Chris Smith & ASSOCIATES PTY LTD

- CIVIL ENGINEERS
- LAND SURVEYORS
- URBAN & REGIONAL PLANNERS
- PROJECT MANAGERS

ISO 9001 Certified Quality Management Systems
ISO 14001 Certified Environmental Management Systems
ISO 45001 Certified Occupational Health and Safety Management Systems

Statement of Environmental Effects

Battery Energy Storage System

ACENERGY

Bruxner Highway, Tenterfield (Lot 1/DP777724)

Ref: 25141

Ver. 2 | August 2025

Level 1, 135 Fryers Street, Shepparton, Vic, 3630
Telephone (03) 5820 7700

- Kilmore: 1/19 Bourke Street, Kilmore, Vic. 3764 Ph: (03) 5781 1939
- Echuca: Suite 7, 33 Nish Street, Echuca, Vic. 3564 Ph: (03) 5482 9100
- Wangaratta: Suite 6 Tara Court 15-21 Ford Street, Wangaratta Ph: (03) 5725 2790

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Battery Energy Storage System
Bruxner Highway, Tenterfield

Version Control

Version	Description	Author	Approver	Date
1	Draft – for client review	DL	GS	17/08/2025
2	Final	SB	DL	28/08/2025
3				

1 Introduction

1.1 Overview

This Statement of Environmental Effects (SEE) has been prepared by Chris Smith & Associates for **Distribution Energy Storage Project No 34 Pty Ltd** (a subsidiary of ACEnergy Pty. Ltd) as the legal entity serving as the applicant in this matter. However, for the sake of simplicity, the applicant is referred to herein as *"ACEnergy"* throughout this application.

The proposal is for a battery energy storage system (BESS), with a total development footprint of approximately 3,782 square metres on a title with an area of approximately 11.84 hectares, which forms part of a larger property addressed as Bruxner Highway, Tenterfield. This property is made up of two (2) adjacent lots (totalling approximately 26.5 ha) that collectively form the "subject site".

View of the subject site from southern boundary of 12436 Bruxner Highway
Image source: Apple Lookaround Viewer

The proposed facility is intended to supply the local distribution network with 4.95 megawatts (MW) of power. The proposal would occupy a small area of land to the west of the farmer's property to store electricity, retaining the rest of the farm for continued farming.

Construction of the facility will occur over an approximate 4-week period, during which there is anticipated to be no more than 3 to 4 vehicles on site at any given time, which would largely be local contractors. During operation, the site will be only intermittently attended by maintenance contractors.

The facility will largely use prefabricated componentry, which will limit waste generated during construction. Nevertheless, subject to the capacity of local transfer stations within the Tenterfield Shire, the applicant will arrange for any significant waste to be disposed of at larger regional transfer stations, as needed.

The subject site has been selected based on its proximity to an existing power station and nearby transmission lines, and represents co-location with existing electrical infrastructure. The site therefore presents an opportunity for a regional municipality to capitalise upon the growth of the renewable energy industry due to its strategic geographical location and availability of grid connections.

This report is prepared in accordance with the various planning instruments and other planning controls that are relevant to the proposal. Consequently, this SEE provides an assessment and response under each of the respective sub-headings throughout the report.

Key reference documents used to guide the site selection and design process for this proposal are:

- NSW Renewable Energy Action Plan 2018
- Pre-Application Preliminary Assessment
- Tenterfield Local Environmental Plan 2013
- Tenterfield Development Control Plan 2013
- New England North West Regional Plan 2041

The proposal is supported by the below-listed assessments, plans and documents:

- **Certificate of Title**
  Folio 1/777724
- **Proposed Development Plans**
  by ACEnergy Pty Ltd – Revision E – 11/07/2025
- **Appendix A – AHIMS Search Result**
  by CS&A, dated 27/07/25
- **Appendix B – Noise Impact Assessment Report**
  by WMG Acoustics, Proj. 13350, Ver. 1
- **Appendix C – Landscaping Plan**
  by Ground Control, Ref. 25738
- **Appendix D – Flora and Fauna Report**
  by Waratah Ecology, Proj. No WE20250621, Ver. 2, dated 29/7/25
- **Appendix E – Flood Impact Assessment**
  by SWM Consulting, Ref. 25-1271, Ver. R01-A
- **Appendix F – Bushfire Management Plan**
  by Harris Environmental, Ref. 7566BF
- **Appendix G – Feature Survey Plan**
  by Tenterfield Surveys, Ref. TE251260-1
- **Appendix H – Traffic Impact Assessment**
  by Barker Ryan Steward, 250378, Rev. 2
- **Appendix I – Development Application Cost Plan**
  by MCG Quantity Surveyors, dated 27/8/25
- **Appendix J – Section 7.12 Cost Summary Report**
  by Denary Quantity Surveying, dated 27/8/25

1.2 Development Classification under EP&A Act

Private infrastructure, including electricity generating facilities that have a capital investment value of over $5 million, is declared regionally significant in *SEPP (Planning Systems) 2021*. The proposed BESS has an estimated development cost of $4.496 million and is therefore identified as **Local Development**.

The proposal ***is not*** *classified as Designated Development* under Section 4.10 of the Act.

1.3 Scope of Statement of Environmental Effects

This Statement of Environmental Effects (SEE) accompanies a development application for the proposed development. On behalf of the applicant and includes the matters referred to in Section 4.15 of the *Environmental Planning and Assessment Act 1979,* and the matters required to be considered by the consent authority.

When considering the application, the consent authority will have regard to Section 4.2 of the Act which states:

"4.2 Development that needs consent

(1) General

If an environmental planning instrument provides that specified development may not be carried out except with development consent, a person must not carry the development out on land to which the provision applies unless:

(a) such a consent has been obtained and is in force, and
(b) *the development is carried out in accordance with the consent and the instrument."*

The purpose of this SEE is therefore to:

- Seek Development Consent from the consent authority;
- Describe the land to which the DA relates and the character of the surrounding area;
- Outline the scope and intention of the proposed development;
- Define the statutory planning framework against which the DA is to be assessed and determined; and,
- Assess the proposed development in the light of all relevant heads of consideration.

2 ACEnergy – Company Profile

ACEnergy specialises in end-to-end development of renewable energy projects across regional Australia.

To date, ACEnergy has successfully developed close to forty projects throughout Australia and is developing a portfolio of 2.7GW/5.4GWh across various sites in regional Australia. So far, 1.1W/2.2GWh of BESS projects has been realised with further projects under development and in the pipeline.

Consequently, the credentials of ACEnergy as a key provider in Australia's renewable energy transition are well-established.

3 Application Details

The decision by ACEnergy to develop a battery energy storage facility included consideration of the region's trunk electricity network infrastructure, as well as the need for clean, efficient, and affordable electricity, as well as its proximity to the New England Renewable Energy Zone.

The subject land is largely flat and cleared with limited remnant vegetation, although there is none remaining on the development site itself.

The subject site was identified by ACEnergy as it provides an opportunity to locate a small-scale battery energy storage system in close proximity to the existing Tenterfield substation.

Agriculturally, the development is a relatively minor installation and is therefore capable of compatibility with ongoing agricultural land use.

With respect to infrastructural and physical requirements, the site has the required physical and electricity network attributes – a flat open site, adjacent powerlines with the capacity to support electricity stored by the adjacent facility and that can feed into the nearby electrical substation for use by the community. These factors ultimately led to an agreement to lease the site with the landowner.

Site visits and environmental assessments have been undertaken to determine the development site's suitability. The site has been confirmed to be largely cleared of any native vegetation and any areas of environmental sensitivity.

Accordingly, a detailed and balanced approach to all relevant site and planning considerations has been undertaken to provide a sound planning proposal, as set out in this report and supporting documents.

4 Scope of Proposed Development

ACEnergy has agreed to terms with the current landowner to lease approximately 4,500 sqm of Lot 1, DP777724 to develop for a utility-scale BESS.

