



COUNCIL ASSESSMENT REPORT

NORTHERN REGIONAL PLANNING PANEL

PANEL REFERENCE & DA NUMBER	PAN-366898 – 2023/066
PROPOSAL	Installation of Electricity Generating Works (11 MWh Battery Energy Storage System [BESS])
ADDRESS	Lot 2 DP 814689, 262 Hunts Road
APPLICANT	Providence Group Pty Ltd
OWNER	Miss VE Dewsbury
DA LODGEMENT DATE	08/09/2023
APPLICATION TYPE	Development Application
REGIONALLY SIGNIFICANT CRITERIA	Clause 5, Schedule 7 of the SRD SEPP: Private Infrastructure and community facilities over \$5 million
CIV	\$6,626,650
CLAUSE 4.6 REQUESTS	N/A
KEY SEPP/LEP	Gunnedah Local Environmental Plan 2012 State Environmental Planning Policy (Planning Systems) 2021 State Environmental Planning Policy (Biodiversity and Conservation) 2021
TOTAL & UNIQUE SUBMISSIONS ISSUES SUBMISSIONS KEY IN	One (1) submission Matters raised within submission are: <ul style="list-style-type: none"> • Change of use from previous approval not appropriate for RU4 zone, including 24 hour operation. • Hazardous impacts on surrounding locality from use of lithium batteries and potential for explosions. • Ensuring that the operational noise from the BESS complies with relevant standards. • The development will be part of the LAVO HEOS (Hydrogen Energy Storage System) which is indicated on the proponents webpage. • No community consultation by developer prior to lodgement of development application. • No Visual Assessment was included within the development application.
DOCUMENTS SUBMITTED FOR CONSIDERATION	Development Application Statement of Environmental Effects Capital Investment Value

	Acoustic Report BESS Datasheet Site Plans Inverter Preliminary Layout Regrowth Investigation
SPECIAL INFRASTRUCTURE CONTRIBUTIONS (S7.24)	N/A
RECOMMENDATION	Approval, subject to conditions
DRAFT CONDITIONS TO APPLICANT	YES
SCHEDULED MEETING DATE	4 September 2024
PLAN VERSION	31 July 2024, Version No A
PREPARED BY	Wade Hudson, Manager Development Assessment
DATE OF REPORT	26 August 2024

EXECUTIVE SUMMARY

The development proposes the installation of an 11MWh battery storage system (BESS), Operation and Maintenance shed (O&M) container, inverters and water storage tank. The proposal satisfies the definition of 'Electricity Generating Works' for the purpose of electricity storage. The BESS is proposed to be operated 24hrs per day, 7 days per week.

The site is irregular in shape and has frontage to Hunts Road, Black Jack Road and Bushs Lane. The site has an area of 24.55ha. The site is located within a small lot rural area located to the south-west of the Gunnedah township. The surrounding area is a rural residential growth area of Gunnedah. The surrounding area is R5 and RU4, with lot sizes of 40ha, 1.2ha and recently gazetted 9,000m² lots.

The site contains an existing dwelling. The rear of the site is vacant. However, there is a development consent (2020/035) issued by court appeal for the construction of a 5MW solar farm, which is yet to be physically commenced.

The development as first lodged 8 September 2023 and the application was placed on exhibition 19 October 2023, with a single submission in objection received. The development was referred to Essential Energy as the local electrical service provider. Council requested additional information 30 January 2024. Additional Information was received 5 and 9 August 2024.

The development results in impacts from the development activity which is positioned between two sections of R5 large lot area. This area is identified for urban growth through extension of Council's water infrastructure network. Due to the development land use not being consistent

with the adjoining development, it is suggested that additional landscaping be conducted to limit the visibility of the BESS and associated infrastructure.

The development should be developed in accordance with an Emergency and Operational Management Plan which requires the developer to consider the risks of damage to the BESS or risks from fire and the impact this would have on the surrounding environment.

Specific conditions have been recommended to be imposed on any development consent which requires the preparation of any appropriate management plan, development of landscaping plans and limitations on operational life of the development. This ensures that the development will be conditioned and operational to limit effect on the surrounding landscape and receivers. These conditions should be imposed along with other conditions listed within Attachment A to this report.

1. THE SITE AND LOCALITY

1.1 The Site

- This site is an irregular shaped lot (refer to Figure 1) with frontage to Black Jack Road, Hunts Road and Bushs Lane.
- Primary frontage to Hunts Road has a frontage of 205.98m and the depth of the property is 1008.6m
- Site area of 24.55ha.
- The site has a gradual slope down from South-West towards the North-East.
- The site is located within a small lot rural area located to the south-west of the Gunnedah township. The site closely adjoining Council's R5 Large Lot residential area.
- There are no heritage or key environmental features of the site which have been identified.

