



Australian Government

Department of Climate Change, Energy,
the Environment and Water

Recommendation Report

Muswellbrook Battery Energy Storage System,
Muswellbrook, NSW

EPBC 2025/10387

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Recommendation

- 1) That the proposed Action to construct, operate and maintain a Battery Energy Storage System, three kilometres north-east of Muswellbrook town centre, New South Wales be approved subject to the conditions specified at [Appendix A](#).

Duration of approval

- 2) The department recommends that the approval remain valid for a period of 20 years (until 31 December 2046) to allow sufficient time for the approval holder to undertake the proposed Action and to ensure that all requirements of the conditions attached to the approval are completed before the approval expires.

Background

Description of the proposed Action and location

- 3) The proposed Action includes the construction, operation and maintenance of a 150-megawatt AC (MWAC) Battery Energy Storage System (BESS). The proposed Action will be contained within Lots 11 and 12 of DP839233, Lot 15 of DP905479, and the Sandy Creek Road Reserve, situated directly adjacent to the Ausgrid Muswellbrook Substation at 20-24 Sandy Creek Road, approximately 3 kilometres (km) north-east of the Muswellbrook town centre ([Appendix B](#)).
- 4) The BESS will store energy from the grid and have a delivery capacity of up to 150 MWAC and a useable storage capacity of 300 megawatt-hours (MWh). It will connect to the adjacent Ausgrid Muswellbrook Substation via an underground or overhead 132 kilovolt (kV) sub-transmission line. No external transmission lines or off-site connection works are proposed.
- 5) The referral states that the BESS will contribute to the provision of renewable energy in NSW by filling supply gaps when renewable energy sources are not producing enough energy to satisfy the needs of the grid and aligns with NSW Government's three objectives for the electricity system: reliability, affordability and sustainability.
- 6) The total area of the proposed Action is approximately 65.28 hectares (ha) with a disturbance footprint of 4.87 ha containing the BESS and associated infrastructure ([Appendix C](#)).
- 7) The key components of the proposed Action include:
 - enclosed lithium ion-batteries with total delivery capacity up to 150 MWAC and 300 megawatt-hours (MWh) usable storage capacity;
 - power conversion systems including associated switchgear, protection and control equipment, transformers, and enclosures for housing equipment;
 - underground power and fibre optic cabling interconnecting the equipment;
 - grid connection equipment including switchgear, protection and control equipment, metering, reactive power equipment, filtering equipment, auxiliary/earthing transformers, and enclosures/buildings for housing equipment;
 - underground or overhead 132 kV sub-transmission lines to connect the BESS to the Muswellbrook substation; and
 - earthing and lightning protection systems;
 - site office, storage area/enclosure, internal access tracks, on-site parking, security fencing, video surveillance, lighting, and temporary construction laydown area vegetation screening and noise walls.
- 8) Construction, installation and operational activities of the proposed Action include:

- site investigations, vegetation clearing, levelling, bench and access way construction, installation of drainage systems and foundations/supports to install equipment on;
 - transport to site and installation of equipment;
 - testing and commissioning of the equipment; and
 - operation and maintenance.
- 9) The proposed Action will utilise the existing site access from Sandy Creek Road, with minor widening proposed in some areas ([Appendix C](#)).
- 10) Some of the works will incorporate upgrades to the existing Ausgrid substation to enable connection of the BESS to the grid.
- 11) The batteries will be manufactured offsite and delivered for installation following completion of site preparation, including levelling and the construction of a bench on which to install the BESS.
- 12) Once constructed, the BESS will operate 24 hours a day, seven days a week. It is anticipated the BESS will be operational for approximately 20 years, after which time the BESS would be removed and the site decommissioned, including the removal of all above ground infrastructure and remediation of the site. The referral also states that the infrastructure may be upgraded rather than decommissioned and the lifespan of the BESS extended.

Description of the environment

- 13) The proposed Action area occurs within the Muswellbrook Local Government Area (LGA) and the NSW Sydney Basin Interim Biogeographic Regionalisation of Australia (IBRA) bioregion and the Hunter IBRA sub region. It lies within the Hunter River Catchment and is located approximately 2 km to the north-east of the Hunter River, which drains the largest coastal catchment in NSW, covering some 22,000 square kilometres (km²).
- 14) The Hunter Estuary Wetlands Ramsar site is located approximately 100 km to the southeast of the disturbance footprint. There are no coastal wetlands as defined under the Hazards and Resilience State Environmental Planning Policy (SEPP) 2021 (formerly Coastal Management SEPP 2018) within the proposed Action area.
- 15) The proposed Action area is in the Central Hunter Foothills NSW (Mitchell) Landscape, and the Donalds Gully and the Dochra soil landscapes. One soil map unit occurs within the disturbance footprint, being Subnatric Brown Sodosol. All soil horizons within the disturbance footprint are classed as slightly to moderately dispersive and the likelihood of Acid Sulphite Soils (ASS) occurring within the disturbance footprint is very low.
- 16) The proposed Action area is situated within the traditional boundaries of the Wonnarua people, the traditional owners of the Upper Hunter Valley. A search of the NSW Native Title Vision identified no determined or registered native title claim or Indigenous Land Use Agreements existing over the proposed Action area.

- 17) The [referral documentation](#) states that a search of the Aboriginal Heritage Information Management System (AHIMS) database identified one previously documented site within the proposed Action area (37-2-5953, Muswellbrook Bypass AFT 2) which extends into the disturbance footprint. The SSD Consent contains conditions which mitigate potential impacts to the Aboriginal heritage values, including developing an Aboriginal Cultural Heritage Management Plan (ACHMP) prior to construction, in consultation with the Aboriginal stakeholders and Heritage NSW. The ACHMP would include an unanticipated finds and unanticipated skeletal remains protocol and heritage inductions and long-term management of the Aboriginal site being impacted.
- 18) The proposed Action area and disturbance footprint has been historically cleared for agriculture, particularly grazing. As a result, most of the woodland vegetation has been removed or significantly degraded. The disturbance footprint contains two small areas of open woodland with low condition native secondary grassland and large areas of exotic grassland.
- 19) The proposed Action area, comprising Lot 11 DP 839233, Lot 12 DP 839233, Lot 15 DP 905479, and the Sandy Creek Road reserve has multiple existing uses:
- Lot 11 DP 839233 contains the current AusGrid Muswellbrook substation and laydown area (zoned SP2 – Infrastructure under the Muswellbrook Local Environment Plan (LEP));
 - Lot 12 DP 839233 contains exotic grassland and remnant woodland vegetation (zoned C3 - Environmental Management under the Muswellbrook LEP);
 - Lot 15 DP 905479 contains the existing access road, off Sandy Creek Road (zoned R5 – Large Lot Residential under the Muswellbrook LEP); and
 - Sandy Creek Road reserve contains exotic grassland.
- 20) The proposed action area is 65.28 ha with a disturbance footprint approximately 4.874 ha and occurs across both Lot 11 DP 839233 and Lot 15 DP 905479 and is adjacent to the existing Muswellbrook substation.
- 21) The disturbance footprint is zoned as SP2 - Infrastructure, excluding the proposed transmission line from the BESS substation to the Muswellbrook substation, which is located on C3 – Environmental Management zoned land. The existing access road borders land zoned R5 – Large Lot Residential under the Muswellbrook Local Environment Plan (LEP) 2009 ([Appendix C](#)).
- 22) Referral documents state that vegetation surveys and mapping of the proposed disturbance footprint undertaken on 28 March 2022 identified two native plant community types (PCTs) occur within the disturbance footprint ([Appendix D](#)):
- 0.209 ha of PCT 1655 - Grey Box - Slaty Box shrub - grass woodland on sandstone slopes of the upper Hunter and Sydney Basin; and
 - 0.094 ha of PCT 1603 – Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter.
- 23) The department notes that:

