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Latrobe Valley Battery Energy Storage System (BESS)

240 Monash Way, Morwell
Development Application

Tilt Renewables

Reference: 509891

Revision: 3

2021-05-07

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1 Introduction

1.1 Overview

This report has been prepared on behalf of Tilt Renewables (The Proponent) to support a planning permit application for the development of the Latrobe Valley Battery Energy Storage System (Latrobe Valley BESS). The Latrobe Valley BESS (the Project) will help maintain reliable and affordable energy supply and reduce the frequency of blackouts and the need for load shedding in instances of supply imbalance.

The purpose of this report is to:

- Highlight the project's background and opportunity
- Provide an overview of the proposal
- Provide a description of the project land, locality and a detailed project description
- Outline the relevant planning regulatory framework relating to the proposed buildings and works
- Present a comprehensive planning assessment of the proposal.

This planning application report seeks approval for the following:

- For use and to construct a building and carry out works for a Utility Installation pursuant to Clause 33.01 *Industrial 1 Zone*.
- To construct a building or to construct or carry out works for a Utility Installation pursuant to Clause 44.04 *Land Subject to Inundation Overlay*
- Business identification signage in an Industrial 1 Zone (section 2) pursuant to Clause 52.05 *Signs*
- Alteration of access to a Road Zone, Category 1 (Monash Way) pursuant to Clause 52.29 *Land Adjacent to a Road zone, Category 1, or a Public Acquisition Overlay for a Category 1 Road*.

This planning permit application is supported by the following attached documentation:

- Planning Permit Application form, covering letter and prescribed fee
- Certificate of Title and Plan of Subdivision (Appendix A)
- Indicative Site Layout Plan and typical elevation plans showing proposed development (Appendix B).

2 Project Area and Locality

2.1 The Site

The Project is located in Morwell, approximately 150 km east of Melbourne and 3 km south of Morwell, in the Latrobe Valley area of Gippsland (refer to Figure 2-1). The Project Area includes the existing Morwell Terminal Station (MWTS) at 240 Monash Way, 300 Monash Way and an unnumbered address on Monash Way, known as Lot 1 and Lot 2 PS 725239V respectively. Lot 1 PS 725239V has an area of 9.23 ha and Lot 2 is 26.5 ha. A full copy of the Certificates of Title accompanies this planning permit application in Appendix A.

The local government authority is Latrobe City Council.

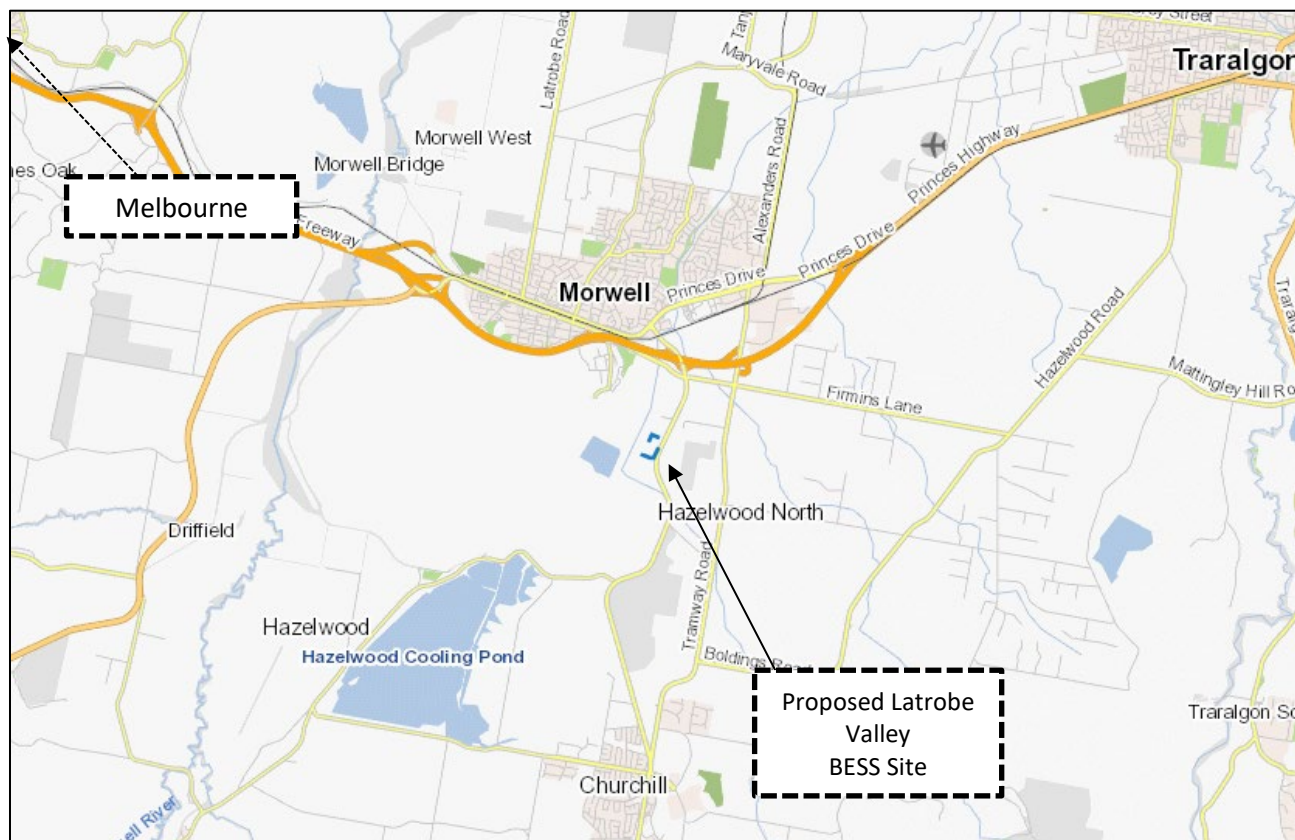


Figure 2-1: Project's Regional Context

The MWTS is owned by AusNet and the remainder of the Project Area is privately owned. The Title numbers, Crown Land and Property Standard Parcel Identifiers (SPI) and Property Numbers for each parcel are below in Table 2-1.

Table 2-2-1: Title, Standard Parcel Identifier and Property Number

Standard Parcel Identifier (SPI) and Property No.	AusNet Property	Private Landholder 1	Private Landholder 2
Title No.	N/A	Volume: 11845 Folio: 557	Volume: 11845 Folio: 557
Crown Land SPI	6N~A\PP2749	N/A	N/A
Property SPI	N/A	2\PS725239	1/ PS725239
Property Number	44048	51005	21385



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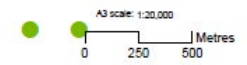
Legend
 Project Area
 — Road

Data Source: VicMap (2020); Aurecon (2020)
 Source: Esri, In-cubed, USDA, USGS, AEX, GeoEye, Geomapping, AeroGRID, IGN, IGP, and the GIS User Community

Date: 18/03/2021 Version: 1

Latrobe Valley BESS project

Project Area



Job No: 509891
 Coordinate System: GDA 1994 MGA Zone 55

Figure 2-2: Project Area

There are multiple encumbering easements across the site as shown in the Certificate of Title in Appendix A. The Project Area includes the following encumbered easements and beneficiaries (as identified on Certificate of Title):

- Transmission lines: AusNet
- Drainage: AusNet
- Water supply: Latrobe Regional Water Authority
- Water and gas supply
- Pipeline and ancillary easements: Central Gippsland Region Water Corporation.

The Indicative Site Layout Plan has been informed through consideration of these encumbrances. No easements on title are proposed to be altered and therefore no planning approval is sought.

2.2 Existing Conditions

The Project Area is predominantly vacant. It sits within the Industrial 1 Zone (IN1Z) (as outlined in the Latrobe Planning Scheme (the Planning Scheme)) and is surrounded by other industrial services including green waste services, agriculture specialists and logistics services. The BESS Facility will be located in the western portion of the Project Area, with connection required into the existing MWTS.

Access to the site is via Monash Way, which provides a connection between Morwell in the north and townships to the south such as Churchill and Boolarra. It further provides connections to the Jeeralang Power Station, and the now decommissioned Energy Brix (Morwell) and Hazelwood power stations.

The surrounding area has been extensively modified for farming, which is evident from the dominance of introduced pasture grasses. There are several waterbodies located in the vicinity of the Project Area, including Bennett's Creek running adjacent to western border. Within the Project Area is a small farm dam, shallow drains and other low-lying areas that support sitting water.

Bennett's Creek is an area of Aboriginal cultural heritage sensitivity (CHS). There is one Victorian Heritage Register site (VHR) Morwell Power Station and Briquette Factory (H2377), situated immediately west and northwest of the Project Area. The Heritage Overlay (HO) associated with this heritage place (HO153) abuts the Project Area to the west.

Images of the Project Area are shown in Figure 2-3 to Figure 2-10 (all photographs by A. Carr, 29 July 2020).



