species have been considered in the context of the Great Barrier Reef Marine Park controlling provision only as there are no standalone impact assessment criteria for individual marine species.

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

Land Zones and Soils

The Project is located within the Brisbane-Barambah Volcanics subregion of the Southeast Queensland bioregion.

Land zones are categories that describe the major geologies and associated landforms and geomorphic processes of the State of Queensland. The differences between land zones result in marked differences in the function of ecosystems and their associated biodiversity and this is due in part to the effects that geology (lithology, structure, alteration) has on landform, hydrology and landscape processes (geomorphology and soil formation). There is one land zone mapped across the Project area, Land Zone 12.

Land Zone 12 is described as Mesozoic to Proterozoic igneous rocks, forming in ranges, hills, and lowlands. Acid, intermediate and basic intrusive and volcanic rocks such as granites, granodiorites, gabbros, dolerites, andesites and rhyolites, as well as minor areas of associated interbedded sediments.

Soils on Land Zone 12 are greatly influenced by the lithology (mineral content). In general terms, the acidic rocks (such as granites and rhyolites) form mainly shallow Tenosols on steeper slopes with Chromosols and Sodosols on lower slopes and gently undulating areas. In high rainfall areas, Kandosols and Podosols can occur on colluvial slopes. Intermediate rocks (such as granodiorite, diorite, syenite, monzonite) form a very diverse range of soils depending on their mineral content, ranging from shallow Tenosols, Chromosols and Dermosols on steeper slopes to Sodosols and Vertosols on lower slopes.

Connectivity

Regional and statewide biodiversity corridors are identified to maximise areas of connectivity between large tracts of remnant vegetation, and with a particular focus on connecting unique ecosystems and areas of high species richness and diversity.

No state or regional biodiversity corridors overlap with the Project area. The nearest state biodiversity corridor runs in a north to south direction, approximately 3 km to the south-west of the Site. The development footprint avoids impacts to biodiversity corridors.

Vegetation

The Project Area has been historically cleared of remnant vegetation. Current conditions reflect the clearing history, with the majority of the site consisting of open grassland utilised for pastoral activities. Regrowth vegetation is evident in small patches, dominated by *Corymbia* and *Acacia* species. The Project Area is mapped as entirely Category X vegetation.

Habitat Types

Two broad habitat types are present within the Project Area which have been summarised below. The Project Footprint only contains areas of cleared and grazed grasslands, with some early native regeneration and relic plantation trees (as described below).

The following habitat types are found within the Project area:

- *Eucaluptus* and *Corymbia* Woodland – Several patches of woodland dominated by *Eucalyptus* and *Corymbia* species (particularly *Corymbia tessellaris*, *Eucalyptus crebra*, and *E. tereticornis*). These patches total approximately 2 ha. These woodland patches were observed to contain the occasional mature relic tree with hollows. The species composition of these patches resembles the pre-clearance Regional Ecosystem mapping that lists both RE 12.12.8 and 12.12.12 as dominant vegetation communities within the area.

Cleared grazing land – The majority of the Project area consists of open grassland that has historically been cleared for pastoral, cropping and/or plantation activities. There are scattered trees and clumps of trees in some areas representing early regeneration. Ongoing disturbance from cattle has further degraded

this habitat type. A farm dam was also identified within this habitat.

3.3 Heritage

3.3.1 Describe any Commonwealth Heritage Places Overseas or other places recognised as having heritage values that apply to the project area.

No Commonwealth heritage places overseas or other places recognised as having heritage value apply to the Project area.

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

No Indigenous heritage values are known to apply to the Project area.

3.4 Hydrology

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

The Project area is situated entirely within the Stanley River sub-basin of the Brisbane catchment. There are several unmapped (for the purpose of the Water Act) water features within the site, which generally flow west to east across the site. These features drain into an unnamed tributary of New Country Creek, located to the east of the Project area.

There are two areas mapped as wetlands within the Project area. Both wetland areas are mapped as palustrine wetland systems, and composed of *Corymbia*, *Eucalyptus*, and *Melaleuc*a flora species. These are shown in **Att. 1 - Figure 3, Page 8**. The wetland areas are in the southern part of the Project area, outside the Project Project Footprint. In accordance with the PMST, there is one wetland of international importance (RAMSAR) 30-40 km downstream of the subject site (Moreton Bay). Consideration of impacts to Moreton Bay are included in **Section 4.1** of this Referral.