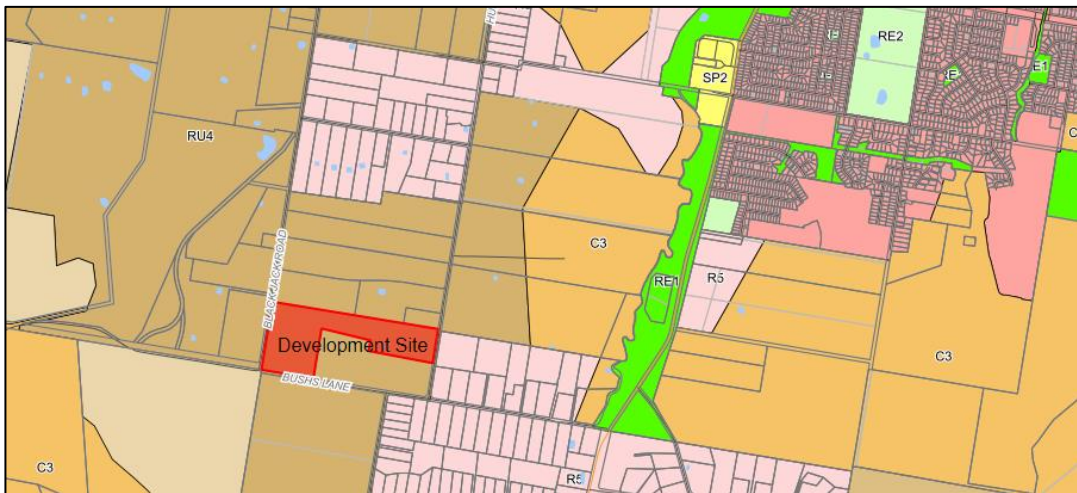


Figure 1 – Location Map

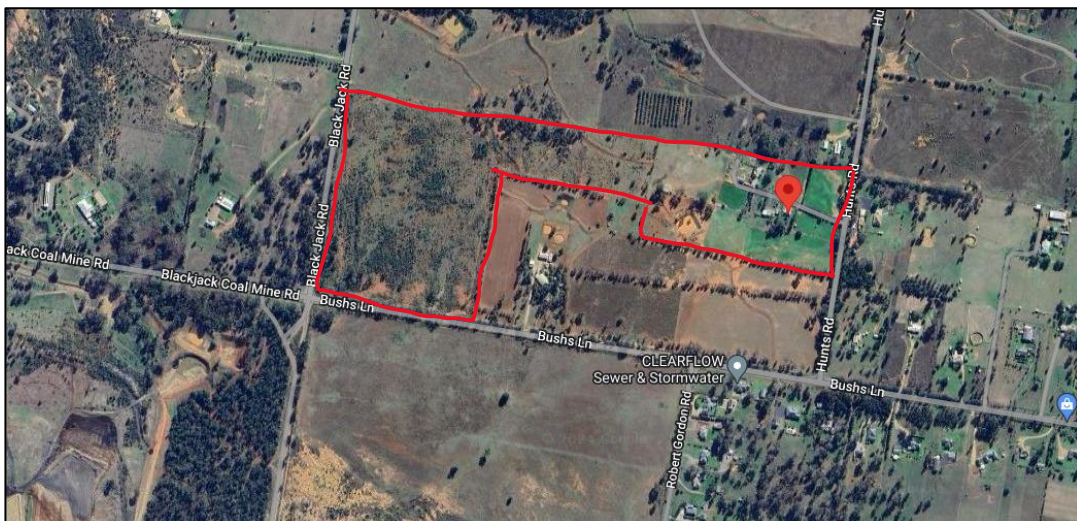


Figure 2 – Aerial image (Source: Google Maps)

1.2 The Locality

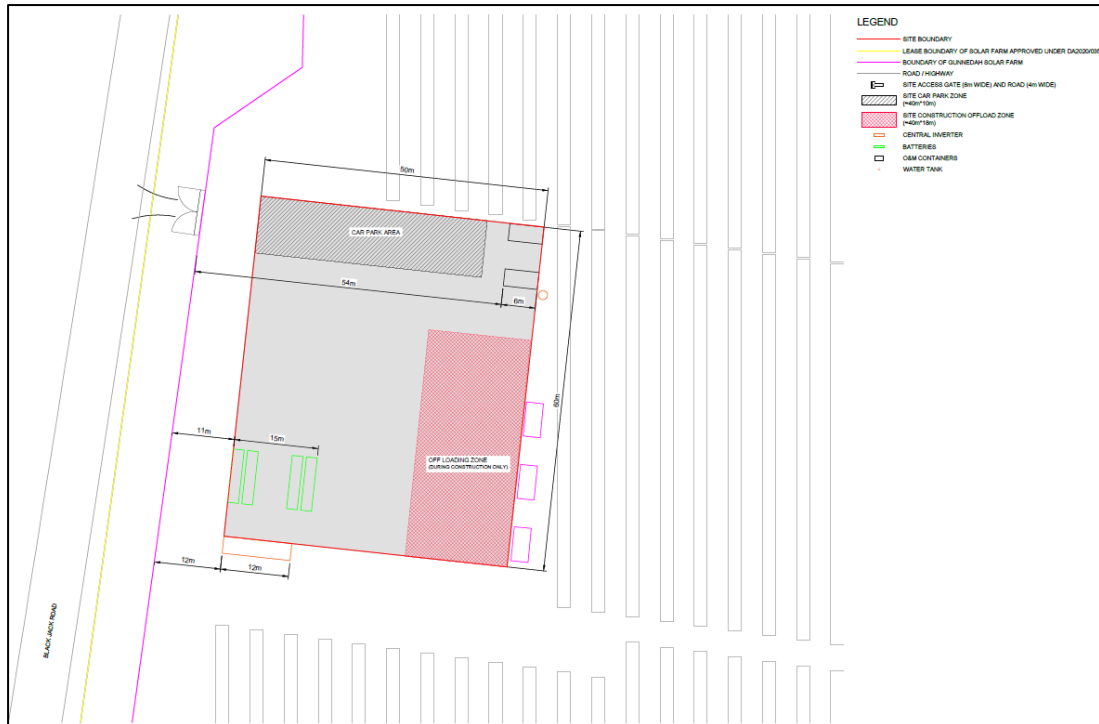


Figure 4 – Detailed Site Plan

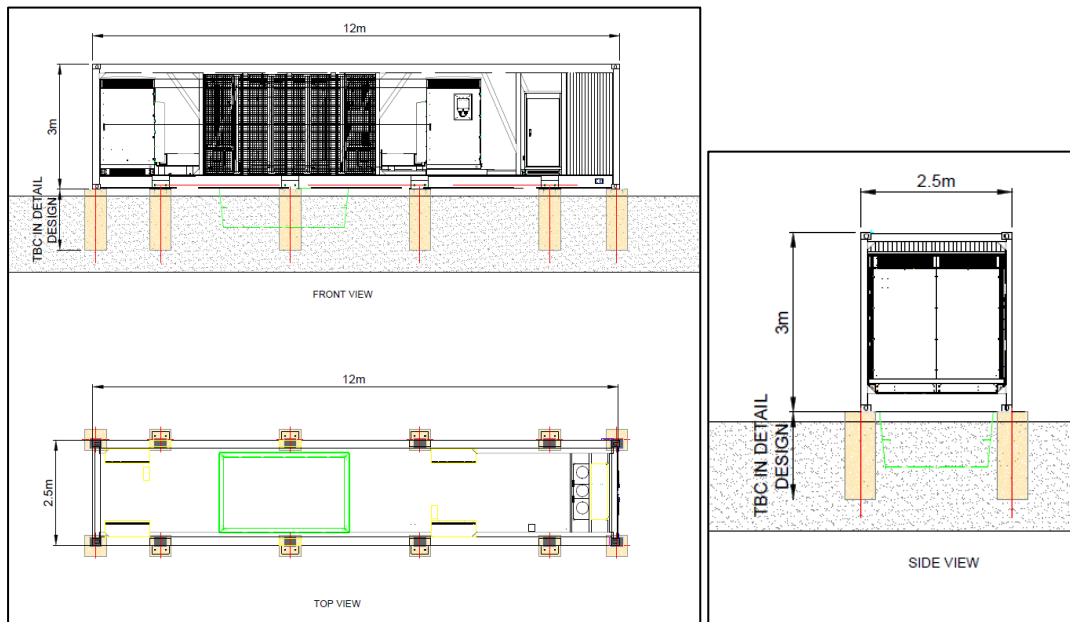


Figure 5 – Elevations

Table 1: Development Data

Control	Proposal
Site area	24.55ha
GFA	N/A
FSR (retail/residential)	N/A

Clause 4.6 Requests	No
No of apartments	N/A
Max Height	1.73m
Landscaped area	None proposed in application
Car Parking spaces	None proposed
Setbacks	11m from Black Jack Road

2.2 Background

Council held a pre-lodgement discussion with members of SLR Consulting on the 10 May 2023 regarding the proposal to install a 10MWh Batter Energy Storage System (BESS). Pre-lodgement discussions and response focussed on the details of the application and allowed for Council to identify any potential concerns around the development.

