

## COUNCIL ASSESSMENT REPORT

### HUNTER AND CENTRAL COAST REGIONAL PLANNING PANEL

<b>PANEL REFERENCE &amp; DA NUMBER</b>	PPSHCC-233 – 16-2023-470-1
<b>PROPOSAL</b>	Battery energy storage system (BESS) and associated works
<b>ADDRESS</b>	Lot 1 DP 996491 103 Cabbage Tree Road, Williamtown
<b>APPLICANT</b>	Hunter Development Brokerage Pty Ltd
<b>OWNER</b>	Mr A H Slade & Mrs S Slade
<b>DA LODGEMENT DATE</b>	30 August 2023
<b>APPLICATION TYPE</b>	Local Development
<b>REGIONALLY SIGNIFICANT CRITERIA</b>	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: private infrastructure and community facilities over \$5 million.
<b>CIV</b>	\$16,883,605.40 (excluding GST)
<b>CLAUSE 4.6 REQUESTS</b>	Nil
<b>KEY SEPP/LEP</b>	<ul style="list-style-type: none"> <li>• State Environmental Planning Policy (Biodiversity and Conservation) 2021;</li> <li>• State Environmental Planning Policy (Planning Systems) 2021;</li> <li>• State Environmental Planning Policy (Resilience and Hazards) 2021;</li> <li>• State Environmental Planning Policy (Transport and Infrastructure) 2021;</li> <li>• Port Stephens Local Environmental Plan 2013;</li> <li>• Port Stephens Development Control Plan 2014.</li> </ul>
<b>TOTAL &amp; UNIQUE SUBMISSIONS KEY ISSUES IN SUBMISSIONS</b>	0
<b>DOCUMENTS LODGED WITH THE APPLICATION</b>	<ul style="list-style-type: none"> <li>• Attachment A: Draft Conditions of Consent</li> <li>• Attachment B: Development Plans</li> <li>• Attachment C: Ausgrid Electricity Connection Plan – yet to be approved</li> </ul>

	<ul style="list-style-type: none"> <li>• Attachment D: Decommissioning Strategy</li> <li>• Attachment E: Landscape Plan</li> <li>• Attachment F: Fire Incident Management Plan</li> <li>• Attachment G: Bushfire Assessment Report</li> <li>• Attachment H: Detailed Site Investigation</li> <li>• Attachment I: Noise and Vibration Impact Assessment</li> <li>• Attachment J: Acoustic Fencing Detail</li> <li>• Attachment K: Flood Impact Assessment</li> <li>• Attachment L: Visual Impact Assessment</li> </ul>
<b>RECOMMENDATION</b>	Approval
<b>DRAFT CONDITIONS TO APPLICANT</b>	Yes
<b>SCHEDULED MEETING DATE</b>	25 June 2024
<b>PLAN VERSION</b>	4 April 2024 Version H
<b>PREPARED BY</b>	Courtney Sargent – Senior Development Planner
<b>DATE OF REPORT</b>	22 May 2024

## EXECUTIVE SUMMARY

This development application (DA 16-2023-470-1) seeks consent for electricity generating works specifically involving the installation of a Battery Energy Storage System (BESS). The proposed BESS is a 4.98 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 high demand.

The key issues in respect of the assessment of this application related to fire risk, flooding and visual impact. To address these issues, specialist studies were submitted in support of the application, including a fire incident management, flood impact assessment and visual impact assessment. The studies were assessed by Council officers and, where appropriate, recommendations and mitigation measures outlined in the specialist studies have been included in the conditions of consent.

The proposal is referred to the Hunter and Central Coast Regional Planning Panel (HCCRPP) for determination pursuant to Section 5, Schedule 6 of State Environmental Planning Policy (Planning Systems) 2021: Private infrastructure and community facilities over \$5 million.

The development has been assessed under Section 4.15 of the EP&A Act and is considered satisfactory. Accordingly, it is recommended that the application be approved subject to deferred commencement conditions and operational conditions of consent contained in Attachment A.







**Photograph 1.** Proposed location of BESS looking south.



**Photograph 2.** Existing shed to the north of the proposed development.



**Photograph 3.** Existing driveway to be utilised for access to the BESS looking north.



**Photograph 4.** Existing driveway to be utilised for access to the BESS looking north towards Cabbage Tree Road.





**Photograph 5.** Existing crossover to be utilised from Cabbage Tree Road.



**Photograph 6.** Existing dwelling on site

## 1.2 The Locality

The proposal is located within Port Stephens Local Government Area (LGA) within the suburb of Williamstown, approximately 27.2km north of the Newcastle CBD. In the immediate vicinity of the site are rural residential and rural land uses. Newcastle Airport and the Royal Australia Air Force (RAAF) Base Williamstown is located approximately 2.8km to the north east of the site.

The site is located within the declared Hunter-Central Coast Renewable Energy Zone (REZ). The intent of the REZ is to group renewable energy infrastructure including battery storage into locations where electricity can be efficiently stored and transmitted across NSW. The design and delivery of the REZ is still in progress.

## 2. THE PROPOSAL AND BACKGROUND

---

### 2.1 The Proposal

The proposal seeks consent for electricity generating works specifically involving the installation of a Battery Energy Storage System (BESS). The proposed BESS is a 4.98 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 high demand.

The expected operational life of the BESS is 20 years.

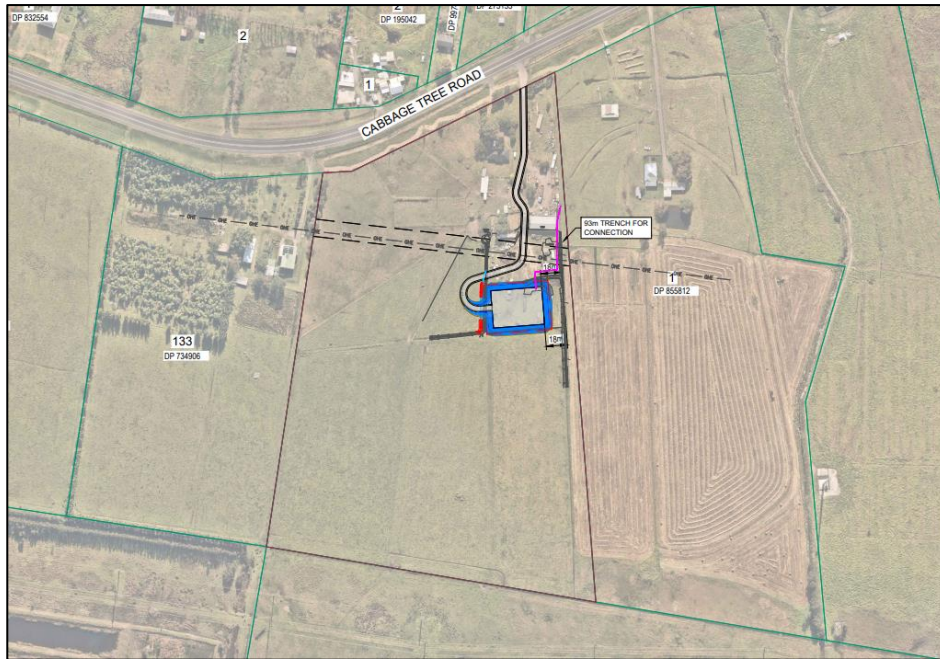
#### Compound Area

The proposed development involves the creation of a 1450m<sup>2</sup> hardstand compound where ten battery units will initially be installed. It is proposed to install a further two battery units four years after initial installation due to degradation. The plans provided show the location of the final amount of units (being 12). The compound is also proposed to contain a storage room, auxiliary service room, power conversion system and control room. A 40L diesel self-bunded tank is proposed to be located within the control room (marked as 'CR' on the plans).