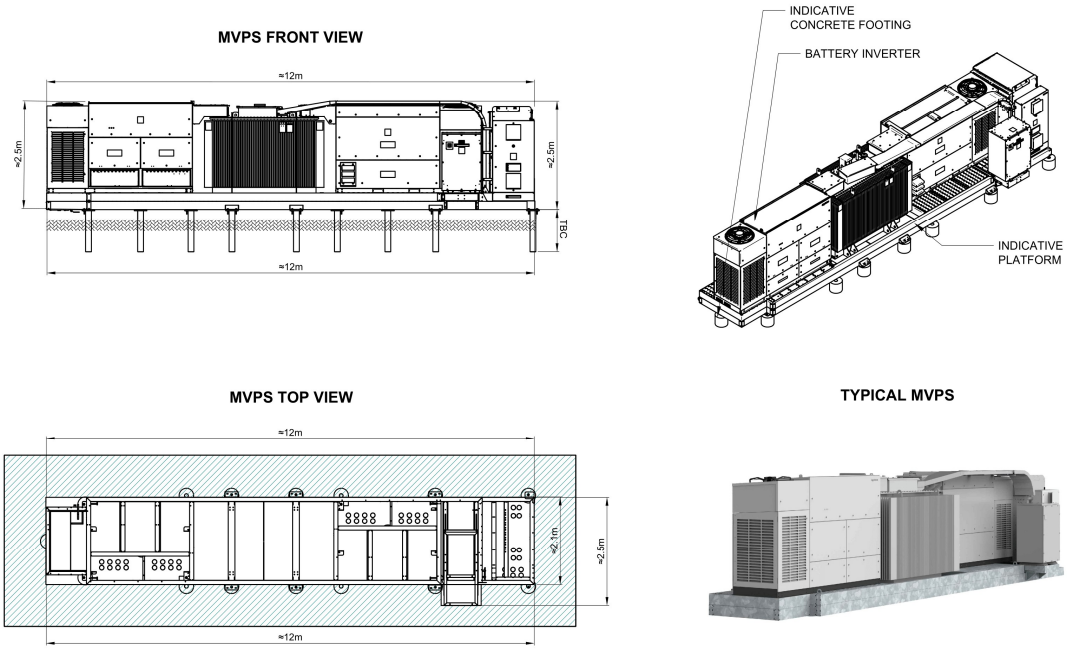
The initial lease would be for a period of twenty-two (22) years, with an option to extend – subject to the landowner's consent.

4.1 Facility Equipment and Componentry

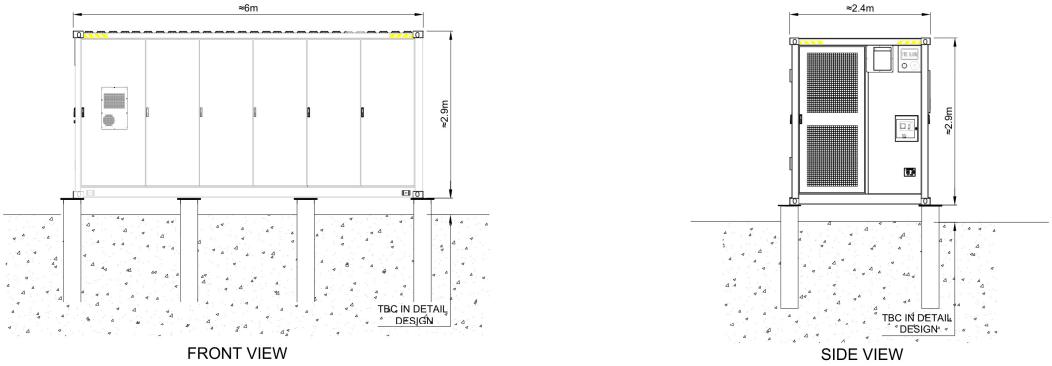
This application seeks consent to develop a footprint of approximately 3,780 sqm of land at Bruxner Highway for a **battery energy storage system** – as shown on the attached plans and figures, below. The proposed BESS and associated works are to be as shown on the attached plans and supporting documents. Specifically, it will consist of:

- 1.8-metre-high chain mesh perimeter fence around perimeter of facility, including a gate along the northern boundary.
- Landscaping along the entire perimeter of the facility, as shown on Landscape Plan, directly outside the compound fence.
- One (1) new above-ground power pole within the proposed facility, with an overhead connection to the existing electricity distribution network.
- One (1) medium voltage power station, with a length of approximately 12m, width 2.5m and height of 2.5m

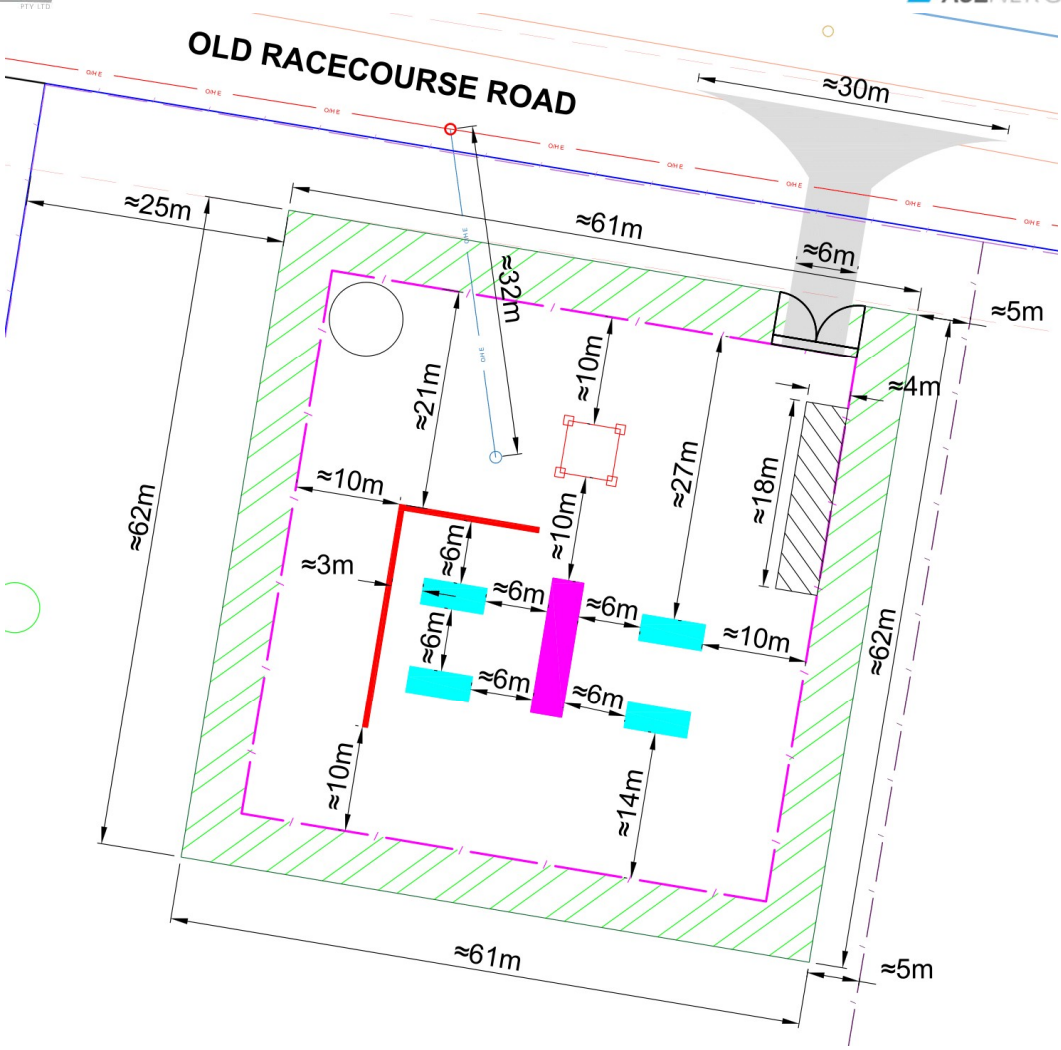
- Four (4) battery energy storage containers positioned centrally within the facility – each with a length of 6m, width of 2.4m, and height of 2.9m.
- 3.7-metre-high noise attenuation wall around the western side of the BESS units, internal to the facility, in accordance with the acoustic recommendations of the noise impact assessment report



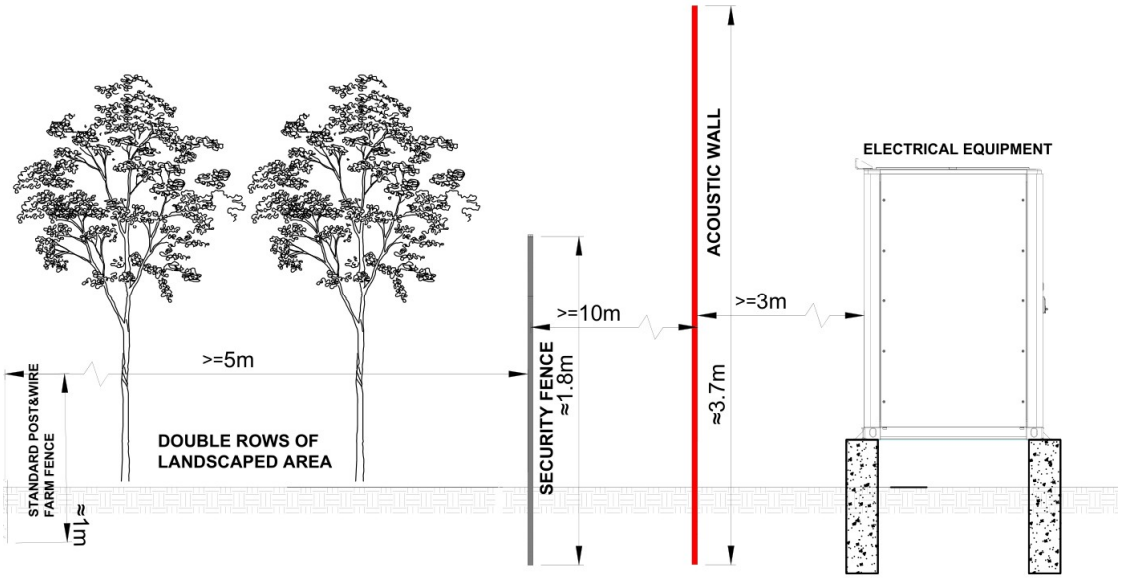
Proposed MVPS Unit Plans
Excerpt from elevation plans prepared by ACEnergy