During the pre-lodgement discussions the following details of the proposal were outlined:

- It was identified that the works were expected to exceed \$5M, but would be less than \$10M.
- The BESS was to be ancillary to the solar farm approved onsite, but would trigger a modification to Development Consent No. 2020/035 due to placement being within the footprint of the solar farm.
- Onsite car parking demand should be considered based on the demand for parking generated by the BESS, excluding any parking required for the solar farm (DA2020/035).
- Landscaping was required as part of the development to avoid any visual impacts. Landscaping for DA2020/035 could not be relied upon as at the time of the discussions, no landscaping had been established.
- A traffic assessment was required to be provided as part of the development to consider impacts to local road networks.
- Consultation should be undertaken with the community during preparation of the development documentation due to the community opposition experienced to the solar farm.

The development application was lodged on 8 September 2023. A chronology of the development application since lodgement is outlined below including the Panel's involvement (briefings, deferrals etc) with the application:

Table 2: Chronology of the DA

Date	Event
8 September 2023	DA lodged
19 October 2023	Exhibition of the application

6 November 2023	Panel briefing
7 November 2023	Referral to Essential Energy (Local Service Provider)
30 January 2024	Request for Information from Council to applicant
18 June 2024	Follow up Request for Information sent
5 August 2024	Amended plans lodged (reposition of BESS and infrastructure), BESS datasheet, Visual Impact Assessment and System Manual
9 August 2024	Vegetation Regrowth Investigation

2.3 Site History

- The site contains an approved dwelling house and detached garage.
- The Northern Regional Planning Panel determined on the 24 June 2021, to refuse Development Application No. 2020/035 (PPSNTH-51) for the construction of an Electricity Generating Facility (5MW Solar Farm). The decision was unanimous.
- The applicant undertook Class 1 appeal under Section 8.7 of the *Environmental Planning and Assessment Act 1979*. With the appeal being upheld 28 October 2022.
- There are no other current development applications or planning proposals under assessment for this property.

3. STATUTORY CONSIDERATIONS

When determining a development application, the consent authority must take into consideration the matters outlined in Section 4.15(1) of the *Environmental Planning and Assessment Act 1979* ('EP&A Act'). These matters as are of relevance to the development application include the following:

- the provisions of any environmental planning instrument, proposed instrument, development control plan, planning agreement and the regulations*
- 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,*
- any submissions made in accordance with this Act or the regulations,*
- the public interest.*

These matters are further considered below.

It is noted that the proposal is not considered to be (which are considered further in this report):

- Integrated Development (s4.46);
- Designated Development (s4.10);

- Requiring concurrence/referral (s4.13); or
- Crown DA (s4.33).

3.1 Section 4.15(1)(a)(i) - Provisions of Environmental Planning Instruments

The following Environmental Planning Instruments are relevant to this application:

- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*
- *State Environmental Planning Policy (Planning Systems) 2021*
- *State Environmental Planning Policy (Resilience and Hazards) 2021*
- *State Environmental Planning Policy (Resource and Energy) 2021*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021*
- *Gunnedah Local Environmental Plan 2012;*

A summary of the key matters for consideration arising from these State Environmental Planning Policies are outlined in **Table 3** and considered in more detail below.

Table 3: Summary of Applicable State Environmental Planning Policies
(Preconditions in **bold**)

EPI	Matters for Consideration	Comply (Y/N)
Biodiversity and Conservation SEPP	<ul style="list-style-type: none"> • Chapter 3 – Requires consideration of the development to likely impacts to koala habitat and likelihood of the site supporting a koala population. 	Y
Planning Systems SEPP	<ul style="list-style-type: none"> • Chapter 2 – The development is considered as Regional significant development. 	Y
Resilience and Hazards SEPP	<ul style="list-style-type: none"> • Chapter 3 – The assessment is to determine if the development is hazardous or offensive development. 	Y
Resource and Energy SEPP	<ul style="list-style-type: none"> • Chapter 2, Clause 2.19 – There is an approved and operating extractive industry located approximately 1km from the proposed BESS. The assessment is to consider the likely impacts of the BESS on the operation of the extractive industry. 	Y
Transport and Infrastructure SEPP	<ul style="list-style-type: none"> • Chapter 2, Clause 2.36 – the development is for electricity generating works. The assessment is to consider if the development is permitted with consent. • Chapter 2, Clause 2.48 – the development will connect to existing transmission lines within the vicinity of the site. The assessment is to consider referral response from the local service provider (Essential Energy) • Chapter 2, Clause 2.1.22 – The assessment is required to determine if the development is traffic-generating development. 	Y

State Environmental Planning Policy (Biodiversity and Conservation) 2021

Chapter 4 – Koala Habitat Protection 2021

The Gunnedah community does not have a comprehensive Koala Plan of Management (KPoM) and the development is not subject to a specific KPoM. The recent development assessment for the solar farm (DA2020/035) determined that the development site contains nine (9) Eucalyptus Albens (White Box) across the site. This determination issued on appeal by the Land and Environmental Court, gave consent for the removal of four of these trees from the site. However, this development assessment is for the installation of the BESS and does not include the works granted for the solar farm.

The 9 White Box trees are not located within the footprint of the BESS development and this application does not request the removal or pruning of any trees within the site. The assessment of this development concluded that this specific development is unlikely to remove any trees or vegetation and that the development does not cut any known movement corridors across the landscape. Due to the small area of habitat that is affected and no evidence of a resident koala population within the site, Council considers that the development is likely to have low or no impact on koalas or koala habitat. Hence, in accordance with Section 4.9 of *State Environmental Planning Policy (Biodiversity and Conservation) 2021*, the Regional Planning Panel is not prevented from granting development consent to the development.

State Environmental Planning Policy (Planning Systems) 2021

Chapter 2 – State and Regional Development

The development application is classified as being regionally significant development as the development is private infrastructure with a development cost in excess of \$5M. The development application indicates that the development cost is \$6,626,650. Hence, the development is not state significant development. The consent authority for the development is the Northern Regional Planning Panel.

State Environmental Planning Policy (Resilience and Hazards) 2021

Chapter 3 – Hazardous and Offensive Development

The development is not considered to be a potentially offensive or hazardous industry as the development in its typical operation is not expected to generate any polluting discharge which would have a significant adverse impact on the locality or the environment or lead to a risk to human life.

Lithium Iron Batteries are known to be at risk of fire should the system be damaged or faults occur. When batteries burn, they produce hazardous gases which may affect adjoining land holders. The release of gasses is not part of the operation of the development, only occurring in the event of a fire and thus is not considered to be potentially hazardous as this is in the case of an emergency only. To ensure that there is limited risk for damage to the system Council has recommended that an Emergency and Operational Management Plan be prepared to reduce the likely opportunity for collision or damage to the BESS, consultation with emergency services for action required in the event of a fire and emergency contact information should adjoining land holders identify any hazards onsite.

It is noted that Electricity Generating Works is not specifically identified within the Planning for Bushfire Protection 2019 as being a development activity which requires fire safety consideration for separation from fire sources. The development is proposed to be approximately 11 metres from the site boundary fence and landscaping barrier. The separation is considered acceptable as there will be minimal material in the event of a fire that could create radiant heat which would affect the BESS possibly creating ignition of the batteries. There will be adequate defendable space around the BESS should a bushfire occur onsite.