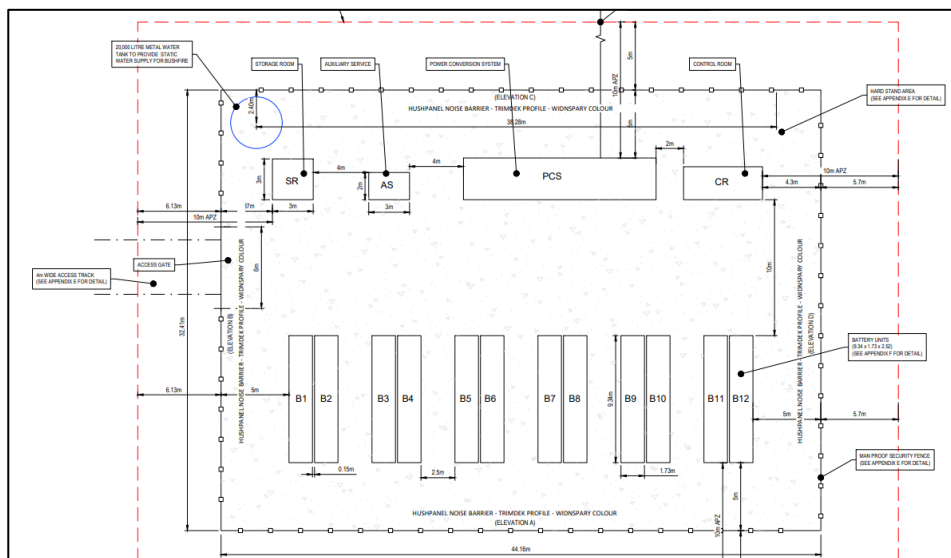
A 3m high acoustic fencing around the perimeter of the compound is also proposed. The fencing is proposed to be construction of Colorbond steel with a patented polymer layer.

The compound is proposed to be located in the middle eastern portion of the site at the rear of the existing farm building, refer to **Figure 2**.

**Figure 3** below shows the proposed layout of the BESS.



**Figure 2. Proposed location of BESS**



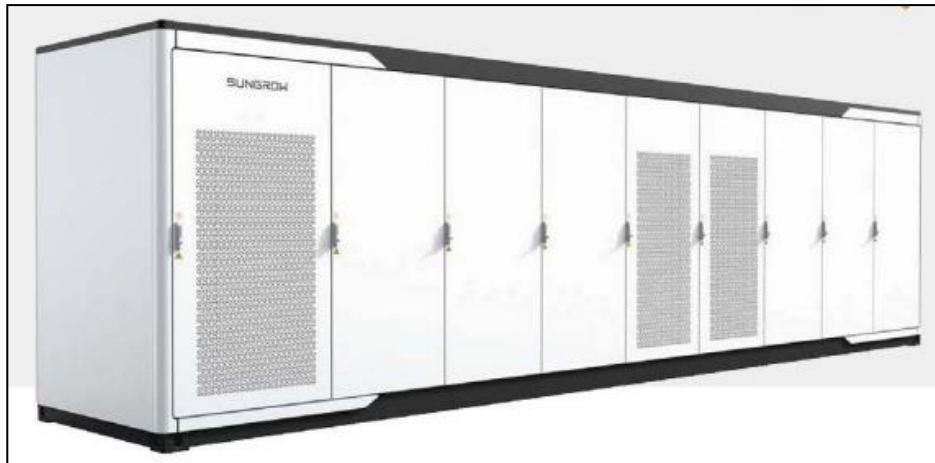
**Figure 3. Proposed BESS compound layout**

**Table 1** below identifies the battery specifications and **Figure 4** shows an indicative elevation of one battery unit.

**Table 1: Battery Cabinet Specifications**

Battery Type	
Battery Technology	Liquid Cooling Energy Storage System
Battery Cabinet Dimensions	9340L X 2600H X 1730W mm
Battery Cabinet Weight	26,400 kg



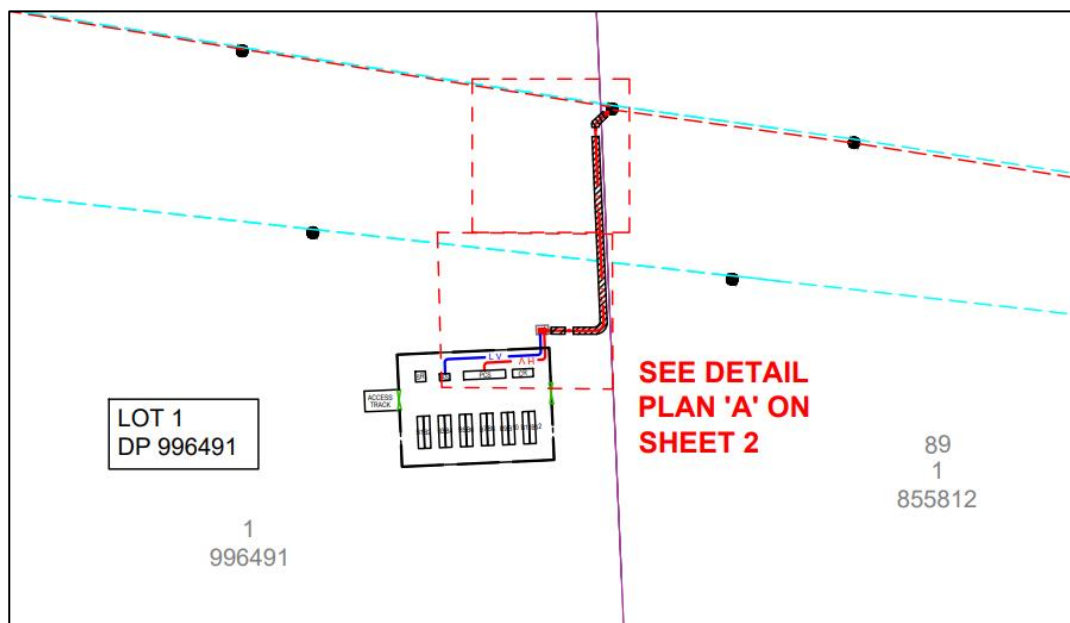


**Figure 4.** Indicative battery cabinet elevation

### Electricity Connection

The site is proposed to be connected to the local Ausgrid electrical distribution network through the existing electricity easement that traverses through the site. This easement contains both overhead power lines and underground cabling that connects to an electricity substation to the east of the site at 1822 Nelson Bay Road, Williamtown (Part Lot: 1, DP 657161). The cabling on the subject site is proposed to be installed through open-cut trenching that is 0.5 metres wide and 1 metre deep. The trench and cabling will be a total length of approximately 90 metres within the site, as shown in **Figure 5** below. The installation of cabling is also required under Nelson Bay Road to connect to the substation. The location of this proposed cabling is adjacent to existing electricity infrastructure under Nelson Bay Road.

The applicant has lodged an application with Ausgrid to obtain approval for the connection works under Part 5 Environmental Planning and Assessment Act 1979. Noting that approval is currently being obtained under Part 5 of the EP&A Act, this component of the development has been considered but not assessed under this application.



**Figure 5.** Location of trench and cabling on the site

## 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 expected to be completed within 6 months. A decommissioning plan has been prepared for the proposal.

## Earthworks

Earthworks are required to facilitate the proposed development. Given the sites flood prone nature, the compound area is required to be raised to the flood planning level for the site (3m AHD). This requires approximately 3,500m<sup>3</sup> of fill, most of which is proposed to be imported.

Earthworks are required for the open-cut trenching associated with the cable. The proposed trench is 0.5 metres wide and 1 metre deep. The bottom of the trench will contain conduits with the remainder of the trench backfilled. These works are expected to generate approximately 70m<sup>3</sup> of spoil. It is noted that these earthworks form part of the Part 5 approval. The spoil from the trenching is proposed to be used in the fill pad, however, as noted above, most fill for the fill pad will be imported.

## Access and Parking

The site is proposed to be accessed via the existing crossover from Cabbage Tree Road. A new 4m wide driveway for access to the compound area is also proposed. The existing and new access is proposed to be constructed to a standard able to carry the weight of a 46 tonne vehicle, as this is the size of the vehicle delivering the batteries and associated equipment to the site.

In regard to car parking, the operation of the BESS will not require permanent staff to be present on the site as it will be operated remotely. Maintenance is expected to occur 1 to 2 times per month. Therefore, no formal car parking is proposed to be provided. Maintenance vehicles are expected to park within the compound area as needed to service the batteries.

## Landscaping

A landscaping buffer is proposed to be provided around the perimeter for the compound area, refer to **Figure 6**. The landscaping design includes a range of native vegetation of various sizes that are consistent with Council's Tree Technical Specification, including:

- *Melaleuca linariifolia*
- *Callistemon salignus*
- *Eucalyptus tereticornis*

The planted landscaping is 2,654m<sup>2</sup> and the turfed batter which forms part of the Asset Protection Zone is 881m<sup>2</sup>. The proposed landscaping is consistent with Planning for Bushfire Protection 2019 standards.