Figure 2-3: Access track at southern extent of Project area - view north



Figure 2-4: Access track along fence line of MWTS - view north



Figure 2-5: Drainage channel extending from MWTS – view west



Figure 2-6: Bennett's Creek from Project area boundary – view north west



Figure 2-7: Dam in middle of Project area – view south



Figure 2-8: Stockpiling southwest extent of Project area – view west



Figure 2-9: Bennett's Creek – view north



Figure 2-10: Access track location northeast extent – view north

3 Project Justification

The Proponent intends to install a BESS in Morwell to help maintain reliable and affordable energy supply for Victoria. The intention is to combine the operation of the Latrobe Valley BESS with renewable energy generation to support Victoria's transition away from reliance on fossil fuels. Noting the Latrobe Valley's established history as an energy producing region, providing at its peak approximately 80 percent of Victoria's energy, the proposed Latrobe Valley BESS would continue this legacy while enabling and supporting the shift toward clean energy and climate change adaptation.

The Project supports the objectives of the following International and National policies.

3.1 Government Policy

3.1.1 Paris Climate Accord

Australia has a range of initiatives aimed at meeting its climate change targets, improving the environment and supporting an effective international response.

The Paris Agreement is a symbol of countries' commitment to a low-carbon, climate resilient future. On 10 November 2016, Australia ratified the Paris Agreement and the Doha Amendment to the Kyoto Protocol, reinforcing its commitment to action on climate change. The Commonwealth Government's climate change plan includes a target to reduce emissions by 26-28% below 2005 levels by 2030.

3.1.2 Victorian Renewable Energy Action Plan

The Renewable Energy Action Plan (REAP) sets out how Victoria will ensure a renewable, affordable and reliable energy supply, which uses large-scale renewable energy technology and ensures grid stability. The REAP specifically supports commercial investments in energy storage. Implementation of the REAP will support Victoria's pathway from a carbon-intensive to net zero emissions energy sector by 2050, with current renewable energy generation targets 40% by 2025.

The Action Plan focuses on the following key areas:

- Supporting sector growth
- Empowering communities and consumers
- Modernising our energy system.

The Victorian Government has since increased the Victorian Renewable Energy Target (VRET) to 50% by 2030. The increased target of 50% by 2030 has been legislated in the *Renewable Energy (Jobs and Investment) Act 2017* (Vic).

The Victorian Government established the Victorian Renewable Energy Auction Scheme in 2017 (VREAS) to support achievement of the VRET. The Victorian Government is currently conducting a market sounding process to examine options to meet the VRET target of 40 per cent of renewable energy generation in Victoria by 2025 (VRET II). VRET II will also support the renewable energy supply chain, deliver more affordable, reliable energy supply and create new jobs and investment. This market sounding process will assist in preparing a suitable framework for a second auction round. Importantly, the Victorian Government is exploring auction design options which include dispatchable technology, including large scale energy storage systems.

3.2 Battery Energy Storage Technology Overview

Batteries provide an opportunity to store energy generated from another source. An example of this is coupling batteries with renewable energy generation allowing energy to be stored during times of low demand and released at times of peak demand. Batteries most commonly use lithium to store the electricity until it is ready to be distributed to the network.

The Project is expected to have an indicative capacity of 203MW and will provide a range of valuable functions to the electricity market and network. The Project will provide Fast Frequency Response to the National Electricity Market (NEM) and be an energy reserve to augment power supplied in Victoria. The technology will allow for:

- Energy “time shifting” from times of high supply, e.g. during peak renewable production to periods of high demand
- Network support via a range of potential functions including Fast Frequency Response, Reactive Power Support and Voltage Stability.

In order to achieve International and State Government objectives the Latrobe Valley BESS is proposed for construction commencement in early 2022.

4 Project description

4.1 Design Overview

The Project will involve construction and operation of up to two separate BESS sites (Northern BESS and Southern BESS) simultaneously or as a phased Project with an indicative output of 203 MW / 812 MWh, optimising the energy storage capacity of the site.

The Indicative Site Layout Plan defines the Southern BESS site, Northern BESS site and proposed works within the MWTS (refer to Figure 4-2 and Appendix B). It is designed this way to provide development options in the future as outlined in Section 4.2.1 of this report and shows consideration of the site constraints. This planning permit application seeks approval for all elements described below.

4.1.1 Northern BESS Site

The Northern BESS site will include:

- Battery Pack Containers with a total of 105 MW output
- 30 X 3.5 MW inverters
- 15 X 33 kV transformers
- 1 x 66 kV transformer (Optional).*

4.1.2 Southern BESS Site

The Southern BESS site will include:

- Battery Pack Containers with a total of 98MW output
- 28 X 3.5 MW inverters
- 14 X 33 kV transformers
- 1 x 66 kV transformer (Optional).*

4.1.3 Morwell Terminal Station Site

The MWTS upgrade works includes:

- Installation of two 66kV transformers (Optional)*
- 33kV cable trench connecting into the BESS sites
- Temporary loading areas
- Road widening within the MWTS to allow delivery and installation of the 66k transformers
- New swale to connect into existing swale.

* Installation of the 66 kV transformers will be either within the BESS compounds or the MWTS and will be determined at a later stage.

4.1.4 BESS Ancillary Infrastructure

The ancillary infrastructure required to support the main three components are:

- Site offices and Operation and Maintenance buildings
- Car parking
- A new access track connecting the BESS sites to the PineGro Intersection at Monash Way

- Business Identification Signage.

The final siting and layout of the different elements of the proposal will be determined as part of a detailed design process post planning approval and once a preferred BESS supplier has been selected. Ongoing technological advancements in battery energy storage will mean future BESS systems will likely be more compact and efficient compared to those currently on the market. Accordingly, design assumptions used for this planning assessment and outlined below represent a 'worst case' scenario. The 'worst case' scenario for the Battery Pack Containers at each site will be the following dimensions:

- 1830 mm in width
- 21880 mm in length
- 2600 mm in height.

The figure below provides indicative illustrations of battery storage units, inverter and MV transformer station, while

Figure 4-2 shows the Indicative Site Layout Plan. The Indicative Site Layout Plan and typical elevation plans for the BESS infrastructure are included in Appendix B of this report



Figure 4-1: Example of battery storage units, inverter and transformer station



Figure 4-2: Indicative Site Layout Plan

4.2 Project Details

This section outlines further details of the Project subject to this planning approval application.

4.2.1 Project Construction

The Proponent anticipates the construction phase of the Project will be approximately 18 months. It is anticipated that the construction activities will occur in the following phases:

- Site mobilisation
- Site clearing, fencing and establishment of laydown area
- Construction of batteries, inverters and associated infrastructure
- Construction of transmission connection
- Testing and commissioning.

The phasing of construction has yet to be determined. However, the following phases are being considered:

- To construct both Northern and Southern BESS at the same time,
- To construct both Northern and Southern BESS, but as a phased Project (e.g. one now, one later), or
- Construct either the Northern or Southern BESS.

The environmental assessments have been undertaken against a 'worst-case' scenario, being construction of both the Northern and Southern BESS at the same time.

4.2.2 Project Operation

The Project's indicative output of 203 MW / 812 MWh, which will be comprised of 105 MW/ 420 MWh from the Northern BESS and 98 MW / 392 MWh output from the Southern BESS.

During operation, it is anticipated the following maintenance activities will occur:

- Inspecting battery systems
- Undertaking high voltage electrical maintenance.

For scheduled maintenance, these activities will be undertaken on a rolling maintenance program, likely requiring 1-2 personnel will be on site at any given time.

4.2.3 Site Access

For both construction and operation, site access is proposed from Monash Way (C456) via the internal access track. During construction, there may be up to 50 one-way truck movements per day in and out of the PineGro facility as well as up to 15 one-way truck movements per day to the Wood Pellet Shed (located to the west of the PineGro site). Monash Way is facilitated by VicRoads with arterial road access to the M1 freeway, providing access to nearby major Victorian ports for any imported equipment (Melbourne and Geelong).

The access from Monash Way will also require widening to accommodate the larger vehicles entering the Project Area. In addition, a new internal access track will be developed for construction and operation access to the site. It's anticipated a turning circle may be required to allow construction vehicles to exit the site. The requirement for a turning circle will be confirmed during the Project detailed design phase, once a preferred BESS supplier has been selected.

In accordance with Country Fire Association (CFA) requirements, a minimum of two access points for CFA vehicles to access the BESS Facility should be provisioned. However, due to the extent of flooding constraints of the Project Area, a second emergency access point is not feasible.

4.3 Design Progression

The site selection and design progression process has been robust to ensure an optimal location for a BESS was identified.

The assessments undertaken to support the proposed Project was prepared in two phases:

- Phase 1 identified the constraints and risks of the site and the Project to inform design, confirm the site location and identify further technical assessments required to support a Planning Permit Application
- Phase 2 aimed to conduct the necessary technical assessments to support the Planning Permit Application (the results of these are Appended to this document).

