Beresfield Battery Energy Storage System

Application Number: **03033** Commencement Date: **06/08/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Beresfield 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 *

01/06/2026

1.1.4 Estimated end date *

01/01/2048

1.2 Proposed Action details

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

AGL Power Generation Pty Limited's related entity, Beresfield BESS Pty Ltd (AGL) proposes to develop an approximately 170-megawatt AC (MWAC) Battery Energy Storage System (BESS) (herein referred to as the 'Proposed action'). The Proposed action is authorised under a development consent for State Significant Development (SDD) granted under the NSW Environmental Planning and Assessment Act 1979 (SSD 31940756).The BESS and associated infrastructure will occupy an area of approximately 4.3 ha and will be contained within land known as Lot 630 in DP 1180006, Lot 6 in DP1160356 and the intersection of the private access road (within 53 Weakleys Drive) and Whites Road (the Project area). The Proposed action is located directly adjacent (north-west) to the existing Ausgrid Beresfield Substation (in Lot 630 DP 11800060) and directly east (north) of the existing Ausgrid Beresfield Depot (in Lot 6 DP 1160356).

Refer to Attachment 'Att 1_EPBC Act Assessment_2025', Figure 1.2, Page 5.

The Proposed action will store energy from the grid and will connect to the adjacent Ausgrid Beresfield Substation. The BESS will contribute to the provision of renewable energy in NSW by providing firming capacity to the market by filling supply gaps when renewable energy sources are not producing and aligns with NSW Government's three objectives for the electricity system: reliability, affordability and sustainability.

The key components of the Proposed action include:

- enclosed lithium-ion batteries with total delivery capacity up to 170 MWAC and 340 megawatt-hours (MWh) usable storage capacity
- power conversion systems including associated switchgear, protection and control equipment, transformers, and enclosures for housing equipment
- underground power and fibre optic cabling interconnecting the equipment
- grid connection equipment including switchgear, protection and control equipment, metering, reactive power equipment, filtering equipment, auxiliary/earthing transformers, and enclosures/buildings for housing equipment
- up to 200 m of underground or overhead 132 kV sub-transmission lines to connect the BESS to the Beresfield substation
- earthing and lightning protection systems
- site office, storage area/enclosure, internal access tracks, on-site parking, security fencing, CCTV, lighting, and temporary construction laydown area
- noise barriers
- utilisation of existing site access arrangements.

The primary components associated with the installation of the Proposed action are as follows:

- site investigations, vegetation clearing, levelling, bench and access way construction, drainage system installation, and installation of foundations/supports to install equipment on
- transport to site and installation of equipment
- testing and commissioning of the equipment
- operation and maintenance.

The proposed action will utilise the existing Ausgrid Beresfield Substation and depot site access arrangements from Whites Road via Weakleys Drive. A central median in Whites Road may need to be removed to allow access during construction of the proposed action. If this is removed, it would be reinstated in the same condition as prior to its removal. There are no biodiversity values within this area, due to it being an existing road and median, therefore it was not included within the Disturbance footprint (the area assessed for biodiversity values).

Some of the works will incorporate upgrades to the existing Ausgrid substation to enable connection of the BESS to the grid. Like the road access, there are no biodiversity values within this area, due to it being an existing substation, comprising crushed rock surfacing, concrete foundations, and other substation equipment, therefore it was not included within the Disturbance footprint (the area assessed for biodiversity values).

Construction of the Proposed action is expected to take up to 10 months, with seven key construction stages, as follows:

1. site establishment
2. BESS installation and construction
3. substation construction
4. transmission line construction
5. O&M compound construction
6. testing and commissioning activities
7. removal of construction equipment and rehabilitation of construction areas.

It is noted that stages 2, 3, 4, and 5 overlap during the 5-month peak construction period.

Once constructed, the BESS will operate 24 hours a day, 7 days a week.

It is anticipated the BESS will be operational for a period of approximately 20 years, after which time the above ground components would be removed and land rehabilitated to predevelopment conditions. At the end of operational life, the infrastructure may be upgraded rather than decommissioned and the lifespan of the BESS extended.

The area subject to direct impacts of the Proposed action (Disturbance footprint) is approximately 3.92 ha in size, comprising:

- 0.15 ha of native vegetation
- 1.84 ha of exotic vegetation
- 0.02 ha of exotic hedge
- 1.91 ha of cleared land (hardstand, road, gravel).

Refer to Attachment ‘Att 1_EPBC Act Assessment_2025’, Section 3.2.1, Pages 18-21.

Refer to Attachment ‘Att 1_EPBC Act Assessment_2025’, Figure 3.1, Page 22.

The Proposed action will have the following direct impacts on the environment in the Disturbance footprint:

- loss of 0.15 ha of native vegetation and associated habitat for fauna species
- loss of two hollow-bearing trees.

The Proposed action may have indirect impacts on the retained native vegetation adjacent to the Disturbance footprint, from weed introduction and spread.

The Proposed action has been designed to minimise direct and indirect impacts as:

- The Proposed action is located directly adjacent (north and west) to the existing Ausgrid Beresfield Substation, and directly north to the existing Ausgrid Beresfield Depot, enabling use of existing site access arrangements;
- Most of the surface infrastructure within Lot 630 DP 11800060 has been placed within existing asphalt and laydown areas; and
- The grassland to be impacted is dominated by exotic species. The only native vegetation to be cleared is in poor condition and has a significant history of industrial disturbance, with little habitat value.

Impacts to biodiversity will be managed in accordance with the conditions of development consent for the Proposed action (SSD 31940756), including:

- Condition A2 – which requires the development to be carried out “generally in accordance with the EIS” including the mitigation measures outlined in the Submissions Report dated 5 October 2023;
- Condition B9 – which limits clearing outside approved disturbance areas;
- Conditions B10 to B12 – which require biodiversity offsets to be secured; and

- Condition B13 which requires preparation and implementation of a Biodiversity Management Plan approved by the Secretary containing mitigation measures.

Refer to Attachment ‘Att 1_EPBC Act Assessment_2025’, Section 4.

Refer to Attachment ‘Att 2_Beresfield BESS Development Consent_2023’.

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? *

Commonwealth legislation:

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities, heritage places and water resources, namely, Matters of National Environmental Significance (MNES). These are:

- world heritage properties;
- places listed on the National Heritage Register;
- Ramsar wetlands of international significance;
- threatened flora and fauna species and ecological communities;
- migratory species;
- Commonwealth marine areas;
- the Great Barrier Reef Marine Park;
- nuclear actions (including uranium mining); and
- water resources, in relation to coal seam gas or large coal mining development.

Under the EPBC Act, an action that may have a significant impact on a MNES is a 'controlled action' and can only proceed with the approval of the Commonwealth Minister for the Environment. An action that may potentially have a significant impact on a MNES is referred to the Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW) for determination as to whether or not it is a controlled action. If deemed a controlled action the project is assessed under the EPBC Act, and a decision made as to whether or not to grant approval. Due to limited biodiversity values within the development footprint, the previous assessments to support the SSD application concluded that there was no significant impact on Matters of National Environmental Significance (MNES), as listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). As such, no referral was previously submitted to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW). The NSW Department of Planning and Environment (DPE) granted consent to the SSD application in 2023; however, the project has not commenced construction. Given that two years have passed since the previous biodiversity assessment, an EPBC Act assessment was completed, independent of the previously prepared Biodiversity Development Assessment Report (BDAR). The assessment concludes that impacts to MNES from the proposed action are not likely to be significant.

The Proposed action has been referred (i.e. this referral) to the Commonwealth Minister for the Environment to ensure there are no significant impacts upon MNES on a precautionary basis.

NSW legislation:

The Proposed action was declared State significant development (SSD) by the State Environmental Planning Policy (Planning Systems) 2021 (the Planning Systems SEPP), and approval for the Proposed action was sought under the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act).

The SSD application for the Proposed action was accompanied by an Environmental Impact Statement (EIS). To accompany the EIS, a detailed assessment of the biodiversity values and the likely biodiversity impacts of the Proposed action was undertaken in accordance with the NSW *Biodiversity Conservation Act 2016* (BC Act) and the *Biodiversity Assessment Method* (BAM) (DPIE, 2020a) and was documented in a Biodiversity Development Assessment Report (BDAR). The BDAR outlined the measures taken to avoid, minimise and mitigate impacts to the vegetation and species habitat present within the Disturbance footprint and methodologies to minimise impacts associated with the Proposed action. Residual unavoidable impacts of the Proposed action were calculated in accordance with the BAM (DPIE, 2020) and will be offset in accordance with the NSW Biodiversity Offset Scheme (BOS). The BDAR (as revised and provided with the Submissions Report dated 5 October 2023) is attached to this referral (Att 3_Beresfield BESS BDAR_2023).

On 22 December 2023, a delegate of the Minister for Planning and Public Spaces, granted consent to the SSD application subject to conditions including:

- Condition A2 – which requires the development to be carried out "generally in accordance with the EIS" including the mitigation measures outlined in the Submissions Report dated 5 October 2023;
- Condition B9 – which limits clearing outside approved disturbance areas;
- Conditions B10 to B12 – which require biodiversity offsets to be secured; and
- Condition B13 which requires preparation and implementation of a Biodiversity Management Plan approved by the Secretary containing mitigation measures.

The Development Consent, with conditions of consent, is attached to this referral (Att 2_Beresfield BESS Development Consent_2023).

Strategic planning framework:

State and regional

NSW Electricity Strategy & Electricity Infrastructure Roadmap:

The NSW Electricity Strategy encourages new private investment in NSW's electricity system over the next decade to support an estimated 1200 jobs, primarily in regional NSW. The strategy closely aligns with the NSW Government's 'Net Zero Plan Stage 1: 2020–2030'.

In November 2020, the NSW Government released the Electricity Infrastructure Roadmap, enabled by the Electricity Infrastructure Investment Act 2020. The Roadmap builds on the foundations of the Electricity Strategy and is expected to attract up to $32 billion of private investment in regional energy infrastructure by 2030 and support over 9000 jobs, mostly in regional NSW.