State Environmental Planning Policy (Resource and Energy) 2021

Chapter 2 – Mining, petroleum production and extractive industries

- Clause 2.19 – The development is located within approximately 1km of an approved extractive industry. This extractive industry was approved in 1999 and has no extraction limits or operation limits which could be affected by the existing industry. The extractive industry is unlikely to be affected by the proposed BESS, as the BESS is located over the ridge of the surrounding landscape features which would limit any visual impacts and the BESS does not produce any air quality, noise or pollution impacts that could create a cumulative impact to the existing development.

State Environmental Planning Policy (Transport and Infrastructure) 2021

Chapter 2 – Infrastructure

- Clause 2.36 – The development is considered to be Electricity Generating Works for the purpose of electricity storage and occurs within a prescribed rural zone (RU4 Primary Production Small Lots). Hence, the development is permitted with consent, regardless of the provisions of the land zoning table within the Gunnedah Local Environmental Plan 2012.
- Clause 2.48 – The development will require interaction within the overhead electricity transmission lines located within the surrounding road network to connect the BESS to the electrical grid. Council referred the development to Essential Energy as the local service provider and received a response which noted no comments regarding potential safety risks arising from the development. The response included general comments which recommended that the development be undertaken in accordance with ISSC 20 Guideline for the Management of Activities within Electricity Easements and Close to Infrastructure and that a “Dial Before You Dig” enquiry be made before carrying out any works. It is recommended within the draft conditions that these be included as conditions on any development consent.
- Clause 2.1.22 – The development is not an activity listed within Schedule 3 or has an operational traffic generation that identifies the activity as being Traffic-generating Development. There are no classified roads adjoining the development. Hence, Council is the roads authority for the development.

Gunnedah Local Environmental Plan 2012

The relevant local environmental plan applying to the site is the *Gunnedah Local Environmental Plan 2012* (‘the LEP’). The aims of the LEP include:

- (aa) to protect and promote the use and development of land for arts and cultural activity, including music and other performance arts,
- (a) to conserve and enhance, for current and future generations, the ecological integrity, environmental heritage and environmental significance of Gunnedah,
- (b) to promote the economic well being of the community in a socially and environmentally responsible way, focusing on new employment growth and a diversified economy,
- (c) to encourage the proper management of productive agricultural land and prevent the fragmentation of agricultural holdings,
- (d) to provide opportunities for a range of new housing and housing choice,
- (e) to facilitate the provision and co-ordination of community services and facilities,
- (f) to seek the provision of adequate and appropriate infrastructure to meet the needs of future development,
- (g) to provide direction and guidance in the management of growth and development,
- (h) to conserve the cultural and environmental heritage of Gunnedah,
- (i) to allow development in a way that minimises risks due to environmental hazards.

The proposal is consistent with these aims as the proposal provides additional services to an approved Solar Farm to enable the more efficient usage of electricity generated within the

facility to meet the needs of the greater NSW community. Should the development still occur without the construction of the Solar Farm, the storage of electrical energy for better distribution within the local network can still provide a benefit to the community.

The site is located within the RU4 Primary Production Small Lots Zone pursuant to Clause 2.2 of the Gunnedah LEP 2012.

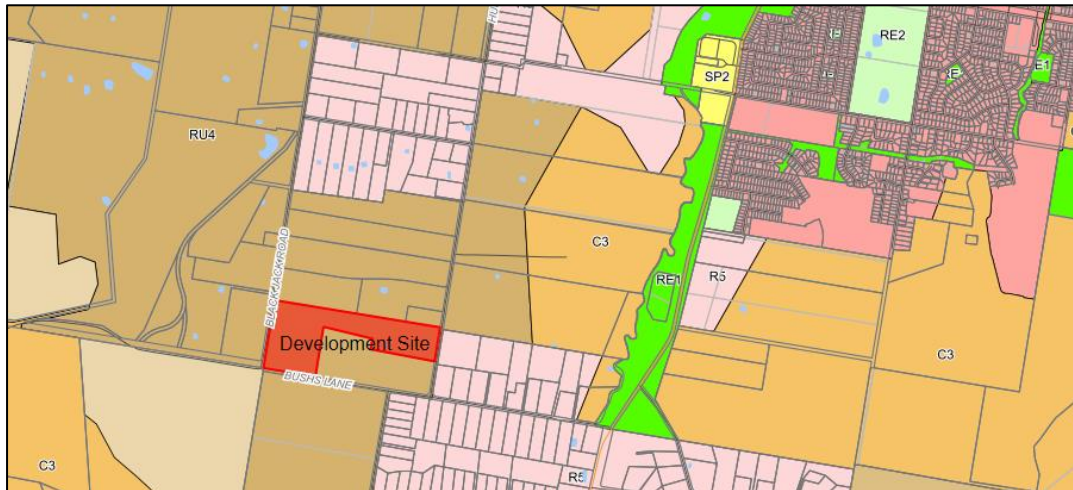


Figure 6 – Land zoning map

According to the definitions in Clause 4 (contained in the Dictionary), the proposal satisfies the definition of 'Electricity Generating Works' for the purpose of electricity storage, which is a permissible use with consent in the Land Use Table in Clause 2.3. The development is also permissible by Clause 2.48 of the State Environmental Planning Policy (Transport and Infrastructure) 2021, as previously outlined through this report.

The zone objectives include the following (pursuant to the Land Use Table in Clause 2.3):

- To enable sustainable primary industry and other compatible land uses.
- To encourage and promote diversity and employment opportunities in relation to primary industry enterprises, particularly those that require smaller lots or that are more intensive in nature.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.
- To maintain the rural and scenic character of the land.
- To ensure that development does not unreasonably increase the demand for public services or public facilities.
- To conserve and enhance the quality of valuable environmental assets, including waterways, riparian land, wetlands and other surface and groundwater resources, remnant native vegetation and fauna movement corridors as part of all new development and land use.
- To provide opportunities for a restricted range of employment-generating development that is compatible with, and adds value to, local agricultural production.
- To minimise conflict between land uses in the zone and with adjoining zones.
- To maintain native vegetation and wildlife corridors.

The proposal is considered to be consistent with these zone objectives as the development enables a diversity of employment opportunities with the BESS to be ancillary to the Solar Farm approved on the site, with the BESS occupying a small section of the site with a small visual impact to the locality.

The LEP also contains controls relating to development standards, miscellaneous provisions and local provisions. The controls relevant to the proposal are considered in **Table 4** below.

Table 4: Consideration of the LEP Controls

Control	Requirement	Proposal	Comply
Essential Services (CI 6.5)	<p>Site is to have or be provided with as part of the development</p> <ul style="list-style-type: none"> a) Supply of water b) Supply of electricity c) Disposal and management of sewage d) Stormwater drainage or onsite conservation e) Suitable road access 	<ul style="list-style-type: none"> a) The development site has access to Council's water services, with a water main located within Hunts Road. However, there is no connection present to the site. The development is not expected to require a water connection. There is adequate area onsite for onsite storage where required. b) There are overhead electrical transmission lines on the south side of Bushs Lane which can service the site. c) The site does not have access to Council's sewer services and it is not practical to require the existing services to be extended to the development. There is adequate area onsite for the management of sewage onsite. However, the development is not expected to generate any sewage. d) The development includes the installation of a rainwater tank for capture of stormwater. The generation of stormwater is unlikely to create discharge of water that would increase the stormwater runoff from the site. It is expected that based on the position of the development and the size of the site, that 	Yes

		<p>water will disperse and infiltrate onsite.</p> <p>e) The development site has frontage to Hunts Road, Black Jack Road and Bushs Lane, which are all public road reserves.</p>	
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The proposal is considered to be generally consistent with the LEP.