Phase 1 was key in shaping the Indicative Site Layout Plan. A number of desktop assessments and supporting field investigations were undertaken to identify potential opportunities and constraints (including environmental constraints) within the Project Area. The outcomes of which informed the current Project layout. The following key studies and findings shaped the design process to avoid or minimise environmental and amenity impacts:

- **Land Use compatibility:** remaining within the Industrial Zone was key to ensuring compatibility with current land uses and the intent of the Latrobe planning scheme objectives. From a design perspective, being within close proximity to the complimentary land use of the MWTS allowed for an efficient connection point, reducing the need for further connection cabling (either underground or overhead) and the associated amenity impacts. The MWTS also acts as visual screening from Monash Way.
- **Surface Water:** to better understand the risk of flooding on the site and other operational risks including access to the site, an independent flood study was identified early as being essential. The West Gippsland Catchment Management Authority (WGCMA) confirmed that existing flood studies were considered unreliable due to recent extensive settlement of the land as a consequence of dewatering of the aquifer by mining activities. The initial flood study undertaken in Phase 1 of this Project identified flood depths of 600 mm throughout the MWTS and north-eastern corner of the proposed BESS site. This was significantly higher than reported in previous flood studies and as such these areas have been avoided in the proposed BESS design and flood mitigation has been built into future detailed design. Phase 1 advice also ensured the Project avoid the Floodway Overlay and potential impacts related to Bennetts Creek.
- **Native vegetation:** early on, the important flora identified as having a potential presence in the Project Area was the EPBC Act listed Strzelecki Gum (*Eucalyptus strzeleckii*), Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*) Grassy Woodland and Associated Native Grassland. Avoiding these key ecological features informed design from an early stage and as such the Project will avoid any potential impacts.
- **Site Access:** the Monash Freeway was assessed to provide a safe and convenient access point for the scale and nature of this type of Project. This was important in supporting a safe environment within the construction and operational phases for workers and community.

5 Planning Context and Controls

There are relevant provisions in the Planning Scheme that need to be considered in the assessment of the Project. To determine if the Project supports the planning scheme provisions, a number of environmental assessments have been undertaken. These include:

- Appendix C – Detailed Ecology Assessment (Aurecon, 2021)
- Appendix D - Traffic Impact Assessment (Aurecon, 2021)
- Appendix E – Noise Impact Assessment (Aurecon, 2021)
- Appendix F – Hydrology and Flood Risk Assessment (Aurecon, 2021)
- Appendix G – Environmental Management Framework (Aurecon, 2021)
- Appendix H – Landscape and Visual impact Assessment (Aurecon, 2021)

5.1 Land Use Definitions and Requirements

The Project is defined as a Utility Installation pursuant to Clause 73.03 (Land Use Terms) of the Planning Scheme. The definition of a Utility Installation includes “*transmission, distribution and storage of power*”.

Ancillary components of the Project, including the underground 66 kV transmission lines, transformers and invertors are defined as Minor Utility Installations pursuant to Clause 73.03 (Land Use Terms) as they are “*power lines designed to operate at less than 220,000 volts but excluding any power lines directly associated with an Energy generation facility or Geothermal energy extraction*” (the BESS will not generate electricity but is a storage facility).

Clause 62.01 – Uses not Requiring a Permit and Clause 62.02 – Building and Works of the Planning Scheme, require no planning approval for a Minor Utility Installation.

The Project includes new internal access tracks, connecting the BESS Facility to the PineGro Intersection at Monash Way and permanent site carparking. There will also be access upgrades within the MWTS as well as temporary loading bay for construction. Clause 62.01 – Uses not Requiring a Permit and Clause 62.02 – Building and Works of the Planning Scheme, requires no planning approval for a Road or Roadworks.

5.2 Zone Provisions

The Project Area is within the IN1Z pursuant to Clause 33.01 of the Planning Scheme (refer to Figure 5-1).

5.2.1 Industrial Zone

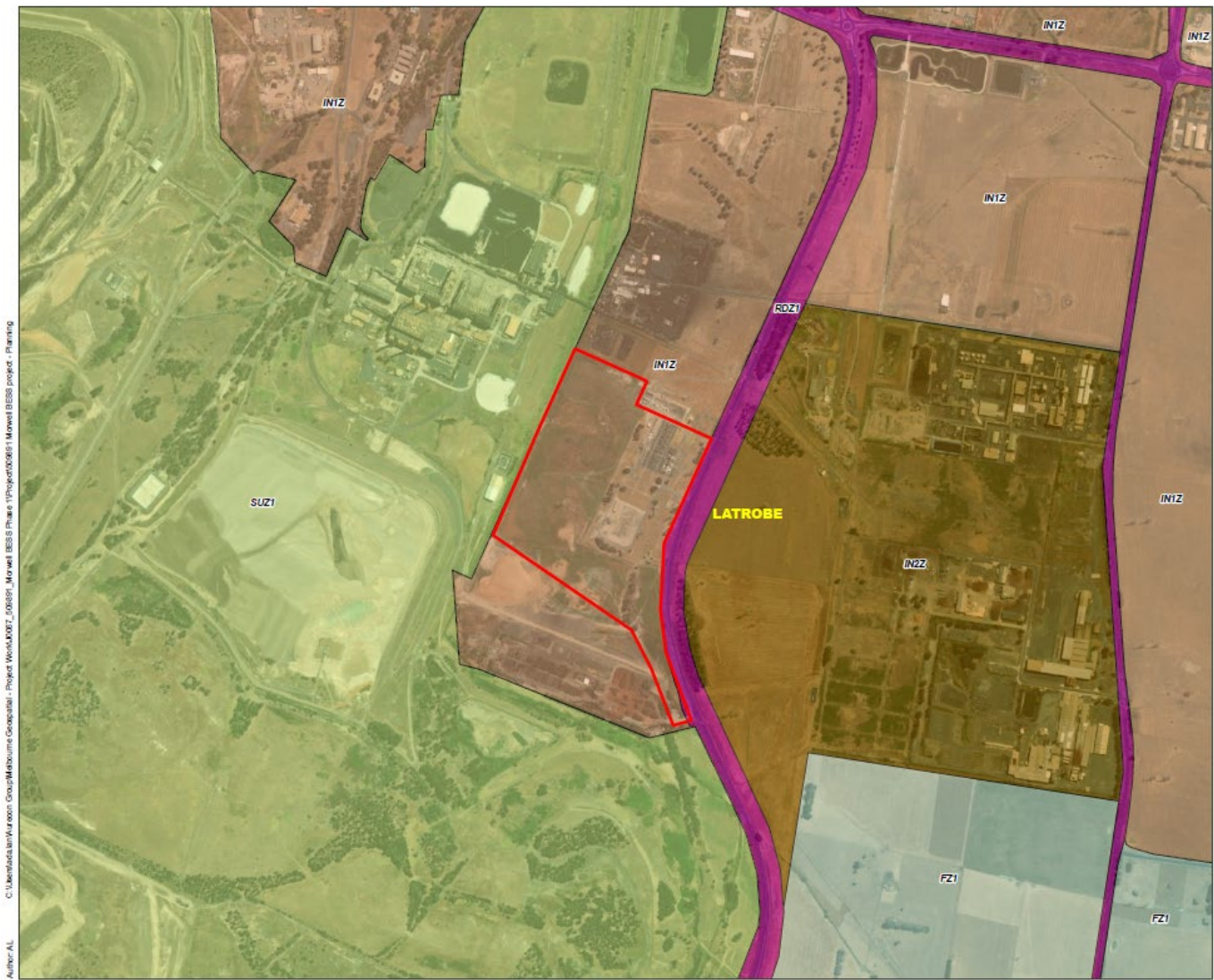
The relevant purpose of the IN1Z is:

- *To provide for manufacturing industry, the storage and distribution of goods and associated uses in a manner which does not affect the safety and amenity of local communities.*

Pursuant to Clause 33.01-1, planning approval is required for use of the land for a Utility Installation (Section 2 use), and for buildings and works pursuant to Clause 33.01-4.

Buildings and works are exempt from notice and review under section 52(1)(a), (b) and (d), the decision requirements of section 64(1), (2) and (3) and the review rights of section 82(1) of the *Planning and Environment Act 1987*; as the Project meets the condition regarding vicinity (must be over 30 m) to a residential zone or land used for a hospital or an education centre or land in a Public Acquisition Overlay.

Sign requirements are outlined in Section 5.5.2 however as this is an IN1Z, signage in this zone is a Category 2.