The vegetation on site are not groundwater dependent ecosystems as mapped by the State government.

There is one man-made farm dam within the Project area and the Site is situated approximately 3 km from the Somerset dam.

4. Impacts and mitigation

4.1 Impact details

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

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

4.1.1 World Heritage

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

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

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

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

No

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

In accordance with the PMST report, there are no World Heritage areas within 20 km of the Project Area. The activities proposed as part of the action and subsequent impacts identified in **Att. 1, Section 4, pg. 20-23** will not have direct or indirect impacts on World Heritage.

4.1.2 National Heritage

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

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

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

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

No

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

In accordance with the PMST report, there are no National Heritage Places within 20 km of the Project Area. The activities proposed as part of the action and subsequent impacts identified in **Att. 1, Section 4, pg. 20-23** will not have direct or indirect impacts on National Heritage Places.

4.1.3 Ramsar Wetland

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

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

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

Direct impact	Indirect impact	Ramsar wetland
Yes		Moreton Bay

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. *

In accordance with the PMST report (produced as part of the referral portal), there is one wetland of international importance (RAMSAR), Moreton Bay, located 30-40 km downstream of the Project Area. The activities proposed as part of the action and subsequent impacts identified in **Att. 1, Section 4, pg. 20-23** will not have direct or indirect impacts on Moreton Bay, a wetland of international importance.

Potential impacts of the proposed Project on Moreton Bay have been assessed, and it is considered unlikely the proposed action will have a significant direct or indirect impact on this MNES value. This determination was reached due to:

- The type of Project activities, size of the Project catchment and small contribution to New Country Creek flow volumes is not expected to have any impact on the underlying hydrological regime relevant to Moreton Bay;
- Expected mixing with downstream inflows and mixing distance being significant enough that any downstream impacts associated with the Project are not likely to have any adverse effects on Moreton Bay; and
- Mitigation measures limiting the potential for any impact to water quality.

It is considered the proposed action is not a controlled action as there will be no direct or indirect impact on Moreton Bay as a result of the proposed action. This has been determined by:

- The small size of the Project, and very low likelihood of the proposed action resulting in changes to the hydrological regime of Moreton Bay;
- The location of the Project site in the upper Brisbane catchment, allowing for adequate mixing of any potential discharge into the catchment (though unlikely) from the Project.

Enervest will implement a range of mitigation measures including but not limited to;

- Minimising soil disturbance;
- Buffers applied to watercourses across the Project site providing separation between development and watercourses;
- Development and implementation of ESCPs for the Project in accordance with relevant guidelines; and
- Implementation of appropriate soil management and reinstatement / rehabilitation measures.

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	Arthraxon hispidus	Hairy-joint Grass
No	No	Bosistoa transversa	Three-leaved Bosistoa, Yellow Satinheart
No	No	Botaurus poiciloptilus	Australasian Bittern
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo
No	No	Chalinolobus dwyeri	Large-eared Pied Bat, Large Pied Bat
No	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
No	No	Coleus omissus	
No	No	Cupaniopsis shirleyana	Wedge-leaf Tuckeroo
No	No	Cyclopsitta diophthalma coxeni	Coxen's Fig-Parrot
No	No	Dasyurus hallucatus	Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu]
No	No	Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)
No	No	Delma torquata	Adorned Delma, Collared Delma
No	No	Dichanthium setosum	bluegrass
No	No	Erythrotriorchis radiatus	Red Goshawk
No	No	Falco hypoleucos	Grey Falcon
No	No	Fontainea venosa	
No	No	Furina dunmalli	Dunmall's Snake
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe

