

COUNCIL ASSESSMENT REPORT

HUNTER AND CENTRAL COAST REGIONAL PLANNING PANEL

PANEL REFERENCE & DA NUMBER	PSCHCC-242 16-2023-385-1
PROPOSAL	Battery Energy Storage System (BESS) and associated works
ADDRESS	1154 Clarence Town Road, Seaham - Lot 1 DP 1265736 1156 Clarence Town Road, Seaham - Lot 2 DP 1265736
APPLICANT	Clear Energy Fund Transfer Pty Ltd
OWNER	John Leslie Fisher, Fishben Pty Ltd
DA LODGEMENT DATE	30/08/2023
APPLICATION TYPE	Nominated Integrated Development
REGIONALLY SIGNIFICANT CRITERIA	Section 2.19(1) and Clause 5 of Schedule 6 of <i>State Environmental Planning Policy (Planning Systems) 2021</i> declares the proposal regionally significant development as <i>private infrastructure with a CIV over \$5m</i>
CIV	\$16,883,605.00 (excluding GST)
CLAUSE 4.6 REQUESTS	NIL
KEY SEPP/LEP	<ul style="list-style-type: none"> • State Environmental Planning Policy (Biodiversity and Conservation) 2021 • State Environmental Planning Policy (Resilience and Hazards) 2021 • State Environmental Planning Policy (Transport and Infrastructure) 2021 • State Environmental Planning Policy (Planning Systems) 2021 • Port Stephens Local Environmental Plan 2013 • Port Stephens Development Control Plan 2014
TOTAL & UNIQUE SUBMISSIONS KEY ISSUES IN SUBMISSIONS	6

DOCUMENTS SUBMITTED FOR CONSIDERATION	<ul style="list-style-type: none"> • Attachment 1 – Recommended Conditions of Consent • Attachment 2 – Development Plans • Attachment 3 – Cable Alignment Plan • Attachment 4 – Landscape Design • Attachment 5 – Acoustic Assessment • Attachment 6 – Ecological Assessment Report • Attachment 7 – Visual Impact Assessment • Attachment 8 – Fire Incident Management Plan • Attachment 9 – Ausgrid Comment • Attachment 10 – DPE – Water Concurrence
SPECIAL INFRASTRUCTURE CONTRIBUTIONS (S7.24)	NIL
RECOMMENDATION	Approval
DRAFT CONDITIONS TO APPLICANT	YES
SCHEDULED MEETING DATE	15 May 2024
PLAN VERSION	Job No 22158, Revision F
PREPARED BY	Rean Lourens – Consultant Town Planner
DATE OF REPORT	7 May 2024

EXECUTIVE SUMMARY

The development application (DA16-2023-382-1) seeks consent for electricity generating works specifically involving the installation of a Battery Energy Storage System (BESS) and associated structures. The proposed BESS is a 4.99-Megawatt (MW) storage system that will be connected to the local Ausgrid electrical distribution network. The BESS will capture energy from the electrical grid at low demand and discharge electricity at times of high demand.

The application forms part of a larger BESS (each subject to a separate development application) that will involve the construction and installation of five (5) systems on the subject site. The capacity of the combined systems will therefore total 24.95MW. Although each system was lodged as a separate development application, the cumulative impacts of the overall development on the site has been assessed.

1. THE SITE AND LOCALITY

1.1 The Site

The development site comprises of two (2) allotments.

The land at 1154 Clarence Town Road, Seaham, legally known as Lot 1 DP1265736 comprises of an approximate area of 37 hectares. The site is generally flat and slopes from north (approximately 20m AHD) along Clarence Town Road to south (approximately 10m AHD) along the southern boundary.

The site currently contains two single storey dwellings. The main residence is located towards the northern boundary, with the second smaller dwelling located approximately 150m east of the proposed BESS. An agricultural shed is also located central to the site. Two (2) creeks are located on the site. Deadman's Creek traverses the site in a south easterly direction, while a smaller tributary is located a short distance to the south. Both creeks are mapped as comprising biodiversity values on the Biodiversity Values mapping.

Lot 2 DP1265736 is included in the proposal as a small section of the access road traverses the site to the west. The site is known as 1156 Clarence Town Road and comprises of approximately 40 hectares.

The site is subject to a number of environmental constraints (as mapped on Council's GIS system) including:

- Bushfire Prone Land
- Acid Sulfate Soils – Class 5
- Koala Habitat
- Flood Prone Land

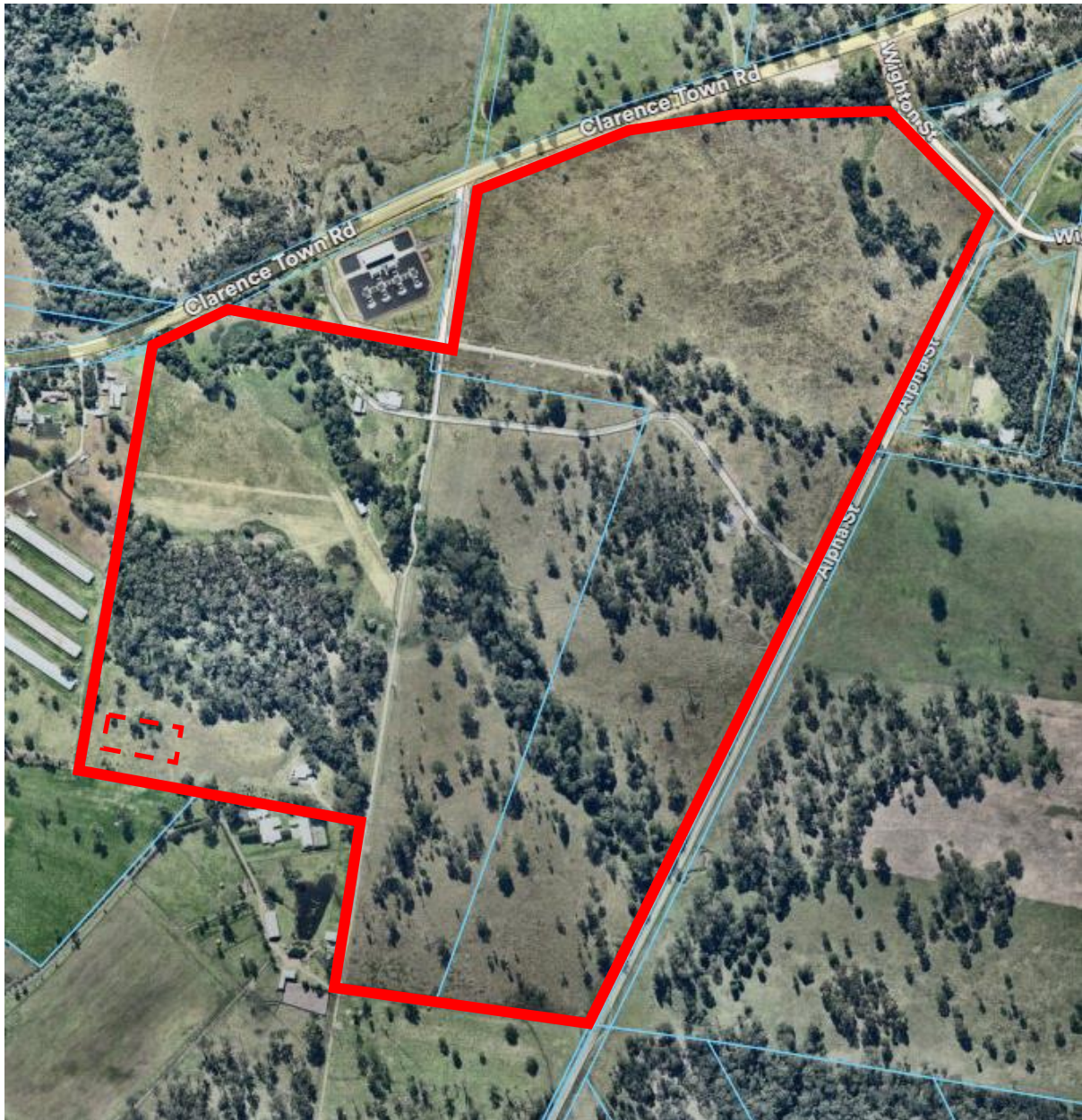


Figure 1: Aerial view of the subject site



Figure 2: Aerial view of the subject area

Site Inspection

A site inspection was carried out on 29 February 2024. The subject site can be seen in the photos below:



Figure 3: View of the subject area, looking toward the west



Figure 4: View across subject area toward the south



Figure 5: View of the proposed access road through the stand of trees to the east of the subject area



Figure 6: View of the creek crossing over the smaller tributary creek



Figure 7: View of the area surrounding the Dead Man's Creek crossing



Figure 8: Aerial view of the wider area

1.2 The Locality

The site is surrounded by rural lots, used predominantly for agricultural activities. The site is located along Clarence Town Road and is approximately 4.5km from Brandy Hill and 15.9km from Clarence Town.