- On 16 June 2022, both PCTs discussed in the BDAR and NSW Assessment Report (PCTs 1655 and 1603) underwent systematic ecological revisions and are no longer deemed to occur in the Hunter IBRA subregion.
 - PCT 1603 was split into five new PCTs, including PCT 3431: Central Hunter Ironbark Grassy Woodland. The proponent has since confirmed that the PCT 1603 mapped in the original documentation best aligns with PCT 3431. This is consistent with the common occurrence of this PCT in the surrounding locality.
 - The department notes that no new PCT assignment from the splitting of PCT 1655 are found in the Hunter IBRA subregion, however many of the plant species mapped in the disturbance footprint as part of PCT 1655, are also consistent with PCT 3431. Taking this into account and considering the common occurrence of PCT 3431 in the surrounding locality, the species identified as present, NSW State Vegetation Type Mapping and Trees Near Me databases, and that PCT 3431 may at times be dominated by a single canopy species such as *Allocasuarina luehmannii*, the department considers that PCT 1655 also aligns with PCT 3431.
 - For the above reasons, the department considers that PCTs 1603 and 1655 as identified in the BDAR and NSW assessment report, represent 0.303 ha of PCT 3431. From this point both PCT 1655 and 1603 will be referred to as PCT 3431.
- 24) The department notes that PCT 3431 may conform to the EPBC listed Commonwealth Central Hunter Valley Eucalypt Forest and Woodland TEC, where a patch satisfies condition thresholds as per Section 1.5.3 of the [Conservation Advice](#). This is discussed in detail below.
- 25) PCT 3431 occurs in two patches within the proposed action area. A 0.209 ha patch occurs adjacent to the access track within the middle of the disturbance footprint, and a 0.094 ha patch occurs adjacent to the access track in the northeast of the disturbance footprint ([Appendix 4](#)).
- 26) The 0.209 ha patch comprises mature Slaty Box (*Eucalyptus dawsonii*) individuals, an individual Slaty Red Gum (*E. glaucina*) and a number of Cooba (*Acacia salicina*). The groundcover shows signs of disturbance with high levels of weed encroachment, although several native forbs and grasses persist. These include Yellow Burr Daisy (*Calotis lappulacea*), Barb-wire Grass (*Cymbopogon refractus*), Red Grass (*Bothriochloa decipiens*) and Brown's Lovegrass (*Eragrostis brownii*). Exotic species also occur within the midstratum and groundcover, including Pepper Tree (*Schinus molle* var. *areira*), Fireweed (*Senecio madagascariensis*), Galenia (*Galenia pubescens*), Paddy's Lucerne (*Sida rhombifolia*), Pale Pigeon Grass (*Setaria pumila*) and Rhodes Grass (*Chloris gayana*).
- 27) The referral documentation identifies that the second patch of PCT 3431 is highly modified from the original community, with high weed encroachment. The patch comprises of mature and regenerating Bulloak (*Allocasuarina luehmannii*), with no additional canopy or shrub species occurring. Native species which occur within the ground layer include Brown's Lovegrass, Yellow Burr Daisy, Queensland Bluegrass (*Dichanthium sericeum*), Red Grass and Panicum spp. Exotic species include Prickly Pear (*Opuntia stricta*), Fireweed, Pale Pigeon Grass, Spear Thistle (*Cirsium vulgare*) and Purpletop (*Verbena bonariensis*).

- 28) The department notes that each patch was assessed against the condition thresholds for Central Hunter Valley eucalypt forest and woodland Threatened Ecological Community (TEC), however did not meet the requirements as the TEC under the EPBC Act because:
- the patch sizes are below 2 ha; and/or
 - the perennial understorey vegetation cover of each patch is less than 50% native plants.
- 29) The department considers that there are no threatened ecological communities present within the proposed action area.
- 30) The referral documentation states that 3.918 ha of exotic vegetation within the disturbance footprint ([Appendix D](#)) is dominated by grasses including Rhodes Grass, Fleabane (*Conyza bonariensis*) and Galenia. The canopy and shrub stratum is absent.

Referral, controlling provisions, assessment approach decision and public consultation

- 31) A valid referral was received on 5 January 2026, referred by Muswellbrook BESS Pty Ltd (the proponent and person proposing to take the action
- 32) No public comments were received in response to the published referral information.
- 33) On 10 February 2026, the proposed Action was determined to be a controlled action, due to likely significant impacts on the following listed threatened species and communities (section 18 & section 18A):
- Hunter Valley delma (*Delma vescolineata*) – Endangered
- 34) On 10 February 2026, the delegate for the Minister for the Environment and Water also decided that the assessment approach would be assessment on referral information.
- 35) This draft recommendation report and its appendices will be published for public comment for 10 business days on the EPBC Act Public Portal in accordance with section 93(3) of the EPBC Act.
- 36) Any public comments received during this period will be considered in the final recommendation report provided to the Minister for consideration for the approval decision.

NSW assessment and approval

- 37) The proposed Action was declared to be a State Significant Development (SSD, SSD-29704663) and a request for SEARS was submitted in November 2021. As part of the NSW assessment process, an Environmental Impact Statement ([Muswellbrook BESS EIS documents](#)) and a BDAR ([Muswellbrook BESS BDAR](#)) were prepared in accordance with the *NSW Biodiversity Conservation Act 2016* (NSW BC Act) and Biodiversity Assessment Method (BAM).

- 38) The BDAR outlines the measures taken to avoid, minimise and mitigate impacts arising from the proposed action to listed threatened species and communities and their habitat within the proposed Action area. To compensate for residual impacts of the proposed Action offset requirements were calculated in accordance with the BAM and will be under the NSW Biodiversity Offset Scheme (BOS).
- 39) The then NSW Department of Planning and Environment (NSW DPE) publicly exhibited the documents from 15 September 2022 until 12 October 2022.
- 40) While one group objection was raised in relation to the proposed action it was subsequently withdrawn after the exhibition period as the group entered into a neighbour agreement with the proponent.
- 41) Twelve government agencies provided comment. Comments relevant to protected matters came from the former Biodiversity, Conservation and Science Directorate (BCS) requesting revised BDAR including revisions of certain species status and relocation of fauna and tree clearing protocols. They also advised that there was no risk to Serious and Irreversible Impacts (SAII) candidate species.
- 42) On 3 February the proponent provided a [response to submissions](#).
- 43) The NSW assessment report [NSW assessment report](#) considered that the project is unlikely to result in a significant impact on biodiversity values.
- 44) On 7 July 2023, a delegate of the Minister for Planning and Public Spaces, granted consent to the SSD application subject to conditions including:
- Condition A2 – which requires the development to be carried out “generally in accordance with the EIS”;
 - Condition B9 – which limits clearing outside approved disturbance areas;
 - Conditions B10 and B11 – which require biodiversity offsets to be secured; and
 - Condition B12 – which requires preparation and implementation of a Biodiversity Management Plan (BMP) approved by the Secretary containing mitigation measures.
- 45) Condition B10 of the NSW development consent required the retirement of the following biodiversity credits relevant to the EPBC listed threatened species:
- PCT 1655 - 2 ecosystem credit
 - Leafless Tongue Orchid (*Cryptostylis hunteriana*) - 2 species credits
 - Striped Legless Lizard (*Delma impar*) - 3 species credits
 - Slaty Red Gum (*Eucalyptus glaucina*) - 2 species credits
 - Austral Toadflax (*Thesium austral*) - 2 species credits

- 46) The department notes that since the state's approval and prior to assessment under the EPBC Act, the striped legless lizard within the proposed action area has been reclassified and is now known as the EPBC Act listed endangered Hunter Valley delma (*Delma vescolineata*). From this point on all references to the striped legless lizard in the BDAR and associated documentation which was submitted through the EPBC referral process is considered to refer to the EPBC Act listed endangered, Hunter Valley delma.