**Figure 6. Proposed landscaping**

## Lighting

Lighting is proposed throughout the site and is proposed 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. The lighting will only be used for emergency works required after dark.

## Stormwater

Given the sites total area and the small area of the BESS and associated compound, no stormwater management measures are proposed.

## Waste Management

Given the site is largely being managed remotely, there is expected to be minimal waste 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.

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

The key development data is provided in **Table 2**.

**Table 2: Development Data**

Control	Proposal
Site area	9.3 hectares
GFA	1450m <sup>2</sup> (hardstand compound area)
Clause 4.6 Requests	No
Max Height	2.8m (water tank)



Landscaped area	Garden Ben – 2,654m <sup>2</sup> Turfed batter/APZ – 881m <sup>2</sup>
Car Parking spaces	N/A
Setbacks	North (front) – 156.65m East (side) – 18m South (rear) – 221.4m West (side) – 158.69m

## 2.2 Background

A pre-lodgement meeting was held prior to the lodgement of the application on 15 May 2023. The pre-lodgement meeting was in relation to a number of sites where BESS were proposed including the subject site. A number of 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* – It was advised that given the sites location within a rural area, maintaining the rural character of the area will be import. It was noted that consideration should be given to landscaping and setbacks to road frontages, dwellings and adjacent properties. A Visual Impact Assessment prepared by Conus Landscape Architecture Pty Ltd has been lodged with the application. The proposal is sufficiently setback from neighbouring properties, the public domain and has incorporated a landscape buffer to reduce potential adverse visual impacts.
- *Contamination* – Given the sites historic use for agricultural purposes, it was advised that a Preliminary Site Investigation (PSI) should be undertaken to determine whether the site is suitable for its intended use. A PSI was prepared for the site by Douglas Partners which recommended further testing be undertaken in order to assess the identified sources of contamination and assess site suitability with regard to the current land use and the proposed development. As such, Detail Site Investigation (DSI) was prepared. The DSI concluded that the site is suitable for its intended use.
- *Bushfire* – Noting the sites bushfire prone nature, it was requested that a bushfire assessment report (BAR) be provided with a future application. A BAR was prepared by Hunter Valley Bushfire Consulting Services for the proposal. A Fire Incident Management Plan (FIMP) was also prepared by Riskcon Engineering Pty Ltd. These are discussed in detail in Section 3.1 of this report.
- *Asset Lifecycle* – It was requested that decommissioning details be provided. A decommissioning strategy has been provided.
- *Flooding* – Given the site is flood prone land, it was noted that the batteries and associated structures should be above the flood planning level (FPL). It was also advised that a Flood Impact Assessment (FIA) should be provided where a mound is to be constructed. The development includes the construction of an earth mound to ensure that the batteries and associated are located at the FPL. A FIA was also prepared for the proposal by BMT Commercial Australia Pty Ltd.

The development application was lodged on 31 August 2023. A chronology of the development application since lodgement is outlined in **Table 3** below including the Panel's involvement (briefings, deferrals etc) with the application:

**Table 3: Chronology of the DA**

Date	Event
31 August 2023	DA lodged
31 August 2023	DA referred to internal staff and external agencies
7 September 2023 – 21 September 2023	Exhibition of the application
25 September 2023	Request for Information from Council to applicant
12 October 2023	Panel preliminary briefing
23 October 2023	Additional request for information from Council to applicant
15 December 2023	Response to request for information received.
18 December 2023	DA re-referred to internal staff
17 May 2024	Additional request for information from Council to applicant
14 May 2024	Response to request for information received.
17 June 2024	Council Assessment Report finalised.

### 2.3 Site History

There have been a number of application of applications lodged over the site relating to the rural residential land use. These are summarised in **Table 4** below.

**Table 4: Chronology of the DA**

Application No. and Type	Proposal Description	Determination
BA/DA 7-1988-60704-1	Farm Building	Approved with conditions 07/07/1988
BA/DA 7-1988-60702-1	Carport	Approved with conditions 15/07/1988
BA/DA 7-1994-20547-1	Road construction	Application withdrawn

BA/DA 7-1995-231-1	Filling of land	Approved 22/02/1995
BA/DA 7-1996-61593-1	Farm building	Approved with conditions 10-12-1996

### 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), 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 (which are considered further in this report):

- Integrated Development (s4.46)
- Designated Development (s4.10)
- Requiring concurrence/referral (s4.13)
- Crown DA (s4.33) - written agreement from the Crown to the proposed conditions of consent must be provided

#### 3.1 Other Statutory considerations - Section 4.14 – Consultation and development consent (certain bushfire prone land)

Section 4.14(1) provides that development consent cannot be granted for the carrying out of development for any purpose (other than a subdivision of land that could lawfully be used for residential or rural residential purposes or development for a special fire protection purpose)



on bush fire prone land (being land for the time being recorded as bush fire prone land on a relevant map certified under section 10.3(2)) unless the consent authority—

*(a) is satisfied that the development conforms to the specifications and requirements of the version (as prescribed by the regulations) of the document entitled Planning for Bush Fire Protection prepared by the NSW Rural Fire Service in co-operation with the Department (or, if another document is prescribed by the regulations for the purposes of this paragraph, that document) that are relevant to the development (the relevant specifications and requirements), or*

*(b) has been provided with a certificate by a person who is recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment stating that the development conforms to the relevant specifications and requirements.*

The site is mapped as bushfire prone land, category 3, and as such requires assessment under the NSW RFS Planning for Bushfire Protection (PBP) 2019. Given the nature of the development, there is also risk of on an onsite fire which would be managed in a different manner to that of a bushfire. The proceeding section of the report discusses both bushfire and battery fire considerations.

### Bushfire

A Bushfire Assessment Report (BAR) was prepared by Hunter Valley Bushfire Consulting Services which assessed the proposal against PBP 2019. The report was not prepared by a person recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment and therefore subclause (1)(b) does not apply.

The proposed development is a type of 'other non-residential development' to which section 8.3 of PBP 2019 applies. The proposal comprises class 5 and 8 buildings. The NCC does not provide for any bush fire specific performance requirements for these particular building classes. As such AS 3959 and the NASH Standard are not considered as a set of Deemed to Satisfy provisions. Notwithstanding, PBP 2019 provides that compliance with AS 3959 and the NASH Standard must be considered when meeting the aims and objectives of PBP 2019.

In addition, PBP 2019 prescribes that the following objectives will be applied in relation to access, water supply and services, and emergency and evacuation planning:

- To provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation;
- To provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development;
- To provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building; and
- Provide for the storage of hazardous materials away from the hazard wherever possible.

Access to the BESS compound area is from the existing crossover from Cabbage Tree Road and a new 4m wide access driveway. The access was considered suitable in the BAR. It is noted that the existing driveway and proposed new portion of the driveway will be upgraded/constructed to allow for access by a Fire and Rescue vehicle.

The BAR recommends that static water supply be provided to the site. It is noted that the static water supply is for the purpose of fighting a bushfire not a battery fire. A 20,000L water tank

was recommended in the BAR. One 20,000L water tank has been provided within the compound area and another has been provided adjacent to the entry to the compound area allowing.

The BAR utilised the provisions of Section 8.3.5 which applies to Wind and Solar Farms and as a result recommended that a minimum 10m Asset Protection Zone (APZ) be provided. A 10m APZ has been provided between the batteries on site and the landscape buffer. Much of the APZ is the batter associated with the fill mound. PBP states that the 10m APZ should be maintained to the standard of an IPA for the life of the development. A condition to this effect has been recommended.

The BAR notes that the proposed development could be considered a hazardous industry and therefore Section 8.3.9 of PBP 2019 would apply. PBP 2019 defines hazardous industries as uses that have the ability to start bush fires but are also susceptible to bush fires. Section 8.3.5 of PBP 2019 states that performance based solution is required for hazardous industry. However, the BAR concluded that this was not required as the proposed development complies the requirements of Section 8.3.1 of PBP 2019.

In addition to the above, the application was referred to the NSW RFS under s4.14 of the Act. The NSW RFS recommended a number of conditions. This included:

- Provision of a Fire Management Plan
- Provision of a 10m wide defendable space.
- Provision of access compliant with PBP 2019 requirements; and
- Provision of static water supply.