Proposed BESS Unit Plans
Excerpt from elevation plans prepared by ACEnergy



Proposed Development Plans
BESS facility perimeter fence shown in purple line



Landscape Elevations/Cross-Section
Excerpt from elevation plans prepared by ACEnergy

5 Design Considerations

5.1 Identifying Suitable Locations

ACEnergy has embarked on the process of securing a suitable site in NSW for the development of a BESS. Factors such as land availability, proximity to the electricity network, accessibility, topography, land use conflict and site constraints are all key considerations when first looking for potential sites.

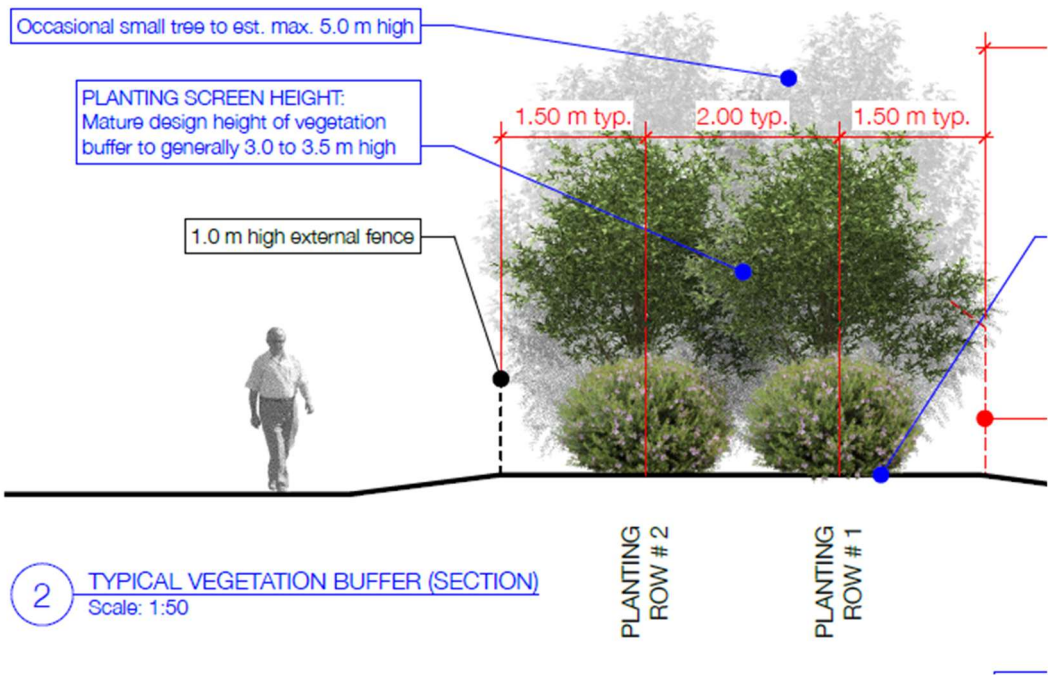
5.2 Visual Impacts and Site Context

The proposal is for an approximate 4.95 MW battery storage and the ancillary equipment that will occupy approximately 0.37 hectares of the 26.5-hectare property.

The nearest development boundary is approximately 8m away from the nearest property boundary– being the northern frontage to Old Racecourse Road. While the nearest equipment is approximately 35 metres away from the nearest property boundary.

Upon consideration of the nature of the proposed facility, the development would not lead to any undue cumulative visual impact on the surrounding area as a result of the proposed BESS.

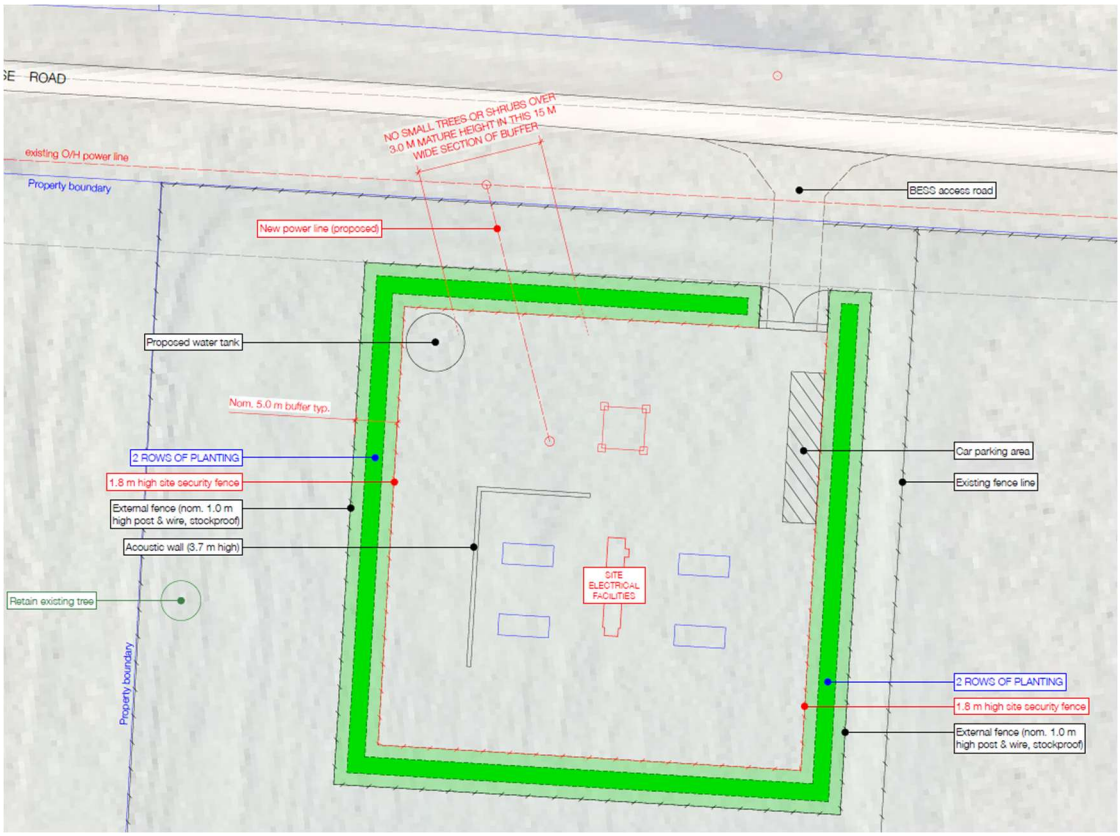
This application is supported by a landscape plan, which proposes landscaping along the outside of the facility fencing on all sides of the facility.



Proposed Landscape Sections
Extracted from Ground Control Landscape Architecture

The visual impact of the facility has the potential to be further softened through the use of landscape screening, as well as existing vegetation along active/visible frontages. However, given this proposal is effectively for the installation of five (5) shipping containers and a 3.7m high acoustic wall, the visual impact will be limited.

Accordingly, it is anticipated that land use and visual impact impacts from the proposed development is minimal, when viewed in the context of their surrounds.



Proposed Landscape Extents
Extracted from Ground Control Landscape Architecture

5.3 Traffic Management

The peak of construction activities will occur during the mechanical and electrical installation phases of construction. During these times, workers will access the site in the morning and leave at the end of the working day in either their private car or work vehicle (ute or small truck). It is anticipated that there will be some car-pooling, therefore it is expectant that there would only be a limited number of construction worker vehicles during the construction period.

The Traffic Impact Assessment prepared by Barker Ryan Stewart determined that:

> *"The addition of 7 vehicle movements per hour will not cause the capacity thresholds for the adjoining road network determined in this assessment to be reached. Therefore, the proposed development will not adversely impact on the local and state road network mid-block efficiency."*

The direct road connection to the site is via Old Racecourse Road – an unsealed road managed by Council.

Deliveries of components will be scheduled as required. The BESS units and equipment are prefabricated units that are delivered in pre-packed containers that are lifted from the delivery truck onto the lay-down area.