Direct impact	Indirect impact	Species	Common name
No	No	Geophaps scripta scripta	Squatter Pigeon (southern)
No	No	Grantiella picta	Painted Honeyeater
No	No	Hemiaspis damelii	Grey Snake
No	No	Hirundapus caudacutus	White-throated Needletail
No	No	Lathamus discolor	Swift Parrot
No	No	Lepidium peregrinum	Wandering Pepper-cress
No	No	Macadamia integrifolia	Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak
No	No	Macadamia ternifolia	Small-fruited Queensland Nut, Gympie Nut
No	No	Macroderma gigas	Ghost Bat
No	No	Mixophyes fleayi	Fleay's Frog
No	No	Notelaea lloydii	Lloyd's Olive
No	No	Petauroides volans	Greater Glider (southern and central)
No	No	Petaurus australis australis	Yellow-bellied Glider (south-eastern)
Yes	No	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
No	No	Planchonella eerwah	Shiny-leaved Condoo, Black Plum, Wild Apple
No	No	Potorous tridactylus tridactylus	Long-nosed Potoroo (northern)
No	No	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Rhodamnia rubescens	Scrub Turpentine, Brown Malletwood
No	No	Rhodomyrtus psidioides	Native Guava
No	No	Rostratula australis	Australian Painted Snipe
No	No	Samadera bidwillii	Quassia
No	No	Sophora fraseri	
No	No	Stagonopleura guttata	Diamond Firetail
No	No	Thesium australe	Austral Toadflax, Toadflax

Direct impact	Indirect impact	Species	Common name
No	No	Turnix melanogaster	Black-breasted Button-quail

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland
No	No	Lowland Rainforest of Subtropical Australia
No	No	Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions

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 total Project Footprint of the proposed action is 22 ha and the activities associated with the proposed action are detailed in **Section 1.2.1 of this Referral**. As a result of the proposed action, the following potential direct and indirect impacts have been identified:

- Vegetation clearing for site establishment, resulting in loss of vegetation and potential habitat;
- Wildlife disturbance due to dust, air, noise, light and vibration emissions during construction and operation of the Project;
- Fauna injury or mortality due to vehicle strike during construction and/or operation of the Project;
- Changes to erosion and sedimentation processes as a result of clearing vegetation and use changes on site (i.e. grazing to renewable energy); and
- Barriers to fauna movement as a result of fencing requirements.

Further details on the nature, scale and duration of likely impacts are provided in **Att. 1, Section 4, pg. 20-23.**

The threatened species and ecological communities captured in the PMST results generated by the referral portal have been considered in the likelihood of occurrence assessment presented in **Att. 1, Appendix C**. The likelihood of occurrence along with other desktop results, supported by ecological surveys, demonstrates if the impacts from the action described above does/doesn't have a direct and/or indirect impact on protected matters.

It should be noted that the relevant habitat type, as per **Section 3.2.2 of this Referral**, for the purposes of the Project Footprint is non-remnant derived grasslands with some regrowth *Eucalyptus* and/or *Corymbia*. There is no remnant vegetation mapped within the Project area, and the patches of immature vegetation identified on Site was assessed as not yet meeting the criteria of regrowth vegetation (50% of benchmark canopy cover and 70% of benchmark height).

Due to the presence of low quality and sparse habitat identified by desktop assessment and ecological surveys that is likely to meet DCCEEW's broad definition of koala habitat, the koala has been identified as requiring further consideration in the ecological assessment process in accordance with the EPBC Act Significant Impact Guidelines (DoE, 2013) for endangered and vulnerable species. Further details on how koala have been considered for the purposes of this assessment is detailed below.

There is a potential for direct impacts to one threatened fauna species, the Koala. Through the desktop assessment process and ecological surveys, vegetation was identified in the broader Project Area that meets the very broad definition of koala habitat. However, no evidence of Koala was observed within the site, nor are there any records of koala from within the site, clearing of immature regrowth vegetation has the potential to directly impact Koala due to the presence of low density locally important Koala trees and ancillary habitat trees.

Other potential direct impacts, as listed above, include fauna barriers and impact to fauna movement, fauna injury or mortality due to vehicle strike. These direct impacts may affect any species during construction and operation.

Indirect impacts that may occur on MNES threatened species includes wildlife disturbance during Project construction and operations. Emissions generated during construction including, light, noise, dust and vibration may indirectly impact on any species. Indirect impacts will be managed through environmental management processes and management plans.

