



aurecon
*Bringing ideas
to life*

Latrobe Valley Battery Energy Storage System (BESS)

Environmental Management Framework

Tilt Renewables

30 March 2021
Rev 3

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

**ADVERTISED
PLAN**

Document control record

Document prepared by:

Aurecon Australasia Pty Ltd

ABN 54 005 139 873

Aurecon Centre
 Level 8, 850 Collins Street
 Docklands, Melbourne VIC 3008
 PO Box 23061
 Docklands VIC 8012
 Australia

T +61 3 9975 3000

F +61 3 9975 3444

E melbourne@aurecongroup.com

W aurecongroup.com

A person using Aurecon documents or data accepts the risk of:

- a) Using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version.
- b) Using the documents or data for any purpose not agreed to in writing by Aurecon.

Document control							aurecon
Report title		Environmental Management Framework					
Document code			Project number		509891		
File path		https://aurecongroup.sharepoint.com/sites/TiltRenewablesMorwellBESS/Shared%20Documents/General/Delivery/EMF/EMF%20Morwell%20BESS.docx?web=1					
Client		Tilt Renewables					
Client contact		Eliza Budd	Client reference		Phone: +61 434 903 635 eliza.budd@tiltrenewables.com		
Rev	Date	Revision details/status	Author	Reviewer	Verifier (if required)	Approver	
0	2021-03-02	Draft	R. Douglas			G. Thraves	
1	2021-03-22	Final Draft	R. Douglas			G. Thraves	
2	2021-03-30	Final	R. Douglas			G. Thraves	
3	2021-03-30	Final (minor changes)	R. Douglas			G. Thraves	
Current revision		3					

Approval			
Author signature		Approver signature	
Name	Robert Douglas	Name	Greta Thraves
Title	Senior Consultant, Environment and Planning	Title	Manager, Environment and Planning

Contents

1	Introduction	3
1.1	Context	3
1.2	Purpose	3
2	Project Overview	4
2.1	Background	4
2.2	Scope	4
2.2.1	Design and Construction	4
2.2.2	Operation	4
3	Roles and Responsibilities	5
4	Process for Developing Key Plans	5
4.1	Environmental Risk Assessment	5
4.2	Approval and Change Management	6
5	Evaluating Performance	6
5.1	Monitoring	6
5.2	Auditing	7
5.3	Reporting and Notification	7
6	Environment Management Requirements	8
6.1	Implementation	8
6.2	Requirements	9
6.2.1	Environmental Planning	9
6.2.2	Aboriginal Cultural Heritage	10
6.2.3	Bushfire and Fire Management	10
6.2.4	Contaminated Land & Spoil Management	11
6.2.5	Dangerous Goods and Hazardous Materials	11
6.2.6	Ecology	12
6.2.7	Landscape & Visual Assessment	12
6.2.8	Light Spill	13
6.2.9	Noise and Vibration	13
6.2.10	Surface Water	13
6.2.11	Social, Community & Business	14
6.2.12	Traffic & Transport	14

Glossary

TERM / ABBREVIATION	DESCRIPTION
BESS	Battery Energy Storage System
CFA	Country Fire Authority
CHMP	Cultural Heritage Management Plan
CSEMP	Community and Stakeholder Engagement Management Plan
DoAWE	Commonwealth Department of Agriculture, Water and the Environment
DELWP	Department of Environment, Land, Water and Planning
Delivery Contractor	The Delivery Contractor (including sub-contractors) to be appointed by the Project Owner to design and/ or construct the Project.
EMF	Environmental Management Framework
EMP	Environmental Management Plan (Construction or Operation)
EMR	Environmental Management Requirement
Environment	The physical factors of the surroundings of human beings including the land, waters, atmosphere, climate, sounds, odours, tastes and biological factors of animals and plants and the social factor of aesthetics. In the context of this EMF, "Environment" is used broadly to cover environmental, social and economic values.
EMR	Environmental Management Requirement
EPA	Environment Protection Authority
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
ERA	Environmental Risk Assessment
EMS	Environmental Management System
HV	Heritage Victoria
Management Measures	Management measures refer to those measures that are applied at the source of environmental risks to reduce potential environmental impacts.
Mitigation Measures	Mitigation measures refer to those measures that are implemented to minimise the impacts from the environmental risk that has been activated.
No Go Zones	'No-go zones' are exclusion areas for construction vehicles, machinery or equipment, lay down of materials or unauthorised personnel around sites of historic or Aboriginal cultural heritage value and areas of ecological significance, that are to be protected from potential construction impacts.
Operator	Operator of a facility is the company who has been contracted to operate or otherwise exercises control over or responsibility for the facility once commissioned.
Preparatory works	Preparatory buildings and works, include, but are not limited to: <ul style="list-style-type: none"> ■ Works, including vegetation removal, where a planning approval would not be required under the provisions of the planning schemes. ■ Investigating, testing and preparatory works to determine the suitability of land, and property condition surveys. ■ Creation and use of construction access points and working platforms. ■ Site establishment works including site fencing and hoarding, site offices, amenities, hardstand and laydown areas. ■ Construction, protection, modification, removal or relocation of utility services, overhead and associated infrastructure. ■ Establishment of environment and traffic controls, including designated 'No Go Zones' and 'Areas of Constraint' as identified in the approved EMF ■ Establishment of temporary car parking. ■ Bus stop relocation.