Outside of the construction period, the facility will be un-manned, other than intermittent periodical maintenance. The site will be remotely monitored in real time

and local contractors would be rapidly deployed to deal with any fault or other matter, which provides the added benefit of local jobs for the local community.

6 Site and Context Description

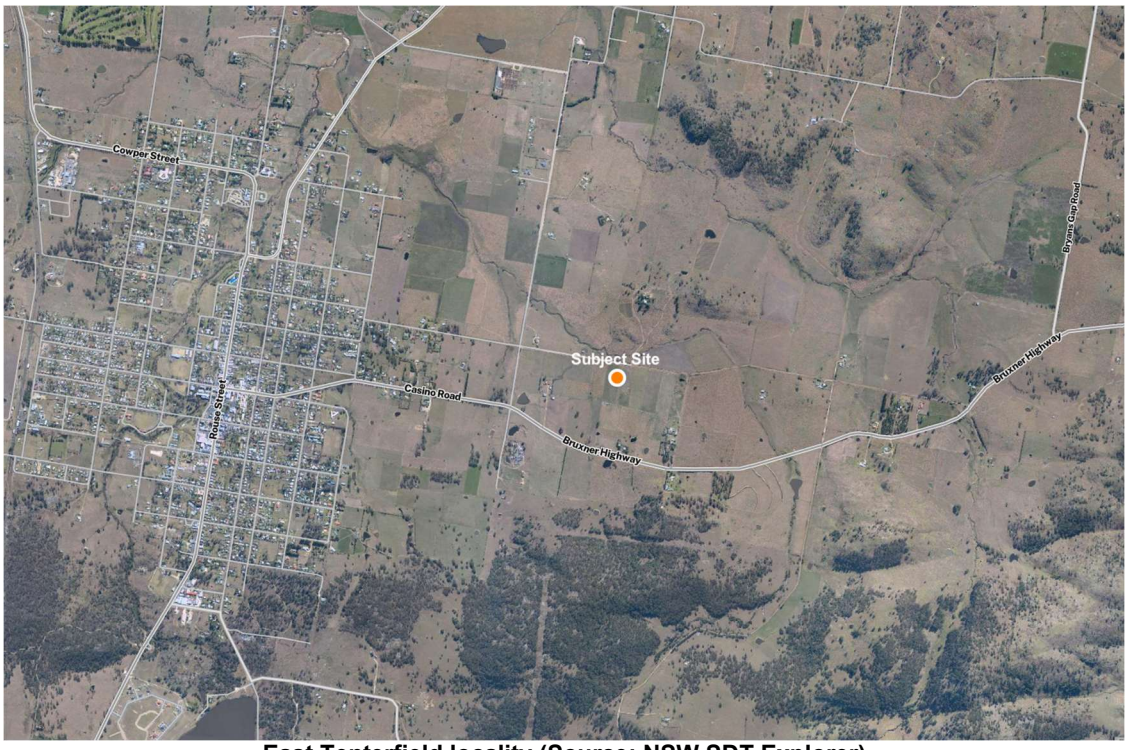
6.1 Surrounding Context

The surrounding area is predominantly used for primary industry, with a mix of other rural uses, typically lifestyle properties, and some rural business and activities.

The land directly surrounding the subject land is primarily used for conventional dryland agriculture – with grazing and some cropping evidenced through historical imagery.

The site is closely located to the Bruxner Highway, a major regional transport arterial connecting Tenterfield to Casino, Lismore and the Northern Rivers region.

Internal and surrounding local roads provide connectivity to adjacent rural lots and the broader road network. The site is within a short driving distance from key town services and amenities.



East Tenterfield locality (Source: NSW SDT Explorer)
Showing aerial context of the subject site, subject site marked with orange dot.

6.2 Location and Setting

The subject site is located to the east of the Tenterfield township, within the Tenterfield Shire local government area, in northern New South Wales. It lies directly north of the Bruxner Highway, approximately 2.5 km east of the town centre.

The surrounding landscape is typical of a rural-urban interface, with a mix of land uses transitioning from urban land to rural, primarily low-intensity agricultural land, with lifestyle properties and small home-based business.

North and East

The surrounding area comprises predominantly rural-residential and grazing land, with large-lot properties, scattered dwellings, and some agricultural activity.

The landscape becomes increasingly undulating and vegetated toward the east of the subject site.

Directly north of the subject site is one of the main tributaries to the Tenterfield Creek, which appears to be a seasonal watercourse.

There are several watercourses within the immediate area to the north of the site, though there are none on the subject site itself.

West

Directly west of the site is the urban edge of Tenterfield township, with low-density residential development transitioning into more conventional urban development within the township itself.

The Tenterfield Zone substation, which is managed by Essential Energy, is located to the south of the Bruxner Highway, which is accessed via Rifle Range Road, which serves as the southern continuation of Bellevue Road.

Intersection of Bellevue Road and Bruxner Highway to south-west of site
Essential Energy Tenterfield 132kV substation visible in background

South

To the south, across the Bruxner Highway, the land is characterised by some grazing pasture with some limited rural development; however, the prevailing landscape feature is that of vegetated hillslopes.

There is vegetation clearing that runs north-south over the hills. This clearance provides a separation and clearance buffer for the major transmission lines that connect to the Tenterfield Zone Substation.

6.3 Subject Site

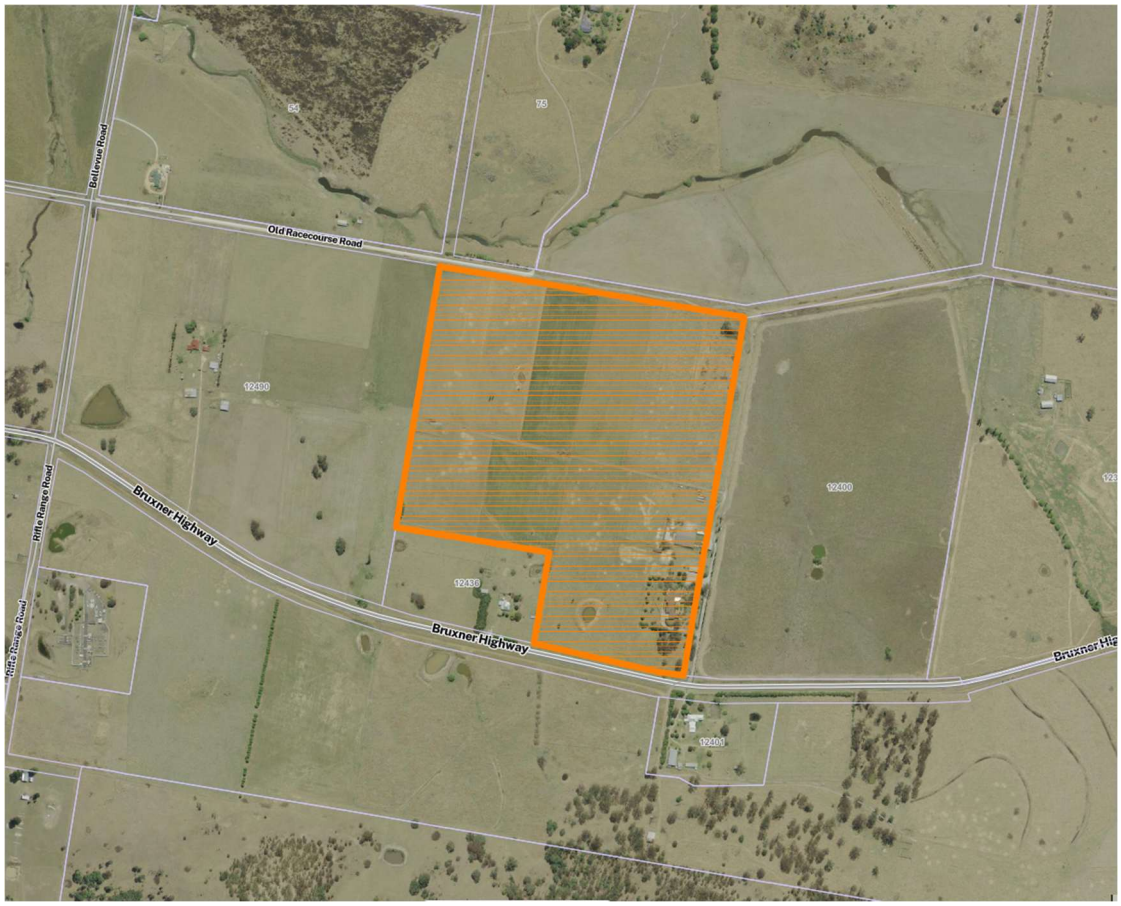
6.3.1 Landholder's Property – Bruxner Hwy, Tenterfield

The proposed battery energy storage system is to be built within the north-western-most paddock of a small farming property at Bruxner Highway, Tenterfield.