The NSW Electricity Strategy acknowledges that firmed renewables are now the most cost competitive form of new generation and cost less than the current wholesale electricity price.

The Proposed action will contribute to the provision of renewable energy in NSW and facilitate private investment in the state's electricity system over the next decade and beyond, a key consideration of the NSW Electricity Strategy. The Proposed action has an anticipated lifespan in the order of approximately 20 years and will contribute to the NSW Government's three objectives for the electricity system: reliability, affordability and sustainability.

Hunter Regional Plan 2041:

The Hunter Regional Plan 2041 provides a 20-year land use plan and outlines objectives for the Hunter region. The following objectives are relevant to the Proposed action:

- Objective 1: Diversify the Hunter's mining, energy and industrial capacity, acknowledges that the Hunter has the infrastructure assets and skilled workforce to support more renewable energy production and highlights the importance of developing the Hunter-Central Coast Renewable Energy Zone (REZ).
- Objective 7: Reach net zero and increase resilience and sustainable infrastructure, identifies that there is a growing risk of climate-related impacts on people, cultural, natural and economic systems and the built environment. Embedding resilience in strategic planning and identifying workable adaption and mitigation measures will be the key to the future.

The proposed action is consistent with these objectives through providing improved firming capacity in the network and supporting the take up of renewable forms of energy generation.

Newcastle Local Strategic Planning Statement:

Newcastle City Council adopted the *Planning Newcastle 2040: Global City, Local Character Local Strategic Planning Statement* (LSPS) in 2020. The LSPS establishes 16 Planning Priorities with supporting Actions. The following Priorities and Actions are relevant to the Proposed action:

- Planning Priority 6: Reduce carbon emissions and resource consumption
    - Action 6.3: Complete the review of the Carbon and Water Management Plan (Climate Action Plan) to provide a framework for reducing carbon emissions and resource consumption.

In addition, the LSPS identifies how the foregoing action and priority is consistent with other State and local policies, including the following:

- Newcastle 2030
    - 2.1a Improve waste minimisation and recycling practices in homes, workplaces, development sites and public places.
    - 2.1b Investigate and implement renewable energy technologies.
    - Encourage energy and resource efficiency initiatives.
    - 5.4a Advocate for implementation of energy and resource efficiency in new developments.
- Greater Newcastle Metropolitan Plan 2036
    - 15. Plan for a carbon neutral Greater Newcastle by 2050.
- Sustainable Development Goals
    - 7. Ensure access to affordable, reliable, sustainable and modern energy for all.
    - 11. Make cities and human settlements inclusive, safe, resilient and sustainable.
    - 12. Ensure sustainable consumption and production patterns.

The project will support planning priority 7 through the provision of improved resilience and reliability within the energy network.

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. *

Public consultation was undertaken for the Proposed action as part of the SSD application process and to respond to the anticipated communication needs and preferences of key stakeholders. The Proposed action is not expected to generate significant stakeholder interest due to the anticipated low level of impact.

Scoping Report engagement

Preliminary engagement with surrounding landowners, community groups and regulatory bodies was undertaken to inform preparation of the Scoping Report for SDD application with the aim of:

- building an awareness of the proposed development and
- establishing communication channels with the local community.

The engagement included:

- letters and notifications to landowners surrounding the Proposed action
- letters and notifications to community groups and regulatory bodies (including the Local Aboriginal Land Council)
- a Proposed action 1800 Infoline, email and website
- doorknocking of properties surrounding the Project area
- meetings with key stakeholder including the City of Newcastle Council and regulatory bodies.

EIS engagement

During the preparation of the EIS engagement was carried out in accordance with the SSD Secretary's Environmental Assessment Requirements (SEARs), *Undertaking Engagement Guidelines for State Significant Projects* (DPE, 2024) and *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010), and to ensure that the EIS was developed with due consideration of community and stakeholder views.

The aims of community engagement during development of the EIS were to:

- grow awareness of the Proposed action
- maintain communication channels
- identify issues requiring consideration, and
- deepen understanding of local views and values to be considered during development of the Proposed action and support the assessment of potential Proposed action impacts and benefits.

The engagement included:

- letters and emails to local stakeholders, community groups and regulatory bodies
- stakeholder meetings and interviews (including with Registered Aboriginal Parties)
- distribution of a Proposed action Fact Sheet
- advertising in local media
- community survey
- a Proposed action 1800 number Infoline and email
- a Proposed action website
- doorknocking.

Submissions period and Response to submissions

The EIS for the Proposed action was placed on public exhibition between 1 June 2023 and 28 June 2023. During this period, a total of 31 submissions were received, being:

- 9 from government agencies;
- A submission from Newcastle City Council (NCC);
- A submission from Hunter Water; and
- 20 submissions in objection to the project, one from a special interest group and nineteen from members of the public.

A Submissions Report dated 5 October 2023 was prepared and submitted following this exhibition period to address and respond to these submissions.

Future engagement

Community engagement will continue to be undertaken following SSD approval and having regard to the community participation objectives in *Undertaking Engagement Guidelines for State Significant Projects* (DPE, 2024). Consultation activities following post approval will include (but are not limited to):

- with Ausgrid, to confirm Proposed action design interfaces and connection requirements
- with the Mindaribba Local Aboriginal Land Council, to update on Proposed action progress and in development of management plans
- with the NSW Department of Planning, Housing and Infrastructure (DPHI) (previously DPE),for the endorsement of management plans, update on Proposed action progress, advise of environmental issues during construction
- with Transport for NSW, update on Proposed action progress, development of management plans, road access approvals
- with Newcastle City Council, update on Proposed action progress, development of management plans, development / implementation of local procurement policy
- with Community Groups, update on Proposed action progress, development / implementation of local procurement policy
- with Local community (properties within 1.5km of the Proposed action), update on Proposed action progress, provide contact details for management of community issues
- Nearby residents (properties within 650m of the Proposed action), provide targeted notification of construction activities and proposed times (shifts), provide contact details for management of community issues, identify shift workers, develop approach to managing noise impacts.

A full summary of consultation is provided within:

- Attachment ‘Att 4_Beresfield BESS EIS_2023’, Chapter 5 and 6.5;
- Attachment ‘Att 5_Beresfield BESS RTS Report_2023’; and
- Attachment ‘Att 6_Beresfield BESS RTS Report Figures_2023’, Section 3.3.2.

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.

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

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1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	69650555258
Organisation name	BERESFIELD BESS PTY LTD
Organisation address	2000 NSW

Referring party details

Name	Stuart Galway
Job title	Group Manager - Land Approvals and Environment
Phone	0407 788 412
Email	sgalway@agl.com.au
Address	Level 24, 200 George St, Sydney NSW 2000

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	69650555258
Organisation name	BERESFIELD BESS PTY LTD
Organisation address	2000 NSW

Person proposing to take the action details

Name	Stuart Galway
Job title	Group Manager - Land Approvals and Environment
Phone	0407 788 412
Email	sgalway@agl.com.au
Address	Level 24, 200 George St, Sydney NSW 2000

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

No

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

Yes

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

Beresfield BESS Pty Ltd is the trustee entity for the Beresfield BESS Trust, with the project assets ultimately held by the Trustee entity for the beneficiaries of the Trust. see attachment A

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. *

Beresfield BESS Pty Ltd is a new project entity owned by AGL Energy Limited (AGL). It does not have a history 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 it.

Established in 1837, AGL supplies around 4.3 million energy and telecommunications customer services across Australia. AGL operates Australia's largest private electricity generation portfolio within the National Electricity Market, comprising coal and gas-fired generation, renewable energy sources such as wind, hydro and solar, batteries and other firming technology, and gas production and storage assets. AGL operate a diverse power generation portfolio and have committed to exiting coal-fired generation from 2022 to 2048, and are therefore investing in affordable, reliable and sustainable energy.

AGL aims to prosper in a carbon-constrained world and build customer advocacy as the industry transforms, committing to exiting coal-fired energy generation and reaching zero net emissions by 2050 and continuing to develop innovative solutions for their customers. To support this ambition AGL has recently launched its updated Climate Statement which outlines five commitments:

- Offer customers the option of carbon neutral prices across all our products – AGL will match accelerating customer demand to support decarbonisation of the energy system with a growing range of carbon neutral options
- Support the evolution of Australia's voluntary carbon markets – AGL will explore ways through which they can participate in mechanisms to generate and supply carbon credits
- Continue investing in new sources of electricity supply – AGL will continue both direct investment and offtake agreements as they have with projects like Barker Inlet Power Station in South Australia and Coopers Gap Wind Farm in Queensland
- Responsibly transition our energy portfolio – AGL will continue to run their coal-fired power stations responsibly, and support their people and communities during the transition
- Be transparent – AGL will openly and transparently track our progress through their annual report and hold themselves accountable through their remuneration structures.

AGL has established an ESG framework which underpins its operations. The framework has six key lenses, which include customers, assets, people, relationships, environment, and business intelligence. With regard to environment, the framework seeks to 'minimise impact, preserving nature, and ensuring efficiency'. Progress against the ESG framework is tracked in the AGL Annual Report and in AGL's publicly available ESG data centre.

AGL regards sound environmental management and protection as an integral part of its business and social license to operate. It is committed to excellence in this area in all of its activities. AGL's businesses are subject to a range of environmental laws and regulations as well as project and Project area-specific environmental permits and approvals issued at both the Federal and State Government levels. AGL aims to improve environmental performance through the application of continuous improvement.

