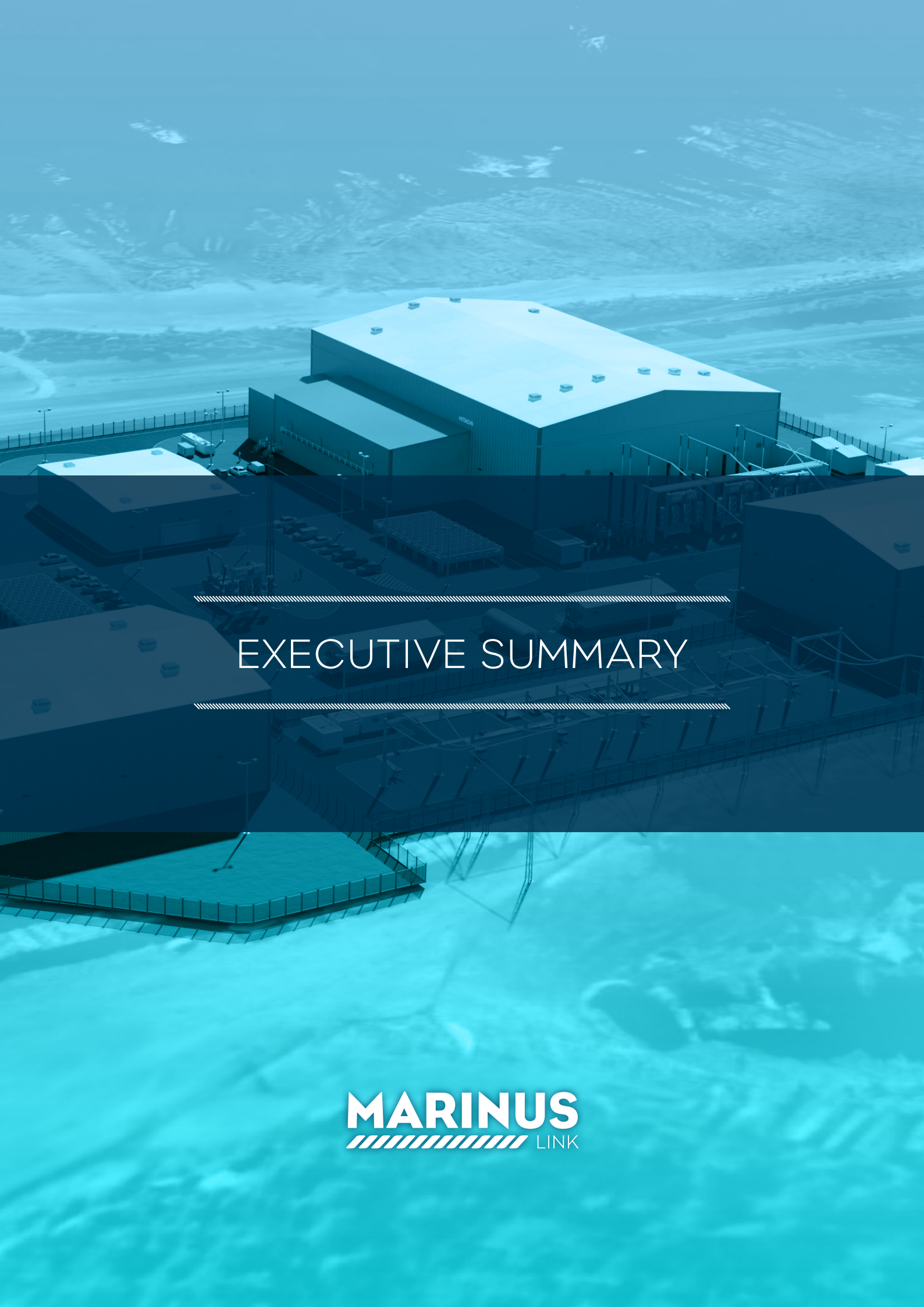

EXECUTIVE SUMMARY

MARINUS LINK

Executive Summary

Overview

This Environmental Impact Statement (EIS) presents the findings of the assessment of potential impacts of the Heybridge Converter Station (**the proposal**), which is an essential part of the Marinus Link project.

The Marinus Link project (**the project**) is a 1500 megawatt (MW) high voltage direct current (HVDC) electricity and telecommunications interconnector, linking Tasmania's renewable energy resources into the National Electricity Market (NEM) via connection at Hazelwood in the Latrobe Valley in Victoria (see Figure ES-1). The project is to be delivered in two 750MW stages. Increasing the capacity and security of energy across the NEM, including in Tasmania, the project would allow more efficient use of energy generated by current renewable energy developments and encourage new renewable energy development in both regions. The project responds to the imperative of the transformation of the Australian electricity system and is supported by government policy.