The farmer's property comprises two (2) rectangular parcels – which together form a total contiguous area of approximately 26.5 hectares.

For the purpose of this application, the subject site is the western parcel (**Lot 1, DP777724**), only.

The remaining allotment comprising the property is Lot 528, DP751540. This parcel is located to the east of the site and is not considered to form part of this Development Application.



Subject Property – "Bruxner Highway, Tenterfield" (Source: SDT Explorer)
Landholder's property shaded orange

The eastern parcel contains the landholder's dwelling, as well as residential outbuildings and several farm sheds and outdoor storage associated with the rural use of the property. This lot contains the existing vehicle access to the property, from the Bruxner Highway in the south east corner of the subject site.

This lot will continue to be managed seasonally in accordance with the ongoing agricultural use of the farm.

The southern boundary of the property has a road frontage of approximately 250m with the Bruxner Highway, which is largely fenced with stockproof fencing.

Bruxner Highway frontage and vehicle crossover from south east corner of property
Image Source: Apple Look Around, circa December 2019

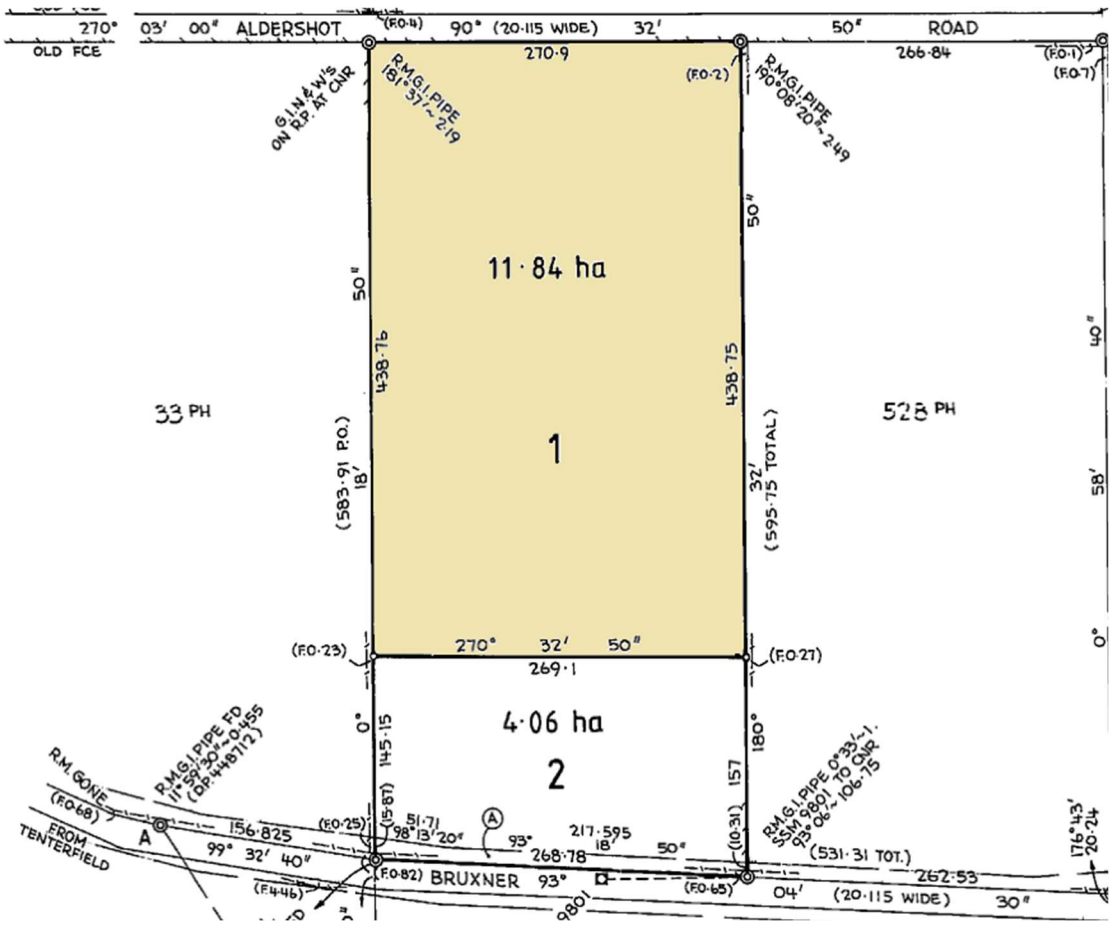
6.3.2 Lot 1, DP777724

The subject site is a cleared parcel, with the only distinguishing features being the on-site agricultural infrastructure in the form of fencing, a dam and internal laneway between paddocks.

Development site from Old Racecourse Road, to north-west of proposal
Photo source: Traffic Impact Assessment, by Barker Ryan Stewart

The site is accordingly cleared of vegetation, with the exception of a few dispersed of paddock trees.

Aerial Imagery of Subject Site
Title boundary outlined in blue



Site Cadastre as shown on title (DP777724)
Cadastral extents of subject site (Lot 1) shaded yellow

7 Development Details

7.1 Construction Stage

During peak of construction, the peak traffic generation is likely to include approximately 3 light vehicles (generating 6 trips per day) and four (4) heavy vehicles (generating 7 trips per day) accessing the subject site on a peak construction day.

The construction phase is expected to take four (4) weeks.

With the exception of Old Racecourse Road, the surrounding road network is largely comprised of sealed all-weather roads, capable of construction vehicle access.

However, as Old Racecourse Road is an unsealed gravel road, it is assumed that suitable conditions of consent be imposed on the sought DA by Council to ensure construction traffic does not unduly damage this road. It is also assumed that a pre-construction road audit and dilapidation report be prepared by a suitably qualified engineer prior to construction.

7.2 Operational Phase

Beyond the four-week construction period, the facility will be largely un-manned, other than intermittent general maintenance – which will include two light vehicles attending the site every fortnight. The facility does not include storage of any dangerous goods on site.

The site will be remotely monitored in real time and local contractors would be rapidly deployed to deal with any fault or other matter, which provides the added benefit of local jobs for the local community.

Considering that the proposed facility will be un-manned, with limited moving componentry (other than the tracking arrays), it is considered that it will have a very minimal impact on the landscape or surrounding road network.

7.2.1 Electromagnetic radiation (EMR)

Small amounts of electromagnetic radiation (EMR) can be produced (emitted) by electrical componentry associated with a BESS facility such as inverter, transformers and overhead powerlines. However, the level of radiation dissipates quickly – becoming largely indistinguishable from background levels over distance from the componentry.

The electromagnetic field (EMF) produced around an electric installation is non-ionising, within a range that exists in our daily lives from natural sources (which are most noticeably manifested in lightning discharges) and from appliances and electrical devices that surround our daily lives.

EMR from these types of components dissipates to indistinguishable levels over about 5-to-10 metres. The inverter is centrally located within the facility, therefore has next to no chance of emitting EMR to neighbouring land or roads.

7.2.2 Environmental, risk and emergency management

The proposed facility will be under constant surveillance by remote monitor in real-time. In the event of a fault or potentially dangerous situation an alarm will automatically report to 'on-call' staff. There will be no audible alarm at the facility. The

procedures and protocols for these operational arrangements will be set out in an operational management plan, that will be an integral part of the operation of the facility.

The site is not subject to planning controls pertaining to ground water vulnerability, and it is not considered that the proposed development would be likely to have negative impacts on groundwater and will not generate wastewater.

7.2.3 Site access and traffic management

As set out above, during operation the facility will be monitored remotely; there will be no permanent workers on site. The facility will remain largely unattended, other than fortnightly visits by maintenance contractors or in the instance of a fault that requires site attendance.

Site maintenance will include, seasonal maintenance (slashing and ground fuel control, etc), cleaning and periodical visual checks and electric inspection of componentry and equipment. This will be managed by no more than one or two contractors in a single vehicle (likely a work ute), carrying out visual checks and electrical inspection.

7.3 Waste Management

While there is no demolition to occur on the site, the construction waste generated will be limited to hole boring for pad footings, wire cut-offs and packaging waste.

7.3.1 Construction Phase

A project of this size is expected to have a construction period of four (4) weeks. It is anticipated that 12.5m Heavy Rigid Vehicles and 19m semi-trailers will be used to transport batteries and other materials to the site during the project construction period.

Accordingly, the applicant has advised that their sub-contractor agreements stipulate that each trade is to manage and remove their own waste. This agreement should also ensure that the waste is appropriately streamed, and materials recycled where possible to minimise waste going to landfill.

Waste generated through the construction phase will be temporarily stored on-site in skips prior to being transferred to an approved waste facility in accordance with the construction management plan. Prior to disposing of waste at a transfer station, contractors are to first confirm capacity, as alternative waste disposal at a larger, regional transfer station could be required. However, in considering the relative minor build of this proposal, it is unlikely that waste management will be a significant consideration.