The land directly to the north contains an electricity substation, while Brandy Hill rock quarry is located approximately 1.5km further to the north.

The area to the east is primarily utilised for agricultural purposes, with the closest rural residential development located approximately 1.5km from the subject area.

The allotment directly to the west contains a poultry farm, consisting of five (5) poultry sheds and three (3) dwellings and sheds.

The land directly to the south contains a dwelling that is located near the southern boundary of the site. The land further to the south and southwest is utilised for rural residential purposes.

2. THE PROPOSAL AND BACKGROUND

2.1 The Proposal

The development application (DA) seeks consent for the installation of a Battery Energy Storage System (BESS) and supporting shed structures. The BESS will have capacity of 4.99 MW energy storage that captures energy from the electrical grid at a low rate and discharges electricity at times of high demand.

For this application, the development involves the installation of a single BESS, the provision of site access and connecting electricity infrastructure to the electricity substation in the north.

It should however be noted that the overall development on the site includes the approval of five (5) separate BESS on the site through the submission of five (5) separate development applications.

The development will occur in the southwestern corner of the site.

The expected operational life of the BESS is 20 years.

Compound Area

The overall compound area for the five (5) BESS developments will comprise of 7,150m².

The proposed development will involve the approval of the southwestern corner of the compound that will comprise of approximately 1,430m².

The proposal involves the use of lithium-Ion phosphate batteries (LFP). The BESS will initially include ten battery units, with the opportunity to install a further two battery units at a later stage to compensate for storage loss due to degradation. Each battery will be 2.52m high, 1.73m wide and 9.34m long.

A service area will be located adjacent to the batteries which will include a water tank, control room, power conversion system, auxiliary service, and a storage room. The components within the control room will include a backup generator and 40L diesel tank.

As shown in Figure 9 below, the batteries will be arranged in pairs along the southern part of the BESS, with the service components along the northern extent of the BESS.

Access to the BESS is provided via an internal driveway that is located between the battery units and service components.

Earthworks

The proposed development will require the use of open cut trenching to allow for the extension of underground transmission lines from the road to the site. A directional boring construction method will be implemented to avoid disturbance to the BDAR mapped vegetation. Minor earthworks will also be undertaken during the construction of the hardstand areas and acoustic wall.