Marinus Link Pty Ltd (MLPL) is the proponent for the project. MLPL was formed in 2018 for the purpose of constructing the project as a wholly owned subsidiary of Tasmanian Networks Pty Ltd (TasNetworks). TasNetworks is owned by the State of Tasmania and owns, operates, and maintains the electricity network in Tasmania. MLPL is now owned by the Commonwealth (49%), Tasmanian (17.7%) and Victorian governments (33.3%). Read more about MLPL in Section 1.

Project objectives and benefits

Tasmania has significant renewable energy resource potential, particularly hydroelectric power and wind energy. The potential size of the resource exceeds the Tasmanian electricity demand as well as the capacity of the existing Basslink interconnector.

The reduced use of coal-fired generators in the mainland states is also reducing the availability of dispatchable energy in Victoria and potentially to Tasmania. Dispatchable energy is electricity supply that can be easily turned on and off in response to demand.

The project is proposed to deliver an additional 1500 MW capacity connection between Tasmania and Victoria which would more than triple the continuous capacity currently provided, bringing the total dispatchable energy between Tasmania and Victoria to around 2000 MW. This means that there would be more opportunities for Tasmania to send electricity to the mainland and greater energy security for Tasmanians.

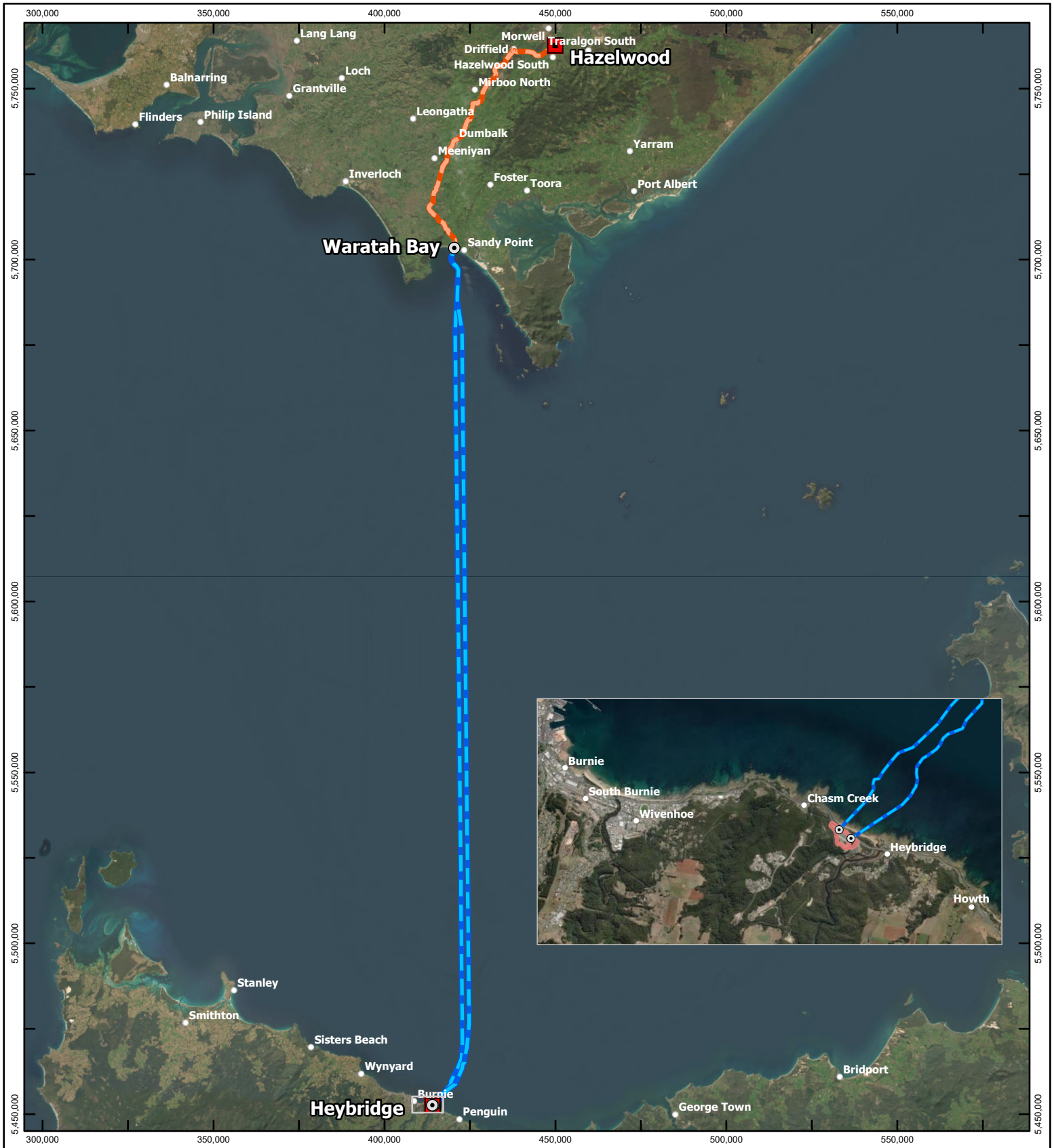

Figure ES-1: The project

Legend

- Proposed Converter Station
- HVDC Landfall
- Proposed Underground HVDC Cable
- Proposed HVDC Subsea Cable

Scale: 1:1,500,000 @ A4

Spatial Reference: GDA2020 MGA Zone 55

N

0 12.5 25 50 75 100

Kilometres

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Acknowledgements and Sources:

Data Source: Data is held by the Marinus Link GIS Data Repository.
Background Image: ESRI - Earthstar Geographics
Figure Produced By: Marinus Link for the Tasmanian Heybridge Converter Station EIS.
Date Figure Exported: 29/11/2024

In summary, the project would:

- Provide additional trading capacity between Tasmania and mainland Australia to support the transition of the NEM to a lower emissions system, while maintaining a secure and stable power system.
- Increase Tasmania's energy security by providing two further links to the mainland that are geographically separate to Basslink, reducing the impact of a failure.
- Support development of further renewable energy generation projects in Tasmania by an estimated annual average additional generation capacity of 1,500 MW, further increasing Tasmania's energy security and reducing the carbon intensity of the NEM.
