

EIS Volume 1 Chapter 1

Introduction



Contents

1. Introduction.....	1-1
1.1. Project Overview.....	1-1
1.2. Details of the Proponent.....	1-1
1.3. Background to the Proposal	1-5
1.3.1. Previous proposals	1-5
1.3.2. Transition of the energy market	1-5
1.4. Objective of Project EnergyConnect.....	1-6
1.5. The Proposal	1-6
1.6. Project Timeline	1-6
1.7. Overview of Regulatory Approvals Process	1-8
1.8. Purpose and Description of the EIS	1-10
1.8.1. Purpose of the EIS	1-10
1.8.2. Consultation.....	1-10
1.8.3. EIS Guidelines.....	1-10
1.9. Structure of the EIS.....	1-11
1.10. Key EIS Terminology.....	1-13

List of Tables

Table 1-1: EIS Guidelines addressed in the Introduction chapter.....	1-11
Table 1-2: Volume One - EIS.....	1-11
Table 1-3: Volume Two - Supporting documentation and technical reports	1-12
Table 1-4: Volume Three – Environmental and social management plans	1-12
Table 1-5: Key EIS terminology	1-13

List of Figures

Figure 1-1: Project overview	1-3
Figure 1-2: Proposed Project location.....	1-4
Figure 1-3: Indicative Project timeline	1-7
Figure 1-4: Overview of the assessment and approval process	1-9

1. Introduction

1.1. Project Overview

Project EnergyConnect is a proposed high voltage electricity transmission interconnector to be constructed between Robertstown in South Australia (SA) and Wagga Wagga in New South Wales (NSW), with an added connection from Buronga in NSW to Red Cliffs in north-west Victoria (refer Figure 1-1). The transmission line would be the second major interconnector between SA and the National Electricity Market (NEM).

The owner and operator of the South Australian transmission network, ElectraNet, has partnered with TransGrid, the manager and operator of the high voltage electricity transmission network in NSW, to deliver Project EnergyConnect which will ultimately be built, owned, operated and maintained by ElectraNet and TransGrid.

Project EnergyConnect is comprised of several sections that would be subject to separate environmental planning approvals under the relevant jurisdictions:

- SA – Robertstown to SA / NSW border (ElectraNet)
- NSW – Western Section extending from SA / NSW border to TransGrid’s existing Buronga substation and Buronga substation to the NSW / Victoria border at Monak (near Red Cliffs in Victoria) (TransGrid)
- NSW – Eastern Section extending from the Buronga substation to the existing Wagga Wagga 330 kilovolt (kV) substation (TransGrid)
- Victoria - NSW/Victoria border to Red Cliffs substation (TransGrid).

ElectraNet would be responsible for constructing and operating the SA portion of Project EnergyConnect from Robertstown to the SA / NSW Border. This South Australian section of Project EnergyConnect is referred to as ‘the Project’ for the purposes of the South Australian assessments and approvals processes (refer Figure 1-2).

The Project was declared a Major Development under the *Development Act 1993* (SA) by the Minister for Planning on 24 June 2019 requiring preparation of an Environmental Impact Statement (EIS). The Project was also declared a Controlled Action by the Commonwealth Environment Minister, on 17 July 2019, requiring assessment under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act). An EIS has been prepared in accordance with the guidelines issued by the South Australian State Planning Commission (EIS Guidelines) for the consideration of both governments. Environmental authorisation from both the South Australian and Commonwealth governments is required before the South Australian portion of Project EnergyConnect may proceed.

The NSW sections of Project EnergyConnect have been declared to be Critical State Infrastructure and will be assessed under the corresponding NSW EIS process. Assessment as a Controlled Action under the EPBC Act will also be undertaken for the NSW sections.

1.2. Details of the Proponent

ElectraNet is an Adelaide-based private company and principal owner and operator of the South Australian transmission network. ElectraNet specialises in electricity transmission, delivering safe, affordable and reliable solutions to power homes, businesses and the economy. ElectraNet builds, owns, operates and maintains high-voltage electricity assets, which move energy from traditional and renewable energy generators in SA and interstate, to large load customers and the lower voltage distribution network.

The South Australian electricity transmission network operated by ElectraNet covers an area of more than 200,000 square kilometres (km²). This network consists of 6, 267 circuit kilometres (km) of transmission lines and underground cables, together with 97 substations and switchyards, predominantly operating at 132 and 275 kV.

In all, ElectraNet owns and operates more than \$2.5 billion of high-voltage electricity transmission assets and is one of the highest reliability network providers in Australia.

The owners of ElectraNet Pty Ltd, trading as ElectraNet, are:

- State Grid International Development Asia and Australia Holding Company (the international arm of the State Grid Corporation of China)
- YTL Power Investments Limited (an investment company of YTL Power International Berhad); and
- Australian Utilities Pty Ltd (as trustee for the Australian Utilities Trust).

ElectraNet operates under the governance of the ElectraNet Board of Directors, which includes up to nine Directors representing the shareholding companies, and an independent Chairman.

