

Scoping Report

Rothbury Battery Energy Storage System

10 June 2025

**ENERGY
STORAGE**

Scoping Report

Rothbury Battery Energy Storage System

Client: Ausgrid

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Executive Summary

Background

Ausgrid is seeking development consent to construct, operate and maintain a Battery Energy Storage System (BESS) with a capacity of 135 MW at its existing Rothbury Zone Substation (referred to as the Project). The Project would provide storage and firming capacity to the National Electricity Market (NEM), which would increase the stability of the electricity network, including ancillary frequency control services. In doing so, the Project would support the transition of the NEM from largely fossil fuel generation to renewable energy, contributing to New South Wales (NSW) and Australian decarbonisation targets.

The Project is classified as State Significant Development (SSD) under Division 4.7 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act). This scoping report has been prepared to support a request for Secretary's Environmental Assessment Requirements (SEARs), which would guide the preparation of an Environmental Impact Statement (EIS) to support the SSD application (SSDA).

The site

The Project is proposed in the central portion of Lot 4, Deposited Plan No. 598847, to the west of the existing Rothbury Zone Substation (the site). The lot size is approximately 11.8 hectares (ha). The indicative area within the site that is likely to be physically disturbed by the Project (the Project Area) is approximately 6.37 ha. The site address is 1309 Wine Country Drive, Rothbury, NSW 2304. The site is located within the Cessnock City Council Local Government Area (LGA), approximately 190 km north of Sydney. The site is zoned as 'RU2 Rural Landscape' under the *Cessnock County Local Environmental Plan 2011* (Cessnock LEP). The main land uses surrounding the site are vineyards and pastureland. The closest urban area is North Rothbury, which is approximately 4 km north. The site is owned by Ausgrid.

The site has been subject to disturbance from historic agricultural activities and the construction of the Rothbury Zone Substation and associated infrastructure. Introduced perennial grasses dominate the site. Native screening vegetation was planted around the substation in 2007.

The Project

The Project comprises a BESS facility that would store electricity from the grid during periods of high generation and release it during periods of high demand. Key features of the Project would include:

- Construction, operation, and maintenance of a BESS with a 135 MW maximum power output capacity with 4-hour duration (i.e. 540 MWh)
- Containerised battery units (148 units) and associated infrastructure, including inverters and medium voltage transformers
- 33 kV underground cable connection from the battery units to the existing Rothbury Zone Substation via a 33 kV underground cable
- Combined switch room and control room building
- Ring Main Units (RMU)
- Onsite workshop facility
- One auxiliary transformer
- Backup diesel generator
- Onsite car parking

- Other ancillary infrastructure and services such as internal access roads and laydown areas, stormwater management, 2.4m high boundary security chain wire fencing, noise barriers, lighting and CCTV.

Likely impacts of the Project

The environmental issues relevant to the Project have been identified using a risk-based approach, in accordance with the *State significant development guidelines – preparing a scoping report* (DPIE, 2022). This process involved reviewing previous reports, undertaking investigations (including site inspections), and desktop searches of relevant environmental databases between July 2024 and June 2025. The key environmental issues that have been identified for detailed assessment within the EIS are:

- Biodiversity
- Aboriginal Cultural Heritage
- Soils, groundwater and contamination
- Surface water and flooding
- Noise and vibration
- Landscape character and visual amenity
- Traffic and transport
- Hazards and risk including bush fire risk.

Other matters to be considered in the EIS are air quality, socio-economic impacts, non-Aboriginal heritage and waste management. Relevant cumulative impacts for these matters will also be assessed.

In assessing the Project, the key focus would be avoidance and minimisation of potential environmental and community impacts. Where avoidance is not practicable or feasible the EIS would include mitigation and management measures to address potential adverse impacts incurred during construction and/or operation.

Detailed consultation regarding the Project and its impacts is proposed with stakeholders and the local community, and would continue throughout the assessment, detailed design, construction and operation phases.

1.0 Introduction

As the contribution of renewables to the electricity grid increases so does the need for new forms of short-term energy storage. Ausgrid aims to address this need through the development of Battery Energy Storage Systems (BESS), leveraging its existing property portfolio across NSW.

Ausgrid is seeking development consent to construct, operate and maintain a BESS with a capacity of 135 megawatts (MW) over a 4-hour duration (i.e. 540 MWh) (the Project). The Project would be located to the west of the existing Ausgrid 132 kV/11 kV Rothbury Zone Substation at 1309 Wine Country Drive, Rothbury NSW 2320 (Lot 4, of Deposited Plan (DP) 598847). See **Figure 1-1** for the indicative location of the Project.

1.1 Project background

The Project forms part of Ausgrid's broader strategy to enhance grid resilience and support the transition to renewable energy. As the energy market shifts away from fossil fuels, the need for large-scale energy storage is critical to maintaining network stability, managing peak demand, and integrating variable renewable generation.

Ausgrid has identified battery storage as a key technology to provide firming capacity and frequency control services within its network. The Project aligns with national and state energy strategies, including the NSW Electricity Strategy, NSW Electricity Infrastructure Roadmap, and the Integrated System Plan (AEMO, 2024), which highlight the role of energy storage in delivering secure, affordable, and low-emission electricity. The Project also contributes to Ausgrid's long-term decarbonisation goals, supporting a net-zero emissions future by 2045.

The site was selected due to its proximity to the Rothbury Zone Substation, an existing Ausgrid asset. This location enables efficient grid connection while minimising the need for additional transmission infrastructure, reducing environmental and social impacts. Historically, the site has been subject to disturbance from agricultural activities and more recently the construction of the Rothbury Zone Substation.

1.2 Project overview

Key features and components of the Project would include:

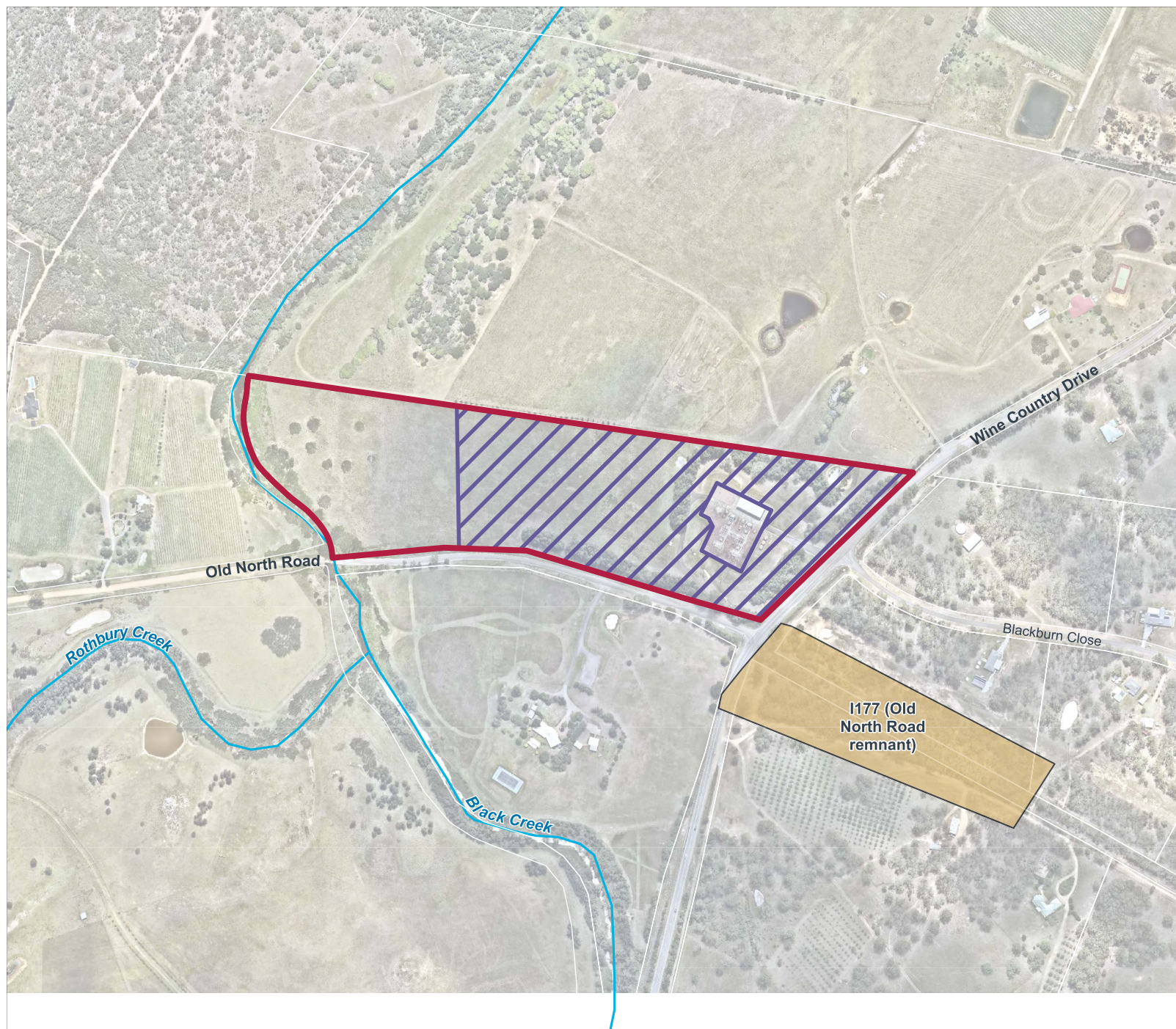
- Construction, operation, and maintenance of a BESS with a 135 MW maximum power output capacity with 4-hour duration (i.e. 540 MWh)
- Containerised battery units (148 units) and associated infrastructure, including inverters and medium voltage transformers
- 33kV underground cable connection from the battery units to the existing Rothbury Zone Substation via a 33 kV underground cable
- Combined switch room and control room building
- Ring Main Units (RMU)
- Onsite workshop facility
- One auxiliary transformer
- Backup diesel generator
- Onsite car parking
- Other ancillary infrastructure and services such as internal access roads and laydown areas, stormwater management, 2.4m high boundary security chain wire fencing, noise barriers, lighting and CCTV.

1.3 Project objectives

The objectives of the Project are as follows:

- Provide firming capability to support increasing levels of renewable energy generation
- Provide electricity to the NEM during periods of peak demand and store excess electricity during periods of peak generation
- Provide system services to help correct and/or stabilise the wider transmission network.

FIGURE 1-1:
ROTHBURY SITE AND INDICATIVE
PROJECT LOCATION



Legend

-  The site
-  Project Area
-  Watercourse

Heritage

-  General heritage item

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1.4 The applicant

The applicant for this Project is Ausgrid (ABN: 78 508 211 731), located at 24-28 Campbell Street, Sydney NSW 2000. Ausgrid is the largest distributor of electricity in eastern Australia, providing power to 1.8 million customers and powering 60% of NSW's Gross Domestic Product. Its network is made up of substations, powerlines, underground cables and power poles, covering 22,275 km² throughout Sydney, the Central Coast and the Hunter Valley.

The NSW Treasury holds the largest stake in the Ausgrid business (49%), with the remainder made up of institutional investors that have long term investment horizons and have a proven track record of providing support to its investments.

Ausgrid operates in the NEM as both a Distribution Network Service Provider (DNSP) and a Transmission Network Service Provider (TNSP). Ausgrid operates, maintains and builds its electricity network with a focus on safety and reliability.

1.5 Related development

The site includes the existing Rothbury 132 kV/11 kV Zone Substation. Ausgrid propose to continue to operate the substation, which the Project will connect to, via an underground 33 kV cable.

To prepare its infrastructure for new and changing customer connections as part of the renewable energy transition, Ausgrid plans to augment the Rothbury Zone Substation to include an additional transformer and connection. These substation augmentation works will be assessed and determined by Ausgrid separately under Part 5 of the EP&A Act.

1.6 Purpose and content of this report

This scoping report has been prepared to request SEARs for the Project from the NSW Department of Planning, Housing and Infrastructure (DPHI).

This scoping report provides a description of the Project and presents the strategic context of the Project. It presents a preliminary assessment to identify matters for further assessment in the EIS, and the level of detail of that assessment.

This scoping report has been prepared in accordance with *State significant development guidelines – preparing a scoping report* (DPIE, 2022), in support of an application for SEARs for the Project.

2.0 Strategic Context

This chapter provides a high-level analysis of the strategic context in which the Project is proposed, including:

- A summary of key government strategies and policies that provide strategic support for the Project (refer to **Section 2.1**)
- An analysis of the key features of the site and surrounds that could affect or be affected by the Project (refer to **Section 2.2**)
- Summary of land ownership and any agreements that the applicant has entered into with other parties (refer to **Section 2.2.4**)
- Whether the Project is likely to generate cumulative impacts with other relevant future projects in the area (refer to **Section 6.11**).

2.1 Strategic planning

2.1.1 Australia's Long Term Emissions Reduction Plan

Australia's whole-of-economy Long-Term Emissions Reduction Plan (DCCEEW, 2022a) is focused on technology and sets out how Australia will achieve net zero emissions by 2050. The plan outlines how the Australian Government will:

- Drive down the cost of low emissions technologies (including battery storage)
- Deploy these technologies at scale
- Help regional industries and communities seize economic opportunities in new and traditional markets
- Work with other countries on the technologies needed to decarbonise the world's economy.

The Technology Investment Roadmap (TIR) is the foundation of the Long-Term Emissions Reduction Plan and sets a process for developing and deploying low emissions technologies (including battery storage). By focusing government investment, it aims to make these emerging technologies cost competitive with existing high emission technologies (DCCEEW, 2022b). Importantly, the TIR includes a requirement to prepare Low Emissions Technology Statements (LETS), which review, refine and evaluate the government's investment in low carbon emission technologies (DCCEEW, 2021).

The current LETS (2021) include energy storage as an existing priority technology for government investment. Specifically, the LETS indicates that broad deployment of electrical energy storage will facilitate further integration of low-cost solar and wind electricity in the grid. The LETS states that energy storage will provide network security services and a source of reliable, dispatchable electricity. This should help reduce pressure on electricity prices by meeting peaks in consumer demands. As the Project intends to provide a source of reliable, dispatchable electricity, it would be consistent with the principles of the Long-Term Emissions Reduction Plan.

2.1.2 Integrated System Plan

The Integrated System Plan (AEMO, 2024) (ISP) is a whole-of-system plan that provides a coordinated generation and transmission investment plan to transition the NEM over the next 30 years. The Australian Energy Market Operator (AEMO) updates the ISP every two years, with the most recent version being published in June 2024.

Under the 'Step Change' scenario, identified in the 2024 ISP as the most likely scenario, the NEM will need to cater for significant investment in generation capacity, storage, firming generation and transmission augmentation as coal generation withdraws through to 2050.

Under the Step Change scenario, the 2024 ISP predicts that about 90% of the current 21 gigawatt (GW) of coal capacity will retire by 2034-35, with the remainder retiring before 2040. The ISP suggests that 49 GW / 646 GWh of new battery and hydro storage (distributed and utility scale), would be required to help firm the renewable energy sources entering the market.

2.1.3 NSW Electricity Strategy

The NSW Electricity Strategy (NSW Government, 2024) is the NSW Government's plan for a reliable, affordable, and sustainable electricity future. The strategy outlines three approaches for the NSW government to meet these objectives:

- Support the market to deliver reliable electricity at the lowest price, while protecting the environment
- Set an Energy Security Target to ensure that the State has sufficient generation capacity to cope with unexpected generator outages during periods of peak demand, such as during heat waves, and
- Ensure the State has sufficient powers to deal with an electricity emergency if one arises.

The strategy outlines that the cheapest and most efficient way to develop a modern energy system to replace coal-fired generators is to build a mix of low-cost renewables, gas-fired generators and other storage options, such as batteries and pumped hydro. The Project supports the strategy's objectives, being a grid-scale energy storage system. The Project would help NSW Government deliver for a reliable, affordable, and sustainable electricity future.

2.1.4 NSW Electricity Infrastructure Roadmap

The NSW Electricity Strategy (DPIE, 2019) is intended to be implemented through the NSW Electricity Infrastructure Roadmap (DPIE, 2020). It envisions a modern electricity system in NSW built on the following five pillars:

1. *'Driving investment in regional NSW: supporting our regions as the State's economic and energy powerhouse.'*
2. *'Delivering energy storage infrastructure: supporting stable, long-term energy storage in NSW.'*
3. *'Delivering Renewable Energy Zones: co-ordinating regional transmission and renewable generation in the right places for local communities.'*
4. *'Keeping the grid secure and reliable: backing the system with gas, batteries or other reliable sources as needed.'*
5. *'Harnessing opportunities for industry: empowering new and revitalised industries with cheap, reliable and low emissions electricity'.*

The *Electricity Infrastructure Investment Act 2020* was passed in late 2020. The Project is wholly in keeping with the vision of the NSW Electricity Infrastructure Roadmap (DPIE, 2020), in that it represents a private regional investment, delivers energy storage, is appropriately zoned and uses existing transmission infrastructure, provides security to the NEM and provides cost effective and reliable electricity with negligible additional emissions.

Ausgrid has a plan to achieve decarbonisation of its assets by 2045. This target is a first for an energy distribution organisation in Australia, and demonstrates its commitment to the decarbonisation of the economy (Ausgrid, 2024). This Project represents a key component of Ausgrid's decarbonisation plans and its response to the requirements of the market in relation to reliable and affordable electricity.

2.1.5 State Infrastructure Strategy 2022-2042

The NSW State Infrastructure Strategy (SIS) 2022-2042 (Infrastructure NSW, 2022) builds on the NSW Government's major long-term infrastructure plans as initially outlined within NSW State Infrastructure Strategy 2012. The SIS sets out the government's priorities for the next 20 years, and highlights that ongoing investment is required to keep pace with population growth, ensure competitiveness of NSW industry and meet the NSW Government's social and economic goals.

Some of the relevant objectives and strategic directions of the SIS include:

- Embed reliability and resilience
- Achieve an orderly and efficient transition to Net Zero
- Protect our natural endowments

- Integrate infrastructure, land use and service planning.

The Project, being a grid scale energy storage system, would directly contribute to objectives and strategic directions of the SIS.

2.1.6 Hunter Regional Plan 2041

The *Hunter Regional Plan 2041* (DPE, 2022) (the Regional Plan) is a 20-year land use plan prepared under the EP&A Act. The Regional Plan applies to the nine LGAs of the lower Hunter, as well as the Councils within the Upper Hunter. The Regional Plan sets the strategic land use framework for continued economic growth and diversification in one of Australia's most diverse and liveable regions. The plan aims to unlock sustainable growth opportunities and investments, as well as housing choice and lifestyle opportunities to retain the Hunter's position as a leading regional economy in Australia. The Regional Plan includes four principles:

- Growth – Support a net zero emissions economy and foster employment growth, competitiveness and innovation
- Community – Promote places to be together by weaving nature into our towns and cities which have welcoming and safe streets and public spaces
- Resilience – Reduce risks associated with place-based shocks and stresses to improve the community's ability to withstand, recover from and adapt to changes and become more resilient
- Equity – Ensure communities are safe and healthy with residents having opportunities for economic advancement, housing choices and a secure retirement.

To support the delivery of these principles, the Regional Plan contains nine objectives, which are delivered through several strategies. Of relevance to this Project are the following objectives:

- Objective 1: *'Diversify the Hunter's mining, energy and industrial capacity'*
- Objective 7: *'Reach net zero and increase resilience and sustainable infrastructure'*

These objectives, and their relevance to the Project, are described in further detail below.

Objective 1: Diversify the Hunter's mining, energy and industrial capacity

The Hunter is an economic powerhouse, driven by the mining, energy and manufacturing sectors. The Hunter-Central Coast is one of five Renewable Energy Zones (REZs) in NSW. The development of this REZ will take advantage of existing transmission infrastructure, transport links, water resources and a skilled workforce. This is supported by Strategy 1.2, which states:

Following completion of the Hunter-Central Coast REZ, local strategic planning should consider:

- *Opportunities to leverage new employment in related manufacturing and energy intensive industries that benefit from proximity to the energy infrastructure within the REZ.*
- *The proximity of sensitive land uses to ensure sensitive land uses do not encroach on activities within the REZ.*

The site has been chosen due to it being strategically located adjacent to an existing substation, which is owned and operated by Ausgrid (as discussed in **Section 2.2**). The Project would help meet increasing electricity demand in the Cessnock area by storing and supplying power to the grid, supporting the objectives of the Hunter REZ.

Objective 7: Reach net zero and increase resilience and sustainable infrastructure

The Hunter Regional Plan 2041 highlights the need for low-carbon energy solutions and resilient infrastructure to support economic and population growth while reducing emissions. Objective 7 aims to facilitate the transition to a net-zero economy by integrating sustainable energy infrastructure, enhancing energy security, and ensuring the region is prepared for climate-related risks.

The Project directly supports this objective by providing energy storage capacity that enables greater integration of renewable energy sources into the grid. By reducing reliance on fossil fuel generation and improving grid stability, the Project enhances the resilience of the Hunter's energy network.

2.1.7 Greater Newcastle Metropolitan Plan 2036

The *Greater Newcastle Metropolitan Plan 2036* (DPE, 2018) (GNMP) sets out strategies and actions that will drive sustainable growth across the region's LGAs (including Cessnock). The GNMP seeks to achieve the vision set out in the Regional Plan for the Hunter to be the leading regional economy in Australia with a vibrant new metropolitan city at its heart (see **Section 2.1.5**).

One of the outcomes of the GNMP, is to: *'Enhance environment, amenity and resilience for quality of life'*. Strategy 15 within that outcome is: *'Plan for a carbon neutral Greater Newcastle by 2050'*. The Project supports this strategy by providing grid-scale energy storage, which facilitates the integration of renewable energy, enhances grid resilience, and reduces reliance on carbon-intensive power generation, contributing to Greater Newcastle's transition to a carbon-neutral future by 2050.

2.1.8 Cessnock Local Strategic Planning Statement 2036

The *Cessnock Local Strategic Planning Statement 2023* (Cessnock City Council, 2020) (CLSPS) sets out Cessnock City Council's planning priorities over the next 20 years. The CLSPS is centred around four themes *liveable, productive, sustainable* and *unique*. From these four themes 30 planning priorities have been identified.

Two of the planning priorities under the *'Productive'* theme are *'key infrastructure is leveraged to support economic growth'* and *'Our City embraces technology and innovation'*. Under the *'Liveable'* theme the planning priority is *'Infrastructure and services meet the needs of our community and are appropriately funded'*.

The Project is aligned with the priorities of the CLSPS as it would facilitate a resilient electricity grid to support the City Council's ongoing development. The Project would provide storage and firming capacity to meet growing demand and provide network and stability for the City Council's residential, commercial and industrial sectors.

2.1.9 Cessnock Community Strategic Plan 2036

The *Cessnock Community Strategic Plan, 2036* (Cessnock City Council, 2020) (CCSP) sets out community's main priorities and aspirations for the future. The Community vision, as stated in the CCSP, is: *'Cessnock is a cohesive and welcoming community living in an attractive and sustainable rural environment. There is a diversity of business and employment opportunities supported by accessible infrastructure and services which effectively meet community needs'*.

The Project will help meet increasing electricity demand in the Cessnock area by storing and supplying power to the grid. This may stimulate business and employment opportunities in the area through de-risking future development.

2.2 Site setting

2.2.1 Regional context

The Project is located within the Cessnock City Council LGA. The Cessnock City Council LGA has an area of approximately 1,950 km² (Cessnock City Council, 2020) and at the time of the 2021 Australian Bureau of Statistics (ABS) census the population was estimated to be 63,632. The closest main township to the Project is North Rothbury, which is located approximately four kilometres to the north. The Project site is located approximately 12.5 km north of Cessnock and is accessed off Old North Road. Wine Country Drive is the main route connecting Cessnock in the south to North Rothbury, north of the site. Wine Country Drive borders the site to the east and the Old North Road borders the site to the south. The main surrounding land uses include vineyards and pastureland.

Figure 2-1 shows the location of the site within the broader regional context.

The site is located in the Hunter Valley Wine Region. There are numerous vineyards and wine estates either directly off Wine Country Drive or accessed off minor roads which connect to Wine Country Drive. Wine Country Drive is therefore an important route for tourism.

The main employment industries within the Cessnock City Council LGA in 2020 were accommodation and food services, retail trade, health care and social assistance, education, training and manufacturing (Cessnock City Council, 2020).

Belford National Park is located approximately 6.5 km north-west of the site and Werakata National Park is located approximately 8.2 km to the south-east. Pokolbin Flora Reserve is also located approximately 9.8 km south-west of the site.

2.2.2 The site

For the purposes of this assessment the site is defined as Lot 4 of DP No. 598847, which is located at 1309 Wine Country Drive, Rothbury, 2320. The site is approximately 11.8 ha. The Project would be located in the central part of the site, to the west of the existing substation.