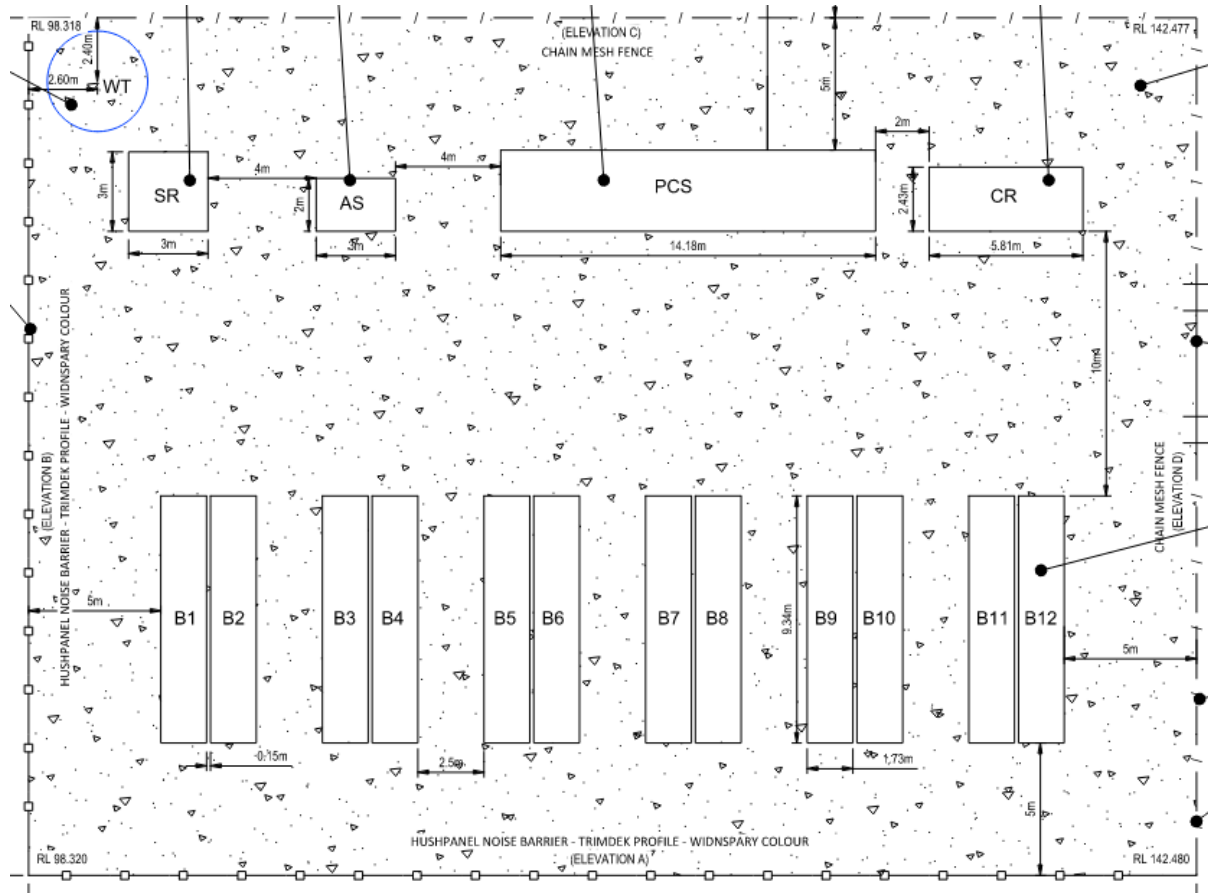


Figure 9: BESS layout for subject application

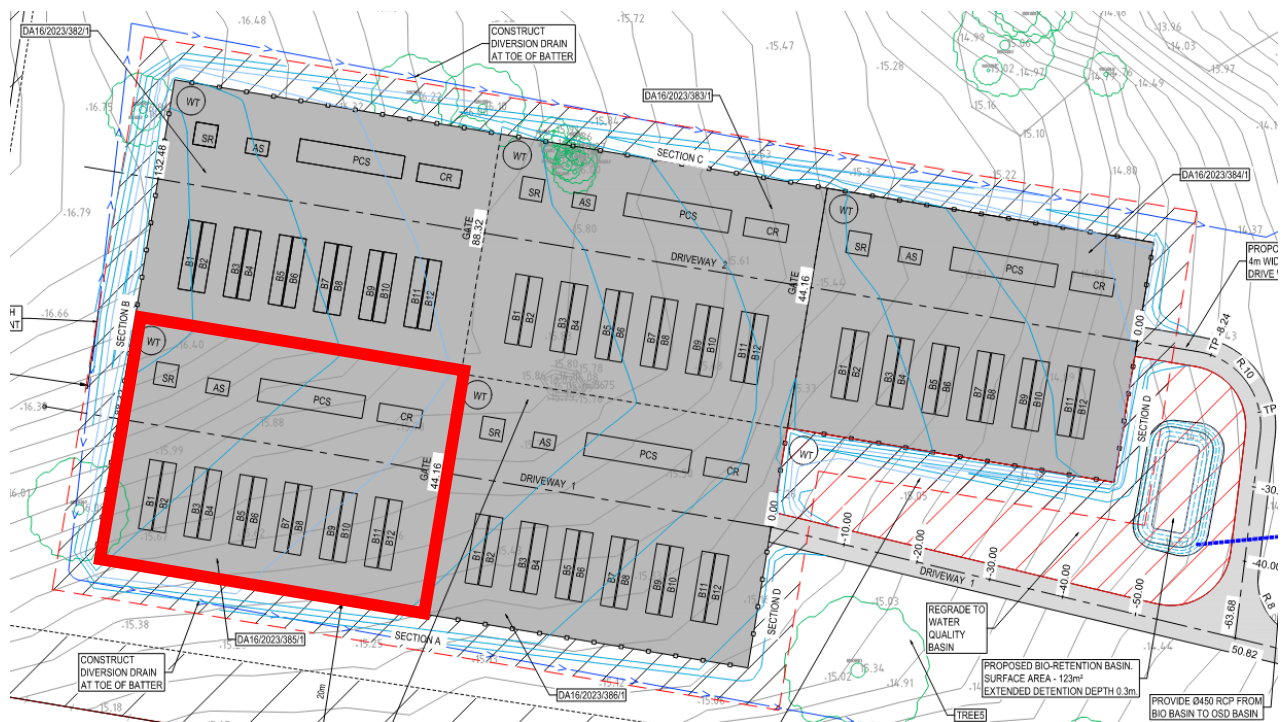


Figure 10: Overall site layout

Access and Parking

The site will be accessed via the existing crossover from Clarence Town Road. A new driveway access is proposed from the existing right access of the site to provide for access to the battery facility.

The applicant amended the design to provide access from the existing internal access road (to the east) to the compound area. The new alignment will be located to the north of the existing dwelling in the southern portion of the site.



Figure 11: New access road to connect BESS

No formal car parking is proposed as maintenance vehicles are expected to park within the compound area.

Landscaping

A landscaping buffer is proposed to be provided around the perimeter of the compound area.

The landscape plan provided includes a 10m wide landscaped area along the northern, eastern, and western portion of the development, while a 15m wide landscaped area is to be provided along the southern portion of the development.

The landscaping design includes a range of native vegetation of various sizes such as low shrubs, mid-storey trees and larger trees which are consistent with Council's Tree Technical Specification.

Lighting

Lighting is proposed throughout the site and is to be mounted below or at the top height of the battery cabinets and ancillary structures. The lighting is proposed to be downward facing to reduce potential light spill. An automatic system will be utilised to turn on at sunset and off at sunrise using lighting sensors. A lighting assessment was prepared and has been included in the attachments to the report.

Stormwater

The proposed development will include the installation of swale drains around the perimeter of the compound area to redirect overland stormwater flows from the adjacent land to the north.

Runoff from the development will initially be directed to a bio-retention basin, before being diverted to an onsite detention basin (OSD). Flows from OSD will be controlled by an outlet control pit that will release stormwater onto grassed pastures where it will infiltrate or dissipate via flow overland to the nearby water courses.

Waste Management

Minimal waste is expected during the operation of the proposed development. Any waste generated during maintenance will be taken off site and disposed of at a waste or recycling facility.

Any waste produced during construction will be disposed of at a waste or recycling facility by a private contractor.

Electricity Connection

The site is in the proximity of an 11kv transmission line. Ausgrid has granted consent for the proposed BESS to be connected to the line and will rely on five (5) separate 11kv feeds into the substation which will be connected as part of the development.

Most of the transmission lines will be located underground, with the central section of the infrastructure under bored. Open cut trenching will be utilised on either side of the under bored section to connect with the BESS in the south and the electricity substation in the north.

It should be noted that the connecting infrastructure to the nearby electricity substation was authorised by Ausgrid under Part 5 of the EP&A Act 1979.

Noise control

The applicant included a solid acoustic fence around the entire compound area. The fencing will be constructed from concrete panels and be 3m in height.

Decommissioning

At the end of the 20-year term, decommissioning of the BESS site will be undertaken. Decommissioning is proposed to commence within 12 months of the site ceasing operation and is expected to be completed within 6 months.

Decommissioning is expected to include the dismantling and removal of all batteries and ancillary electrical equipment, and the removal of the hardstand areas within the compound.

2.2 Background

A pre-lodgement meeting was held prior to the lodgement of the applicant on 15 May 2023. The pre-lodgement meeting related to a number of sites where BESS were proposed, including the subject site. Several issues were discussed from both a general context and in relation to the site specifically. A summary of the key issues and how they have been addressed by the proposal is outlined below:

- Visual Impact
- Contamination
- Bushfire
- Asset Lifecycle
- Flooding

The development application was lodged on 30 August 2023. A chronology of the development application since lodgement is outlined in **Table 1** below including the Panel's involvement (briefings, deferrals, etc) with the application:

Table 1: Chronology of the DA

Date	Event
30 August 2023	DA lodged
1 September 2023	DA referred to internal staff and external agencies
12 September 2023 – 10 October 2023	Exhibition of the application
12 October 2023	Initial briefing of HCCRPP
3 November 2023	Stop the clock Assessment
3 January 2024	DA re-referral to internal staff (natural resources and environmental health)
15 January 2024	New referral to external agency (RFS)
25 March 2024	New referral to external agency (DPE)

2.3 Site History

There have been a number of applications lodged over the site relating to the rural residential land use. These are summarised in **Table 2** below.

Table 2: Previous application lodged over the site.

Application No. and Type	Proposal Description	Determination
DA 16-2009-359-1	Storage Shed	Approved with conditions 17/06/2009
DA 16-2014-425-1	Single Storey Dwelling	Approved with conditions 04/02/2015
DA 16-2018-569-1	Dual Occupancy (detached)	Approved with conditions 18/12/2018
DA 16-2019-712-1	Torrens Title Subdivision – Five lots into three lots	Approved with conditions 05/02/2020
DA 16-2020-651-1	Deck additions to dwelling and detached solar carport	Approved with conditions 25/11/2020
DA 16-2021-369-1	Solar Farm	Approved with conditions 06/08/2021

It is noted that the approval for a solar farm (DA 16-2021-369-1) proposed landscaping along the western boundary of the site, which conflicts with the proposed indicative area allocated for compensatory planting.

A condition of consent has been recommended to require the surrender of DA 16-2021-369-1 to ensure the conflict is resolved.

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:

- (a) *the provisions of any environmental planning instrument, proposed instrument, development control plan, planning agreement and the regulations*
 - (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),*
- (b) *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.*

These matters are further considered below.

It is noted that the proposal is not considered to be:

- Designated Development (Section 4.10)
- Requiring concurrence/referral (Section 4.13)
- Crown DA (Section 4.33)

However, referral of the application to the NSW Office of Water under Section 91 of the Water Management Act 2000 resulted in the application being identified as Nominated Integrated Development under Section 4.46 of the Environmental Planning and Assessment Act 1979.

3.1 Environmental Planning Instruments, proposed instrument, development control plan, planning agreement and the regulations

The relevant environmental planning instruments, proposed instruments, development control plans, planning agreements and the matters for consideration under the Regulation are considered below.

(a) Section 1.7 – Application of Part 7 of Biodiversity Conservation Act 2016 and Part 7A of Fisheries Management Act 199

Section 7.2 of the Biodiversity Conservation Act (BC Act) states that development is likely to significantly affect threatened species if:

- (a) *it is likely to significantly affect threatened species or ecological communities, or their habitats, according to the test in section 7.3, or*
- (b) *the development exceeds the biodiversity offsets scheme threshold if the biodiversity offsets scheme applies to the impacts of the development on biodiversity values, or*
- (c) *it is carried out in a declared area of outstanding biodiversity value.*

In regards to (a) above, the applicant provided an ecological assessment that addressed the requirements of the *State Environmental Planning Policy (Biodiversity and Conservation) 2021*, the Comprehensive Koala Plan of Management (CKPoM) and Council's DCP. Council staff reviewed the assessment and found that the potential impacts on Koala habitat is acceptable in this instance.