Mandatory considerations – section 136

s136(1) In deciding whether or not to approve the taking of an action, and what conditions to attach to an approval, the Minister must consider the following, so far as they are not inconsistent with any other requirement of Subdivision B, Division 1 of Part 9 of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act):

- a) matters relevant to any matter protected by a provision of Part 3 that the Minister has decided is a controlling provision for the action;*
- b) economic and social matters.*

Controlling provisions – section 136(1)(a)

- 47) The proposal was determined a controlled action under the Listed threatened species and ecological communities (sections 18 and 18A) controlling provision of the EPBC Act. This controlling provision is discussed below.
- 48) As part of the referral submission the proponent provided an [EPBC Act Assessment Report](#) which included an assessment of potential impacts on the slaty red gum and the Hunter Valley delma. The proponent concluded that the proposed action is unlikely to have significant residual impacts on any species.
- 49) At the time of the referral decision the department considered that based on available information including the small area of the proposed action, potential habitat present, the number of individuals present of both species, the departmental Protected Matters Search Tool (PMST) report, the proponent’s referral documentation, and the ecology of the species’, the department assessment considers that the proposed action will have a significant impact on the following protected matter:
- Hunter Valley delma (*Delma vescolineata*) - endangered
- 50) This species is discussed further below.

Listed threatened species and ecological communities (sections 18 and 18A)

Hunter Valley Delma (*Delma vescolineata*) – Endangered

Protected matter ecology

- 51) The Hunter Valley delma is a legless or flap-footed lizard. which grows to approximately 250 millimetres (mm) in length.

- 52) The Hunter Valley delma was originally considered to be a subpopulation of the more widespread striped legless lizard. Morphological and molecular analyses determined that the Hunter Valley delma population was a separate species, and the Hunter Valley delma was conventionally accepted as *Delma vescolineata* in 2022. The species was listed as endangered under the EPBC Act on 16 July 2024.
- 53) The [Conservation Advice for Delma vescolineata \(Hunter Valley delma\)](#) states that the species is known almost entirely from a 25 km wide corridor in the Hunter Valley NSW, between Maitland and Muswellbrook. An additional specimen has been identified just north of Parraweena on the Liverpool plains, approximately 80 km north-west of Muswellbrook.
- 54) It is possible they are more widespread but there is currently insufficient evidence to determine their exact distribution or to provide estimates of population numbers for the species.
- 55) According to the NSW OEH *Hunter Valley delma* [species profile](#), it is assumed that the population in the Hunter Valley is adequately connected to represent one subpopulation, with the isolated record 80 km to the north-east currently considered a separate subpopulation. The conservation advice identifies that all populations of the Hunter Valley delma are considered important populations.
- 56) Hunter Valley delma occur in secondary native grassland remaining after the removal or dieback of previous woody canopy vegetation, typically in association with sparse box-gum or ironbark woodland. Primary canopy species include Yellow Box (*Eucalyptus melliodora*) and Narrow-leaved Ironbark (*Eucalyptus crebra*), with a diverse ground cover layer of grasses.
- 57) The NSW [distribution and vegetation associations](#) for Hunter Valley delma lists over 500 PCTs in the Sydney Basin IBRA Region that the species is likely to be associated with. It has been found sheltering under rocks and discarded rubbish, including building rubble, metal and organic waste; as well as under dried cow-pats in agricultural land where there is no natural surface refugia.
- 58) No Critical Habitat as defined under section 207A of the EPBC Act has been identified, but habitat critical to the survival of this species is likely to include the secondary native grasslands of the Hunter Valley between Maitland and Muswellbrook.
- 59) Based on species records and survey results for this project ([Appendix E](#)), the department considers that exotic grasslands also provide suitable habitat for the species.
- 60) Main threats to the survival of the species include habitat loss, fragmentation, disturbance and modification, predation by invasive species and climate change leading to altered fire and drought regimes.

Environment within the proposed Action area

- 61) The referral states that the disturbance footprint contains small areas of open woodland, native secondary grassland and exotic grassland that provides suitable habitat for Hunter Valley delma in the form of tussock forming grasses. Woody debris and concrete rubble also provide potential shelter for this species.

- 62) Surveys for Hunter Valley delma were conducted in accordance with the BAM in October 2025 and 28 November 2025.
- 63) A total of 22 Hunter Valley delma individuals were recorded within the disturbance footprint over the sampling period in both native and exotic grassland ([Appendix E](#)), with a maximum of seven individuals encountered on any one day. Two individuals were recorded outside the disturbance footprint where the sampling array extended into this area ([Appendix E](#)). As capture-mark-recapture methods were not undertaken no estimates of population numbers could be determined.
- 64) Twenty-six BioNet records exist for the Hunter Valley delma within 10 km of the proposed Action area ([Appendix F](#)). Twenty-three of these records are within the last 10 years, and total 53 individuals. BioNet records occur in both native and exotic vegetation.
- 65) Based on locations of the species detected during targeted surveys, all native secondary grassland associated with the open woodland areas of the disturbance footprint (0.303 ha), and the highly disturbed exotic grassland (3.918 ha) are considered suitable habitat for the Hunter Valley delma, totalling 4.221 ha.
- 66) The department considers it likely that based on the number of individuals detected within the disturbance footprint that the Hunter Valley delma are likely breeding in the area.
- 67) The department notes that the [referral documentation](#) concludes that the proposed action will not have a significant impact on the Hunter Valley delma.

Impacts

- 68) Potential impacts of the proposed Action include:
- The removal of 4.221 ha of habitat for the Hunter Valley delma;
 - Injury or mortality of individuals and eggs during clearing activities, construction and ongoing operation and maintenance of infrastructure, easements and access tracks.

Avoidance and mitigation measures

- 69) The [referral](#) states that the evolution of project design in parallel with environmental impact assessments has ensured the avoidance of areas of high biodiversity value, including impacts on native vegetation, as far as practicable.
- 70) The NSW SSD approval conditions include preparation of a Biodiversity Management Plan (BMP) in accordance with the BDAR and in consultation with NSW Conservation Programs, Heritage and Regulation Group (CPHR). The proponent provided the draft BMP to the department which has detailed habitat clearing and relocation protocols for the Hunter Valley delma.
- 71) Key mitigation and management measures to reduce the impacts of clearing and construction activities and habitat quality of retained vegetation for the Hunter Valley delma are provided in detail in the draft BMP. A summary of measures include:

- Pre-clearance surveys, trapping and relocation of Hunter Valley delma prior to clearing of potential habitat.
- Relocations and translocations of Hunter Valley delma, undertaken in accordance with the Translocation operational policy ([DPIE 2019b](#)).
- Where possible, surface refuges from the development footprint area (e.g. rocks and logs) reintroduced into surrounding similar habitat or to the release sites. Additionally, any cabling or other trenches that are left open overnight must be checked daily for fauna, with particular attention to Hunter Valley delma.
- Clearly identified no go areas around habitat features identified outside of the disturbance footprint.