A 10m wide defendable space, suitable access and provision of static water supply are already proposed. A condition referencing the NSW RFS referral has been included on the consent which will require the preparation of a Fire Management Plan as per the RFS referral.

Noting the above, it is considered that the proposal is suitable from a bushfire perspective.

### Battery Fire

A Fire Incident Management Plan (FIMP) was prepared by Riskcon Engineering Pty Ltd. The FIMP was prepared in accordance with the Fire Safety Study prepared under the DPIE Hazardous Industry Planning and Assessment Papers (HIPAPs) and the NSW Fire & Rescue Fire safety Guideline – Large-scale external lithium-ion battery energy storage systems - fire safety study considerations. The objectives of the FIMP were to:

- Review the site operations and storages for the potential to initiate or become involved in a fire including flammables liquids and any combustible dusts which may be present at the site.
- Identify heat radiation impacts from potential fire sources at the site and determine the potential impacts on the surrounding areas and fire protection system, and
- Review the proposed fire safety features and determine the adequacy of the fire safety systems based on the postulated fires, and make recommendations for augmentation, as required.

The FIMP acknowledges that the batteries proposed to be stored on site are lithium-ion phosphate batteries which are considered to be one of the safest battery chemistries within the industry. The report noted that the potential for thermal runaway to occur in normal operation is very low with the only exceptions being due to manufacturing faults or battery damage. The site will be monitored off-site. The company managing the BESS will be alerted when a batteries temperatures rises and the battery in question can be switched off to avoid

a fire starting. The applicant has advised Council that monitoring will occur 24-hours a day but the FIMP does not reflect this as such, a condition has been recommended. Notwithstanding, the FIMP noted that in the event that the batteries do ignite, the containers that the batteries are located within are fitted with a fire suppression system which will activate to suppress and control a fire preventing escalation to other battery units. As per the FIMP, the fire suppression system includes provision of a built-in aerosol suppression system within each unit. The aerosol suppression system releases Class 2.2 non-flammable, non-toxic gas with the intention of limiting oxygen availability to a fire. Simultaneously, a water-based ceiling-mounted sprinkler suppression system will also be activated to apply cooling water to the target area with the intention of isolating the area and limiting the potential for fire propagation by providing cooling to the BESS. The water supply will be connected to the closest on-site sprinkler water tank (20 kL). . The management company monitoring the BESS will be alerted to prompt the calling of emergency services in the event of a fire.

The FIMP details strategies to prevent, detect, protect and mitigate fires on the site. A condition has been recommended noting the ongoing operation of the facility is to comply with these measures.

The FIMP concluded that the proposed development in conjunction with existing fire protection adequately manage the risks of fire. A number of recommendations were provided within the FIMP. Reference to the recommendations of this report form part of a recommended condition of consent. One of the recommendations included the requirement for a preparation of a Site Emergency Response Plan. This was also recommended by the NSW RFS.

On this basis, it is considered fire risk associated with battery fire is appropriately managed.

### 3.2 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 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; and*
- *Port Stephens Local Environmental Plan 2013;*

A summary of the key matters for consideration arising from these State Environmental Planning Policies are outlined in **Table 5** and considered in more detail below.

**Table 5: Summary of Applicable Environmental Planning Instruments**

EPI	Matters for Consideration	Comply (Y/N)
State Environmental Planning Policy (Biodiversity & Conservation) 2021	Chapter 3: Koala Habitat Protection 2020 The development site is mapped as mainly cleared koala habitat. There are no trees requiring removal to facilitate the proposal. Managed grass is required to be removed but	Y



	does not contribute to koala habitat. The proposal is consistent with the Port Stephens Comprehensive Koala Plan of Management which constitutes compliance with Chapter 4 of State Environmental Planning Policy (SEPP) (Biodiversity & Conservation) 2021	
State Environmental Planning Policy (Planning Systems) 2021	Chapter 2: State and Regional Development 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	Y
SEPP (Resilience & Hazards)	Chapter 3: Hazardous and offensive development The proposal includes the provision of a 40L self-bunded diesel tank. A letter provided from Riskon Engineering Pty Ltd 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.  Chapter 4: Remediation of Land Section 4.6 - Contamination and remediation has been considered in the Contamination Report and the proposal is satisfactory subject to conditions.	Y
State Environmental Planning Policy (Transport and Infrastructure) 2021	Chapter 2: Infrastructure Section 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 s2.35, RU2 Rural Landscape zone is prescribed non-residential zone. The proposal is therefore permissible with consent pursuant to s2.36 of this policy.  Section 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.  Section 2.119(2) – This section applies to the development as it has frontage to a classified road being Cabbage Tree Road. The proposal seeks to use the existing access off Cabbage Tree Road. There is no alternative access to the site from another road and therefore this is considered suitable. The proposal is not considered likely to impact the safety, efficiency and ongoing operation of Cabbage Tree Road and is therefore consistent with this section.	Y
Proposed Instruments	N/A	N/A
LEP	Port Stephens Local Environmental Plan 2013 <ul style="list-style-type: none"> <li>Section 2.3 – Permissibility and zoning objectives – be consistent with the zoning objectives.</li> </ul>	Y

	<ul style="list-style-type: none"> <li>• Section 4.3 – Height of buildings</li> <li>• Section 5.10 – Heritage conservation</li> <li>• Section 5.21 – Flooding planning</li> <li>• Section 7.1 – Acid sulfate soils</li> <li>• Section 7.2 – Earthworks</li> <li>• Section 7.4 Airspace operations</li> <li>• Section 7.5 Development in areas subject to aircraft noise</li> <li>• Section 7.6 Essential services</li> </ul> <p>The proposal is generally consistent with the LEP.</p>	
DCP	<p>Port Stephens Development Control Plan 2014:</p> <ul style="list-style-type: none"> <li>• B1 – Tree management</li> <li>• B2 – Natural resources</li> <li>• B3 – Environmental Management.</li> <li>• B4 – Drainage and Water Quality</li> <li>• B5 – Flooding</li> <li>• B6 – Williamstown RAAF Base</li> <li>• B7 – Heritage</li> <li>• B8 – Road Network and Parking.</li> </ul> <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

This policy aims to encourage the conservation and management of areas of natural vegetation that provide habitat for koalas to support a permanent free-living population over their present range and reverse the current trend of koala population decline.

Chapter 3 applies to land zoned RU1 (Primary Production), RU2 (Rural Landscape) and RU3 (Forestry) with an area of more than 1 hectare or has, together with adjoining land in the same ownership, an area of more than 1 hectare.

Part 3.2 of this Chapter sets out a three step process to assessing development and requires that Council must be satisfied as to whether or not the land is potential koala habitat. If Council is satisfied that the land is not potentially koala habitat, then the granting of consent is not prevented by this chapter and the remaining two steps do not need to be assessed.

The site is mapped as mainly cleared koala habitat on Council's Koala Habitat Map. There are no trees requiring removal to facilitate the proposal. Managed grass is required to be removed but does not contribute to koala habitat. The site is therefore not considered to be potential koala habitat and therefore the proposal is consistent with Chapter 3 of this policy and the remaining two steps of the assessment process are not required to be assessed.

## *State Environmental Planning Policy (Planning Systems) 2021 ('Planning Systems SEPP')*

### Chapter 2: State and Regional Development

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 4: Remediation of Land

The provisions of Chapter 4 of *State Environmental Planning Policy (Resilience and Hazards) 2021 ('the Resilience and Hazards SEPP')* have been considered in the assessment of the development application. Section 4.6 of Resilience and Hazards 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.

In order to consider this, a Preliminary Site Investigation (PSI) was prepared for the site by Douglas Partners. The PSI recommended further testing be undertaken in order to assess the identified sources of contamination and assess site suitability with regard to the current land use and the proposed development. As such, Detail Site Investigation (DSI) was prepared. The DSI included further testing of soil and groundwater. Contamination was found in the soils but were of a level that is within the criterion for residential use. It was noted that there is a risk of exposure to asbestos during excavation works. Noting this it was recommended that the construction management plan include provision for an unexpected finds protocol. A condition to this effect has been included in the recommended conditions.