Further, the proposal does not exceed the clearing threshold or result in the removal of any vegetation within the areas identified within the Biodiversity Values mapping.

The proposal is therefore compliant with Section 7.2 of the BC Act and the preparation of a Biodiversity Development Assessment Report is therefore not required.

Part 7A of the Fisheries Management Act does not apply to the subject site.

(b) Section 4.14 - Consultation and development consent—certain bush fire prone land

The proposal is located within an area identified as bushfire prone and, accordingly, Section 4.14 of the EP&A Act applies to the proposal.

The applicant provided a Bushfire Assessment Report, and the application was referred to the NSW Rural Fire Service (NSW RFS) for comment.

The NSW RFS assessed the proposal and provided the following recommendations:

- The preparation of a Fire Management Plan (FMP) shall be prepared for the Battery Energy Storage System BESS development to include:
 - 24-hour emergency contact details including alternative telephone contact;
 - Site infrastructure plan; and
 - Firefighting operations plan including methods and resources to manage and extinguish Battery Fires.
- Provision of appropriate Asset Protection Zones to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.
- Allow for property access to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities. This should include a design that provides:
 - Two-wheel drive, all-weather roads;
 - The capacity of road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes); and
 - Minimum 4m carriageway width.
- Provision of a 20,000-litre water supply (tank) fitted with a 65mm Storz fitting.

These requirements have been included as conditions of consent.

(c) Section 4.46 – Integrated Development

The proposal is Nominated Integrated Development under Section 4.46 of the E&A Act.

The application was initially referred to DPE – Water and no issues were identified with the construction of the battery compound or the electricity connection works. General Terms of Approval (GTAs) were issued. This included a requirement to apply for a Controlled Activity Approval (CAA) prior to undertaking any works within the riparian corridor. The GTAs also required detailed civil designs.

The application was re-referred once it was identified that upgrade works to the access were required and included works within the riparian corridor.

To date, no response has been received from DPE - Water. It is however considered that the initial GTAs will address any works undertaken within the access road as well.

The proposal can therefore be supported, and a requirement will be placed on the consent to ensure the applicant is aware of its responsibility to obtain a CAA prior to undertaking any works within the riparian corridor.

(d) 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 (Transport and Infrastructure) 2021*
- *Port Stephens Local Environmental Plan 2013*
- *Port Stephens Development Control Plan 2014*

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 Environmental Planning Instruments

EPI	Matters for Consideration	Comply (Y/N)
State Environmental Planning Policy (Biodiversity and Conservation) 2021	<p>Chapter 3: Koala Habitat Protection 2020</p> <p>The proposal will result in the removal of approximately 0.13ha of Preferred Koala Habitat, including 0.01ha of 50m buffer over marginal, 0.04ha of marginal, 1.08ha of 50m buffer over cleared land, 0.03ha of link over cleared, and 0.65ha of mainly cleared land.</p> <p>The proposal will result in the loss of 15 koala feed trees.</p> <p>The ecological impacts were assessed and provided that compensatory planting (totalling 140 trees) is conducted on site, the development is considered to comply with the CKPoM.</p>	Y
State Environmental Planning Policy (Planning Systems) 2021	<p>Chapter 2: State and Regional Development</p> <p>Section 2.19(1) declares the proposal regionally significant development pursuant to Clause 5 of Schedule 6 given it is private infrastructure with a CIV over \$5 million.</p>	Y
State Environmental Planning Policy (Resilience and Hazards) 2021	<p>Chapter 3: Hazardous and offensive development</p> <p>Although the proposal conforms with the definition for hazardous storage facility (as defined in the RH SEPP), no thresholds are provided for the storage of electricity.</p> <p>It is understood that DPHI provided an informal threshold in lieu of a specific threshold, which is 30MW.</p> <p>As neither the individual BESS nor the overall proposal exceed 30MW, the proposal does not require any further assessment under the Policy.</p> <p>The proposal also includes the provision of a 40L self-bunded diesel tank. A letter provided from Riskon states that diesel is considered to be a C1 Combustible Liquid. The letter notes that C1 Combustible Liquids are not considered to be potentially hazardous and therefore, do not require assessment against Chapter 3 of this policy.</p>	Y

	<p>Chapter 4: Remediation of Land</p> <p>Section 4.6 - Contamination and remediation have been considered in the Preliminary Site Investigation and the proposal is satisfactory subject to conditions.</p>	
State Environmental Planning Policy (Transport and Infrastructure) 2021	<p>Chapter 2: Infrastructure</p> <ul style="list-style-type: none"> • Clause 2.36 – This section identifies that development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed non-residential zone. As per Clause 2.35, RU2 Rural Landscape zone is prescribed non-residential zone. The proposal is therefore permissible with consent pursuant to Clause 2.36 of this policy. • Clause 2.48(2) – This section applies to the development as it is proposed to be carried out within or adjacent to an easement for electricity purposes. The application was referred to Ausgrid as the electricity supply authority. No objection was raised with advice given in relation to the supply of electricity, working in proximity to network assets, and landscaping. • Clause 2.119(2) – This section applies to the development as it has frontage to a classified road being Clarence Town Road. The proposed development is not considered likely to impact the safety, efficiency, and ongoing operation of Clarence Town Road. 	<p>Y</p> <p>Y</p> <p>Y</p>
Proposed Instruments	N/A	N/A
PSLEP 2013	<p>Port Stephens Local Environmental plan 2013</p> <ul style="list-style-type: none"> • Clause 2.3 – Permissibility and zoning objectives –be consistent with the zoning objectives. • Clause 5.10 – Heritage conservation • Clause 5.21 – Flooding planning • Clause 7.1 – Acid sulfate soils • Clause 7.2 – Earthworks <p>The proposal is generally consistent with the LEP.</p>	Y
PSDCP 2014	<p>Port Stephens Development Control Plan 2014:</p> <ul style="list-style-type: none"> • B2 – Natural resources • B3 – Environmental Management. • B4 – Drainage and Water Quality • B5 – Flooding • B8 – Road Network and Parking. <p>The proposal is generally consistent with the DCP.</p>	Y

Consideration of the relevant SEPPs is outlined below:

State Environmental Planning Policy (Biodiversity and Conservation) 2021

Chapter 3 – Koala Habitat Protection 2020

Chapter 3 of the State Environmental Planning Policy (Biodiversity and Conservation) 2021 refers to the conservation and management of areas of natural vegetation that provide habitat for koalas to ensure their protection. Chapter 3 sets out to identify if a site contains Koala Habitat.

The proposal will result in the removal of approximately 0.13ha of Preferred Koala Habitat, including 0.01ha of 50m buffer over marginal, 0.04ha of marginal, 1.08ha of 50m buffer over cleared land, 0.03ha of link over cleared, and 0.65ha of mainly cleared land.

The proposal will result in the loss of 15 koala feed trees.

As the site contains preferred Koala Habitat, an ecological assessment was conducted. The assessment identified the installation of the BESS and associated structures as unlikely to create any significant impacts on surrounding flora.

It is considered that the ecological assessment has addressed the performance criteria of the CKPoM sufficiently. The site selection for the proposal has been chosen to avoid and minimise impacts to larger areas of Koala habitat in accordance with the CKPoM. However, the proposal will result in the removal of a number of preferred Koala feed trees. The planting of 140 compensatory koala feed trees has been proposed in accordance with the CKPoM.

The development is therefore considered to comply with the CKPoM.

State Environmental Planning Policy (Planning Systems) 2021

Chapter 2: State and Regional Development

Chapter 2 of the State Environmental Planning Policy (Planning Systems) 2021 states that development for private infrastructure with a capital investment value of more than \$5 million is to be referred a Regional Planning Panel for determination.

The proposal is *regionally significant development* pursuant to Section 2.19(1) as it satisfies the criteria in Clause 5 of Schedule 6 of the Planning Systems SEPP as the proposal is development for private infrastructure with a CIV over \$5 million. Accordingly, the Hunter Central Coast Regional Planning Panel is the consent authority for the application. The proposal is consistent with this Policy.