A significant impact assessment for the Koala is presented in **Att. 1, Section 6.2, pg. 26-36**.

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

No

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

1. The Koala was considered a possible occurrence in the Project Area based on desktop assessment. As such, surveys were undertaken to target the Koala in accordance with the Survey Guidelines for Australia's mammals (DEWHA, 2011) and The Spot Assessment Technique (Phillips and Callaghan, 2011). However, no evidence of Koalas was found across the Project Area, nor evidence of the species, including scratches or scats, was recorded during the field surveys.
2. Despite the lack of evidence that Koalas utilise the Project Area, vegetation present within the Project Footprint meets the broad habitat definition for the species, therefore it meets the requirements of the Department's Referral guidance for the endangered Koala. In accordance with a review of Koala habitat assessment criteria and methods (Youngentob, 2012), the immature regrowth within the non-remnant areas of the Project Footprint offers a low density of locally important koala trees (LIKT) and ancillary habitat trees within the Brigalow Belt bioregion.

Habitat considered critical to the survival of the species is defined in the conservation advice for the species (DAWE 2022). The habitat within the Project Footprint is cleared areas with scattered paddock trees or immature regrowth. It is determined that the habitat does not meet the definition of habitat critical to the survival of the species based on the historical clearing and land use, lack of evidence of utilisation/presence of and immaturity of regrowth.

An assessment of significant impact was undertaken in accordance with the EPBC Act Significant Impact Guidelines (DoE, 2013) and presented in **Att. 1, Section 6.2, pg. 26-36.** As the Project Footprint supports low density and immature regrowth and paddock trees and there was no evidence of koala utilising the area, the assessment determined that the proposed action is unlikely to have a significant impact the koala.

Key findings were:

- There are no current or historical records or evidence to suggest that Koalas utilise the habitat values within the Project Area or Project Footprint.
- Given the lack of records, and no evidence of Koala usage recorded during field surveys, the Project Footprint is considered unlikely to support habitat critical to the survival of the species.
- The Project Footprint is isolated from surrounding areas of Koala habitat by cleared land, rural residential development, and major rural roads, and does not provide direct connectivity between large areas of habitat.
- Despite this, a conservative approach has been taken in this assessment, and potential impacts on areas which could be considered potential dispersal, foraging and breeding habitat have for the Koala have been considered.
- The impact assessment found that there is insufficient habitat available in the Project Footprint to support a Koala population.
- Enervest will implement a limited tree planting program using endemic LIKTs on the border of the Project Footprint following construction. This planting program would aim to reduce impacts associated with removal of the immature vegetation within the Project Footprint during the construction of the Project

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

No

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

The MNES values of the Project site is limited to:

- Low densities of locally important Koala trees and ancillary habitat trees as defined by Youngentob (2012); and
- Lack of evidence of species presence and utilisation of the Project Area.

While the Project Footprint contains known browse trees for Koala, there is no evidence that the Project Area supports a population of this species. Eucalypt woodlands on the Project site are considered marginal for Koala due to past clearing, with no vegetation within the Project Area considered 'habitat critical for survival'. The proposed action is therefore unlikely to result in a significant impact on Koala.

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. *

In accordance with the assessment presented in **Section 4.1 of this Referral** and the Significant Impact Assessment undertaken for the koala, presented in **Att. 1, Section 6.2, pg. 26-36**, there is unlikely to be any significant impacts on MNES as a result of the proposed action. This is based on the lack of MNES individuals and habitat presence. The results of the desktop and field surveys demonstrated a lack of evidence of species presence within the Project Area, including habitat that could be utilised by MNES.