AGL and its related entities have lodged a number of EPBC referrals, including:

- 2023/9521 Tomago Battery Energy Storage System - NSW - Not a controlled action
- 2022/9330 Liddell Future Land Use and Enabling Works Project - NSW - Controlled action
- 2021/8989 Loy Yang Battery Energy Storage System - Vic - Not a controlled action
- 2021/8918 Broken Hill Battery Energy Storage System - NSW - Not a controlled action
- 2021/8889 Torrens Island Battery - SA - Not a controlled action
- 2020/8844 Liddell Battery, Decoupling and Bayswater Ancillary Works - NSW - Not a controlled action
- 2020/8623 Bayswater Power Station Water Infrastructure Upgrade - NSW - Controlled action
- 2019/8425 Newcastle Power Station - NSW - Controlled action
- 2018/8298 Crib Point gas import facility - VIC - Controlled action
- 2010/5752 Newcastle gas storage facility project - NSW - Controlled action
- 2010/5848 Dalton Gas Fired Power Station & Associated Facilities - NSW - Controlled action

- 2010/5484 Gas Fired Power Station & Associated Facilities - NSW - Controlled action
- 2009/5025 Wind Farm and Transmission Line, Mt Bryan - SA - Not a controlled action
- 2008/4432 Gloucester Coal Seam Methane Gas Project - NSW - Controlled action
- 2007/3535 Substation for Hallet Hill Wind Farm - SA - Not a controlled action
- 2006/2615 PNG-Qld Gas Pipeline - Gove Lateral - Commonwealth Marine - Withdrawn
- 2006/2563 Ballera Lateral Gas Pipeline - QLD - Withdrawn
- 2000/15 Canberra Primary Mains Extension Gas Pipeline Project - ACT- Not a controlled action
- 2000/100 Biogas Utilisation Facility - VIC - Not a controlled action.

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

Beresfield BESS Pty Ltd operates under AGL's Health, Safety and Environment Policy which applies to all AGL employees and contractors, and to the products and services that AGL provide to their customers. Where AGL do not have direct operational control, AGL will work productively with their stakeholders to achieve and maintain the standards described in the Policy.

Refer to Attachment 'Att 7_AGL HSE Policy_2023'.

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	69650555258
Organisation name	BERESFIELD BESS PTY LTD
Organisation address	2000 NSW

Proposed designated proponent details

Name	Stuart Galway
Job title	Group Manager - Land Approvals and Environment
Phone	0407 788 412
Email	sgalway@agl.com.au
Address	Level 24, 200 George St, Sydney NSW 2000

1.3.4 Identity: Summary of allocation

Confirmed Referring party's identity

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

ABN/ACN	69650555258
Organisation name	BERESFIELD BESS PTY LTD
Organisation address	2000 NSW
Representative's name	Stuart Galway
Representative's job title	Group Manager - Land Approvals and Environment
Phone	0407 788 412
Email	sgalway@agl.com.au
Address	Level 24, 200 George St, Sydney NSW 2000

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? *

Yes

1.4.10 Enter purchase order number *

4500200621

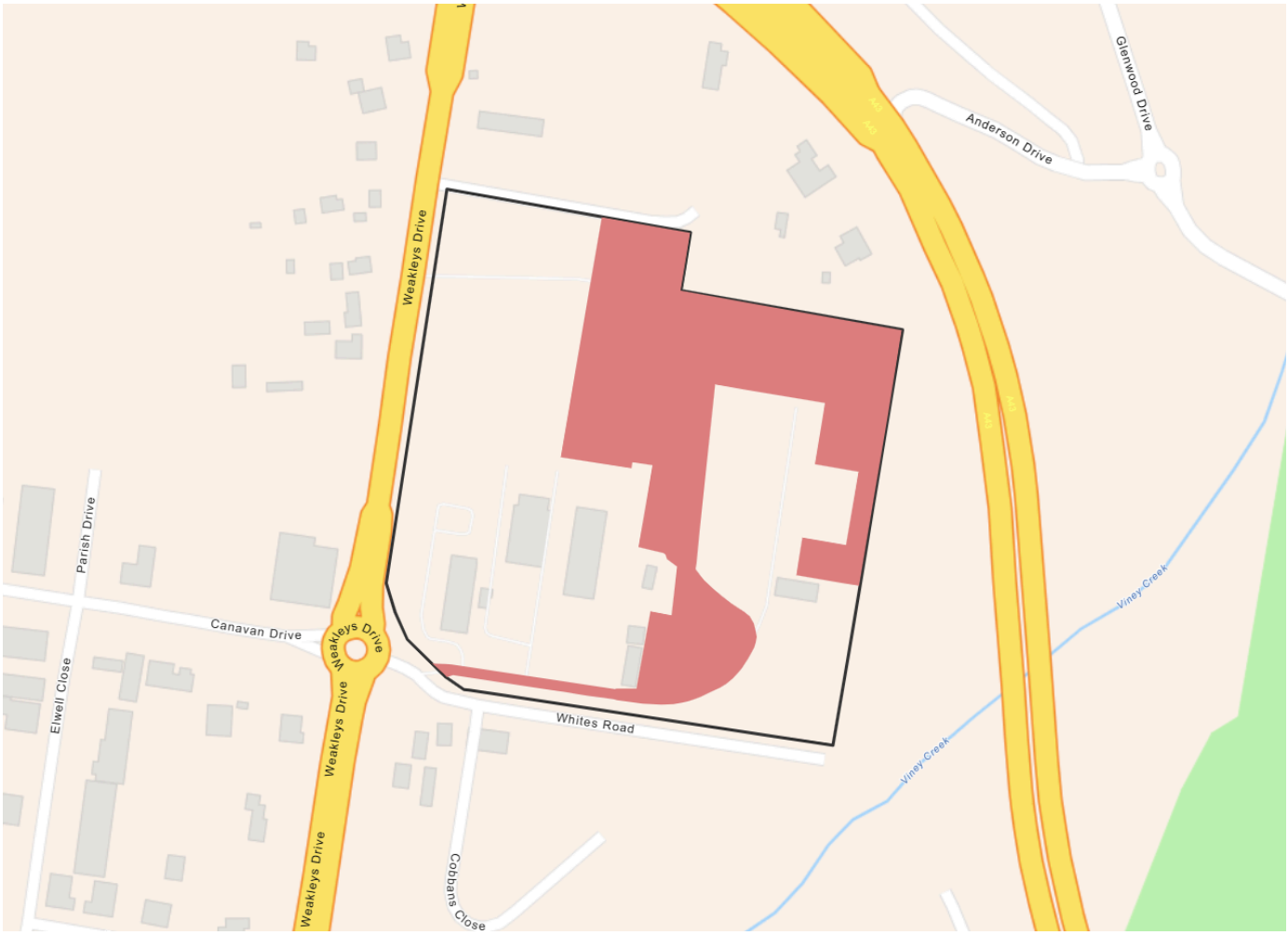
1.4 Payment details: Payment allocation

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: 12.31 Ha **Disturbance Footprint:** 4.16 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

53-55 Weakleys Drive, Beresfield.

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? *

Both Lot 630 DP 11800060 and Lot 6 DP 1160356 are freehold land owned by Alpha Distribution Ministerial Holding Corporation, with Ausgrid leasing the land on a 99-year term. AGL has an option to sublease agreement with Blue Asset Partner Pty Ltd. Beresfield BESS has an Agreement for Sublease for the relevant land parcels with an option expiring in July 2026. The term of the lease is for 11 years with an optional 10 year extension.

3. Existing environment

3.1 Physical description

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

The Proposed action occurs in the Newcastle City Council Local Government Area (LGA) suburb of Beresfield. The Project area is located approximately 11 kilometres (km) south-east of Maitland and approximately 20 km north-west of Newcastle.

The Project area and Disturbance footprint occur within Lot 630 DP 1180006 and Lot 6 DP 1160356 at 53 Weakleys Drive, Beresfield, and is accessed from Whites Road, via Weakleys Drive, linking to the New England Highway to the north and John Renshaw Drive to the south.

The Disturbance footprint and surrounding lands are zoned IN2: Light Industrial under the Newcastle Local Environmental Plan (LEP) 2012. Weakleys Drive to the west, and the New England Highway to the north, are zoned SP2 Infrastructure. To the east of the New England Highway is land zoned RE1 Public Recreation (Beresfield Golf Club) whilst land to the north of the highway is zoned a mixture of business and environmental zones. The Disturbance footprint is wholly contained within IN2 zoned land.

The properties adjoining the Disturbance footprint contain a mixture of land uses, including light industrial and commercial uses to the north, west, and south, as well as existing high voltage transmission lines (with associated easements) and the New England Highway and remnant vegetation (associated with Viney Creek and the Beresfield Golf Club) to the east and south.

Due to the mixture of land uses in the immediate area, the small area of native vegetation within the Disturbance footprint has no connectivity with vegetation in adjoining lands. The existing high voltage powerlines and New England Highway to the east of the Disturbance footprint are a barrier to native riparian and wetland vegetation associated with Viney Creek. To the south-east, the Disturbance footprint is located directly adjacent to the existing substation and powerline easements, which then connect to Viney Creek, and light industrial and commercial land use beyond Viney Creek. The entire Ausgrid Beresfield substation and depot is fenced off from the surrounding lands. To the west of the Disturbance footprint is Weakleys Drive. Beyond Weakleys Drive is cleared land associated with the approved Freeway North Business Park (under construction) and then a large area of contiguous remnant forest vegetation surrounding Donaldson Coal and the Bloomfield Colliery at Four Mile Creek. This area of contiguous vegetation is disconnected from the Disturbance footprint, due to Weakleys Drive and the existing land uses surrounding the Disturbance footprint. Similarly, Hunter Wetlands National Park is located 2.5 km to the south-east of the Disturbance footprint, but is separated from the Disturbance footprint, by light industrial land uses, the New England Highway and John Renshaw Drive.

The Project area and Disturbance footprint have a significant disturbance history associated with historical industrial land use. The western portion of the Disturbance footprint, within Lot 6 DP 1160356, was cleared of native vegetation sometime between 1954 and 1966. The lot was previously a Koppers Logs timber treatment facility where heavy metals and petroleum hydrocarbon were used to treat timber, including timber power poles, during the 1950s through to the early 2000s. Timber was treated and stored within Lot 6 DP 1160356, and stored within the land to the east (Lot 630 DP 11800060, where the Ausgrid Beresfield Substation now stands). Koppers Logs ceased operation in the early 2000s, and Lot 6 DP 1160356 stood vacant, until it was used in 2018 as construction laydown for the Ausgrid Beresfield Depot which now stands in the southern half of Lot 6 DP1160356.