- Support a reduction of energy costs through reducing the costs of future generation, energy storage and transmission infrastructure by using existing infrastructure to its full potential; increasing development and availability of relatively low-cost energy capacity; and reducing reliance on gas generation to provide dispatchable energy.
- Provide an estimated $1.36 billion in economic contribution to Tasmania from the construction and operation of the project until 2050.
- Support 430 full time equivalent (FTE) job years at peak construction times in Tasmania and 15 FTE job years for operations.
- Increase Tasmania's telecommunications capacity by 150 times current capacity through construction of high capacity fibre optic cables, one bundled with each stage of the electricity interconnector.

Read more about the project objectives and rationale in Sections 1 and 3.

The project details

The proposed 1500 MW HVDC electricity interconnector between Heybridge in North West Tasmania and Hazelwood in the Latrobe Valley in Victoria would be built in two 750 MW stages. Each stage would comprise two power cables and a fibre optic communications cable. The final project would therefore deliver four power cables and two telecommunications cables.

The **project's** key components, from Tasmania moving north to Victoria, as shown in Figure ES-2 are:

- High voltage alternating current (HVAC) switching station and two HVAC-HVDC converters at a station at Heybridge in Tasmania (**this is the Heybridge Converter Station, 'the proposal' subject to this EIS**)
- Shore crossing in Tasmania adjacent to the converter station. The shore crossing would be constructed using horizontal directional drilling (HDD) under Bass Highway, the Western Line Railway and coastal land to approximately 10 metre (m) water depth.
- Approximately 255 kilometres (km) of subsea cable across Bass Strait from Heybridge in Tasmania to Waratah Bay in Victoria. The subsea cables for each stage would be laid approximately 2 km apart except near the shore where two cables would come closer together to enable them to be pulled through the shore crossings.

- Shore crossing in Victoria at Waratah Bay approximately 3 km west of Sandy Point. The shore crossing would be constructed using HDD under the coastal dunes to about 10 m water depth.
- Land-sea cable joint where the subsea cables would connect to the land cables in Victoria.
- Communications building (fibre optic cable inspection and test hut) adjacent to Waratah Bay.
- Approximately 90 km of underground land cables laid in pairs in two trenches in Victoria, extending from the land-sea joint to the converter station site at Hazelwood.
- HVAC-HVDC converter station at Hazelwood, adjacent to the existing Hazelwood Terminal Station, where the project would connect to the existing Victorian transmission network.