Particular mitigation measures proposed to manage potential direct and indirect impacts of the proposed action includes:

- Initial site selection - identifying a location that was highly degraded, disconnected and devoid of substantive vegetation and habitat values.
- Maintenance of a buffer between the Project Footprint and the riparian vegetation providing important habitat for species in accordance with Conservation Advice for MNES species, including Koala. The buffer will act as a biodiversity corridor, provide for additional protection and enhancement of vegetation including supporting maturity of vegetation promoting utilisation through available food resources (foraging) and hollow-bearing trees (denning). The buffer also protects the soils and groundcover to reduce soil loss and erosion and sedimentation processes, enhancing natural processes to improve the water quality and downstream water quality flows to the catchment.
- Management of overland flow from the Project through the implementation of a Stormwater Management Plan (SMP) to ensure the management to changes to the hydrological regime that feeds the watercourses and drainage features.
- Management of weed and pest species through a Weed and Pest Management Plan (WPMP) to prevent the introduction and spread of weeds, and weed control (mechanical or chemical) applied, where appropriate. A WPMP will also manage the current weeds and pests within the site.
- Management of bushfire risk through the implementation of a Bushfire Management Plan and a buffer providing separation between Project and surrounding vegetation.
- Erosion and sediment control plan (ESCP) will be prepared to manage potential changes to the soil movement as a result of vegetation clearing. The ESCP will determine the appropriate mitigation and management measures to be implemented during the construction and operational phase of the Project.
- A Construction Environmental Management Plan (CEMP) will be prepared for the project, which will include appropriate mitigation measures relating to matters including flora and fauna and noise impacts.

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

Environmental offsets are not proposed. An assessment of the proposed action against significant impact guidelines has concluded that there will not be a significant residual impact on any MNES requiring offsets. The Project has been sited to avoid heavily vegetated areas, and in close proximity to an existing transmission line, to avoid the need for clearing to build additional transmission infrastructure.

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	Cuculus optatus	Oriental Cuckoo, Horsfield's Cuckoo
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Hirundapus caudacutus	White-throated Needletail
No	No	Motacilla flava	Yellow Wagtail
No	No	Pandion haliaetus	Osprey

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

No

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

As outlined in **Section 4.1.2.1 of this Referral**, as no listed migratory species were observed during the field surveys, and the Draft Referral Guideline acknowledges that in most cases, significant impacts on these birds are unlikely to occur and consideration of them in a referral is not required.

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. *

There are no nuclear activities proposed as part of the action. The activities proposed as part of the action and subsequent impacts identified in **Att. 1, Section 4, pg. 20-23** do not include nuclear activities, therefore there are no direct or indirect impacts.

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. *

In accordance with the PMST report (produced as part of the referral portal), there are no Commonwealth marine areas within 20 km of the Project Area. The activities proposed as part of the action and subsequent impacts identified in **Att. 1, Section 4, pg. 20-23** will not have direct or indirect impacts on Commonwealth marine areas.

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. *

In accordance with the PMST report (produced via the EPBC Business Act Portal), the project site is located entirely outside the GBRMP, and outside of catchments that drain into the GBRMP. However, the GBRMP is being considered due to five listed marine birds being observed within the Project area during the ecological survey undertaken on 11-13 March 2024. The listed marine species identified during the field survey are:

- Australasian Pipit (*Anthus novaeseelandiae*) – listed as Marine;
- Black-faced Cuckoo-shrike (*Coracina novaehollandiae)* – listed as Marine;
- Magpie Lark (*Grallina cyanoleuca*) – listed as Marine;
- Nankeen kestrel (*Falco cenchroides)* – listed as Marine*;*
- Whistling Kite – (*Haliastur sphenurus)* – listed as Marine

As these species are not listed as threated, they have not been considered under the Threatened species controlling provision. However, to ensure a comprehensive assessment has been undertaken of the potential impacts of the proposed action on MNES values, these five species have been considered under the GBRMP controlling provision.

It is considered unlikely that the Project will have a direct or indirect impact upon these species. This determination was reached due to:

- No habitat considered critical to the survival of the species was identified on Site; and
- The Project Footprint avoids the dam located on site, allowing the species to utilise the inland water features during construction and operations

Potential impacts of the proposed Project on the five listed marine species have been considered, and it is unlikely the proposed action will have a significant direct or indirect impact on this MNES value. This determination was reached due to the lack of habitat necessary for the listed species within the Project area, reflective of the distance of the Project site from the marine area.

While five listed marine species were observed passing over the Site during the field surveys, habitat that meets the definition of important habitat was identified in the Project area during the field surveys. A such, it is considered unlikely that the proposed action will have a direct or indirect impact upon the listed marine species, and it considered that the proposed action is not a controlled action.