Lot 630 DP 11800060, where the existing Ausgrid Beresfield Substation and depot occur, was cleared of native vegetation sometime between 1974 and 1984. From 1984 until the late 1990s, it was used to store timber associated with the Koppers Logs timber treatment facility in the adjacent lot. During the early 2000s, the existing Ausgrid Beresfield Substation was constructed, along with an adjacent gravel power pole laydown area, which was subsequently upgraded to asphalt during 2014.

Further detail on the disturbance history of the Project area is provided within Attachment ‘Att 1_EPBC Act Assessment_2025, Section 1.3.2, Pages 7-12, Attachment ‘Att 3_Beresfield BESS BDAR_2023’, Section 1.3, Pages 5-11, and Attachment ‘Att 4_Beresfield BESS EIS_2023’, Section 6.10, Pages 83-84.

Due to the significant disturbance history, the limited remaining vegetation within the Disturbance footprint is a mix of scattered remnant trees with an exotic understorey, maintained (mown) exotic grassland, planted native (non-endemic) vegetation, and planted exotic vegetation (hedges). Most of the Proposed action infrastructure has been placed within an area that contains hard stand (asphalt) and is currently used by Ausgrid as a power pole storage facility. There are areas of exotic grassland to be impacted by the proposed action that are used by Ausgrid for storing various materials (in Lot 630 DP 11800060) and that have a significant disturbance history associated with historical industrial land use (in Lot 6 DP 1160356).

Following vegetation mapping surveys within the Project area, one Plant Community Type (PCT) has been mapped within the Disturbance footprint, namely PCT 1592 Spotted Gum – Red Ironbark – Grey Gum shrub – grass open forest of the Lower Hunter. This PCT covers an area of 0.15 ha within the Disturbance footprint, with the following vegetation and cleared land mapped across the entirety of the Disturbance footprint:

- 0.15 ha of native vegetation (PCT 1592)
- 1.86 ha of exotic vegetation
- 1.91 ha of cleared land (hardstand, road, gravel).

PCT 1592 occurs within the eastern portion of the Disturbance footprint and comprises a small stand of scattered remnant trees comprising Spotted Gum (*Corymbia maculata*), Grey Gum (*Eucalyptus punctata*) and Grey Ironbark (*Eucalyptus siderophloia*). Swamp Oak (*Casuarina glauca*), and Forest Red Gum (*Eucalyptus tereticornis*) also occur; however, they are not dominant, with dominance increasing beyond the Disturbance footprint in the vegetation adjacent to the New England Highway in the road reserve. Due to past clearing, disturbance, and ongoing maintenance (mowing), the shrub layer in PCT 1592 in the Disturbance footprint is largely absent. Two native (endemic) shrub species were observed to be scattered sparsely within this vegetation zone, namely Crimson Bottlebrush (*Callistemon citrinus*) and Hickory Wattle (*Acacia implexa*). Exotic species within the shrub layer include High threat weeds (HTWs) Blackberry, *Senna pendula* and Purple Broom (*Polygala virgata)*. The ground layer within this vegetation zone is dominated by exotic species including Guinea Grass (*Panicum maximum var. maximum*), Spear Thistle (*Cirsium vulgare*), and Blackberry Nightshade (*Solanum nigrum*). HTWs in the ground layer include Rhodes Grass (*Chloris gayana*), Paspalum (*Paspalum dilatatum*), Cobblers Pegs (*Bidens pilosa*), Blackberry (*Rubus anglocandicans*), and Fireweed (*Senecio madagascariensis*). There are some native species in low density within the ground layer, comprising *Commelina cyanea, Glycine tabacina,* and Couch (*Cynodon dactylon*).

The native vegetation in the Disturbance footprint does not align with any EPBC Act listed Threatened Ecological Communities (TECs).

Exotic grassland occurs in the eastern portion of the Disturbance footprint, directly adjacent to Ausgrid's Beresfield Substation and depot. This land has been historically cleared and filled for construction of the Beresfield Substation and depot and therefore has no canopy or mid stratum. It is regularly mown, as a management zone (bushfire Asset Protection Zone) around the existing substation but is less regularly maintained where it occurs over a large earth mound and along the fence lines in the north of the Disturbance footprint, where access is difficult. There is one highly cultivated native grass in the ground layer, Couch, which had an approximate 35% foliage cover. There are no other native grasses in this vegetation zone. The ground layer within this vegetation zone is dominated by exotic species including Guinea Grass, Spear Thistle, Purple Top (*Verbena bonariensis*), and Capeweed (*Arctotheca calendula*). HTWs in the ground layer include Rhodes Grass, Paspalum, Cobblers Pegs, and Fireweed.

The western portion of the Disturbance footprint, in the vacant block of land, situated north of Ausgrid's Beresfield Depot, and west of the Ausgrid Beresfield Substation area, has had a significant disturbance history. Therefore, this grassland has no canopy or mid stratum, apart from Acacia spp. regrowth around some boundaries of the site (mapped as PCT 1592) and a planted line of small (juvenile) unidentified Eucalyptus spp. along the northern boundary of the lot (also mapped as PCT 1592). There is one widely cultivated native grass in the ground layer, Couch, which had an approximate 10% foliage cover. One other

native grass, Red-leg Grass (*Bothriochloa macra*) was recorded at 0.5 % foliage cover. No other native grasses or forbs were recorded within this vegetation zone. The ground layer within this vegetation zone is dominated by exotic species including Red Natal Grass, Rhode's Grass (HTW), Thatch Grass (HTW), Purple Top, Lamb's Tongues, Paddy's Lucerne (*Sida rhombifolia*), African Lovegrass (HTW), Cobblers Pegs (HTW), Fireweed (HTW), Purple Broom (HTW), and Whisky Grass (HTW).

Further detail on the vegetation within the Disturbance footprint, including photographs, is contained within Attachment 'Att 1_EPBC Act Assessment_2025', Section 3.2.1, Pages 18-23, and Attachment 'Att 3_Beresfield BESS BDAR_2023', Section 4.3, Pages 27-40, and Appendix E, Pages E.1-E.21.

Due to limited native vegetation, regular maintenance of grassland, and separation from larger areas of vegetation in the locality, the site has not been impacted by bushfire.

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

The Project area (comprising Lot 630 DP 1180006 and Lot 6 DP 1160356) is approximately 4.3 ha in size There are multiple existing uses of the Project area:

- The western portion of the Project area, within Lot 6 DP 1160356, contains the operating Ausgrid Beresfield Depot, standing in the southern half of Lot 6 DP1160356. The northern portion of Lot 6 DP1160356 was most recently used as construction laydown for the Ausgrid Beresfield Depot (during 2018) and is now vacant.
- The eastern portion of the Project Area, within Lot 630 DP 11800060, contains the existing Ausgrid Beresfield Substation and depot. The substation was constructed during the early 2000s, along with an adjacent gravel power pole laydown area, which was subsequently upgraded to asphalt during 2014, and is currently operational.

The area subject to direct impacts of the Proposed action (Disturbance footprint) is approximately 3.92 ha in size, occurs across both Lot 630 DP 1180006 and Lot 6 DP 1160356, and adjacent to the existing operations. The Disturbance footprint comprises:

- 0.15 ha of native vegetation
- 1.86 ha of exotic vegetation
- 1.91 ha of cleared land (hardstand, road, and gravel associated with the existing operations).

The Proposed action will store energy from the grid and will connect to the adjacent Ausgrid Beresfield Substation, with key components including:

- construction of enclosed lithium-ion batteries with total delivery capacity up to 170 MWAC and 340 megawatt-hours (MWh) usable storage capacity
- construction of associated infrastructure such as power conversion systems, underground cabling, up to 200m of underground and overhead sub-transmission lines to connect the BESS to the Ausgrid Beresfield Substation, site building and access infrastructure and security and noise barriers
- operation of the BESS 24 hours a day, 7 days a week, for an anticipated operation period approximately 20 years.

Refer to Attachment 'Att 1_EPBC Act Assessment_2025', Figure 1.2 (Page 5) and Figure 3.1 (Page 22), and to Attachment 'Att 2_Beresfield BESS Development Consent_2023'.

There are no separate development applications that are currently being progressed that are relevant to the Proposed action.

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 any other important or unique values that apply to the project area. There are no water courses, aquatic habitat, important geological features or other significant landscape or natural features in the Project area or Disturbance footprint. The Disturbance footprint does not contain disused mine shafts, caves or overhangs, nor do these features occur within a 100 m buffer of the Disturbance footprint. Tunnels and adits potentially suitable for microbat breeding or roosting may occur within 2 km of the Disturbance footprint in larger areas of vegetation to the west, in the historical underground workings of both the Abel and Tasman underground coal mines.

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

Terrain within the locality of the Proposed action (within 10 km) is generally undulating, varying from 2 metres (m) Australian Height Datum (AHD) to the east of the Project area to around 26 m AHD to the west of the Project area. Within the Project area, topography is relatively flat, with elevations ranging between 10 and 16 m AHD.

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 occurs within the NSW Sydney Basin Interim Biogeographic Regionalisation of Australia (IBRA) bioregion and the Hunter IBRA Sub Region.

One native plant community type (PCT) occurs within the Disturbance footprint:

- 0.15 ha of PCT 1592 – Spotted Gum - Red Ironbark – Grey Gum shrub – grass open forest of the Lower Hunter.

PCT 1592 occurs within the eastern portion of the Disturbance footprint and comprises a small stand of scattered remnant trees comprising Spotted Gum, Grey Gum, and Grey Ironbark. Swamp Oak, and Forest Red Gum also occur; however, they are not dominant.

Due to past clearing, disturbance, and ongoing maintenance (mowing), the shrub layer in PCT 1592 in the Disturbance footprint is largely absent. Two native (endemic) shrub species were observed to be scattered sparsely within this vegetation zone.