7.3.2 Operational Waste

Once the facility is up and running, it will be remotely monitored and will be unmanned, therefore the waste generated during operational phase will be relatively low.

There will be a need for mowing / weed removal as well as any general maintenance to ensure continued operation. It is anticipated that any operational waste will be limited to that generated by Operations and Maintenance (O&M) contractors and any supplies required for maintenance or repair. Any waste generated during the

operational phase will be removed from the site and either recycled or disposed of at a suitable waste disposal facility.

7.3.3 Site Decommissioning Waste

Most components of the proposal have a 20-year design life expectancy. Retrofit or upgrade is not proposed at the end of the facility's useful life, the plant components would be decommissioned and removed from the site for recycling or safe disposal.

Operational waste would consist of that generated by O&M contractors and any supplies required for maintenance or repair. This waste would be disposed of appropriately by the contractors.

8 Strategic Context

8.1 New England North West Regional Plan 2041

Tenterfield Shire is one of thirteen LGAs under the umbrella of the New England North West Regional Plan (NENWRP). The NENWRP sets out a regional framework that complements the state and local framework for the direction of planning and development across north-eastern NSW. Of direct relevance to this application, the forward to the NENWRP states:

> *"The future of energy is renewable, and the New England North West is already becoming a leader in sustainable and cost-effective electricity production with the building of Australia's largest hybrid solar farm in Uralla, but that's just the start. The NSW Government has set a clear objective of halving our emissions by 2030 and achieving net zero emissions by 2050. We are securing the economic prosperity of the region for the decades to come by putting it in a strong position to achieve net zero."*

8.1.1 Part 1 – Growth, Change and Opportunity

- *OBJECTIVE 1: Coordinate land use planning for future growth, community need and regional economic development*

The proposed development represents an opportunity to capitalise on the 4 key settlement principles of the Regional Plan, which seeks to:

1. Identify growth needs and opportunities
2. Identify and direct suitable land for planned growth
3. Determine the required structure for development, and
4. Encourage locally responsive, sustainable design.

The development of the site provides for investment within the local community as the energy transitions toward renewable energy. The nature of the development also avoids prejudicing future rural development of the site and would be unlikely to adversely impact surrounding rural land.

This BESS is one step further in establishing appropriate growth of renewable infrastructure in the local area.

8.1.2 Part 2 – Productive and Innovative

- *OBJECTIVE 2: Protect the viability and integrity of rural land*

The proposal is tied to a 22-year-lease of the farmer's property, at which point the property would be fully remediated to pre-development conditions. On the agricultural spectrum, the site is of moderate agricultural utility, capable of being grazed, though there is no formal irrigation infrastructure.

The level of ground disturbance will be limited to the installation of the central inverter, the four (4) battery units and the truck roundabout.

8.1.3 Part 3 – Sustainable and Resilient

- *OBJECTIVE 8: Adapt to climate change and natural hazards and increase climate resilience*
- *OBJECTIVE 9: Lead renewable energy technology and investment*
- *OBJECTIVE 10: Support a circular economy*

The transition toward renewable energy must be balanced by appropriate measures to ensure that the development of renewable energy alongside diversification on farming incomes.

The Tenterfield LGA lies just outside the New England Renewable Zone, and is therefore envisioned to provide a substantial contribution to the renewable energy transition. The site is well served by existing infrastructure and would allow for the continuation of existing rural uses in the immediate vicinity.

8.1.4 Part 5 – Connected and Accessible

- *OBJECTIVE 22: Utilise emerging transport technology*

The need for electric vehicle charging stations is growing, this proposal will contribute to the necessary local infrastructure needed for region-wide implementation.

8.1.5 Local Government Narratives

Tenterfield

> *"Tenterfield LGA has a strong and growing economy based on agriculture and mineral resource production, retail trade, and the health, education and tourism industries. A small portion of the south of the Tenterfield LGA is within the New England REZ. The REZ will unlock a significant pipeline of large-scale renewable energy and storage projects, and new local opportunities."*

To complement the above statement, the relevant priority for Tenterfield Shire is to "*leverage the REZ and wind, solar and other renewable energy production opportunities".*

This proposal is for the development of a small-scale BESS to support existing (and future) operational renewable energy facilities within the New England Renewable Energy Zone to the south of the site, as well as any facilities more locally around Tenterfield.

The proposal provides an opportunity for investment in Tenterfield Shire, in a relatively unobstructive manner. That will be screened by landscaping, and will provide a boost to Tenterfield Shire's energy resilience.

8.2 Tenterfield Local Strategic Planning Statement 2040

Planning Priority 8 Resilience to climate change

Planning priority 8 of the Tenterfield LSPS states that:

> *"Transitioning to a regenerative culture that conserves and safeguards the natural resources on which the community relies, and using more sustainable raw materials and processes, is a vital step toward becoming more resilient to the impacts of climate change."*

To determine the appropriateness of the proposed development, this application has been considered against the below performance criteria that seeks to "*ensure development for renewable energy generation is"*:

… appropriately sited.	The BESS development would be located proximate to the north-west boundary, providing immediate vehicle access. The development site would be approximately 250m from the nearest dwelling to the west of the site.
… avoids / manages impacts on the scenic rural landscape and visitor attractions.	The development site is a relatively low-lying land, and does not present an impediment to any strategically identified rural landscape/s.
… has available access to essential infrastructure, such as substations; and	The site has been deliberately located due to availability of service connections, as the economic feasibility of a smaller-scale facility is reliant on using existing infrastructure.
… preserves valuable farming land and land of high environmental value.	The proposed development is located on flat agricultural land, which is limited to grazing and is unlikely to realise any more intensive agricultural use if this proposal was not to proceed, the site does not contain any ecological value that warrants specific preservation.

Accordingly, the proposed impact of renewable energy infrastructure on productive agricultural land, high environmental value lands and important view corridors would be negligible to the ongoing viability of the agricultural sector, environmental values and tourism in the Shire.

9 Statutory Framework and Assessment

9.1 Environmental Planning & Assessment Act 1979

The proposal is subject to the provisions of the *Environmental Planning & Assessment Act 1979* No. 203 (*"the Act"* herein).

Under the Act, the consent authority is required to consider the full range of matters listed under Division 4.3, Section 4.15 of the Act in its assessment of a development application. Each of the relevant matters are addressed below:

Matters for Consideration – General

The consent authority must take into consideration:

(a) the provisions of:

(i) any environmental planning instrument, and
(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and
(iii) any development control plan, and
(iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and
(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph),

that apply to the land to which the development application relates,

(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,
(c) the suitability of the site for the development,
(d) any submissions made in accordance with this Act or the regulations,
(e) the public interest.

Accordingly, the proposal and potential impacts are now considered – in accordance with the above provisions of Section 4.15, under the following headings:

Impacts on the Natural Environment

The proposed development is to be undertaken on a property zoned RU1 for Primary Production, which consequently, is largely cleared for historical agricultural use. The proposal will therefore not require the removal of any significant vegetation.

The current DA is accompanied by conceptual plans and relevant assessments to demonstrate that there will not be any undue detrimental impacts as a result of the proposal – either on-site or off-site.

In considering the size and magnitude of the facility, as well as the flat topography of the site and the proposed built form (being five shipping containers, an acoustic wall, and chain mesh fencing), any adverse landscape impacts are considered to be unlikely.

The site is largely cleared of any trees, and has been consistently managed through intermittent cropping and grazing of the development site for several decades.

The development site has been located entirely outside of the nearby watercourse biodiversity corridor. Consequently, the proposal would not adversely affect any ecologically significant area or depreciate its value.

There are no mapped flooding constraints that affect the land, as modelled in the appending flood impact assessment by *SWM Consulting*. In considering the nature of the proposed facility – comprising largely permeable fencing and ground-mounted installations – it would significantly impede natural flow paths and increase flood risk.

Impacts on the Built Environment

The nearest dwelling (not in common ownership) is located approximately 250 metres west of the development site, which is located in the RU1 Zone and is not considered to be a sensitive use for the purposes of planning.

The distance of the BESS from the Bruxner Highway, along with the proposed landscaping, is also considered to further soften any visual impacts to any prospective passersby from nearby road.

The proposal includes one (1) centrally located inverter station, four (4) BESS units, acoustic wall and a switchboard within the compound at the electricity network connection point. None of these components are particularly large or visually intrusive and are considered comparable to a farm shed/shipping container.

The financial viability of a BESS facility is dependent on the facility being within proximity to the distribution network infrastructure, as beyond this, network augmentation costs become prohibitive. The subject site was initially selected for its proximity to the Tenterfield zone substation, which feeds electricity for local use.