In regard to the groundwater testing, the DSI found that there was minor exceedance in metals and PFAS. It was determined that this was due to the site being located within the PFAS Primary Management Zone. The DSI reviewed the PFAS Management Area Plan for RAAF Base Williamtown (AECOM, 2023) and found that the metal and PFAS concentrations on the site were typical for other concentrations in the area and as a result did not recommend remediation. The DSI did make recommendations that should be complied during construction to limit exposure to PFAS. These recommendations form part of a condition. In addition, standard conditions have been recommended to address PFAS. It is noted that applications within PFAS management area have previously been referred to the NSW EPA being the lead organisation for the investigation into PFAS use across NSW. However, the EPA have since provided Council with standard PFAS conditions to manage interaction with PFAS contamination for development in the Williamtown area. These conditions have been included in the recommended conditions.

## *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 store electricity and is therefore considered to be electricity generating works. Section 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 s2.35, RU2 Rural Landscape zone is prescribed non-residential zone. The proposal is therefore permissible with consent pursuant to s2.36 of this policy.

Section 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 is in the process of gaining approval for the connection works from Ausgrid under Part 5 Environmental Planning and Assessment Act 1979.

Section 2.119(2) applies to the development that has frontage to a classified road. Cabbage Tree Road is a classified road and therefore this chapter applies to the development. The proposed development seeks to use the existing cross over off Cabbage Tree Road. There is no alternative access road and therefore this is considered suitable. The proposed development is not considered likely to impact the safety, efficiency and ongoing operation of Cabbage Tree Road. A construction management plan with traffic management measures will be required during construction of the proposal. A condition has been recommended accordingly. During operation of the proposed development, traffic is expected to minimal with most operations occurring remotely and on-site maintenance occurring 1 to 2 times per 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:

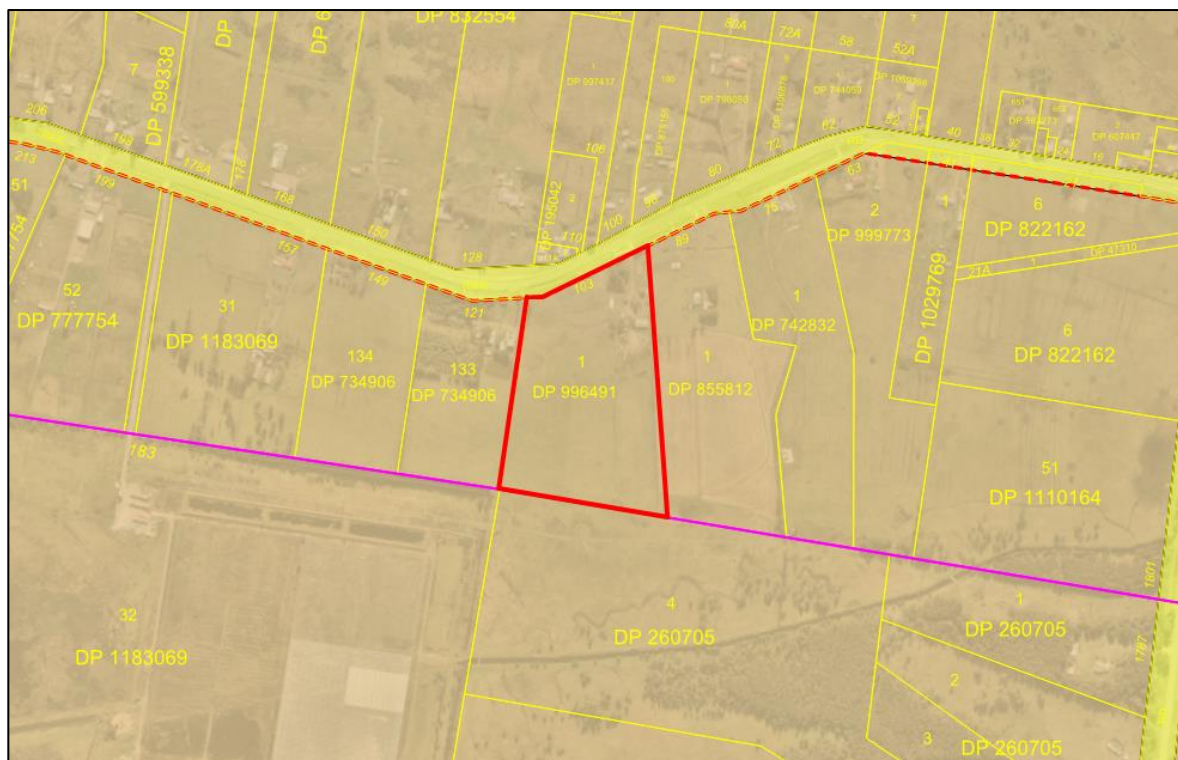
- (a) *to cultivate a sense of place that promotes community well-being and quality of life,*
- (b) *to provide for a diverse and compatible mix of land uses,*
- (c) *to protect and conserve environmental values,*
- (d) *to facilitate economic growth that contributes to long-term employment,*
- (e) *to 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 consistent with these aims as the proposal contributes to the provision of diverse land uses, facilitating economic growth whilst not impacting environmental values.

#### *Zoning and Permissibility (Part 2)*



The site is located within the RU2 Rural Landscape pursuant to Clause 2.2 of the LEP, refer to **Figure 7** below.



**Figure 7. Zoning map**

The proposed development is defined as electricity generating works. Electricity generating works are not permissible in the RU2 zone pursuant to the land use table. Rather, 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 considered to be 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.
- The proposal is considered to be compatible land use with other rural land uses noting that the site will continue to be used for rural and residential 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 6** below.

**Table 6: Consideration of the LEP Controls**

Control	Requirement	Proposal	Comply
Height of buildings (CI 4.3(2))	No maximum building height specified.	The proposed acoustic fencing is 3m in height from the finished ground level and is the tallest structure on site followed by the 20,000L water tank which is 2.8m in height. The proposal is consistent with the objectives of this clause which are as follows:  <i>(a) to ensure the height of buildings is appropriate for the context and character of the area.</i> <i>(b) to ensure building heights reflect the hierarchy of centres and land use structure.</i>	Yes
Heritage (CI 5.10)	Clause 5.10 specifies the requirements for consent and associated assessment requirements for impacts relating to European and Aboriginal heritage.	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.	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 with the following matters identified in 5.21(2): (a) is	The site is located on flood prone land. The development is located on land identified as being in the high hazard flood storage area. A Flood Impact Assessment (FIA) was prepared for the proposal by BMT Commercial Australia Pty Ltd. The FIA considered the proposed fill pad and the associated driveway with the aim of assessing the	Yes

	<p>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 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 life and ensure the safe evacuation of people in the event of a flood, (d) the potential to modify,</p>	<p>proposals compatibility with the flood behaviour of the site and to demonstrate that the proposal will not result in adverse flood impacts beyond the boundaries of the site as required by this Clause. Two scenarios being pre and post development characteristics were modelled and assessed to determine flooding impacts. The modelling found that:</p> <ul style="list-style-type: none"> <li>- That the proposed mound will not result in increases in peak flood level beyond the boundaries of the site for all the events modelled, due to the extensive flood area of the broader region</li> <li>- The proposed mound will not change the peak velocity significantly beyond the boundaries of the site for all event up to and including the 1% AEP. Two localised increases were identified for the PMF event. However, were deemed minor.</li> </ul> <p>Cumulatively, it was noted that the proposed fill pad comprises 3% of the subject site and when considering the broader regional scale and available floodplain storage, the proposal was considered minor and not expected to result in any significant impacts across the broader floodplain area. Noting this, the proposal satisfies section 2(b) of this clause in that it will not adversely affect flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties.</p>	
--	--	--	--

	relocate or remove buildings resulting from development if the surrounding area is impacted by flooding or coastal erosion	<p>In regard to risk to life, the FIA noted that the site will be heavily inundated by floodwaters from intermediate flood events with the potential for isolation to occur due to access routes being cut off, potentially resulting in the BESS site becoming a flood island. The proposed driveway will be designed to be flood free up to and including the 5% AEP event. However, it was considered that there was no nexus to upgrade the access driveway to be flood free during the 1% AEP event as Cabbage Tree Road is already impacted during this event. This is consistent with Council's DCP which requires the access level to be at the same as the flood immunity of the connecting road.</p> <p>Notwithstanding, this was considered acceptable noting that the proposed development is not a habitable structure but rather operated remotely. It was noted that maintenance on the site would not occur during flood events.</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>	
Acid sulfate soils (CI 7.1)	<p>The site is mapped as containing potential Class 3 Acid Sulfate Soils (ASS).</p> <p>Under Clause 7.1, on land mapped class 3 acid sulfate soils, consent is required for works more than 1 metres below the</p>	<p>The proposed development does not require works more than 1 metre below the natural ground surface.</p> <p>It is noted that works associated with trenching for the electric grid connection that is 1m below ground level is required. As previously discussed, these works are</p>	Yes