The indicative area within the site that is likely to be physically disturbed by the construction and operation of the Project is approximately 6.37 ha. This is referred to as the Project Area throughout this scoping report. A figure showing the extent of the site and development footprint is provided in **Figure 1-1**.

The site is zoned 'RU2 Rural Landscape' under the Cessnock City Council Local Environment Plan. A map showing the zoning of the site and the surrounding area is provided in **Figure 4-1**.

The site is entirely owned by Ausgrid. The land on which the BESS is proposed has been subject to disturbance from historic agricultural activities, and more recently the construction of the Rothbury Zone Substation and its associated infrastructure. The Project Area is a disturbed area dominated by introduced perennial grasses. Screening vegetation was planted around the substation in 2007. This vegetation is comprised of mixed native species including *Casuarina glauca* (Swamp Oak) and *Corymbia maculata* (Spotted Gum) (Wildthing, 2024).

Sensitive receivers located within 500 m of the site are shown in **Figure 2-2**. These include residential properties, vineyards, and tourist facilities associated with the vineyards, such as restaurants and commercial accommodation.

2.2.3 Surrounding land use

Rural landscape

Lots surrounding the site are generally zoned as 'RU2 Rural Landscape' and 'RU4 Primary Production Small Plots'. These lots contain residential buildings, areas of cultivation including vineyards and mixed bushland.

Tourist

There are lots zoned as 'SP3 Tourist' approximately 800 m south of the Project Area. These lots contain a golf estate, vineyards, restaurants and commercial accommodation.

Primary production small plots

Lot 864 on the southern side of the Old North Road is zoned as 'RU4 Primary Production Small Plots'. Quambatook House is located on this lot. This property was formerly a holiday property which catered for events but is currently closed.

Lot 803, located to the west of the Project Area is also zoned as RU4. Black Creek Farm is located on this property. The property contains vineyards, a farm house, a wine cellar and wine tasting room.

Residential

The closest residential zoned land is approximately 550 m to the west of the site. However, residential dwellings are present on properties adjoining the site, as part of existing farms and tourism facilities. The closest dwelling is approximately 260 m south of the site boundary.

Recreational and environmental land

There is one lot zoned as 'C3 Environmental Management' approximately 35 m north-west of the Project Area. This lot is largely undeveloped and is comprised mainly of bushland.

The edge of Tiraki Nature Reserve is located approximately 300 north west of the Project Area. This land is zoned as 'C1 National Parks and Nature Reserves'. Tiraki Nature Reserve covers an area of 609 ha and contains hiking trails and birdwatching facilities (NSW National Parks and Wildlife Service, 2025).

2.2.4 Key risks and hazards

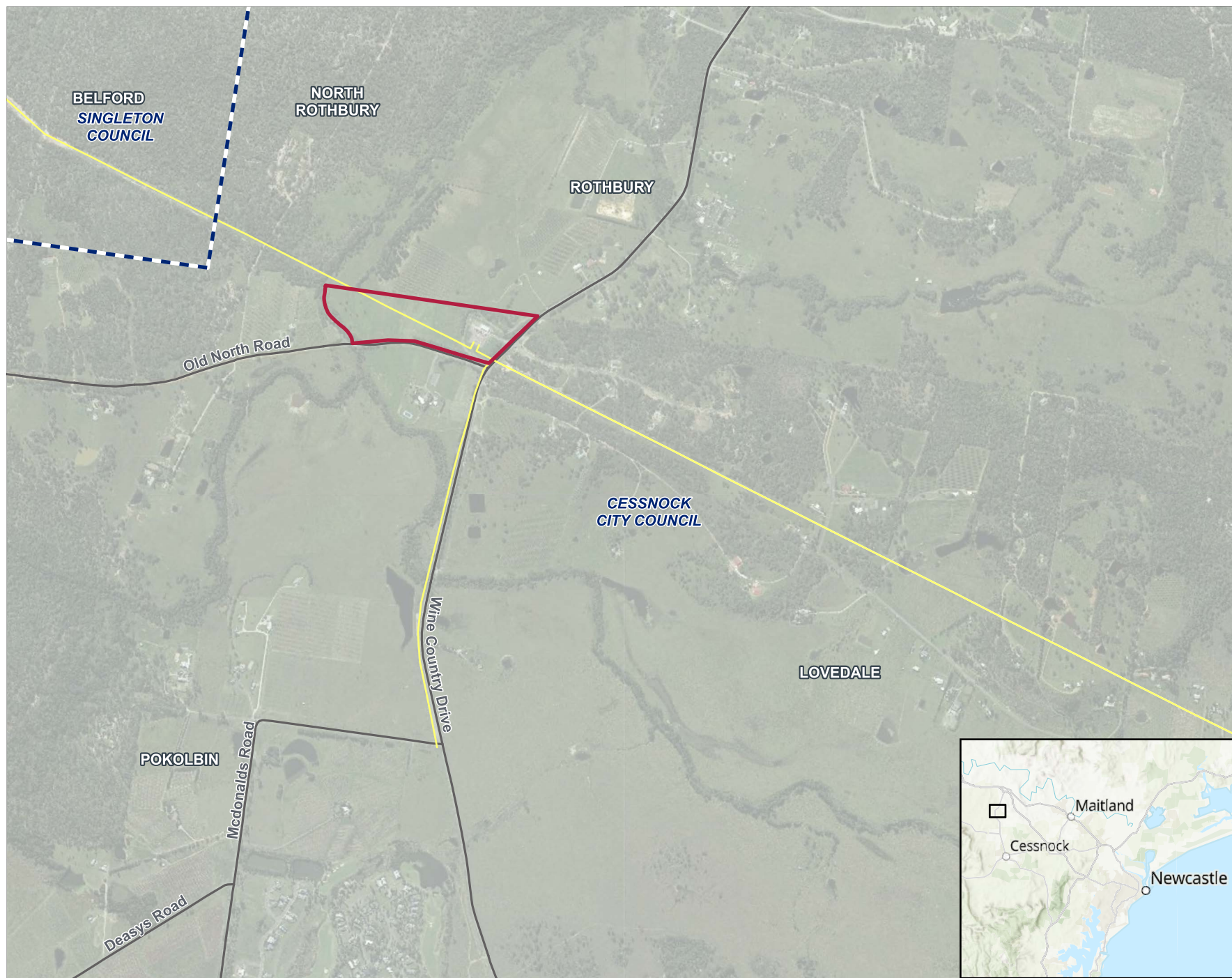
Key risks and hazards for the Project Area, including flood risk, erosion, bushfire prone land and slope, are detailed in **Section 6.0**.

2.2.5 Land ownership and agreements

The Project will be constructed and operated on land owned by Ausgrid.

Access to the site will be off Old North Road, using the existing driveway. **Figure 2-3** maps land ownership within and outside the site.

FIGURE 2-1:
REGIONAL CONTEXT



Legend

- The site
- LGA boundary
- Primary road

Transmission Lines

- 132kV

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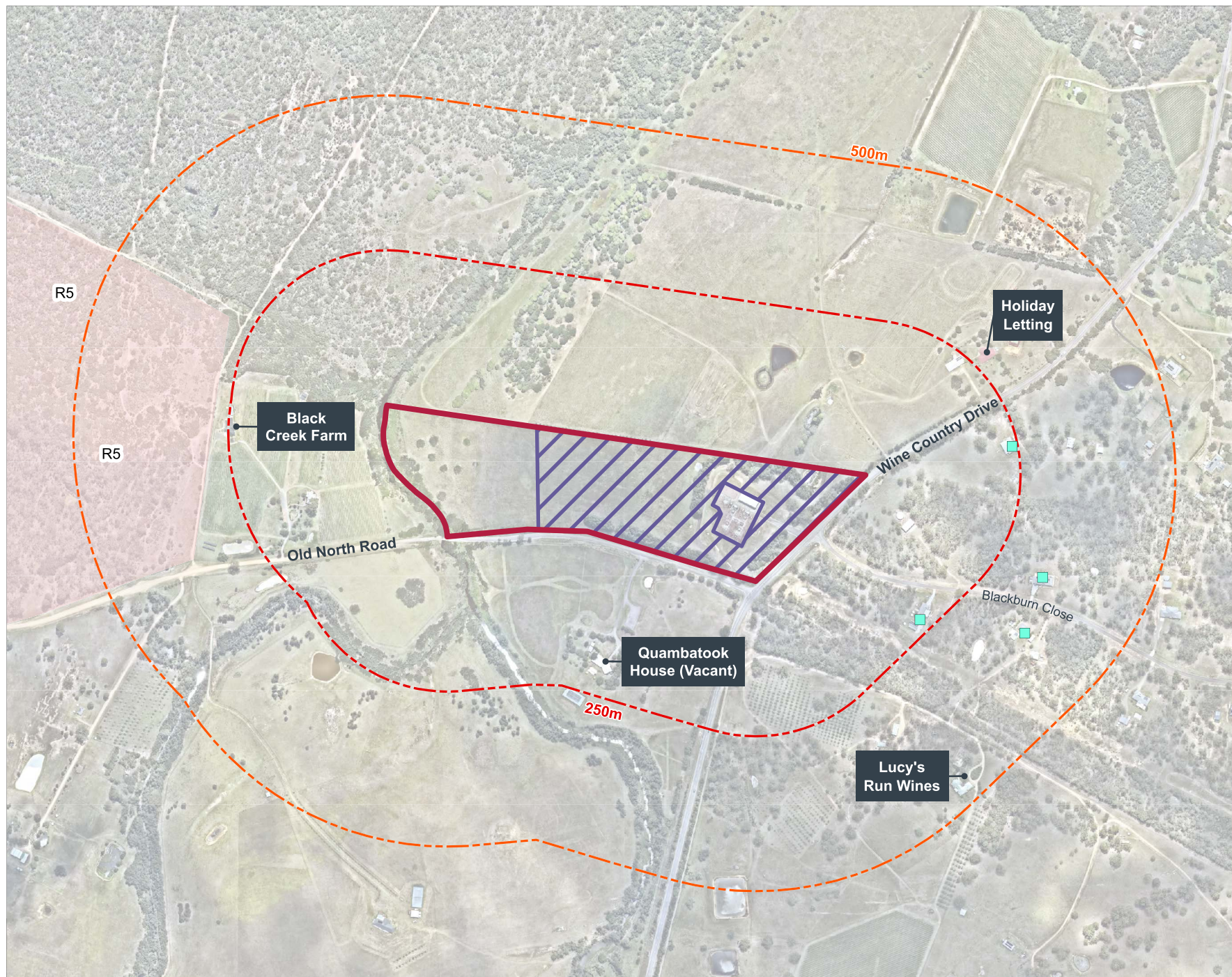
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**FIGURE 2-2:
SURROUNDING SENSITIVE
RECEIVERS**



Legend

- The site
- 250m buffer from the site
- 500m buffer from the site
- Project Area
- Residential property

Residential Receivers

- R5 - Large Lot Residential

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FIGURE 2-3:
LAND OWNERSHIP



Legend

- The site
- Project Area
- Ausgrid-owned land
- Easement

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3.0 The Project

3.1 Project overview

The Project comprises a BESS facility that would store electricity from the grid during periods of high generation and release it during periods of high demand. The BESS would also provide frequency control services for the local grid.

Key features of the Project would include:

- Construction, operation, and maintenance of a BESS with a 135 MW maximum power output capacity with 4-hour duration (i.e. 540 MWh)
- Containerised battery units (148 units) and associated infrastructure, including inverters and medium voltage transformers
- 33 kV underground cable connection from the battery units to the existing Rothbury Zone Substation
- Combined switch room and control room building
- Ring Main Units (RMU)
- Onsite workshop facility
- One auxiliary transformer
- Backup diesel generator
- Onsite car parking
- Other ancillary infrastructure and services such as internal access roads and laydown areas, stormwater management, 2.4 m high boundary security chain wire fencing, noise barriers, lighting and CCTV.

All works are proposed on property owned by Ausgrid, therefore no easements or leases are required.

Further details regarding the Project specifics are provided in the following sections of this scoping report. These details are subject to review during the preparation of the EIS and the detailed design. Whilst the construction of the Project may be carried out in stages, the scoping report and EIS will consider and address the environmental impacts associated with the Project as a whole.

3.1.1 Battery storage technology and plant

The BESS technology would consist of a series of containerised lithium iron phosphate (LiFePO₄) battery units. The battery units would be approximately 2.5 m tall and have a footprint of approximately 3.5 m by 7 m and would be arranged in a series of rows. The units would consist of battery units (battery cells, inverters and cooling systems), medium voltage (MV) transformers and associated connection and control systems. See **Figure 3-1** and **Figure 3-2** for an illustration of typical battery units.



Figure 3-1: Typical single battery unit



Figure 3-2: Typical multiple battery units

The battery units would be mounted on a compacted gravel or concrete slab.

The BESS is intended to have an operational life of up to 50 years, though it may be replaced and/or upgraded to extend this timeframe, subject to further planning approval. Should this not occur, components would be removed and re-purposed where possible at the end of this period. The land would be rehabilitated consistent with the surrounding area, and in accordance with legislative requirements to achieve pre-development conditions as far as is reasonably practicable.

3.1.2 Underground cable connection

An underground 33 kV cable is proposed to connect the BESS to the Rothbury Zone Substation. The specific design of this component will be subject to detailed design during the development of the EIS.

3.1.3 Vehicle access

The site is bounded by Wine Country Drive to the east and Old North Road to the south. Access to the Project would be via an existing driveway on Old North Road. Old North Road is a council managed, single laned, un-marked road with line marking at the intersection of Wine Country Drive.

3.1.4 Operational workforce and hours

Once constructed, the Project would operate 24 hours a day, seven days a week as an unmanned facility. The BESS would typically be managed remotely and staffed as required during both planned and unplanned maintenance periods.

Likely maintenance and operation activities include but not limited to:

- Vegetation trimming to maintain electrical safety clearances and asset protection zones
- General landscape maintenance, including mowing
- Driveway and access road maintenance
- Fence and gate maintenance and repair
- Staff attendance for routine inspection, operation and planned and ad hoc maintenance activities.

3.2 Project construction

3.2.1 Construction overview

It is anticipated that construction of the Project would occur from late 2026 through to mid-2028, though these dates are subject to change pending equipment lead times and availability.

The construction period may also vary in duration depending on weather conditions, environmental issues, and the availability of materials and contractors.

Works that are likely to generate audible noise at sensitive receivers would generally be undertaken between 7am and 6pm Monday to Friday and 8am and 1pm on Saturday. Some construction activities may require work on Sundays or during other out of hours periods due to electrical outage constraints, though these would be subject to mitigation and consultation.

Construction works would likely involve:

- Installation of erosion and sediment controls and site fencing
- Installation and maintenance of environmental controls
- Development/upgrade of site access and internal access roads
- Earthworks to form the BESS pad, switch room and control building, and construction laydown areas
- Concrete works associated with the BESS pad and building foundations/footings
- Construction of permanent stormwater drainage network
- Structural works to support the BESS and combined switch room and control room building
- Construction of supporting structures, e.g., temporary site compound, construction laydown areas and storage facilities
- Delivery, installation and electrical fit-out of BESS and transformers
- Construction of the cable connection between the BESS and the substation
- Installation of a diesel generator for use during operation and in case of emergency
- Testing and commissioning activities
- Removal of construction equipment and rehabilitation of construction areas, including landscaping.

3.2.2 Construction plant and equipment

Table 3-1 provides an indicative list of the plant and equipment that would be used to construct the Project. The equipment list would be further refined during detailed design.

Table 3-1: Indicative plant and equipment for construction

Equipment to be used during construction	
Enabling works and prefabrication	
Front end loaders	Excavators
Dump trucks	Graders
Road trucks	Compactors
Water trucks	Light Vehicles
Structural, civil, mechanical and electrical works	
Front end loaders	Dump trucks
Road trucks	Excavators
Graders	Bobcats
Concrete trucks and pumps	Compactors and rollers
Elevated work platforms	Light Vehicles
Cranes	Backhoe
Concrete saws and grinders	Generators
Water trucks	
Commissioning	
Elevated work platforms	Generators
Cranes	Light Vehicles
Finishes and Demobilisation	
Water trucks	Backhoe
Compactors	Light Vehicles

3.3 Decommissioning

At the end of the Project's design life (approximately 50 years), the BESS infrastructure would either be disposed of or recycled at a suitably approved waste management facility, or subject to confirmation, be returned to the original equipment manufacturer for refurbishment and recycling. The site would be rehabilitated in accordance with legislative requirements to achieve pre-development conditions as far as is reasonably practicable.

3.4 Estimated development cost

The total EDC for the Project is anticipated to be \$265 million. The EDC would be confirmed as part of preparation of the EIS.

3.5 Alternatives considered

Alternatives to the Project have been considered and are outlined below. Where relevant these alternatives would continue to be considered throughout the development of the Project to ensure it is optimised for its location and setting.

Following a constraints and opportunities analysis undertaken of the Project, the following alternatives have been considered:

- The ‘do nothing approach’
- Site location alternatives
- BESS technology and provider alternatives.

These are explored in further detail below.

3.5.1 The ‘do nothing’ approach

The ‘do nothing’ approach would involve not constructing and operating a BESS at the site. This option may result in potential energy disruption issues, noting the recent closure of Liddell Power Station and the future planned closure of Bayswater and Eraring coal-fired power stations within the context of the transition to renewable energy in NSW and across the NEM.

As discussed in **Section 2.0**, the NEM requires firming and storage capability to be able to store energy and meet electricity demand at different times of the day and throughout the year. Without the Project, the projected future increase in demand for energy throughout Cessnock City Council (and broader Hunter Region) would not be adequately addressed as supply may be limited during peak demand periods. Given the existing network capacity and adjacent land holdings, any comparable alternate network solution will likely come at higher cost and higher community and environmental impact than that proposed. The ‘do nothing’ option would not meet the objectives of the Project (refer to **Section 1.3**) or the demands on the NEM (refer to **Section 2.1**) and is therefore not considered a feasible option.

3.5.2 Site location

Ausgrid has completed a detailed site selection review, which included a relative rating of possible sites on environmental, social and technical grounds. This review of sites considered key selection parameters including siting of the BESS in proximity to energy generation, as well as its proximity to energy distribution. This analysis also took into account the potential for adverse environmental or social issues in the surrounding area.

Constructing the Project in close proximity to an existing Ausgrid substation is expected to reduce the impacts of the construction and operation of the Project. By locating grid-scale storage on an existing electrical infrastructure site, close to the distribution network and close to customers, Ausgrid will increase network resilience and support greater penetration of renewable energy.

The attributes of the site that make the location optimal for the Project include:

- Proximity to the electricity transmission network and high electricity demand centres
- Capacity of the transmission network to deliver electricity stored without constraint
- Expected low environment impacts
- Existing access for the delivery of heavy construction loads
- Availability of skilled construction and operational workforce in the region.

3.5.3 BESS technology

Ausgrid is in the process of undertaking a review and evaluation of the available solutions in the market to select a BESS Original Equipment Manufacturer (OEM). A detailed assessment of Project-specific criteria would be undertaken including efficiency, system reliability, inverter readiness and integrator compatibility.

3.6 Project benefits

The Project is expected to provide tangible benefits to the State and the local community. Key benefits of the Project include:

- Improved network security and a diversified energy storage offering within NSW
- Alignment with Commonwealth and NSW legislation and policy (discussed in **Section 2.1 and 4.0**)
- Support for increased renewable power generation, placing downward pressure on wholesale electricity prices in accordance with the ISP (discussed in **Section 2.1.2**)
- Expanding the role DNSPs play in energy transition by supporting the delivery of energy storage on the distribution network at a pace that is faster, lower cost, and has less impact on communities and the environment
- Creation of direct and indirect jobs during the Project's construction and operation phases
- Diversification of skills and employment which helps to promote economic diversification of the local community.

BESS projects such as this are becoming an integral part of the electricity market's response to the retirement of coal fired power stations from the market and are playing an important role in supporting increased levels of renewable generation, while improving the strength of the network.

4.0 Statutory Context

A summary of the legislative instruments relevant to the Project is provided in **Table 4-1**. This includes a description of the proposed planning approval pathway and the Project's permissibility under the EP&A Act. The legislative instruments are categorised in alignment with the State *Significant Development guidelines – preparing a scoping report* (DPIE, 2022). These matters are discussed further in **Section 4.1 to 4.4**.

Table 4-1: Summary of statutory requirements

Matter	Application to the Project	Discussed further in:
Power to grant consent	The Project is considered SSD under the EP&A Act as it satisfies the SSD requirements of section 2.6 of the Planning Systems SEPP and is listed under Schedule 1 of that policy. As SSD, the Project would be assessed under Part 4, Division 4.7 of the EP&A Act. Under section 4.5(a) of the EP&A Act, the consent authority for the Project would be the Minister for Planning and Public Spaces or the Independent Planning Commission. The consent authority will evaluate the SSD application in accordance with section 4.15 of the EP&A Act.	Section 4.1.2
Permissibility	Section 2.35 of the Transport and Infrastructure SEPP defines '<i>electricity generating works</i>' as a building or place used for the purpose of '<i>making or generating electricity</i>' or '<i>electricity storage</i>'. BESS projects are considered electricity storage projects and are defined as '<i>electricity generating works</i>' under the Transport and Infrastructure SEPP, being 'a building or place used for the purpose of electricity storage'. Section 2.36 of the Transport and Infrastructure SEPP states that development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed non-residential zone. The Project is located on land that is zoned 'RU2 Rural Landscape' under the Cessnock LEP. '<i>Electricity generating works</i>' are permitted with consent in this land zone under the LEP. However, permissibility for the Project is achieved through the application of section 2.36 of the Transport and Infrastructure SEPP, which prevails over the Cessnock LEP.	Section 4.1.2 Section 4.2.1.1 Section 4.2.1.4 Section 4.2.2
Other Approvals	Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) approval Under the EPBC Act, activities that have the potential to result in significant impacts on a Matter of National Environmental Significance (MNES) must be referred to the Commonwealth Minister for the Environment and Water. MNES within 10 km of the Project Area have been identified Table 4-4 however significant impacts on the MNES are not anticipated as a result of the Project and therefore a referral under the EPBC Act is unlikely to be required.	Section 4.4.2

Matter	Application to the Project	Discussed further in:
	Approvals not required under section 4.41 of the EP&A Act Section 4.41 of the EP&A Act outlines certain approvals that do not apply to SSD. These include: • a permit under section 201, 205 or 219 of the <i>Fisheries Management Act 1994</i> • an approval under Part 4, or an excavation permit under section 139, of the <i>Heritage Act 1977</i> • an Aboriginal heritage impact permit under section 90 of the <i>National Parks and Wildlife Act 1974</i> • a bush fire safety authority under section 100B of the <i>Rural Fires Act 1997</i> • a water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the <i>Water Management Act 2000</i>.	Section 4.3
	Approvals required under section 4.42 of the EP&A Act Section 4.42 of the EP&A Act provides that certain approvals cannot be refused if an SSD Project is approved and that these approvals must be substantially consistent with the SSD approval. It is unlikely that any of these approvals would be required under section 4.42 of the EP&A Act.	Section 4.1.2 Table 4-2
Pre-condition to exercising the power to grant consent	State Environmental Planning Policy (Biodiversity and Conservation) 2021 Section 2.6(2) of this policy provides guidance regarding the clearing of vegetation in non-rural areas that requires authority under the Policy. The site is zoned as RU2 Rural Landscape, RU2 zoned land is not listed under Section 2.3 which lists land on which the chapter applies to. A permit is therefore not required for the clearing of vegetation for the Project. State Environmental Planning Policy (Resilience and Hazards) 2021 Section 3.7 of this policy requires consideration of relevant circulars and guidelines in consideration of whether a proposed development represents potentially hazardous or offensive development. Where a conclusion is reached that a project is either, or both, a potentially hazardous or offensive development, a PHA must be prepared for the Project. As outlined in Section 6.9.3, a PHA would be prepared for the Project. Section 4.6 of this policy outlines that before determining an application for development consent, the consent authority must consider a report specifying the findings of a preliminary investigation of the land concerned carried out in accordance with the contaminated land guidelines. As part of the EIS an assessment would be prepared in accordance with the Contaminated Land Guidelines: Consultants Reporting on	Section 4.2.1.2

Matter	Application to the Project	Discussed further in:
	Contaminated Land (NSW EPA, 2020), the National Environment Protection Measure (Assessment of Site Contamination) (NEPC, 2013) and other relevant guidelines.	
	State Environmental Planning Policy (Transport and Infrastructure) 2021 Pursuant to section 2.119(2) of this policy, the consent authority must not grant consent to development on land that has a frontage to a classified road unless considerations listed in this section are met. Given the Project fronts Wine Country Drive (B82), the requirements of section 2.119 of the Transport and Infrastructure SEPP will be considered in the EIS for this Project	Section 4.2.1.4
	State Environmental Planning Policy (Sustainable Buildings) 2022 Section 3.2 of the Sustainable Buildings SEPP seeks to encourage non-residential developments to be designed with sustainability in mind. When deciding whether to grant development consent, the consent authority must consider energy efficiency, waste reduction, and the use of renewable resources in relation to the Project. As part of the EIS, an assessment will be undertaken on the embodied carbon and waste output of the Project.	Section 4.2.1.5
	Cessnock Local Environmental Plan 2011 The LEP sets out the environmental planning provisions applicable to the Cessnock LGA. The provisions of the Transport and Infrastructure SEPP prevail over the Cessnock LEP with respect to the permissibility of the development.	Section 4.2.2
Mandatory matters for consideration	Pursuant to Section 4.15 of the EP&A Act, the consent authority must consider the following relevant matters for consideration: • relevant environmental planning instruments for the Project including SEPP and LEPs • relevant development control plans • the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality • the suitability of the site for the development • the public interest. These matters will be duly considered and presented within the EIS.	Section 4.2

4.1 Environmental Planning and Assessment Act 1979

4.1.1 Overview

The EP&A Act and EP&A Regulation provide the framework for land use planning and development control in NSW. The EP&A Act and the Regulation is supported by a number of environmental planning instruments (EPIs), which include State Environmental Planning Policies (SEPPs) and LEPs.

