

---

VOLUME I –  
INTRODUCTION

---

**MARINUS**  
LINK

---

# TABLE OF CONTENTS

---



# Volume 1 – Introduction

## Executive Summary

1	Project objectives and benefits.....	1
2	Project description .....	2
	2.1 Project alternatives.....	2
	2.2 Survey area and study area .....	3
	2.3 Project components .....	4
	2.4 Construction methods .....	9
3	Project assessment and approvals .....	12
	3.1 Commonwealth approvals.....	14
	3.2 Victorian approvals.....	14
	3.3 Transmission licence.....	16
4	Community consultation .....	18
	4.1 Gippsland Stakeholder Liaison Group .....	19
	4.2 First Peoples engagement .....	19
5	Key project impacts .....	20
	5.1 Construction .....	21
	5.2 Operation.....	32
	5.3 Decommissioning.....	34
	5.4 Cumulative impacts.....	34
6	Environmental Management Framework .....	37
	6.1 Change management.....	38
7	Conclusion.....	38
8	Next steps.....	39

# Glossary and abbreviations

## Chapter 1 Introduction

1.1	Purpose of this EIS/EES .....	1-2
1.2	Project proponent .....	1-2
1.3	Project objectives and benefits.....	1-3
1.4	Cross-governmental support for the project.....	1-5
1.5	Project overview .....	1-5
1.5.1	Project timeline.....	1-10
1.6	Environmental impact statement / environment effects statement .....	1-10
1.6.1	Commonwealth EIS guidelines .....	1-11
1.6.2	Victorian EES scoping requirements .....	1-12
1.6.3	Overview of approach to the EIS/EES .....	1-12
1.6.4	Structure of the EIS/EES.....	1-13

## Chapter 2 Project rationale

2.1	Supporting energy transformation .....	2-1
2.2	Key benefits of Marinus Link .....	2-2
2.2.1	Energy transition .....	2-3
2.2.2	Improving Tasmania’s energy security .....	2-3
2.2.3	Energy cost reduction .....	2-3
2.2.4	Economic benefits .....	2-3
2.2.5	Telecommunications capacity .....	2-4

## Chapter 3 Route selection and project alternatives

3.1	Identifying what connection is required .....	3-2
3.2	Identifying what is proposed to be built .....	3-4
3.3	Identifying key constraints and values to consider.....	3-4
3.3.1	Environmental, physical and social context .....	3-4
3.3.2	Constraints and opportunities .....	3-12
3.4	Route and site selection .....	3-15

3.4.1	Identifying corridors .....	3-17
3.4.2	Identifying and evaluating route options .....	3-20
3.4.3	The proposed route .....	3-28
3.5	Project alternatives .....	3-32
3.5.1	Alternative Victorian land cable routes .....	3-32
3.5.2	Alternative Victorian converter station site .....	3-36
3.5.3	Converter station technology .....	3-36
3.5.4	Underground versus overhead .....	3-37
3.5.5	Method for crossing other assets and features .....	3-38
3.5.6	No Marinus Link .....	3-39

## Chapter 4 Legislative framework

4.1	Key legislation .....	4-3
4.1.1	Environment Protection and Biodiversity Conservation Act 1999 (Cwlth) .....	4-3
4.1.2	Environment Effects Act 1978 (Vic) .....	4-5
4.1.3	Planning and Environment Act 1987 (Vic) .....	4-7
4.1.4	Marine and Coastal Act 2018 (Vic) .....	4-9
4.1.5	Aboriginal Heritage Act 2006 (Vic) .....	4-9
4.2	Other relevant legislation .....	4-11
4.2.1	Commonwealth .....	4-11
4.2.2	Victorian .....	4-13
4.2.3	Transmission licence .....	4-15
4.2.4	Land tenure .....	4-16
4.3	Summary of requirements .....	4-16

## Chapter 5 EIS/EES assessment framework

5.1	Assessment framework overview .....	5-1
5.1.1	Performance based approach .....	5-2
5.2	Assessment guidelines .....	5-3
5.2.1	Commonwealth .....	5-3
5.2.2	Victoria .....	5-4

5.2.3	Coordination of assessments .....	5-6
5.3	Impact assessment methods.....	5-6
5.3.1	Values .....	5-9
5.3.2	Impact pathways .....	5-9
5.3.3	Impact assessment .....	5-10
5.4	Cumulative impacts .....	5-21
5.5	Environmental Management Framework .....	5-26
5.6	Community, stakeholder and First Peoples engagement .....	5-26
5.7	Scope of technical studies.....	5-27