Offsets and compensatory measures

- 72) The proponent determined that the Hunter Valley delma would not be impacted by the proposed action and no offsets were proposed to compensate for any residual significant impacts to the species.
- 73) The department recommends attaching conditions to the approval to compensate for significant residual impacts of clearing 4.221 ha of Hunter Valley delma habitat, requiring the approval holder to develop an Offset Strategy that identifies the required offset liability for the Hunter Valley delma and how credits will be retired.

Conclusion

- 74) Based on the above information and in accordance with the departments [Significant Impact Guidelines 1.1](#), the department considers that the clearance of 4.221 ha habitat for the species:
- will adversely affect habitat critical to the survival of the species.
- 75) Therefore, the department considers that the proposed action is likely to have a residual significant impact on this species.
- 76) The department considers that compliance with the relevant NSW conditions A2, B9 and B12, relating to managing and mitigating impacts to the Hunter Valley delma, including the development of a BMP, will be acceptable in reducing impacts to the Hunter Valley delma. The department also recommends that the Hunter Valley Delma Habitat Clearance Protocol as provided as part of the Draft BMP is included as part of the approved BMP required by NSW approval condition B12.
- 77) The department recommends additional conditions relating to the development and implementation of an Offset Strategy to compensate for residual impacts to 4.221 ha of Hunter Valley delma habitat.
- 78) The department considers that the proposed action, if approved subject to the recommended conditions ([Appendix A](#)), will not have an unacceptable impact on the Hunter Valley delma.

Economic and social matters – section 136(1)(b)

- 79) Under section 136(1)(b) of the EPBC Act, you must consider economic and social matters in deciding whether or not to approve an action and what conditions to attach to the approval.
- 80) The [referral documentation](#) states that the project is contributing to the enhancement of the existing Ausgrid Substation infrastructure, through the provision and operation of the BESS, which will serve to balance the grid and support the performance and future uptake of renewable energy. The project seeks to invest in and contribute to the local economy through the creation of jobs and provision of affordable electricity.
- 81) The referral states that while not proceeding with the development would avoid environmental impacts, it would also forgo the economic and social benefits of the proposal. The Muswellbrook substation would continue to operate in its current state, with no potential to benefit from the balancing of the grid through the implementation of the BESS and improved renewable energy performance. Not proceeding with the proposed Action would also present a lost opportunity to contribute to the realisation of the NSW Government's objectives of facilitating an affordable and sustainable electricity future.
- 82) The [referral documentation](#) states that the proposed development is considered to be in the public interest on the basis that it:
- Offers an opportunity for productive and sustainable economic activity within the area;
 - Presents an excellent opportunity to the local region to provide local employment opportunities;
 - Has been designed with appropriate consideration to social, environmental and sustainability interests of the community;
 - Aims to minimise impacts to natural resources through minimising the land required to support energy supply; and
 - Assists to reduce reliance on traditional, fossil fuel burning forms of electricity generation, thereby assisting in curbing the long-term impacts of climate change.
- 83) The referral information also states that all work would be carried out in accordance with the environmental safeguards to mitigate potential impacts associated with noise and vibration, socio-economic considerations, traffic and transport, drainage and water quality, air quality, greenhouse gas emissions, climate change, Aboriginal and non-Aboriginal heritage, topography, soils, waste and hazardous materials.
- 84) The site is proximal to existing infrastructure (substation and transmission lines) ensuring the project would not result in a radical transformation of the locality.
- 85) During the preparation of the EIS, the proponent engaged with surrounding landowners, community groups and regulatory bodies.
- 86) Key issues arising through the exhibition phase of the EIS included:

- Concerns around visual and noise impacts affecting scenery and rural lifestyle;
- Comments from Transport for NSW and NSW Department of Planning and Environment (DEP) regarding potential conflict with the construction of the nearby Muswellbrook Bypass;
- Council comments were concerned that Sandy Creek Road in its current state is not suitable for proposed construction vehicles as there are insufficient road shoulders to facilitate heavy vehicle movements;
- Comments from NSW Biodiversity and Conservation Division with respect to the biodiversity assessment; and
- Comments from DPE Hazards, with respect to risk and hazard.

87) In response to submissions from council, government agencies and community groups, a number of project refinements were implemented. These include:

- Increasing the height of proposed visual screening from a five to eight metres in height and installation of and provision of photomontages;
- Inclusion of noise barriers to ensure that noise impacts during operation comply with the adopted noise criteria;
- Refinement of the project footprint to avoid potential design conflicts with the development of the adjacent Muswellbrook bypass project;
- Upgrading the site access driveway with Sandy Creek Road for rural property access and the implementation of measures to ensure safety on Sandy Creek Road including traffic control signage;
- Comments from NSW Biodiversity and Conservation Division about the biodiversity assessment were resolved through updates to the BDAR;
- Comments from DPE Hazards resolved through update and reissue of the Preliminary Hazard Analysis;
- Confirmation that existing low voltage (33 kV) transmission lines within the site would be removed or relocated to avoid impacts with BESS infrastructure; and
- The operational footprint has also been refined to avoid impacts to Aboriginal heritage.

88) The department notes the above contributions and considers that the proposed Action is acceptable when weighed against the environmental outcomes for EPBC Act protected matters.

Factors to be taken into account – section 136(2)

136(2) In considering those matters, the Minister must take into account:

Principles of ecologically sustainable development – section 136(2)(a)

89) In deciding whether or not to approve the taking of an action and the conditions to attach to an approval, section 136(2)(a) of the EPBC Act provides that you are required to take into account the principles of ecologically sustainable development (ESD). The principles of ESD, as defined in Part 1, section 3A of the EPBC Act, are:

- a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;
- b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (precautionary principal);
- c) the principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
- d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making; and
- e) improved valuation, pricing and incentive mechanisms should be promoted.

90) In formulating this recommendation, the department has taken into account the principles of ecologically sustainable development:

decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations

- This report, and the documentation relied upon to prepare this report, provide sufficient information to allow you to conclude that the decision-making processes have effectively integrated long and short-term economic, social and environmental considerations; and
- The department considers the likely impacts on the environment are acceptable in terms of the long and short-term economic, social, environmental and equitable impacts and that these impacts will be managed through the recommended conditions of approval.

if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation

- The department has taken account of the precautionary principle by considering whether there are threats of serious or irreversible environmental damage with respect to the relevant matters protected by the EPBC Act, and whether there is a lack of full scientific uncertainty as to the nature or scope of the threat of this damage. The application of the precautionary principle to the proposed Action is discussed at paragraphs 91-94.

the principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations

- The recommended conditions of approval allow for the proposed Action to be delivered and operated in a sustainable way to protect listed threatened species and the environment more broadly for future generations; and
- The referral material also states that all work would be carried out in accordance with the environmental safeguards to mitigate potential impact associated with noise and vibration, socio-economic considerations, traffic and transport, drainage and water quality, air quality, greenhouse gas emissions, climate change, Aboriginal and non-Aboriginal heritage, topography, soils, waste and hazardous materials. The project also supports sustainable forms of renewable energy, and in doing so reduces the impacts of climate change for future generations.

the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making

- The department considers that biological diversity and ecological integrity were fundamental considerations in this assessment, evidenced by:
 - the assessment being undertaken in accordance with state and national regulatory requirements for environmental impact assessment and application of the mitigation hierarchy.
 - the application of proposed conditions to limit clearing in the action area, provide offsets and ensure approved management plans are prepared and implemented to manage impacts.
 - the approach of incentivising the proponent to further reduce impacts of the project on biodiversity through detailed design works to avoid impacts where possible, thereby reducing the biodiversity credit liability.

improved valuation, pricing and incentive mechanisms should be promoted.