Part 4 of the EP&A Act establishes a framework for assessing development that requires consent and categorises development as either *'exempt development'*, *'complying development'*, *'development that requires consent'*, or *'prohibited development'*. The term *'development'* is defined under section 1.5 of the EP&A Act.

4.1.2 Planning approval pathway

BESS projects are considered electricity storage projects and defined as *'electricity generating works'* under the Transport and Infrastructure SEPP, being 'a building or place used for the purpose of electricity storage'. Section 2.36 of the Transport and Infrastructure SEPP states that development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed non-residential zone. The Project is located within the RU2 Rural Landscape land use zone, under the Cessnock LEP, which is a prescribed non-residential zone under section 2.35 of the Transport and Infrastructure SEPP. Electricity generating works are permitted with consent in this land zone. On this basis, the Project is permissible with development consent.

Division 4.7 of the EP&A Act defines development that is SSD and notes that development can be declared as such by an EPI. Pursuant to the Planning Systems SEPP, *'electricity generating works'* are deemed to be SSD if they have an EDC of more than \$30 million. This Project will have an EDC of \$265 million.

Section 4.12(8) of the EP&A Act states that a *'development application for State significant development is to be accompanied by an environmental impact statement prepared by or on behalf of the applicant in the form prescribed by the regulations'*. Part 8, Division 2 of the EP&A Regulation sets out the requirements of an EIS and requires that the content of an EIS is *'subject to the environmental assessment requirements that relate to the EIS'*. Environmental assessment requirements are typically sought through a request for SEARs submitted to the DPHI.

In line with section 4.5 of the EP&A Act, the consent authority for the Project would be the NSW Minister for Planning and Public Spaces or the Independent Planning Commission (IPC) (in the case of greater than 50 public objections to the application, local council objection, and/or reportable political donations made by the proponent in the two years prior to lodgement). As noted in section 4.40 of the EP&A Act, SSD applications are evaluated and determined in line with the requirements of section 4.15 of the EP&A Act. Matters for consideration include relevant EPIs, likely impacts to the built and natural environment and social and economic impacts, submissions made on the application, site suitability and the public interest. These matters will be duly considered and presented within the EIS.

Sections 4.41 and 4.42 of the EP&A Act identify authorisations that are not required for a SSD, and authorisations that cannot be refused, if necessary, for carrying out a SSD, respectively.

A summary of the approval requirements that may relate to the Project has been provided in **Table 4-2**.

Table 4-2 outlines each of the approvals referred to in section 4.42 of the EP&A Act and its applicability to the Project. These approvals, if required, cannot be refused if they are necessary for carrying out the SSD.

Table 4-2: Relevant approval required under section 4.42

Approval	Comment
An aquaculture permit under section 144 of the <i>Fisheries Management Act 1994</i>	The Project would not involve aquaculture. Therefore, no aquaculture permit would be required.
An approval under section 15 of the <i>Mine Subsidence Compensation Act 1961</i>	The Project is not located within a mine subsidence district. An approval under section 15 of the <i>Mine Subsidence Compensation Act 1961</i> would not be required. The site is adjacent to a property which is located in a mine subsidence district.
A mining lease under the <i>Mining Act 1992</i>	The Project does not include any mining activities. A mining lease would not be required.
A production lease under the <i>Petroleum (Onshore) Act 1991</i>	The Project would not involve petroleum production.
An Environment Protection Licence (EPL) under Chapter 3 of the <i>Protection of the Environment Operations Act 1997</i> (for any of the purposes referred to in Section 43 of that Act)	A review of Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i> (POEO Act) was conducted, and the Project would not include any scheduled activities. Consequently, an EPL is not required.
Consent under Section 138 of the <i>Roads Act 1993</i>	The site will be accessed from Old North Road. Old North Road is owned and managed by the Cessnock City Council. The site would be accessed from an existing driveway and as such no approval under the Roads Act will be required.
A licence under the <i>Pipelines Act 1967</i>	No pipelines would be required for the Project and therefore a licence would not be required.

The need for any other approvals or authorisations would be addressed in the EIS.

4.2 Mandatory matters for considerations

4.2.1 State Environmental Planning Policies

The following SEPPs are considered relevant to the Project:

- *State Environmental Planning Policy (Planning Systems) 2021*
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*
- *State Environmental Planning Policy (Resilience and Hazards) 2021*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021*
- *State Environmental Planning Policy (Sustainable Buildings) 2022*

Each of these policies is discussed in further detail below.

4.2.1.1 State Environmental Planning Policy (Planning Systems) 2021

The Planning Systems SEPP applies to the whole of NSW.

Chapter 2 of the Planning Systems SEPP relates to State and Regional development and aims to identify development that is significant to the State. Part 2.2 of the Planning Systems SEPP relates to development that is declared SSD. Pursuant to section 2.6(1) of the Planning Systems SEPP, development is declared to be SSD for the purposes of the EP&A Act if:

- a. *The development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the [EP&A] Act, and*
- b. *The development is specified in Schedule 1 or 2 [of the Planning Systems SEPP].*

As discussed in **Section 4.1.2**, the Project is declared as SSD under section 2.6 of the Planning Systems SEPP. Furthermore, section 2.10 of this SEPP states that Development Control Plans (DCPs) do not apply to SSDs.

4.2.1.2 State Environmental Planning Policy (Biodiversity and Conservation) 2021

The chapters of *State Environmental Planning Policy (Biodiversity and Conservation) 2021* (Biodiversity and Conservation SEPP) relevant to the Project, include:

- Chapter 2: Vegetation in non-rural areas
- Chapter 3: Koala habitat protection 2020.

The application of each chapter is discussed in further detail below.

Chapter 2 Vegetation in non-rural areas

Chapter 2 of the Biodiversity and Conservation SEPP relates to vegetation in non-rural areas. The aims of Chapter 2 are the protection of the biodiversity values of trees and other vegetation in non-rural areas of the State and the preservation of the amenity of non-rural areas of the State through preserving trees and other vegetation.

The Biodiversity and Conservation SEPP does not apply to the Cessnock City Council LGA, the 'RU2 Rural Landscape' land use zone is not listed under the list of applicable land zones (**Section 2.3**).

As this section of SEPP is not applicable to the site, it is not discussed further in this scoping report.

Chapter 3 Koala habitat protection 2020

The aim of Chapter 3 of this policy is to encourage the conservation and management of areas of vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of population decline. This chapter of the SEPP applies only to land zoned 'RU1 Primary Production', 'RU2 Rural Landscape' and 'RU3 Forestry', within LGAs specified in Schedule 2 of Chapter 4.

The site is zoned 'RU2 Rural Landscape' and the City of Cessnock LGA is listed under Schedule 2. As such, the provisions of this chapter apply to the Project.

The preliminary ecological assessment undertaken for the Project by Wildthing Environmental Consultants concluded that the site does not constitute 'Potential Koala Habitat', therefore no further consideration of this chapter of the SEPP is required. Further assessment of the potential impact of the Project on koala habitat will be undertaken as part of the EIS.

4.2.1.3 State Environmental Planning Policy (Resilience and Hazards) 2021

The objective of the *State Environmental Planning Policy (Resilience and Hazards) 2021* (Resilience and Hazards SEPP) is to provide state-wide planning approach to resilience and hazards. The chapters of Resilience and Hazard SEPP relevant to the Project, include:

- Chapter 3: Hazardous and offensive development
- Chapter 4: Remediation of land.

The application of each chapter is discussed in further detail below.

Chapter 3 Hazardous and offensive development

The aim of this chapter is to ensure that, in considering any development application to carry out potentially hazardous or offensive development, the consent authority has sufficient information to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimise any adverse impact (among others).

Part 3 of Chapter 3 of the Resilience and Hazards SEPP applies to industrial developments that are considered *'potentially hazardous or offensive industry'*. The definition of a potentially hazardous industry and potentially offensive industry is provided in section 3.2 of the Resilience and Hazards SEPP.

Development that constitutes a potentially hazardous industry must be accompanied by a Preliminary Hazard Analysis (PHA). Section 3.12 sets out the matters that the consent authority must consider.

For development proposals classified as *'potentially hazardous industry'* the SEPP (and DPHI's *Hazardous and Offensive Development Application Guidelines – Applying SEPP 33* (January 2011)) establish a test by way of a preliminary screening assessment and PHA to determine the risk to people, property and the environment. The EIS would include an assessment of the potential hazards and risk of the Project in accordance with the requirements of the Resilience and Hazards SEPP.

Chapter 4 Remediation of land

The objective of Chapter 4 is to provide a state-wide planning approach to the remediation of contaminated land, where the purpose of remediation of contaminated land is to reduce the risk of harm to human health or any other aspect of the environment. Pursuant to section 4.6(1), *'a consent authority must not consent to the carrying out of any development on land unless-*

- (a) it has considered whether the land is contaminated, and*
- (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
- (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.'*

Furthermore section 4.6(2) states that *'before determining an application for consent to carry out development that would involve a change of use on any of the land specified under subsection (4), the consent authority must consider a report specifying the findings of a preliminary investigation of the land concerned carried out in accordance with the contaminated land guidelines.'*

The EIS would consider contamination risks (based on historic land use and other relevant matters) and appropriate mitigation measures for managing and dealing with any potential contaminated material that may be encountered on site (but which would not preclude the intended land use).

4.2.1.4 State Environmental Planning Policy (Transport and Infrastructure) 2021

The aim of Chapter 2 of the Transport and Infrastructure SEPP is to facilitate the effective delivery of infrastructure across the State. The application of this chapter in relation to the Project is outlined below.

The site is zoned 'RU2 Rural Landscape' under the Cessnock City LEP. This land use zone is defined as a 'prescribed non-residential zone' for the purpose of considering the permissibility of electricity generating works. Under section 2.36 of the Transport and Infrastructure SEPP, the Project is considered permissible with consent at the site.

Section 2.48 of this policy relates to determination of development applications that are likely to affect an electricity transmission or distribution network. Specifically, section 2.48(1) applies to development applications that may impact electricity transmission or distribution networks. This includes projects involving excavation near power lines or substations, development within or adjacent to electricity easements, or the underground placement of power lines without an existing agreement.

Before approving such developments, the consent authority must notify the electricity supply authority, allowing them to assess potential safety risks. Any response received within 21 days must be considered in the determination process.

The Project is located on property owned by Ausgrid and will connect to an Ausgrid substation (Ausgrid's 132 kV Rothbury Zone Substation - refer to **Section 3.0**). No easements or leases are required.

Section 2.119 of the Transport and Infrastructure SEPP relates to development in or adjacent to road corridors and road reservations. The objectives of this section are to ensure that development near classified roads does not interfere with their operation, safety, or efficiency, while also minimising the impact of traffic noise and vehicle emissions on adjacent land uses.

Before granting consent for development fronting a classified road, the consent authority must ensure that:

- Vehicular access is provided via an alternative road where practicable and safe
- The design and operation of the development do not negatively impact the safety, efficiency, or function of the classified road
- The development is either not sensitive to traffic noise and emissions or incorporates measures to mitigate potential impacts.

As mentioned in **Section 2.2**, B82 Wine Country Drive traverses the eastern boundary of the site, and Old North Road traverses the southern boundary of the site. Wine Country Drive is a classified road under the *Roads Act 1993* and Old North Road is a council-managed road. As such, the requirements under section 2.119 of the Transport and Infrastructure SEPP must be considered as part of this Project. The EIS will address these matters.

4.2.1.5 State Environmental Planning Policy (Sustainable Buildings) 2022

Chapter 3 of the *State Environment Planning Policy (Sustainable Buildings) 2002* (Sustainable Buildings SEPP) provides standards for non-residential development. Of relevance to the Project, section 3.2 requires the consent authority considers sustainability measures when assessing non-residential developments. Key considerations include minimising construction waste, improving energy efficiency, incorporating passive design, enabling renewable energy generation and storage, monitoring energy use, and reducing potable water consumption.

Furthermore section 3.2 (2) indicates that development consent must not be granted unless the consent authority is satisfied with the embodied emissions relating to the development have been quantified.

As part of the EIS, an assessment will be undertaken on the embodied carbon of the Project.

4.2.2 Cessnock Local Environmental Plan 2011

The Project is located on land that is zoned 'RU2 Rural Landscape' under the Cessnock LEP (refer to **Figure 4-1**). The objectives of the 'RU2 Rural Landscape' land use zone, as stated in the LEP are:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base
- To maintain the rural landscape character of the land
- To provide for a range of compatible land uses, including extensive agriculture
- To enable other compatible forms of development that are associated with rural activity and require an isolated location or support recreation
- To ensure the type and intensity of development is appropriate in relation to the rural capability and suitability of the land

- To maintain and enhance the scenic character of the land
- To ensure development does not create unreasonable or uneconomic demands for the provision or extension of services or infrastructure by public authorities
- To minimise disturbance to the landscape from development caused by vegetation clearing, earthworks, access roads and construction of buildings
- To ensure development does not intrude into the skyline when viewed from a road or other public place.

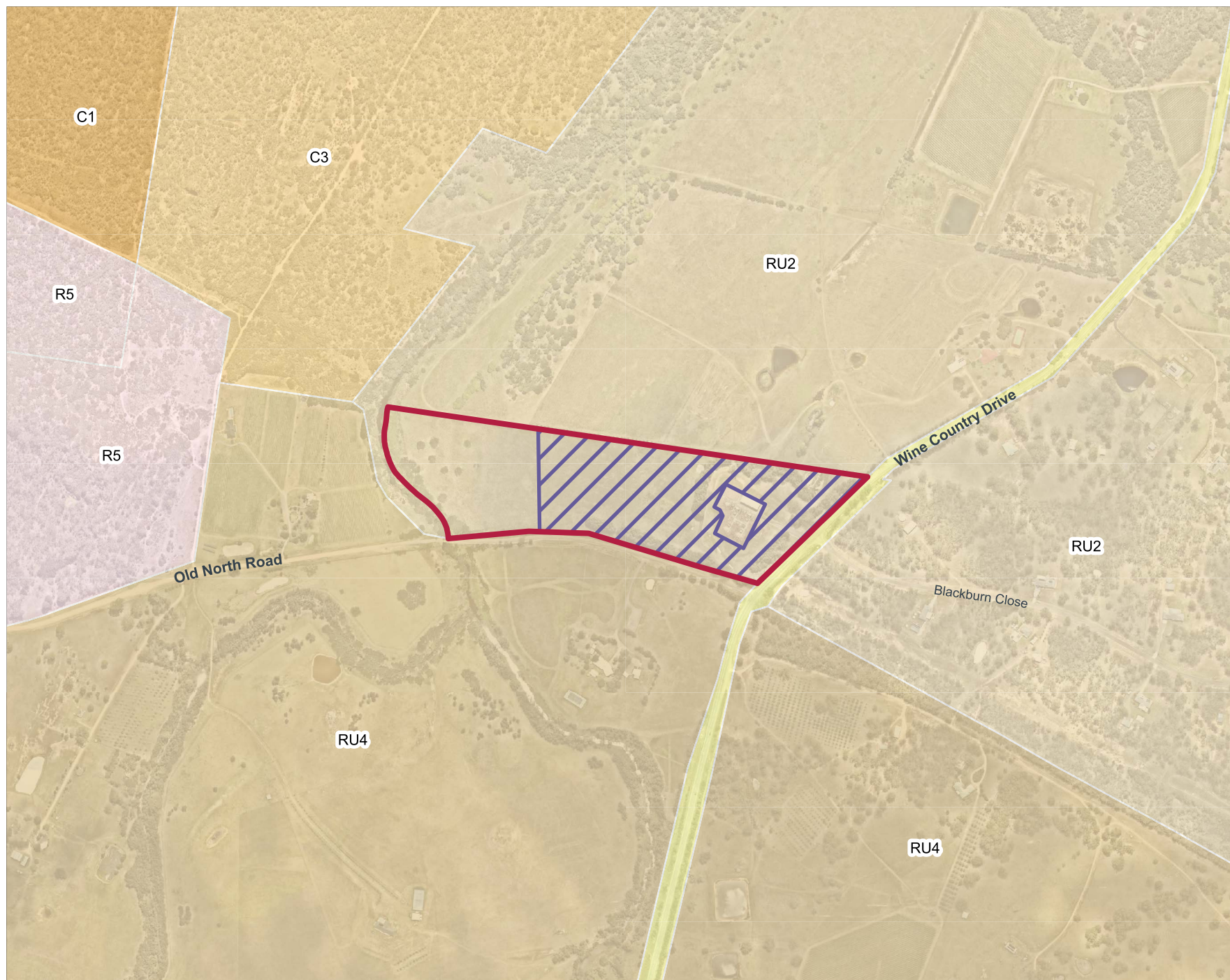
The Project is characterised as ‘*electricity generating works*’, which is permissible with consent under the LEP. Regardless, permissibility for the Project is achieved through the application of section 2.36 of the Transport and Infrastructure SEPP, which prevails over the Cessnock LEP.

In addition to permissibility, the principal development standards and other local provisions under the LEP have been considered in **Table 4-3**.

Table 4-3: LEP Provisions

LEP Provision	Compliance
Clause 4.1 Minimum subdivision of lot size	Subdivision is not proposed at part of the Project. The lot will be subdivided prior to construction, the subdivision will be undertaken by the applicant under a separate process.
Clause 4.2 Rural subdivision	Subdivision is not proposed as part of the Project.
Clause 4.3 Height of buildings	The site does not have a maximum building height under the LEP. As such, this principal development standard does not apply to the Project.
Clause 4.4 Floor space ratio	The site does not have a floor space ratio under the LEP. As such, this principal development standard does not apply to the Project.
Clause 5.3 Development near boundaries	The site is located on land zoned as RU2 and is on the boundary of an area zoned as RU4. The Project is permissible in both RU2 and RU4.
Clause 5.10 Heritage conservation	The site is not mapped under the LEP to contain any objects, items or sites of heritage significance.
Clause 5.21 Flood Planning	The western portion of the lot is mapped as falling within the 1 in 100 year flood extent by the Cessnock City Council LEP. The majority of the lot also falls within a Flood Planning Area and the entire lot is located within an area mapped as being inundated as part of the ‘Probable Maximum Flood’. The EIS will consider the potential of the Project to affect, and be affected by, flooding.
Clause 5.22 Special flood considerations	The BESS may be considered as a hazardous development, due to its location in the 1 in 100 year flood extent. This matter will be considered within the EIS.
Clause 7.1 Acid sulfate soils	The site is not mapped under the LEP as a potential acid sulfate soils area. This clause will therefore not be considered further during the EIS.
Clause 7.2 Earthworks	Earthworks will be required for the construction of the BESS. The EIS will consider matters relevant to earthworks under clause 7.2 of the LEP.

FIGURE 4-1:
LAND ZONING



Legend

- The site
- Project Area

LEP Land Zoning

- C1 - National Parks and Nature Reserves
- C3 - Environmental Management
- R5 - Large Lot Residential
- RU2 - Rural Landscape
- RU4 - Primary Production Small Lots
- SP2 - Infrastructure

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4.3 Other relevant NSW legislation

4.3.1 Aboriginal Land Rights Act 1983

The *Aboriginal Land Rights Act 1983* (ALR Act) was established to provide land rights to Aboriginal persons, as well as provide for representative Aboriginal Land Councils to vest land in those Councils. The ALR Act, is administered by the NSW Department of Aboriginal Affairs and establishes a compensatory regime, which recognises that land is of spiritual, social, cultural and economic importance to Aboriginal people. The ALR Act established the NSW Aboriginal Land Council (NSWALC) and a network of over 120 Local Aboriginal Land Councils (LALCs) and requires these bodies to:

- *Take action to protect the culture and heritage of Aboriginal persons in the LALC's area, subject to any other law*
- *Promote awareness in the community of the culture and heritage of Aboriginal persons in the LALC's area.*

LALCs constituted under the ALR Act can make claims in respect of 'claimable Crown Land'. The Registrar of the ALR Act must maintain the Register of Aboriginal Land Claims under section 166 of the ALR Act. All land claims that have been made under the ALR Act are recorded in the Register. The site is owned by Ausgrid and is not Crown Land.

4.3.2 National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NPW Act), administered by DCCEEW NSW, is the primary legislation for the protection of Aboriginal cultural heritage in NSW. The NPW Act gives the Chief Executive responsibility for the proper care, preservation and protection of 'Aboriginal objects' and 'Aboriginal places', defined as follows:

- An *Aboriginal object* is any deposit, object or material evidence (that is not a handicraft made for sale) relating to Aboriginal habitation of the area that compromises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction (and includes Aboriginal remains)
- An *Aboriginal place* is a place so declared by the Ministers under section 84 of the NPW Act because in the opinion of the Minister, the place is or was of special significance with respect to Aboriginal culture. It may or may not contain Aboriginal objects.

An Aboriginal Heritage Impact Permit (AHIP) is required under section 90 of the NPW Act before harming or desecrating an Aboriginal object, otherwise, such action is an offence under the NPW Act. Despite this, under section 4.41 of the EP&A Act, an AHIP is not required for SSD. Instead, potential impacts to Aboriginal heritage are typically managed under Aboriginal Cultural Heritage Assessment Reports (ACHARs). An Aboriginal due diligence assessment has been completed for the Project, with the results summarised in **Section 6.6**. The western region of the Project Area was identified as having a moderate potential for subsurface archaeological deposits (Apex Archaeology, 2024).

An ACHAR will be prepared for the EIS.

4.3.3 Water Management Act 2000

The *Water Management Act 2000* (WM Act) establishes a framework for managing water in NSW. Section 91 of the WM Act discusses activity approvals and notes that there are two types of approvals, namely controlled activity approvals and aquifer interference approvals.

The WM Act specifies certain activities as controlled activities when carried out on waterfront land. This is defined as within 40 m of the banks of a river, lake or estuary (or are prescribed by the regulations). The Project Area is located in excess of 40 m from Black Creek, there are however two small farm dams located within 40 m of the Project Area.

Despite this, a controlled activity approval for this Project would not be required by virtue of section 4.41 of the EP&A Act. This section of the EP&A Act specifies certain approvals that are not required for SSD, including an activity approval under section 91 of the WM Act. This section of the EP&A Act, however, does not remove the requirement for obtaining an aquifer interference approval. Separate exemptions

under the *Water Management (General) Regulation 2018* may apply to the requirement for an aquifer interference approval or water access licence.

The impacts of the Project to surface water, water quality and flooding would be assessed as part of the EIS.

4.3.4 Protection of the Environment Operations Act 1997

The objectives of the POEO Act include to rationalise, simplify, and strengthen the regulatory framework for environment protection. Chapter 3 of the POEO Act outlines the specific circumstances under which an EPL must be obtained.

Schedule 1 of the POEO Act provides a list of activities for which an EPL would be required. Clause 17 of Schedule 1 lists general electricity works as a scheduled activity where they exceed the capacity to generate 30 MW. The Project does not involve the generation of electricity. Instead, the Project stores and releases electricity that has already been generated elsewhere. Accordingly, an EPL is not required for the Project.

4.3.5 Contaminated Land management Act 1997

The general object of the *Contaminated Land Management Act 1997* (CLM Act) is to establish a process for investigating and (where appropriate) remediating land that the EPA considers to be contaminated enough to require regulation under Division 2 of Part 3 of the CLM Act. A search of the NSW EPA contaminated land database (undertaken on 12 March 2025) confirmed that the site is not listed as a notified contaminated site under the CLM Act. Further assessment will be undertaken to support the EIS, which would be based on ground investigation.

Section 60 of the CLM Act also includes a ‘duty to notify’ where significant contamination is identified. This section would be relevant if any previously unidentified contamination is encountered that exceeds notification thresholds.