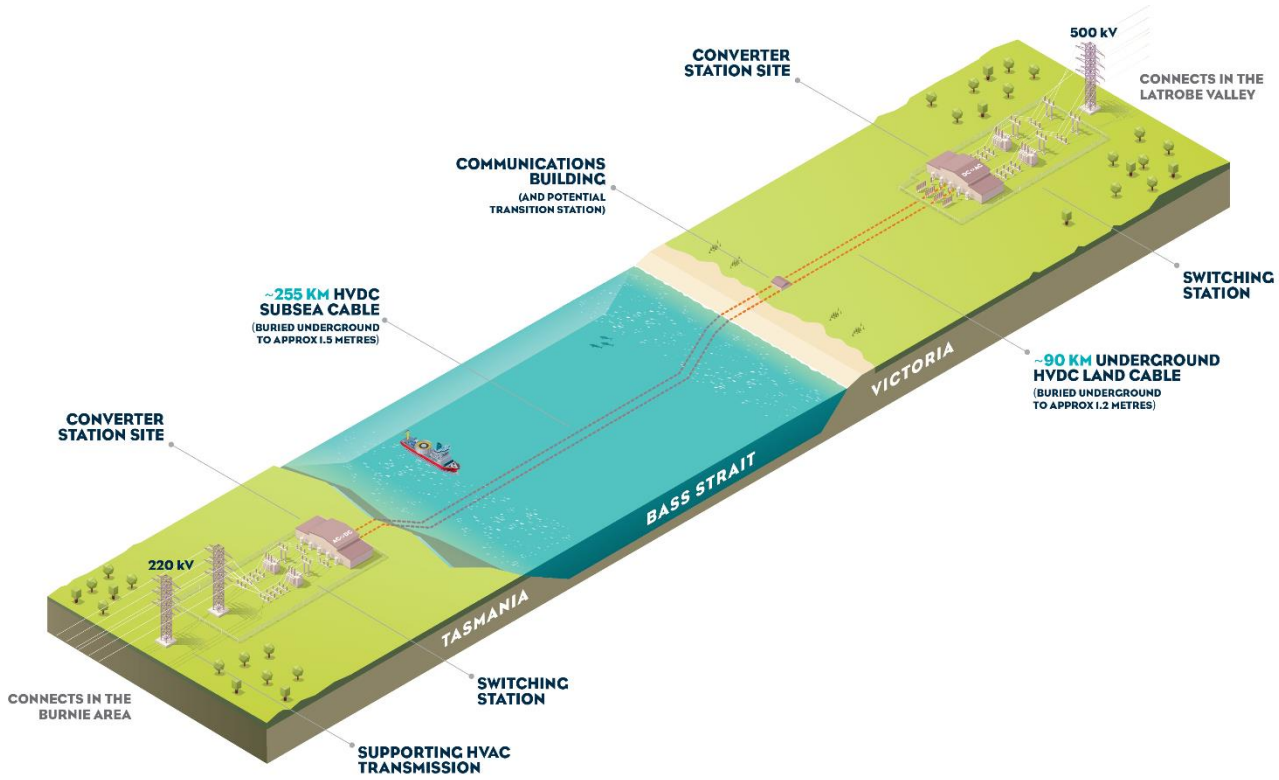

Figure ES-2 Key project components

The project is proposed to be constructed in the following stages:

- **Stage 1** – eastern symmetrical monopole (circuit) and associated converter station infrastructure at Heybridge and Hazelwood anticipated to be commissioned by the end of 2030. Civil works, HDD drilling and installation of cable conduits and joint pits for both stages would be completed in Stage 1. This would minimise the extent of works associated with Stage 2 and provide for the efficient delivery of the second circuit at a time determined by market demand.
- **Stage 2** – western symmetrical monopole (circuit) and additional converter station infrastructure anticipated to be commissioned after Stage 1, according to market demand.

The project, including the Heybridge Converter Station, would be operational upon completion of Stage 1. Stage 1 is anticipated to be commissioned by the end of 2030. The actual timeframe for Stage 2 would be determined by market demand with a likely scenario being that Stage 2 is commissioned by 2033 It would operate 24 hours a day and 365 days a year and has an expected operational life of at least 40 years.

Read more about the proposal in Section 2, and the process for selecting the location of the proposal site and the route of the project in Section 3.

The Heybridge Converter Station

The proposal involves the construction, operation and decommissioning of the Heybridge Converter Station, which includes:

- Two **converter stations**, one for each of the 750 MW links between Tasmania and Victoria. The converter stations would use Voltage Source Conversion technology to convert between Alternating Current (AC) and Direct Current (DC) and vice versa. The converter stations require converter transformers and coolers, which would be housed in bunds.
- One **HVAC switching station** for connection between the converter station and the Tasmanian energy grid via the proposed North West Transmission Developments (NWTD) project. The HVAC 220 kilovolt (kV) switching station would typically comprise indoor gas insulated switchgear and other support equipment and associated infrastructure.