State Environmental Planning Policy (Resilience and Hazards) 2021

Chapter 3: Hazardous and offensive development

The provisions of Chapter 3 of the *State Environmental Planning Policy (Resilience and Hazards) 2021* (RH SEPP) have been considered in the assessment of the development application.

Chapter 3.10 states that this Chapter applies to the following development:

- (a) *development for the purposes of a potentially hazardous industry, and*
- (b) *development for the purposes of a potentially offensive industry, and*
- (c) *development notified, for the purposes of this Part, by the Director in the Gazette as being a potentially hazardous or potentially offensive development.*

The applicant provided an assessment against the RH SEPP and Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines.

The assessment found that, although the proposal conforms with the definition for hazardous storage facility (as defined in the RH SEPP), no thresholds are provided for the storage of electricity.

It is understood that DPE provided an informal threshold (in lieu of a published threshold), which is 30MW.

As neither the individual BESS nor the overall development on the site exceed 30MW, the proposal does not conform to the definitions in Clause 3.10. Therefore, the proposal does not require any further assessment under the Policy.

The proposal also includes the provision of a 40L self-bunded diesel tank. A letter provided from Riskon states that diesel is considered to be a C1 Combustible Liquid. The advice letter notes that C1 Combustible Liquids are not considered to be potentially hazardous and therefore, do not require assessment against Chapter 3 of this policy.

Chapter 4: Remediation of Land

The provisions of Chapter 4 of the RH SEPP have been considered in the assessment of the development application. Section 4.6 of the RH SEPP requires consent authorities to consider whether the land is contaminated, and 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.

A Preliminary Site Investigation (PSI) was conducted and found that the site could potentially contain minor contamination resulting from the adjoining poultry farm. However, the PSI concluded that the contamination risk was 'low', and that work should cease if any potential contamination is observed during the initial earthworks.

State Environmental Planning Policy (Transport and Infrastructure) 2021

Chapter 2: Infrastructure

Division 4 of Chapter 2 applies to electricity generating works or solar energy systems. Electricity generating works are defined in this Chapter as:

- electricity generating works*** means a building or place used for the following purposes, but does not include a solar energy system—
- (a) *making or generating electricity,*
 - (b) *electricity storage.*

The proposal seeks to install a Battery Energy Storage System (BESS) on the site and is therefore considered to be electricity generating works. Clause 2.36 identifies that development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed non-residential zone. As per Clause 2.35,

RU2 Rural Landscape zone is prescribed non-residential zone. The proposal is therefore permissible with consent pursuant to Clause 2.36 of this policy.

Clause 2.48 applies to development that is proposed to be carried out within or adjacent to an easement for electricity purposes. The proposed development is located adjacent to an electricity easement and seeks to connect to the local Ausgrid network. This section requires the consent authority to 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.

The application was referred to Ausgrid who provided comment on the proposal. No objection was raised with advice given in relation to the supply of electricity, working in proximity to network assets and landscaping. The referral from Ausgrid will form part of a recommended condition. It is noted that the applicant has already gained approval for the connection works from Ausgrid under Part 5 Environmental Planning and Assessment Act 1979.

Clause 2.119(2) applies to the development that has frontage to a classified road. Clarence Town Road is a classified road and therefore this chapter applies to the development.

The proposed development seeks to use the existing access off Clarence Town Road.

It is noted that no alternative access is available to the site.

The proposed development is not considered likely to impact the safety, efficiency, and ongoing operation of Clarence Town Road. A construction management plan with traffic management measures will be required during construction of the proposal and a condition has been recommended.

During operation of the proposed development, traffic is expected to be minimal with most operations occurring remotely and regular on-site maintenance occurring no more than twice a month. Noting this, it is considered that the proposal is consistent with this section.

Port Stephens Local Environmental Plan 2013

The relevant local environmental plan applying to the site is the *Port Stephens Local Environmental Plan 2013* ('the LEP'). The aims of the LEP are:

- (a) *to cultivate a sense of place that promotes community well-being and quality of life,*
- (b) *to provide for a diverse and compatible mix of land uses,*
- (c) *to protect and conserve environmental values,*
- (d) *to facilitate economic growth that contributes to long-term employment,*
- (e) *to provide opportunities for housing choice and support services tailored to the needs of the community,*
- (f) *to conserve and respect the heritage and cultural values of the natural and built environments,*
- (g) *to promote an integrated approach to the provision of infrastructure and transport services,*
- (h) *to protect and promote the use and development of land for arts and cultural activity, including music and other performance arts.*

The proposal is generally consistent with these aims as it contributes to the provision of diverse land uses, facilitating economic growth.

Zoning and Permissibility (Part 2)

The site is located within the RU2 Rural Landscape Zone pursuant to Clause 2.2 of the LEP.

The proposed development is defined as electricity generating works. According to the Port Stephens Local Environmental Plan 2013, 'Electricity Generating Works' are not permissible in the RU2 zone pursuant to the land use table. However, as discussed earlier in the report, the proposal is made permissible under the State Environmental Planning Policy (Transport and Infrastructure) 2021. The zone objectives include the following (pursuant to the Land Use Table in Clause 2.3):

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To maintain the rural landscape character of the land.*
- *To provide for a range of compatible land uses, including extensive agriculture.*
- *To facilitate a variety of tourist and visitor-orientated land uses that complement and promote a stronger rural sector appropriate for the area.*

The proposal is consistent with these zone objectives for the following reasons:

- The rural landscape character of the area will be maintained through the provision of:
 - sufficient setbacks and a large landscape buffer to limit visual impacts.
 - inclusion of a noise barrier to limit acoustic impacts on the nearby dwellings.
- The proposal is compatible with other rural land uses noting that the majority of the site will continue to be used for rural purposes during operation of the BESS.

General Controls and Development Standards (Part 2, 4, 5 and 6)

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 1: Consideration of the LEP Controls

Control	Requirement	Proposal	Comply
Heritage (CI 5.10)	The subject site is not heritage listed.	There are no local or state heritage listed items on the site. An AHIMs search was provided for the site which shows no Aboriginal places or sites on the subject site or within the 200m buffer surrounding the site.	Yes
Flooding Planning (CI 5.21)	Development consent must not be granted to development on land the consent authority considers to be within the flood planning area unless the consent authority is satisfied the development complies	The site is located on flood prone land. The development is located outside of land that is flood prone. However, the access will traverse areas that are flood prone.	Yes

	<p>with the following matters identified in 5.21(2): (a) is compatible with the flood function and behaviour on the land, and (b) will not adversely affect flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties, and (c) will not adversely affect the safe occupation and efficient evacuation of people or exceed the capacity of existing evacuation routes for the surrounding area in the event of a flood, and (d) incorporates appropriate measures to manage risk to life in the event of a flood, and (e) will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses</p> <p>Section 5.21(3) requires that the consent authority must consider the following matters— (a) the impact of the development on projected changes to flood behaviour as a result of climate change, (b) the intended design and scale of buildings resulting from the development, (c) whether the development incorporates measures to minimise the risk to</p>	<p>Council's Development Engineer was supportive of the proposed development from a flood perspective.</p> <p>Noting the above, it is considered that the proposal is consistent with this clause.</p>	
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	life and ensure the safe evacuation of people in the event of a flood, (d) the potential to modify, relocate or remove buildings resulting from development if the surrounding area is impacted by flooding or coastal erosion		
Acid sulfate soils (CI 7.1)	The site is mapped as containing Class 5 Acid Sulfate Soils (ASS).	<p>The proposed area of development will not incur works within 500m of adjacent Class 1, 2, 3 or 4 ASS or result in earthworks below 5m. The proposed works will also not result in changes to the water table.</p> <p>The closest areas that contain Class 3 or 4 ASS are located at least 1km from the site.</p> <p>The proposal therefore does not require the preparation of an Acid Sulfate Soils Management Plan.</p>	Yes
Earthworks (CI 7.2)	<p>Under Clause 7.2(3) before granting development consent for earthworks (or for development involving ancillary earthworks), the consent authority must consider the following matters—</p> <p>(a) the likely disruption of, or any detrimental effect on, drainage patterns and soil stability in the locality of the development,</p> <p>(b) the effect of the development on the likely future use or redevelopment of the land,</p> <p>(c) the quality of the fill or the soil to be excavated, or both,</p>	<p>Earthworks are required to facilitate the proposed development. The required earthworks will include open cut trenching to allow for the extension of underground transmission lines from the road to the sub-station. The proposal is considered to be consistent with the requirements of this clause in that:</p> <ul style="list-style-type: none"> • A directional boring construction method will be implemented to avoid disturbance of vegetation. • The proposed development is in a small portion of the site and not expected to affect the future use of 	Yes