TERM / ABBREVIATION	DESCRIPTION
	<ul style="list-style-type: none"> ■ Demolition to the minimum extent necessary to enable preparatory buildings and works (except where specifically listed under a Heritage Overlay). ■ Removal of native vegetation to the minimum extent necessary to enable preparatory buildings and works. ■ Salvage of aboriginal cultural heritage material and other management actions required to be undertaken in compliance with the project specific cultural heritage management plans approved under the Aboriginal Heritage Act 2006 or other compliance with that Act, and to the satisfaction of the relevant Registered Aboriginal Party for the area. ■ Salvaging and relocating artefacts and other preparatory works required to be undertaken in accordance with any approved plan prepared for the project as pursuant to the Heritage Act 2017 and to the satisfaction of the Victorian Heritage Council. <p>Any native vegetation removed to enable preparatory works forms part of the total extent of native vegetation removal necessary for the construction of the project and native vegetation offsets must be provided in accordance with the Guidelines for the removal, destruction or lopping of native vegetation (Department of Environment, Land, Water and Planning, 2017) except as otherwise agreed by the Secretary to DELWP.</p>
The Project	Latrobe Valley BESS
The Proponent	Tilt Renewables Pty Ltd.
Sensitive receptor	A sensitive receptor can be a fixed location such as a house, building, other premises or open area, particular land uses, activities that increase the concentration of the emitted parameter above background levels.
VHI	Victorian Heritage Inventory
VHR	Victorian Heritage Register
Works	Includes any change to the natural or existing condition or topography of land including the removal, destruction or lopping of trees, ground disturbance and/or the removal of vegetation or disturbance of soil

1 Introduction

1.1 Context

This Environmental Management Framework (EMF) 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 Project). The EMF provides a framework with clear accountabilities for the design, construction and operational phases of the Project to manage key risks and set out environmental risk management requirements.

1.2 Purpose

The EMF provides a transparent and integrated approach to managing the environmental and heritage aspects of design, construction and operation of the Project. The EMF aligns with the Proponent's Environment Policy and the relevant environmental assessments undertaken to date. It outlines clear accountabilities for the delivery and monitoring of the Project's Environmental Management Requirements (EMRs). The EMRs are a suite of performance-based outcomes that apply to the design, construction and operation phase of the Project.

The key objectives of the EMF and EMRs are to:

- Increase certainty of early identification and incorporation of key environmental risks in project planning and throughout the design, construction and operational phases.
- Set out the expected fit-for-project management-based outcomes during pre-construction and construction and encourage innovation to achieve them.
- Ensure environmental effects and hazards are appropriately managed in a consistent manner across the Project and acceptable environmental outcomes are achieved.
- Minimise project construction and operational risks and identify key requirements that the Proponent needs to address within an Environmental Management Plan (EMP).

The EMRs are not intended to prescribe how environmental outcomes are to be achieved, but rather set out an approach for delivery of the works that is flexible and encourages innovation by the Proponent, in partnership with their Delivery Contractor and Operator once engaged, to develop strategies and use best practice methodologies and technologies to implement and achieve the EMRs.