Legend

- Project Area
- Planning Zones**
- FZ - Farming Zone
- IN1Z - Industrial 1 Zone
- IN2Z - Industrial 2 Zone
- RDZ1 - Road Zone Category 1
- SUZ - Special Use Zone

Data Source: VicMap (2020); Aurecon (2020)
 Source: Esri, DeLorme, USDA, USGS, AEX, GeoEye, Geotrap, AeroGRID, IGN, IGP, and the GIS User Community.
 Date: 15/03/2021 Version: 1

Latrobe Valley BESS project

Land Use Zones

A3 scale: 1:10,000 Job No: 509891
 0 250 500 Metres Coordinate System: GDA 1994 MGA Zone 55

Figure 5-1: Zoning Plan – BESS Project Land and Zones

Before deciding on an application for a Use, in addition to the decision guidelines pursuant to Clause 65, the responsible authority must consider the decision guidelines of the INZ1, as appropriate:

- *The effect that the use may have on nearby existing or proposed residential areas or other uses which are sensitive to industrial off-site effects, having regard to any comments or directions of the referral authorities.*
- *The effect that nearby industries may have on the proposed use.*
- *The drainage of the land.*
- *The availability of and connection to services.*
- *The effect of traffic to be generated on roads.*
- *The interim use of those parts of the land not required for the proposed use.*

Before deciding on an application to construct a building or construct or carry out works, the responsible authority must consider the decision guidelines of the INZ1, as appropriate:

- *Any natural or cultural values on or near the land.*
- *Streetscape character.*
- *Built form.*
- *Landscape treatment.*
- *Interface with non-industrial areas.*
- *Parking and site access.*
- *Loading and service areas.*
- *Outdoor storage.*
- *Lighting.*
- *Stormwater discharge.*

Assessment against the decision guidelines of the INZ1

The Project is consistent with the decision guidelines of the INZ1 following the below considerations:

- The Project is approximately 2 km south of the closest residential development or other sensitive receptors. Therefore, the Project is likely to have a negligible impact on the amenity of these areas.
- The Project is unlikely to be impacted by the nearby industries, including any nearby energy generation facilities and agricultural land uses. The BESS Facility will not impact any nearby industries or agricultural land uses. The Project is compatible with the surrounding industrial land uses and supports the ongoing use of the site for associated energy uses. The Project will store electricity from the existing grid and redirect it as required. This will assist in meeting electricity demand at peak time, reduce frequency of blackouts and act as a contingency source of power during temporary loss of supply.
- Based on the Phase 2 flood risk assessment (contained in Appendix G), the Project Area is prone to minor local flooding, particularly along the northern boundary of the site. The outcome of the assessment suggests that changes in flooding behaviour occur mainly within the site. In order to mitigate this afflux, it is proposed to introduce a flood storage area within the site to offset the displaced storage volume as a result of earthwork filling. Refer to Appendix G Hydrology and Flood Risk Assessment.
- It is considered there are adequate services available to support the construction and operation of the Project. Further, a connection enquiry response was received from AEMO approving the Project's proposed connection.
- Construction phase vehicle movements are expected to have a net zero impact to operation service levels along Monash Way. The operation and maintenance vehicle movements could not be expected to

notably impact the capacity or safety of these roads (and the surrounding road network). Refer to Appendix D Traffic Impact Assessment.

- The Project Area has long been used for agricultural purposes and as such does not support any areas of significant natural values.
- The Ecology Assessment (Aurecon, 2021) found that no threatened flora or ecological communities and that no threatened fauna species are likely to occur in the Project Area. Refer to Appendix C Ecology Assessment.
- A Cultural Heritage Desktop Assessment was undertaken to determine if a Mandatory Cultural Heritage Management Plan (CHMP) was required. The Assessment found that because the Project Area is within an area of CHS (being within 200 m of Bennett's Creek), a Mandatory CHMP would be required. The CHMP is currently being prepared.
- An indicative number of permanent onsite parking spaces have been proposed that is considered sufficient to cater for the number of site personal required during the operation phase of the Project (1-2 personnel). The final number of permanent car-parking spaces will be confirmed during the Project's detailed design. Further detail can be found in Appendix D Traffic Impact Assessment.
- Landscape treatment will be limited around the BESS facility due to the significant distance of the Project from any sensitive receptors. Given the existing site condition and land use, the need for visual buffers is not required.

5.3 Overlay Provisions

The Project Area is within the Land Subject to Inundation Overlay (LSIO) pursuant to Clause 44.04 and the Floodway Overlay (FO) pursuant to Clause 44.03 of the Planning Scheme (refer to Figure 5-2)

5.3.1 Land Subject to Inundation Overlay

The relevant purposes of the LSIO are:

- *To identify land in a flood storage or flood fringe area affected by the 1 in 100 year flood or any other area determined by the floodplain management authority.*
- *To ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity.*
- *To protect water quality in accordance with the provisions of relevant State Environment Protection Policies, particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria).*
- *To ensure that development maintains or improves river and wetland health, waterway protection and flood plain health.*

Pursuant to Clause 44.04, planning approval is required to construct a building or to construct or carry out works for a Utility Installation.

Whilst the Project Area includes the LSIO, only the edge of the Northern BESS and Northern BESS laydown area and access track intercept the LSIO. The existing conditions, proposed conditions and flooding impact were all modelled and examined to identify and mitigate any impacts within the LSIO. Based on this flood risk assessment, the Project Area is prone to minor local flooding, particularly along the northern boundary of the site. The location of the BESS infrastructure, carparks, and accessway are proposed to sit almost entirely outside of the 1% AEP event flood extent. Further information is in Section 6.1.7 and to Appendix G Hydrology and Flood Risk Assessment.

The Project is exempt from notice and review under section 52(1)(a), (b) and (d), the decision requirements of section 64(1), (2) and (3) and the review rights of section 82(1) of the *Planning and Environment Act 1987*.



Legend

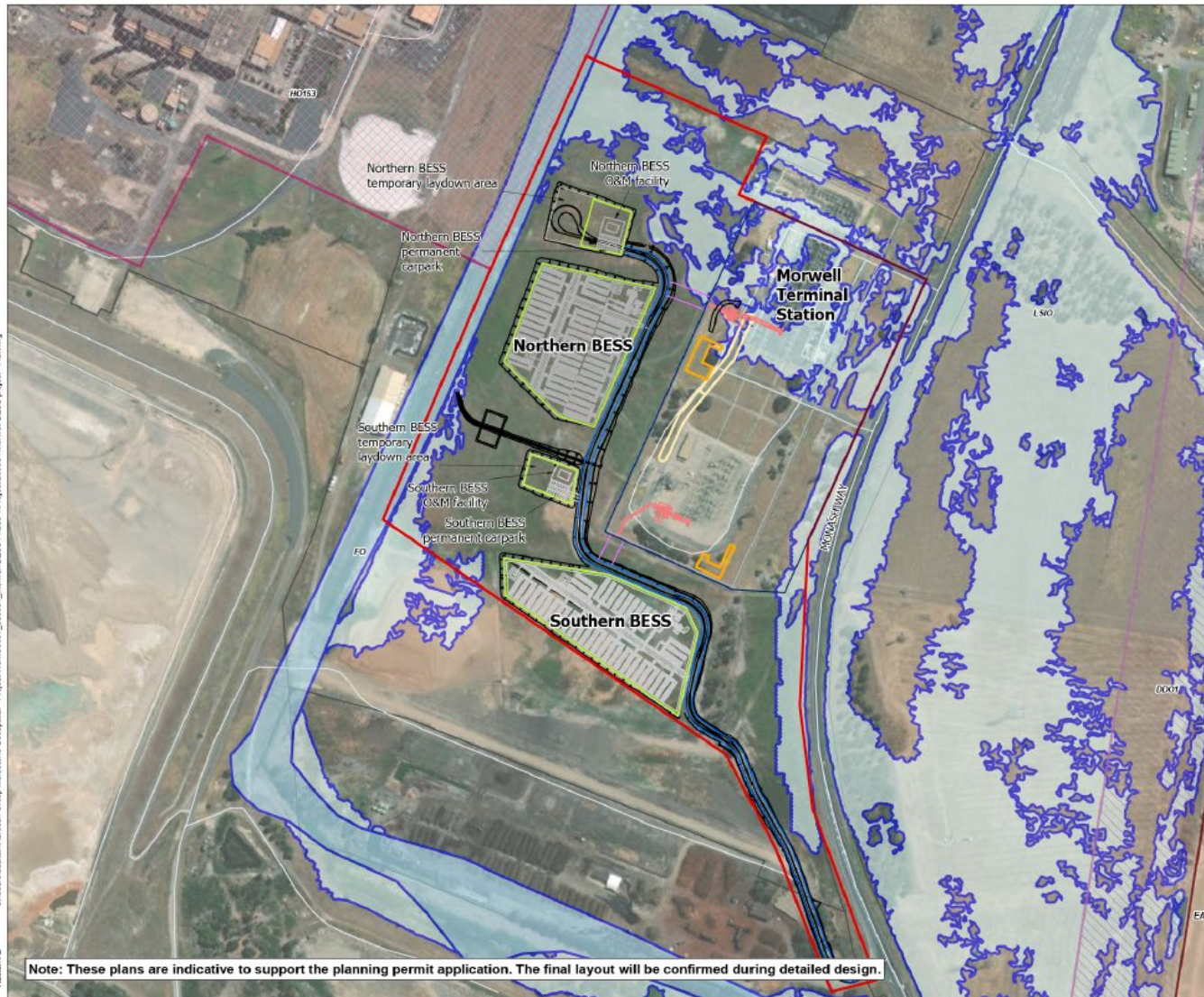
- Activity Area
- Optional transformer locations within MWTS
- Proposed access track
- Optional road upgrade within MWTS
- Optional temporary loading area
- Existing fencing
- Proposed fencing
- Civil Works
- Underground Cable Corridor
- Road
- Cadastre
- EAO - ENVIRONMENTAL AUDIT
- DDO - DESIGN AND DEVELOPMENT
- HO - HERITAGE
- FO - FLOODWAY
- LSIO - LAND SUBJECT TO INUNDATION

Data Source: VicMap (2021); Aurecon (2021)
 Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Geomatics, Aerogrid, IGN, IGP, and the GIS User Community

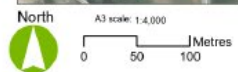
Date: 13/05/2021 Version: 1

Latrobe Valley BESS project

Indicative Site Layout with Overlays



Note: These plans are indicative to support the planning permit application. The final layout will be confirmed during detailed design.