3.2 Section 4.15 (1)(a)(ii) - Provisions of any Proposed Instruments

There are no draft instrument applicable to the development site or the development type at the time of the drafting of this report.

3.3 Section 4.15(1)(a)(iii) - Provisions of any Development Control Plan

The following Development Control Plan is relevant to this application:

- *Gunnedah Development Control Plan 2012* ('the DCP')

The applicable development controls to the development are assessed as follows:

1.6 Developer Contributions

The development does not trigger the need for any contribution in accordance with Council's Section 64 contribution plans.

The development will be subject to a contribution in accordance with Council's S7.12 contributions plan. A condition is recommended to be imposed which requires the payment of the S7.12 contribution prior to the issue of any Construction Certificate.

6.2 Parking Requirements

The development land use does not have any specific parking ratio within Appendix 1. The development does not have any gross floor area or any onsite staff. However, the development will be attended for servicing and security purposes. Hence, based on the need for those attending to visit by vehicle due to the remote location of the site, the development should provide a minimum of 1 parking space.

6.3 Landscaping

The development does not require the creation of more than 10 parking space onsite. Hence, there is no need to provide landscaping to provide shading for parking spaces and reduce visual appearance of hardstand areas.

6.6.1 Environmental Effects

Traffic

The development proposes vehicle access to the development area from Black Jack Road fronting the West boundary of the site. The development will not interfere with the vehicle access to the existing dwelling fronting to Hunts Road. There is adequate area within the site and the identified hardsealed site area for vehicles to enter and exist the site in a forward direction.

The development application indicated that the development is unlikely to change the traffic generated by the development from that of the solar farm approved on the site. The application for the solar farm indicated that the largest traffic generation of the solar farm would be during construction and that this would generate 18 vehicle movements per hour during the construction of the development. The ongoing operation of the site would likely generate a single vehicle movement per day, which is only expected when maintenance is required.

Black Jack Road is a local road, bitumen constructed without parking lane or kerb and gutter. The existing roads are capable of accommodating the traffic generated during and after the construction of the development. Given the minimal traffic generated by the proposal post construction, it is considered this will not conflict with existing vehicular movements within the surrounding road network. It has been determined that the development's traffic generation and movements does not require the seal of Bushs Lane, fronting the south side of the site.

Flood Liability

The development site is not subject to flooding and the development does not increase the likelihood of flood impacts to properties adjoining the site. The development is unlikely to result in an increase in stormwater runoff resulting in flash flooding. Council has recommended that a Stormwater Management Plan be provided to ensure that stormwater from the hardstand area does not increase or concentrate stormwater runoff from this area of the site and stormwater is appropriately managed across the site.

Slope

The development site has a fall towards the North East corner of the site. The slope is a low grade and the development is unlikely to require any earthworks or result in any possible land degradation through loss of soil stability. The position of the development is not on an elevated site and as a result there is no visual impacts to ridgelines or from the development being positioned in dominant positions within the landscape.

Construction Impacts

The development noise report identified possible noise impacts generated during construction of the development. The report determines that noise levels are acceptable and do not result in a noise exceedance at any adjoining receivers. The development expects an average of 18 vehicle movements per day during construction. The construction of the BESS is expected to be a short period and is not expected to have a negative impact on the surrounding locality.

Solid and Liquid Waste

The development includes a Waste Management Plan (WMP) as part of the development application. The waste management plan indicates that materials have been ordered to size to reduce the amount of waste that will be generated during construction onsite. Construction wastes expected include metals, concrete, packaging and other wastes such as paper and cardboard. These volumes are expected to be minimal and will be reused offsite where possible. There are no onsite reuse applications noted. Development documents indicate that the site manager is to conduct regular checks of waste to ensure that no recyclable materials are collected where possible. It is noted that the development indicates that the BESS system is to have an operational life of 10 years, after which it will be replaced. There is no indication if the replacement of this system offers any opportunity to

The development is not expected to create any liquid waste during the operation of the development.

Air quality (Odour and Pollution)

The operation of the BESS is not expected to generate any odour or pollutants during the ongoing operation. The development is expected to have low operational attendance, resulting in minimal traffic movements to the site. The internal surface area of the development area is

indicated to be hardsealed, reducing any potential for dust generation during the operation of the development.

Noise Emissions

The development was accompanied by a Noise Impact Assessment (NIA). The NIA looked at noise levels during construction and ongoing operation of the BESS system. The NIA does consider the noise impacts of the solar farm approved by 2020/035, however, this does not form part of this development application and thus, is not considered by Council staff.

The closest residence to the proposed BESS is receiver R23, located to the west on Black Jack Road. The NIA has identified that the noise level for the BESS and operating ancillary structure does not exceed a noise level of 30dBA_(15min). Hence, the development is not expected to result in any significant noise impacts.

Water Quality

The development is unlikely to have any impact on water quality from the site. The site is not within a drinking water catchment and the development area is indicated to be sealed, which reduced the likelihood of erosion and siltation of downstream water catchments. Sediment and erosions controls are recommended to be included within the recommended conditions to ensure that during construction suitable controls are put in place.

Sustainability

The development is noted as being ancillary to a renewable energy allowing for storage of energy to allow for a more efficient release of energy into the transmission grid. The system provides support to the electrical generation from solar energy with state and federal governments pushing towards a net zero emissions impact. However, as noted above, the development battery unit are required to be replaced every 10 years. There is no indication within the development application of any recycling ability of any components of the battery unit or ability to retrofit the existing unit with renewed parts. This does question the sustainability of this component of the development. However, no energy and resource balance analysis and been provided with the application or undertaken by Council.

6.6.3 Conflict Land Uses

The development is located adjoining areas of R5 Large Lot residential zone and the adjoining RU4 Primary Production Small Lots. The site has approval for the operation of a 5MW solar farm on the site which Council previously assessed as having visual and noise impacts during construction that would affect the surrounding character of the area. The proposed BESS is located on the same allotment and is indicated to be to support the approved solar farm. However, this assessment is a separate development application and is to be assessed on its own merits.

The BESS has a small footprint and has a height that will be lower than that of dwellings and outbuildings within the locality. The adjoining residential receivers have separation from the proposed development area to ensure that there is minimal interaction between the proposed land use and the existing land uses on the adjoining properties. To reduce any visual impacts from this development, it is suggested that a condition be included which requires the establishment of a landscaping barrier around the site. This landscaping barrier can be consistent with the landscaping plan that is approved for the solar farm as it has previously been determined to be an affective visual screen to the development.