The EMF (and EMRs) are not intended to be a comprehensive reference point for all statutory obligations that may be prescribed under any State or Commonwealth approval issued for the Project, but to instead highlight key aspects of the Project that may inform the development of the EMP and other management plans (as appropriate).

The preparation of these plans will ultimately be the responsibility of the Proponent as the Planning Permit holder; however the Proponent will work closely with the Delivery Contractor and Operator in the development of these plans as they will have responsibility over plan implementation. The EMP may be prepared as a single plan, or as two plans, which addresses requirements under the construction and operation of the Project.

2 Project Overview

2.1 Background

In February 2020, Victoria's State Government announced its support for priority projects such as grid-scale batteries and transmission upgrades through the fast tracking of regulatory approvals. The announcement included an amendment to the *National Electricity (Victoria) Act 2005* to facilitate critical network upgrades and infrastructure connections needed to ensure power reliability in Victoria, delivered through clean energy projects. Accordingly, the Proponent is seeking planning approval from the Minister for Planning to install a BESS that will support these outcomes by providing increased network stability and overall lower electricity prices for Victoria.

The Project is strongly aligned with Victoria's Renewable Energy Action Plan which encourages investment in the energy sector to ensure Victorians continue to benefit from a renewable, affordable, and reliable energy system into the future. The Latrobe Valley BESS is a key strategy development opportunity for the Proponent to provide suitable firming capability for a growing portfolio of renewable energy assets.

2.2 Scope

The Project is located in the Latrobe Valley in Victoria. The subject site is situated south of Morwell on vacant industrial land. 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.

2.2.1 Design and Construction

The construction program is anticipated to occur over an 18-month period.

Key scope items include:

- Installation of up to two 66 kV transformers (one per BESS Site), 33 kV transformers and 3.5 MW inverters.
- Construction of an Operations and Maintenance (O&M) Buildings (that includes storage and site office).
- Construction of access track connecting the BESS Sites to the intersection at Monash Way.
- Construction of permanent site carparking.
- Connection upgrade works within the MWTS and installation of up to two 66 kV transformers, connecting to the BESS Sites via an underground connection.

Key construction phases/ activities include:

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

2.2.2 Operation

The Project will utilise battery storage to absorb and release energy on demand. Batteries will be coupled with other energy generation allows that energy to be stored during times of low demand and released (or dispatched) at times of peak demand.

The operation lifecycle of the project is approximately 25 years.

3 Roles and Responsibilities

Fulfilling the responsibilities and accountabilities across all elements of the EMF involves the Proponent, their Delivery Contractor and Operator and Regulators.

The Proponent will work with the Delivery Contractor and Operator to include clear responsibilities associated with environmental management as part of their contractual requirements with the Proponent.

The key roles and responsibilities under this EMF are shown in Table 3-1.

Table 3-1: Roles and Responsibilities under the EMF

ROLE	RESPONSIBILITY
Minister for Planning	Responsible authority for making a decision on granting a Planning Permit. Responsible for endorsement and any amendments of the EMPs and other management plans that may be required as part of an issued Planning Permit.
Regulators and agencies	Administer and determine compliance, where appropriate, with relevant Project approvals. Grant relevant secondary consents or planning, heritage or environmental approvals. Act as referral authorities for the Planning Permit application.
The Proponent	Comply with its responsibilities under the EMF, and maintain compliance with the relevant EMRs. Obtain applicable authorisations, and work with the Delivery Contractor and Operator to obtain other secondary approvals, as required. The Proponent is responsible for implementation of the EMF, including preparation, review and implementation of key documentation (e.g., the EMP and associated management plans or procedures). Review the Delivery Contractor and Operator performance against the approved EMRs and associated corrective action as necessary.
Delivery Contractor	Comply with its responsibilities under any required EMP. If required by the Proponent, prepare an EMP and other plans in accordance with this EMF, planning permit (or any other relevant approval) conditions, as required. Provide resources to establish, implement, maintain and improve the EMP, and other plans. Maintain compliance with the relevant requirements of the EMP. Prior to commencement of works, ensure that all sub-contractors are familiar with the requirements of the EMP and review performance against EMP (as required)
Operator	Comply with its responsibilities under any required EMP. If required by the Proponent, prepare an EMP (in Partnership with the Proponent) and other plans as required by the contractual conditions (and Planning Permit conditions, if required). Provide resources to establish, implement, maintain and improve the EMP. Maintain compliance with the relevant EMRs.