	<p>natural ground surface or works by which the watertable is likely to be lowered more than 1 metres below the natural ground surface.</p>	<p>being assessed under a Part 5 application that has been lodged with Ausgrid. Notwithstanding, an Acid Sulfate Soil Investigation was prepared by Douglas Partners Pty Ltd for the proposal. As a part of the investigation soil samples from boreholes on the site were tested. The samples returned positive indicators for ASS. As such, a site specific Acid Sulfate Soils Management Plan (ASSMP) was prepared. This ASSMP provides management procedures to be enacted during construction to minimise the impact of ASS disturbance on the environment during the proposed works.</p>	
<p>Earthworks (CI 7.2)</p>	<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>(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</p>	<p>Earthworks are required to facilitate the proposed development. Given the sites flood prone nature, the compound area is required to be raised to the flood planning level for the site (3m AHD). This requires approximately 3,500m<sup>3</sup> of fill, most of which is proposed to be imported. The proposal is considered to be consistent with the requirements of this clause in that:</p> <ul style="list-style-type: none"> <li>- A condition has been recommended that requires all imported fill to be VENM or a material identified as being subject to a resource recovery exemption by the NSW EPA.</li> <li>- The proposed development is located in a small portion of the site and not expected to effect the future use of redevelopment of the land. As per the</li> </ul>	<p>Yes</p>

	<p>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>decommissioning plan provided, the site will be re-instated at the cessation of the operation of the BESS development.</p> <ul style="list-style-type: none"> <li>- 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 proposed to be located within a highly disturbed area of the site.</li> <li>- 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.</li> <li>- A Flood Impact Assessment and associated modelling was undertaken which found that the proposal would not result in offsite impacts.</li> </ul> <p>It is noted that the earthworks are required for the open-cut trenching associated with the cable installation is also required. These works are being assessed separately under a Part 5 approval which has been lodged with Ausgrid. It is not considered likely that the proposed earthworks associated with the grid connection will result in adverse impacts.</p>	
Airspace Operations (CI 7.4)	Clause 7.4(2) provides that if a development application is received and the consent	The subject site is identified within the Limitation or Operations Surface map where all structures over	Yes

	<p>authority is satisfied that the proposed development will penetrate the Limitation or Operations Surface, the consent authority must not grant development consent unless it has consulted with the relevant Commonwealth body about the application.</p> <p>Sub clause 3 provides that the consent authority may grant development consent for the development if the relevant Commonwealth body advises that—</p> <p>(a) the development will penetrate the Limitation or Operations Surface but it has no objection to its construction, or</p> <p>(b) the development will not penetrate the Limitation or Operations Surface</p>	<p>7.5m in height are to be referred to the Department of Defence (DoD). The development has a maximum height of 3m and therefore is not required to be referred to the DoD under this Clause.</p>	
<p>Development in areas subject to aircraft (CI 7.5)</p>	<p>Clause 7.5(2) provides that (2) This clause applies to development that— (a) is on land that— (i) is near the RAAF Base Williamtown Airport, and(ii) is in an ANEF contour of 20 or greater, and (b) the consent authority considers is likely to be adversely affected by aircraft noise.</p>	<p>The proposed development is located on land identified as being within the 2021 25-30 ANEF contour.</p> <p>The proposal will not result in an increase in the number of dwellings or people affected by aircraft noise, noting that the development will mostly be operated remotely with the exception of maintenance work occurring 1-2 times per month.</p> <p>The specific use for battery energy storage or electricity generating works is not referenced within the AS 2021-2000. Notwithstanding, it is considered that general and light industrial uses are of a similar nature when</p>	<p>Yes</p>

		considering the uses in the Building Site Acceptability table in AS 2021-2000. This table states that general and light industrial uses are acceptable in <30 ANEF zones. The proposal is therefore considered acceptable.	
Essential Services (CI 7.6)	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>It is considered that supply of water and sewer is not essential for the proposal given it will be operated remotely with maintenance occurring 1 – 2 times per month and is for the purpose of a battery storage system.</p> <p>Two 20,000L water tanks are provided on-site for bush firefighting purposes. The site is capable of being connected to reticulated electricity. A part 5 application has been lodged with Ausgrid for these works.</p> <p>The proposal is to be accessed via the existing cross over from Cabbage Tree Road. No specific stormwater management techniques are proposed. This was considered acceptable by Council's Development Engineer when noting the rural nature and size of the site. A condition was recommended requiring that any stormwater discharge be dispersed at ground level so as not to be concentrated or create nuisance flows onto any buildings, or neighbouring properties.</p>	Yes

The proposal is considered to be generally consistent with the LEP.

#### **(b) 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 are relevant to the proposal:



- *Draft Remediation of Land State Environmental Planning Policy*

The proposed instruments 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 lists remediation works that require development consent; and introducing 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.

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

#### **(c) 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 2013* ('the DCP')

#### *Chapter B1 – Tree Management*

This Chapter does not apply as the site is rurally zoned.

#### *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 development site does not contain koala habitat, noxious weeds or development that is seeking to use biodiversity credits. However, the site is located within proximity to items of environmental significance with an area identified as local link and landscape habitat link 160m to the south of the site boundary and approximately 425m from the compound area. No other items of environmental significance are within proximity to the site.

The location of the proposed BESS is in an area already highly disturbed consisting of managed grass with no significant vegetation required to be removed. It is considered that the proposal is not likely to impact upon the environmental significance of the nearby land.

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

#### *Chapter B3 – Environmental Management*

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

### *Noise*

Given the sites proximity to residential dwellings and potential for the development to generate offensive noise, a Noise and Vibration Impact Assessment (NVIP) was prepared for the proposal by Mott MacDonald. The NVIP identified ten nearby receivers, nine being residential and one being commercial. The closest being 110m from the compound area. Unattended noise monitoring was undertaken to determine existing ambient and background noise levels over the long-term. An attended noise survey was also undertaken to verify existing ambient and background noise levels over the short-term. The NVIP discussed relevant criteria that the proposal should comply with during both construction and operation. In regard to construction noise, the NVIP recommended that a Construction Noise and Vibration Management Plan be prepared in accordance with the requirements of the NSW Interim Construction Noise Guideline 2009 (ICNG). A condition has been recommended requiring the preparation of a Construction Noise and Vibration Management Plan.

In regard to operational noise, the NVIP assessed the impacts of the proposed development based on two design scenarios being:

- Scenario 1: Currently Selected Plant/Equipment – Only Acoustic Treatment as Acoustic Barrier Fence
- Scenario 2: Currently Selected Plant/Equipment – Acoustic Barrier Fence PLUS Additional Acoustic Treatments on the BESS Battery Containers and PCS Inverter Containers

Scenario 1 is what is currently proposed. The NVIP concluded that this outcome is not a sufficient acoustic treatment on its own to achieve the applicable noise criteria at the sensitive residential receivers. Therefore, Scenario 2 was the recommended outcome. However, the NVIP does not provide a specific acoustic treatment solution. The NVIP states that is due to several options still being considered and assessed by the project team. As such, it was recommended that these options be finalised during the Construction Certificate stage with the development not allowed to operate until it can be certified that the proposal adheres to the relevant noise criteria. A condition to this effect has been recommended.

### *Earthworks*

As discussed at clause 7.2 above, given the sites flood prone nature, the compound area is required to be raised to the flood planning level for the site (3m AHD). This requires approximately 3,500m<sup>3</sup> of fill, most of which is proposed to be imported. A condition has been recommended requiring that all imported fill is VENM or a material identified as being subject to a resource recovery exemption by the NSW EPA.

Minor earthworks associated with the grid connections works are also required. These are being assessed by Ausgrid under a Part 5 application. The earthworks associated with the grid connection works are not considered likely to result in adverse impacts.

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

### 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.*

Given the sites total area and the small area of the BESS and associated compound, no stormwater management measures are proposed. This was supported by Council's Development Engineer subject to a condition requiring that any stormwater discharge be dispersed at ground level so as not to be concentrated or create nuisance flows onto any buildings, or neighbouring properties.