## Chapter 6 Project description

6.1	Project overview .....	6-1
6.1.1	Project components .....	6-6
6.1.2	Project stages.....	6-7
6.1.3	Survey area and area of disturbance .....	6-8
6.2	Design .....	6-12
6.2.1	Status of project design.....	6-12
6.2.2	Converter stations .....	6-12
6.2.3	Land cables .....	6-17
6.2.4	Subsea cables and shore crossings .....	6-17
6.2.5	Transition station and communications building .....	6-18
6.2.6	Third-party infrastructure and service relocation.....	6-19
6.3	Construction .....	6-19
6.3.1	Converter stations .....	6-19
6.3.2	Shore crossings .....	6-20
6.3.3	Land cables .....	6-25
6.3.4	Subsea cables.....	6-32
6.3.5	Transition station and communications building .....	6-35
6.3.6	Construction vehicles .....	6-37
6.3.7	Reinstatement and rehabilitation .....	6-39
6.3.8	Construction workforce and hours .....	6-40

6.3.9	Indicative construction program .....	6-41
6.4	Operation and maintenance .....	6-44
6.4.1	Converter stations .....	6-45
6.4.2	Subsea cable.....	6-46
6.4.3	Transition station and communications building .....	6-46
6.4.4	Land cables .....	6-46
6.5	Decommissioning .....	6-47
6.6	Waste .....	6-48
6.6.1	Construction waste.....	6-49
6.6.2	Operation and maintenance waste .....	6-50

## Chapter 7 Economics

7.1	Method.....	7-2
7.1.1	Study area .....	7-3
7.1.2	Assumptions and limitations.....	7-3
7.2	Existing conditions.....	7-4
7.3	Construction impacts and outcomes .....	7-4
7.3.1	Victoria .....	7-5
7.3.2	Tasmania.....	7-6
7.4	Operation impacts and outcomes.....	7-7
7.4.1	Victoria .....	7-7
7.4.2	Tasmania.....	7-8
7.5	Taxation and royalty revenues .....	7-8
7.6	Induced projects .....	7-9
7.7	Environmental performance requirements .....	7-9
7.8	Conclusion.....	7-11

## Chapter 8 Community and stakeholder engagement

8.1	Engagement approach .....	8-2
8.1.1	Engagement principles.....	8-2
8.1.2	Engagement goals .....	8-3

8.1.3	Engagement .....	8-4
8.1.4	Communication tools .....	8-5
8.2	Stakeholders .....	8-6
8.2.1	Gippsland Stakeholder Liaison Group .....	8-6
8.2.2	Tasmanian stakeholders .....	8-6
8.2.3	First Peoples .....	8-7
8.2.4	Landholders .....	8-8
8.2.5	Maritime stakeholders .....	8-8
8.3	Technical reference group .....	8-9
8.4	Ongoing engagement .....	8-10

## Chapter 9 Sustainability, climate change and greenhouse gas emissions

9.1	Sustainability .....	9-1
9.1.1	Project context .....	9-1
9.1.2	Marinus Link Sustainability Framework .....	9-3
9.1.3	Marinus Link sustainability targets .....	9-5
9.1.4	MLPL Environment and Sustainability Policy .....	9-5
9.2	Climate change .....	9-7
9.2.1	Method .....	9-8
9.2.2	Legislative context .....	9-8
9.2.3	Assumptions and limitations .....	9-10
9.2.4	Existing climate conditions .....	9-10
9.2.5	Climate change projections .....	9-13
9.2.6	Climate change risks .....	9-15
9.2.7	Environmental performance requirements .....	9-16
9.2.8	Conclusion .....	9-17
9.3	Greenhouse gas emissions .....	9-18
9.3.1	Method .....	9-19
9.3.2	Legislative context .....	9-19
9.3.3	Assumptions and limitations .....	9-20



9.3.4 Existing conditions .....	9-21
9.3.5 Greenhouse gas emissions.....	9-21
9.3.6 Project benefits.....	9-22
9.3.7 Environmental performance requirements.....	9-23
9.3.8 Conclusion.....	9-24