4 Process for Developing Key Plans

4.1 Environmental Risk Assessment

To support the risk-based approach to environmental management, the Delivery Contractor must undertake and maintain an Environmental Risk Assessment (ERA) in accordance with ISO 31000: 2018 *Risk management – principles and guidelines*. The ERA must be a stand-alone assessment, separate to other risk assessments required of the Delivery Contractor.

The ERA must identify all site-specific risks (including environmental, social, heritage, traffic and business risks) associated with the planning, design, delivery and operation of the Project. Specific management and mitigation measures must be developed to reduce these risks, which are to be included in the EMP, required by the Planning Permit and Contract.

The ERA must be developed prior to construction (for delivery risks) and operation (for operational risks). The ERA is to be considered a 'live' document, adopting regular reviews and updating the register in response to changes to design and construction activities, work methods, new technology, legislation and policy, or the occurrence of incidents or complaints.

The ERA will:

- Provide a systematic process for identifying key environmental risks that may arise from the delivery of works/ operation of project and the EMRs that may apply to manage these risks.
- Identify environmental risks to inform the approach, scope and monitoring of applicable management plans or actions that may be required by the EMRs.
- Provide an opportunity to avoid environmental impacts by 'mitigation through design' during the planning and design of works.

4.2 Approval and Change Management

All plans recommended to be prepared under this EMF by the Proponent (in partnership with the Delivery Contractor and Operator) or required under an issued Planning Permit must be done so prior to the commencement of works.

Revisions to environmental management plans or procedures, programs and approvals may from time-to-time be required due to changes in activities and work practices, results of monitoring, changes to legislation, identification of environmental risks, or due to findings from internal or external audits, incidents, or complaints.

EMRs are intended to support legislative requirements.

5 Evaluating Performance

5.1 Monitoring

During the construction phase of the Project, all activities that have the potential to impact on the environment should be monitored. This is to be achieved through implementation of regular site inspections and the development and implementation of an environmental monitoring program.

The environmental monitoring program will be specified in the EMP. It will be consistent with the requirements set out in any relevant Planning Permit conditions and conditions of other relevant planning, environmental and heritage approvals.

The environmental monitoring program must identify all monitoring requirements to be implemented that assess potential impacts to the environment and effectiveness of mitigation measures. It shall detail the monitoring locations, parameters and frequency to reflect the regulatory requirements and any relevant guidance information.

The EMP must be reviewed regularly to verify that the monitoring undertaken is sufficient to:

- Identify any significant non-conformance with the EMRs or contractual requirements;
- Identify non-compliance with the relevant legislation and/ or regulations (including conditions on planning, environmental and heritage approvals); and,
- Respond to any proposed changes in construction methodology.

The EMP shall be updated to reflect any significant proposed changes to the monitoring program.

Baseline and monitoring data must be maintained to ensure the transparency and accountability of environmental management.

5.2 Auditing

The EMP must describe detailed processes for auditing. The scope of the audit program will include an evaluation of the following as a minimum:

- Compliance with the Project compliance requirements (as stipulated by the Planning Permit and any other conditions of approval).
- Compliance with the EMP, which facilitate implementation of the Proponent's Environmental Policy.
- Compliance with planning, environment and heritage approvals.
- Response to non-conformances, incidents, and complaints received.
- Effectiveness of the monitoring program.
- Effectiveness of corrective actions taken to address non-conformances and complaints.

Compliance will be assessed through observation of activities, interviews and review of records. Records relating to compliance which may be checked will include the following as a minimum:

- Review of reports and plans.
- Environmental monitoring results.
- Inspection and audit reports.
- Management review results.
- Soil and waste management records.
- Evidence of communications (e.g. meeting minutes).
- Competence records.
- Compliance evaluation results.

5.3 Reporting and Notification

The EMP must describe the reporting and external notification requirements, including what needs to be reported and to whom, and the timeframe for reporting.

Reporting and notification requirements will include, but not be limited to:

- Processes for management of environmental incidents, including notification, reporting and close-out of incidents to the Proponent, and/ or regulators (as required); and,
- Processes for management of non-conformances, including notification, reporting and close-out of Non-conformances to the Proponent, and/ or regulators (as required).