	<p>(d) the effect of the development on the existing and likely amenity of adjoining properties,</p> <p>(e) the source of any fill material and the destination of any excavated material,</p> <p>(f) the likelihood of disturbing relics,</p> <p>(g) the proximity to, and potential for adverse impacts on, any waterway, drinking water catchment or environmentally sensitive area,</p> <p>(h) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.</p>	<p>redevelopment of the land.</p> <ul style="list-style-type: none"> • An AHIMs search was provided for the site which shows no Aboriginal places or sites on the subject site or within the 200m buffer surrounding the site. • Conditions requiring a construction management plan to be prepared and sediment and erosion controls to be implemented during works have been recommended to reduce potential impacts of the development. 	
Essential Services (CI 7.6)	<p>Cause 7.6 provides that development consent must not be granted to development unless the consent authority is satisfied that services that are essential for the development are available or that adequate arrangements have been made to make them available when required.</p>	<p>It is considered that the supply of water and sewer is not essential for the proposal given it will be operated remotely.</p> <p>The site is capable of being connected to reticulated electricity. A part 5 application has been approved by Ausgrid for these works.</p> <p>The proposal is to be accessed via the existing infrastructure from Clarence Town Road.</p> <p>Stormwater infrastructure is proposed to cater from runoff from the development. This was considered acceptable by Council's Development Engineer when noting the rural nature and size of the site.</p>	Yes

The proposal is considered to be generally consistent with the PSLEP 2013.

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

There is one proposed instruments which has been the subject of public consultation under the EP&A Act, and is relevant to the proposal:

- *Draft Remediation of Land State Environmental Planning Policy*

The proposed instrument is considered below:

Draft Remediation of Land State Environmental Planning Policy

The proposed Remediation of Land SEPP is intended to repeal and replace Chapter 4 of SEPP Resilience and Hazards 2021. The draft SEPP, which was exhibited from 25 January to 13 April 2018, is currently under consideration.

The proposed SEPP seeks to provide a state-wide planning framework to guide the remediation of land, including outlining provisions that require consent authorities to consider the potential for land to be contaminated when determining development applications; clearly list remediation works that require development consent; and introduce certification and operational requirements for remediation works that may be carried out without development consent.

Consideration has been given to the suitability of the site with respect to potential land contamination under SEPP Resilience and Hazards 2021 – Chapter 4 elsewhere within this report. The subject site has been identified as suitable for the proposed development and further investigation in respect to contamination is not warranted in this instance.

There are no other draft environmental planning instruments that apply to the proposal.

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

The following Development Control Plan is relevant to this application:

- *Port Stephens Development Control Plan 2014* ('the DCP')

Chapter B2 – Natural Resources

This chapter applies to development located within 500m of areas of environmental significance, development that contains koala habitat, noxious weeds or development that is seeking to use biodiversity credits.

The subject site is mapped as containing preferred koala habitat. The proposed development will require the removal of approximately 0.13ha of preferred habitat.

To offset the required habitat removal a number of recommendations have been made and implemented into the conditions of consent. Conditions include, to retain preferred koala habitat and the planting of appropriate trees to ensure the safe movement of koalas throughout the site. The proposed development will result in minimal removal of preferred koala habitat and will provide multiple mitigation methods to ensure the protection of the surrounding koala population.

On this basis, it is considered that the proposal is consistent with Chapter B2 of the PSDCP.

Chapter B3 – Environmental Management

Chapter B3 contains provisions relating to earthworks and noise impacts which have been assessed below.

Noise

The applicant provided a Noise and Vibration Impact Assessment to address any acoustic impacts on the surrounding development.

The assessment recommended a 3m high acoustic wall around the compound area and the implementation of additional noise reduction measures to the equipment housing.

Council's Environmental Health Officer reviewed the assessment and found that it has identified all nearest sensitive receivers, determined the existing ambient / background noise, and established suitable amenity noise levels based on the identified criteria.

Where the recommendations outlined in the assessment are implemented, it is anticipated that the activity will adhere to the adopted amenity levels. Specific conditions of consent were also recommended to ensure the future development will not have a significant impact on the adjoining development.

Earthworks

The proposed development will require minor earthworks which are considered unlikely to result in any adverse impacts on the surrounding area.

Noting the above, the proposal is consistent with this section of the PSDCP.

Chapter B4 – Drainage and Water Quality

This section applies to development that:

- *Increases impervious surfaces; or*
- *Drains to the public drainage system; or*
- *Involves a controlled activity within 40m of waterfront land.*

The proposed development area of the BESS is considered minor from a stormwater management perspective.

The proposal includes a bio-retention basin (water quality) and onsite detention basin (quantity of stormwater).

This was supported by the Council's Development Engineer subject to a condition requiring that any stormwater discharge from the basins above will be dispersed at ground level so as not to be concentrated or create nuisance flows onto any surrounding buildings or neighbouring properties.

Chapter B5 – Flooding

This section applies to all development on flood prone land. The central section of the subject land is mapped as being within the Flood Planning Area. The proposed BESS development will be located outside these flood prone areas, with only the access road affected by flooding.

Council's Development Engineer was supportive of the proposed development from a flood perspective. The relatively limited access required by the operator was not considered a significant concern.

Noting the above, it is considered that the proposal is consistent with this section of the PSDCP.

Chapter B7 – Heritage

The objective of this section is to conserve environmental heritage, heritage items and conservation areas, archaeological sites and Aboriginal sites and objects of heritage significance.

There are no local or state heritage listed items on the site. An AHIMs search was provided for the site which shows no Aboriginal places or sites on the subject site or within the 200m buffer surrounding the site. It is noted that the proposed development is to be located within a highly disturbed area of the site.

Noting this, this chapter does not apply to the proposal.

Chapter B8 – Road Network and Parking

This section applies to development with the potential to impact on the existing road network or create demand for on-site parking.

Traffic Impacts

Council's Development Engineer recommended that a Construction Management Plan be prepared prior to the issuing of a construction certificate to manage construction traffic. A condition has been recommended accordingly.

Regarding operational traffic, this is expected to be minimal as the site will be managed remotely and regular maintenance work expected to occur no more than twice a month.

On-site Parking Provisions

The development does not propose any formal parking. This is considered suitable as the operation of the BESS will not require permanent staff to be present on the site as it will be operated remotely. Maintenance vehicles are able to park informally on the site.

On-site Parking Access

The compound area is proposed to be accessed via the existing access driveway of Clarence Town Road. The proposed access is considered suitable for the proposal particularly given the low use. The proposed access was supported by Council's Development Engineer.

Development Contributions

The following contributions plans are relevant pursuant to Section 7.18 of the EP&A Act and have been considered in the recommended conditions (notwithstanding Contributions plans are not DCPs they are required to be considered).

The Port Stephens Local Infrastructure Contribution Plan has been considered and included the recommended draft consent conditions.

The proposal will attract developer contributions under Section 7.12 of the EP&A Act. The Port Stephens Local Infrastructure Contribution Plan states that development with a value over \$200,000 will attract a contribution totalling 1% of the development cost.

The required developer contribution therefore totals \$168,836.

(g) Section 4.15(1)(a)(iia) – 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.

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

Section 61 of the 2021 EP&A Regulation contains matters that must be taken into consideration by a consent authority in determining a development application. There are no matters relevant to the proposal.