Exotic species within the shrub layer of PCT 1592 include High threat weeds (HTWs) Blackberry, Senna pendula and Purple Broom. The ground layer within this vegetation zone is dominated by exotic species including Guinea Grass, Lamb's Tongues, Prairie Grass, Rambling Dock, Scarlet Pimpernel, Spear Thistle, Purple Top and Blackberry Nightshade. HTWs in the ground layer include Rhodes Grass, Paspalum, Cobblers Pegs, Onion Grass, Blackberry, and Fireweed. There are some native species in low density within the ground layer, comprising *Commelina cyanea* and *Glycine tabacina*. Native grass, Couch, occurs at approximately 20 % cover in some areas of this vegetation zone.

The PCT mapped in the Disturbance footprint conforms to a threatened ecological community (TEC) listed under the NSW *Biodiversity Conservation Act 2016* (BC Act), namely Lower Hunter Spotted Gum Ironbark Forest in the Sydney Basin and NSW North Coast Bioregions. The PCT mapped within the Disturbance footprint aligns with the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) listed TEC Central Hunter Valley eucalypt forest and woodland, however assessment against *Central Hunter Valley eucalypt forest and woodland: a national protected ecological community* (DoEE 2016) confirms that the vegetation in the Disturbance footprint (and larger patch adjacent to the Project area) does not meet the condition thresholds for the TEC as:

- perennial understorey vegetation cover of the patch is not comprised of at least 50% native plants
- the flora plot data collected demonstrates that the perennial understorey contains 100% exotic species cover compared to 25% native species cover.

The flora plot data collected in the Project area is contained within Attachment 'Att 3_Beresfield BESS BDAR_2023', Appendix C, Pages 1-8, Appendix D, Pages D.2-D.3, and Appendix E, Pages E.2-E.21.

Exotic grassland occurs in all other areas of vegetation within the Disturbance footprint. Due to historical land clearing and historic and current land uses, these areas contain no canopy or mid stratum, and are regularly mown, as a management zone (bushfire Asset Protection Zone) around the existing substation. There are areas of exotic grassland that are less maintained, over a large earth mound and along the fence lines in the north of the Disturbance footprint, where access is difficult. In addition, the western portion of the Disturbance footprint, in the vacant block of land, situated north of Ausgrid's Beresfield Depot, and west of the Ausgrid Beresfield Substation area, has had a significant disturbance history and contains grassland dominated by exotic species.

Further detail on the vegetation within the Disturbance footprint, including photographs, is contained within Attachment 'Att 1_EPBC Act Assessment_2025', Section 3.2.1, Pages 18-23, and Attachment 'Att 3_Beresfield BESS BDAR_2023', Section 4.3, Pages 27-40, and Appendix E, Pages E.1-E.21.

A Biodiversity Development Assessment Report (BDAR) has been prepared in accordance with the Biodiversity Assessment Method (BAM) (DPIE 2020) to accompany the SSD project application which was revised during the Response to Submissions phase. Preparation of the BDAR included habitat assessment and targeted survey for a range of BC Act and EPBC Act listed threatened flora and fauna species. Further

detail on flora and fauna habitat assessment and targeted survey within the Disturbance footprint, including photographs, is contained within Attachment 'Att 3_Beresfield BESS BDAR_2023', Chapter 5, Pages 41-69, and Appendix E, Pages E.1-E.21.

Following habitat assessment and targeted survey, no EPBC Act or BC Act listed threatened flora species have been recorded within the Disturbance footprint.

Habitat assessment and targeted threatened fauna surveys did not identify the presence of EPBC Act or BC Act listed fauna species within the Project area. There are records of EPBC Act listed Large-eared Pied Bat (*Chalinolobus dwyeri*) (10 records) within 10 km of the Project area (BioNet Atlas of NSW Wildlife, DCCEEW 2025) (BioNet Atlas).

No roosting microbats, or evidence such as urine stains, droppings, remains, and bat fly casings were found in any of the structures and equipment investigated in the Project area and surrounds. No suitable roosting or breeding habitat for the Large-eared Pied Bat were recorded within the Project area or for a buffer of 100 m of the Project area. The native vegetation within the Disturbance footprint could represent sub-optimal foraging habitat for the Large-eared Pied Bat.

In addition to the Large-eared Pied, the following EPBC Act species have been recorded within 10 km of the Disturbance footprint (BioNet Atlas), and due to their highly mobile nature (i.e. birds or bats) may forage within the Disturbance footprint (the stand of trees) on occasion:

- Regent Honeyeater (*Anthochaera Phrygia)*
- Gang-gang Cockatoo (*Callocephalon fimbriatum)*
- South-eastern Glossy Black Cockatoo (*Calyptorhynchus lathami lathami)*
- Grey-headed Flying-fox (*Pteropus poliocephalus)*

Targeted surveys have confirmed these species do not breed or roost within the Project area.

The vegetation within the Project area consists primarily of exotic grassland (1.84 ha). All areas of exotic grassland within the Project area have had a significant history of industrial land-use and disturbance.

The grassland vegetation has no canopy or mid stratum. One native (non-endemic) tree was recorded in this zone, namely Brush Box (*Lophostemon confertus*). The ground layer species are dominated by exotic grasses and forbs, including Guinea Grass, Lamb's Tongues, Prairie Grass, Red Natal Grass and Rhode's Grass (HTW).

The Project area also includes 0.15 ha of poor condition dry sclerophyll forest (PCT 1592). The canopy is comprised of a scattered remnant layer of Spotted Gum (*Corymbia maculata*), Grey Gum (*Eucalyptus punctata*) and Grey Ironbark (*Eucalyptus siderophloia*). Due to past clearing, disturbance, and ongoing maintenance (mowing), the shrub layer is largely absent, with few native shrub species only. The ground layer within this vegetation zone is dominated by exotic species.

Further detail on the vegetation within the Disturbance footprint, including photographs, is contained within Attachment 'Att 1_EPBC Act Assessment_2025', Section 3.2.1, Pages 18-23, and Attachment 'Att 3_Beresfield BESS BDAR_2023', Section 4.3, Pages 27-40, and Appendix E, Pages E.1-E.21.

The Project area is in the Newcastle Coastal Ramp NSW (Mitchell) Landscape. The Disturbance footprint is located within the Beresfield and Cockle Creek soil landscapes. The Disturbance footprint is mapped as containing Dermosols, Kurosols, and Hydrosols under the Australian Soil Classification (ASC) system. Most of the Disturbance area is mapped as land and soil capability (LSC) class 4 with a small portion mapped as LSC class 8, in the southeast of the Disturbance footprint. LSC class 4 land is considered to have moderate agricultural capability with limitations for high impact use, whilst LSC class 8 land is considered to have extremely low agricultural capability. The Disturbance footprint is mapped as containing Class 3 and Class 5 Acid Sulphite Soils (ASS).

A full summary of the soils of the Disturbance footprint is provided within Attachment ‘Att 4_Beresfield BESS EIS_2023’, Section 6.9, Pages 74-76.

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

The vegetation within the Project area consists primarily of exotic grassland (1.84 ha). All areas of exotic grassland within the Project area have had a significant history of industrial land-use and disturbance.

The grassland vegetation has no canopy or mid stratum. One native (non-endemic) tree was recorded in this zone, namely Brush Box (*Lophostemon confertus*). The ground layer species are dominated by exotic grasses and forbs, including Guinea Grass, Lamb’s Tongues, Prairie Grass, Red Natal Grass and Rhode’s Grass (HTW).

The Project area also includes 0.15 ha of poor condition dry sclerophyll forest (PCT 1592). The canopy is comprised of a scattered remnant layer of Spotted Gum (*Corymbia maculata*), Grey Gum (*Eucalyptus punctata*) and Grey Ironbark (*Eucalyptus siderophloia*). Due to past clearing, disturbance, and ongoing maintenance (mowing), the shrub layer is largely absent, with few native shrub species only. The ground layer within this vegetation zone is dominated by exotic species.

Further detail on the vegetation within the Disturbance footprint, including photographs, is contained within Attachment ‘Att 1_EPBC Act Assessment_2025’, Section 3.2.1, Pages 18-23, and Attachment ‘Att 3_Beresfield BESS BDAR_2023’, Section 4.3, Pages 27-40, and Appendix E, Pages E.1-E.21.

The Project area is in the Newcastle Coastal Ramp NSW (Mitchell) Landscape. The Disturbance footprint is located within the Beresfield and Cockle Creek soil landscapes. The Disturbance footprint is mapped as containing Dermosols, Kurosols, and Hydrosols under the Australian Soil Classification (ASC) system. Most of the Disturbance area is mapped as land and soil capability (LSC) class 4 with a small portion mapped as LSC class 8, in the southeast of the Disturbance footprint. LSC class 4 land is considered to have moderate agricultural capability with limitations for high impact use, whilst LSC class 8 land is considered to have extremely low agricultural capability. The Disturbance footprint is mapped as containing Class 3 and Class 5 Acid Sulphite Soils (ASS).

A full summary of the soils of the Disturbance footprint is provided within Attachment ‘Att 4_Beresfield BESS EIS_2023’, Section 6.9, Pages 74-76.

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.

There are no listed heritage items within the Project area. One listed heritage item is in proximity to the Project area, 'Government Railway', located 1km north of the Project area and listed under the Newcastle Local Environmental Plan (LEP) 2012 (Newcastle LEP).

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

The Project area is situated within the traditional boundaries of the Awabakal people and within the boundaries of the Mindaribba Local Aboriginal Land Council (LALC). A search of the NSW Native Title Vision identified no determined or registered native title claim or Indigenous Land Use Agreements (ILUAs) existing over the Project area.

A search of the AHIMS database identified 103 previously documented Aboriginal objects, sites or places within an area of 5 km of the Project area.

The AHIMS database identified one previously documented site directly adjacent to the Project area. Site survey for the Proposed action EIS confirmed that the site does not extend into the Project area or Disturbance footprint, as the landform with the Project area and Disturbance footprint has been heavily modified.

Further detail on the indigenous heritage values of the Project area is contained within Attachment 'Att 4_Beresfield BESS EIS_2023', Section 6.5, Pages 62-65.