6 Environment Management Requirements

6.1 Implementation

The EMRs provide the foundation for effective environmental management during Project design, construction and operation. The purpose of the EMRs is to inform the preparation of EMPs prior to the commencement of works.

The EMRs are not intended to prescribe how environmental outcomes are to be achieved, but rather set out an approach for delivery of the works that is flexible and encourages innovation by the Proponent (in partnership with the Delivery Contractor and Operator) to develop strategies and use best practice methodologies and technologies to implement and achieve appropriate environmental management.

The EMRs, which have been informed by site specific investigations, provide guidance on the environmental risks to be considered and the minimum management standards to be achieved during design, construction and operation.

Demonstration of compliance with the relevant EMP and other management plans or procedures will be a key performance indicator for the Delivery Contractor and Operator. Compliance will be enforced by the Proponent through the contractual arrangements for design, construction and operation of the Project and monitored by way of inspections, reports and audits.

6.2 Requirements

6.2.1 Environmental Planning

Table 6-1: Environmental Planning EMRs

Objective: To provide a transparent framework with clear accountabilities for managing environmental effects, hazards and incidents associated with project design and construction in order to achieve acceptable environmental outcomes.			
EMR #	ENVIRONMENT MANAGEMENT REQUIREMENT	REFERENCE DOCUMENTS	TIMING
EP1	A management system must be prepared considering ISO14001:2015 <i>Environmental Management System</i> (or later revision).	ISO 14001: 2015 <i>Environmental Management System</i>	Design and Construction
EP2	<p>Prior to the commencement of works, an ERA must be undertaken in accordance with ISO 31000: 2018 <i>Risk management – principles and guidelines</i> (as amended or replaced) to identify key environmental, social, cultural heritage, traffic, agricultural and business risks associated with the design and construction of the works.</p> <p>All assessments must be prepared by a qualified professional with experience in the respective field.</p> <p>The results of the ERA are to inform the EMP (e.g., the approach to compliance with applicable EMRs) and other relevant regulatory requirements.</p>	ISO 31000: 2018 <i>Risk management – principles and guidelines</i>	Design, Construction and Operation
EP3	<p>Prior to the commencement of works, an EMP must be developed. The plans required by the Planning Permit or any other relevant approval conditions may be included as part of the EMP or standalone management plans.</p> <p>These plans must be prepared by a suitably qualified professional with appropriate level of experience. The plan(s) must be reviewed at intervals dependent on the ERA outcomes, where there are changes to the works scope or methodology and following significant events. Review procedures must be detailed in the plan(s).</p> <p>In preparing the EMP, relevant stakeholders/agencies should be consulted including (but not limited to) those required under any statutory approvals. The EMP must consider how interface risk at the surrounding receptors.</p> <p>The EMP and other plans must be informed by an ERA carried out under EP3 and prepared in accordance with all applicable regulations and other enforceable policies and guidelines; and in accordance with EPA Publication 1834: Civil Construction, Building and Demolition Guide.</p>	EPA Publication 1834: <i>Civil Construction, Building and Demolition Guide</i> .	Design, Construction and Operation
EP4	<p>Undertake site inductions and other site-specific environmental management training for all persons (excluding escorted visitors) entering the designated project area.</p> <p>The induction / training will clearly specify the requirements of:</p> <ul style="list-style-type: none"> ■ EMP and associated management plans/ processes ■ Cultural Heritage Management Plan (CHMP) conditions ■ the extent of the works footprint ■ no-go zones ■ environmental management requirements <p>When required, factsheets for the identification of sensitive flora and fauna and their potential habitat are to be prepared for distribution to those involved in the project.</p>	N/a	Construction

6.2.2 Aboriginal Cultural Heritage

Table 6-2: Aboriginal Cultural Heritage EMRs

Objective: To avoid adverse effects to Aboriginal cultural heritage values as far as is reasonably practicable. Where adverse effects cannot be avoided, ensure measures are implemented to minimise and mitigate adverse effects.			
EMR #	ENVIRONMENT MANAGEMENT REQUIREMENT	REFERENCE DOCUMENTS	TIMING
CH1	A CHMP must be developed for the proposed impact activity. The CHMP must be prepared in consultation with the Gunkaikurnai Land and Waters Aboriginal Corporation (GLaWAC), and/or any relevant Traditional Owners, must occur. The CHMP must be approved under the <i>Aboriginal Heritage Act 2006</i> and prepared in accordance with the <i>Aboriginal Heritage Regulations 2018</i> .	CHMP	Design
CH2	The approved CHMP must be complied with.	CHMP	Construction