3.2 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.

Built Environment

Amenity / Character

The proposed development area is located within a rural area with surrounding land uses being primarily used for rural residential and agricultural purposes. The proposed development is generally in keeping with the existing land uses of the site as surrounding development includes residential dwelling, agricultural production, and a solar station. The proposal has also been sufficiently setback from neighbouring properties and the public domain.

In addition to the siting of the development, the proposal will incorporate a 3m high acoustic barrier fence around the perimeter of the compound area which will conceal the batteries and associated structures and infrastructure. A landscape buffer will also be provided around the compound area, further reducing the potential noise and visual impacts resulting from the proposed development. The landscape design consists of a mixture of ground covers, shrubs, and trees. The landscape design is expected to reach full maturity 10 years after planting.

Safety

As stated previously, the proposal will utilise LFP batteries.

The Fire Incident Management Plan (FIMP) prepared by Riskcon found the following:

- LFP batteries have a relatively low thermal rise when exposed to external heat sources, being 1.5°C/min. This can be compared to typical lithium-ion battery that has a thermal rise of 200-400°C/min. The risk of thermal run and fire is therefore considered 'low'.

- LFP batteries are not prone to fire when punctured by external objects.
- Where fire does occur, several safety measures are provided to further limit the risk of thermal runaway:
 - Shut-down separator (for overheating)
 - Tear-away tab (for internal pressure relief)
 - Vent (pressure relief in case of severe outgassing)
 - Thermal interrupter (overcurrent/overcharging/environmental exposure)
- The stainless-steel enclosures provided around each of the batteries can contain heating of up to 900°C.

There is the potential for hazardous gases to be produced in the event of a battery container fire that includes carbon dioxide, carbon monoxide and fluoride gases. Most of the gases expected to result from a battery fire are not considered a threat to health or life of surrounding residents. However, hydrogen fluoride can dissolve in water or vapour, thereby creating hydrofluoric acid (HF). HF can cause chemical burns to any person near the BESS. It is however noted in the FIMP that the risk of a container fire is '*considered negligible due to the highly stable and safe battery chemistries used*'.

Further, DPE provided informal guidelines that include a requirement that any BESS in NSW be tested against the relevant testing protocol, and installation (including fire protection measures) be undertaken in accordance with the manufacturer's specifications and the relevant testing protocol.'

Where a fire does occur, the FIMP states that fire extinguishers, water spray and aerosol-based suppression are to be made available within each of the BESS areas. The plan also states that the local Rural Fire Service is located a short distance away from the site, while the Fire and Rescue NSW centre in Maitland is located approximately 20 minutes from the site.

It is therefore considered that the batteries proposed for the BESS are chemically stable and that the proposal includes sufficient measures to ensure the safety of surrounding development.

Natural Environment

The subject site is mapped as containing preferred koala habitat. The proposed development will require the removal of approximately 0.13ha of preferred habitat.

To offset the required habitat removal a number of recommendations have been made and implemented into the conditions of consent. Conditions include, to retain preferred koala habitat and the planting of appropriate trees to ensure the safe movement of koalas throughout the site. The proposed development will result in minimal removal of preferred koala habitat and will provide multiple mitigation methods to ensure the protection of the surrounding koala population.

The applicant also provided a PSI that identified that the potential for contamination on the subject land is considered 'low'.

All offsite impacts associated with the connection to the adjacent electricity substation has been addressed in the Part 5 authorisation issued by Ausgrid.

The potential impact on the natural environment is therefore considered acceptable.

Social and Economic Impact

The proposal would generate direct and indirect social and economic benefits as follows:

- The proposed development would increase the resilience of the local electricity grid through providing an alternative source of energy in periods where demand is high.
- The proposal will provide employment opportunities during both the construction and the operational phases of the development.
- The amenity impacts from the proposed development have been reasonably mitigated through the provision of landscape treatment for screening of the development and acoustic fencing to reduce potential noise impacts.
- The proposal has been designed to reduce impacts from flooding and bushfire emergencies.

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

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

The site is considered to be suitable for the proposed development for the following reasons:

- The site is located within proximity to 11kv transmission lines which have the capacity to service the proposed BESS.
- The location of the proposed development is in an area that is generally cleared of significant vegetation being mostly disturbed therefore limiting environment impacts.
- The impacts from natural hazards (flooding and bushfire) can be mitigated through design.
- The site is located within the Hunter-Central Coast Renewable Energy Zone and therefore similar development types would be expected in the locality in the future.

Based on the above, the site is suitable to accommodate the proposal.

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

These submissions are considered in Section 5 of this report.

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

The development is considered to be in the public interest as it would not have any significant adverse impacts on the built or natural environment and has positive social and economic impacts. The proposal is consistent with the relevant environmental planning instruments applying to the land.

In addition to the above, the proposal is consistent with the Hunter Regional Plan 2041, specifically Objectives 1 and 7. Objective 1 seeks to diversify the Hunter's mining, energy, and industrial capacity. This objective refers to the Hunter-Central Coast Renewable Energy Zone (REZ) which the site is located within. Objective 1 notes the importance of the REZs to deliver cheap, reliable, and clean electricity for homes and businesses in NSW. Whilst the design and delivery of the REZ is still in progress, the proposal will contribute to the grouping of renewable energy infrastructure within the area. Objective 7 seeks to reach net zero and increase resilience and sustainable infrastructure. The objectives note the importance of providing infrastructure for the generation, storage, firming, and transmission of electricity. The proposal seeks to provide electricity storage therefore contributing to the provision of infrastructure required to increase the resilience of the local electricity network.

On this basis, the proposal is in the public interest.

4. REFERRALS AND SUBMISSIONS

4.1 Agency Referrals and Concurrence

The development application has been referred to various agencies for comment/concurrence/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 2: Concurrence and Referrals to Agencies

Agency	Concurrence/ referral trigger	Comments (Issue, resolution, conditions)	Resolved
Referral/Consultation Agencies			
RFS	S4.14 – EP&A Act Development on bushfire prone land	The application was referred to the NSW RFS for review. Conditions of consent were provided to mitigate the potential threat from bushfires.	Y
Electricity Supply Authority	Section 2.48 – <i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i> Development near electrical infrastructure	The application was referred to Ausgrid under the SEPP provisions. No objection was raised with the proposal and no specific conditions were required.	Y
Integrated Development (S 4.46 of the EP&A Act)			
Department of Planning and Environment - Water	S89-91 – <i>Water Management Act 2000</i> water use approval, water management work approval or activity approval under Part 3 of Chapter 3	The proposal is Nominated Integrated Development under Section 4.46 of the E&A Act. The application was initially referred to Department of Planning and Environment - Water and no issues were identified with the construction of the battery compound or the electricity connection works. General Terms of Approval (GTAs) were issued. This included a requirement to apply for a Controlled Activity Approval (CAA) prior to undertaking any works within the riparian corridor. The GTAs also required detailed civil designs. The application was re-referred once it was identified that upgrade works to the access were required	Y

		<p>and included works within the riparian corridor.</p> <p>To date, no response has been received from Department of Planning and Environment - Water. It is however considered that the initial GTAs will address any works undertaken within the access road as well.</p> <p>The proposal can therefore be supported, and a requirement will be placed on the consent to ensure the applicant is aware of its responsibility to obtain a CAA prior to undertaking any works within the riparian corridor.</p>	
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4.2 Council Officer Referrals

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

Table 3: Consideration of Council Referrals

Officer	Comments	Resolved
Development Engineering	<p>Council's Development Engineers reviewed the submitted stormwater concept plan and considered that there were no objections subject to conditions.</p> <p>The access to the BESS was also assessed from a flood perspective. No issues were identified with the detailed design provided by the applicant.</p>	Y
Natural Systems	Council's Natural Environmental Planner reviewed the proposal and did not raise any significant issues. A requirement for additional replacement planting and tree retention were included as conditions of consent.	Y
Environmental Health	<p>Council's Environmental Health Officer assessed both the acoustic and site contamination information provided by the applicant.</p> <p>No significant issues were identified as part of the assessment and conditions of consent were provided.</p>	Y

The outstanding issues raised by Council officers are considered in the Key Issues section of this report.