Job No: 509891
 Coordinate System: GDA 1994 MGA Zone 55

Figure 5-2: BESS Project Land and Overlays

Before deciding on an application to construct a building or construct or carry out works, the responsible authority must consider the decision guidelines of the LSIO, as appropriate:

- *Any local floodplain development plan.*
- *Any comments from the relevant floodplain management authority.*
- *The existing use and development of the land.*
- *Whether the proposed use or development could be located on flood-free land or land with a lesser flood hazard outside this overlay.*
- *The susceptibility of the development to flooding and flood damage.*
- *The potential flood risk to life, health and safety associated with the development.*
- *Flood risk factors to consider include:*
 - *The frequency, duration, extent, depth and velocity of flooding of the site and accessway*
 - *The flood warning time available.*
 - *The danger to the occupants of the development, other floodplain residents and emergency personnel if the site or accessway is flooded.*
- *The effect of the development on redirecting or obstructing floodwater, stormwater or drainage water and the effect of the development on reducing flood storage and increasing flood levels and flow velocities.*
- *The effect of the development on river health values including wetlands, natural habitat, stream stability, erosion, environmental flows, water quality and sites of scientific significance.*
- *Any other matters specified in a schedule to this overlay.*

Assessment against LSIO decision guidelines

The Project is consistent with the decision guidelines of the LSIO as follows:

- Flood prone and flood free areas were calculated throughout the site to inform the optimal Site Layout. Based on this, the proposed development has avoided the vast majority of the flood prone area. However, a small area on the south-western corner exhibits an increased flood level of up to 55 mm. In order to mitigate this afflux, the final design will include a flood storage area within the site to offset the displaced storage volume as a result of earthwork filling.
- As outlined in the Hydrology and Flood Risk Report (refer to Appendix G), the Project is deemed developable, subject to the finished floor levels and impacts on adjacent properties (in accordance with the Flood Guidelines (West Gippsland Catchment Management Authority, 2020)). To mitigate impacts on adjacent properties, additional flood storage will be included in the final design.
- As the Project is likely to form an obstruction to the existing flow path, the Project includes a roadside drain and a twin culverts to redirect the flow around the Northern BESS. The design aims to protect BESS Facility from inundation whilst maintaining the upstream and downstream volume and velocity of flow.
- Areas of aquatic habitat in the Project Area include a farm dam, narrow to broad drainage lines and low-lying areas that supported sitting water. The proposed drainage of storm water will run-off into the western farm dam. Aquatic habitats in the Project Area initially were considered to support potential habitat for two Commonwealth listed fauna species, Growling Grass Frog and Dwarf Galaxias. As such, detailed habitat assessment and targeted surveys were undertaken however neither species was recorded during the targeted surveys. Therefore, the Ecology Assessment concluded that these species are unlikely to be significantly impacted by the Project and have a low likelihood of occurrence in the Project Area.

5.3.2 Floodway Overlay

The relevant purposes of the FO are:

- *To identify waterways, major floodpaths, drainage depressions and high hazard areas which have the greatest risk and frequency of being affected by flooding.*
- *To ensure that any development maintains the free passage and temporary storage of floodwater, minimises flood damage and is compatible with flood hazard, local drainage conditions and the minimisation of soil erosion, sedimentation and silting.*
- *To protect water quality and waterways as natural resources in accordance with the provisions of relevant State Environment Protection Policies, and particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria).*
- *To ensure that development maintains or improves river and wetland health, waterway protection and flood plain health.*

Pursuant to Clause 44.03, planning approval is required to construct a building or to construct or carry out works for a Utility Installation. Whilst the Project Area includes the FO, the Indicative Site Layout Plan will avoid the FO.

The existing conditions, proposed conditions and flooding impact were all modelled and examined to identify and mitigate any impacts of works adjacent to the FO. Refer to Appendix G Hydrology and Flood Risk Assessment.

The Project is exempt from notice and review under section 52(1)(a), (b) and (d), the decision requirements of section 64(1), (2) and (3) and the review rights of section 82(1) of the *Planning and Environment Act 1987*.

Before deciding on an application to construct a building or construct or carry out works, the responsible authority must consider the decision guidelines of the FO, as appropriate:

- *The local floodplain development plan or flood risk report.*
- *Any comments of the relevant floodplain management authority.*
- *The Victorian River Health Strategy (2002) and any relevant regional river health strategy and associated wetland plan.*

Assessment against FO decision guidelines

The Project is consistent with the decision guidelines of the FO. The decision considerations are similar to those of the provision of the LSIO therefore, beyond the considerations aforementioned, the health of local waterways was assessed as part of the Ecology Assessment (refer to Appendix C). The Assessment found the waterways that may support aquatic species were of low or low to moderate quality and measures to avoid or mitigate impacts on local water quality and water health will be described in an EMF (refer to Appendix F).

5.4 Particular Provisions

The following particular provisions also apply to the site.

5.4.1 Clause 52.02 - Easements, Restrictions and Reserves

Clause 52.02 applies to a development that proposes create, vary or remove an easement or restriction, or acquire an easement or remove a right of way

The purpose of this clause is:

- *To enable the removal and variation of an easement or restrictions to enable a use or development that complies with the planning scheme after the interests of affected people are considered.*

The Project Area includes the following encumbered easement and beneficiaries:

- Transmission lines: AusNet
- Drainage: Powernet Australia
- Water supply: Latrobe Regional Water Authority
- Water and gas supply
- Pipeline and ancillary easements: Central Gippsland Region Water Corporation

Refer to Appendix A for the location of easements.

Assessment against Easements, Restrictions and Reserves decision guidelines

There are no encumbrances, restrictions or caveats registered on the Certificates of Title that would impact on the current footprint options of the BESS (refer to Appendix A Certificate of Title).

Pursuant to Clause 52.02, planning approval is not required as the Project will not alter an easement within the Project Area.

5.4.2 Clause 52.05 Signs

Clause 52.05 aims to regulate the development of signs and associated structures.

The purpose of this Clause is to:

- *Ensure signs are compatible with the amenity and visual appearance of an area, including the existing or desired future character.*
- *Ensure that signs do not cause loss of amenity or adversely affect the natural or built environment or the safety, appearance or efficiency of a road.*

Business identification signage will be required on site.

Assessment against signs decision guidelines

Under Category 2, one directional sign is permitted on the premises without a permit.

All other signs require planning approval, except those signs specified in Clause 52.05-10. Clause 52.05-10 exempts the following signs from approval that may be applicable to this Project:

- *Sign controlling traffic on a public road*
- *Sign required by statute or regulation, provided it is strictly in accordance with the requirement.*

All business identification signage will be designed in a way that is consistent and compatible with the setting and does not compromise or obstruct any views (from a safety perspective).

5.4.3 Clause 52.06 - Car Parking

Clause 52.06 applies to a new use, an increase in the floor area or site area of an existing use or an increase to an existing use by the measures specified in the clause.

The relevant purposes of Clause 52.06 are:

- *To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.*
- *To ensure that car parking does not adversely affect the amenity of the locality.*
- *To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.*

Assessment against Car Parking decision guidelines

Pursuant to Clause 52.06, the provision for car parking is required prior to the commencement of a new use. Although the number of car parking spaces required for the Proposal is not specified under this clause, a sufficient amount of car parking must be provided to the satisfaction of the Responsible Authority under Clause 52.06-6.

A Traffic Impact Assessment (TIA) (refer to Appendix D) was conducted by Aurecon (March 2021) that assessed permanent parking requirements of the Project.

An indicative number of permanent onsite parking (32 car parking spaces total) has been proposed as part of the Project and is sufficient to cater for the number of site personal required during the operation phase of the Project (1-2 personnel). The final number of permanent car-parking spaces will be confirmed during detailed design.

5.4.4 Clause 52.17 - Native Vegetation

Clause 52.17 seeks to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. This is achieved by applying the *Guidelines for the removal, destruction or lopping of native vegetation* (Department of Environment, Land, Water and Planning, 2017).

Planning approval is required to remove, destroy or lop any native vegetation, including dead vegetation.

Assessment against Native Vegetation decision guidelines

An Ecology Assessment was undertaken by Aurecon (February 2021) and identified seven patches of native vegetation and one scattered tree. This included:

- Five patches of native vegetation (Habitat Zones 1 to 5) that were associated with aquatic habitats
- One linear patch of derived grassland near the western boundary (Habitat Zone 6)
- One small patch of treed vegetation comprised of Swamp Gum and Blackwood, located near the entrance to the site (Habitat Zone 7)
- One large scattered Gippsland Red-gum, assumed to be remnant, within the MWTS

The Indicative Site Layout Plan has been developed to avoid impacts to patches of native vegetation. Therefore, all native vegetation within the Project Area can be retained.