6.2.3 Bushfire and Fire Management

Table 6-3: Bushfire EMRs

Objective: To identify bushfire hazards and minimise the risks associated from fire hazards by implementing effective controls for the prevention and suppression of fires			
EMR #	ENVIRONMENT MANAGEMENT REQUIREMENT	REFERENCE DOCUMENTS	TIMING
BF1	<p>The Projects detailed design must consider the bushfire hazards and battery fire risks and achieve appropriate fire mitigation through design.</p> <p>The detailed design shall consider the requirements of the Guidelines for Renewable Energy Installations (CFA 2019, 2021); including key bushfire management measures that are applicable to the site, detailing how the project will implement these measures, specifically in relation to:</p> <ul style="list-style-type: none"> ■ The proposed location and design of the BESS. ■ Fire break buffers/ defensible space. ■ Water supply. ■ Emergency access/ egress. <p>The detailed design must be prepared in consultation with the Country Fire Authority (CFA).</p>	CFA 2019, Guidelines for Renewable Energy Installations CFA 2021, Guidelines for Renewable Energy Installations – 2021 Update (draft version)	Design and Construction
BF2	<p>A Bushfire Management Plan (or sub plan to the EMP) must be prepared that addresses bushfire risk during construction and operation. At a minimum, the Bushfire Management Plan should specify:</p> <ul style="list-style-type: none"> ■ The staging of development and the likely bushfire risks at each stage; ■ An area of land between the development edge and hazardous vegetation consistent with the separation distances specified in AS3959-2009, managed as low threat; ■ The measures to be undertaken during construction to reduce the likelihood of an ignition or spread of fire due to work associated with the development; and ■ How access and egress will be provided for construction workers and emergency vehicles. <p>The Bushfire Management Plan must be developed prior to construction, in consultation with the CFA.</p>	AS 3959: <i>Construction of buildings in bushfire prone areas</i>	Design, Construction and Operation

6.2.4 Contaminated Land & Spoil Management

Table 6-4: Contaminated Land and Spoil Management EMRs

Objective: To identify and prevent potential adverse human health and environmental effects resulting from the disturbance of contaminated or acid-forming material and to manage excavation spoil and other waste in accordance with relevant best practice principles.			
EMR#	ENVIRONMENT MANAGEMENT REQUIREMENT	REFERENCE DOCUMENTS	TIMING
CL1	<p>Prior to works commencing, site investigations must be undertaken for the works area(s) in accordance with the <i>National Environment Protection (assessment of site contamination) Measure 2013</i>.</p> <p>If contamination is present onsite, a spoil management plan (or a sub plan to the EMP) must be developed. The plan must address measures for onsite storage and handling (including stockpile management), measures for onsite reuse and/ or classification for offsite disposal under the <i>EPA Industrial Waste Resource Regulations (for soil and acid sulfate soil)</i> or equivalent policy under <i>Environment Protection Amendment Act 2018</i>.</p>	<i>National Environment Protection (assessment of site contamination) Measure 2013</i>	Construction

6.2.5 Dangerous Goods and Hazardous Materials

Table 6-5: Dangerous Goods and Hazardous Materials EMRs

Objective: To identify and prevent potential harm to the environment and human health when storing and handling liquid substances			
EMR#	ENVIRONMENT MANAGEMENT REQUIREMENT	REFERENCE DOCUMENTS	TIMING
HM1	<p>The Project must be designed to minimise impacts from potential spills, leaks or discharges of dangerous goods and/or hazardous substances once construction is finished. This should include:</p> <ul style="list-style-type: none"> ■ Identification of operational plant and equipment that may contain hazardous substances and/ or dangerous goods ■ Site planning ■ Primary and secondary containment ■ Meet the requirements of AS1940: <i>The storage and handling of flammable and combustible liquids</i>. 	<p>AS1940: <i>The storage and handling of flammable and combustible liquids</i></p> <p>EPA Publication 1698: Liquid storage and handling Guidelines</p>	Design and Operation
HM2	<p>A Dangerous Goods and Hazardous Materials Management Plan (or sub-plan to the EMP) should be prepared. This plan must be in accordance with the guidelines outlined in EPA Publication 1698: Liquid storage and handling Guidelines, and specifically address:</p> <ul style="list-style-type: none"> ● Risk management, ● Primary containment and secondary containment (including bunding), ● Spill prevention, maintenance, and incident response. 	EPA Publication 1698: Liquid storage and handling Guidelines	Construction and Operation