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 action does not include large coal mining development or coal seam gas, therefore does not trigger the water resource controlling provision. The activities proposed as part of the action and subsequent impacts identified in **Att. 1, Section 4, pg. 20-23** will not have direct or indirect impacts on water resources.

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 action does not include Commonwealth land, and is not located in proximity to Commonwealth land. The activities proposed as part of the action and subsequent impacts identified in **Att. 1, Section 4, pg. 20-23** will not have direct or indirect impacts on Commonwealth land.

4.1.11 Commonwealth Heritage Places Overseas

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

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

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

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

No

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

The proposed action does not include activities overseas.

4.1.12 Commonwealth or Commonwealth Agency

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

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

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

None

Conclusion on the likelihood of unlikely significant impacts

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

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

4.3 Alternatives

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

No

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

The Project is proposed to achieve the objectives of the Queensland Energy and Jobs Plan. The plan proposes to meet renewable energy targets through development of wind, solar and pumped-hydro storage projects, and firming targets through the development of battery storage facilities. At this location, a BESS is a suitable development type, due to the relatively flat topography and the proximity of the existing electricity transmission line infrastructure, which travels through the Project area - refer to the below site selection process, which was followed for the ultimate selection of the Hazeldean BESS location.

Site Selection

Selecting a suitable site for utility Battery Energy Storage Systems (BESS) projects involves a thorough process of initial identification and prioritization. This approach ensures that potential sites are evaluated comprehensively to meet technical, regulatory, and community requirements while minimizing environmental impacts. The following criteria outline the key considerations for site selection.

Initial Identification of Sites

Proximity to Transmission Infrastructure

Identify potential sites based on their proximity to existing transmission lines and substations. Sites located adjacent to transmission lines, or near to substations are identified as candidate sites, subject to the capacity of the nearby transmission network to support the BESS project.

Zoning and Land Constraints

Evaluate the zoning regulations and land use policies for each site within the investigation area. Ensure that the proposed use aligns with local planning schemes and that there are no significant land constraints. Consider restrictions related to land ownership, easements, or protected areas during the initial identification phase.

Proximity to Nearby Properties (Sensitive Receivers)

Identify sites based on their distance from residential areas, and other sensitive receivers. Prioritize sites that minimize potential noise, visual, and other amenity impacts on these properties. Engage with the community early in the process to address any concerns.

Environmental Constraints

- Examine the environmental characteristics of each potential site, including flora and fauna, water resources, and soil conditions. Identify any environmental constraints such as protected species, wetlands, or areas prone to flooding. Prioritize sites with fewer environmental impacts and ensure compliance with environmental regulations.
- Use the EPBC Act Protected Matters Search tool and review existing mapping through State Planning systems to inform whether the site is likely to contain significant environmental values.
- Review whether there is the capacity to accommodate the BESS footprint within an area that is sufficiently distant from waterways, creeks, and regulated vegetation.
- Before visiting the site, review existing and historical aerial imagery to identify significant trees.

Prioritization of Sites

Once potential sites are identified, prioritize them based on a comprehensive evaluation of the above criteria. Sites that offer the best balance of proximity to infrastructure, compatibility with planning requirements, minimal impact on sensitive receivers, while minimising environmental impacts should be prioritized for further development. This prioritization ensures that the most suitable sites are selected for further investigation.

Mapping and Identification of Constraints

An internal GIS platform and publicly available tools are used to identify and evaluate environmental constraints during the site selection process. These tools assist in the identification of potentially suitable sites for BESS development. From an environmental perspective, themes of data considered using GIS include:

- **Mapping Protected Areas**: National parks, conservation reserves, and other protected areas within the investigation area.
- **Biodiversity**: mapping of threatened species and ecological communities listed under the EPBC Act and state legislation. Protected vegetation and vegetation management overlays, including regulated vegetation and EEC mapping where available.
- **Water Resources**: Map water bodies, wetlands, and flood-prone areas to assess potential impacts on water resources.
- **Soil and Land Use**: Elevation data, acid sulphate soil, erosion and geotechnical overlays.