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. *

Groundwater:

There are no licenced ground water bores associated with the Disturbance footprint and no areas of mapped groundwater vulnerability in relation to the Disturbance footprint.

A review of registered bores in the locality identified five bores within the immediate vicinity of the Disturbance footprint, located to the north/north-west of the Disturbance footprint, with all bores being in the ownership of local government and likely installed for the purpose of monitoring.

Data associated with these bores range in depth from 10.5 to 11.8 m, with available information indicating that the localised water table is present from around 7 m below ground, increasing in depth to the east. The groundwater elevation in the respective bores coincides with clay layers, indicating that the local unconsolidated sediments are saturated. The depth to groundwater in one bore was reported as 7.5 m, which is at the siltstone and clay interface, suggesting the localised hard rock may also host groundwater.

Further detail on the groundwater of the Project area is contained within Attachment ‘Att 4_Beresfield BESS EIS_2023’, Section 6.9.2.2 Page 74.

Surface water:

The Project area is within the Hunter River Catchment and is located approximately 4.5 km to the north-west of the Hunter River, which drains the largest coastal catchment in NSW, covering some 22,000 square kilometres (km2).

The Disturbance footprint is situated directly northwest of Viney Creek which intersects with Francis Greenway Creek and ultimately the Hunter River further downstream. Viney Creek, a fourth order stream, and tributaries associated with Viney Creek, including Scotch Dairy Creek, Weakleys Flat Creek and several other unnamed tributaries, occur within proximity to the Project area, however, there are no defined water courses that intersect the Project area or Disturbance footprint. Similarly, there are no estuaries or wetlands within the Project area or Disturbance footprint.

The closest natural wetlands mapped on the NSW Wetlands dataset (DPIE 2010b) are the Hunter River (estuarine wetlands), located 4.5 km to the south-east of the Project area, the Hunter Wetlands Centre (Shortland) (floodplain wetlands) occurring 5 km to the south of the Project area, and Kooragang Nature Reserve (estuarine wetlands) occurring 9 km to the south-east of the Project area.

The Coastal Management SEPP Coastal Viewer (DPIE 2018) maps one coastal wetland approximately 250 m to the north-east of the Disturbance footprint beyond the New England Highway.

There are no wetlands of international importance (Ramsar) within the Project area or surrounds, however, the Hunter Estuary Wetlands (comprising the previously mentioned Hunter Wetlands Centre and the Kooragang Nature Reserve) is a Ramsar wetland, listed under the EPBC Act. The Hunter Wetlands Centre (Shortland) occurs 5 km to the south of the Project area, and the Kooragang Nature Reserve occurs 9 km to the south-east of the Project area.

Due to the considerable distance between the Proposed action and Ramsar Wetland, and with suitable mitigation measures that would be in place for any proposed water management approach, the Proposed action is not expected to have any direct or indirect impacts on the Hunter Estuary Ramsar Wetland.

Further detail on the surface water of the Project area is contained within Attachment ‘Att 3_Beresfield BESS BDAR_2023’, Section 3.1.2, Page 20, and Attachment ‘Att 4_Beresfield BESS EIS_2023’, Section 6.9.2.1 Page 73.

4. Impacts and mitigation

4.1 Impact details

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

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

4.1.1 World Heritage

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

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

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

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

No

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

No World Heritage properties were identified through the Protected Matters Search Tool (PMST).

The closest World Heritage site is the Old Great North Road located in Wiseman’s Ferry which is approximately 90 km to the south-west of the Project area, and the Gondwana Rainforests of Australia (Barrington Tops Area), located approximately 70 km to the north of the Project area. Due to the considerable distance between the Project area and the two sites, the Proposed action will not result in any direct or indirect impacts on a World Heritage site.

4.1.2 National Heritage

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

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

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

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

No

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

No National Heritage places were identified through the PMST.

The closest National Heritage site is the Old Great North Road located in Wiseman’s Ferry which is approximately 90 km to the south-west of the Project area, and the Gondwana Rainforests of Australia (Barrington Tops Area), located approximately 70 km to the north of the Project area. Due to the considerable distance between the Project area and the two sites, the Proposed action will not result in any direct or indirect impacts on a National Heritage site.

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		Hunter Estuary Wetlands

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

No

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

The PMST identified the Hunter Estuary wetlands, a Ramsar Wetland that is located approximately 9 km south-east of the Project area.

Due to the distance between the wetland and the Project area, the Proposed action is not expected to result in any direct or indirect impacts on a Ramsar Wetland.

A review of flood modelling information confirms that the south-eastern corner of the project site (limited to the existing access driveway and sub-transmission line) is inundated by 1% Annual Exceedance Probability (AEP) floodwaters. However, it is understood that the floodwaters present very low risk in terms of flood water depth and velocity.

The Proposed action will not involve any substantial change to the existing Disturbance footprint surface and rather use the existing paved area (where possible) and existing stormwater management system (including an existing stormwater dam). There will therefore be no impact on the volume of stormwater runoff reporting to Viney Creek, and the peak discharges of runoff will also be unchanged. As such, negligible hydrological effects on Viney Creek hydrology downstream of the Project area are predicted.

The Disturbance footprint access track and a section of the sub-transmission line is located within the Probable Maximum Flood (PMF) fringe; however, the remainder of the Disturbance footprint is located outside of the flood extent. As the ground levels will remain unchanged the Proposed action will not affect the flood behaviour along Viney Creek.

The remainder of the Disturbance footprint is located outside any risk ratings. No batteries or electrical infrastructure such as transformers are proposed to be located within the flood zone.

Due to the considerable distance between the Proposed action and the Ramsar Wetland, and with suitable mitigation measures that would be in place for any proposed water management approach, the Proposed action is not expected to have any direct or indirect impact on the Hunter Estuary Ramsar Wetland.

Further detail on the surface water of the Project area, including proposed mitigation measures for surface water management, is contained within Attachment ‘Att 3_Beresfield BESS BDAR_2023’, Section 3.1.2, Page 20, and Attachment ‘Att 4_Beresfield BESS EIS_2023’, Section 6.9.2.1 Page 73, Section 6.9.3.1, Page 77, and Section 6.9.4, Page 81-83.

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
Yes	No	Anthochaera phrygia	Regent Honeyeater
No	No	Botaurus poiciloptilus	Australasian Bittern
No	No	Caladenia tessellata	Thick-lipped Spider-orchid, Daddy Long-legs
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
Yes	No	Callocephalon fimbriatum	Gang-gang Cockatoo
Yes	No	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo
Yes	No	Chalinolobus dwyeri	Large-eared Pied Bat, Large Pied Bat
No	No	Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
No	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
No	No	Cryptostylis hunteriana	Leafless Tongue-orchid
No	No	Cynanchum elegans	White-flowered Wax Plant
No	No	Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)
No	No	Erythrotriorchis radiatus	Red Goshawk
No	No	Eucalyptus parramattensis subsp. decadens	Earp's Gum, Earp's Dirty Gum
No	No	Euphrasia arguta	
No	No	Falco hypoleucos	Grey Falcon
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Grantiella picta	Painted Honeyeater
No	No	Grevillea parviflora subsp. parviflora	Small-flower Grevillea

Direct impact	Indirect impact	Species	Common name
No	No	Hirundapus caudacutus	White-throated Needletail
Yes	No	Lathamus discolor	Swift Parrot
No	No	Litoria aurea	Green and Golden Bell Frog
No	No	Melanodryas cucullata cucullata	South-eastern Hooded Robin, Hooded Robin (south-eastern)
No	No	Mixophyes balbus	Stuttering Frog, Southern Barred Frog (in Victoria)
No	No	Neophema chrysostoma	Blue-winged Parrot
No	No	Notamacropus parma	Parma Wallaby
No	No	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew
No	No	Nyctophilus corbeni	Corben's Long-eared Bat, South-eastern Long-eared Bat
No	No	Persicaria elatior	Knotweed, Tall Knotweed
No	No	Petauroides volans	Greater Glider (southern and central)
No	No	Petaurus australis australis	Yellow-bellied Glider (south-eastern)
No	No	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
No	No	Pomaderris brunnea	Rufous Pomaderris, Brown Pomaderris
No	No	Potorous tridactylus tridactylus	Long-nosed Potoroo (northern)
No	No	Prasophyllum sp. Wybong (C.Phelps ORG 5269)	a leek-orchid
No	No	Pseudomys novaehollandiae	New Holland Mouse, Pookila
Yes	No	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Pterostylis gibbosa	Illawarra Greenhood, Rufa Greenhood, Pouched Greenhood
No	No	Pycnoptilus floccosus	Pilotbird
No	No	Rhizanthella slateri	Eastern Underground Orchid
No	No	Rhodamnia rubescens	Scrub Turpentine, Brown Malletwood

Direct impact	Indirect impact	Species	Common name
No	No	Rhodomyrtus psidioides	Native Guava
No	No	Rostratula australis	Australian Painted Snipe
No	No	Rutidosis heterogama	Heath Wrinklewort
No	No	Stagonopleura guttata	Diamond Firetail
No	No	Syzygium paniculatum	Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry
No	No	Tetratheca juncea	Black-eyed Susan
No	No	Thesium australe	Austral Toadflax, Toadflax
No	No	Thismia clavarioides	
No	No	Tringa nebularia	Common Greenshank, Greenshank

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Central Hunter Valley eucalypt forest and woodland
No	No	Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community
No	No	Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland
No	No	Kurri sand swamp woodland of the Sydney Basin bioregion
No	No	River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria

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 removal of 0.15ha of native vegetation as part of the Proposed action will have a potential impact on the following EPBC Act listed threatened species that have the potential to use the vegetation for foraging habitat:

- Large-eared Pied Bat (*Chalinolobus dwyeri)*
- Regent Honeyeater (*Anthochaera phrygia*)
- Gang-gang Cockatoo (*Callocephalon fimbriatum)*
- South-eastern Glossy Black Cockatoo (*Calyptorhynchus lathami lathami)*
- Swift Parrot (*Lathamus discolor)*
- Grey-headed Flying-fox (*Pteropus poliocephalus)*

Due to its low condition, PCT 1592 in the Disturbance footprint does not align with any EPBC Act listed Threatened Ecological Communities (TECs).