6.6.4 Waste Management

The development is not expected to generate any onsite occupation or employment with no permanent onsite staff. The development is not expected to generate any general waste during its ongoing operation, with the noted exception of construction, maintenance and decommissioning of the site. It is expected that the largest volume of waste will be generated

from removal of packaging during construction or maintenance/replacement of systems during the operational life of the development. A condition is recommended to be included which requires that waste management plan be prepared for construction and operational waste. Waste should not be left onsite to ensure that the amenity of the area is not affected.

6.6.5 Noise

Noise impacts are addressed previously through this report. The NIA concluded that the noise levels from the operation of the BESS will not create a noise impact to adjoining properties. The development is expected to have low noise impacts, with the previous solar development having exceedances during construction when pylons are being driven into the ground. As there are no pylons in this development, and reviewing the works to be completed, is assumed that there are no significant noise impacts during construction.

3.4 Section 4.15(1)(a)(iiia) – Planning agreements under Section 7.4 of the EP&A Act

There have been no planning agreements entered into and there are no draft planning agreements being proposed for the site.

3.5 Section 4.15(1)(a)(iv) - Provisions of Regulations

The development does not include the change of use of a building or alteration to an existing building within the site and the development does not involve demolition works. Hence, there are no provisions within the Environmental Planning and Assessment Regulation which require consideration as part of this development assessment.

3.6 Section 4.15(1)(b) - Likely Impacts of Development

The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality must be considered. In this regard, potential impacts related to the proposal have been considered in response to SEPPs, LEP and DCP controls outlined above and the Key Issues section below.

The consideration of impacts on the natural and built environments includes the following:

- Context and setting – the development application proposes the construction of a BESS which includes the installation of four (4) battery units and O&M containers, Central Inverter and water storage tank. The BESS is identified as being ancillary to the previously approved 5MW solar farm, Development Consent No. 2020/035. DA 2020/035 included visual assessments which required the establishment of a landscaping barrier around the perimeter of the development area to prevent any visual impact to the surrounding area. Part 9 of the Visual Impact Assessment indicates that landscaping would provide an effective screen to receivers. However, it should be clear that this development application does not include the works for DA2020/035 and the conducting of this work cannot be relied upon as part of this application.

The development site is located within a rural locality to the southwest of the Gunnedah town. The site is zoned RU4 and the site adjoins RU4 and R5 land zones. The area is predominately occupied by small acreage dwelling developments with small agricultural application. The construction of a BESS is visually not within the character of the development area as it includes the construction of structures that are not consistent with residential activities. To reduce the visual impact and ensure that the development blends into the existing environment is recommended that a condition be

included which requires the submission of a landscaping plan and undertaking of the landscaping as part of the development. It is noted that all the lodgement documentation hints to this development being undertaken at the same time as the construction works for the solar farm. It is also noted that DA2020/035 includes a landscaping plan, that was accepted by Council, which would be acceptable for this development had it been submitted. However, this application did not include any landscaping plan to reduce the visual impacts of the development.

- Access and traffic – Access to the development site is available from Black Jack Road and Bushs Lane. Bushs Lane and Black Jack Road are both classified as local roads. Black Jack Road is bitumen sealed without the improvement of kerb and gutter and Bushs Lane is unsealed along the frontage of the site. The property access is approximately 2.5 kilometres from the intersection of Black Jack Road and the Oxley Highway.

The development is expected to require minimal operation presence onsite with a single movement per day required for maintenance options. Council suspects that this is unlikely to be each day, but would be more likely on an irregular basis. The assessment of the development application has not identified any deficiencies or concerns with the surrounding road network that would require any works to the surrounding road network prior to the development being conducted.

- Public Domain – the development does not propose the dedication of public recreation spaces. The nature of the development does not attract any interaction with Council's existing public spaces and the distance from any other spaces does not promote the need for pedestrian or cycle pathways to the development. The development does not create any ongoing fulltime employment directly on this one site which could increase the employment base and population within the community. Hence, the development is unlikely to impact on the public domain.
- Utilities – the site has access to Council's water services and overhead electrical transmission lines. There are no council sewer or stormwater services which service the site and there is no gas service within Gunnedah. The ability to service the site for the development has been assessed previously through this report within Section 6.5 of the Gunnedah Local Environmental Plan 2012.
- Heritage – the development site does not contain any known items of aboriginal or European history. The site is not listed within Schedule 5 of the Gunnedah LEP 2012 as containing any items of heritage significance.
- Other land resources – The development site is predominately available as agricultural grazing land, with the eastern side of the site containing the existing dwelling. The development is unlikely to affect the existing dwelling. The development is not expected to restrict agricultural access on the adjoining lots. A condition which restricts the period for which development consent is being granted will ensure that the land can be returned for agricultural activity in the future in line with the consent granted for the solar farm, which limits the operational life to 30 years from issue of an Occupation Certificate. It is recommended that a similar condition be imposed on this determination, should consent be granted.
- Water/air/soils impacts – the development is not located within a drinking water catchment and the development has previously been identified as not expecting to generate any possible risks of contamination. The development area has a low slope

with no proposed earthworks as part of the development that could require the establishment of earth batter or retaining wall to ensure soil stability.

- Flora and fauna impacts – The development site has an approval for the construction of a 5MW solar farm. As part of this development nine mature *Eucalyptus Alben* (Whitebox) trees are required to be removed. The proposed BESS is not located within the footprint of these trees and the development has indicated that there are no trees to be removed. Hence, this development assessment does not determine the need for the removal of any of these nine identified trees from the site.

The site has previously been cleared in 2017 with regrowth becoming present within of areas of this lot in the years since. The regrowth has been investigated and the provided Regrowth Investigation Report has determined that there are no Threatened Ecological Communities (TECs) identified on the development site and that the regrowth onsite is not considered to be made up of any Endangered Ecological Community (EEC). There were no threatened flora species identified onsite during surveys on the site.

The development does not propose the removal of any trees or vegetation from the site, with the noted exception of any regrowth shrubs which have occurred over the past 7 years since the site was previously cleared. The site does not appear on the Biodiversity Values Map as containing area of identified Biodiversity value. The removal of the regrowth vegetation would not exceed any Biodiversity Offset Scheme thresholds from Section 7.2 of the Biodiversity Conservation Regulation 2017 and the as previously stated, the site does not contain any TECs. Hence, the development does not result in any non-irreversible ecological impacts.