4.3.6 Biodiversity Conservation Act 2016

The purpose of the *Biodiversity Conservation Act 2016* (BC Act) is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development (as described in section 6(2) of the *Protection of the Environment Administration Act 1991*).

Section 7.9(2) of the BC Act states that a development application for SSD is to be accompanied by a biodiversity development assessment report (BDAR) (as defined under section 7.1 of the BC Act), unless both the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values.

Based on the disturbed nature of the Project Area, which is largely dominated by introduced grassland, it is likely that the Project would not result in significant impacts on biodiversity. Regardless, a BDAR will be undertaken as part of the EIS.

4.3.7 Roads Act 1993

The *Roads Act 1993* (Roads Act) confers certain functions (in particular, the function of carrying out road work) on Transport for NSW (TfNSW) and other roads authorities, among others. Section 7 of the Roads Act defines the respective road authorities depending on the classification of the road.

Of relevance to this Project are:

- Old North Road, a local road and therefore under the management of Cessnock City Council
- B82 Wine Country Drive, a classified road and therefore under the management of TfNSW.

Section 138 of the Roads Act relates to works and structures, *whereby a person must not erect a structure or carry out a work in, on or over a public road... otherwise than with the consent of the appropriate road's authority*. The Project will not require works within road reserve areas. As such, it is unlikely that approval under section 138 of the Roads Act would be required.

4.3.8 Heritage Act 1977

The *Heritage Act 1977* (NSW) aims, among other things, to promote an understanding of heritage, encourage conservation and provide for protection of NSW State heritage. State and/or local heritage significance can relate to historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values of a place, building, work, relic, moveable object or precinct. No heritage items were identified under the NSW State Heritage Register or Cessnock LEP within the site.

4.4 Commonwealth legislation

4.4.1 Airports Act 1996 and Airports (Protection of Airspace) Regulations 1996

The *Airports Act 1996* (Airports Act) and the *Airports (Protection of Airspace) Regulation 1996* (Airports Regulation) establishes a framework for the protection of airspace at and around airports. Cessnock Airport, located 7.7 km south of the Project Area, is the closest airport/ airfield to the site. Singleton Military area is located approximately 12.4 km north-west of the site. Luskintyre Airfield is located 9.8 km north-east of the Project Area. Cessnock Airport, Singleton Military area and Luskintyre airfield do not meet the definition of 'airports' to which Part 12 of the Airports Act applies. As such, the Airports Act and Airports Regulation do not apply.

Notwithstanding the above, the Project would involve the potential use of temporary cranes during construction. Guidance related to the operation of cranes and tall structures in the vicinity of airports and airfields is provided by the Civil Aviation Safety Authority (CASA), pursuant to AC 139.E-01v1.0 – CASA Advisory Circular – Reporting of Tall Structures (Advisory Circular), 2021. Due to the risk posed by tall structures to low flying aircraft the RAAF and Airservices Australia need to be informed of any tall structures in excess of 30 m from ground level within 30 km of an aerodrome or structures in excess of 45 m elsewhere. The Project Area is located within 30 km of the Cessnock Airport, Singleton Military Area and Luskintyre airfield. As such, the requirements of the Advisory Circular will be applicable.

Ausgrid will consult with the RAAF and Airservices Australia with respect to the potential impact on Cessnock Airport, Singleton Military area and Luskintyre Airfield that may result from the use of cranes during Project construction.

4.4.2 Environment Protection and Biodiversity Conservation Act 1999

Section 18 of the EPBC Act requires a proponent of a development or action to obtain approval from the Commonwealth Minister for the Environment and Water when undertaking an activity which is likely to cause a significant impact to a Matter of National Environmental Significance (MNES). MNES include threatened species or ecological communities listed under the EPBC Act.

If the Project is likely to result in a significant impact on a MNES, a referral to the Commonwealth Minister for the Environment and Water would be required to determine whether the Project is a controlled action or can be undertaken in a particular manner to adequately mitigate potential impacts. If the Project constitutes a controlled action the activity will be subject to further assessment before a determination is made by the Minister regarding whether the action can be carried out, generally subject to conditions.

A search of the EPBC Act Protected Matters Search Tool (PMST) was undertaken on 06 June 2025 for a 10 km buffer around the Project Area. The search identified the Project Area is located 20-30 km upstream of a Ramsar wetland (Hunter estuary wetlands). Eight threatened ecological communities, 57 threatened species and 11 listed migratory species were identified as having the potential to occur within a 10 km radius of the Project Area.

The results of the Protected Matters search for the Project Area are provided in **Table 4-4**. The Protected Matters search report can be viewed in **Appendix B**.

The Project does not meet the requirements for referral under the EPBC Act as it is not expected to result in significant impacts to MNES. While the PMST identified the presence of threatened species, ecological communities, and a Ramsar wetland within the broader area, the Project Area itself is disturbed reducing the likelihood of significant habitat value.

Table 4-4: MNES within 10 km of the Project Area

MNES	MNES within 10 km of the Project Area
World Heritage Properties	None
National Heritage Places	None
Wetlands of International Importance	None, however, the site is located 20 – 30 km upstream from a Ramsar site (Hunter estuary wetlands)
Great Barrier Reef Marine Park	None
Commonwealth Marine Area	None
Listed Threatened Ecological Communities	8
Listed Threatened Species	57
Listed Migratory Species	11

4.4.3 Native Title Act 1993

The *Native Title Act 1993* (NT Act) provides for the recognition and protection of native title for Aboriginal peoples and Torres Strait Islanders. The NT Act recognises native title for land over which native title has not been extinguished and where persons are able to establish continuous use, occupation or other classes of behaviour and actions consistent with a traditional cultural possession of those lands. The NT Act also makes provision for Indigenous Land Use Agreements (ILUA) to be formed, as well as a framework for notifying native title stakeholders for certain future acts on land where native title has not been extinguished.

A search of the National Native Title Tribunal Register was undertaken on 12 March 2025 using the National Native Title Tribunal online system. The search returned no active or historic claims associated with the site. As all land within the site is either freehold or the subject of a 'previous exclusive possession act', native title rights will not be impacted by the Project.

5.0 Engagement

5.1 Introduction

Ausgrid seeks to establish and maintain authentic relationships with the community and interested stakeholders through consultation and effective communications from an early stage of the Project. This is to ensure the community are meaningfully included during the planning and development phases of the Project. Ausgrid will provide updates to the local community and stakeholders at key milestones as the Project progresses, with the aim to demonstrate the commitment to transparency and accountability.

Early stakeholder and community engagement has been delivered to introduce the Project to nearby landowners, local council, Members of Parliament and the local community to inform the preparation of this scoping report. A comprehensive engagement program is planned in the coming months to:

- Inform the development of the Project and preparation of the Environmental Impact Statement
- Ensure interested stakeholders and local community are aware of the Project and understand its potential impacts and benefits, prior to the submission of the scoping report.

Ausgrid's engagement program is based on International Association of Public Participation's (IAP2) Spectrum of Public Participation and aligned to the requirements of DPHI, *Undertaking Engagement Guidelines for State Significant Projects* (March 2024). It will deliver effective engagement that is accessible and inclusive for those potentially impacted or interested in the Project and clearly identifies what is negotiable and how feedback will be considered.

The objectives of Ausgrid's community engagement relating to the Project are to:

- Inform interested and potentially impacted landowners, businesses, communities and stakeholders about the design, development and potential impacts of the Project
- Build and develop community and key stakeholder relationships
- Provide information about the planning approval process
- Encourage stakeholder participation in engagement processes
- Mitigate reputational risk, through timely, clear and transparent communications and engagement
- Obtain government, community and stakeholder input for consideration in development of the Project
- Identify and understand community and stakeholder priorities and concerns so they can be considered in the ongoing development and delivery of the Project.

Section 5.2 below outlines the consultation that has been completed to date. **Section 5.3** outlines the proposed consultation that would take place as part of the preparation of the EIS. The outcomes of consultation outlined under **Section 5.3** will be included in the EIS and relevant technical studies.

5.2 Engagement carried out

5.2.1 Landowner letters and meetings

The Project site is some distance from the nearest towns and surrounded by large, residential blocks or agri-business properties. Ausgrid identified 34 nearby landowners surrounding the Project site and issued a letter via their letterbox, introducing the Project and offering a meeting with the Project team. Where possible, property owners were contacted by email or phone to introduce the Project and book an introductory meeting with the Project team. To date, 19 meetings with property owners have been held.

5.2.2 Community newsletter

Ausgrid distributed the first Rothbury BESS community newsletter to 116 residential properties and 1 business in a 2km radius of the proposed Project Area on 20 March 2025. The newsletter outlined key information about the Project, including a location map and the planning and approval process.

It also included information about the Project's dedicated phone number, email address and website, as well as information about planned community information sessions in Cessnock on 29 March 2025 and in Branxton on 5 April 2025 (see table 5-2). **Figure 5-1** shows the distribution area.



FIGURE 5-1:
NEWSLETTER DISTRIBUTION
AREA - MARCH 2025

- Legend**
-  The site
 -  Project Area
 -  Newsletter distribution area

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This area was used to identify stakeholders and sensitive receivers, noting that the closest residential properties are 240 m to the west of the Project site and the closest business property is 250 m south of the Project site. Six sensitive receivers live or operate within 1.5 km of the Project site.

5.2.3 Project webpage

A dedicated webpage was established for the Project, outlining the purpose and location of the proposed Rothbury BESS. The webpage also includes a copy of the community newsletter, Project FAQs, a 'What is a BESS?' fact sheet, Project contact details (dedicated phone number and email) and an early planning community survey that remains active.

As of 8 April 2025, there have been 879 webpage views, by 452 unique visitors in total, with 78 document downloads and 12 survey submissions.

This page will continue to be updated as the Project progresses.

5.2.4 Pop-up information sessions

Two pop-up information sessions were held at local shopping centres to introduce the Project to local community and capture feedback. Across two sessions, about 40 local community members were engaged and discussed the proposal with the Project Team. Details and feedback are outlined in **Table 5-1**.

5.2.5 Preliminary online survey

An online survey was opened on 20 March 2025 to capture feedback about community concerns and values, early in the Project. To date, 12 responses have been received. The preliminary findings are discussed in **Section 5.3**.

5.2.6 Consultation activities record

The consultation activities highlighted in **Table 5-1** have been delivered to introduce stakeholders and community to the Project and provide opportunity to answer questions and understand key concerns.

Table 5-1: Scoping report consultation activities

Stakeholder	Date	Details
Adjacent properties/landowners (within 1.5km)		
1274 Wine Country Drive, Lovedale 2325	13 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
Lucy's Run Wines (Business)	18 March 2025	Outgoing phone call to organise landowner briefings to be held 20 March and 21 March. No booking made.
	19 March 2025	Follow up email sent offering available meeting times for 20 and 21 March.
	21 March 2025	Phone call meeting with landowner to provide a briefing about the Project, answer questions and discuss ongoing engagement.
1337 Wine Country Drive, Rothbury 2320 (Residential)	13 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	21 March	Follow up email sent offering available meeting times for 20 and 21 March.
	20 March 2025	Incoming voice mail left to Project team by landowner requesting a call back. Phone call returned by Project team, meeting confirmed for 21 March over the phone.
	21 March 2025	Phone call meeting with landowners to provide a briefing about the Project, answer questions and discuss ongoing engagement.

Stakeholder	Date	Details
	24 March 2025	Incoming phone call conversation with landowner regarding property maintenance and Project information sheets to be provided. Community newsletter and BESS fact sheet emailed to landowner following phone conversation.
	27 March 2025	Incoming phone call conversation with landowner to provide update on requested property maintenance.
	7 April 2025	Outgoing phone call conversation with landowner to provide outcome of property maintenance request.
1338 Wine Country Drive, Rothbury 2320 (Residential)	13 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
1356 Wine Country Drive, Rothbury 2320 (Residential)	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	3 April 2025	Outgoing phone call to landowner to provide Project information and offer a briefing. The information was appreciated and noted however a briefing was declined.
1364 Wine Country Drive, Rothbury 2320 (Residential)	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
1368 Wine Country Drive, Rothbury 2320 (Residential)	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
1401 Wine Country Drive, Rothbury 2320	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
Scarborough Cottage (Accommodation)	17 March	Follow up phone outgoing call and email to Stays Hunter Valley with digital letter seeking to provide Project briefing for the landowner, to be forwarded to property owner.
	19 March 2025	Follow up email sent offering available meeting times for 20 and 21 March.
1406 Wine Country Drive, Lovedale 2325	13 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
Stoic Legion Archery Range	18 March 2025	Follow up outgoing phone call attempted to offer a briefing. Project team left a message.
	19 March 2025	Follow up email sent offering available meeting times for 20 and 21 March.
	28 March 2025	Outgoing phone call to landowner to provide Project information and offer a briefing. No response.
22 Blackburn Close, Lovedale 2325 (Residential)	13 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	18 March 2025	Outgoing phone call to landowner to provide Project information and offer a briefing. No response.
	19 March 2025	Incoming phone call by landowner to Project team. No message left.
	20 March 2025	Phone conversation held confirming briefing with landowner for 21 March.

Stakeholder	Date	Details
	21 March 2025	Meeting with landowner at Cessnock Library headquarters to provide a briefing about the Project, answer questions and discuss ongoing engagement.
27 Blackburn Close, Lovedale 2325 (Residential)	13 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	17 March 2025	Incoming voice message left by landowner requesting callback. Phone call returned by Project team, landowner briefing booked for 21 March.
	19 March 2025	Email sent to landowners to confirm briefing for 21 March.
	21 March 2025	Meeting with landowners at Cessnock Library headquarters to provide a briefing about the Project, answer questions and discuss ongoing engagement.
39 Blackburn Close, Lovedale 2325 (Residential)	3 April 2025	Outgoing phone call to landowner to provide Project information and offer a briefing. Voice message left. No response.
60 Blackburn Close, Lovedale 2325 (Residential)	13 March 2025	Sent a letter via email/post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	20 March	Voicemail received from landowner requesting landowner briefing. Project team returned the phone call, booking in a briefing for 21 March.
	21 March 2025	Meeting with landowners at Cessnock Library to provide a briefing about the Project, answer questions and discuss ongoing engagement.
61 Blackburn Close, Lovedale 2325 (Residential)	3 April 2025	Outgoing phone call to landowner to provide Project information and offer a briefing. Briefing booked for 4 April at Cessnock City Council.
	4 April 2025	Meeting with landowners at Cessnock Library to provide a briefing about the Project, answer questions and discuss ongoing engagement.
80 Blackburn Close, Lovedale 2325 (Residential)	21 March 2025	Meeting with landowners at Cessnock Library to provide a briefing about the Project, answer questions and discuss ongoing engagement.
497 Talga Road, Lovedale 2325 Villini Estate	13 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	18 March 2025	Follow up outgoing phone call attempted to offer a briefing. Project team left a message.
	19 March 2025	Follow up email sent offering available meeting times for 20 and 21 March.
	28 March 2025	Outgoing phone call to landowner to provide Project information and offer a briefing. No response.
521 Talga Road, Lovedale 2325	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
2 The Ballabourneen, Lovedale 2325	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.

Stakeholder	Date	Details
3 The Ballabourneen, Lovedale 2325 (Residential)	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	3 April 2025	Outgoing phone call to landowner to provide Project information and offer a briefing. Landowner confirmed they had received Project information, noted no concerns and declined offer.
15 The Ballabourneen, Lovedale 2325	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
24 The Ballabourneen, Lovedale 2325 Ballabourneen Estate	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	19 March 2025	Follow up email sent offering available meeting times for 20 and 21 March.
26 The Ballabourneen, Lovedale 2325	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
27 The Ballabourneen, Lovedale 2325	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
28A The Ballabourneen, Lovedale 2325 (Residential)	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	19 March 2025	Voicemail received from landowner requesting landowner briefing at Cessnock City Library for 21 March.
	21 March 2025	Meeting with landowners at Cessnock Library to provide a briefing about the Project, answer questions and discuss ongoing engagement.
28B The Ballabourneen, Lovedale 2325	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
29 The Ballabourneen, Lovedale 2325	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
30 The Ballabourneen, Lovedale 2325	14 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
728 Old North Road, Rothbury 2320 Sascha's Retreat	13 March 2025	Sent a letter via post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	18 March 2025	Outgoing phone call to organise landowner briefings to be held 20 March and 21 March. No booking made.
	19 March 2025	Follow up email sent offering available meeting times for 20 and 21 March.
	20 March 2025	Outgoing phone call to organise landowner briefings to be held 20 March and 21 March. Landowner interest but no booking made.
	28 March 2025	Outgoing phone call to organise landowner briefings to be held 4 April. Over the phone briefing finalised.
	4 April 2025	Meeting over the phone landowner to provide a briefing about the Project, answer questions and discuss ongoing engagement.

Stakeholder	Date	Details
778 Old North Road, Rothbury 2320 Ayrfield Cabin at the Olive Grove	13 March 2025	Sent a letter via email/post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	18 March 2025	Outgoing phone call to organise landowner briefings to be held 20 March and 21 March. Project team left a voice message.
	19 March 2025	Follow up email sent offering available meeting times for 20 and 21 March.
	20 March 2025	Outgoing phone call to organise landowner briefings to be held 20 March and 21 March. Project team left a voice message. No response
803 Old North Road, North Rothbury, 2320 Black creek farm (Vineyard)	13 March 2025	Sent a letter via email/post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	17 March 2025	Email received detailing concerns regarding proposed Project and requesting landowner briefing. Voice message left by landowner requesting callback. Phone call returned, landowner briefing booked for 21 March.
	19 March 2025	Email sent to landowners to confirm briefing for 21 March.
	21 March 2025	Meeting with landowner at Cessnock Library to provide a briefing about the Project, answer questions and discuss ongoing engagement.
864 Old North Road, Rothbury 2320 Quambatook House	12 March 2025	Sent a letter via email/post to outline the Project and offer a meeting (virtual or in-person) to discuss further.
Elected officials and Local Government		
Cessnock City Council	24 February 2025	Sent a letter via email to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	13 March 2024	Meeting with Cessnock City Council to provide a briefing about the Project, answer questions and discuss ongoing engagement. Provided copy of letter the Project had sent out to landowners alongside the newsletter distributed to wider community
Office of Clayton Barr MP, Member for Cessnock	24 February 2025	Sent a letter via email to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	13 March 2025	Meeting with the Member for Cessnock to provide a briefing about the Project, answer questions and discuss ongoing engagement.
Office of Dan Repacholi MP, Member for Hunter	24 February 2025	Sent a letter via email to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	13 March 2025	Meeting with the Member for the Hunter to provide a briefing about the Project, answer questions and discuss ongoing engagement.

Stakeholder	Date	Details
Regulatory and planning agencies		
DPHI	9 April 2024	Met with DPHI representatives to outline the Project, work to date and proposed timeline. Discussed benefits of wider stakeholder engagement prior to submitting the scoping report
AEMO	26 July 2024	Meeting to discuss BESS strategy and connections process, with positive response.
First Nations engagement		
Mindaribba LALC	17 March 2025	Sent a letter via email, and to the office of Mindaribba LALC to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	19 March	Dropped into Mindaribba LALC office to follow up on offer of meeting (virtual or in-person).
State Government Agencies		
Fire & Rescue NSW	9 April 2024	Meeting with discuss process for initiating Fire Safety Study for Ausgrid Grid Scale BESS projects ahead of SSDA determination, and to introduce broader strategy.
Utilities		
Transgrid	8 February 2024	Ausgrid and Transgrid meet monthly. In February, Ausgrid flagged intention to pursue BESS connections.
	21 June 2024	Submitted Non-Prescribed DNSP work request for Transgrid's assessment and response.
NBN	7 January 2025	Before You Dig notification to utility of interest in the site.
Telstra	7 January 2025	Before You Dig notification to utility of interest in the site.
Surrounding community (within 2km radius)		
Rothbury, North Rothbury and Lovedale communities	20 March 2025	Newsletter distributed to inform broader community of the Project and promoting upcoming information sessions.
	29 March 2025	Community information session held at Cessnock Village Shopping Centre. A total of 18 community members were engaged.
	5 April 2025	Community information session held at Huntlee Shopping Centre. A total of 22 community members were engaged.
Hunter Valley Wine and Tourism Association	18 March 2025	Sent a letter via email to outline the Project and offer a meeting (virtual or in-person) to discuss further. Chief Executive Officer replied seeking a briefing on behalf of the development.
	25 March 2025	Chief Executive Officer replied seeking a briefing on behalf of the development for 28 March. Meeting booked.
	28 March 2025	Online meeting with Hunter Valley Wine and Tourism CEO to provide a briefing about the Project, answer questions and discuss ongoing engagement.

Stakeholder	Date	Details
Aria Hunter Valley (Residential development)	18 March 2025	Sent a letter via email to outline the Project and offer a meeting (virtual or in-person) to discuss further.
	24 March 2025	Email correspondence with Aria Estate representative providing available times for online briefing.
	25 March 2025	Aria Estate representative confirmed online meeting for 28 March 2025.
	28 March 2025	Online meeting with Aria Estate to provide a briefing about the Project, answer questions and discuss ongoing engagement.

5.2.7 Consultation key findings to date

There has been a moderate level of community interest in the Project, as shown by engagement at community pop ups, the high number of visits and downloads at the dedicated webpage and number of landowner meetings held to date. Broadly, there is mixed sentiment about the Project. The sentiment toward the Project is balanced. Positive sentiment is focused on expressing support for enabling the energy transformation, diversifying job opportunities and the Project's location next to a substation, on Ausgrid-owned land. Negative feedback focused primarily on fire risk, impacts to 'wine country' and scepticism about the benefits of renewable energy and grid-scale batteries.

The key feedback from meetings with 17 landowners from nearby properties is that they are mostly appreciative of the early efforts to inform them about the Project. Key concerns relate to potential Project impacts on local tourism, community health and safety, and fire risk. Nearly half (9) of landowners expressed some concerns about the potential impacts of the Project, but were interested in the benefits of improved grid stability and reliability, while enabling the energy transition.

Three meetings took place with key stakeholders in the area: Cessnock City Council, Aria Hunter Valley and Hunter Valley Wine and Tourism.

- Cessnock City Council was interested in the Project and how Ausgrid planned to engage with the local community. Council were interested in potential impacts on local wineries and the criteria behind the selection of the Rothbury Zone Substation as a site for BESS. Other important discussion points included the ongoing collaboration with Fire and Rescue NSW and concerns related to traffic impacts on local roads
- Aria Hunter Valley accepted a briefing from Ausgrid showing interest in understanding the Project. An overview of the Rothbury BESS proposal was provided and the representative from Aria did not express any concerns, and acknowledged the value of the early engagement
- The Hunter Valley Wine and Tourism Association also accepted a Project briefing and their representative was interested in understanding the Project and how it differed from other energy infrastructure in the area. The Association representative appreciated the value of early engagement and shared concern around the potential for engagement fatigue in the local community due to the amount of development that is ongoing in the area. Concerns about impacts to 'wine country' from a number of projects in the area was raised.

Local residents engaged at pop-up information sessions and responses via the online survey have provided similar feedback. Sentiment and support is mixed, though largely positive. Key concerns include impacts on traffic, noise and vibration, visual amenity, fire risk and safety. While there is some appreciation for engaging early in the process, many local community members expressed interest in understanding potential impacts in more detail.

5.2.8 Revised consultation approach, based on feedback to date

The Community and Stakeholder Engagement Plan (CSEP) (see **Appendix C**) outlines the engagement approach for the Project across three key phases: early engagement to inform this scoping report, engagement to inform the preparation of the EIS, and engagement to promote the public exhibition period, facilitated by the NSW Planning Portal. Monitoring and evaluation are embedded in Ausgrid's engagement principles and incorporated in the framework of the CSEP.

Following initial engagement activities, some revisions have been made to the engagement approach that will be delivered during EIS preparation:

- Additional communications to close the loop with community and stakeholders, following engagement in March and April. An update to the dedicated Project website will provide a summary of what we have heard to date
- Additional opportunities to brief Cessnock City Council as the Project progresses
- Proactive engagement with local media, following Project feature on NBN News on 29 March 2025.

The Project will continue to provide Project information on a dedicated webpage and opportunity to provide feedback in multiple ways, via:

- An online survey
- Dedicated Project email address or phone number
- In-person, pop-up information sessions.

Monitoring and evaluation of engagement activities will be measured against key metrics of engagement reach and ability to capture feedback and adapted as required.

5.3 Engagement to be carried out

5.3.1 Broader community consultation

5.3.2 Community and stakeholder engagement plan

Ausgrid has developed a CSEP for delivery during the preparation of the scoping report. The CSEP is provided in **Appendix C**. The outcomes of the consultation will be included in the scoping report and relevant technical studies. The purpose of the CSEP is to ensure ongoing engagement and effective communication with key stakeholders and the community during the development of the Project.