The proposed development is likely to have a negligible visual and noise impact on the locality, largely due to the significant distance from surrounding roads and buildings/dwellings. The noise impact will further be minimised and controlled with the help of the acoustic wall proposed along the facility.

The site has been selected through a careful site selection and design process to minimise impacts on the surrounding built environment. Additionally, the height and scale of the facility are such so as to further reduce any potential impacts, which will be further "softened" via the proposed landscaping around the facility.

Social and Economic Impacts

The proposed development will support the economic growth of Tenterfield and the broader municipality.

The proposed BESS has been designed and located to maximise the electricity generation efficiency while limiting the use of rural land – retaining much of the broader farming property for continued agricultural use and ensuring that the farm continues to be economically liable for the landholder.

It is estimated that during construction, a large portion of the work will be undertaken by local contractors. Where additional skilled workers from outside the region would need to be accommodated, this will create an influx of spending within the area. The proposal will also have a positive effect on NSW's electricity prices and lead to affordable energy.

The proposed development will remain under lease from the current farmer, providing for a supplemental income for the farmer and allowing for further investment in agricultural operations on the property, while also supporting the transition of renewable energy.

The Suitability of the Site

The subject site is a largely cleared farming property that contains limited topographical or environmental constraints. The proposed development site is located to minimise impacts on surrounding farming uses, the natural environment, and the built environment.

The site is located on a portion of the property that would prevent the fragmentation of farming land.

Of relevance to the surrounding site context, a 60-hectare, 25MW solar farm was approved in 2019 on land to the north-east. However, we understand that this DA has not been acted upon and has expired. Nevertheless, this provides a useful context for

the suitability of the locale for renewable energy, which this proposal would directly underpin.

There are limited land use conflicts that would arise as a result of the proposal, and due to the location of the proposed site, the BESS would be located a sufficient distance from all of the nearest surrounding dwellings and roads. Nevertheless, the relative proximity to the Tenterfield township will ensure that a ready supply of workers/contractors is available, if/as necessary. It will also provide for accommodation and access to a range of services.

The site has also been deemed a suitable candidate because of the existing electricity network and its close proximity to the Tenterfield zone substation.

The proposal is for a land use that will be fully contained within the subject land and has been designed in a site-responsive manner mindful of the context of the site (i.e. site constraints and existing servicing and public infrastructure assets in the vicinity).

Any submissions made in accordance with this Act or the Regulations

Any relevant representations will need to be considered by the Council in determination of the development application.

The public interest

The public interest is best served by the orderly and economic use of land for purposes permissible under the relevant context of the site within the Tenterfield LGA and in accordance with the prevailing planning instruments.

9.2 State Environmental Planning Policy (Transport & Infrastructure) 2021

Part 2 – Division 4 – Electricity generating works or solar energy systems

2.36 Development permitted with consent

(1) Development for the purpose of electricity generating works may be carried out by any person with consent on the following land

(b) any land in a prescribed non-residential zone.

In response to the above provision of the SEPP, the RU1 zone is a prescribed non-residential zone under the 2.35 definitions.

The proposed use of the land for an energy storage facility is considered to be compatible with adjoining agricultural land uses and respectful of the nearby terrestrial biodiversity and wetlands.

The use and development of land would generate negligible impact on the surrounding area – the primary concern for solar energy facilities is the perceived visual impact that solar panels may have on surrounding amenity and the potential loss of agricultural utility. However, the proposed facility is for a battery energy storage station, which does not involve solar panels, which further minimises any negative amenity or utility impact.

The proposal has been located to limit any impacts on existing agriculture within the surrounding area. Additionally, the muted colours and design of the BESS resemble those of farm sheds, reducing any visual impact on the surroundings. Overall, the development of a BESS will be a low-impact use and has been carefully sited to avoid any adverse impact upon rural infrastructure.

The proposal is intended to facilitate the transition toward the State government's renewable energy target. To this end, the proposed facility will contribute approximately 5MW of renewable energy into the NSW electricity grid.

Division 5 – Subdivision 2 – Development likely to affect an electricity transmission or distribution network

2.48 Determination of development applications—other development

(1) This clause applies to a development application (or an application for modification of a consent) for development comprising or involving any of the following—

(a) the penetration of ground within 2m of an underground electricity power line or an electricity distribution pole or within 10m of any part of an electricity tower,

(b) development carried out—

(i) within or immediately adjacent to an easement for electricity purposes (whether or not the electricity infrastructure exists), or

(ii) immediately adjacent to an electricity substation, or

(iii) within 5m of an exposed overhead electricity power line,

(d) development involving or requiring the placement of power lines underground, unless an agreement with respect to the placement underground of power lines is in force between the electricity supply authority and the council for the land concerned.

(2) Before determining a development application (or an application for modification of a consent) for development to which this clause applies, the consent authority must—

(a) give written notice to the electricity supply authority for the area in which the development is to be carried out, inviting comments about potential safety risks, and

(b) take into consideration any response to the notice that is received within 21 days after the notice is given.

The proposed development site has been selected due to its proximity to existing electrical infrastructure – which includes a substation and distribution network in close proximity to the site. The applicant has commenced the electrical connection approval process with Essential Energy, which serves as the precursor for this development application.

The facility design has considered all existing site conditions and features. It has been sited immediately adjacent to an easement for electricity purposes, to allow for effective transmission to the network. The facility location has also been chosen to limit the extent of connection infrastructure.

9.3 State Environmental Planning Policy (Primary Production) 2021

Chapter 2 Primary production and rural development

Part 2.1 Preliminary

The aims of this Chapter are as follows—

(i) to facilitate the orderly economic use and development of lands for primary production,

(ii) to reduce land use conflict and sterilisation of rural land by balancing primary production, residential development and the protection of native vegetation, biodiversity and water resources,
(iii) to identify State significant agricultural land for the purpose of ensuring the ongoing viability of agriculture on that land, having regard to social, economic and environmental considerations,
(iv) to simplify the regulatory process for smaller-scale low risk artificial waterbodies, and routine maintenance of artificial water supply or drainage, in irrigation areas and districts, and for routine and emergency work in irrigation areas and districts,
(v) to encourage sustainable agriculture, including sustainable aquaculture,
(vi) to require consideration of the effects of all proposed development in the State on oyster aquaculture,
(vii) to identify aquaculture that is to be treated as designated development using a well-defined and concise development assessment regime based on environment risks associated with site and operational factors.

In response to these aims, the *proposal is not designated development*, nor is it development that is considered to unduly impact the ongoing use of the surrounding land for primary production. The proposed development footprint is approximately 3,00 square metres only (including landscaping), while the majority of the property will be retained for agriculture. Furthermore, the development site will be restored to its original condition upon site decommissioning.

Neither the land, nor any of the surrounding agricultural land is mapped under the draft State Significant Agricultural Land mapping (SSAL).

The site has some inherent agricultural utility; however, the footprint of the proposed battery energy storage system is considered unlikely to significantly impact agricultural use of the land.

9.4 State Environmental Planning Policy (Planning Systems) 2021

Schedule 6 – Regionally Significant Development

5 Private infrastructure and community facilities over $5 million

Development that has a capital investment value of more than $5 million for any of the following purposes—

(a) air transport facilities, electricity generating works, port facilities, rail infrastructure facilities, road infrastructure facilities, sewerage systems, telecommunications facilities, waste or resource management facilities, water supply systems, or wharf or boating facilities,
(b) affordable housing, child care centres, community facilities, correctional centres, educational establishments, group homes, health services facilities or places of public worship.

Development that is state and regionally significant is identified in *State Environmental Planning Policy (Planning Systems) 2021*.

Private infrastructure, including electricity generating stations, that have a capital investment value of over $5 million are declared regionally significant. The proposed BESS development has an EDC of **$4.496 million** and is therefore identified as a **Local Development**.

9.5 State Environmental Planning Policy (Resilience & Hazards) 2021

Chapter 3 – Hazardous and Offensive Development

Section 7.1 of the NSW Department of Planning's 'Hazardous and Offensive Development Application Guidelines – Applying SEPP 33' details how to identify a potentially hazardous industry.

The proposal does not involve any of the hazardous materials listed in Table 1, Table 2 or Table 3 of the guidelines. Therefore, *the proposal is not considered to be a potentially hazardous industry*, and chapter 3 of the SEPP does not apply.

Chapter 4 – Remediation of Land

4 Objective of this Chapter

(1) The object of this Chapter is to provide for a Statewide planning approach to the remediation of contaminated land.

(2) In particular, this Chapter aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment—

(c) by specifying when consent is required, and when it is not required, for a remediation work, and

(d) by specifying certain considerations that are relevant in rezoning land and in determining development applications in general and development applications for consent to carry out a remediation work in particular, and

(e) by requiring that a remediation work meet certain standards and notification requirements.