In addition, the proposal would comprise the following components:

- Two main buildings comprising three halls (for the HVAC and HVDC reactors and converter modules).
- An operations and maintenance facility.
- Internal site access roads, staff parking, underground cables, stormwater drainage system and management, firefighting systems including emergency ingress and egress.
- Security fencing and gates, closed-circuit television (CCTV) and automated security lighting.

The construction of the proposal would involve:

- **Bulk earthworks** to construct the converter station bench including remediation and/or disposal of contaminated soils, should they be disturbed for the purpose of these works.
- **Civil works** including site access and internal roads and staff parking, drainage works, and gas insulated switchgear building foundations, cable trenches and foundations for electrical apparatus and transformer bays.
- **Building works** including establishment of the converter hall (comprising phase reactor, valve and HVDC reactor halls), control and auxiliaries building and structural steelwork for buildings and electrical apparatus and infrastructure.
- **Systems and equipment** installation such as firefighting systems including emergency ingress and egress, a fire water tank, HVDC converter station equipment, HVAC switchgear, auxiliary transformers, and electrical and mechanical systems.

- **Security measures** installation including security fencing and gates, CCTV and automated security lighting.
- **Commissioning activities** including testing of electrical, mechanical, and firefighting systems.

During the operational phase of the proposal, only minor maintenance activities would occur at the Heybridge Converter Station.

The final design and construction methodology would be completed following project approvals and appointment of construction contractor/s.

Read more about the proposal features, construction methods and timing of the proposal in Section 2.

The proposal site

The proposal site is located within the semi-rural locality of Heybridge in North West Tasmania on the eastern border of the Burnie City Council local government area (LGA), west of the Blythe River and the Central Coast Council LGA. The proposal site location is shown in Figure ES-3.

Read more details about the proposal site location and the existing conditions of the proposal site in Sections 2 and 5.

Figure ES-3:
Proposal site location

Legend

- HVDC Landfall
- Proposal Site
- Proposed NWTD Power Line
- Noise Receptor Location

Existing Utilites and Infrastructure

- Former Rail Underpass
- Stormwater Pipe
- Tioxide Outfall Channel
- Taswater Reticulation Main

Hydrography and Topography

- Estuary
- Tidal Zone
- Water Body
- Watercourse
- Elevation Contours (10m Interval)
- Major Road
- Minor Road