Aligned to Ausgrid's objectives for consultation during the next phase of the Project aims to:

- Obtain government, community and stakeholder input for consideration in development of the Project
- Understand community and stakeholder priorities and concerns so they can be considered in the ongoing development and delivery of the Project.

Ausgrid has selected a site that minimises environmental and community impact, based on its location, existing use and proximity to connect to the existing electricity infrastructure.

The aspects of the Project that are negotiable relate to understanding potential impacts and proposed safeguards to mitigate environmental and community impacts, if required, including:

- Traffic and access mitigation strategies
- Noise and vibration mitigation strategies
- Visual amenity mitigation strategies.

Future planned consultation activities with community and stakeholders includes:

- Ongoing briefings and meetings
- Community newsletters

- Online survey
- Pop-up information sessions
- Dedicated Project webpage with factsheets and FAQs
- Dedicated Project email and phone line.

The engagement plan for the Project is outlined below in **Table 5-2**.

5.3.3 Agency Consultation

Agency consultation will be undertaken with the relevant stakeholder groups identified within the CSEP (refer to **Section 5.3.2**). Details of the engagement carried out, and the outcomes of the consultation will be included in the EIS.

Table 5-2: Community engagement plan

Timing	Activity	Engagement methods and tools	Purpose	Target audience
Early consultation – EIS preparation				
May-June 2025	Stakeholder meetings	• Letter and email • Meeting (in-person or virtual) • Phone call	• Provide updates about the Project, answer previous questions if any • Outline EIS process and potential impacts • Understand concerns, risks and issues, and potential mitigations	• Elected officials and local government • Non-government organisations, utilities and government agencies • Neighbouring and nearby businesses and properties
June-July 2025	Community newsletter and webpage updates	• Website, establish dedicated phone number and/or email • Newsletter • Factsheets	• Inform about the Project and potential impacts and SSDA pathway • Promote upcoming opportunities for community engagement	• Surrounding neighbours and landowners • Neighbouring businesses
July- August 2025	Community Pop-up	• Factsheets • Information boards • Feedback forms (hard copy and online)	• Inform about the Project, potential impacts and SSDA pathway • Understand community values and priorities, concerns, risks and issues, and potential mitigations, and capture feedback • Explain EIS exhibition and engagement process to encourage participation	• Surrounding residential community • Neighbouring businesses

Timing	Activity	Engagement methods and tools	Purpose	Target audience
	Stakeholder meetings	- Letter and email - Meeting (in-person or virtual) - Phone call	- Provide update about the Project, answer previous questions if any - Respond to any feedback previously provided - Understand concerns, risks and issues, and potential mitigations	- Non-government organisations, utilities and government agencies - Neighbouring and nearby businesses and properties
August – September 2025	Webpage update	- Website and factsheet - Letters, emails and phone calls to registered stakeholders	- Thank community and stakeholders for feedback - Provide update to the Project timeline and next steps for engagement, as needed	- Non-government organisations, utilities and government agencies - Neighbouring and nearby businesses and properties - Surrounding residential community
October 2025	Community newsletter and webpage updates	- Community newsletter - Website and factsheet - Digital advertising and social media - Letters, emails and phone calls to registered stakeholders	- Announce EIS submission and provide details for NSW Planning Portal - Overview of key feedback provided and how it has been used to shape the Project - Outline next steps (exhibition) and invite feedback, via Planning Portal	- Non-government organisations, utilities and government agencies - Neighbouring and nearby businesses and properties - Surrounding residential community
EIS exhibition period				
Upon exhibition start	Stakeholder letter	Stakeholder letter	- Announce EIS exhibition period and invite feedback via Planning Portal - Offer briefing or meeting to continue to discuss concerns, issues and opportunities	All stakeholders that have had meetings to date
	Webpage update	- Website – updated content - Media release	- Announce EIS exhibition period and invite feedback via Planning Portal - Promote engagement activities and key dates	- Surrounding community - Adjacent properties

Timing	Activity	Engagement methods and tools	Purpose	Target audience
During EIS exhibition period	Stakeholder meetings, as required	- Face-to-face meeting - Phone call - Briefing packs	- Provide update on previous issues and questions raised, overview of relevant EIS content - Understand concerns, issues and risks - Encourage to provide formal feedback via Planning Portal	All stakeholders that have had meetings to date
	Webpage update	Website – updated content	Direct interested stakeholders and community to the NSW Planning Portal	All stakeholders
Post - EIS exhibition period				
Following end of exhibition period	Stakeholder letter	Stakeholder letter	- Summarise feedback and engagement to date, thank for contributions - Outline how feedback has been and next steps	All stakeholders that have had meetings to date
	Webpage and community update	- Website update - Newsletter - Media release	- Summarise engagement activities, key themes and outcomes - Outline how feedback has been used and next steps	- Surrounding community - Neighbouring businesses

6.0 Proposed Assessment of Impacts

6.1 Introduction

The identification of issues to be addressed in the EIS has been undertaken through a risk-based approach in accordance with the *State significant development guidelines – preparing a scoping report* (DPIE, 2022). This process involved reviewing previous reports, undertaking targeted investigations including site inspections), and desktop searches of relevant environmental databases between July 2024 and March 2025 to identify key issues and sensitive areas. A summary of the key environmental matters identified during the risk assessment is provided in **Section 6.3**, through to **Section 6.9**. Other matters for consideration are identified in **Section 6.10**. A scoping summary table is provided in **Appendix A**.

The intent of the discussion below is to demonstrate the Proponent's understanding of the relevant environmental matters and the need for further assessment, as well as the requirement for the implementation of mitigation measures for these matters. An overview of relevant environmental constraints is shown on **Figure 6-1**.

6.2 Preliminary mitigation strategies

During the development of the Project, consideration has been given to avoidance of potential environmental and community impacts. Preliminary environmental investigations have been undertaken to identify environmental constraints and recommend measures to avoid or minimise impacts of the Project. Where avoidance is not practicable or feasible, the EIS would include mitigation and management measures to address potential adverse impacts incurred during construction and/or operation.

Preliminary mitigation strategies which would be expanded on in the EIS include:

- Ensuring that the Project layout avoids sensitive environmental features
- Avoiding the clearance of habitat where possible
- Minimising soil contamination during the construction period through the correct storage of hazardous materials, maintenance of construction vehicles and equipment to avoid hydrocarbon leaks and spills
- Minimising the extent of excavation and amount of material stockpiled on site to reduce potential impacts associated with erosion
- Siting the BESS to minimise potential flooding impacts
- Avoiding areas of the site that have potential for Aboriginal archaeological significance where possible
- Taking practical steps to prevent bushfires and the spread of bushfires such as postponing electrical or hot works during a Total Fire Ban.

6.3 Biodiversity

6.3.1 Existing environment

The site is located in the Sydney Basin Bioregion and Hunter Sub-bioregion.

A preliminary ecological assessment of the site was completed in June 2024. The assessment found the site is highly disturbed by previous agricultural activities, the construction of the Rothbury Zone Substation and associated infrastructure, as well as the colonisation of the site by exotic grasses such as *Eragrostis curvula* (African Lovegrass) and *Hyparrhenia hirta* (Coolatai Grass).

Four vegetation assemblages occur within the site: planted native screening vegetation, introduced perennial grasses, coastal valleys swamp oak riparian forest (PCT 4023) and aquatic dam. The planted native screening vegetation was composed of mixed native species which were planted around the

Rothbury Zone Substation in 2007. A number of introduced climber species including the invasive *Cardiospermum grandiflorum* (Balloon Vine) are present in this vegetation. Introduced perennial grassland covers the majority of the site, consisting largely of introduced perennial grasses. Coastal Valleys Swamp Oak Riparian Forest is located along Black Creek in the eastern portion of the Project Area. Two small, constructed dams are located within the Project Area. Common native species found near to the dams include *Ludwigia peploides* subsp. *montevidensis* (Water Primrose) and *Persicaria decipiens* (Slender Knotweed). Common introduced species include *Cenchrus clandestinus* (Kikuyu) and *Paspalum dilatatum* (Paspalum).

6.3.2 Potential impacts

The construction and operation of the Project may affect habitat for potential threatened fauna species in the locality. The following impacts upon biodiversity have been considered as having potential to occur during the construction of the Project:

- Loss of habitat from the removal of native vegetation
- Loss of habitat features including tree hollows, fallen logs, leaf litter etc.
- Loss of habitat connectivity, within or through the site
- Direct disturbance to fauna from noise and/or light spill
- Injury or mortality of faunal species, particularly slower moving species due to construction activities and use of vehicles on site
- The facilitation of the spread of invasive species
- Erosion and loss of topsoil
- Impacts on aquatic vertebrate species such as turtles and eels from direct and indirect impacts on farm dams
- Change in water quality to Black Creek from increased sediment load in stormwater run-off (increased turbidity or electrical conductivity) or contamination resulting from construction activities
- Indirect impacts to biodiversity values off-site.

6.3.3 Assessment approach

A BDAR would be prepared to support the EIS in accordance with NSW *Biodiversity Conservation Act 2016* requirements.

An impact assessment will be carried out to evaluate possible impacts to MNES identified, in accordance with the Commonwealth Significant Impact Criteria 1.1.

**FIGURE 6-1:
ENVIRONMENTAL
CONSTRAINTS**

Legend

- The site
- Project Area

Vegetation (Wildthing Environmental Consultants, 2024)

- Aquatic dams
- Introduced perennial grasses
- PCT 4023 coastal valley
swamp oak riparian forest
- Planted native screen

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6.4 Soils, groundwater and contamination

6.4.1 Existing environment

Soils

The site is not mapped as an Acid Sulfate Soils area. The site is located within the Braxton (bx) Soil Landscape which consists of undulating hills and rises on with many small creeks. The underlying geology is the Farley Formation, Rutherford Formation. Mulbring Siltstone, Muree Sandstone, Branxton Formation and Singleton Coal Measures (Apex Archaeology, 2024).

Groundwater

The site is not mapped as a groundwater dependant ecosystem (GDE). Black Creek, which traverses the western boundary of the site, is mapped as a high and moderate potential terrestrial GDE. No extraction of groundwater is proposed for the construction or operation of the BESS.

Contamination

The Project will occur on land that has been highly disturbed by historic agricultural activities and construction of the Rothbury Zone Substation and associated infrastructure.

6.4.2 Potential impacts

The following impacts upon soils, groundwater and contamination have been considered as having potential to occur during the construction and operation of the Project:

- Excavations, earth movement and vegetation removal may cause soil erosion and sedimentation (including the potential for sediment laden run-off)
- Potential impacts to the hydrological functioning of Black Creek due to sedimentation
- Vehicle movement may cause soil compaction, or disturbance and dispersion of soil including dust generation
- Potential for chemical and fuel spills during construction and/or operation, which may result in localised contamination of soils and groundwater.

6.4.3 Assessment approach

A desktop contamination assessment would be undertaken, reviewing historical land uses, existing contamination reports, and regulatory databases to determine potential contamination risks. The assessment would be prepared in accordance with the *Contaminated Land Guidelines: Consultants Reporting on Contaminated Land* (NSW EPA, 2020), the *National Environment Protection Measure (Assessment of Site Contamination)* (NEPC, 2013) and other relevant guidelines. Investigation works will be documented in the EIS. Measures to manage potential contamination risks will be identified, if required.

A qualitative assessment will be conducted to evaluate potential soil erosion and sedimentation risks, particularly in relation to earthworks and runoff affecting Black Creek. This assessment would discuss key potential impacts and outline management approaches and would be in accordance with the Blue Book (Landcom, 2004).

The depth of groundwater for the site will be determined as part of the EIS and will be used to inform the design of the BESS.

6.5 Surface water and flooding

6.5.1 Existing environment

Climate

The site is located within a temperate climatic region, where there is a 'wet' (November to March) and 'dry' (April to October) season (BoM 2025). The average annual rainfall is 752 mm.

Surface water

The site is located in the Black Creek sub-catchment and Greater Hunter River Catchment. No prescribed streams or waterbodies are located within the site. Black Creek traverses the site along the western boundary and flows north to south.

There are two constructed dams within the site - one located in the north-east corner of the lot and the other located just beyond the impact area to the west of the planted screening vegetation.

There are no wetlands of National or International (Ramsar wetlands) within close proximity to the site. The closest Ramsar wetlands are located within the Kooragang Nature Reserve 40 km south-east of the site. The closest wetlands of national importance are located at Ellalong Lagoon, approximately 22.2 km south of the site.

Flooding

The site is located within the 1 in 100 year flood extent of Black Creek (Cessnock City Council, 2025). Flooding of the site may therefore occur.

6.5.2 Potential impacts

The Project has the potential to affect the quality and quantity of surface water during construction and operation. The following surface water impacts have been considered as having potential to occur during construction and/or operation of the Project:

- Accidental spill or discharge of chemicals or hydrocarbons, such as fuels and oils in vehicles and/or equipment with the potential to contaminate surface water and/or groundwater
- Erosion of soil and sedimentation through run off and transport of eroded sediments to waterways particularly during high rainfall events
- Flooding during construction of the BESS resulting in the inundation of the construction site and increased flood hazard for construction workers. Flooding during the operational phase has the potential impact the BESS and associated infrastructure.

6.5.3 Assessment approach

Potential impacts to surface water quality and flooding on surrounding land, including impediments to the flow of water will be considered in the EIS. The impact assessment would include:

- An assessment of the potential construction impacts related to surface water and water quality. The Project's potential impact on surface water flows, water quality and stormwater requirements during operation will also be considered
- The NSW Flood Risk Management Manual and associated Flood Impact and Risk Assessment Guideline (LU01) typically require assessment of potential operational flood impacts across a range of flood events up to and including the PMF. This will be assessed as part of the EIS in a surface water and flooding assessment. The EIS will also include a qualitative assessment of flooding impacts during construction
- The EIS will also quantify and identify sources of water required for construction and operation of the Project.

6.6 Aboriginal heritage

6.6.1 Existing environment

The Project is located within the Wonnarua Local Aboriginal Land Council area.

The Aboriginal Heritage Due Diligence Assessment prepared by Apex Archaeology (2024) found historical ground disturbance was low to moderate, with the western portion of the Project Area having lower levels of disturbance. It was identified that there is a moderate potential for subsurface archaeological deposits to occur at depth within the western portion of the Project Area. A search of the Aboriginal Heritage Information System (AHIMS, 2022) for the site in March 2025 did not identify previously registered Aboriginal sites within 200 m.

6.6.2 Potential impacts

The Project Area has experienced low to moderate historical disturbance from agricultural activities. An Aboriginal heritage due diligence assessment did not identify any Aboriginal objects within the Project area. However, the assessment did identify a Potential Archaeological Deposit (PAD) across the western extent of the Project Area, which is considered to have moderate potential for subsurface archaeological material.

6.6.3 Assessment approach

An ACHAR and consultation with Registered Aboriginal Parties will be completed as part of the preparation of the EIS. The ACHAR would be prepared to meet the likely requirements of the SEARs. The SEARs are expected to require an assessment of the Aboriginal heritage values of the Investigation Area in accordance with Heritage NSW's *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* and *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW*. Accordingly, archaeological survey of the site and an assessment of cultural values would be undertaken, with the outcomes of the ACHAR summarised in the EIS. Evidence of consultation in determining and assessing impacts, option selection, and mitigation measures will also be provided as part of the ACHAR.

6.7 Noise and vibration

6.7.1 Existing environment

The existing ambient noise sources at the site are from the operation of the current substation, and vehicles on Wine Country Drive and Old North Road. The closest airfield is the Cessnock Aerodrome located approximately 7.7 km south of the Project Area and provides occasional noise from air traffic.

Sensitive receivers within 500 m of the Project Area are:

- Residential/commercial guest house located 280 m south
- Residential properties located 400 m and 420 m east
- Vineyard and tasting facilities located 350 m west.

6.7.2 Potential impacts

The following noise and vibration impacts have been considered as having potential to occur during construction and operation of the Project:

- Construction noise and vibration associated with earthworks and construction activities
- General operational noise from the Project (including the operation of cooling fans for the BESS).

6.7.3 Assessment approach

A Noise and Vibration Impact Assessment (NVIA) will be prepared as part of the EIS.

The NVIA will be undertaken in accordance with the requirements of the applicable legislation, policies and guidelines, including:

- Interim Construction Noise Guideline (Department of Environment, Climate Change and Water, 2019)
- NSW Noise Policy for Industry (EPA, 2017)
- NSW Road Noise Policy (DECCW, 2011)
- NSW EPA Guideline Assessing Vibration: A Technical Guideline (AVTG) (DEC, 2006)
- The German Standard DIN 4150 Part 3-2016 Structural Vibration – Effects of vibration on structures (Deutsches Institute for Normung, 1999).

The NVIA will assess the potential noise and vibration impacts from the Project during the construction and operational phases. Baseline monitoring will be used to determine background noise levels and establish site-specific noise criteria. The NVIA will model Project noise emissions to understand the

magnitude of the potential impacts and to support reasonable and feasible mitigation measures, as required.

6.8 Traffic and transport

6.8.1 Existing environment

The site is bordered by Old North Road to the south and Wine Country Drive (B82) to the east, with existing site access from Old North Road. Wine Country Drive is a classified road which connects Cessnock in the south to Branxton in the north. Old North Road is a council-managed road. **Figure 6-2** shows the local transport network surrounding the site and the existing access points.

The closest bus stop to the site is located at Branxton, approximately 5.7 km north of the Project Area. The bus routes available from this stop are Hamilton to Telarah, Maitland, then all stops to Lochinvar, Scone and Muswellbrook, then all stops to Maitland. The closest rail connection is Branxton Station, located approximately 5.7 km north of the Project Area.

6.8.2 Potential impacts

The proposed works may result in the following traffic impacts on the Project:

- Construction of the Project would generate increased traffic volumes on nearby roads. This would include both light-duty vehicles used to transport workers and materials, as well as heavy vehicle movements to transport equipment
- During operation, the Project would generate low levels of traffic and mainly involve light vehicle movements for personnel
- Potential cumulative impacts with other construction projects, where the projects construction periods overlap.

Following transport and traffic studies as part of the EIS, any required upgrades to the local road network will be assessed.

Operation of the Project is not expected to affect the capacity of the local road network.

6.8.3 Assessment approach

A transport impact assessment will be undertaken for the EIS to consider traffic impacts during construction and operation. The assessment would be informed and undertaken in accordance with the Project SEARs. Any road upgrades would be confirmed in the transport assessment.

The assessment would consider proposed routes and swept paths for any oversized vehicles required, outline expected traffic volumes during construction, assess the capacity of the existing road network to accommodate construction traffic, and provide mitigation measures as appropriate.

As part of the assessment, the requirement for a Road Occupancy Licence (ROL) will be determined. Consultation with TfNSW and Cessnock City Council will be undertaken where required. Mitigation measures will be identified as required.

As operation of the Project is not expected to affect the capacity of the local road network, operational impacts will be considered in a qualitative manner only.

The transport impact assessment will include a standard assessment of cumulative impacts of the Project as per the *Cumulative Impacts Assessment Guidelines for State Significant Development Projects* (DPIE, 2022).

FIGURE 6-2:
EXISTING TRANSPORT NETWORK



Legend

- The site
- Project Area
- Primary road
- Local road
- Site access point

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6.9 Hazards and risk

6.9.1 Existing environment

6.9.1.1 Bushfires

The Project is located within an area that is mapped as bushfire prone land (category 3) which represents grassland and low-risk vegetation. While these areas typically present a lower intensity fire risk compared to forested or shrubland environments, grassfires can spread rapidly under hot, dry, and windy conditions. Bushfire risk is heightened during periods of drought or extreme weather, where dry grasses become more flammable and can act as a fuel source for fast-moving fires.

6.9.1.2 Environmental Hazards

Installation, commissioning, and operation of a BESS can present hazards associated with overheating, fire, hazardous chemicals and gas emissions.

The Project is located within an area containing limited environmental hazards, the most notable of which is the existing Rothbury Zone Substation and associated transmission line.

6.9.1.3 Electromagnetic fields

Electric and magnetic fields (EMFs) are associated with a range of sources and occur both naturally and as a result of human activity. Sources of EMF include power lines, electrical wiring, and electrical appliances, therefore people are constantly exposed to EMFs in their home and work environments.

The major existing source of EMF is the Rothbury Zone Substation and overhead transmission infrastructure located adjacent to the Project.

6.9.2 Potential impacts

6.9.2.1 Bushfire

During construction, earthworks, machinery operation, and potential ignition sources could increase the risk of bushfire outbreaks, particularly in dry and windy conditions. The presence of flammable materials and disturbed vegetation may also contribute to fire spread, posing risks to nearby infrastructure, workers, and surrounding areas.

While the Project Area is not heavily vegetated, the presence of grasslands presents a potential bushfire risk that could impact the construction and operation of the Project. The Project would be designed to meet relevant bushfire resilience standards, with appropriate asset protection zones and emergency response measures in place.

6.9.2.2 Environmental hazards

Installation, commissioning, and operation of BESS can present hazards associated with fire and/or the release of hazardous chemicals and gas emissions.

Specifically, environmental hazards may include the risk of fire associated with thermal runaway of LiFeP04 battery units. Hydrogen release is possible under fault conditions and could result in a potential fire/explosion hazard.

6.9.2.3 Electromagnetic fields

The BESS would generate significantly lower levels of EMF compared to the existing Rothbury Zone Substation, and is therefore unlikely to produce EMF at levels of concern.

6.9.3 Assessment approach

A Bushfire Assessment will be prepared as part of the EIS in accordance with *Planning for Bushfire Protection 2019* (NSW RFS). The assessment will identify bushfire hazards, evaluate potential risks to the BESS infrastructure, and recommend mitigation measures, such as asset protection zones, fire-resistant design, and emergency response procedures.

A PHA would be prepared as an appended technical report to the EIS to assess potential environmental hazards from the BESS facility, including EMF. The PHA would be prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 4 – Hazard Analysis* (HIPAP 4), and *Hazardous Industry Planning Advisory Paper No. 6 – Hazard Analysis* (HIPAP 6). Relevant controls to avoid or

reduce the likelihood and/or consequence of these hazards would be identified to ensure risks are acceptable.

The Project's detailed design will seek to minimise risk from hazards through the provision of suitable spacing between the battery units (as recommended by the manufacturer) and through the provision of adequate space for fire-fighting access.

6.10 Other matters

This section provides an overview of other environmental matters that, based on existing information and description of the Project, would require limited or no further assessment in the EIS.

Table 6-1: Summary of relevant information for issues and other environmental matters

Environmental matter	Existing environment	Potential Impacts	Level of assessment / assessment approach
Non-Aboriginal heritage	A search of the State Heritage Inventory and Cessnock LEP was undertaken in December 2024 to determine the location of registered or known non-Aboriginal heritage items within or in close proximity to the site. The closest non-Aboriginal heritage item to the Project Area is locally significant Old North Road remnant (I177) located approximately 160 m south-east of the site, on the eastern side of Wine Country Drive on Lot 1274 and 1294 on Talga Road.	The locally significant Old North Road remnant (I177) is located on the eastern side of Wine Country Drive and there is no public access to its location. It is therefore unlikely that the Project will result in any direct impact to the item. Due to the proximity of the site to the Old North Road remnant, there is a possibility that unrecorded remanent archaeology could occur on the site.	The EIS would include an assessment to potential impacts on non-Aboriginal heritage. This would be undertaken within the body of the EIS.
Social and economic impacts	The Project is located within the Cessnock City Council LGA which has a population of approximately 63,632 (ABS 2021). The closest urban area is North Rothbury, which is located approximately 4 km to the north. The main employment industries within the Cessnock LGA are accommodation and food services, retail trade, health care and social assistance, education, training and manufacturing (Cessnock City Council, 2020). The Project is located in Hunter Valley wine region. There are numerous vineyards and wine estates either directly off Wine Country Drive or accessed off minor roads which connect to Wine Country Drive. Wine Country Drive is therefore an important route for tourism.	A preliminary social impact scoping exercise has been undertaken to identify the likely social impacts and benefits of the Project. This involved an initial desktop assessment in the form of a Social Impact Assessment Scoping Worksheet, in accordance with the Social Impact Assessment Guideline for Major Projects (DPIE, 2023). The completed worksheet, which outlines potential social and economic impacts can be viewed at Appendix D. The following social and economic impacts have been considered as having potential to occur during the construction and operation of the Project. Positive: • The employment of a construction workforce • Some job creation during the operation of the Project	A social impact assessment would be prepared as part of the EIS. This report would be prepared in accordance with the Social Impact Assessment Guideline for Major Projects (DPIE, 2023). The result of this report would be summarised within the body of the EIS.