AusNet have advised that the remnant scattered tree (Tree 1) in the southern end of the MWTS may require trimming to allow for the transportation of the 66 kV transformers. Even at worst case scenario, it has been assumed that minimal lopping will be required and limited to less than on third of this tree's foliage. Therefore, no approval is required for native vegetation impacts.

5.4.5 Clause 52.29 – Land Adjacent to a Road Zone, Category 1

Clause 52.29 ensures appropriate access to roads is maintained and the effect of the proposal does not negatively impact on the operation of the road nor on public safety.

A permit is required to create or alter access to a road in a Road Zone, Category 1.

Assessment against Land Adjacent to a Road Zone, Category 1 decision guidelines

The subject site is located on Monash Way, a 6.8 m sealed two-lane, two-way single carriageway which is classified as a Road Zone Category 1 under the Planning Scheme.

The TIA has determined that the existing intersection may not be able to facilitate the transportation of construction and operational vehicles. Once a preferred BESS supplier has been selected, this will be confirmed. In the event that larger vehicles accessing the Project Area require the access to Monash Way to be altered, this planning application seeks approval for alteration of a Road Zone, Category 1 (Monash Way) pursuant to Clause 52.29.

Refer to Appendix D Traffic Impact Assessment.

5.5 General Provisions

5.5.1 66.02 Use and Development Referrals

In accordance with Clause 66.02-4 Major electricity line or easement; to construct a building or construct or carry out works on land within 60 m of a major electricity transmission line (220 Kilovolts or more) or an electricity transmission easement; a referral is required to the relevant electricity transmission authority (AusNet Services) as a determining referral authority. The Project is within 60 m of the MWTS therefore, a referral will be required to AusNet Services.

In accordance with Clause 66.02-7 Industry, utility installation or warehouse, the following applications may be referred to The Victorian WorkCover Authority as a determining Authority. To use of land for an Industry, Utility Installation or Warehouse the fire protection quantity is exceeded under the Dangerous Goods (Storage and Handling) Regulations 2012. The Project is likely to exceed UN Class 9 for the use of Lithium Ion, therefore a referral will be required to the Victorian WorksCover Authority.

No other referrals will be required in accordance with Clause 66.02.

5.5.2 Clause 66.04 (Referral of Permit Applications under Local Provisions)

In accordance with the LSIO, the Project must be referred to the relevant floodplain management authority, which is West Gippsland Catchment Management Authority (WGCMA) in this instance.

The Minister for Planning may not refer if they are of the opinion that the Project satisfies the requirements or conditions previously agreed in writing between the responsible authority and the floodplain management authority.

The Proponent consulted with the WGCMA to ensure the validity of the data used in the Surface Water Impact Assessment (Refer to Appendix E Hydrology and Flood Risk Assessment). The WGCMA advised that the latest available flood study is the Waterhole Creek Flood Study (2007), however advised the study was unreliable due to extensive settlement of the land as a consequence of dewatering of the aquifer by mining activities. As a result, a detailed hydrological and hydraulic assessment was undertaken to better understand the flood behaviour and risk on the site and provide definitive outcomes to assist in the Project's development.

5.6 Planning Policy Framework (PPF)

The State's PPF contains the overarching state level policies that apply across Victoria. The following clauses are identified as being applicable to this proposal.

- Clause 13 Environmental Risks and Amenity
 - Clause 13.04-1S Contaminated and potentially contaminated land

To ensure that potentially contaminated land is suitable for its intended future use and development, and that contaminated land is used safely.
 - Clause 13.02-1S Bushfire planning – site is within a designated bushfire prone area

To strengthen the resilience of settlements and communities to bushfire through risk-based planning that priorities the protection of human life.
 - Clause 13.07-1S Land Use Compatibility

To protect community amenity, human health and safety while facilitating appropriate commercial, industrial, infrastructure or other uses with potential adverse off-site impacts.

- Clause 17 Economic Development

- Clause 17.01-1S Diversified economy

To strength and diversify the economy.

- Clause 17.01-2S Innovation and research

To create opportunities for innovation and the knowledge economy within existing and emerging industries, research and education.

- Clause 19 Infrastructure

- Clause 19.01-1S Energy Supply

To facilitate appropriate development of energy supply infrastructure.

- Clause 19.01-2S Renewable Energy

To promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met.

Assessment against the PPF

The abovementioned policies relate to the general state-wide provisions of the Planning Scheme and are relevant to the Project. It is considered the Project is aligned with the objectives and strategies set by the State.

The Project is consistent with the relevant provisions of the PPF on the following basis:

- An Environmental Audit was conducted in 2008 as a requirement of the EPA Clean-Up Notice (2002) since the Project area was considered part of the potential redevelopment of the former “Lurgi” Brown Coal Gasification Plant. The contamination risk appraisal concluded that some soils present on the site exceeded the human health-based screening criteria. These results indicated that the site is unsuitable for recreation / open space, sensitive uses, agriculture and parks or reserve use. However, the audit concluded that the risks associated with the identified contamination are minimal in the context of the industrial use of the site. The risks do not pose a limitation to use of the site for industrial purposes, which align with the proposed use.
- The Project does not increase the bushfire risk to nearby communities as it does not introduce building elements that are considered a bushfire hazard. Additionally, the vegetation, topographic and climatic conditions of the proposed site have been identified as being of low bushfire hazard. Further, a 10 m vegetation clearance buffer will be accommodated as part of the final and maintained during operation.
- The proposed design and infrastructure of the facility will comply with all relevant design standards provided in the CFA guidelines for renewable energy facilities (CFA 2019 and draft CFA 2021), Guidelines for Renewable Energy Installations – 2021 Update (draft version). This is relevant to the siting, operation and maintenance of battery installations and fuel / vegetation management at the site. The design of the facility will comply with all relevant standards to ensure the safety of those at site or in the event of an emergency the safety of emergency services.
- The Project is deemed compatible with adjoining and nearby land uses thus adverse impacts to surrounding community amenity, human health and safety are minimised. The Project Area is located at least 2 km from the nearest townships, including the residential areas of Hazelwood North, Morwell and Churchill. In addition, due to the disturbed nature of the vegetation within the Project area and long agricultural use of the site and surrounds, it was determined that no threatened flora or ecological communities or habitats will be significantly impacted as a result of this Project.
- The Project harnesses emerging and innovative economic opportunities related to renewable energy supply and infrastructure and improves economic diversity and sustainability outcomes in the region.
- The Project sees the creation of jobs during construction and operation and for the purpose of maintenance. This improves access to jobs in the region and in turn, positively contributing to the well-being of communities and the State overall.

5.7 Local Planning Policy Framework (LPPF)

The LPPF contains the Municipal Strategic Statement (MSS) and Local Planning Policies (LPP). It presents a strategic vision for the community and other stakeholders and identifies long term directions regarding land use and development in the municipality.

5.7.1 Municipal Strategic Statement and Local Planning Policy

The Latrobe MSS includes policy direction that reflects the diverse land uses and development intensity in the municipality. The policies are general in nature and rely on the application of the LPPF policies to achieve the broad strategic direction of the MSS.

The MSS outlines the strategic vision for land use, environment, housing, activity centres, transport and infrastructure and community facilities for Latrobe.

The objectives and strategies summarised below are relevant to the proposal.

- Clause 21.04 Environmental risks
 - Clause 21.04 encourages new energy opportunities in order to avoid and minimise environmental risks.
- Clause 21.07 Economic development
 - Clause 21.07 supports the creation of new and alternative energy related jobs and investments within the municipality. It seeks to make use of existing energy infrastructure and distribution networks.
- Clause 21.08 Transport and Infrastructure
 - Clause 21.08 supports the provision of infrastructure (including infrastructure associated with energy supply) that enhances sustainability of the community at locations that allow for the utilisation of existing infrastructure.

Assessment against the MSS

The Project will make use of the latest BESS technology to achieve the best outcomes in terms of safety, efficiency and reliability. It will lead the way to a low carbon emission future while providing the community with greater resilience in the face of climate change.

The Project will help stimulate the local economy by providing jobs during construction and operation.

5.8 Preliminary Discussions with Stakeholders

5.8.1 Department of Environment, Land, Water and Planning

A pre-application meeting was held with the Department of Environment, Land, Water and Planning (DELWP) on 27 November 2020. The purpose of the meeting was to introduce the Project and discuss the Proponent's approach to the planning permit application, accompanying environmental assessments and community engagement. No major issues were raised by DELWP during the meeting. DELWP were satisfied with the approach outlined.

5.8.2 Latrobe City Council

A pre-application meeting was held with Latrobe City Council (Council) on 9 November 2020 (prior to the gazetting of VC 192). The purpose of the meeting was to introduce the Project and discuss the Proponent's

approach to the planning permit application, accompanying environmental assessments and community engagement.