Scale: 1:5,000 @ A4

Spatial Reference: GDA2020 MGA Zone 55

0 50 100 200 300

Metre

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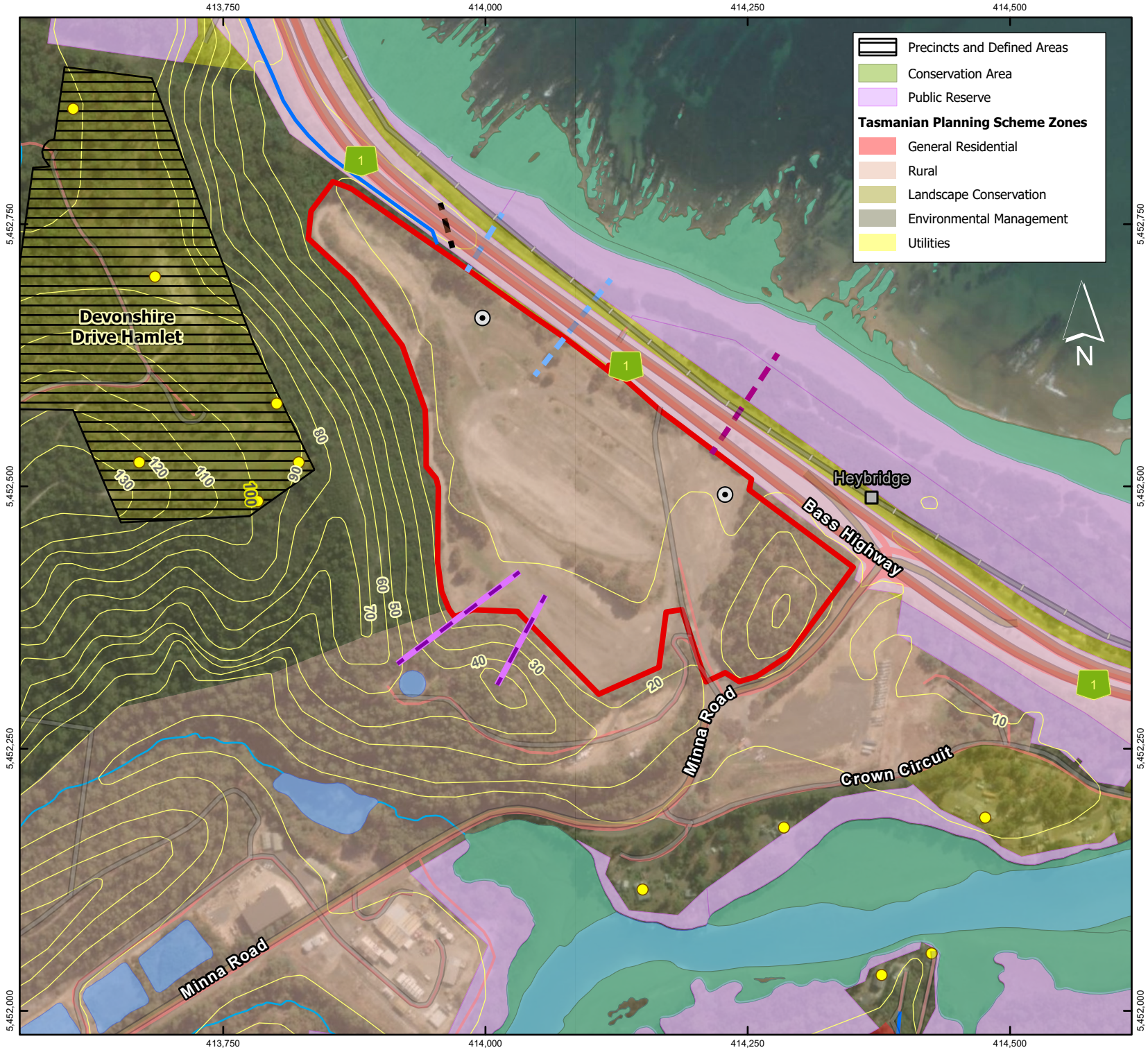
Acknowledgements and Sources:

Data Source: Marinus Link GIS Data Repository and theLIST ©State of Tasmania .
Background Image: Esri Community Maps Contributors, DPIPWE, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, Foursquare, METI/ NASA, USGS, Maxar
Produced By: Marinus Link for the Tasmanian Heybridge Converter Station EIS. Date Figure Exported: 21/11/2024



Tasmanian project assessment

The project is subject to Tasmanian, Victorian and Commonwealth project assessment legislation, however the Heybridge Converter Station proposal is being assessed in the EIS exclusively for the purpose of Tasmanian laws, which demonstrates compliance with Tasmanian regulations, standards and guidelines.

Read more about the basis for project assessment and the interaction of the EIS with other assessments of the project in Section 1, including details about the Heybridge Shore Crossing and EIS for that aspect of the project.

The proposal requires a permit from Burnie City Council under the *Land Use Planning and Approvals Act 1993* (LUPA Act) and the *Tasmanian Planning Scheme*. A development application (DA) for the proposal was submitted to Burnie City Council on 1 July 2022. Burnie City Council referred the application to the Board of the Environment Protection Authority Tasmania (EPA Board) on 18 July 2022 under section 24 of the *Environmental Management and Pollution Control Act 1994* (EMPC Act). A delegate of the Director of the Environment Protection Authority Tasmania (EPA) determined that the proposal was a permissible level 1 activity under section 24 of the EMPC Act and would be subject to environmental impact assessment by the EPA Board under the EMPC Act.

EPA issued EIS guidelines to provide guidance about what should be addressed in the assessment of this proposal. The EIS has been prepared in accordance with the *EIS Guidelines: Heybridge Converter Station for Marinus Link September 2022* (EIS guidelines). The EIS guidelines, along with reference to where these have been addressed in the EIS, are provided in Appendix A. The EIS will be assessed by the EPA Board in accordance with the EMPC Act and associated regulations and policies.

If the proposal receives approval from both Burnie City Council and the EPA Board, a planning permit will be issued. This permit will include any conditions required by the Burnie City Council or EPA Board for the use and development of the proposal.

Community consultation

MLPL has been raising awareness of the project since 2018, well in advance of the preparation of the EIS. It has provided information and sought feedback from the community and environmental groups, government departments and agencies (federal, state and local), the Tasmanian Aboriginal Community and peak industry bodies. Community and stakeholder consultation has included engagement, collaboration and information sharing between MLPL and other organisations or individuals.