Environmental matter	Existing environment	Potential Impacts	Level of assessment / assessment approach
		- Benefits to nearby businesses such as increased passing trade from construction workers and business trade opportunities during operation and maintenance activities. Negative: - Temporary disruptions to road users and potential changes to access for businesses - Visual impact on the surrounding area - Noise from the operation of the BESS - Impacts to nearby residents, businesses and tourist facilities from construction activity such as increased noise and vibration, dust, and construction traffic.	
Air quality and greenhouse gases	A search of the National Pollutant Inventory (NPI) maintained by DCCEEW, identified the closest source of emissions to be the Hunter Bottling Company located approximately 6.4 km west of the Project Area. Other existing sources of air pollution would include vehicle emissions from vehicles using Wine Country Drive and the associated road network and emissions from vehicles and machinery in operation at wine estates within the region.	Excavation has the potential to generate dust resulting in short term, localised impacts to air quality during construction. The operation of construction machinery has the potential to generate emissions from vehicles, plant and equipment exhausts. The backup diesel generator would generate emissions during use.	The EIS would provide a qualitative air assessment to consider the impacts of the construction and operation of the Project. This would be undertaken within the body of the EIS.
Visual Amenity	The visual character of the site and surrounding area is a mixture of natural vegetation in varying condition, agricultural land uses and existing electricity infrastructure, including the existing substation and overhead powerlines. The surrounding topography is relatively flat.	The following construction elements and activities have the potential to result in visual impacts during construction of the Project: - Removal of vegetation - Construction facilities, including portable structures and laydown areas - Excavations and earthworks - Construction machinery. Construction impacts would be temporary and limited to the duration of the construction period.	A visual impact assessment will be undertaken as part of the EIS to determine the visual impact of the Project on surrounding sensitive receivers. This assessment would form part of the EIS.

Environmental matter	Existing environment	Potential Impacts	Level of assessment / assessment approach
		Nearby residential receivers and accommodation establishments would be visually impacted by the project. Receptors travelling along Wine Country Drive (B82) and Old North Road are likely to have limited views of the site due to existing planted screening vegetation around the Rothbury Zone Substation.	
Waste Management	Not Applicable	Waste would be generated by the Project during both construction and operation, including: • Construction waste including small quantities of hazardous waste such as used oil, paints or chemicals • Green waste from vegetation clearing • General rubbish during operation and construction.	The EIS would provide an assessment of the waste generated during the construction and operation of the Project. This would be undertaken in the body of the EIS.

6.11 Cumulative impacts

Cumulative impacts may arise if the Project is developed concurrently alongside other projects nearby, or where operational impacts of two or more projects affect the same receptor. In this case, the combined impact of these projects may become greater than each project's individual impact.

Cumulative impacts of the Project would be assessed in the EIS. The cumulative assessment would depend on residual impacts from the Project, and the potential of these to generate cumulative impacts with other proposed but not yet operational projects in the vicinity. The cumulative assessments may be qualitative or quantitative depending on the environmental aspect being assessed.

A search of the DPHI Major Projects database was undertaken in June 2025 to identify SSD and SSI projects within 10 km of the Project that may be relevant for the EIS cumulative impact assessment. In June 2025, a search was also completed on the Cessnock City Council's Development Tracker for Development Applications with 1 km of the Project. These are outlined in **Table 6-2**.

Table 6-2: Relevant future projects for cumulative impact assessment

Future Project	Approximate distance to the Project	Project Status / Indicative Timing / Overlap
Huntlee Arcare Seniors Housing	5.5 km	SEARs issued on 19 October 2022. Development of a residential care facility with a total of 96 single bedrooms. The Arcare website states that construction will commence in 2026 (Arcare, 2024). Potential cumulative impacts would be considered in the EIS.
Huntlee New Town – Stage 2	4.5 km	A Concept Master plan for Stage 2 includes Villages 2, 3 and 4 and a large lot residential area located to the south of the site on Old North Road. Development of 1,750 new lots which will largely be residential lots. Detailed subdivision application for Village 2 residential area. Potential cumulative impacts would be considered in the EIS.
Huntlee New Town Stage 1	1.4 km	Construction underway. Development of 1,543 residential units, 8 infrastructure lots and 43 commercial lots. Potential cumulative impacts would be considered in the EIS.
Cedar Mill Hunter Valley	6.5 km	The Cedar Mill proposal comprises of museum, convention and tourism clusters which includes a wine museum, convention space/areas and associated facilities, accommodation, winery, brewery, distillery, artesian produce outlets restaurants and cafes. Potential cumulative impacts would be considered in the EIS.

7.0 Conclusion

Ausgrid proposes to construct and operate a BESS with a capacity of approximately 135 MW adjacent to the Rothbury Zone Substation in Rothbury, NSW.

This scoping report has been prepared in accordance with *State significant development guidelines – preparing a scoping report* (DPIE, 2022), in support of an application for SEARs for the Project.

The matters that have been identified for further detailed assessment during the preparation of the EIS are:

- Biodiversity
- Soils, groundwater and contamination
- Surface water, flooding and water use
- Aboriginal Heritage
- Noise and vibration
- Traffic and transport
- Visual amenity
- Hazards and risk including bush fire risk.

Other matters that will be considered in the EIS are:

- Non-Aboriginal heritage
- Air quality
- Socio-economic impacts
- Waste management.

In preparing the EIS for the Project, the key focus would be avoidance and minimisation of potential impacts on the environment and local communities, where practicable and feasible. Consultation with stakeholders and the local community would continue throughout the Project's assessment, design and construction phases.

It is requested that DPHI confirm the Project as SSD and issue SEARs to facilitate the preparation of an EIS.

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NSW EPA (2017) NSW Noise Policy for Industry. NSW Government Newcastle Local Environment Plan 2012. Available at: <https://legislation.nsw.gov.au/view/html/inforce/current/epi-2012-0255>

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Wildthing Environmental Consultants, June 2024 – Ecological Assessment Report for a proposed Battery Energy Storage Systems at Lot 4 DP 598847 (No. 1309) Wine Country Drive Rothbury NSW

Appendix A

Scoping Summary Table

Appendix A Scoping Summary Table

Matter	Level of assessment	Cumulative impact assessment	Engagement	Relevant government plans, policies and guidelines	Scoping report reference
Biodiversity	Detailed	Yes	General	Biodiversity Assessment Method (Department of Planning, Industry and Environment 2020)	Section 6.3
Soils, groundwater and contamination	Detailed	No	General	<i>National Environment Protection (Assessment of Site Contamination) Measure</i> (National Environment Protection Council 2011) <i>Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997</i> (Environment Protection Authority 2015) <i>Guidelines for the Assessment and Management of Groundwater Contamination</i> (NSW Environment Protection Authority 2007)	Section 6.4
Surface water and flooding	Detailed	No	General	<i>Managing Urban Stormwater: Soils and Construction – Volume 1</i> (Landcom 2004) <i>Australian and New Zealand guidelines for fresh and marine water quality</i> (ANZECC & ARMCANZ 2000)	Section 6.5
Aboriginal heritage	Detailed	No	Specific	<i>Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales</i> (Office of Environment and Heritage 2011) <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents</i> (Department of Environment, Climate Change and Water 2010)	Section 6.6

Matter	Level of assessment	Cumulative impact assessment	Engagement	Relevant government plans, policies and guidelines	Scoping report reference
Noise and vibration	Detailed	No	General	• <i>Noise Policy for Industry</i> (Environment Protection Authority 2017) • <i>Interim Construction Noise Guideline</i> (Department of Environment, Climate Change and Water 2019) • <i>NSW Road Noise Policy</i> (Department of Environment, Climate Change and Water 2011) • <i>Assessing vibration: A technical guideline</i> (Department of Environment, Climate Change and Water 2006)	Section 6.7
Traffic and transport	Detailed	Yes	Specific	• <i>Guide to traffic management Part 12: Integrated Transport Assessments for Developments</i> (Austroads 2020)	Section 6.8
Hazards and Risk	Detailed	No	General	• <i>Planning for Bush Fire Protection</i> (NSW Rural Fire Service 2019) • <i>Assessment Guideline: Multi-Level Risk Assessment</i> (Department of Planning and Infrastructure 2011)	Section 6.9
Non-Aboriginal heritage	Standard	No	General	• <i>Assessing Significant for Historical Archaeological Sites and 'Relics'</i> (Heritage Branch of the Department of Planning 2009)	Section 6.10
Social and economic	Standard	No	Specific	• <i>Social Impact Assessment Guideline – For State Significant Developments</i> (Department of Planning and Environment 2021)	
Air quality	Standard	No	General	• <i>Approved Methods for the Modelling and Assessment of Air Pollutants in NSW</i> (Environment Protection Authority 2016)	
Visual amenity	Standard	No	General	• <i>Guidelines for Landscape and Visual Impact Assessment – 3rd Edition</i> (Institute of Environmental Management and Assessment 2013)	

Matter	Level of assessment	Cumulative impact assessment	Engagement	Relevant government plans, policies and guidelines	Scoping report reference
Waste Management	Standard	No	General	• <i>Waste Classification Guidelines Part 1: Classifying Waste</i> (NSW Environment Protection Authority 2014) • <i>NSW Waste Avoidance and Resource Recovery Strategy 2014-2021</i> (NSW Environment Protection Authority 2014)	

Appendix B

Protected Matters Search Report



Australian Government

Department of Climate Change, Energy,
the Environment and Water

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 06-Jun-2025

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	8
Listed Threatened Species:	57
Listed Migratory Species:	11

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	9
Commonwealth Heritage Places:	None
Listed Marine Species:	23
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	4
Regional Forest Agreements:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	16
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Hunter estuary wetlands	20 - 30km upstream from Ramsar site	In feature area

Listed Threatened Ecological Communities	[Resource Information]
For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps. Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.	

Community Name	Threatened Category	Presence Text	Buffer Status
Central Hunter Valley eucalypt forest and woodland	Critically Endangered	Community likely to occur within area	In feature area
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community may occur within area	In feature area
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	Community may occur within area	In feature area
Hunter Valley Weeping Myall (Acacia pendula) Woodland	Critically Endangered	Community may occur within area	In feature area
Kurri sand swamp woodland of the Sydney Basin bioregion	Endangered	Community likely to occur within area	In feature area
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community may occur within area	In buffer area only
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community likely to occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species			[<u>Resource Information</u>]
Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.			
Scientific Name	Threatened Category	Presence Text	Buffer Status

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area	In feature area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat known to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat known to occur within area	In feature area
Erythroriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat may occur within area	In buffer area only
FROG			
Heleioporus australiacus australiacus Giant Burrowing Frog, Eastern Owl Frog [92013]	Endangered	Species or species habitat known to occur within area	In feature area
Litoria aurea Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat may occur within area	In feature area
Mixophyes balbus Stuttering Frog, Southern Barred Frog (in Victoria) [1942]	Vulnerable	Species or species habitat may occur within area	In buffer area only
MAMMAL			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Chalinolobus dwyeri			
Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat known to occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population)			
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area	In feature area
Notamacropus parma			
Parma Wallaby [89289]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Petauroides volans			
Greater Glider (southern and central) [254]	Endangered	Species or species habitat likely to occur within area	In feature area
Petaurus australis australis			
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area	In feature area
Petrogale penicillata			
Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)			
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area	In feature area
Potorous tridactylus tridactylus			
Long-nosed Potoroo (northern) [66645]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pseudomys novaehollandiae			
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat known to occur within area	In feature area
Pteropus poliocephalus			
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
PLANT			
Acacia bynoeana			
Bynoe's Wattle, Tiny Wattle [8575]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Allocasuarina glareicola [21932]	Endangered	Species or species habitat may occur within area	In buffer area only
Brachyscome brownii [91093]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat likely to occur within area	In feature area
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Eucalyptus glaucina Slaty Red Gum [5670]	Vulnerable	Species or species habitat known to occur within area	In feature area
Eucalyptus parramattensis subsp. decadens Earp's Gum, Earp's Dirty Gum [56148]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Eucalyptus pumila Pokolbin Mallee [16510]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Euphrasia arguta [4325]	Critically Endangered	Species or species habitat may occur within area	In feature area
Grevillea parviflora subsp. parviflora Small-flower Grevillea [64910]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Leionema lamprophyllum subsp. fractum [89743]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Ozothamnus tesselatus [56203]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Persoonia pauciflora North Rothbury Persoonia [67214]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pomaderris brunnea Rufous Pomaderris, Brown Pomaderris [16845]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Prasophyllum sp. Wybong (C.Phelps ORG 5269) a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area	In feature area
Prostanthera cineolifera [11233]	Vulnerable	Species or species habitat known to occur within area	In feature area
Pterostylis gibbosa Illawarra Greenhood, Rufa Greenhood, Pouched Greenhood [4562]	Endangered	Species or species habitat may occur within area	In feature area
Rhizanthella slateri Eastern Underground Orchid [11768]	Endangered	Species or species habitat may occur within area	In feature area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Rutidosis heterogama Heath Wrinklewort [13132]	Vulnerable	Species or species habitat known to occur within area	In feature area
Syzygium paniculatum Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry [20307]	Vulnerable	Species or species habitat may occur within area	In feature area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area	In feature area

REPTILE

Scientific Name	Threatened Category	Presence Text	Buffer Status
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat known to occur within area	In feature area
Delma vescolineata Hunter Valley Delma [92599]	Endangered	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species

[Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area

Migratory Terrestrial Species

Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area

Migratory Wetlands Species

Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat may occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]		
The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.		
Commonwealth Land Name	State	Buffer Status
Commonwealth Trading Bank of Australia		
Commonwealth Land - Commonwealth Trading Bank of Australia [15903]	NSW	In buffer area only
Communications, Information Technology and the Arts - Telstra Corporation Limited		
Commonwealth Land - Telstra Corporation Limited [12640]	NSW	In buffer area only
Commonwealth Land - Telstra Corporation Limited [15572]	NSW	In buffer area only
Unknown		
Commonwealth Land - [12571]	NSW	In buffer area only
Commonwealth Land - [15545]	NSW	In buffer area only
Commonwealth Land - [12547]	NSW	In buffer area only
Commonwealth Land - [16474]	NSW	In buffer area only
Commonwealth Land - [16475]	NSW	In buffer area only
Commonwealth Land - [15958]	NSW	In buffer area only

Listed Marine Species [Resource Information]			
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]		Species or species habitat may occur within area overfly marine area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]		Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sterna striata White-fronted Tern [799]		Migration route may occur within area	In buffer area only
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat may occur within area overfly marine area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat may occur within area overfly marine area	In buffer area only

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Belford	National Park	NSW	In buffer area only
Pokolbin	Flora Reserve	NSW	In buffer area only
Tiraki	Nature Reserve	NSW	In buffer area only
Werakata	National Park	NSW	In buffer area only

Regional Forest Agreements	[Resource Information]
Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.	

RFA Name	State	Buffer Status
North East NSW RFA	New South Wales	In feature area

EPBC Act Referrals					[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status	
Controlled action					
Construction of Train Support Facility and Associated Infrastructure	2009/5243	Controlled Action	Post-Approval	In buffer area only	
F3 to Branxton Link Electricity Adjustments	2007/3814	Controlled Action	Post-Approval	In buffer area only	
Hanwood Stage 5 Residential Development	2010/5443	Controlled Action	Completed	In buffer area only	
New dual carriageway from F3 Fwy to Branxton Link	2007/3431	Controlled Action	Post-Approval	In buffer area only	

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Residential development	2011/5898	Controlled Action	Post-Approval	In feature area
Residential Development - Hanwood Stage 5	2006/2705	Controlled Action	Completed	In buffer area only
Subdivision of portion of Lot 46	2006/2944	Controlled Action	Post-Approval	In buffer area only
The Huntlee New Town	2007/3557	Controlled Action	Post-Approval	In feature area
Upgrade of approx 32km of Main Northern Railway, including construction of 3rd track	2009/4897	Controlled Action	Post-Approval	In buffer area only
Not controlled action				
Hebburn No 2 Colliery	2001/301	Not Controlled Action	Completed	In buffer area only
Hunter Natural Gas Pipeline	2004/1902	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
Singleton Military Area Vegetation Maintenance, Liddel-Killingworth Transmission	2007/3929	Not Controlled Action	Completed	In buffer area only
Vegetation Maintenance, Liddell-Killingworth 330 kV Power Line Easement, Singlet	2002/649	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
Aerial baiting for wild dog control	2006/2717	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Referral decision				
Residential Subdivision of Lot 47 DP 722211	2008/4472	Referral Decision	Completed	In buffer area only
Bioregional Assessments			[Resource Information]	
SubRegion	BioRegion	Website	Buffer Status	
Hunter	Northern Sydney Basin	BA website	In feature area	

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Department of Land and Resource Management, Northern Territory](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- [-Natural history museums of Australia](#)
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- [-Australian Tropical Herbarium, Cairns](#)
- [-eBird Australia](#)
- [-Australian Government – Australian Antarctic Data Centre](#)
- [-Museum and Art Gallery of the Northern Territory](#)
- [-Australian Government National Environmental Science Program](#)
- [-Australian Institute of Marine Science](#)
- [-Reef Life Survey Australia](#)
- [-American Museum of Natural History](#)
- [-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [-Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- [-Other groups and individuals](#)

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact us](#) page.

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Appendix C

Community and Stakeholder Engagement Plan



Wired for good.™

Rothbury Battery Energy
Storage System

Community and Stakeholder Engagement Plan

April 2025



Document control

Document status	Final
Document type	Plan
Approval Authority	Emma Forbes, Stakeholder and Engagement Manager
Release date	April 2025
Review period	Quarterly
Review due by	July 2025

Approved by



Emma Forbes

Stakeholder Engagement Lead

28 April 2025

Revision	Date	Revised by	Description of changes
1.0	February 2025	Joe Ingui and Emma Lannan	Revised implementation plan
2.0	April 2025	Joe Ingui and Emma Lannan	Updated implementation plan

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Acknowledgement of Country

We acknowledge the Traditional Custodians of the lands where the Ausgrid distribution network is located, and we pay our respects to the elders, past, present and emerging. Our network and operations span the traditional country of 17 languages, tribal and nation groups in Sydney, the Central Coast and Hunter regions of New South Wales.

We want to lead and foster a workforce, and approach to our operations, that embraces the learnings, voices, cultures and histories of these Traditional Owners into our own organisation. We acknowledge the profound and enduring contributions of Indigenous peoples to our shared communities and commit to working collaboratively towards reconciliation, justice, and respect for all First Nations peoples. We commit to planning and delivering engagement that is respectful of First Nations people and works toward reconciliation.

Acronyms

ABS	Australian Bureau of Statistics
AEMO	Australian Energy Market Operator
BESS	Battery Energy Storage Systems
CSEP	Community and Stakeholder Engagement Plan
DNBP	Distributed Network Service Provider
EP&A Act	Environmental Protection and Assessment (NSW) Act 1979
EWO	Energy and Water Ombudsman
IAP2	International Association of Public Participation
NEM	National Energy Market
NECF	National Energy Customer Framework
SAL	Suburbs and Localities area for ABS Census data
SEIA	Social Economic Impact Assessment
SEM	Stakeholder Engagement Manager
SSDA	State Significant Development Application

1. Introduction

Ausgrid is proposing grid-scale Battery Energy Storage Systems (BESS) connected to existing Ausgrid zone substations across its network. Grid-scale storage is critical to supporting the continued growth of renewables and broader energy transition, while continuing to ensure a safe and reliable electricity network. Ausgrid is leading the planning, design and approvals processes for BESS sites, with the intention to hand over the construction, operation and maintenance to a third party.

1.1. Plan purpose and objectives

This Community and Stakeholder Engagement Plan (CSEP) outlines the communications and engagement approach for Rothbury BESS (the project). It is intended to guide Ausgrid, and associated representatives and contractors, in the delivery of communication and engagement activities to stakeholders and community impacted by or interested in the Project during the environmental planning and approval stage.

This CSEP will ensure:

- Adjoining landholders, stakeholders and local communities are provided with timely and relevant information about the program, in plain English, and have opportunity to provide feedback.
- Communication to and from landholders and other community stakeholders is adequately documented
- All interested stakeholders are provided with a responsive point of contact for any enquiries, complaints, or suggestions
- Stakeholders with potential interest in the projects are identified and provided with consistent messages about the project and opportunity to be heard
- Minimal disruption to landholders, other impacted stakeholders, and the wider community
- Engagement activities support the program to meet planning approval requirements and secure the required approvals from regulators and decision makers in a timely manner
- Communications procedures and protocols are followed.

The CSEP is a living document and will be updated iteratively at the start and end of project phases, and at key milestones and hold points. The focus of this version is community and stakeholder engagement to support the early planning and approvals process for the Rothbury BESS project.

1.2. Project description

Ausgrid is seeking development consent to facilitate the construction, operation and maintenance of a Battery Energy Storage System (BESS) with a capacity of 135MW at Rothbury. A BESS is a group of large, rechargeable batteries connected to form one very large battery. The proposed location of the BESS is at 1309 Wine Country Dr, Rothbury, NSW, 2320.

The site is located within the Cessnock LGA, approximately 47 km north-west of the Newcastle CBD, and about 14km north of the town of Cessnock. The BESS is on property that is owned by Ausgrid, next to the existing substation. The proposed site has two street frontages, Old North Road and Wine Country Drive. It is surrounded by rural lots. The closest building is about 230m south and is a holiday letting property (classified as commercial). The nearest residential property is 370m to the south east. There is also a housing estate under development 1.5km to the north of the project site. Nearby properties are mostly wineries, holiday properties and residential rural lots.

The Project comprises a BESS facility that would store electricity from the grid and release electricity

during periods of high demand. Key features of the Project would include but not be limited to:

- Construction and operation of a BESS with a capacity of approximately 135MW (construction of the Project may be carried out in stages)
- Connection of the BESS to the Rothbury substation via an underground connection
- Other ancillary infrastructure and services required such as internal access roads, laydown areas, control and operational buildings.
- The Project is expected to result in significant benefits to the State and local community, including:
- Improved network security and diversified energy supply and storage within New South Wales
- Support for increased renewable power generation during daytime peak periods, placing downward pressure on wholesale electricity prices in accordance with the NSW Integrated System Plan
- Support economic development within NSW, through the creation of new jobs during the construction and operation phase.

1.3. Applicable legislation, policy and codes

Federal and state government regulations require all major infrastructure projects to undergo a robust environmental assessment before approval is considered. Projects within the BESS Program will be classified as State Significant Infrastructure under Part 4 of the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act) and Clause 94 of the State Environmental Planning Policy (Infrastructure) 2007.

As an Authorised Network Operator, Ausgrid's engagement is informed by a number of regulatory requirements, listed below. As the project progresses, this table will be updated to reflect changes.

Table 1 Applicable legislation and policy

Act	Description
<i>Electricity Supply Act 1995</i>	• Section 45 requires that written notice of the proposal to carry out works (other than routine repairs or maintenance works) is given to the local council. The relevant local council must be given a reasonable opportunity (40 days from the date on which the notice was given) to make submissions on the proposal. All submissions must be considered prior to the start of the works. A second notification providing at least 21 days' notice to both council and nearby residents (requires that councils be notified and provided with 40 days to comment on certain projects).
<i>Electricity Infrastructure Investment Act 2020 (NSW)</i>	• Section 3 of the EII Act sets out the overall object of the Act which relates to Renewable Energy Zone (REZ) projects. Clause (1) (d) to foster local community support for investment in new generation, storage, network and related infrastructure, and clause (2) to improve employment and consultation with traditional Aboriginal owners of land which infrastructure for HCC REZ may be built and operated on.
<i>Environmental Planning and Assessment Act (NSW) 1979</i>	• Section 5.16 of the EP&A Act outlines the requirements for assessment of a project against the Secretary's Environmental Assessment Requirements (SEARs). SEARs typically include requirements for consultation with stakeholders and community that may be impacted by or have an interest in a project. Further detail is provided in the NSW DPHI <i>Undertaking engagement guidelines for state significant projects (March 2024)</i>
<i>State Environmental Planning Policy (Transport and</i>	• Clauses 2.10-2.12 and 2.14 of the SEPP require that consultation is undertaken with the relevant local council if the development has impacts on council-related infrastructure or services, local heritage, flood liable land or certain land within the coastal zone. • Clause 2.15 of the SEPP requires that consultation is undertaken with relevant public authorities other than council, in certain circumstances.

Infrastructure) 2021	• Clause 2.45 of the SEPP provides that written notification must be given to the relevant local council and the occupiers of adjoining land for development for the purpose of a new or existing electricity substation. Any responses received within 21 days after the notice is given must be taken into consideration; and • The written notification required under the SEPP and the 40-day notification required under the Electricity Supply Act 1994 are usually issued concurrently.
National Energy Customer Framework (NECF) legislation	• Ausgrid must notify customers and retailers at least four clear business days before all planned interruptions unless the customer signs a waiver agreeing for the work to proceed with less notice. The previous notification requirement for this activity was two business days. Breaches of the legislation may attract civil penalties or result in enforceable undertakings being issued against Ausgrid.