No major issues were raised by Council during the meeting. Council were satisfied with the approach outlined.

5.8.3 Gunaikurnai Land and Waters Aboriginal Corporation

A meeting was held with the Proponent and Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) on 29 September 2020. The meeting was an opportunity to introduce the Project to GLaWAC and discuss and agree upon an approach for the CHMP field investigations.

No issues were raised by the GLaWAC during this inception meeting. A CHMP is currently being prepared and ongoing engagement, as required by the CHMP process, will continue with the GLaWAC.

5.8.4 AusNet Services

Since Project inception, the Proponent has met regularly with AusNet Services to discuss the feasibility of the Project and necessary works within the MWTS to facilitate the Project. Further, the Proponent has worked closely with AusNet Services to understand the existing easements and transmission network over the Project Area that has informed the Project Layout. AusNet Services has further provided site specific information to allow the Proponent to investigate and determine an appropriate battery capacity for the Project.

5.8.5 Country Fire Association

A meeting was held with the Country Fire Association (CFA) on 25 February 2021. The purpose of the meeting was to introduce the Project generally and further discuss the requirements of the *CFA guidelines for renewable energy facilities (CFA 2019)* and *DRAFT CFA guidelines for renewable energy facilities (CFA 2021)* (Draft CFA Guidelines) as they apply to the Project.

It was confirmed with the CFA the Draft CFA Guidelines should be considered as part of this application which have been incorporated into the relevant environmental assessments.

It was identified that a second emergency access is preferred for BESS Projects. Whilst the option of a second access was investigated, due to the extent of flooding constraints of the Project Area, it was determined this would not be feasible.

Further, the Proponent proactively offered a site familiarisation visit for relevant members of the CFA once the BESS has been constructed.

5.8.6 Adjoining Landowners

The Proponent has consulted on the Project with adjoining landowners to the west and south of the Project Area.

6 Summary of Environmental Assessments

The Environmental Assessments have been based on a 'worst-case' scenario, being construction and operation of both the Northern and Southern BESS.

6.1 Ecological Considerations

An Ecological Assessment was undertaken in February 2021 to assess the biodiversity values in the Project Area, including an assessment of any potential impacts to native vegetation and/or significant flora, fauna and ecological communities. It included a desktop and site investigation, which determined that the Project Area was largely farmland, dominated by introduced pasture grass. Disturbance was also evident in the northern half of the property, where large slabs of concrete and green waste were observed immediately adjacent to a small dam.

Native vegetation was limited to seven patches of native vegetation and one scattered tree. The Project will avoid any native vegetation impacts in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation*.

Aquatic habitats were initially considered to support potential habitat for two Matters of National Significance (MNES) as identified in the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). They are the Growling Grass Frog and Dwarf Galaxias. However, after targeted surveys undertaken under optimal conditions for both species, neither species were recorded. Refer to Section 2.2 Field Assessment in the Ecological Assessment (Refer to Appendix C)

The Project will not result in the removal of more than 10 ha of native vegetation, or result in any of the relevant impacts to threatened species or critical habitat. Furthermore, the Project will not impact a Ramsar wetland or habitat supporting migratory species.

The Eastern Great Egret, listed as threatened under the *Flora and Fauna Guarantee Act 1988* (FFG Act), was considered to have a moderate likelihood of occurrence. However, after the site investigation, it was deemed unlikely to regularly utilise or be reliant on the aquatic habitats in the Project Area due to the extent of similar and higher quality habitats in the broader region. Therefore, the Eastern Great Egret is unlikely to be subject to adverse impacts by the Project.

Overall, given the disturbed nature of the vegetation and the long agricultural use within the Project Area, no threatened flora or ecological communities are likely to occur. Consequently, there are no implications for the Project under the EPBC Act, EE Act nor FFG Act.

Refer to Appendix C for the Ecology Assessment.

6.2 Aboriginal Cultural Heritage

An Aboriginal Cultural Heritage Desktop Assessment and site inspection was undertaken in September 2020 to determine the presence of areas of CHS, recommend measures to avoid impacts and determine legislative requirements. Consultation with the GLaWAC has been undertaken to inform the assessment process.

Although there are no Aboriginal places (as identified on the Victorian Aboriginal Heritage Register) within the Project Area, it does intersect with one area of CHS. Bennett's Creek and the land within 200 m of Bennett's Creek is within the Project area.

A mandatory CHMP is required and is currently being prepared for the Project Area. The preparation of the CHMP will include further consultation with the GLaWAC and will assist in the management of any Aboriginal cultural material identified within the Project Area during construction.

6.3 Historic Heritage

A Historic Heritage Desktop Assessment was undertaken in December 2020 to determine the presence of places or objects of Commonwealth, State or local significance, recommend measures to avoid impacts and determine legislative requirements.

A review of relevant historic heritage registers did not identify any historic heritage places or values within the Project area.

The closest Victorian Heritage Register listed heritage place is the Morwell Power Station and Briquette Factory (H2377) located immediately west and northwest of the Project Area. The associated HO (HO153) abuts the Project Area to the west. As this historic heritage place is outside the Project Area, it will not be impacted by the Project.

Furthermore, a site inspection confirmed no historic heritage places, values or areas of archaeological potential were likely within the Project Area or likely to be unearthed during Project construction.

Therefore, no historic heritage approvals are required under the *Heritage Act 2017* prior to the commencement of works.

6.4 Construction and Operation Traffic

A TIA was undertaken to assess the anticipated parking, traffic and transport implications of the Project. Section 4.2 summarises the construction, operation and maintenance requirements for the Project.

The existing Monash Way / PineGro Access Road is proposed to service the construction phase and operation and maintenance phase related traffic movements. A new access track is proposed to connect the PineGro Access Road to the Latrobe Valley BESS facility. As part of the TIA, a swept path assessment was undertaken. The assessment concluded that access requirements and potential alterations to Monash Way will need to be confirmed during detailed design. As such, this planning application seeks approval for the alteration of access to Monash Way, a road in a Road Zone (Category 1).

Should the Northern BESS and Southern BESS sites be constructed simultaneously, the construction phase anticipated peak traffic movements will slightly impact the operational service levels along Monash Way. The performance of the level of service on Monash Way was still considered very good in both directions during the peak construction period, even with consecutive construction phases.

The Project will consider the applicable Clauses of the *Road Management Act 2004* regarding access between a controlled access road and adjacent land. A Traffic Management Plan will be prepared to manage construction.

The traffic generated from operation and maintenance of the facility will be minimal as staff will only be required periodically. Against existing traffic movements on Monash Way, operational and maintenance phase associated with staff vehicle movements could not be expected to notably impact on the function or safety of the Monash Way. For operation, it is anticipated there will be two full time workers and approximately four light vehicle movements per day. This is expected to have negligible impact on the road network.

Refer to Appendix D for the TIA.

6.5 Noise

A Desktop Noise Impact Assessment was undertaken in March 2021.

The assessment determined the Recommended Maximum Noise Levels by identifying the source and receiving planning zones, which determine the “zone levels”. In this case, the source (i.e. the Project) is located in an *Industrial Zone 1* (IN1Z), and the receiver is located in a *Farming Zone* (FZ), and the distance between the two sites is approximately 900 m. However, the distance between the receiver and the nearest IN1Z boundary is 100 m.

As this site is expected to operate continuously over a 24-hour period, the Night Recommended Maximum Noise Levels is applicable, as compliance with the Night Recommended Maximum Noise Levels will ensure compliance with the day and evening periods.

Based on EPA Victoria's guidance for addressing cumulative noise from industry, the project noise goal is 33 dBL_{Aeq,30mins}. The Noise Assessment inputs, the predicted combined noise level at the nearest NSA is 32 dBL_{Aeq,30mins}. This complies with the noise target of 33 dBL_{Aeq,30mins}.

It should be noted that the Desktop Noise Impact Assessment is a preliminary assessment, the BESS layout or operational equipment may change due to design development which could affect noise emissions from the site.

Refer to Appendix E for the Noise Impact Assessment.

6.6 Fire Risk

The entire Project Area is designated as a Bushfire Prone Area (BPA). Clause 13.02-1S of the Latrobe Planning Scheme lists types of applications for which bushfire risk should be considered in a BPA. As the proposed development (the Battery Facility) is not listed in Clause 13.02, the application requirements of Clause 13.02 do not apply and have not been considered further in a formal sense under the planning scheme.

To ensure that sufficient consideration has been given to mitigate fire risks, relevant design standards provided in the *CFA guidelines for renewable energy facilities (CFA 2019 and CFA 2021 (Draft))* will be integrated in the proposed infrastructure. The CFA has been consulted with prior to the submission of this planning application.

The CFA guidelines have been considered as part of this application. The final Project design will be completed in accordance with the guidelines. During the design stage of the Proposal, the following guidelines were and continue to be implemented:

- Siting of Battery Installations: including accessibility to emergency services, ventilation and spill bunding.
- Operation and Maintenance of Battery Installations: including storage and handling of dangerous goods and safe operating conditions
- Fuel/Vegetation Management: provision of firebreaks
- A Fire Management Plan or Emergency Response Plan will be prepared to consider access for emergency services to the site. This will be prepared in consultation with the CFA.