#### Chapter B5 – Flooding

This section applies to all development on flood prone land. The subject land is mapped as being within the Flood Planning Area. The site contains high hazard floodway, high hazard flood storage and low hazard flood storage areas. The development is specifically located on land identified as being in the high hazard flood storage area. The area identified as being low hazard flood storage is small area of the site.

Figure BI of the DCP identifies suitable land uses by flood hazard category. Battery energy storage systems or electricity generating works are not uses that are specifically identified. As such, the proposal falls under the 'all other development' category which is considered suitable in high hazard flood storage areas.

Figure BJ of the DCP identifies the required Finished Floor Level (FFL) for certain development types. The proposed use is not a listed use. Notwithstanding, the proposal includes a fill mound to ensure the FFL of the compound area is at the Flood Planning Level (FPL) on site which is 3m AHD. This is consistent with the requirement for habitable rooms in commercial and industrial type land uses.

The proposed development is considered to be consistent with the flood compatible design requirements with all structures being located at the FPL and therefore not impacted by the 1% AEP flood event.

As per control B5.8, a Flood Impact Assessment is required where fill that exceeds 2000m<sup>3</sup> is proposed in a flood storage area. The proposal includes 3500m<sup>3</sup> of fill in a flood storage area and therefore a Flood Impact Assessment (FIA) was prepared for the proposal by BMT Commercial Australia Pty Ltd. As noted under the assessment again Clause 5.21 of the LEP, the FIA found that the proposal would not have adverse impacts on neighbouring properties or the flood behaviour and would not increase flood risk to life.

Control B5.11 of the DCP requires that access to a public road must have a finished access level of:

- The flood immunity of the connecting public road; or
- The current day 1% AEP flood event level for the site

The access driveway to the compound is not proposed to be filled for the proposal but will rather utilise the existing ground level meaning the compound area could not be accessed during a 1% AEP flood event. The FIA concluded this was suitable given Cabbage Tree Road is already impacted during the 1% AEP flood event meaning there is no nexus for the driveway to be filled. This was supported by Council's Development Engineer.

#### Chapter B6 – Williamstown RAAF Base – Aircraft Noise and Safety

This section applies to development that is situated within the 2025 Australian Noise Exposure Forecast (ANEF), bird strike zone, extraneous lighting area or the Royal Australian Air Force (RAAF) Base Williamtown Obstacle Limitation map. The proposal is located within the ANEF 25-30 contour, the bird strike Group C zone, the extraneous lighting area and the Obstacle Limitation map. Therefore, this Chapter applies.

Section B6.A references AS 2021-2000 in relation to site acceptability. As discussed against Clause 7.5 of the LEP the specific use for battery energy storage or electricity generating works is not referenced within the AS 2021-2000. Notwithstanding, it is considered that general and light industrial uses are of a similar nature when considering the uses in the Building Site Acceptability table in AS 2021-2000. This table states that general and light industrial uses are acceptable in <30 ANEF zones. The proposal is therefore considered acceptable.

Section B6.D relates to development types within bird strike zones. Figure BN lists a number of uses that are to be avoided or where impacts are to be mitigated. The proposed use is not a specified use that needs to be avoided or mitigated. It is not expected that organic waste will be stored on the site given it will be managed remotely. Notwithstanding, an advice note has been recommended noting that organic waste and/or the storage of bins associated with the development must be covered and/or enclosed and limited on-site.

Section B6.7 requires that outdoor lighting that is installed within the extraneous lighting area must comply with the extraneous lighting controls detailed in the Civil Aviation Safety Authority (CASA) Manual of Standards (MOS-139) Aerodromes. The lighting requirements report prepared by Power Lyt does not reference these lighting controls. As such, a condition has been recommended requiring compliance with them.

Noting the above, the proposal is considered to be consistent with Chapter B6 of the DCP.

#### Chapter B7 – Heritage

The objectives 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.

In regard to operational traffic, this is expected to be minimal with the site being managed remotely. Maintenance work is expected to occur 1 – 2 times per month.



### *On-site Parking Provisions*

Figure BU identifies car parking requirements for specific land uses. The proposed land use is not an identified land use. Notwithstanding, no car parking is proposed to be provided. 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 is expected to occur 1 to 2 times per month. Therefore, no formal car parking is proposed to be provided. Maintenance vehicles are expected to park within the compound area as needed to service the batteries.

### *On-site Parking Access*

The compound area is proposed to be accessed via the existing crossover from Cabbage Tree Road. A new 4m wide driveway for access to the compound area is also proposed. The proposed access is considered suitable for the proposal particularly given the low use the access. A condition has been included on the consent requiring that the access be constructed to allow for access via a NSW Fire and Rescue truck. The proposed access was supported by Councils 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):

- *Port Stephens Local Infrastructure Contributions Plan 2020 (PS LIC Plan)*

Under the PS LIC Plan S7.11 contributions do not apply to the proposed development.

There are no exemptions for the proposed use and therefore S7.12 contributions apply.

A condition has been included on the consent requiring that a monetary contribution is to be paid to Council, pursuant to section 7.12 of the EP&A Act and the Port Stephens Council Fixed Development Contributions Plan, prior to release of the Construction Certificate.

#### **(d) 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.

#### **(e) 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.

### **3.3 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

The proposal is located within an area that is rural in nature with surrounding land uses being mostly for rural residential and agricultural purposes. The proposed development is generally more in keeping with an industrial type development. However, the proposal has been located behind the building line of an existing dwelling and large farm building on the site. The proposal has also been sufficiently setback from neighbouring properties and the public domain.

In addition to the siting of the development, the proposal has also incorporated a 3m noise barrier fence around the perimeter of the compound area which will conceal the batteries and associated structures. A landscape buffer is also proposed around the outside of the compound area concealing the 3m fence and therefore assisting in reducing the potential adverse visual impacts resulting from the proposed development. The landscape design consists a mixture of ground covers, shrubs and trees. The landscape design is expected to reach full maturity 10 years after planting.

A Visual Impact Assessment (VIA) was prepared for the proposal by Conus Landscape Architecture Pty Ltd. The VIA has assessed the proposal from 7 different viewpoints. The viewpoints are taken from Cabbage Tree Road, the neighbouring properties to the east and west and the farm building located on the site. For each view point the VIA assessed the existing landscape character and the proposed landscape character. An Impact Level Matrix was used to determine the level of visual impact from each viewpoint.

Overall, the VIA found that the development will largely be concealed from all viewpoints resulting in a moderate-low visual impact. It was noted that the rural character of the land will be maintained with rural style fencing and open grass paddocks still being the predominant visual interest. Noting that above, it is considered that the proposal will not have an adverse impact on the built environment.

## Natural Environment

The location of the proposed BESS is in an area already highly disturbed consisting of managed grass with no significant vegetation required to be removed. There is land mapped as being environmentally significant nearby however, it is considered that the proposal is not likely to impact upon this land given the distance between it and proposed development.

Conditions have been recommended to manage any environmental impacts associated with the construction of the development.

## 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 and manage impacts from flooding and bushfire emergencies.

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

### **3.4 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 a sub-station that has capacity for the proposed BESS to connect to it.
- The location of the proposed development is in an area that is 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.

### **3.5 Section 4.15(1)(d) - Public Submissions**

The proposal was exhibited for a period of 14 days from 7 September 2023 – 21 September 2023 in accordance with the EP&A Act, EP&A Regulations and the Port Stephens Community Participation Plan. No submissions were received during this time.

### **3.6 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 of 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 and 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 notes 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 considered to be 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 7**.

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 7: Concurrence and Referrals to agencies**

Agency	Concurrence/ referral trigger	Comments (Issue, resolution, conditions)	Resolved
<b>Concurrence Requirements (s4.13 of EP&amp;A Act)</b>			
N/A			
<b>Referral/Consultation Agencies</b>			
NSW Rural Fire Service	S4.14 – EP&A Act Development on bushfire prone land	<p>The application was referred to the RFS to review site suitability. The RFS raised no concerns with regard to the proposal and recommended a number of conditions.</p> <p>The conditions related to Asset Protection Zones (APZ), property access, water supply and the requirement for the preparation of a Fire Management Plan. The referral forms part of a recommended condition.</p>	Y
Department of Defence	S7.5 – PSLEP 2013 – Development in areas subject to aircraft noise	<p>Given the sites proximity to the RAAF Base Williamtown it is impacted by the ANEF contour and is within Bird Strike Group C. The application was therefore referred to the Department of Defence. The Department of Defence noted that the any lighting is to comply with the requirements of the Civil Aviation Safety Authority Manual of Standards Part 139 Aerodromes. A condition has been recommended noting this. The Department of Defence also requested that the BESS be constructed of non-reflective materials. A condition has been recommended requiring this, No other concerns were raised by the Department of Defence.</p>	Y
Ausgrid	S2.48 – SEPP (Transport and Infrastructure) 2021 -	The application has been referred to Ausgrid as the	Y

	Determination of development applications—other development	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.	
<b>Integrated Development (S 4.46 of the EP&amp;A Act)</b>			
N/A			

## 4.2 Council Officer Referrals

The development application has been referred to various Council officers for review as outlined **Table 8**.