6.2.6 Ecology

Table 6-6: Ecology EMRs

Objective: To avoid adverse effects on native flora and fauna and habitat as far as is reasonably practicable. Where adverse effects cannot be avoided, ensure management measures are implemented to minimise and mitigate adverse effects.			
EMR#	ENVIRONMENT MANAGEMENT REQUIREMENT	REFERENCE DOCUMENTS	TIMING
EC1	The Proponent must ensure that the detailed design does not impact on native vegetation patches identified on the site. Any changes that result in impacts to mapped native vegetation, an ecologist must advise if the Project triggers a permit under Clause 52.17 of the Latrobe Planning Scheme.	Aurecon (2021) Latrobe Valley BESS Phase 2 Detailed Ecology Assessment	Design
EC2	No Go Zones must be established around all mapped native vegetation areas within the vicinity of works. No Go Zones shall include at least a 2 m buffer from extent of mapped vegetation. These No Go Zones shall be clearly demarcated and have appropriate signage. No construction vehicles, machinery or equipment, lay down of materials or unauthorised personnel will be allowed within the No Go Zone. No Go Zones must be maintained for the duration of construction.	Aurecon (2021) Latrobe Valley BESS Phase 2 Detailed Ecology Assessment	Construction
EC3	Any trimming or lopping required of Tree #1 (remnant scattered tree) must not exceed one-third of the foliage of the tree. Trimming must be undertaken by a suitably qualified arborist.	Aurecon (2021) Latrobe Valley BESS Phase 2 Detailed Ecology Assessment	Construction
EC4	For any tree to be retained, a Tree Protection Zones (TPZ) must be established in accordance with Australian Standard (AS) 4970: Protection of trees on development sites for all trees within the vicinity of works.	AS 4970: <i>Protection of trees on development sites</i>	Construction

6.2.7 Landscape & Visual Assessment

Table 6-7: LANDSCAPE AND VISUAL ASSESSMENT EMRs

Objective: To avoid, reduce or where possible remedy or offset any significant adverse effects on the landscape and visual amenity arising from the proposed development.			
EMR #	ENVIRONMENT MANAGEMENT REQUIREMENT	REFERENCE DOCUMENTS	TIMING
LV1	Detailed design shall consider mitigation measures to avoid and reduce adverse effects on the landscape and visual amenity. The following mitigation measures shall be considered: <ul style="list-style-type: none"> ■ Where possible, retain existing trees and vegetation. ■ Specification of architectural finishes that blend into existing background (as per the Concept Design). 	Aurecon (2021) Landscape and Visual Assessment	Design

6.2.8 Light Spill

Table 6-8: LIGHT SPILL EMRs

Objective: To avoid adverse light spill on the amenity of nearby residents and local communities as far as is reasonably practicable. Where adverse effects cannot be avoided, ensure measures are implemented to reduce and mitigate adverse effects.			
EMR #	ENVIRONMENT MANAGEMENT REQUIREMENT	REFERENCE DOCUMENTS	TIMING
LS1	Site lighting is to be designed to minimise glare issues and light spillage into adjacent areas and generally consistent with the requirements of AS4282: Control of the obtrusive effects of outdoor lighting.	AS4282: <i>Control of the obtrusive effects of outdoor lighting</i>	Design

6.2.9 Noise and Vibration

Table 6-9: Noise and Vibration EMRs

Objective: To avoid adverse noise and vibration on the amenity of nearby residents and local communities as far as is reasonably practicable. Where adverse effects cannot be avoided, ensure measures are implemented to reduce and mitigate adverse effects.			
EMR #	ENVIRONMENT MANAGEMENT REQUIREMENT	REFERENCE DOCUMENTS	TIMING
NV1	A Noise and Vibration Management Plan (or sub-plan to the EMP) must be prepared. This plan must be in accordance with the guidelines outlined in EPA Publication 1834: Civil construction, building and demolition guide, Chapter 4 (Noise and Vibration).	EPA Publication 1834: Civil construction, building and demolition guide	Construction