Further detail on the impacts of the Proposed action is contained within Attachment ‘Att 1_EPBC Act Assessment_2025’, Chapter 4, Pages 25-26.

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. *

A likelihood of occurrence assessment has been conducted for EPBC Act listed threatened species based on the results of a desktop assessment and targeted flora and fauna surveys, to assess the likelihood that they could occur within the Disturbance footprint. This assessment was based upon a criterion of likelihood as presented in Attachment ‘Att 1_EPBC Act Assessment_2025’, Section 2.3, Pages 17, and Appendix B, Pages B.2-B.16.

For those threatened species that were considered to have potential to occur within the Disturbance footprint, assessments of significance were prepared, in accordance with *Matters of National Environmental Significance: Significant Impact Guidelines 1.1* (DoE 2013) as presented in Attachment ‘Att 1_EPBC Act Assessment_2025’, Appendix C, Pages C.2-C.24

The Proposed action’s impact upon all threatened species identified in section 4.1.4.2 is not considered to be significant.

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

No

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

No EPBC Act listed species were detected in the Disturbance footprint during surveys.

For those threatened species that were considered to have potential to occur within the Disturbance footprint, assessments of significance were prepared, in accordance with *Matters of National Environmental Significance: Significant Impact Guidelines 1.1* (DoE 2013) as presented in Attachment 'Att 1_EPBC Act Assessment_2025', Appendix C, Pages C.2-C.24

The Proposed action's impact upon all threatened species identified in section 4.1.4.2 is concluded to be not significant.

The Disturbance footprint is considered to have only 0.15 ha of potential foraging habitat for these species. Surveys have confirmed there is no breeding or roosting habitat within the Disturbance footprint due to the specific requirements of roosting and breeding habitat for these species.

The proposed action is unlikely to have a significant impact these species as:

- Direct impacts will occur to 0.15 ha of low value foraging habitat only, which is fragmented from larger patches of foraging habitat.
- Large areas of suitable foraging habitat, and potential roosting/breeding habitat, lie to the south and west of the disturbance area in areas of contiguous vegetation.
- High value foraging habitat will not be fragmented or isolated because of the Proposed action.
- There will be no direct or indirect impacts to breeding habitat, due to lack of suitable habitat within and surrounding the Disturbance footprint
- Mitigation measures will be in place to reduce potential indirect impacts to retained vegetation adjacent to the Project area.

The proposed action is unlikely to have a significant impact on population size, area or recovery of these species.

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

The evolution of project design in parallel with environmental impact assessments has ensured the avoidance of environmental constraints, including impacts on native vegetation, as far as practicable.

As part of the design, most of the surface infrastructure within Lot 630 DP 11800060, where the existing Ausgrid Beresfield Substation and asphalt laydown area occur, has been placed within the area that contains asphalt and is currently used by Ausgrid as a power pole storage facility. Therefore, it is devoid of native vegetation. The grassland to be impacted is dominated by exotic species and is also used as storage for various equipment and materials. Lot 6 DP 1160356 is almost entirely exotic grassland with only minor occurrence of scattered native *Acacia* spp. regrowth around the boundaries. This area has a significant history of industrial disturbance and has little habitat value. The selection of a site with an existing history of disturbance avoids impacts to areas with greater biodiversity constraints.

Impacts to biodiversity will be managed in accordance with the conditions of development consent for the Proposed action (SSD 31940756), including:

- Condition A2 – which requires the development to be carried out “generally in accordance with the EIS” including the mitigation measures outlined in the Submissions Report dated 5 October 2023;
- Condition B9 – which limits clearing outside approved disturbance areas;
- Conditions B10 to B12 – which require biodiversity offsets to be secured; and
- Condition B13 which requires preparation and implementation of a Biodiversity Management Plan approved by the Secretary containing mitigation measures.

Key minimisation and mitigation measures for biodiversity will include (but are not limited to):

- Clearing limits will be clearly marked to prevent clearing beyond the extent of the disturbance footprint. Currently, there is a tall fence that separates the disturbance footprint from vegetation to be retained in the roadside corridor between the disturbance footprint and the New England Highway. If this fence is not maintained, then it is recommended that another fence be installed for construction, with a post and wire fence and signed as “No-go zone – Environmentally sensitive area”.
- Tree clearing and disturbance will be limited to the disturbance footprint.
- A clearing procedure will be implemented during vegetation clearing in the disturbance footprint as follows:
    - felling of hollow-bearing trees within the disturbance footprint will follow a two-stage clearing protocol, whereby surrounding non-hollow vegetation is cleared 24 hours prior to the removal of hollow trees to allow fauna time to move
    - preclearance surveys will be completed by a suitable quailed person to determine if any nesting birds are present
    - a suitably qualified fauna handler will be present during hollow-bearing tree clearing to rescue and relocate displaced fauna if found in the Disturbance footprint.
- All equipment used during the vegetation clearing and construction of the Proposed action, is to arrive clean and weed free.
- The interface between the retained vegetation to the east of the Disturbance footprint shall be fenced off (as per above requirements) to prevent machinery entering the area.
- Once operational, there will be limited vehicle movement, and it will all be contained within the BESS footprint, therefore introduction of weeds to adjacent vegetation and habitat is not of concern.

Further detail on the avoidance and mitigation measures for the Proposed action is provided in Attachment ‘Att 1_EPBC Act Assessment_2025’, Section 4, Pages 25-26, Attachment ‘Att 3_Beresfield BESS BDAR_2023’, Section 6.3, Pages 73-77, and ‘Att 5_Beresfield BESS RTS Report_2023’, Appendix B (updated mitigation measures).

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

Residual unavoidable impacts of the Proposed action have been calculated in accordance with the NSW *Biodiversity Conservation Act 2016* (BC Act) and the *Biodiversity Assessment Method* (BAM) (DPIE 2020). Offsets are in accordance with the NSW Biodiversity Offset Scheme (BOS), with an offset strategy for the Proposed action provided within the BDAR. Due to the limited biodiversity values within the Disturbance footprint, a total of five biodiversity credits is required. To compensate for impacts on native vegetation and species habitat, the following credits are required:

- Two ecosystem credits of 1592 – Spotted Gum – Red Ironbark – Grey Gum shrub – grass open forest of the Lower Hunter. Under the BOS, the ecosystem credits also offset foraging habitat for Large-eared Pied Bat, Regent Honeyeater, Gang-gang Cockatoo, South-eastern Glossy Black Cockatoo and Grey-headed Flying-fox.
- Three species credits to compensate for impacts on 0.15 ha of Eastern Cave Bat (*Vespadelus troughtoni)* foraging habitat (listed under the BC Act but not the EPBC Act).

Offsets will be retired prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset, as required by Condition B10 of development consent number SSD-31940756.

Further detail on offsets under the BOS for the Proposed action in provided in Attachment ‘Att 3_Beresfield BESS BDAR_2023’, Section 6.5, Pages 75-77 and Attachment ‘Att 2_Beresfield BESS Development Consent_2023’.

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	Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
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	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew
No	No	Pandion haliaetus	Osprey
No	No	Tringa nebularia	Common Greenshank, Greenshank

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. *

A likelihood of occurrence assessment has been conducted for EPBC Act listed threatened species based on the results of a desktop assessment and targeted flora and fauna surveys, to assess the likelihood that they could occur within the Disturbance footprint. This assessment was based upon a criterion of likelihood as presented in Attachment 'Att 1_EPBC Act Assessment_2025', Section 2.3, Pages 17, and Appendix B, Pages B.2-B.16.

Due to the limited biodiversity values of the Project area, most of the migratory species were considered to not have potential to occur within the Disturbance footprint, based on lack of suitable habitat. A small group of migratory species could potentially use the habitat within the Disturbance footprint for foraging on rare occasion, however, there are no records of these species in the locality, and the habitat is fragmented and sub-optimal.

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 action does not include any nuclear action, nor does the Project area or Disturbance footprint contain nuclear hazards.

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 action is not proposed within or near a Commonwealth Marine Area and will not result in any direct or indirect impacts upon a Commonwealth Marine Area.

4.1.8 Great Barrier Reef

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

No

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

The Great Barrier Reef is approximately 900 km north of the Project area; therefore, the Proposed action will not result in any direct or indirect impacts on the Great Barrier Reef.

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 is not related to coal seam gas development or coal mining and will, therefore, not result in any direct or indirect impacts on water resources in relation to such actions.

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 Project area is not located on or near Commonwealth Land and will, therefore, not result in any direct or indirect impacts on such places.

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 Project area is not located near nor is it in relation to a Commonwealth heritage place overseas and will, therefore, not result in any direct or indirect impacts on such places.

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 Proposed action has been approved under development consent number SSD-31940756.

Prior to the grant of development consent, analysis of a number of feasible alternatives to the Proposed action was undertaken, having regard to the objectives of the Proposed action, including the consequences of not carrying out the Proposed action. Four options were considered:

- Option 1, Base case, do nothing: Would involve not installing and operating a BESS at the site or elsewhere.
- Option 2, Alternative site: Would involve installing and operating a BESS at an alternative site.
- Option 3, BESS technology and provider alternatives: Would involve using alternative technology at the site.
- Option 4: BESS at 53 Weakleys Drive, Beresfield, 'Preferred Option': Would involve the installation and operation of a BESS at the Disturbance footprint.

Of the above, Option 4 is the preferred option, and this is discussed in further detail below.