- The department considers that the costs of avoidance, mitigation and offset measures for the relevant impacts provide appropriate pricing and incentive mechanisms for the protection of the matters of national environmental significance and the environment.

Precautionary principle – section 391

- 91) Section 391 of the EPBC Act states that you must consider the precautionary principle in deciding whether or not to approve the taking of an action to the extent that you can do so consistently with the other provisions of the EPBC Act. The precautionary principle requires that, if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- 92) The department has taken account of the precautionary principle by considering whether there are threats of serious or irreversible environmental damage with respect to the relevant matters protected by the EPBC Act, and whether there is a lack of scientific certainty.
- 93) The department has taken into account the information provided in the referral (including the BDAR) and relevant statutory and guidance documents and considers that the proposed Action poses a threat of serious or irreversible environmental damage to a listed threatened species: the Hunter Valley delma. However, based on the information available to the department, it is not considered that there is a lack of scientific certainty, as the impacts of the proposed action on the species are well understood
- 94) As such, the department is satisfied that a lack of full scientific certainty has not been used as a reason for postponing measures to prevent environmental degradation.

Referral information – section 136(2)(ba)

- 95) In accordance with section 136(2)(ba), the finalised version of this document (which will be updated to address any public comments) will form the recommendation report relating to the Action given to the Minister under section 93(5).
- 96) The proponent provided additional information following the referral decision, and although these documents do not make up part of the formal assessment information package, they provide information relevant to the decision on whether not to approve the projects, and so are included in this report.

Other information – section 136(2)(e)

- 97) The minister must take into account any other information the minister has on the relevant impacts of the action (including information in a report on the impacts of actions taken under a policy, plan or program under which the action is to be taken that was given to the minister under an agreement under Part 10 (about strategic assessments)).
- 98) All relevant information has been taken into account, including the referral documentation. There are no strategic assessments relevant to this decision.

Relevant comments – section 136(2)(f)

99) Under section 131, the Minister must invite other ministers to give comments on the proposed decision within 10 business days. Following the publication of and invitation to comment on this draft recommendation report under section 93(3) of the EPBC Act, relevant ministers will be invited to comment on the proposed decision under 136(2)(f) of the EPBC Act.

Information in a notice – section 136(2)(g)

100) No notice relating to the action was requested or given to the minister under subsection 132A(3).

Other matters for decision making

Person's environmental history – section 136(4)

s136(4) In deciding whether or not to approve the taking of an action by a person, and what conditions to attach to an approval, the Minister may consider whether the person is a suitable person to be granted an approval, having regard to:

- a) the person's history in relation to environmental matters; and*
- b) if the person is a body corporate – the history of its executive officers in relation to environmental matters; and*
- c) if the person is a body corporate that is a subsidiary of another body or company (the parent body) – the history in relation to environmental matters of the parent body and its executive officers.*

101) The Northern NSW Assessment Section has requested the department's Compliance and Enforcement Branch (CEB) conduct an environmental history check (EHC) on the proponent in accordance with section 136(4) of the EPBC Act. The outcome of the EHC is pending as at the date of drafting this report and will be provided in the final recommendation report.

102) The referral states that Muswellbrook BESS Pty Ltd as trustee for the Muswellbrook BESS Trust is a new project entity owned by AGL Energy Limited (AGL). It does not have a history of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against it.

103) The referral also states that AGL regards sound environmental management and protection as an integral part of its business and social license to operate. It is committed to excellence in this area in all of its activities. AGL's Environmental, Social and Governance framework seeks to minimise impact, preserve nature, and ensure efficiency in the environment.

Minister not to consider other matters – section 136(5)

s136(5) In deciding whether or not to approve the taking of an action, and what conditions to attach to an approval, the Minister must not consider any matters that the Minister is not required or permitted to consider by Division 1, Part 9 of the EPBC Act.

104) The department, in forming its recommendations whether or not to approve the proposed Action, and what conditions (if any) to attach, has not considered any matters that you are not required or permitted to consider.

Threatened species and endangered communities – section 139

s139(1) In deciding whether or not to approve for the purposes of a subsection of section 18 or section 18A the taking of an action, and what conditions to attach to such an approval, the Minister must not act inconsistently with:

- a) Australia’s obligations under:

 - i) the Biodiversity Convention; or*
 - ii) the Apia Convention; or*
 - iii) CITES; or**
- b) a recovery plan or threat abatement plan.*

s139(2) If:

- a) the Minister is considering whether to approve, for the purposes of a subsection of section 18 or section 18A, the taking of an action; and*
- b) the action has or will have, or is likely to have, a significant impact on a particular listed threatened species or a particular listed threatened ecological community;*

the Minister must, in deciding whether to so approve the taking of the action, have regard to any approved conservation advice for the species or community.

Biodiversity Convention

105) The objectives of the Convention on Biological Diversity ([Biodiversity Convention](#)), to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

106) The recommendations in this report are not considered by the department to be inconsistent with the Biodiversity Convention, which promotes environmental impact assessment (such as this process) to avoid and minimise adverse impacts on biological diversity. The department has also given particular consideration to an appropriate combination of avoidance and mitigation measures for the management of species potentially impacted by the proposed Action.

Apia Convention

107) The [Convention on the Conservation of Nature in the South Pacific](#) (Apia Convention) encourages the creation of protected areas which together with existing protected areas will safeguard representative samples of the natural ecosystems occurring therein (particular attention being given to endangered species), as well as superlative scenery, striking geological formations, and regions and objects of aesthetic interest or historic, cultural, or scientific value.

108) The [Apia Convention](#) was suspended with effect from 13 September 2006. While this Convention has been suspended, Australia's obligations under the Convention have been taken into consideration. The recommendations are not inconsistent with the Convention which has the general aims of conservation of biodiversity.

International trade in endangered species

109) The [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

110) The recommendations are not inconsistent with CITES as the proposed Action does not involve international trade.

Recovery Plans and Threat Abatement Plans

111) There are no Recovery Plans or Threat Abatement Plans relevant to the proposed Action and assessment.

Conservation Advice

112) The approved conservation advice relevant to the proposed Action is:

- a) Department of Climate Change, Energy, the Environment and Water (2024). *Conservation Advice for Delma vescolineata (Hunter Valley delma)*. Canberra. Available from <https://www.environment.gov.au/biodiversity/threatened/species/pubs/92599-conservation-advice-16072024.pdf> in effect from 16 July 2024.

113) The department has had regard to the approved conservation advice relevant to the proposed Action and has given consideration to the likely impacts of the proposed Action on listed threatened species. The department is of the view that approval of this action would not be inconsistent with the conservation advice (see discussion in the Listed threatened species and communities (s18 & 18A) section of this report).

Bioregional plans - section 176(5)

s176(5) Subject to this Act (the EPBC Act), the Minister must have regard to a bioregional plan in making any decision under this Act (the EPBC Act) to which the plan is relevant.

114) The proposed Action is not located within or near an area designated by a bioregional plan. The department considers that there are no bioregional plans relevant to the proposed Action.

Conditions of approval – section 134

s134(1) The Minister may attach a condition to the approval of the action if he or she is satisfied that the condition is necessary or convenient for:

- a) protecting a matter protected by a provision of Part 3 for which the approval has effect (whether or not the protection is protection from the action); or
- b) repairing or mitigating damage to a matter protected by a provision of Part 3 for which the approval has effect (whether or not the damage has been, will be or is likely to be caused by the action).