**Table 8: Consideration of Council Referrals**

Officer	Comments	Resolved
Development Engineer	<p>The application was referred to Council's Development Engineer. No concern was raised in relation to traffic, parking and access given the small number of vehicle movements during operation proposed. It was recommended a condition be included on the consent requiring the preparation of a Construction Management Plan that considered traffic management during construction.</p> <p>In regard to stormwater, no stormwater management measures are proposed. This was supported by Council's Development Engineer subject to a condition requiring that any stormwater discharge be dispersed at ground level so as not to be concentrated or create nuisance flows onto any buildings, or neighbouring properties.</p> <p>A request for information was issued for flooding. The compound area is proposed to be filled to have a finished floor level of 2.8m AHD which is consistent with the adaptable minimum floor level for the site. Council's Development Engineer requested this been increased to 3m AHD to ensure it is consistent with the Flood Planning Level (FPL) noting that industrial development area required to have an FFL at the FPL in accordance with the PSDCP. Council's Development Engineer also noted that site will be subject to frequent flood events and the development area specifically will be inundated in events beyond 3m. As such, a risk assessment in support of the proposal which addresses the consequence of cancelled maintenance and threat to property such as potential for debris from the site during inundation was requested.</p> <p>In response to the RFI the fill pad was increased now have a FFL of 3m AHD.</p>	Y
Environmental Health	The application was referred to Council's Environmental Health team who reviewed the noise assessment and preliminary site investigation. The Environmental Health	Y

	Officer support the outcomes of the acoustic impact assessment but requested that a Detailed Site Investigation be provided to determine whether the site was suitable for the intended use. A DSI has since been provided which confirms this requirement.	
Development Contributions	S7.12 development contributions apply to the proposal. A condition was recommended which has been included on the consent.	Y

### 4.3 Community Consultation

The proposal was exhibited for a period of 14 days from 7 September 2023 – 21 September 2023 in accordance with the EP&A Act, EP&A Regulations and the Port Stephens Community Participation Plan. No submissions were received during this time.

## 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 Flood Impacts

The subject land is mapped as being within the Flood Planning Area. The site contains high hazard floodway, high hazard flood storage and low hazard flood storage areas. The development is specifically located on land identified as being in the high hazard flood storage area.

Noting the infrastructure proposed on the site, consideration needed to be given to incorporating a flood compatible design. As such, the development includes a fill mound to ensure that the Finished Floor Level (FFL) of the compound area is at the Flood Planning Level (FPL) on site which is 3m AHD. This ensures that the batteries and associated infrastructure on the site will not be impacted by all events up to and including the 1% AEP flood event.

Given fill was occurring within a flood storage area, Flood Impact Assessment (FIA) was prepared for the proposal by BMT Commercial Australia Pty Ltd. The FIA found that the proposal would not have adverse impacts on neighbouring properties or the existing flood behaviour and would not increase flood risk to life.

During the assessment of the application concern was raised in regard to debris and impacts of cancelled maintenance caused by flood events. Therefore, the FIA also analysed the risks of debris, cancelled maintenance and the effects of floodwaters on structures. Given the flood mound is proposed to be at the FPL, it was determined that there is no potential of debris being produced onsite due to damage to equipment for all flood events up to and including the 1% AEP + Climate Change event. It was noted however, that during the Probable Maximum Flood (PMF) event, the entire compound would be subject to flood which could cause damage to equipment and generate debris that would be transported eastwards of the site. It was therefore noted that structures on site will require special engineering design and construction. It was also noted that the fencing proposed around the perimeter will require verification by a suitably qualified structural engineer to ensure it would not become source of debris. The FIA recommended a condition to this effect be included on the consent. A condition has been recommended requiring that a certificate must be prepared by a qualified Structural Engineer certifying that the building and structure design is capable of withstanding the effects of flood



waters, including immersion, structural stability, buoyancy, impact and loading from debris up to and including the 1% AEP event.

In regard to the impacts of cancelled maintenance due to blocked access, it was reiterated that the site is mostly operated remotely with access only required 1 – 2 times per month. The site will be heavily inundated by floodwaters from intermediate flood events with the potential for isolation to occur due to access routes being cut off, potentially resulting in the BESS site becoming a flood island. The proposed driveway will be designed to be flood free up to and including the 5% AEP event. However, it was considered that there was no nexus to upgrade the access driveway to be flood free during the 1% AEP event as Cabbage Tree Road is already impacted during this event. This is consistent with Council's DCP which requires the access level to be at the same as the flood immunity of the connecting road.

The FIA noted that when considering the limited site access required and the 10-year recurrence time for flood events that would block access, it is unlikely that such events would happen on a day of scheduled maintenance. It was also noted that maintenance will be scheduled on a preventative basis rather than with urgency and therefore rescheduling would not result in significant impacts to the operation of the BESS. It was recommended that the person/business undertaking maintenance on site should be registered to receive Hunter River flood warnings so that staff can be alerted not to attempt to access the site during a 10% AEP event.

Noting the above, it is considered that the proposal has been designed to appropriately address potential flood impacts.

## **5.2 Fire Risk**

The site is bushfire prone land, category 3. Concern was raised during the assessment of the application in regard to the impact of bushfire on the proposed development but also the potential for the BESS to start a fire itself. In response to the bushfire prone nature of the land, a Bushfire Assessment Report (BAR) was prepared by Hunter Valley Bushfire Consulting Services which assessed the proposal against PBP 2019. The application was also referred to the NSW Rural Fire Service (RFS) who supported the proposed subject to conditions. The RFS referral has been included within a recommended condition of consent.

The proposal provides 2 x 20,000L static water tanks, appropriate site access and an asset protection zone that will be required to be maintained in perpetuity for the life of the development. Noting this, it is considered that the risk from a bushfire perspective has been appropriately managed.

In regard to fire risk as a result of batteries starting a fire, a Fire Incident Management Plan (FIMP) was also prepared by Riskcon Engineering Pty Ltd. The FIMP detailed the mitigation measures proposed to be implemented to reduce the chance of a fire starting and the management procedures in place should a fire start. The detailed provided was considered to sufficiently address fire concerns. The FIMP forms part of a conditions of consent.

On this basis, it is considered that the proposal adequately addresses potential impacts from fire.

## **5.3 Visual Impact**

The subject site is rural in nature and is largely surrounded by rural and rural residential development. As such, given the nature of the proposed development concern was raised in relation to the potential visual impacts. A Visual Impact Assessment (VIA) was prepared for the proposal by Conus Landscape Architecture Pty Ltd. The VIA considered the siting of the proposed development behind existing structures on site, provision of a 3m noise barrier fence

and landscape buffer around the perimeter of the compound area all of which contribute to the concealment of the development.

The VIA concluded that the development will largely be concealed from all viewpoints resulting in a moderate-low visual impact. It was noted in the VIA that the rural character of the land will be maintained with rural style fencing and open grass paddocks still being the predominant visual landscape.

## **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 6 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 16-2023-470-1 for a Battery energy storage system (BESS) and associated works at 103 Cabbage Tree Road, Williamstown 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: Development Plans
- Attachment C: Ausgrid Electricity Connection Plan – yet to be approved
- Attachment D: Decommissioning Strategy
- Attachment E: Landscape Plan
- Attachment F: Fire Incident Management Plan
- Attachment G: Bushfire Assessment Report
- Attachment H: Detailed Site Investigation
- Attachment I: Noise and Vibration Impact Assessment
- Attachment J: Acoustic Fencing Detail
- Attachment K: Flood Impact Assessment
- Attachment L: Visual Impact Assessment