The project has adopted a best-practice approach to meet the engagement requirements for the EIS guidelines. This approach involves establishing and implementing an effective process for providing information about the proposal to seek feedback and incorporate the feedback into the development and delivery of the proposal as part of the project.

The four key pillars guiding MLPL's communication and engagement with community members and stakeholders include:

- Raise awareness and educate.

- Build and maintain trust.
- Foster relationships.
- Enhance economic development.

Read more about the consultation that has preceded the publication of the EIS and the proponent's plans for ongoing community engagement in Section 4.

The approach to assessing and minimising impacts of the proposal

The EIS describes and assesses the potential impacts from construction, operation and decommissioning of the Heybridge Converter Station. It adopts as appropriate a risk-based, sensitivity based or compliance based approach to environmental assessment.

The environmental aspects assessed were identified in the EIS guidelines. Where required, technical studies have been completed to inform the EIS, providing detailed technical assessments of different environmental and social disciplines to address the EIS guidelines. Technical studies supporting this EIS are provided in the Appendices.

The technical studies have involved:

- Assessing existing conditions and identifying relevant values.
- Reviewing the project description and identifying credible impact pathways – where project activities could result in an impact on the value.
- Assessing the potential impacts of activities undertaken for the project on the values.
- Where a need is identified to reduce impacts, developing management measures that reduce the impacts.
- Assessing the residual impacts on values.

Following identification of the potential risk or potential impact, technical specialists have identified mitigation measures to avoid, mitigate and/or manage the potential impacts of the proposal.

Where relevant, the technical studies have assessed the potential impacts of this proposal together with the proposed Heybridge Shore Crossing, which is the subject of a separate EIS, and have developed mitigation measures that will apply to, and manage the impacts of, both proposals.

The proposal will be delivered in accordance with the mitigation measures described in this EIS, any conditions of approval issued under the EMPC Act and the LUPA Act, the applicable Environmental Performance Requirements (EPRs) in the Commonwealth and Victorian combined EIS/Environment Effects Statement (EES) as well as any other permits or licences required for the proposal, including the *Environment Protection and Biodiversity Act 1999* (EPBC Act). The mitigation measures for the proposal are in Section 8.

A summary of the impacts of the proposal

The environmental impacts of the proposal are assessed in Section 6. Across that section of the EIS, the key findings of the technical studies are summarised as follows:

- The proposal site, which was the former tioxide plant, potentially contains contaminated soils. This means that the proponent would need to remediate and/or dispose of any contaminated materials it disturbs. There is a low risk, that must be managed, of construction of the proposal site disturbing contaminated materials and spreading them into the nearby environment. If contaminated soils on the site are not managed appropriately, there is potential for contaminants and soils entering stormwaters and the sea.
- The proposal site contains acid sulfate soils (ASS). Disturbance of these soils has the potential to cause a reaction that can impact on surface and groundwater and create odours.
- The groundwater beneath the site is also contaminated. The adoption of mitigation measures to minimise groundwater drawdown, and manage and dispose of groundwater from dewatering activities would minimise potential impacts to environmental values, and not present human or ecological health risks.
- There is potential for additional roadkill of EPBC Act listed species, including the Tasmanian devil (*Sarcophilus harrisii*) and the Spotted-tailed quoll (*Dasyurus maculatus subsp. Maculatus*) due to construction generated traffic on surrounding roads. With the implementation of measures in accordance with *Tasmanian Devil Survey Guidelines and Management Advice for Development Proposals*, the impact significance is expected to be low.
- There is a small area of remnant native vegetation on the converter station site. This area will not be impacted by the proposal.
- Construction activities are expected to be audible at most human sensitive receptor locations during the day. At existing residential receptor locations, the predicted noise levels are below the adopted noise management level. For the nearest future residential receptor locations within Devonshire Drive Hamlet, the predicted noise levels would exceed the noise management level however are below the highly affected noise management level.
- The predicted noise levels for the operation of the proposal are well below all adopted reference levels and achieve the proposed assessment criteria at all residential receptors These predicted levels are within the range of background noise levels but would likely be audible during quiet periods (particularly at night).
- The construction of the proposal has the potential to generate dust emissions that may result in reduced public amenity due to dust soiling, human health effects due to elevated levels of particulate matter, and ecological effects due to deposition in aquatic ecosystems and water sources or on vegetation. Potential dust impacts would be managed using standard and best practice mitigation measures, and ongoing visual monitoring. With effective implementation of these measures, the impacts from the proposal on air quality are considered to be negligible and temporary.
- The proposal would not generate any detectable electric and magnetic fields (EMF) outside the proposal site boundary and the maximum calculated EMF intensities for the operation of the proposal are below

the reference levels for people within the study area. Even when combined with the operation of the NWTD project and the Heybridge Shore Crossing, the additional EMF would be negligible and would not be experienced by humans or affect other technologies.