NSW conditions

115) The department has considered the likely scope and severity of the impacts to MNES, and the proposed avoidance and mitigation measures, and determined that it is likely the proposed Action will result in residual significant impact to Hunter Valley delma.

116) Relevant state conditions as described in the [NSW Development Consent](#) to avoid, minimise and mitigate the significant impacts on the EPBC protected matters are as follows:

- Condition A2 – which requires the development to be carried out “generally in accordance with the EIS”
- Condition B9 – which limits clearing of native vegetation or fauna habitat outside approved disturbance areas
- Condition B12 – which requires preparation and implementation of a Biodiversity Management Plan (BMP) approved by the NSW Planning Secretary which includes measures for mitigating impacts to fauna on site and implementing fauna management protocols.

117) The department considers that, instead of duplicating these state conditions, it is appropriate to impose a condition that will require the proponent to comply with NSW Development consent conditions, where they relate to MNES, and thereby enable the department to retain an ongoing compliance role for the proposed Action.

Department’s recommended conditions

118) The department considers that it is necessary or convenient to apply additional approval conditions to this project, as detailed in [Appendix A](#). The key conditions relating to protected matters have been discussed above.

119) The department considers that the recommended conditions attached to this report (at [Appendix A](#)) are necessary or convenient to compensate, protect and/or mitigate impacts on a matter protected by a provision of Part 3 for which this proposed approval has effect.

120) In recommending conditions, the department has had regard to the EPBC Act Condition-setting Policy 2020. The department notes that the NSW BOS, which provides biodiversity offset credits for impacts to species and ecological communities, is recognised in the EPBC Act Condition-setting Policy as being consistent with key policy principles of the department and Australian Government standards.

Additional considerations for conditions

121) In accordance with section 134(4), in deciding whether to attach a condition to an approval, the Minister must consider all of the following:

s134(4)(a) Any relevant conditions that have been imposed, or the Minister considers are likely to be imposed, under a law of a state or self-governing territory or another law of the Commonwealth on the taking of the action.

122) The department has given consideration to the relevant conditions in the state approval in recommending this decision and considers the recommended conditions by the department are not inconsistent with those imposed by the State.

s134(4)(aa) Information provided by the person proposing to take the action or by the designated proponent of the action.

123) The formal assessment documentation provided by the designated proponent for this assessment is the referral information. The proponent has provided additional information since then (such as the draft BMP). This information has been taken into account in drafting this recommendation.

s134(4)(b) The desirability of ensuring as far as practicable that the condition is a cost-effective means for the Commonwealth and the person taking the action to achieve the object of the condition.

124) The department considers that the conditions proposed are reasonable and appropriate having regard to the nature and scale of potential impacts from the proposed action and will ensure that listed threatened species and ecological communities are protected long term. The department considers that the conditions proposed are a cost-effective means of achieving their purpose.

Material used to prepare this report

- a) Referral documentation and attachments.
- b) Correspondence or additional information received from proponent.
- c) Relevant conservation advice

Appendices

Appendix A—Draft of Proposed Approval Conditions (including definitions and attachments)

Appendix B— Location of proposed Action

Appendix C—Disturbance footprint of proposed Action

Appendix D—Vegetation within disturbance footprint

Appendix E—Hunter Valley delma observations within and outside the disturbance footprint.

Appendix F— Hunter Valley Delma BioNet records within the 10 km buffer of the proposed Action area.

Appendix A - Draft Proposed Approval Conditions

Annexure A

Note: Words and terms appearing in **bold** (excluding headings) have the meaning assigned to them at **Part C – Definitions**.

Part A – Avoidance, mitigation, and compensation conditions

NSW CONSENT CONDITIONS

- 1) To compensate for the residual significant impacts on the **Hunter Valley delma**, the approval holder must comply with conditions A2, B9, and B12 of the **NSW approval**, to the extent that the **NSW approval** conditions relate to the **Hunter Valley delma**.
- 2) The approval holder must ensure that the *Hunter Valley Delma Habitat Clearance Protocol*, included in the Draft **Biodiversity Management Plan** (December 2025), is included in the approved BMP required by **NSW approval** condition B12.

OFFSETS

- 3) To compensate for residual impacts to 4.221 ha of **Hunter Valley delma** habitat, the approval holder must develop and implement an Offset Strategy. The approval holder must submit the Offset Strategy for approval by the **Minister**.
- 4) The approval holder must not **commence the Action** prior to receiving the **Minister's** approval of the Offset Strategy, and **retiring biodiversity credits** in accordance with the approved Offset Strategy.

Part B – Administrative conditions

MODIFICATIONS TO STATE OR TERRITORY APPROVAL

- 5) The approval holder must notify the **department** in writing of any proposed change to the **NSW approval** that may relate to **protected matters** within 2 **business days** of formally proposing such a change and within 5 **business days** of becoming aware of any proposed change.
- 6) The approval holder must notify the **department** in writing of any change to the **NSW approval** conditions that may relate to **protected matters**, within 5 **business days** of such a change to conditions coming into effect. Such notification must include a copy of the changed **NSW approval** conditions showing what changes have been made.

COMMENCEMENT OF THE ACTION

- 7) The approval holder must notify the **department** electronically of the date of **commencement of the Action**, within 5 **business days** following **commencement of the Action**.

The approval holder must not **commence the Action** later than 5 years after the date of this approval decision.

COMPLIANCE RECORDS

- 8) The approval holder must maintain accurate and complete **compliance records** and document the procedure for recording and storing **compliance records**.
- 9) If the **department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **department** within the timeframe specified in the request.

Note: Compliance records may be subject to audit by the **department**, or by an **independent auditor** in accordance with section 458 of the **EPBC Act**, and/or be used to verify compliance with the conditions. Summaries of the results of an audit may be published on the **department's** website or through the general media.

- 10) The approval holder must ensure that any **monitoring data**, surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the *Guidelines for biological survey and mapped data*, Commonwealth of Australia 2018, or as otherwise specified by the **Minister** in writing.
- 11) The approval holder must ensure that any **monitoring data**, surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the *Guide to providing maps and boundary data for EPBC Act projects*, Commonwealth of Australia 2021, or as otherwise specified by the **Minister** in writing.
- 12) The approval holder must submit all **monitoring data**, surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the **department** within 20 business days of the next anniversary of the date of this approval decision except where otherwise specified in a plan.

ANNUAL COMPLIANCE REPORTING

- 13) The approval holder must prepare a compliance report for each **Annual Compliance Report period (ACR period)**.
- 14) The approval holder must ensure each **compliance report** includes:
 - a) accurate and complete details of compliance and any non-compliance with:
 - i) each condition imposed under **NSW Approval**, if a condition attached to this approval decision requires compliance with that **NSW Approval** condition,
 - ii) each condition attached to this approval decision, and
 - iii) all commitments made in each **plan**,
 - b) a schedule of all **plans** in effect in relation to these conditions during the **ACR period**,
 - c) accurate and complete details of how each **plan** was implemented during the **ACR period**, and
 - d) if any **incident** occurred, accurate and complete details of each **incident**.