4.3 Community Consultation

The proposal was notified in accordance with the Council's Community Participation Plan from 12 September 2023 until 10 October 2023. The notification included the following:

- Notification letters sent to adjoining and adjacent properties; and
- Notification on the Council's website and in the local newspaper.

The Council received a total of 5 unique submissions, comprising of 5 objections. A late submission was also received. The issues raised in these submissions are considered in **Table 7**.

Table 4: Community Submissions

Issue	No of submissions	Council Comments
Lodgement of five (5) separate Development Applications Concerns were raised regarding the lodgement of separate applications for each of the BESS components	6	Council raised similar concerns as the objectors. However, there is no legal requirement to prevent the lodgement of separate applications and the assessment of each application has therefore been undertaken. It should be noted that the cumulative impact of the combined applications has been assessed.
Consent Authority Concerns were raised regarding Council being the consent authority for the applications	3	It should be noted that the application will not be determined by Port Stephens Council as the development is defined as Regional Development as the value of the private infrastructure exceeds a CIV of over \$5million.
Non-compliance with RU2 zone objectives	5	As discussed in the assessment The proposal is considered to be consistent with these zone objectives for the following reasons: <ul style="list-style-type: none"> • The rural landscape character of the area will be maintained through the provision of: <ul style="list-style-type: none"> ○ sufficient setbacks and a large landscape buffer to limit visual impacts. ○ inclusion of a noise barrier to limit acoustic impacts on the nearby dwellings. • The proposal is considered to be a compatible land use with other rural land uses noting that most of the site will continue to be used for rural purposes during operation of the BESS.
Visual impacts (landscaping)	3	The applicant provided an updated landscape plan that included additional planting to screen the proposal from adjoining development.

		<p>A Visual Impact Assessment was also prepared to show the potential impact on the surrounding dwellings.</p> <p>It is noted that the proposed planting will completely screen the proposed facility once a certain level of maturity is reached.</p>
Ecological Impacts	5	<p>The proposal was assessed by Council's Environmental Officer.</p> <p>No significant issues were identified from an ecological perspective.</p> <p>It should be noted that some tree retention is required, and the proposal complies with the compensatory planting ratios required by the CKPOM.</p> <p>The proposal is therefore considered appropriate from a biodiversity perspective.</p>
Limited field surveys were undertaken		
Non-compliance with BC Act		
Impact on koalas and bats from construction		
Biodiversity impacts resulting from under boring		
Noise impacts Issues were raised of the potential impacts on noise emissions from the BESS on both local residents and wildlife	5	<p>The applicant provided a Noise and Vibration Impact Assessment that included noise monitoring of the ambient noise levels and modelling of the future acoustic environment.</p> <p>The NVIA It was found that the impacts on the adjoining development can be mitigated via the construction of an acoustic wall and the implementation of additional measures within the housing of the BESS components.</p> <p>Council's Environmental Health Officer reviewed the information and provided conditions of consent to ensure the measures are implemented.</p> <p>The proposal is therefore considered appropriate from an acoustic perspective.</p>
Fire risk Issues regarding internal fires and impacts from bushfires.	4	<p>As discussed in the assessment, it is considered that the batteries proposed for the BESS are chemically stable and that the proposal includes sufficient measures to ensure the safety of surrounding development.</p> <p>The application was also referred to the NSW RFS for assessment from a bushfire perspective. Specific requirements were provided that will be implemented within the consent.</p>

		It is considered that the proposal is acceptable from an internal fire and bushfire perspective.
Lack of information on decommissioning Limited information provided on future site remediation. No detail provided on recycling of batteries.	2	<p>The proponent provided information regarding the decommissioning of the site. It is considered that, after removal of the various BESS components, the only remediation that need to occur is the removal of hardstand areas. This can occur without significant input from the operator.</p> <p>All the BESS components can be recycled within Australia, and it is understood that the majority of material can be reused in future renewable projects.</p>
Light spill Issues were raised regarding the light spill from the proposed night time lighting within the BESS compound.	4	<p>The applicant stated that the lighting will be dimmed in the night and a warm white colour (4000k) will be used.</p> <p>It is also noted that the BESS will be enclosed by a 3m high acoustic fence and vegetation buffer that will limit light spill occurring in the proximity to the BESS compound.</p> <p>It is noted that no light poles will be utilised and the lighting will be fixed to the battery cabinets and other equipment housing, thereby not exceeding 3m in height.</p>
Flooding Submissions raised concern the development will adversely impact flooding within the locality.	2	<p>The application proposes an appropriate stormwater management network which will capture and control discharge of stormwater within the site. Stormwater modelling has been submitted to demonstrate the proposed stormwater management chain, including discharge of stormwater runoff, and will not have negative impacts on downstream properties in peak storm events.</p> <p>Council's Development Engineer has reviewed the proposal and raises no objections to the proposed stormwater management arrangements.</p>
Project justification	1	<p>It is considered that the project is within keeping with the objectives of the Hunter-Central Coast Renewable Energy Zone that aims to provide infrastructure for the generation, storage, firming, and transmission of electricity in the Hunter region. The proposal seeks to provide electricity storage therefore contributing to the provision of infrastructure required to increase the resilience of the local electricity network.</p>

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 Visual Impact

During the initial Panel briefing, concerns were raised about the lack of landscaping and the visual impact of the proposal on adjoining properties.

A detailed landscape plan and visual impact assessment were provided by the applicant.

The landscape plan provided includes a 10m wide landscaped area along the northern, eastern, and western portion of the development, while a 15m wide landscaped area is provided along the southern area. The landscaped areas include a mix of low shrubs, mid-storey trees and larger trees.

The 3m high noise barrier will provide further screening of the BESS components, fencing and lighting.

The visual impact assessment included the following view analysis:



Figure 12: View of development and landscape buffer viewed from the smaller dwelling located on the subject site



Figure 13: View of development and landscape buffer viewed from the adjoining dwelling along the southern boundary of the site

It is considered that the proposed landscaped buffer will provide sufficient screening of the BESS when viewed from the adjacent land.

5.2 Light Spill

During the initial panel briefing, concerns were raised in regard to the light spill emanating from the proposed development.

The applicant provided updated information that stated that low level warm white lighting would be used within the facility. It is considered that the acoustic wall and landscaping will limit the amount of light visible from the proposal.

5.3 Safety

Risks associated with fire and hazard were discussed at length during the initial briefing of the Panel. It was stated that the applicant must provide additional information on the fire risk and potential site contamination resulting from emergencies.

As stated previously in the report, the applicant provided a Fire Incident Management Plan.

The Fire Incident Management Plan (FIMP) prepared by Riskcon found that the risk from thermal runaway, battery puncturing, or the release of dangerous gases are considered relatively 'low'. To ensure that the selected batteries are of high quality, the applicant will be required to test the equipment against the relevant DPE testing protocol.

It is also noted that the Fire and Rescue NSW centre in Maitland is located approximately 20 minutes from the site.

It is therefore considered that the batteries proposed for the BESS are chemically stable and that the proposal includes sufficient measures to ensure the safety of surrounding development.

5.4 Cumulative Impact

All impacts assessed in this application has taken into consideration the wider development proposed for the site. This includes the installation of five (5) BESS, associated infrastructure and linking power connections.

It is considered that the cumulative impacts resulting from the proposal are manageable and that the adjoining development will not be unduly impacted.

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.

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 No.16-2023-385-1 for Battery Energy Storage System (BESS) at 1154 and 1156 Clarence Town Road, Seaham 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 1 – Recommended Conditions of Consent
- Attachment 2 – Development Plans
- Attachment 3 – Cable Alignment Plan
- Attachment 4 – Landscape Design
- Attachment 5 – Acoustic Assessment
- Attachment 6 – Ecological Assessment Report
- Attachment 7 – Visual Impact Assessment
- Attachment 8 – Fire Incident Management Plan
- Attachment 9 – Ausgrid Comment
- Attachment 10 – DPE – Water Concurrence