By integrating these mapping tools into the site selection process, potential environmental impacts can be identified early, allowing for the development of strategies to mitigate these impacts and ensure compliance with all relevant environmental regulations.

Enervest's Site Identification Principles - outlined above - provide a general framework and approach to preliminary site investigation. This site was selected with regard to specific environmental constraints, considering the alignment's proximity to Somerset dam to the south east, and the presence of remnant and high-value regrowth vegetation further to the north west. Other sites that ultimately were not pursed included areas that were likely to be habitat of a higher quality and connectivity for Koalas, or were more likely to impact higher-order tributaries within their footprint.

Within the Project Area, other preliminary layouts had a greater impact on water sources – preliminary design options included a footprint located further to the east, which was ultimately not selected for reasons including its impact on environmental values, including on water sources and potential koala habitat. Detailed design will seek to minimize the area impacted by the development. The alignment of the proposed access road avoids the removal of relic trees.

5. Lodgement

5.1 Attachments

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Trust Deed - CI Hazeldean Project Trust.pdf	04/09/2023	Yes	

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1 - Hazeldean BESS MNES Assessment Report.pdf An assessment of the proposed action's potential impacts on Matters of National Environmental Significance	20/11/2024		High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1 - Hazeldean BESS MNES Assessment Report.pdf An assessment of the proposed action's potential impacts on Matters of National Environmental Significance	21/11/2024	No	High

4.1.1.3 (World Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1 - Hazeldean BESS MNES Assessment Report.pdf An assessment of the proposed action's potential impacts on Matters of National Environmental Significance	20/11/2024	No	High

4.1.2.3 (National Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1 - Hazeldean BESS MNES Assessment Report.pdf An assessment of the proposed action's potential impacts on Matters of National Environmental Significance	20/11/2024	No	High

4.1.3.3 (Ramsar Wetland) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1 - Hazeldean BESS MNES Assessment Report.pdf An assessment of the proposed action's	20/11/2024	No	High

potential impacts on Matters of National Environmental Significance

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1 - Hazeldean BESS MNES Assessment Report.pdf An assessment of the proposed action's potential impacts on Matters of National Environmental Significance	20/11/2024		High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1 - Hazeldean BESS MNES Assessment Report.pdf An assessment of the proposed action's potential impacts on Matters of National Environmental Significance	20/11/2024	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1 - Hazeldean BESS MNES Assessment Report.pdf An assessment of the proposed action's potential impacts on Matters of National Environmental Significance	20/11/2024	No	High

4.1.6.3 (Nuclear) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1 - Hazeldean BESS MNES Assessment Report.pdf An assessment of the proposed action's potential impacts on Matters of National Environmental Significance	20/11/2024	No	High

4.1.7.3 (Commonwealth Marine Area) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1 - Hazeldean BESS MNES Assessment Report.pdf An assessment of the proposed action's potential impacts on Matters of National Environmental Significance	20/11/2024	No	High

4.1.9.3 (Water resource in relation to large coal mining development or coal seam gas) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1 - Hazeldean BESS MNES Assessment Report.pdf An assessment of the proposed action's potential impacts on Matters of National Environmental Significance	20/11/2024	No	High

4.1.10.3 (Commonwealth Land) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att. 1 - Hazeldean BESS MNES Assessment Report.pdf An assessment of the proposed action's potential impacts on Matters of National Environmental Significance	20/11/2024	No	High

5.2 Declarations

Completed Referring party's declaration

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

ABN/ACN	670963907
Organisation name	CI Hazeldean Project Co Pty Ltd
Organisation address	Level 6, 627 Chapel Street, South Yarra, VIC 3141
Representative's name	Adam Galvin
Representative's job title	Planning and Engagement Officer
Phone	1300 164 211
Email	adam.galvin@enervest.com.au
Address	Level 6, 627 Chapel Street, South Yarra, VIC 3141

☑ 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, **Adam Galvin of CI Hazeldean Project Co 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, **Adam Galvin of CI Hazeldean Project Co 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, **Adam Galvin of CI Hazeldean Project Co Pty Ltd**, the Person proposing the action, consent to the designation of **Adam Galvin of CI Hazeldean Project Co 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, **Adam Galvin of CI Hazeldean Project Co 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. *