- 15) The approval holder must ensure each **compliance report** is completed to the satisfaction of the **Minister** and is consistent with the *Annual Compliance Report Guidelines, Commonwealth of Australia 2023*.
- 16) The approval holder must, within 20 **business days** following the end of each **ACR period**, in a format that is easily accessible and downloadable, publish on the **website**:
 - a) each compliance report, and
 - b) a **shapefile** showing all **clearing of protected matters**, and their habitat, undertaken within the **ACR period**.
- 17) The approval holder must:
 - a) Exclude or redact **sensitive biodiversity data** from each **compliance report** and **shapefile** published on the **website** or otherwise provided to a member of the public.
 - b) If **sensitive biodiversity data** is excluded or redacted from a version of a **compliance report** published or otherwise provided to a member of the public, submit the full **compliance report** to the **department** within 5 **business days** of its publication on the **website** and notify the **department** in writing what exclusions and redactions have been made in the version published on the **website** or otherwise provided to a member of the public.
 - c) If **sensitive biodiversity data** is excluded or redacted from a version of a **shapefile** published or otherwise provided to a member of the public, submit the full **shapefile** to the **department** within 5 **business days** of its publication on the **website** and notify the **department** in writing what exclusions and redactions have been made in the version published on the **website** or otherwise provided to a member of the public.
- 18) The approval holder must notify the **department** electronically, within 5 **business days** of each date of publication that the **compliance report** has been published on the **website**. In this notification, the approval holder must provide the **department** with the web address for where the **compliance report** and related **shapefile** are published on the **website**.
- 19) The approval holder must keep each **compliance report** and related **shapefile** published on the **website** from the first date which that **compliance report** must be published and until the expiry date of this approval.

Note: Compliance reports may be published on the department's website.

REPORTING NON-COMPLIANCE

- 20) The approval holder must notify the **department** electronically, within 2 **business days** of becoming aware of any **incident**. The approval holder must specify in each notification:
 - a) any condition or commitment made in a **plan** which has not been, or may have not been, complied with,
 - b) a short description of the **incident**, and
 - c) the location (if applicable, including co-ordinates), date and time of the **incident**.

- 21) The approval holder must provide to the **department** in writing, within 12 **business days** of becoming aware of an **incident**, the details of that **incident**. The approval holder must specify:
- a) all corrective measures and investigations which the approval holder has already taken in respect of the **incident**,
 - b) the potential impacts of the **incident**,
 - c) the method and timing of any corrective measures that the approval holder proposes to undertake to address the **incident**, and
 - d) any variation of these conditions or revision of a **plan** that will be required to prevent recurrence of the **incident** and/or to address its consequences.

INDEPENDENT AUDIT

- 22) The approval holder must ensure that an **independent audit** of compliance with the conditions is conducted for every **audit period**.
- 23) The approval holder must submit details of the proposed **independent auditor** and their qualifications to the **department** within 10 **business days** following the end of each **audit period**.
- 24) The approval holder must ensure the scope of each **independent audit** is sufficient to determine the compliance status for each condition of approval, and each commitment made in each **plan**.
- 25) The approval holder must ensure the criteria for each **independent audit** and the undertaking of each **independent audit** are consistent with the **Independent Audit and Audit Report Guidelines**.
- 26) The approval holder must submit an **audit report** to the **department** for written agreement from the **department** within 3 months following the end of each **audit period**, or as otherwise directed by the **Minister** in writing.
- 27) The approval holder must ensure each **audit report** is completed to the satisfaction of the **Minister** and is consistent with the **Independent Audit and Audit Report Guidelines** to the extent that the **Independent Audit and Audit Report Guidelines** are consistent with these conditions.
- 28) The approval holder must publish each **audit report** on the **website**, in a format that is easily accessible and downloadable, within 10 **business days** of the date the **department** agrees to that **audit report** in writing.
- 29) The approval holder must notify the **department** within 5 **business days** of the date the **audit report** is published on the **website**. In this notification, the approval holder must provide the **department** with the web address for where the **audit report** is published on the **website**.
- 30) The approval holder must keep each **audit report** published on the **website** from the first date which that **audit report** must be published and until the expiry date of this approval.

COMPLETION OF THE ACTION

- 31) Within 20 **business days** after the **completion of the Action**, and, in any event, at least 20 **business days** prior to the expiry date of this approval, the approval holder must notify the **department** electronically of the date of **completion of the Action** and provide **completion data**. The approval holder must submit any spatial data that comprises **completion data** as a **shapefile**.
- 32) The approval holder must notify the **department** electronically at least 60, but not more than 70, **business days** prior to the expiry date of this approval, that the approval is due to expire.

Note: Section 145C of the EPBC Act entitles the approval holder to request an extension to the period of effect of this approval.

Part C – Definitions

Words and terms appearing in **bold** (excluding headings) have the meaning assigned to them in the list below:

Annual Compliance Report period or **ACR period** means each subsequent 12-month period following the date of this approval decision until the expiry date of this approval, unless otherwise specified in writing by the **Minister**.

Audit period means each subsequent five year period following the **commencement of the Action** until the expiry date of this approval unless otherwise specified in writing by the **Minister**.

Audit report means a written report of an **independent audit**.

Biodiversity data means ‘biodiversity data’ as described in the *Policy on Accessing and Sharing Biodiversity Data*, Commonwealth of Australia 2024.

Biodiversity credits means ecosystem credit units issued in accordance with the Biodiversity Offsets Scheme established under the *Biodiversity Conservation Act 2016* (NSW).

Biodiversity Management Plan means the management plan required by condition B12 of the **NSW approval**.

Business day means a day that is not a Saturday, a Sunday, or a public holiday in New South Wales or the Australian Capital Territory.

Clear, cleared or **clearing** means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting, or burning of vegetation

Commence the Action or **commences the Action** means the first instance of any on-site **clearing, construction** or other physical activity associated with the Action, but does not include minor physical disturbance necessary to:

- Undertake pre-clearance surveys or monitoring programs.

- Install signage and/or temporary fencing to prevent unapproved use of the **Action area**, so long as the signage and/or temporary fencing is located where it does not **harm any protected matter**.
- Protect environmental and property assets from fire, weeds, and feral animals, including use of existing surface access tracks.
- Install temporary site facilities for persons undertaking pre-commencement activities so long as these facilities are located where they do not **harm any protected matter**.

Commencement of the Action means the date on which the approval holder **commences the Action**.

Completion data means an environmental report and spatial data clearly detailing how the conditions of this approval have been met.

Completion of the Action means the date on which all activities associated with the approved Action, other than those which provide compensation for the impacts of the Action, have permanently ceased and/or been completed.

Compliance records means all documentation or other material in whatever form required to demonstrate compliance with these conditions of approval (including compliance with commitments made in **plans**) in the approval holder's possession, or that are within the approval holder's power to obtain lawfully.

Compliance report means a written report of compliance with, and fulfilment of, these conditions (including compliance with commitments made in **plans**).

Construction means:

- the erection of a building or structure that is, or is to be, fixed to the ground and wholly or partially fabricated on-site,
- the alteration, maintenance, repair or demolition of any building or structure,
- any work which involves breaking of the ground (including pile driving) or bulk earthworks,
- the laying of pipes and other prefabricated materials in the ground, and
- any associated excavation work.

Construction does not include minor physical disturbance for undertaking surveys, installation of temporary or permanent fences or signage, so long as the signage and/or fencing is located where it does not harm any protected matter.

Department means the Australian Government agency responsible for administering the **EPBC Act**.

EPBC Act means the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

Harm means to cause any measurable direct or indirect disturbance or deleterious change as a result of any activity associated with the Action.