## Chapter 10 Electromagnetic fields

10.1 Method.....	10-3
10.1.1 Study area .....	10-3
10.1.2 Guidelines and standards .....	10-4
10.1.3 Assumptions and limitations.....	10-5
10.2 Existing conditions.....	10-5
10.2.1 Background EMF levels .....	10-7
10.2.2 Background soil and water temperatures .....	10-10
10.2.3 Sensitive receivers .....	10-10
10.3 Construction impacts.....	10-13
10.4 Operation impacts .....	10-13
10.4.1 Heybridge converter station .....	10-14
10.4.2 Hazelwood converter station.....	10-14
10.4.3 Subsea cables.....	10-15
10.4.4 Land cables .....	10-19
10.4.5 Cable heating assessment.....	10-19
10.5 Decommissioning impacts.....	10-22
10.6 Environmental performance requirements .....	10-22
10.7 Residual impacts .....	10-23
10.8 Cumulative impacts .....	10-23
10.9 Conclusion.....	10-23

# Figures

## Chapter 1 Introduction

Figure 1-01 Marinus Link project overview .....	1-7
Figure 1-02 Project overview – Tasmania .....	1-8
Figure 1-03 Project overview – Victoria .....	1-9
Figure 1-04 Project Timeline.....	1-10
Figure 1-05 Structure of the Marinus Link EIS/EES .....	1-14

## Chapter 3 Route selection and project alternatives

Figure 1-06 Victoria and Tasmania’s grid backbones .....	3-3
Figure 1-07 Constraints and values of Tasmania’s north coast .....	3-6
Figure 1-08 Constraints and values of southern Victoria .....	3-9
Figure 1-09 Constraints and values of Bass Strait .....	3-11
Figure 1-10 Route and site selection process .....	3-16
Figure 1-11 Prudent and feasible corridors .....	3-19
Figure 1-12 Proposed route – overview .....	3-29
Figure 1-13 Proposed route – Tasmania.....	3-30
Figure 1-14 Proposed route – Victoria.....	3-31
Figure 1-15 Alternative routes .....	3-35

## Chapter 4 Legislative framework

Figure 1-16 Key legislation applicable to this EIS/EES, within each jurisdiction.....	4-2
Figure 1-17 Registered Aboriginal parties .....	4-10

## Chapter 5 EIS/EES assessment framework

Figure 1-18 EIS/ESS overall assessment framework .....	5-2
Figure 1-19 Impact assessment approach for technical studies .....	5-7
Figure 1-20 Steps of the significance assessment method.....	5-12
Figure 1-21 Steps of the risk assessment method .....	5-18
Figure 1-22 Location of relevant projects considered in cumulative impact assessment .....	5-25

## Chapter 6 Project description

Figure 1-23 Project overview .....	6-3
Figure 1-24 Heybridge converter station site .....	6-4
Figure 1-25 Waratah Bay shore crossing, potential transition station and communications hut site .....	6-5
Figure 1-26 Project components .....	6-7
Figure 1-27 Survey area subsea cable.....	6-10
Figure 1-28 Victorian terrestrial survey area .....	6-11
Figure 1-29 Heybridge converter station indicative general layout .....	6-14
Figure 1-30 Hazelwood converter station indicative general layout.....	6-16
Figure 1-31 Indicative illustration of the shore crossing method at Waratah Bay .....	6-22
Figure 1-32 Waratah Bay landfall conceptual HDD layout.....	6-24
Figure 1-33 Indicated construction right of way/corridor layout.....	6-26
Figure 1-34 Illustration of how the land cable will be installed in the trench .....	6-27
Figure 1-35 Subsea cable laying and burial .....	6-34
Figure 1-36 Jetting trencher .....	6-34
Figure 1-37 Indicative layout for transition and communications building site .....	6-36
Figure 1-38 Transformer transporter vehicle.....	6-38
Figure 1-39 Indicative construction and commissioning program .....	6-43

## Chapter 8 Community and stakeholder engagement

Figure 1-40 Communication and engagement pillars.....	8-3
Figure 1-41 Consultation phases.....	8-4

## Chapter 9 Sustainability, climate change and greenhouse gas emissions

Figure 1-42 Marinus Link Sustainability Framework .....	9-5
Figure 1-43 MLPL Environment and Sustainability Policy.....	9-6

## Chapter 10 Electromagnetic fields

Figure 1-44 Electromagnetic spectrum.....	10-6
Figure 1-45 Background EMF levels, Bass Strait.....	10-8
Figure 1-46 Background EMF levels, Victoria .....	10-9

Figure 1-47 Calculated EMF levels at the Heybridge shore crossing .....	10-17
Figure 1-48 Calculated EMF levels at the Waratah Bay shore crossing.....	10-18