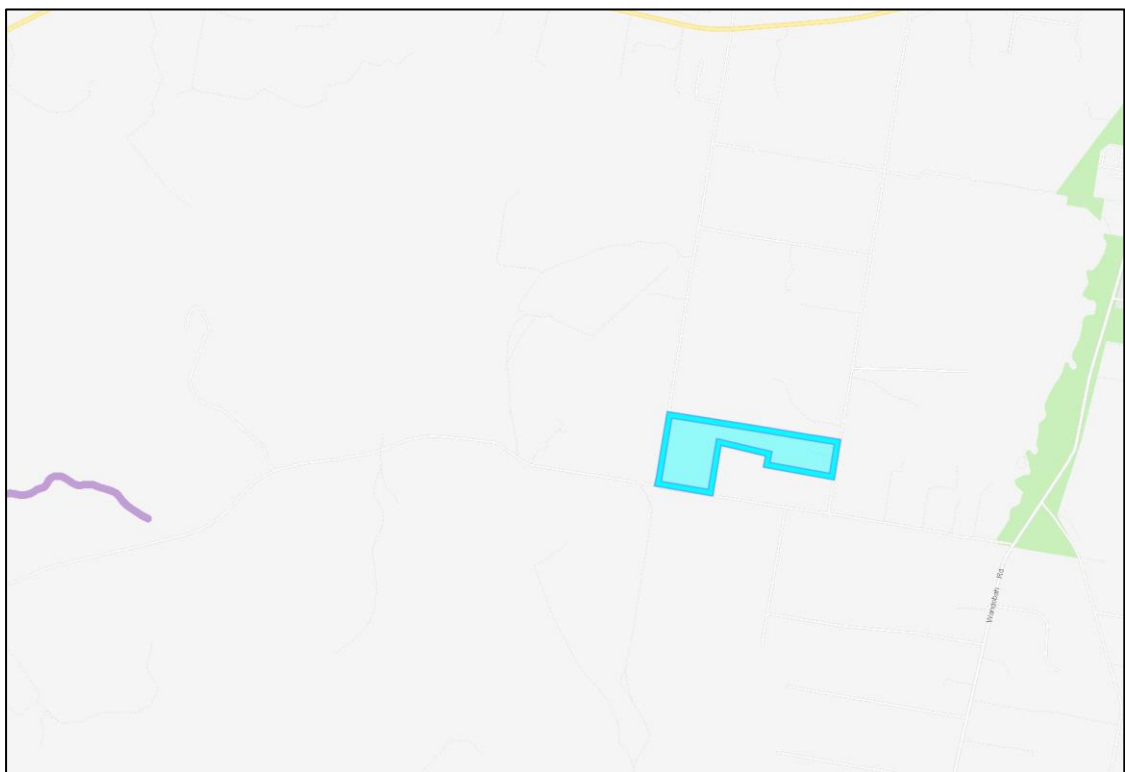


Figure 7 – Biodiversity Values Map (site marked in blue)

- Natural environment – the development does not require any earthworks. The development does not propose the removal of any trees from the site. However, there

is remnant vegetation in the area of the development which is likely to require removal. The development application states that no trees will be removed as part of the development.

- Noise and vibration – Noise impacts have been assessed previously through this report.
- Natural hazards – the development site is not mapped as being subject to flooding, acid sulphate soils, geotechnical instability or mapped as being bushfire prone land. The development is not to be occupied and the land activity is not specifically listed within Planning for bushfire protection which would warrant further investigation. There is no risk to the development from bushfire.
- Safety, security and crime prevention – The development does not have any attending persons to site. The development application does not include any exterior security fencing. Whoever, it is noted that there is consent for the erection of security fencing for the solar farm approved on the site. But as previously noted, this consent cannot rely upon works included in any other development consent. The development does not introduce any aspects of additional natural or passive surveillance to the site or the surrounding environment, with minimal attendance of the site.

The development application identifies that sensor lighting will be installed onsite to provide security lighting for the site. Installation of security lighting will need to ensure that any lighting is compliant with *AS4282 Control of Obtrusive Effects of Outdoor Lighting*.

- Social impact – the development does not give any opportunity to create any sense of place with the construction of the BESS onsite. The development is a private development that provides no benefits to the community.
- Economic impact – The development generates employment during the construction. The development is indicated to be supportive to the solar development which has been approved on the site. The development identifies that there will be only attendance to the site for maintenance purposes. There is not expected to be any other business investment into the community to support the development.
- Site design and internal design – the position of the BESS is located within the staging area of the approved solar farm. The development plans have been reviewed to consider the position in relation to the approved solar farm to ensure that there is no conflict between the approved positions. The BESS and associated infrastructure is positioned within the site, adequate distance from lot boundaries to enable the establishment of effective landscaping.
- Construction – the development is expected to produce the majority of its impacts to the surrounding environment during the construction of the development, with the greatest noise impacts and traffic generation all expected to occur during construction. To ensure that the construction impacts are reduced, construction time limitations are to be included as conditions on any development consent.
- Cumulative impacts – The development is considered to have minimal cumulative impacts. The development is indicated to be operated in conjunction with the approved solar farm on the site. However, these consents are separate and can be acted on separately. The BESS is expected to have a much lower, footprint, visual impact and construction noise and traffic impact than that of the approved solar farm. The

development is not expected to have any adverse cumulative impacts to the surrounding environment.

Accordingly, it is considered that the proposal will not result in any significant adverse impacts in the locality as outlined above.

3.7 Section 4.15(1)(c) - Suitability of the site

The scale of the development is small enough that this development on its own fits within the locality and has minimal visual impacts. The land use is not incompatible with the adjoining land uses and development on these lots.

The development does not require the provision of any additional services as the development will be largely self sufficient being utilised for the storage of electrical energy and redistributing into the transmission network at more suitable times for the broader electrical network. The site has provision of transmission lines which the development can be connected to, to facilitate the development.

The development site is not affected by any natural hazards that may affect the development. The development site does not contain any items of heritage or any known aboriginal heritage.

The development has a small development footprint and there is adequate space within the site for the development to be constructed without impeding on side property boundaries of road reserves or adjoining allotments. There are no attributes of the development which impact on the adjoining land uses with the development expected to include appropriate mitigation measures as well as operational measures that will ensure that any operational impacts that may occur without risk of impacting neighbouring properties or the environment.

3.8 Section 4.15(1)(d) - Public Submissions

The development application was referred in accordance with the Gunnedah Community Participation Plan. The application was notified to adjoining land holders and exhibited within the local paper and via the NSW Planning Portal. Council received one (1) submission during the public consultation period. The details of this submission is considered in Section 5 of this report.

3.9 Section 4.15(1)(e) - Public interest

The development assessment is not required to take into consideration any Federal or State Government policies or strategies, which apply to the development. The development is not located within any of the mapped Renewable Energy zones. The development is not expected to have any impact on the health and safety of the public or create any changes to public amenity. Hence, the development is not considered to have a negative impact on public interest.

4. REFERRALS AND SUBMISSIONS

4.1 Agency Referrals and Concurrence

The development application has been referred to various agencies for referral as required by the EP&A Act and outlined below in Table 5.

There are no outstanding issues arising from these concurrence and referral requirements subject to the imposition of the recommended conditions of consent being imposed.

Table 5: Concurrence and Referrals to agencies

Agency	Concurrence/ referral trigger	Comments (Issue, resolution, conditions)	Resolved
Concurrence Requirements (s4.13 of EP&A Act)			
Environment Agency Head (Environment, Energy & Science Group within DPIE)	N/A		N/A
Rail authority for the rail corridor	N/A		N/A
Referral/Consultation Agencies			
RFS	N/A		N/A
Electricity supply authority (Essential Energy)	Section 2.48 SEPP (Transport and Infrastructure) 2021 the development will connect to existing transmission lines within the vicinity of the site. The assessment is to consider referral response from the local service provider (Essential Energy)	Essential Energy identified no safety risks arising from the development. In response to comments within Essential Energy Response conditions have been recommended which requires a "Dial Before You Dig" enquiry be made before carrying out any works and hat the development be undertaken in accordance with ISSC 20 Guideline for the Management of Activities within Electricity Easements and Close to Infrastructure.	Y
Rail authority	N/A		N/A
Transport for NSW	N/A		N/A
Design Review Panel	N/A		N/A
Integrated Development (S 4.46 of the EP&A Act)			
RFS	N/A		N/A
Natural Resources	N/A		N/A

Access Regulator			
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4.2 Council Referrals

The development application has been referred to various Council officers for technical review as outlined **Table 6**.