Incident means any:

- event which has the potential to, or does, **harm** any **protected matter**,
- potential non-compliance with these conditions, including the administrative requirements,
- actual non-compliance with these conditions, including the administrative requirements,
- potential non-compliance with one or more commitment made in a **plan**, and/or
- actual non-compliance with one or more commitment made in a **plan**.

Hunter Valley delma means the EPBC Act listed threatened species *Delma vescolineata*.

Independent audit means an audit, conducted by an **independent auditor**, of compliance with and fulfilment of these conditions and the commitments made in **plans**, objectively evaluated against the audit criteria developed by the **independent auditor**, in accordance with the **Independent Audit and Audit Report Guidelines** to the extent that the **Independent Audit and Audit Report Guidelines** are consistent with these conditions.

Independent Audit and Audit Report Guidelines means the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019.

Independent auditor means a person, or firm, who:

- does not have any individual, financial*, employment* or family affiliation or any conflicting interests with the Action, the approval holder or the approval holder’s staff, representatives, or associated persons,
- has demonstrated experience in undertaking government-regulated environmental compliance audits, and
- holds relevant professional qualifications and accreditations.

*Other than for the purpose of undertaking the role for which the person, or firm, is required.

Minister means the Australian Government Minister administering the **EPBC Act**, including any delegate thereof.

Monitoring data means the data required to be recorded under the conditions of this approval, including **sensitive biodiversity data**.

NSW approval means the development consent provided under the *NSW Environmental Planning & Assessment Act 1979* for SSD 29704663, dated 7 July 2023.

Plan means any action management plan or strategy that the approval holder is required by these conditions to implement.

Protected matter means a matter protected under a controlling provision in Part 3 of the **EPBC Act** for which this approval has effect.

Sensitive biodiversity data means **biodiversity data** which, if released, published or otherwise exposed, may result in **harm** to the relevant **protected matter** as a result of the intentional or unintentional misuse of that **biodiversity data**.

Retire, retired or retiring means the retirement of **biodiversity credits** in accordance with the Biodiversity Offset Scheme established under the *Biodiversity Conservation Act 2016* (NSW).

Shapefile means location and attribute information about the Action provided in an Esri shapefile format containing:

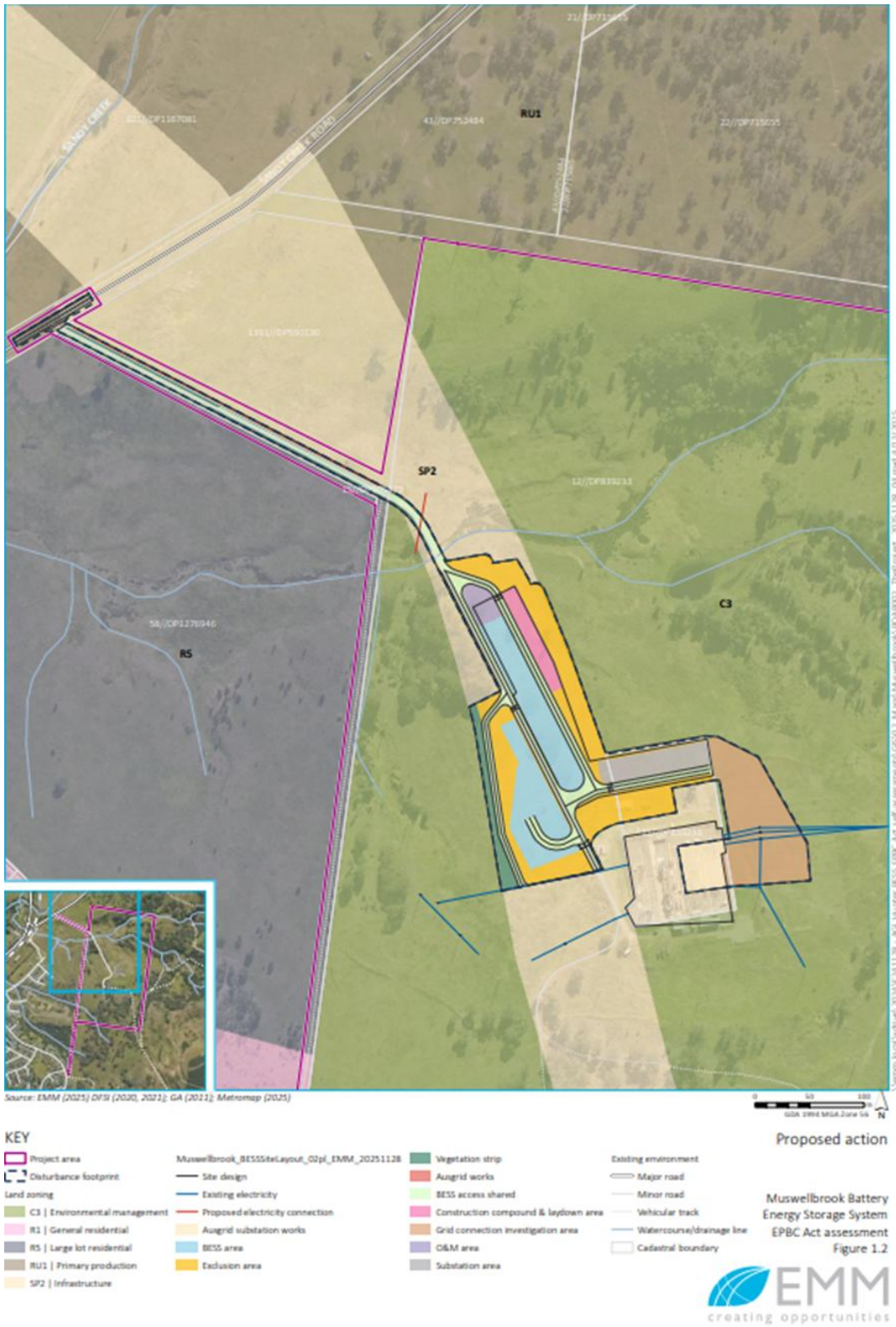
- '.shp', '.shx', '.dbf' files,
- a '.prj' file which specifies the projection or geographic coordinate system used, and
- an '.xml' metadata file that describes the shapefile for discovery and identification purposes.

Website means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.

Appendix B—Location of proposed Action area (pink line encompassing approximately 65.28 ha) within Muswellbrook Local Government Area (LGA).



Appendix C—Disturbance footprint (4.88 ha) of proposed Action (black dotted line).



Appendix D— Plant Community Types within disturbance footprint (PCT 1655 – purple, PCT 1605 – orange, exotic vegetation - light green).



Source: EMM (2025); DFS (2020, 2021); GA (2011); Metromaps (2025)
 Note: Sydney Basin IBRA region and Hunter IBRA subregion occurs across the entire assessment area



KEY	
	Project area
	Study area
	Disturbance footprint
Vegetation mapping	
	Exotic vegetation
	Existing access road
	Substation
Plant community type	
	1691 Narrow-leaved Ironbark - Grey Box grassy woodland of the central and upper Hunter
	1655 Grey Box - Slaty Box shrub - grass woodland on sandstone slopes of the upper Hunter and Sydney Basin (Vulnerable-BC Act)
	1605 Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter
Existing environment	
	Major road
	Minor road
	Whicular track
	Watercourse/drainage line
	Cadastral boundary

Vegetation mapping

Muswellbrook Battery Energy Storage System
 EPBC Act assessment
 Figure 3.1



Appendix E— Location of Hunter Valley delma observations (yellow dots) (dashed line represents the boundary of the disturbance footprint).



Appendix F— Map showing BioNet records (green dots) within the 10 km buffer of the proposed Action area (green circle).