Option 1 - Base case, do nothing:

Option 4 is preferred over Option 1 on the grounds that the latter is inconsistent with the strategic context set by State and local policy, including

- Goal 22 of the NSW 2021 Plan (NSW Government 2011) which seeks to "promote energy security through a more diverse energy mix, reduce coal dependence, increase energy efficiency and move to lower emission energy sources";
- Goal 1 of the NSW Renewable Energy Action Plan (NSW Government 2013) which seeks to attract renewable energy investment;
- Objectives of the Energy Security Safeguard legislation to improve the affordability, reliability and sustainability of energy by addressing the shortfall in firm capacity during times of peak demand;
- Investment in the preparation of the Hunter REZ in accordance with the NSW Electricity Strategy and Electricity Infrastructure Roadmap (DPIE 2020) as a critical region for renewable energy due to strong investor interest and availability of existing infrastructure due to the area's history of supplying electricity for the network;
- Direction 12 of the Hunter Regional Plan (DPE 2016) which seeks to "diversify and grow the energy sector.

Option 2 - Alternative site:

Option 4 is preferred over Option 2 as the latter entail the construction of increased lengths of connecting infrastructure (likely to include earthworks and vegetation removal). By comparison to the site of the Proposed action, the length of connecting infrastructure is expected to be minimal due to the proximity to the existing Ausgrid substation.

By locating the BESS project adjacent to Ausgrid's substation, the Proposed action is also sympathetic to the existing power infrastructure setting and the industrial use of the current land.

Option 3 - BESS technology and provider alternatives:

Option 4 is preferred over Option 3 as:

- Option 4 provides the most reliable way, using current technology, to regulate electricity supply in a network which is expected to become increasingly variable due to the transition from traditional to more sustainable, renewable sources in the region; and
- Option 3 may not be suitable to the Disturbance footprint due to its limited area or other reasons, requiring the seeking out and acquisition of an alternative Project area and construction of connecting infrastructure.
- The proposed location was selected based on its proximity to existing infrastructure, which is critical for optimising energy storage and transmission efficiency. Alternative locations or activities would not

have met the same operational and strategic objectives. Additionally, the selected activity aligns with the broader goals of enhancing energy capacity in the region, which could not be achieved through alternative approaches.

Any alternate timeline would not be consistent with the approved development consent number SSD-31940756 and would not meet the strategic and commercial objectives of the Proposed action.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1_EPBC Act Assessment_2025.pdf EPBC Act Assessment	23/10/2025	No	High
#2.	Document	Att 2_Beresfield BESS Development Consent_2023.pdf Develop consent	21/12/2023	No	High

1.2.6 Commonwealth or state legislation, planning frameworks or policy documents that are relevant to the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 2_Beresfield BESS Development Consent_2023.pdf Develop consent	21/12/2023		High
#2.	Document	Att 3_Beresfield BESS BDAR_2023.pdf Biodiversity Development Assessment Report	28/09/2023	No	High
#3.	Link	Biodiversity Assessment Method 2020 https://www.environment.nsw.gov.au/publications/..			High

1.2.7 Public consultation regarding the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 4_Beresfield BESS EIS_2023 part A.pdf Environmental Impact Statement	17/05/2023	No	High
#2.	Document	Att 4_Beresfield BESS EIS_2023 Part B.pdf Environmental Impact Statement	17/05/2023	No	High
#3.	Document	Att 5_Beresfield BESS RTS Report_2023.pdf Response to EIS Submissions Report	04/10/2023	No	High
#4.	Document	Att 6_Beresfield BESS RTS Report Figures_2023.pdf Response to EIS Submissions Report Figures	04/10/2023	No	High
#5.	Document	Attachment 5_Beresfield BESS RTS_APPENDIX D_TIA.pdf Appendix D Beresfield BESS RTS report	01/08/2023	No	High
#6.	Document	Attachment 5_Beresfield BESS RTS_APPENDIX E_Contamination.zip Appendix E - Beresfield BESS RTS	17/09/2023	No	High

#7.	Document	Attachment 5_Beresfield BESS RTS_APPENDIX F_Consultation.pdf Appendix F - Beresfield BESS RTS	18/08/2023	No	High
#8.	Link	Undertaking Engagement Guidelines for State Significant Projects https://www.planning.nsw.gov.au/sites/default/fi..			High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment A - Trust Deed - Beresfield BESS Trust.pdf	03/06/2021	Yes	

1.3.2.17 (Person proposing to take the action) Proposer's history of responsible environmental management

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	AGL Annual Reports https://www.agl.com.au/about-agl/investors/annua..			High
#2.	Link	AGL ESG Data Centre https://www.2023datacentre.agl.com.au/			High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 7_AGL HSE Policy_2023.pdf AGL Health, Safety and Environment Policy	01/10/2023	No	High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1_EPBC Act Assessment_2025.pdf EPBC Act Assessment	23/10/2025		High
#2.	Document	Att 3_Beresfield BESS BDAR_2023.pdf Biodiversity Development Assessment Report	27/09/2023		High
#3.	Document	Att 4_Beresfield BESS EIS_2023.pdf Environmental Impact Statement	16/05/2023		High
#4.	Link				

		NSW Legislation https://legislation.nsw.gov.au/view/html/inforce..			High

3.1.2 Existing or proposed uses for the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1_EPBC Act Assessment_2025.pdf EPBC Act Assessment	23/10/2025		High
#2.	Document	Att 2_Beresfield BESS Development Consent_2023.pdf Develop consent	21/12/2023		High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1_EPBC Act Assessment_2025.pdf EPBC Act Assessment	23/10/2025		High
#2.	Document	Att 3_Beresfield BESS BDAR_2023.pdf Biodiversity Development Assessment Report	27/09/2023		High
#3.	Link	Biodiversity Assessment Method 2020 https://www.environment.nsw.gov.au/publications/..			High
#4.	Link	Central Hunter Valley eucalypt forest and woodland: a national protected ecological community https://www.dcceew.gov.au/sites/default/files/do..			High
#5.	Link	NSW BioNet https://www.environment.nsw.gov.au/topics/animal..			High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1_EPBC Act Assessment_2025.pdf EPBC Act Assessment	23/10/2025		High
#2.	Document	Att 3_Beresfield BESS BDAR_2023.pdf Biodiversity Development Assessment Report	27/09/2023		High
#3.	Document	Att 4_Beresfield BESS EIS_2023.pdf Environmental Impact Statement	16/05/2023		High

3.3.1 Commonwealth heritage places overseas or other places that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	NSW Legislation https://legislation.nsw.gov.au/view/html/inforce..			High

3.3.2 Indigenous heritage values that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 4_Beresfield BESS EIS_2023.pdf Environmental Impact Statement	16/05/2023		High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 3_Beresfield BESS BDAR_2023.pdf Biodiversity Development Assessment Report	27/09/2023		High
#2.	Document	Att 4_Beresfield BESS EIS_2023.pdf Environmental Impact Statement	16/05/2023		High
#3.	Link	NSW Planning Portal Spatial Viewer https://www.planningportal.nsw.gov.au/spatialvie..			High
#4.	Link	NSW Wetlands Dataset https://datasets.seed.nsw.gov.au/dataset/nsw-wet..			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 3_Beresfield BESS BDAR_2023.pdf Biodiversity Development Assessment Report	27/09/2023		High
#2.	Document	Att 4_Beresfield BESS EIS_2023.pdf Environmental Impact Statement	16/05/2023		High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1_EPBC Act Assessment_2025.pdf EPBC Act Assessment	23/10/2025		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_EPBC Act Assessment_2025.pdf EPBC Act Assessment	23/10/2025		High
#2.	Link	Significant Impact Guidelines 1.1 - Matters of National Environmental Significance https://www.dcceew.gov.au/environment/epbc/publi..			High

4.1.4.9 (Threatened Species and Ecological Communities) Why you do not think your proposed action is a controlled action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1_EPBC Act Assessment_2025.pdf EPBC Act Assessment	23/10/2025		High
#2.	Link	Significant Impact Guidelines 1.1 - Matters of National Environmental Significance https://www.dcceew.gov.au/environment/epbc/publi..			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_EPBC Act Assessment_2025.pdf EPBC Act Assessment	23/10/2025		High
#2.	Document	Att 3_Beresfield BESS BDAR_2023.pdf Biodiversity Development Assessment Report	27/09/2023		High
#3.	Document	Att 5_Beresfield BESS RTS Report_2023.pdf Response to EIS Submissions Report	04/10/2023		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 2_Beresfield BESS Development Consent_2023.pdf Develop consent	21/12/2023		High
#2.	Document	Att 3_Beresfield BESS BDAR_2023.pdf Biodiversity Development Assessment Report	27/09/2023		High
#3.	Link				

		Biodiversity Assessment Method 2020 https://www.environment.nsw.gov.au/publications/..			High

4.1.5.3 (Migratory Species) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1_EPBC Act Assessment_2025.pdf EPBC Act Assessment	23/10/2025		High

4.3.8 Why alternatives for your proposed action were not possible

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Electricity Infrastructure Roadmap https://www.energy.nsw.gov.au/nsw-plans-and-prog..			High
#2.	Link	Hunter Regional Plan https://www.planning.nsw.gov.au/sites/default/fi..			High
#3.	Link	The shift to renewables https://Renewable Energy Action Plan			High
#4.	Link	The State Plan and other key State and regional plan https://www.olg.nsw.gov.au/councils/integrated-p..			High

5.2 Declarations

Completed Referring party's declaration

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

ABN/ACN	69650555258
Organisation name	BERESFIELD BESS PTY LTD
Organisation address	2000 NSW
Representative's name	Stuart Galway
Representative's job title	Group Manager - Land Approvals and Environment
Phone	0407 788 412
Email	sgalway@agl.com.au
Address	Level 24, 200 George St, Sydney NSW 2000

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

☑ Check this box to confirm these are the correct identification details. *

☑ By checking this box, I, **Stuart Galway of BERESFIELD BESS 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. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

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. *

☑ Check this box to confirm these are the correct identification details. *

☑ I, **Stuart Galway of BERESFIELD BESS 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, **Stuart Galway of BERESFIELD BESS PTY LTD**, the Person proposing the action, consent to the designation of **Stuart Galway of BERESFIELD BESS PTY LTD** as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

✔ 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. *

☑ Check this box to confirm these are the correct identification details. *

☑ I, **Stuart Galway of BERESFIELD BESS 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. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.