- The construction of the proposal would create jobs. It is estimated that at peak project construction, the Tasmanian components of the project would generate 430 jobs per year in Tasmania. The proponent has developed strategies and would trigger training to make sure these jobs are available and attractive to locals, to women, to young people, and to the Tasmanian Aboriginal Community. There is an adverse risk, however, that the proposal would draw labour from other industries and businesses nearby, which may result in workforce shortages and longer lead times for other construction projects.
- The project, including the proposal, would create extra stresses on support services, local infrastructure and rental accommodation, especially when considering the impacts of other projects in the region planned for the same construction period. The proposal would ameliorate some of those impacts by providing primary response healthcare workers and implementing policies to assist in addressing pressure on accommodation and other social infrastructure. These social impacts are considered the most challenging to mitigate and are considered to have a residual moderate effect on the people of Burnie City, Central Coast and the broader region. Conversely, however, the project is expected to result in large financial benefits to Tasmania and may also provide potential benefits to the health and wellbeing of local residents through investments in community infrastructure.
- The social impact studies have indicated some ongoing concerns about amenity impacts from local people. Mitigation measures to manage air and noise impacts are addressed in Section 6. Measures regarding community notifications would be part of the community and stakeholder engagement plan.
- There are risks associated with electrical technologies and the storage of dangerous and hazardous goods (e.g. diesel). Standard and best practice mitigation measures would mitigate these risks.
- The construction of the proposal together with the Heybridge Shore Crossing, especially when combined with other projects with the same construction period, would increase traffic. However, this increase in traffic would predominantly be experienced on Bass Highway, which has the capacity to accommodate the anticipated traffic movements.

The EIS provides detailed information about the Heybridge Converter Station and an assessment of the proposal's potential impacts as required by the EIS guidelines. Avoidance of impacts has been maximised through selection of the site for the proposal and design of the infrastructure. Potential impacts of the proposal have then been assessed based on the proposed design and construction method. Where the impact assessment has identified the need to reduce impacts, mitigation measures have been developed and will be implemented to reduce impacts.

The proposal is consistent with Tasmanian policies, especially those that protect ecological values, the coastal environment, and human health. The investigations that have supported the EIS have been thorough, and the community can be reassured that the proposal can proceed knowing the extent of its impacts. MLPL would design, construct, operate and decommission the proposal under an Environmental Management System (EMS) that has been developed in accordance with the requirements of AS/NZS ISO

14001:2016 *Environmental Management Systems – Requirements with guidance for use*. The MLPL EMS has been developed to manage compliance of project approvals and legal requirements and seek continual improvement in environmental performance through planning, implementation, evaluation and review. The EMS applies to all geographic components and phases of the project, including the proposal.

Next steps

The EIS and its appended technical studies were reviewed by the EPA and verified as being satisfactory for public comment.

This EIS will be on public exhibition for 42 days so that the community can view the documents and make written submissions. After submissions are received and considered, the EPA will further consider this EIS and the technical studies that support it. The EPA might require further information from the proponent or work to be done by technical specialists to respond to matters raised in the submissions before approvals may be granted for the proposal.

This EIS has been published alongside the Heybridge Shore Crossing EIS. A combined EIS/EES was prepared to address Commonwealth and Victorian government requirements and placed on public exhibition from 31 May – 12 July 2024.

The Tasmanian EIS documents, and the combined Commonwealth and Victorian EIS/EES address the legislation and requirements of other jurisdictions and government agencies. Consequently, statements, findings, and commitments will not always or necessarily be the same across the assessment documents, including between this EIS and the combined EIS/EES.

The EIS can be accessed (in PDF format) at the Marinus Link website:
https://www.marinuslink.com.au/assessment/tasmania-eis/

If you require access to the EIS in an alternative format, please email: team@marinuslink.com.au

Hard copies of this EIS can be viewed at Marinus Link offices:

- Level 1, 74 Elizabeth Street, Hobart, Tasmania, 7000.
- 1-3 Spring Street, Burnie, Tasmania, 7320.

Submissions must be made in writing and addressed to the General Manager, Burnie City Council, and can be submitted through email; burnie@burnie.tas.gov.au or by post, PO Box 973, Burnie, Tasmania, 7320.