Refer to Appendix F EMF.

6.7 Surface Water

A Hydrology and Flooding Risk Assessment was undertaken in February 2021 to predict the Project's impact on existing hydrology and flooding conditions.

Based on this flood risk assessment, it was identified that the Project Area is prone to minor local flooding, particularly along the northern boundary. The source of the flooding is Bennetts Creek, and it is generally shallow sheet flow with depths below 250mm in the 1% AEP design flood event. The location of the BESS Facility, carparks, and accessway are proposed to sit almost entirely outside of the 1% AEP event flood extent. The areas where these encroach on the flooding will not be hazardous in accordance with the WGCMA Flood Hazard Criteria.

The impact of the Indicative Project Layout was modelled. The modelling suggests that changes in flooding behaviour occur mainly within the site, however a small area on the south-western corner exhibits an increased flood level up to 55 mm. In order to mitigate this afflux, it is proposed to introduce a flood storage area within the site to offset the displaced storage volume as a result of earthwork filling. This requires further investigation to confirm earthworks volumes and effectiveness within the allocated space.

The requirement for an additional flood storage area will be reassessed during the Project's detailed design.

Refer to Appendix G for the Hydrology and Flood Risk Assessment.

6.8 Landscape and Visual Impact Assessment

A Landscape and Visual Impact Assessment was prepared to determine the potential visual impact of the Project.

The Project is expected to be most visible by motorists travelling along Monash Way, with the views of key components not in contrast to the MWTS in the foreground view. The assessment determined that the Project would result in very low impacts for all assessed viewpoints as there are no sensitive receivers in close proximity to the Project in addition to the Project being located in a setting that is highly modified.

Mitigation and management measures have been determined to reduce potential visual impacts as a result of the Project during construction and operation. Such measures include minimising disturbance to existing vegetation in and around the Project Area, planting low-level vegetation where possible to soften views, and using materials and colours on structures to blend into the existing environment where possible.

Refer to Appendix H for the Landscape and Visual Impact Assessment.

6.9 Agricultural Assessment

To assess whether the Project constitutes as strategically important agricultural land, an assessment has been undertaken against the relevant Provisions of the Latrobe Planning Scheme (the Planning Scheme) and the Strategic agriculture land development (SALAD) Report (Department of Jobs, Precincts and Regions, 2020).

The Project Area for which the Northern and Southern BESS is located is vacant industrial land, contained entirely within the Industrial Zone 1 (IN1Z).

The Project Area has limited agricultural capability, with the potential of grazing limited to a few livestock¹, and no potential for cropping due to unfertile soils and land size.

6.9.1 Clause 14.01-1S Protection of agricultural land

The objective of this provision is:

To protect the state's agricultural base by preserving productive farmland

Table 6-1 below provides an assessment of the Project against this provision, considering a proposal to use and develop agricultural land.

Table 6-1 Assessment against Clause 14.01-1S Protection of agricultural land

Strategy	Assessment
<i>In considering a proposal to use, subdivide or develop agricultural land, consider the:</i>	
<i>Desirability and impacts of removing the land from primary production, given its agricultural productivity.</i>	Given the low agricultural productivity of the agricultural land and the land having a low capacity for grazing and no capacity for cropping, it is considered that there will be negligible impacts from removing the land from primary production.
<i>Impacts on the continuation of primary production on adjacent land, with particular regard to land values and the viability of infrastructure for such production.</i>	The immediate surrounding land uses are all for the purposes of Industry, including the MWTS to the east, the PineGro facility to the south (zoned Industrial 1 Zone) and Hazelwood Mine west (zoned Special Use Zone 1 – for the purpose of Brown Coal).
<i>Compatibility between the proposed or likely development and the existing use of the surrounding land.</i>	The closest Farming Zone is located to the south-east of the Project Area, to the east of Monash Way.

¹ Discussions with the landowner has indicated that up to 12 cattle have been able to graze on this land at a time.

<i>The potential impacts of land use and development on the spread of plant and animal pests from areas of known infestation into agricultural areas.</i>	Development of the BESS is unlikely to increase the risk of the spread of plant and animal pests from areas of known infestation. Further, the immediate surrounding land uses are not considered agricultural land.
<i>Land capability.</i>	The land is considered capable of supporting a BESS development, in line with the purpose of the Industrial 1 Zone.

6.9.2 Clause 21.05-1 Natural Resource Management – Agriculture

The objective of this provision is:

To protect productive agricultural land from fragmentation and the establishment of nonagricultural use and development

Table 6-2 below provides an assessment of the Project against this provision.

Table 6-2 Assessment against Clause 21.05-1 Natural Resource Management – Agriculture

Strategy	Assessment
<i>Implement the recommendations of the Latrobe City Rural Land Use Strategy</i>	In accordance with the Rural Land Use Strategy, the Project Area has been identified as part of the 'Heavy Industry Precinct'. Further, the Project Area has not been identified as 'Productive Agricultural Land'.
<i>Support productive agricultural land use whilst ensuring the retention of significant vegetation of Local, State or National importance to biodiversity.</i>	As the Project Area has not been identified as 'Productive Agricultural Land', this is not relevant to the Project.
<i>Avoid subdivision or development of dwellings on land in the Farming Zone Schedule 1 - Commercial Agriculture, where the proposal does not support agriculture use.</i>	The Project Area is not within the Farming Zone Schedule 1 – Commercial Agriculture.
<i>Support niche and small scale farming, hobby farms, tourism and associated dwellings on land in the Farming Zone Schedule 2 - Mixed Farming, where existing land use and development patterns are compatible or improved land management or biodiversity outcomes can be demonstrated.</i>	The Project Area is not within the Farming Zone Schedule 2 – Mixed Farming.
<i>Promote the establishment of intensive agriculture and horticulture in suitable areas which could include identified locations, as per the Rural Framework Plan, subject to coal resource and buffer area policies.</i>	The Project Area does not constitute as a suitable area for intensive agriculture and horticulture.
<i>Avoid non-agricultural uses from locating or developing in a manner that will inhibit the expansion or operation of future farming, forestry or other primary production uses</i>	The Project Area is surrounded by industry. The Project will not inhibit any potential expansion of agricultural land use within other areas of the Latrobe Valley.
<i>Support land uses that complement and enhance the viability of agricultural activity, including value adding to agricultural activity either by on-farm processes, agricultural product processing or farm gate sales or related tourism.</i>	N/A
<i>Support complementary land uses, tourism and associated dwellings where non agricultural activities can adequately address bushfire risk.</i>	N/A

6.9.3 The SALAD Report

The SALAD Report was prepared in September 2020 by the Department of Jobs, Precincts and Regions. The SALAD report examines land use change drivers and their impact on agriculture in Victoria, and specifically identifies what constitutes as strategic agricultural land.

In accordance with the proposed decision framework of what constitutes strategic agricultural land, in consideration of Criterion 2a: Lot size – Capacity and Criterion 2b: Lot size – Productivity, the Project Area does not have the capacity to support large-scale agricultural uses, nor does it have the capacity to support high-value agricultural production.

For these reasons, it is considered the land may not warrant consideration for protection and constitute as strategic agricultural land.

7 Conclusion

The Latrobe Valley BESS will provide a key link for the region to progress towards the 'new era of energy' by utilising, further developing and diversifying the existing infrastructure in the Latrobe Valley. The Project supports the region's legacy of energy supply, whilst shifting the focus towards cleaner and more reliable energy for Victoria.

The Project provides a key opportunity for the redevelopment of the site utilising existing underutilised infrastructure, whilst providing access to energy with limited negative off-site impacts. The Proponent initially undertook a robust site selection assessment to identify an appropriate and compatible location. The Proponent has continued to refine the design to minimise impacts on key environmental considerations including ecology, Aboriginal heritage, hydrology and amenity. The Project meets the current requirements and policy direction of the Planning Scheme.

The Project directly responds to the need identified by the Victorian government (announced through the amendments to the *National Electricity (Victoria) Act 2005*) to provide reliable energy supply for South East Australia during high demand periods through the facilitation of network upgrades and connections.

In terms of economic development, the Project will generate economic contribution to the region, particularly in the current economic context. It will help the local workforce develop expertise as the energy transition from brown coal generation and ageing coal infrastructure to renewable energy progresses. The ongoing investment into the site supports economic diversification in the region and improves sustainability outcomes.

Overall, this application presents the relevant attributes that are outlined in the relevant State and local planning objectives. It appropriately addresses the strategic directives of the Latrobe Planning Scheme in terms of technology advances, diverse employment opportunities and climate change resilience, and therefore should be supported.

Appendix A – Certificate of Title

Appendix B – Indicative Site Layout Plan and Site Elevations

Appendix C – Ecology Assessment

Appendix D – Traffic Impact Assessment

Appendix E – Noise Impact Assessment

Appendix F – Environmental Management Framework

Appendix G – Hydrology and Flood Risk Assessment

Appendix H – Landscape and Visual Impact Assessment

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