1.4. SSDA community participation requirements

In accordance with the EP&A Act, State Significant Developments (SSDs) are required to carry out a comprehensive assessment process that involves extensive community participation. Community participation includes informing, consulting and involving those who are interested in, or affected by, the proposed changes to an area as a result of a program. Community participation also includes obtaining expert advice from relevant public authorities including local, state and federal government agencies.

The NSW Government SSD assessment process is summarised in Figure 1.

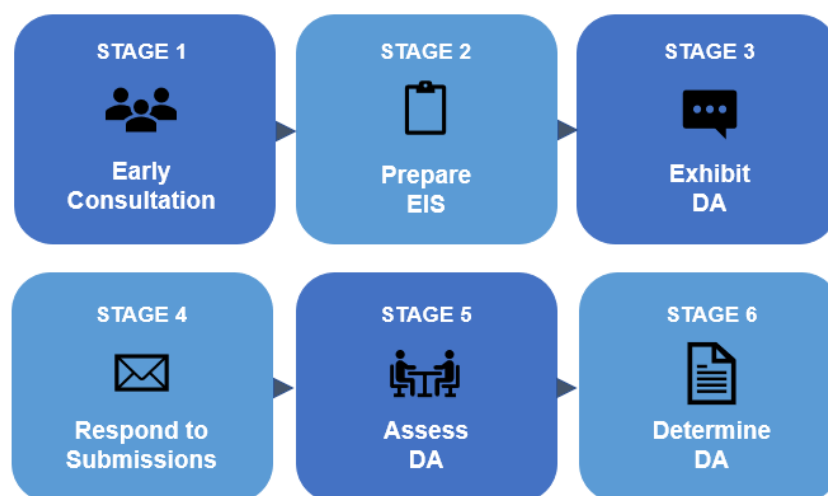


Figure 1 NSW State Significant Development Assessment process

Requirements for stakeholder engagement and community participation are prescribed in the Secretary's Environmental Assessment Requirements (SEARs), issued by the NSW Department of Housing, Planning and Infrastructure (DPHI). SEARs are issued following submission and consideration of the project's Scoping Report. Typically, SEARs require consultation with stakeholders (local councils, utilities and infrastructure services), Traditional Owners and Local Aboriginal Land Councils, adjoining and potentially impacted landowners and the wider community. Stakeholders and community who may be impacted or have an interest in the project should have opportunities to provide feedback about the project, its potential impacts and proposed mitigation or safeguards.

DPHI's *Undertaking engagement guidelines* for state significant projects outline the Department's expectations for engagement across the approvals process. These are that proponents should facilitate effective engagement by:

- Engaging as early as possible
- Providing clear and concise information about the project and its impacts
- Delivering engagement activities that are accessible and inclusive to encourage participation
- Reporting back to community and stakeholders on what was heard, what has or has not been changed and why

Engagement should be proportionate to the scale and likely impacts of the project and provide a suitable geographic reach and number and range of activities, for each stage of engagement.

1.5. Project timeline

Table 2 Project indicative timeline

Timing	Phase
March 2025	Preparation of scoping report
April 2025	Submit Scoping Report and Request SEARS
Mid-2025	Prepare Environmental Impact Statement and completion of technical assessments, and submit to DPHI
Late 2025	EIS Public Exhibition Prepare and Lodge Submissions Report
Late 2025	Project determination
2026	Construction
From 2027	Earliest BESS is operational (if approved)

2. Communications and engagement approach

Ausgrid's Engagement Principles, which will be applied to all engagement for this project, have been developed to align closely with the principles of Ausgrid's Community Engagement Handbook, Environmental Handbook NS174c, Engagement Framework 2024 – 2029 Regulatory Proposal and International Association for Public Participation (IAP2). Our approach will be tailored to meet the needs and expectations of each community and stakeholder group, ensuring all individuals are treated with the same high level of respect. In addition to these principles, engagement should be risk-based and proportionate.

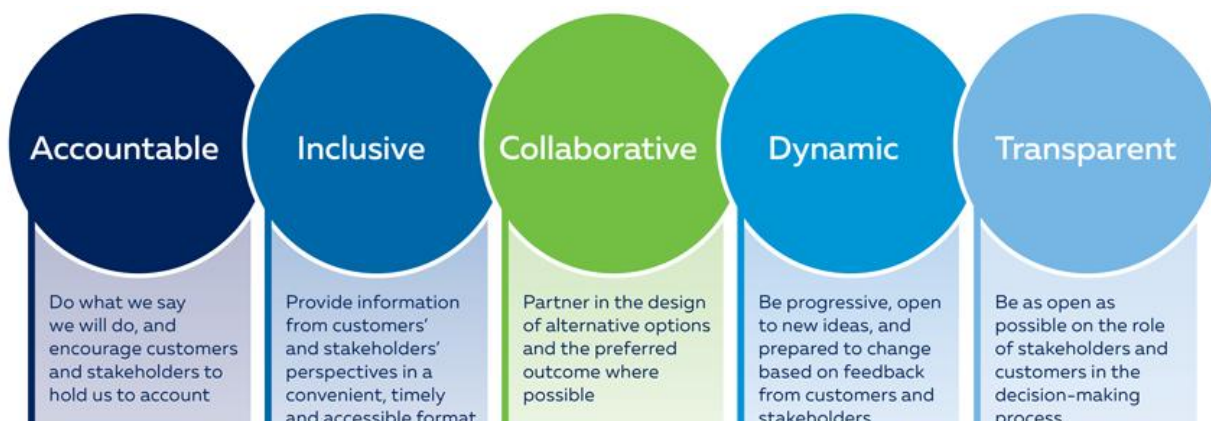


Figure 2 Ausgrid's Engagement Principles

2.1. Objectives

The CSEP's overarching objectives are to:

- Build awareness and understanding of Ausgrid's Rothbury BESS Project and its benefits alongside broader business commitments with key stakeholders
- Communicate project scope, timing and potential impacts clearly to potentially affected stakeholders
- Facilitate a robust engagement process to meet requirements for planning approval
- Mitigate reputational risk, through timely, clear and transparent communications and engagement

2.2. IAP2 Spectrum

Our engagement approach aligns with the International Association of Public Participation (IAP2) spectrum. This established method of communication and engagement in Australia helps identify and define the public's role in any consultation process. During the Program, different levels of participation will be required depending on the stakeholder group and the activity.

Table 3 IAP2 spectrum as applied to Rothbury BESS

Inform	Consult	Involve	Collaborate	Empower
Provide balanced and objective information to assist understanding of the problem, opportunities and solutions.	Obtain feedback on analysis, alternatives and decisions.	Work directly with stakeholders to ensure their aspirations are understood and considered.	Partner with stakeholders in each aspect of the decision including development of alternatives and identification of the preferred solution.	Place final decision-making in the hands of stakeholder.
Our commitment for Rothbury BESS				
Community and stakeholder	Community and stakeholder	Stakeholders	Key stakeholders	Project team and government decision-makers
Accessible and inclusive information about the project including: - Scope. - Benefits. - Progress. - Non-negotiable elements, clearly explaining why these elements are set. - Project decision making process	Seek feedback to inform negotiable aspects of the project, including during the SSDA process. Provide updates about how feedback has been considered in decision making and project development.	Testing ideas and options, to understand aspirations, values, concerns and issues and ensure these are considered.	Work together to develop solutions or alternatives for relevant aspects of the project.	Decision-making such as SSDA

2.3. Negotiables and non-negotiables

The scope of communication and engagement activities for this project clearly outlines what the engagement process will focus on, what Ausgrid is seeking input on, and how feedback will be used in the decision-making process. Clearly defining how stakeholder feedback will be used and communicating this early and often during the Program.

The following table outlines the items that are considered within and outside the project's scope of engagement:

- **Negotiables:** Negotiable items can be shaped or changed in response to stakeholder feedback.
- **Non-negotiables:** Non-negotiable items are the parts of a project that cannot be changed.

Table 4 Rothbury BESS negotiables and non-negotiables

Negotiables	Non-negotiables
• Safeguards to mitigate environmental and community impacts, as required, including: ○ Noise treatments ○ Traffic, access and parking mitigation strategies ○ Tree planting, or re-vegetation initiatives in the local area	• BESS capacity, layout or configuration within site or technical design aspects • Site suitability assessment • Planning pathways • BESS operations and maintenance activities and parameters

3. Stakeholders

3.1. Local community and neighbours

The project is located within the Rothbury SAL (Suburbs and Localities area for ABS Census data). This has been used to provide a community demographic profile. The Cessnock LGA and Pokolbin SAL are profiled, for comparison, and in recognition that there is a wider area of community interest for the project.

The population of the Rothbury SAL is too small to provide data for all demographic characteristics, due to privacy. Pokolbin, while a much larger SAL, includes communities of interest to the south and east of the project site, and is similar in the demographic statistics for Rothbury, that are available. These communities are different to the wider Cessnock LGA.

Broadly, the Rothbury and Pokolbin communities are:

- Relatively older (median age is 55 and 57 years, respectively)
- Majority born in Australia (75%), and there is a very high level of English proficiency.
- More affluent than the wider Cessnock LGA:
 - The median weekly household income (\$2,250.00 and \$2,395.00 respectively) is well above the median household income across Cessnock LGA (\$1,493.00).
 - Predominantly, they own their own home, either outright (47.9%) or with a mortgage (47.9%). About 10% are renting).

- Relatively well-educated, with about a third (32.2%) completing tertiary studies. However, about 24.7% of the community's highest level of education is between Year 10 to 12. By comparison, nearly a third of the Cessnock population's highest level of education is Year 10 to Year 12, and less than 10% of the population holds a tertiary degree.
- Likely to be participating in full or part time work, with a labour force participation rate (59.8%)

The community demographic is profiled in the table below.

Table 5 Community demographic profile

		Rothbury (SAL 13235)	Pokolbin (SAL 13248)	Cessnock LGA
Total population		55	1,049	63,632
Median age (years)		55	57	37
Aboriginal and Torres Strait Islander people		0%	1.9%	10.2%
Country of birth	Australia	Not available	75.2%	87.9%
	Overseas	Not available	24.8%	12.1%
Languages other than English spoken at home (Top five)		Not available	• Afrikaans (0.8%) • Greek (0.7%) • Mandarin (0.7%) • Croatian (0.5%) • German (0.4%)	• Thai (0.2%) • Tagalog (0.2%) • Spanish (0.1%) • Vietnamese (0.1%) • Mandarin (0.1%)
English proficiency (speaks English only, well or very well)		Not available	100%	95.6%
Median household income (weekly)		\$2,250.00	\$2,395.00	\$1,493.00
Housing tenure	Owned outright	Not available	47.9%	31.5%
	Owned with mortgage	Not available	36.9%	38.5%
	Private renting	Not available	10.5%	27.3%
Highest education level attained	Years 10 to Year 12	Not available	24.7%	32.1%
	Certificate III and IV	Not available	14.6%	25.7%
	Bachelor's degree and above	Not available	32.2%	9.6%
Employment status	Full time	Not available	54.7%	53.7%
	Part time	Not available	33.3%	31.9%
	Unemployment rate	Not available	2.2%	6.4%
	Workforce participation rate	Not available	59.8%	62.8%
Employment by industry (Top three)		Not available	• Wine and other alcoholic beverage manufacturing • Accommodation • Coal mining	• Coal mining • Other social assistance services • Aged care residential services

Source: ABS Census 2021, Census of Population and Housing 2021

Note – Due to population size, not all data is available for Rothbury SAL.

3.1.1. Considerations for community engagement

Based on the community profile, communications material should be:

- Accessible and easy to understand, using plain English and visuals, where available, to communicate complex or technical content
- Use a multimedia approach – using a digital library while also making efforts to provide hard copy materials in key community venues and locations, such as libraries, town centres or community halls.

Engagement with near neighbours, or those residents, property and business owners living within proximity of the Rothbury substation, will also fall in the 'involve' and 'consult' section of the IAP2 Spectrum of Public Participation. These community stakeholders may be impacted by construction activities such as traffic, noise and amenity.

The broader community around the site may take a keen interest in the project due to general interest in growing renewable projects, and Ausgrid will work closely with community representatives, key interest groups, councils, local MPs and other key stakeholders.

3.1.2. Distribution area

Figure 3 below shows the community newsletter distribution area. This area captures nearby residential and business properties in Rothbury, North Rothbury and Lovedale that are in close proximity to the project site.

This area was used to identify stakeholders and sensitive receivers, noting that the closest residential properties are 240 m to the west of the project site and the closest business property is 250 meters south of the project site. Six sensitive receivers live or operate within 1.5km of the project site.

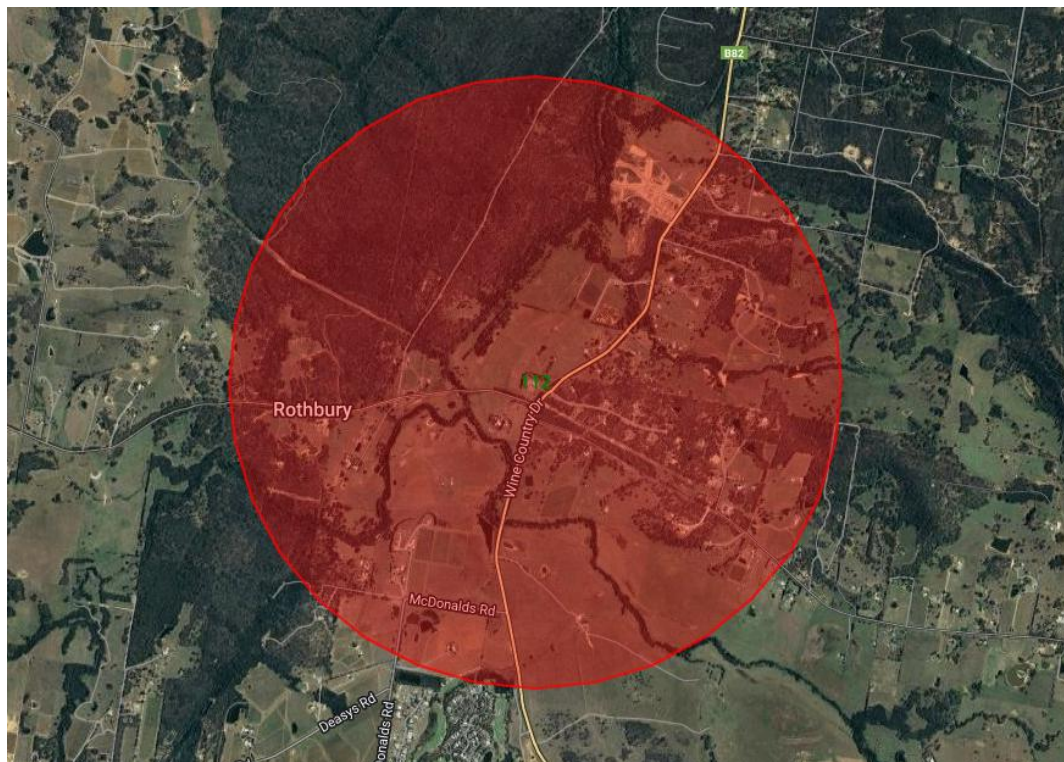


Figure 3 Community newsletter distribution area

3.2. Stakeholder identification

Below is an overview of the stakeholders involved in the overall execution of the BESS Program, each site-specific action plan will list stakeholders relevant to those sites.

Table 6 Engagement aims and potential interests, by stakeholder category

Stakeholder	Engagement aim	Potential interests or concerns
Adjacent properties/landowners		
Nearby neighbours - within 1.5 km • Quambatook House (Holiday / Event rental) • Lucy's Run Wines (Vineyard) • Black creek farm (Vineyard) • 1337 Wine Country Drive (Residential) • 1338 Wine Country Drive (Residential) • 27 Blackburn Close (Residential) • 22 Blackburn Close (Residential) • Aria Hunter Valley (Housing development)	• Inform about project scope, potential impacts and next steps • Understand concerns and issues and mitigate, where possible	• Construction impacts • Noise • Power outages • Traffic impacts
Sensitive receivers		
• Scarborough cottage • Ayrfield Cabin at the Olive grove • Villini Estate • Ballabourneen Estate • Stoic Legion archery range • Sascha's retreat	• Upfront engagement to provide accurate information about potential impacts and manage any concerns	• EMF, noise and vibration impacts • Power outages • Traffic impacts (construction)
First Nations stakeholders		
• Mindaribba LALC	• Actively show respect and acknowledge their role as custodians of the land we work on • Proactively identify any potential impacts • Understand concerns and issues and mitigate, where possible	• Cultural heritage impacts • Aboriginal Participation and community benefit opportunities

Traditional Owners of the land where the project is taking place	- Actively show respect and acknowledge their role as custodians of the land we work on - Proactively identify any potential impacts - Understand concerns and issues and mitigate, where possible	- Cultural heritage impacts - Aboriginal Participation and community benefit opportunities
Elected officials		
Local Government - Cessnock City Council - Mayor, Daniel Watton (as of October 2024) - Elected councillors	- Proactively manage Ausgrid's relationship and reputation in the region - Coordinate engagement across Ausgrid work - Proactive manage risk of opposition to project - Inform about project scope, potential impacts and next steps - Understand concerns and issues and mitigate, where possible	- Impacts to environment, assets and communities - Coordination with council works and other projects - Community engagement process and outcomes
State Government Office of Clayton Barr (Member for Cessnock)	- Proactively manage Ausgrid's relationship and reputation in the region - Inform about project scope, potential impacts and next steps, particularly community and stakeholder engagement - Understand concerns and issues and mitigate, where possible	- Community concern - Alignment with State energy commitments
- Office of Dan Repacholi MP (Member for Hunter) (Chair of House Select Committee on Nuclear Energy)	- Proactively manage Ausgrid's relationship and reputation - Seek endorsement or support for project	- Community concern - Alignment with national energy commitments
Regulatory and Planning Agencies		
DPHI	- Understand expectations for approvals - Proactively engage to ensure timely approval process	- Compliance with SEARs requirements - Limited stakeholder engagement to date - Establishing expectations for Tranche 2 projects
State government agencies		
SES NSW	- Inform about project scope, potential impacts and next steps - Understand concerns and issues and mitigate, where possible	- Impacts to service /network outages - Potential traffic impacts

	- Collaborate to address risk mitigation and safeguards in local context and at Program level - Establish working relationships to support Tranche 2	Hazard management impacts
Rural Fire and Rescue NSW		- Fire risk - Potential traffic impacts
NSW Environment Protection Authority (EPA)	- Inform about project scope, potential impacts and next steps - Understand concerns and issues and mitigate, where possible - Collaborate to address risk mitigation and safeguards in local context and at Program level - Establish working relationships to support Tranche 2	Adherence to statutory requirements
Transport for NSW	- Inform about project scope, potential impacts and next steps - Understand concerns and issues to mitigate, where possible	Potential traffic impacts
- NBN - Telstra	- Build working relationships and understanding of technology, for Tranche 2 - Inform about project scope, potential impacts and next steps - Understand concerns and issues to mitigate, where possible	- Safety risks to land, structures and local community. - Emergency management procedures - Potential access and traffic impacts
Emergency services - Ambulance - NSW Fire Brigade - SES - NSW Police Force - Local Emergency Management Committees	- Build working relationships and understanding of technology, for Tranche 2	Potential traffic impacts
Utilities		
TransGrid	To seek connection enquiry approval	Connection specifications and process
Surrounding community (beyond 5km Radius)		
Childcare Various – to be refined upon completion of environmental assessments	- To proactively identify any potential impacts. - To identify and manage any community concern early in the process	- Potential impacts of construction or operation on properties, customers or visitors - Impacts to customer bills

Educational institutions - Branxton Public School - Rosary Park Catholic School - Greta Public School	- To provide an opportunity to build social license - Build the Ausgrid brand as an employer of choice	Opportunities to participate in community benefits
Business in surrounding areas	Interested in what Ausgrid is doing and how it will impact their suburb	
Indirectly impacted landowners, residents	- Any impacts to the liveability of their property, such as odour, noise, dust, access and inconveniences as a result of investigations and the works - Interested in what Ausgrid is doing and how it will impact their suburb	
Surrounding community (within 5km Radius)		
- Accommodation - Vineyards - Retail - Golf courses - Tourism businesses	Interested in what Ausgrid is doing and how it will impact their suburb	- Potential impacts of construction or operation on properties, customers or visitors - Impacts to customer bills - Opportunities to participate in community benefits
Indirectly impacted landowners, residents	- Any impacts to the liveability of their property, such as odour, noise, dust, access and inconveniences as a result of investigations and the works - Interested in what Ausgrid is doing and how it will impact their suburb	

3.3. First Nations engagement

Ausgrid is aware of its responsibility as an infrastructure planner involve First Nations communities in our project planning and delivery. We will do this by forming ongoing and meaningful relationships with the Indigenous communities whose Country the BESS projects are located on. Through meaningful stakeholder engagement, Ausgrid will demonstrate purposeful co-creation within our organisation, building on existing relationships held with Local Aboriginal Land Councils, and establishing new relationships with other community groups. This engagement has been led through the Aboriginal Heritage consultant.

Table 7 First Nations stakeholders

Stakeholder	Potential Interest	Reason for engaging
Mindaribba LALC	LALCs that cover areas impacted by the BESS projects and will want to ensure the project achieves outcomes for their communities.	Aboriginal LALCs have the right to be consulted about developments on their traditional lands.
Traditional Owners and Aboriginal Groups	Traditional Owners may want input on how development on their traditional lands is designed and constructed.	Traditional Owners need to be consulted on how they want development on their traditional lands to be designed and constructed.
Regional community groups	Smaller community groups throughout the areas.	Some smaller community groups don't feel represented through LALCs and the larger corporations. Need to ensure we engage with a broad group of First Nations stakeholders.

4. Risks and mitigations

Following completion of environmental assessments and technical studies, risk and opportunities assessment will need to be revised.

The risks at this site are largely associated with traffic and access impacts to neighbouring businesses, potential noise impacts on nearby commercial and residential properties and safety and hazard management. BESS is an emerging technology so there are risks of stakeholder and community concern about potential hazards during operation.

As the first site in the Hunter region, there is opportunity to educate community and stakeholders about BESS technology – how it works, the benefits and its role in supporting the clean energy transitions – to address potential scepticism and concern about new technology. Measures to mitigate identified potential risks include:

- Proactive and tailored engagement with stakeholders to build relationships and keep them informed about the project
- Timely and clear communications that make technical information accessible for all stakeholders and community
- Being clear about what is negotiable, not negotiable, what is known, unknown and not yet decided as the project progresses from concept design and planning approvals to detailed design, construction and operation
- Early collaboration with stakeholders and community to develop, and deliver, community benefits.

Rothbury BESS offers an opportunity for Ausgrid to successfully launch BESS as a new, state-of-the-art grid-scale battery technology through a proactive community and stakeholder engagement strategy that encourages public participation, transparently incorporates stakeholder feedback in the design process, and strengthens Ausgrid's social license as an effective proponent of Australia's clean energy transition.

This section summarises the key risks and opportunities for consideration when communicating and engaging with community and stakeholders.

4.1. Key risks

Table 8 Key risks for community and stakeholder engagement

Risk	Mitigation measure
Engagement fatigue in areas impacted by other energy infrastructure projects	- Coordinated approach with other Ausgrid projects for engagement timing and frequency - Clear communications about scope and purpose of all engagement activities
Confusion between BESS and community batteries, and how customers may benefit or interact	Clear communication about scope and benefits, and key messages differentiating the projects
Delayed project approvals	- Early engagement with elected representatives to clearly explain assessment processes, impacts and mitigation measures - Clear communication about scope and process for assessments - Records of communications and engagement with directly impacts stakeholders
Complaints about proposed sites due to perceived impacts (noise, vibration, visual, traffic flow etc)	- Early communications about impacts/interactions, assessment process and mitigations/safeguards for construction and operations - Accessible technical studies for impacted stakeholders to understand extent of impacts
Changes in timing, plans and impacts results in frustration from stakeholders	- Internal information sharing protocols in place to facilitate regular updates - Communications across teams encouraged from leadership - Scheduled regular workshops and other communications to update stakeholders

4.2. Key opportunities

Table 9 Key opportunities for community and stakeholder engagement

Opportunity	Potential benefits	Recommended actions
Launch of BESS technology	Generate social license	- Early engagement that builds understanding and trust - Seek feedback, incorporate feedback, showcase how feedback was incorporated - Permanent site signage promoting projects benefits
High visibility site	Promote Program benefits and enhance reputation	Project hoarding to promote project
Community education about BESS technology and its benefits	- Build awareness and interest in new technology - Test community education content for more complex sites	Community education campaign to explain how technology works and benefits, tailored for lay audience and potentially schools

5. Key Messages

5.1. Strategic narrative

- Ausgrid is planning for the energy network of the future, now.
- As we switch to more renewable sources, like solar and wind, we need energy storage. In fact, NSW needs six times more energy storage before 2030.
- We're proposing large energy storage, Battery Energy Storage Systems (BESS), connected to the distribution network, to improve the reliability, stability and affordability of the electricity network.
- By connecting BESS to our existing substations, we are reducing the impact on our communities and the environment and decreasing the need to build more large transmission and distribution lines, which helps reduce costs and makes electricity more affordable.
- Ausgrid is committed to investing in new technologies to make the network more sustainable, reliable and affordable. We also need to make sure the network is ready for customers' future needs.