Table 6: Consideration of Council Referrals

Officer	Comments	Resolved
Engineering	Comments recommended the inclusion of all conditions imposed to the development consent for 2020/035, being the solar farm determined for the site. Comments did not identify any issues with the management of stormwater onsite or any deficiencies in Council's water, sewer or stormwater networks or the way that these services interact with the development.	Y
Traffic	Comments recommended the inclusion of all conditions imposed to the development consent for 2020/035, being the solar farm determined for the site. Comments did not identify any deficiencies in road network for the development construction or the ongoing operations.	Y
Building	Building recommended the inclusion of conditions from the list of Council's standard conditions. The comments did not identify any concerns or possible impacts with regards to the Building Code of Australia.	Y

4.3 Community Consultation

The proposal was notified in accordance with the Gunnedah Community Participation Plan from 19 October 2023 until 2 November 2023. The notification included the following:

- An advertisement in the local newspaper (Gunnedah Times) on one occasion;
- Notification on Gunnedah Shire Council's website; and
- Notification letters sent to adjoining and adjacent properties (a rough estimate of the number of letters sent).

The Council received a total of one (1) unique submissions, comprising one (1) objection and no submissions in favour of the proposal. The issues raised in these submissions are considered in **Table 7**.

Table 7: Community Submissions

Issue	No of submissions	Council Comments
<p>Land Zoning not appropriate for RU4 zone</p> <p>Change of use from previous approval not appropriate for RU4 zone, including 24 hour operation.</p>	1	<p>The development does not propose a change of land use. The development proposes a new land use, which is both permissible and also consistent with the land use for which a current consent has been granted.</p> <p>Outcome: The development assessment has determined that the development is permitted within the RU4 land zone and that the development meets the zone objectives, noting that this application only gives consent for the installation of four batteries, inverters, maintenance shed and water tank. The consent does not give approval for the solar farm or any other components previously consented under DA2020/035.</p>
<p>Potential for Hazardous Impacts</p> <p>Hazardous impacts on surrounding locality from use of lithium batteries and potential for explosions.</p>	1	<p>The development will be using Lithium Iron Batteries within the BESS. These systems, when in a larger scale are similar to the risks and hazards which are installed within residential solar systems or utilised within single use batteries or devices which contain lithium batteries.</p> <p>Outcome: To ensure that the development has reduced risk of any incidents occurring an Emergency and Operational Management Plan is recommended to be imposed as a condition, prior to the issue of a Construction Certificate. This plan also suggest inclusion of consultation with emergency services to ensure that the local services are aware of any hazards and actions which are required to occur should an emergency occur onsite.</p> <p>These preventative measures, do not ensure that no incidents would occur onsite, but are aimed at ensuring that the likelihood of these instances occurring is largely reduced.</p>
<p>Operational Noise Levels</p> <p>Ensuring that the operation noise from the BESS complies with relevant standards</p>	1	<p>The development application was accompanied by a Noise Impact Assessment. the noise impact assessment determined that the development ongoing operation will have a noise level generation less than 30dBA_(15min), which meets the NSW EPA Noise Policy for Industry. A condition is to be recommended which ensure that the operational noise complies with the appropriate noise triggers within the policy.</p> <p>Outcome: Noise reports confirm that noise levels will not be at a level that would result in loss of amenity to</p>

		the surrounding environment. A condition is to be imposed which requires the operation of the BESS to comply with the NSW EPA Noise Policy for Industry.
Lack of Transparency from Applicant The development will be part of the LAVO HEOS (Hydrogen Energy Storage System) which is indicated on the proponents webpage.	1	Council is responsible for assessing the details of the development application which is made to Council. Conditions are recommended to be included on any development determination which commits the development to constructing and operation the development in accordance with the information which was provided in the application. This ensure that the considerations made by Council and the Planning panel during assessment and determination are consistent with the impacts from the development ongoing. Outcome: This issue has been satisfactorily addressed subject to the imposition of relevant recommended conditions of consent (Schedule 1).
No Pre-lodgement community Consultation No community consultation by developer prior to lodgement of development application. No Visual Assessment was included within the development application.	1	Council recommended that the developer consult with the community during the preparation of the Development Application due to the previous community opposition to the solar farm approved during Class 1 Appeal to the Land and Environment Court. There is no legislative obligation for this consultation. Council conducted community consultation for the development in accordance with Schedule 1 of the <i>Environmental Planning and Assessment Act 1979</i> . Consultation during preparation of the development may have reduced community angst towards the development. Outcome: This issue has been satisfactorily addressed through the undertaking of community consultation by Gunnedah Shire Council in line with its Community Participation Plan.

5. KEY ISSUES

The following key issues are relevant to the assessment of this application having considered the relevant planning controls and the proposal in detail:

5.1 Operational Life to coincide with Solar Development Consent

The development is considered to be suitable while the development is ancillary to the approved solar farm. The restriction of the consent to coincide with the imposed operational life length for the solar farm will ensure that the land is made available in line with strategic plans.

5.2 No mitigation measures proposed to reduce visual impacts

The development creates an activity within the landscaping which is inconsistent with the surrounding development. The scale of the development is smaller, which reduces

the impact to the surrounding area. However, the development should implement landscaping to public frontages to reduce the conflicting visual design of the landscape.

5.3 Potential for Hazardous impacts

The development will have a potential hazardous impact to the surrounding area should an emergency occur. To ensure that the potential for this to occur and also to implement practical measures in the event that the BESS was to be subject to fire, the development should be subject to an Emergency and Operational Management Plan which requires the developer to consider these factors prior to the development occurring.

Resolution: The issue has been resolved through recommended conditions of consent Note – where specific conditions of consent are recommended to address impacts these should be cross referenced in this section of the report.

6. CONCLUSION

This development application has been considered in accordance with the requirements of the EP&A Act and the Regulations as outlined in this report. Following a thorough assessment of the relevant planning controls, issues raised in submissions and the key issues identified in this report, it is considered that the application can be supported, subject to the inclusion of appropriate conditions on any development consent.

It is considered that the key issues as outlined in Section 5 have been resolved satisfactorily through amendments to the proposal and/or in the recommended draft conditions at **Attachment A**.

7. RECOMMENDATION

That the Development Application 2023/066 for the Installation of an Electricity Generating Works (11MWh Battery Energy Storage System [BESS]) at 262 Hunts Road be Approved pursuant to Section 4.16(1)(a) of the *Environmental Planning and Assessment Act 1979* subject to the draft conditions of consent attached to this report at Attachment A.

The following attachments are provided:

- Attachment A: Draft Conditions of consent
- Attachment B: Architectural Plans