4.6 Contamination and remediation to be considered in determining development application

(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.

The proposed development is proposed on a site which has historically been used for dryland agricultural activities for an extended period of time; this may include cropping or grazing. There is no evidence to suggest that the site is or might be contaminated to a level that would impact on the proposed use.

Therefore, it is considered that the proposed development is compliant with the SEPP.

9.6 State Environmental Planning Policy (Biodiversity & Conservation) 2021

Chapter 3 – Koala habitat protection 2020

3.3 Land to which Chapter applies

*"(1) This Chapter applies to land in the following land use zones, or an equivalent land use zone, in a local government area specified in Schedule 1 of State Environmental Planning Policy (Koala Habitat Protection) 2021, but not if the local government area is marked with an * in that Schedule—*

(a) Zone RU1 Primary Production"

The proposal does not seek removal of any trees, native or otherwise, as the site has been previously cleared for agriculture. Further, there is extensive cleared land on all sides of the development site, which renders the site unlikely to be conducive to koala habitat.

Chapter 4 – Koala habitat protection 2021

Pursuant 4.4(d)(i), *"this Chapter does not apply to land in the Zone RU1 Primary Production".*

10 Tenterfield Local Environmental Plan 2013

2.3 Zone Objectives and Land Use Table – RU1 – Primary Production

1 Objectives of zone

- To encourage *sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To encourage diversity in primary industry enterprises and systems appropriate for the area.*
- *To minimise the fragmentation and alienation of resource lands.*
- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*

The proposed development is an unmanned use that will see very limited traffic beyond the initial four-week construction period.

Tenterfield LEP Zone Mapping
Subject site (marked with red pin) shown within RU1 Zone

In consideration of the agricultural context of the site and the surrounding area, although agriculture is absolutely possible, the small development footprint is unlikely to otherwise support any meaningful agricultural use.

The site is already proximate to a mix of non-agricultural uses, one of these is the Tenterfield Zone substation, which presents as a compatible land use with the proposed development.

There is no subdivision or fragmentation of the land proposed, as the land will be operated under lease of the existing farmer.

6.1 Earthworks

Development consent is required under Clause 6.1(2) of the LEP. As development consent is required, Clause 6.1(3) applies, which requires:

(3) Before granting development consent for earthworks (or for development involving ancillary earthworks), the consent authority must consider the following matters—

a. the likely disruption of, or any detrimental effect on, drainage patterns and soil stability in the locality of the development,
b. the effect of the development on the likely future use or redevelopment of the land,
c. the quality of the fill or the soil to be excavated, or both,
d. the effect of the development on the existing and likely amenity of adjoining properties,
e. the source of any fill material and the destination of any excavated material,
f. the likelihood of disturbing relics,
g. the proximity to, and potential for adverse impacts on, any waterway, drinking water catchment or environmentally sensitive area,
h. any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development

The proposed development will involve limited earthworks to install footings, as well as some potential trenches for underground cabling. But otherwise, earthworks would be limited, and the ground conditions would remain largely consistent with pre-development conditions.

11 Tenterfield Development Control Plan 2014

11.1 Access and Parking (Chapter 6)

The stated Aims and Objectives of this chapter are:

"To provide a guide for the provision of access and parking associated with development in the Tenterfield LGA in order that:

- *Traffic safety and management are maintained or improved;*
- *Parking areas are provided that are convenient, functional and sufficient for use;*
- *Adequate provision is made for access and parking for people with disabilities;*
- *A balance is achieved between the needs of the proposed use and of vehicular and pedestrian traffic; and*
- *Parking areas, once established, are maintained in an adequate condition that continues to provide facilities that comply with those required when development consent was granted."*

In considering the nature of the development, which will be a largely unmanned site, there will be limited car parking requirements during operation. With the peak car parking demand (of 6-7 car parks) during construction period.

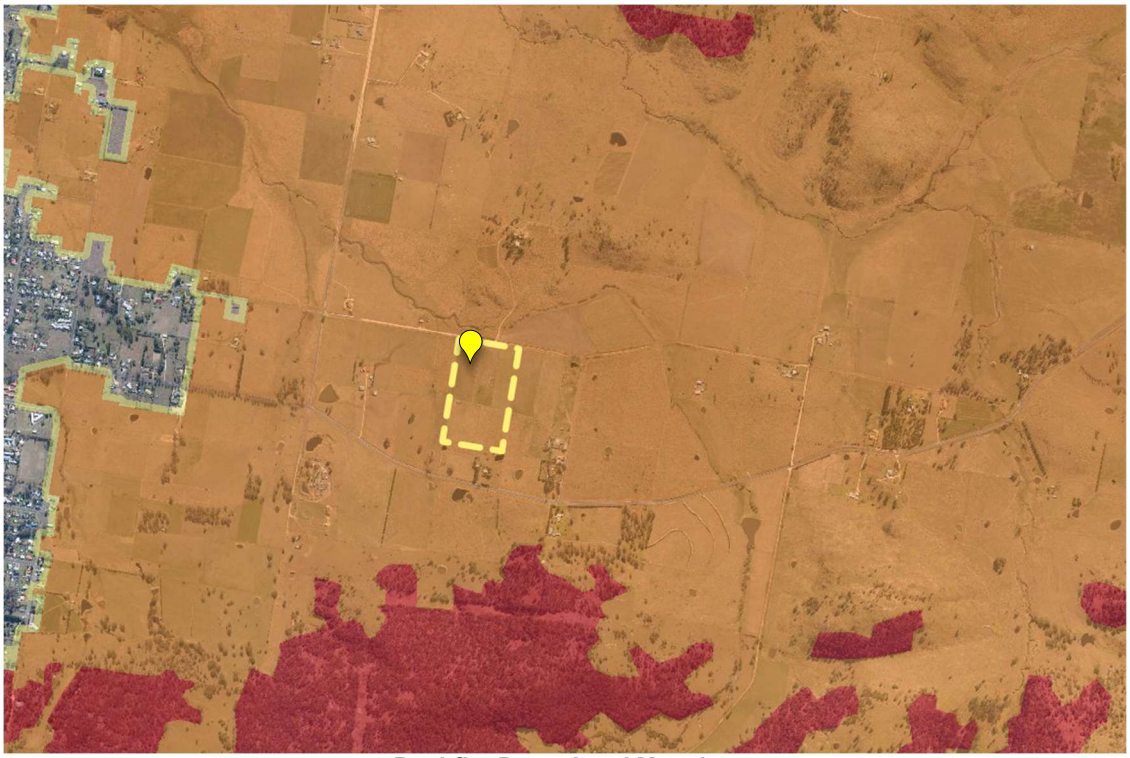
Accordingly, there will be 2 permanent car parks within the proposed facility, and there will be ample informal car parking during the construction period on the site.

12 Planning for Bushfire Protection 2019

Planning for Bush Fire Protection 2019 (PBP) provides development standards for designing and building on bush fire prone land in New South Wales.

The proposed development is within a mapped bushfire prone area; accordingly, it considers bushfire protection measures listed in the document, such as:

- Asset protection Zone (APZs)
- Access
- Construction, siting and design
- Services; and
- Emergency and evacuation planning.



Bushfire Prone Land Mapping
Subject site outlined with yellow and marked with pin

Accordingly, ACEnergy has engaged a specialist BPAD-accredited consultant, Harris Environmental, to prepare a Bushfire Management Plan to consider both the inherent fire risk at the site, in addition to a methodology to mitigate the risk of fire, both to and from the proposed development.

The facility has incorporated these principles into the design and layout, with the facility having direct access to Old Racecourse Road to the north, as well as a 10-metre perimeter fire break on all sides around the electrical equipment and between the boundary fence of the facility.

In considering the immediate landscape within the vicinity of the proposed facility, most vegetation is considered to be managed grassland.

13 Conclusion

The proposal is for a new BESS facility within the Tenterfield Shire that will provide affordable clean energy for the local community, including the Tenterfield township and the surrounding area, effectively contributing to New South Wales's transition to renewable energy.

The proposal is supported by the ***NSW Regional Energy Action Plan 2018*** to Net Zero Emissions that sets out a broader framework for achieving the region's aspirations and expectations for renewable energy by providing regional opportunities for the benefit of the regional community.

The 4.95 MW output will supply local businesses, industry and houses and will produce enough energy for use during peak consumer demand.

The proposal will generate local employment opportunities for electrical and construction workers to build and install the facility; operations, maintenance and security jobs will be required ongoing.

The holistic considerations of the proposed BESS and the primary considerations of the proposal, including the merits of both preserving agricultural land against promoting renewable energy, have been addressed at length in the various sub-sections of this report and the appended documentation.

It is submitted that the information provided within this report and the various supporting documents demonstrate that the proposal warrants development approval.