6.2.10 Surface Water

Table 6-10: Surface Water EMRs

Objective: To avoid adverse impacts on surface waterbody and flow path function and values as far as reasonably practicable. Where adverse effects cannot be avoided, ensure management measures are implemented to minimise and mitigate adverse effects			
EMR #	ENVIRONMENT MANAGEMENT REQUIREMENT	REFERENCE DOCUMENTS	TIMING
SW1	The Project detailed design must comply with the objectives outlined in the West Gippsland Catchment Management Authority (WGCMA) Flood Guidelines. Where works are in a Flood Overlay or Land Subject to Inundation Overlay, the detailed design must be prepared in consultation with the WGCMA prior to the commencement of works.	WGCMA Flood Guidelines	Design
SW2	A Surface Water Management Plan (or sub-plan to the EMP) must be prepared for management of stormwater during construction, including erosion and sedimentation, protection of water from pollution and maintaining flows. The plan must address how surface water management measures are to be implemented in accordance with EPA Publication 1834: Civil construction, building and demolition guide (Chapter 5).	EPA Publication 1834: Civil construction, building and demolition guide	Construction

6.2.11 Social, Community & Business

Table 6-11: Social, Community and Business EMRs

Objective: To avoid adverse effects to community cohesion, wellbeing, local prosperity and workforce resilience, business functionality and access to services and facilities as far as is reasonably practicable. Where adverse effects cannot be avoided, ensure measures are implemented to minimise and mitigate adverse effects.			
EMR#	ENVIRONMENT MANAGEMENT REQUIREMENT	REFERENCE DOCUMENTS	TIMING
SC1	<p>A Stakeholder and Community Engagement Plan should be prepared for the Project. The plan should outline:</p> <ul style="list-style-type: none"> ■ A transparent and responsive complaints management approach in accordance with Australian Standard AS/NZS 10002. ■ discretionary measures that may be taken to minimise construction impacts on residential receivers and guide how impacts to amenity as a result of works, whether due to noise or other impacts such as light or dust 	<p>Australian Standard AS/NZS 10002: 2014 <i>Guidelines for Complaint Management in Organisations</i></p>	Construction

6.2.12 Traffic & Transport

Table 6-12: Traffic and Transport EMRs

Objective: To ensure design and construction of the Works minimises impacts to road transport, public transport and active transport users (e.g. pedestrians and cyclists), as far as reasonably practicable.			
EMR#	ENVIRONMENT MANAGEMENT REQUIREMENT	REFERENCE DOCUMENTS	TIMING
T1	<p>The Projects detailed design must consider the relevant traffic management requirements, including:</p> <ul style="list-style-type: none"> ■ Total car parking provision considering the Latrobe Planning Scheme Clause 52.06; ■ Provision of a separate turning areas in the southern layout area. 	Aurecon	Design
T2	<p>A Traffic Management Plan must be developed, implemented and maintained. The Traffic Management Plan should address:</p> <ul style="list-style-type: none"> ■ Location of access to the site for construction vehicle traffic; ■ Heavy vehicle routes from the arterial road network to the site; ■ Any restrictions on heavy vehicle routes, parking or loading; ■ Any timing restrictions; ■ Parking arrangements for construction personnel; ■ Measures for monitoring the surrounding road network; ■ The identification and design specifications of any necessary road upgrades; ■ A program to inspect, maintain and (where necessary) repair public roads used by construction traffic; <p>The Traffic Management Plan should be prepared in consultation with Latrobe City Council and Regional Roads Victoria prior to the commencement of works.</p>	Traffic Management Plan(s)	Construction

Document prepared by

Aurecon Australasia Pty Ltd

ABN 54 005 139 873

Aurecon Centre

Level 8, 850 Collins Street

Docklands, Melbourne VIC 3008

PO Box 23061

Docklands VIC 8012

Australia

T +61 3 9975 3000

F +61 3 9975 3444

E melbourne@aurecongroup.com

W aurecongroup.com

aurecon

*Bringing ideas
to life*