5.2. Why grid-scale BESS

- A Battery Energy Storage System (BESS) is a group of large rechargeable batteries, connected to form one very large battery. BESS collect energy, store it when there is a lot and then release it when there is high demand for electricity. These large batteries are critical to ensuring the reliability of electricity supply for households and businesses.
- By connecting BESS to our existing substations, we are reducing the impact on our communities and the environment and decreasing the need to build more large transmission and distribution lines, which helps reduce costs and makes electricity more affordable.
- BESS enable more renewable energy to come online by storing energy when there is more than we need and releasing it when it's required. This keeps the power supply steady, even when the sun isn't shining or the wind isn't blowing, providing a more resilient and reliable electricity network.
- BESS connected to Ausgrid's current network better utilises existing infrastructure, reducing the need for additional infrastructure investment making the cost of electricity cheaper over time.
- BESS enable more renewable energy like wind and solar to connect to the energy network. By connecting to our existing substations, it avoids the need for new transmission lines, reducing the environmental and community impacts of large infrastructure projects.
- Distribution-connected grid-scale storage can deliver improved network reliability and stability, helping defer more expensive network investment. Co-locating grid-scale storage next to substations also has less environmental and community impact than new transmission lines.
- There is a clear opportunity for the distribution network to leverage existing capacity and do more of the heavy lifting in the energy transition.
- With substations across the network, internal expertise in the design and planning of electricity connections and external partnerships in place, we are strongly positioned to facilitate the planning and design for BESS and accelerate their delivery.

5.3. Project description

- Ausgrid is proposing a Battery Energy Storage Systems (BESS) on its own land near existing substations. We are preparing to take the Rothbury BESS site through the planning and approval process, providing opportunity for our customers and local communities to better understand this technology and the project.

- Rothbury BESS can store up to 540MWH – that's enough electricity to power up to 13,000 Ausgrid customers per day.
- We're planning for BESS to be located next to Ausgrid-owned substations, minimising impacts to private property by using existing transmission and energy infrastructure, where possible.
- We're considering a range of factors to select suitable sites for BESS. These include available space within Ausgrid-owned property, connections to the network, existing background noise levels and cumulative impacts on noise and vibrations.
- This project is in the planning phase, with ongoing studies to understand the potential environmental and community impacts. Findings will be shared with local community and stakeholders through a SSDA process.
- Construction is expected to start in 2026, with the Rothbury BESS expected to be operating from 2027, at earliest. Ausgrid is evaluating the environmental impacts, including noise, vibration, traffic, and visual amenity, and how we will mitigate these through an EIS process, seeking feedback from stakeholders and the community.

6. Communication Tools and Protocols

Table 10 outlines the communications tools and maps their use against the IAP2 Spectrum of Public Participation. This is intended to provide community and stakeholders with clarity about the level of influence of their feedback collected via each method.

Table 10 Communications tools and protocols

Engagement method	Audience	Purpose	Participation				
			Inform	Consult	Involve	Collaborate	Empower
Briefings (formal and informal)	All stakeholders	Presentations and discussions with stakeholders and community groups to gather feedback, ideas or options. Formal and informal.	✓	✓			
Door Knocking / Letterbox Drops	Neighbouring Landholders and residents	Notify neighbouring landholders to raise project awareness, notify and have their questions answered.	✓				
Interactive online tools	All stakeholders	Online platforms that allow community participation including feedback forms, webinars, public meetings, surveys, submissions, workshops.	✓	✓			
Pop-up stalls	All stakeholders (targeting general public)	Pop-up stalls (staffed) at a physical location in community displaying information, plans, documents and surveys.	✓	✓			
Public Displays	All stakeholders (targeting general public)	Staffed or unstaffed displays of information, plans or documents made publicly available.	✓	✓			
Surveys	All stakeholders	A series of questions suitable for internal and external stakeholders to understand preferences, seek feedback and provide input.		✓			
Workshops	All stakeholders	Structured method suitable for small groups of internal and external stakeholders to explore specific, complex issues.	✓	✓	✓		

7. External communications

7.1. Media

All media will be managed in a manner that is consistent with Ausgrid's existing media policy.

Ausgrid's community engagement specialists work closely with Public Affairs to inform them about upcoming projects and construction issues to ensure media can be used where appropriate to complement other communication activities. All employees will consider the nature of the work and advise Public Affairs if they expect there to be significant community issues or if any issues arise during works. Media releases will be prepared to announce Project milestones or significant community updates and issued to relevant local, regional, national and industry media as required.

7.2. Social media and website

Ausgrid will use social media and a dedicated webpage to regularly communicate with stakeholders and will include updates and significant Project milestones FAQs and fact sheets will be developed to support social media engagement and website updates to quickly respond to enquiries.

Ausgrid's social and website content is coordinated by Ausgrid's Brand and Reputation team.

7.3. Enquiries and complaints management

Enquiries and complaints provide important feedback to improve project processes, mitigation measures and avoid or minimise further concerns. Ausgrid will put in place processes to ensure that all enquiries and complaints are responded to, mitigated, or completed as soon as possible. These requirements will apply 24 hours a day. Within 24 hours of being notified of a complaint by the customer, either Ausgrid or its contractor will attend to the complaint and propose an action plan to rectify the problem, obtain the complainant's agreement to the proposed actions and the timing of those actions, notify the project manager formally of the agreed method for resolving the complaint, and complete and update Ausgrid's complaint register database. The process is detailed in Figure 4. This process will be made available to the community and stakeholders.

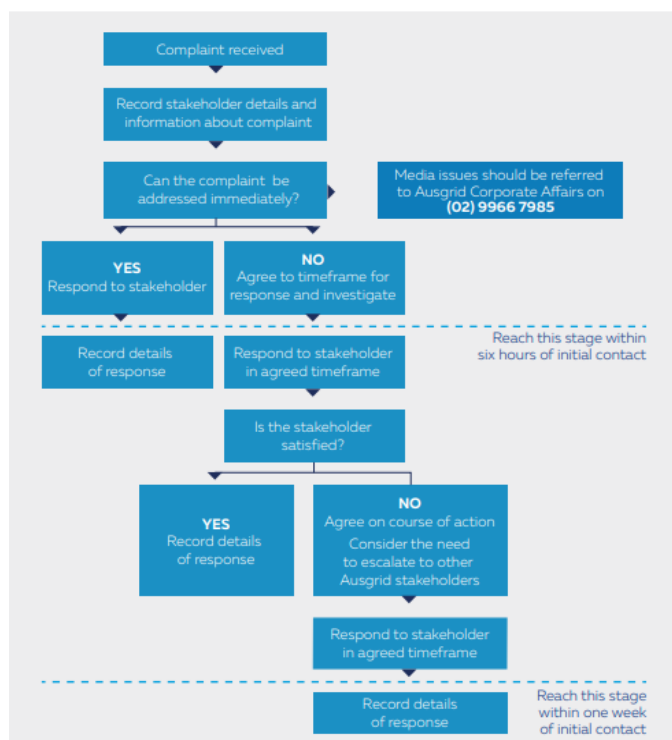


Figure 4 Complaints management approach

8. Reporting and measurement

The SEM will monitor the implementation of this Plan CSEP to ensure the approach is meeting both the engagement and project objectives. The CSEP will be reviewed by the SEM on a six-month basis, and prior to the start of a new stage of communications and engagement and updated as required.

The outcomes engagement will be communicated back to the community and stakeholders to demonstrate how their feedback was considered. Any feedback or issues identified during the monitoring process will lead to adjustments in processes and communication channels, as needed. Monitored performance indicators will include the responsiveness and effectiveness of communication with stakeholders and the community, as well as information flow.

Ausgrid will prepare communications and stakeholder engagement outcomes reports at key milestones to:

- Provide and track feedback from stakeholders to the project team
- Meet legislative requirements
- Track trending issues
- Look for opportunities to further reduce the impact on the community and key stakeholders
- Improve the quality of communications and engagement.

The complaints register will include a summary of total number of complaints received in the period and overarching statistics including:

- Date and time of the complaint
- Method by which the complaint was made
- Nature of the complaint
- If the complaint was avoidable or unavoidable
- The name, address and contact details of the complainant
- How long the complaint took to close.

Ausgrid will use a stakeholder database to record and report stakeholder interactions, including the management of complaints and inquiries. Reports from this platform will support formal reporting, performance monitoring against the objectives of this CSEP, and the overall project evaluation

9. Implementation Plan – Planning approvals phase

Timing	Activity	Engagement methods and tools	Purpose	Target audience	Status
EARLY CONSULTATION					
February to April 2025	Stakeholder meetings	- Individual stakeholder letters - Site map and/or visualisation - Project briefings (in-person or online) - Phone call	- Inform about project scope and timing, potential impacts and upcoming further engagement - Provide understanding of scope of engagement, to assist with managing community interest or enquiries - Establish relationship	- Local council, elected representatives and LALC - Non-government organisations, utilities and government agencies - Neighbouring and nearby businesses and adjacent residential properties	Completed
	Webpage and community update	- Website, establish dedicated phone number and/or email - FAQs - Newsletter and stylised maps	- Inform about project, purpose and early planning and approval process - Promote upcoming opportunities for community engagement	- Surrounding community - Neighbouring businesses	Completed
	Community information sessions	- FAQs and factsheets - Information boards - Feedback forms	- Inform about project, purpose and early planning and approval process - Understand community values and priorities, concerns, risks and issues, and capture feedback	- Surrounding community - Neighbouring businesses	Completed
	Connection enquiry	Email submission	Start the formal connection process	Transgrid	Completed
EARLY CONSULTATION – EIS PREPARATION					
May to June 2025	Stakeholder meetings	- Letter and email - Meeting (in-person or virtual) - Phone call	- Provide update about project, answer previous questions if any - Outline EIS process and potential impacts - Understand concerns, risks and issues, and potential mitigations	- Local council, elected representatives and LALC - Non-government organisations, utilities and government agencies - Neighbouring and nearby businesses and properties	
	Community newsletter and webpage updates	- Website, establish dedicated phone number and/or email - Newsletter - Digital advertising and social media	- Inform about project and potential impacts - Promote upcoming opportunities for community engagement - Promote sign up to EDM for project updates	- Surrounding residential community - Neighbouring businesses	

July to August 2025	Community information sessions	- FAQs and factsheets - Information boards - Feedback forms	- Inform about project, potential impacts and SSDA pathway - Understand community values and priorities, concerns, risks and issues, and potential mitigations, and capture feedback - Explain EIS exhibition and engagement process to encourage participation	- Surrounding community - Neighbouring businesses	
September to October 2025	Community newsletter, letters to stakeholders, webpage update	- Website and fact sheets - Letters, emails and phone calls to registered stakeholders	- Thank community and stakeholders for feedback - Provide update to project timeline and next steps for engagement, as needed	- Non-government organisations, utilities and government agencies - Neighbouring and nearby businesses and residential properties	
EIS EXHIBITION PERIOD					
Upon exhibition start	Stakeholder letter	Stakeholder letter	- Announce EIS exhibition period and invite feedback via Planning Portal - Offer briefing or meeting to continue to discuss concerns, issues and opportunities	All stakeholders that have had meetings to date	
	Webpage update	- Website updated – updated content - Media release	- Announce EIS exhibition period and invite feedback via Planning Portal - Promote engagement activities and key dates	- Surrounding residential community - Neighbours	
During EIS exhibition	Stakeholder meetings, as required	- Face-to-face meeting - Phone call - Briefing packs	- Provide update on previous issues and questions raised, overview of relevant EIS content - Understand concerns, issues and risks - Encourage to provide formal feedback via Planning Portal	All stakeholders that have had meetings to date	
	Webpage and community update	- Website update - Newsletter - Media release	- Summaries engagement activities, key themes and outcomes - Outline how feedback has been used and next steps	- Surrounding community - Neighbouring businesses	

Appendix D

Preliminary social impact scoping worksheet

Social Impact Assessment (SIA) Worksheet								Project name: Rothbury BESS								Date: 29 November 2024							
PROJECT ACTIVITIES	CATEGORIES OF SOCIAL IMPACTS	POTENTIAL IMPACTS ON PEOPLE		PREVIOUS INVESTIGATION OF IMPACT				ELEMENTS OF IMPACTS Based on preliminary investigation					ASSESSMENT LEVEL FOR EACH IMPACT					PROJECT REFINEMENT	MITIGATION / ENHANCEMENT MEASURES				
Which project activity / activities could produce social impacts ?	what social impact categories could be affected by the project activities	What impacts are likely, and what concerns/aspirations have people expressed about the impact? Summarise how each relevant stakeholder group might experience the impact. NB. Where there are multiple stakeholder groups affected differently by an impact, or more than one impact from the activity, please add an additional row.		Has this impact previously been investigated (on this or other project/s)?	If "yes - this project," briefly describe the previous investigation. If "yes - other project," identify the other project and investigation	Will this impact combine with others from this project (think about when and where), and/or with impacts from other projects (cumulative)?	If yes, identify which other impacts and/or projects	Will the project activity (without mitigation or enhancement) cause a material social impact in terms of its: You can also consider the various magnitudes of these characteristics					Level of assessment for each social impact	What methods and data sources will be used to investigate this impact?			Has the project been refined in response to preliminary impact evaluation or stakeholder feedback?	What mitigation / enhancement measures are being considered?					
		Is the impact expected to be positive or negative						extent i.e. number of people potentially affected?	duration of expected impacts? (i.e. construction vs operational phase)	intensity of expected impacts (i.e. scale or degree of change?)	sensitivity or vulnerability of people potentially affected?	level of concern/interest of people potentially affected?		Secondary data	Primary Data - Consultation	Primary Data - Research							
Construction: traffic impacts to residents and tourists	way of life	Potential disruptions to way of life for individuals and the community, caused by temporary disruptions to road users (including pedestrians and cyclists). Increased road traffic may negatively impact tourists perception of the area.	Negative	No	N/A	Yes	Traffic from the following projects: 1. Huntlee Arcare Seniors Housing 2. Huntlee New Town Stage 1 & 2 3. Cedar Mill Hunter Valley 4. Sunshine Estate BESS	No	No	Unknown	No	Unknown	Detailed assessment of the impact	Required	Broad consultation	Targeted research	Not yet but will be investigated at the EIS stage	Assessment and management of traffic impacts will be provided in the EIS chapter and Transport Impact Assessment Report.					
Construction: traffic impacts to businesses and tourism industry	livelihoods	Potential disruptions to businesses, caused by temporary disruptions to road users (including pedestrians and cyclists). Increase in road traffic may negatively impact the tourism industry in the area, in particular vine yards and wine estates.	Negative	No	N/A	Yes	Traffic from the following projects: 1. Huntlee Arcare Seniors Housing 2. Huntlee New Town Stage 1 & 2 3. Cedar Mill Hunter Valley 4. Sunshine Estate BESS	No	No	Unknown	No	Unknown	Detailed assessment of the impact	Required	Broad consultation	Targeted research	Not yet but will be investigated at the EIS stage	Assessment and management of traffic impacts will be provided in the EIS chapter and Transport Impact Assessment Report.					
Construction: impacts to heritage values	culture	Potential for minor changes to connections to Country for Aboriginal communities, natural values or heritage items, resulting in impacts to cultural elements which are valued by the community	Negative	Yes - this project	Aboriginal due diligence assessment completed by Apex Archaeology in April 2024	Yes	There may be cumulative impacts on local heritage values from the Sunshine Estate BESS if the site contains potential archaeological deposits	No	No	No	Yes	Unknown	Standard assessment of the impact	Required	Targeted consultation	Potentially targeted research	Not yet but will be investigated at the EIS stage	An Aboriginal heritage assessment has been completed, there is a Potential Archaeological Deposit (PAD) across the western extent of the Project Area. An ACHAR will be prepared for the EIS.					
Construction: impacts to non-Aboriginal heritage values	culture	Potential for minor changes to natural values or heritage items, resulting in impacts to cultural elements which are valued by the community	Negative	No	N/A	No	Not required	No	No	Unknown	No	Unknown	Detailed assessment of the impact	Required	Broad consultation	Targeted research	Not yet but will be investigated at the EIS stage	No further assessment required					
Construction: health and wellbeing	health and wellbeing	Potential temporary health and wellbeing impacts for those who live or use areas within the vicinity of construction activities, such as direct impacts to health associated with dust or ongoing construction noise.	Negative	No	N/A	Yes	Traffic from the following projects: 1. Huntlee Arcare Seniors Housing 2. Huntlee New Town Stage 1 & 2 3. Cedar Mill Hunter Valley 4. Sunshine Estate BESS	No	No	Unknown	No	Unknown	Detailed assessment of the impact	Required	Broad consultation	Targeted research	Not yet but will be investigated at the EIS stage	Assessment and management of noise and vibration, air quality, visual, etc. will be provided as part of their respective EIS chapters and specific reports. Discussion with affected residents. SIA specific mitigations to be developed as required.					
Construction: impacts to surroundings	surroundings	Adverse impacts to community members and visitors' sense of place in areas subject to amenity impacts. The site is located in close proximity to tourist attractions such as vineyards and wine farms. Noise and visual impacts may detract from the sense of place	Negative	No	N/A	No	Not required	No	No	No	No	Unknown	Minor assessment of the impact	Required	Limited - if required (e.g. local council)	Not required	Not yet but will be investigated at the EIS stage	Assessment and management of noise and vibration, air quality, visual, etc. will be provided as part of their respective EIS chapters and specific reports. Discussion with affected residents. SIA specific mitigations to be developed as required.					
Construction: impacts to surroundings	surroundings	Potential visual impact on the surrounding area from construction activities.	Negative	No	N/A	No	Not required	No	No	No	No	Unknown	Minor assessment of the impact	Required	Limited - if required (e.g. local council)	Not required	Not yet but will be investigated at the EIS stage	Assessment and management of visual impacts will be provided as part of the EIS.					
Construction: impacts to surroundings	surroundings	Potential impacts on residents, businesses and tourist facilities located close to construction activity due to increased noise and vibration, dust and construction traffic	Negative	No	N/A	No	Not required	No	No	No	No	Unknown	Minor assessment of the impact	Required	Limited - if required (e.g. local council)	Not required	Not yet but will be investigated at the EIS stage	Assessment and management of traffic, noise and vibration, air quality, etc. will be provided as part of their respective EIS chapters and specific reports. Discussion with affected residents. SIA specific mitigations to be developed as required.					
Construction: impacts to livelihoods	livelihoods	Potential benefits to businesses, including benefit from a net gain in passing trade (depending on the business location) during construction owing to the presence of construction workers	Positive	No	N/A	No	Not required	No	No	No	No	Unknown	Minor assessment of the impact	Required	Limited - if required (e.g. local council)	Not required	Not yet but will be investigated at the EIS stage	Consultation with business groups to understand local impacts of the development and how they may be enhanced					
Construction: impacts to livelihoods	livelihoods	Potential benefits for local construction related businesses, such as construction recruitment agencies, construction companies and resource suppliers	Positive	No	N/A	No	Not required	No	No	No	No	Unknown	Minor assessment of the impact	Required	Limited - if required (e.g. local council)	Not required	Not yet but will be investigated at the EIS stage	Consultation with business groups to understand local impacts of the development and how they may be enhanced					
Construction: impacts to livelihoods	livelihoods	Direct and indirect employment opportunities in the area, for example to supply goods, services and materials to the project's construction, which can positively influence the local community's capacity to earn an income in the area	Positive	No	N/A	No	Not required	No	No	No	No	Unknown	Minor assessment of the impact	Required	Limited - if required (e.g. local council)	Not required	Not yet but will be investigated at the EIS stage	Consultation with business groups to understand local impacts of the development and how they may be enhanced					
Construction: impacts to decision making systems	decision-making systems	Community members may express dissatisfaction with their ability to influence the strategic decision making and construction methodology or planning for the project	Negative	No	N/A	No	Not required	No	No	No	No	Unknown	Minor assessment of the impact	Required	Limited - if required (e.g. local council)	Not required	Not yet but will be investigated at the EIS stage	Consultation with interested community members as part of project development					
Construction: cumulative impacts	community	Potential for combined and consecutive social impacts on the community with other projects under construction nearby. Specifically noise and vibration, and cumulative traffic impacts are likely to be of concern to residents within the locality.	Negative	No	N/A	Yes	Traffic from the following projects: 1. Huntlee Arcare Seniors Housing 2. Huntlee New Town Stage 1 & 2 3. Cedar Mill Hunter Valley 4. Sunshine Estate BESS	No	No	No	No	Unknown	Minor assessment of the impact	Required	Limited - if required (e.g. local council)	Not required	Not yet but will be investigated at the EIS stage	Consideration of cumulative amenity impacts throughout EIS and consideration within SIA in a social context.					
Operation: noise impacts	community	Potential noise impacts of BESS impact on the community	Negative	No	N/A	Yes	Operational noise from Sunshine Estate BESS	No	No	Unknown	No	Unknown	Detailed assessment of the impact	Required	Broad consultation	Targeted research	Not yet but will be investigated at the EIS stage	Assessment and management of noise and vibration will be provided as part the EIS chapters and specific report. Discussion with affected residents. SIA specific mitigations to be developed as required.					
Operation: visual impacts	community	Potential visual impacts changing visual amenity of the locality. Four residential visual receptors were identified as potentially impacted by the project. The project may also be visible to vehicles travelling on Wine Country Drive and Old North Road.	Negative	No	N/A	Yes	There may be cumulative visual impacts from the Sunshine Estate BESS which is proposed on an adjacent lot.	No	No	Unknown	No	Unknown	Detailed assessment of the impact	Required	Broad consultation	Targeted research	Not yet but will be investigated at the EIS stage	Assessment and management of visual impact will be provided as part the EIS chapters and specific report. Discussion with affected residents. SIA specific mitigations to be developed as required.					
Operation: impacts to health and wellbeing	health and wellbeing	If community members are affected by amenity impacts (Noise or visual) there is a potential health and wellbeing on these community members impact if not avoided or properly managed due to their way of life changing	Negative	No	N/A	No	Not required	No	No	No	No	Unknown	Minor assessment of the impact	Required	Limited - if required (e.g. local council)	Not required	Not yet but will be investigated at the EIS stage	Assessment and management of traffic impacts will be provided in the EIS chapter and Traffic and Transport Impact Assessment Report.					

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Operation: impacts to health and wellbeing	health and wellbeing	Potential concern regarding risk to the community in the case of hazardous accidents within the Site	Negative	No	N/A	No	Not required	No	No	Unknown	No	Unknown	Detailed assessment of the impact	Required	Broad consultation	Targeted research	Not yet but will be investigated at the EIS stage	Assessment and management of noise and vibration, air quality, visual etc. will be provided as part of their respective EIS chapters and specific reports. Discussion with affected residents. SIA specific mitigations to be developed as required.
Operation: changes to local noise environment	surroundings	Changes to local noise environment as a result of the presence of the operational BESS	Negative	No	N/A	No	Not required	No	No	Unknown	No	Unknown	Detailed assessment of the impact	Required	Broad consultation	Targeted research	Not yet but will be investigated at the EIS stage	Assessment and management of noise and vibration will be provided as part of the EIS chapter and Noise and Vibration Impact Assessment report. Discussion with affected residents. SIA specific mitigations to be developed as required.
Operation: impacts to livelihoods	livelihoods	Potential benefits for businesses and community member's livelihoods, such as benefits to businesses associated with operation and maintenance, including landscaping and the follow economic benefit of maintenance workers visiting local businesses	Positive	No	N/A	No	Not required	No	No	No	No	Unknown	Minor assessment of the impact	Required	Limited - if required (e.g. local council)	Not required	Not yet but will be investigated at the EIS stage	Consultation with business groups to understand local impacts of the development and how they may be enhanced
Operation: cumulative impacts	community	Potential for cumulative visual, traffic or noise impacts to local community of this project alongside others in the area, particularly new developments in the locality	Negative	No	N/A	Yes	1. Huntlee Arcare Seniors Housing 2. Huntlee New Town Stage 1. & 2 3. Cedar Mill Hunter Valley 4. Sunshine Estate BESS	No	No	No	No	Unknown	Minor assessment of the impact	Required	Limited - if required (e.g. local council)	Not required	Not yet but will be investigated at the EIS stage	Consideration of cumulative amenity impacts throughout EIS and consideration within SIA in a social context.