# Tables

## Chapter 3 Route selection and project alternatives

Table 3-1 Route and site selection constraints.....	3-12
Table 3-2 Corridors identified and relevant benefits.....	3-18
Table 3-3 Route and site selection criteria .....	3-20
Table 3-4 Comparison of prudent and feasible routes .....	3-24
Table 3-5 Route comparison results.....	3-25

## Chapter 5 EIS/EES assessment framework

Table 5-1 EES evaluation objectives and technical studies .....	5-5
Table 5-2 Application of assessment method by technical studies .....	5-11
Table 5-3 Model sensitivity criteria .....	5-13
Table 5-4 Model magnitude criteria .....	5-15
Table 5-5 Assessment of impact .....	5-16
Table 5-6 Model impact significance criteria .....	5-16
Table 5-7 Qualitative criteria for likelihood .....	5-19
Table 5-8 Qualitative criteria for consequence .....	5-20
Table 5-9 Risk evaluation matrix .....	5-20
Table 5-10 Relevant projects for Marinus Link cumulative impact assessment.....	5-23
Table 5-11 Scope of technical studies.....	5-27

## Chapter 6 Project description

Table 6-1 Coordinates of the project alignment .....	6-2
Table 6-2 Converter station construction activities.....	6-20
Table 6-3 Key activities for land cable installation.....	6-28
Table 6-4 Reinstatement and rehabilitation activities.....	6-39
Table 6-5 Marinus Link maintenance schedule.....	6-44

Table 6-6 Converter stations fuel and energy usage .....	6-46
Table 6-7 Decommissioning activities .....	6-48

## Chapter 7 Economics

Table 7-1 Overall economic contributions of construction on gross economic product and employment ....	7-5
Table 7-2 Overall impacts of operation on gross economic product and employment .....	7-7
Table 7-3 EPRs .....	7-9

## Chapter 8 Community and stakeholder engagement

Table 8-1 GSLG stakeholders .....	8-6
Table 8-2 Maritime stakeholders .....	8-9

## Chapter 9 Sustainability, climate change and greenhouse gas emissions

Table 9-1 Key legislation and strategies relevant to the climate change assessment .....	9-9
Table 9-2 BoM monitoring sites summary .....	9-10
Table 9-3 Maximum and minimum daily temperatures recorded at Burnie NTC AWS, Morwell (Latrobe Valley Airport), and Corner Inlet (Yanakie) .....	9-11
Table 9-4 Annual rainfall statistics for Burnie (Park Grove), Morwell (Latrobe Valley Airport) and Corner Inlet (Yanakie) .....	9-12
Table 9-5 Minimum, maximum, and mean sea level (m) at Burnie and Stony Point .....	9-12
Table 9-6 EPRs .....	9-17
Table 9-7 Key legislation and regulations relevant to GHG emissions .....	9-20
Table 9-8 Annual GHG emissions for Australia, Tasmania and Victoria.....	9-21
Table 9-9 Indicative Scope 1 and 2 emissions (tCO <sub>2</sub> -e).....	9-22
Table 9-10 Scope 3 GHG emissions (tCO <sub>2</sub> -e).....	9-22
Table 9-11 EPRs .....	9-23

## Chapter 10 Electromagnetic fields

Table 10-1 Guidelines and standards relevant to the EMF assessment.....	10-4
Table 10-2 Assumed background soil and water temperatures .....	10-10
Table 10-3 Sensitive receivers and EMF/temperature reference levels .....	10-11
Table 10-4 Results of modelling - Heybridge converter station.....	10-14

Table 10-5 Results of modelling - Hazelwood converter station .....	10-15
Table 10-6 Results of modelling - subsea cables.....	10-16
Table 10-7 Results of modelling – land cables.....	10-19
Table 10-8 Results of cable heating assessment.....	10-21
Table 10-9 EPRs .....	10-22





---

© Marinus Link Pty Ltd, 2024

The contents of this document are protected by copyright. Copyright in this material is owned by Marinus Link Pty Ltd or various other rights holders. You may not copy or exercise any other rights in the material except for the purpose of viewing or printing for your non-commercial use.

This document has been prepared by Tetra Tech Coffey Pty Ltd on behalf of Marinus Link Pty Ltd for Marinus Link, for the purposes of preparing the environmental impact statement/environment effects statement. It is not intended to be used for, and should not be relied on, for any other purpose. Tetra Tech Coffey Pty Ltd accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this document by any third party. This document is based on the information available, and the assumptions made, as at the date of the document. This document is to be read in full. No excerpts are to be taken as representative of the findings without appropriate context. Unauthorised use of this document in any form is prohibited.