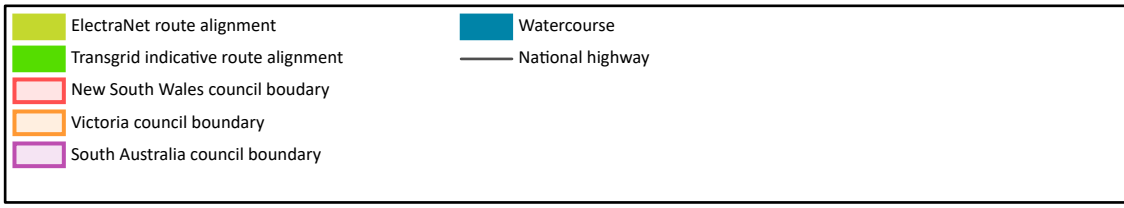
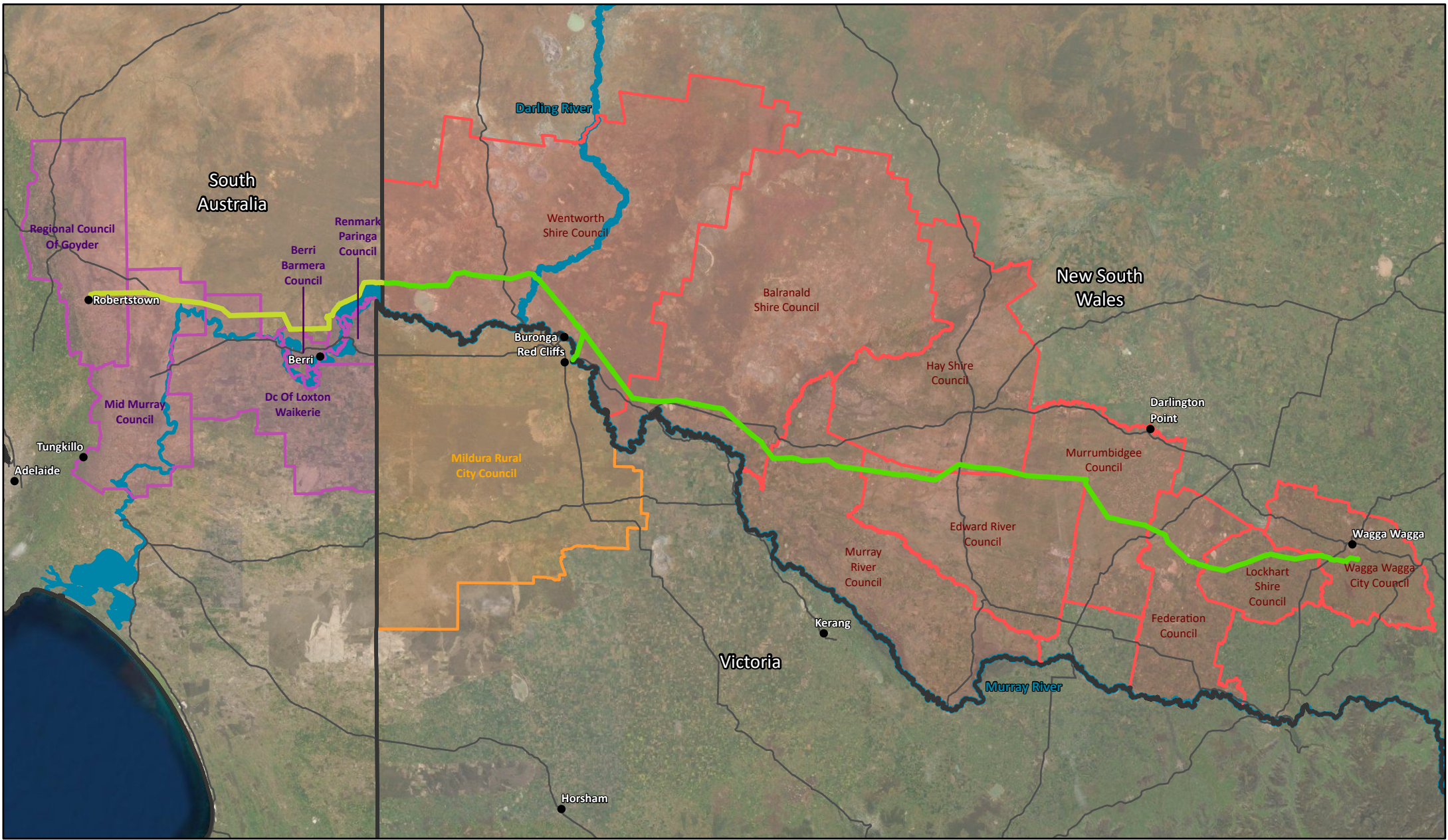







Figure 1-1
Project overview

 0 100 Kilometres	 N
	
	

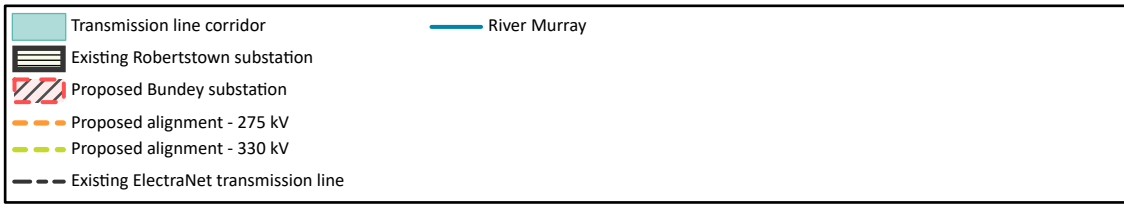
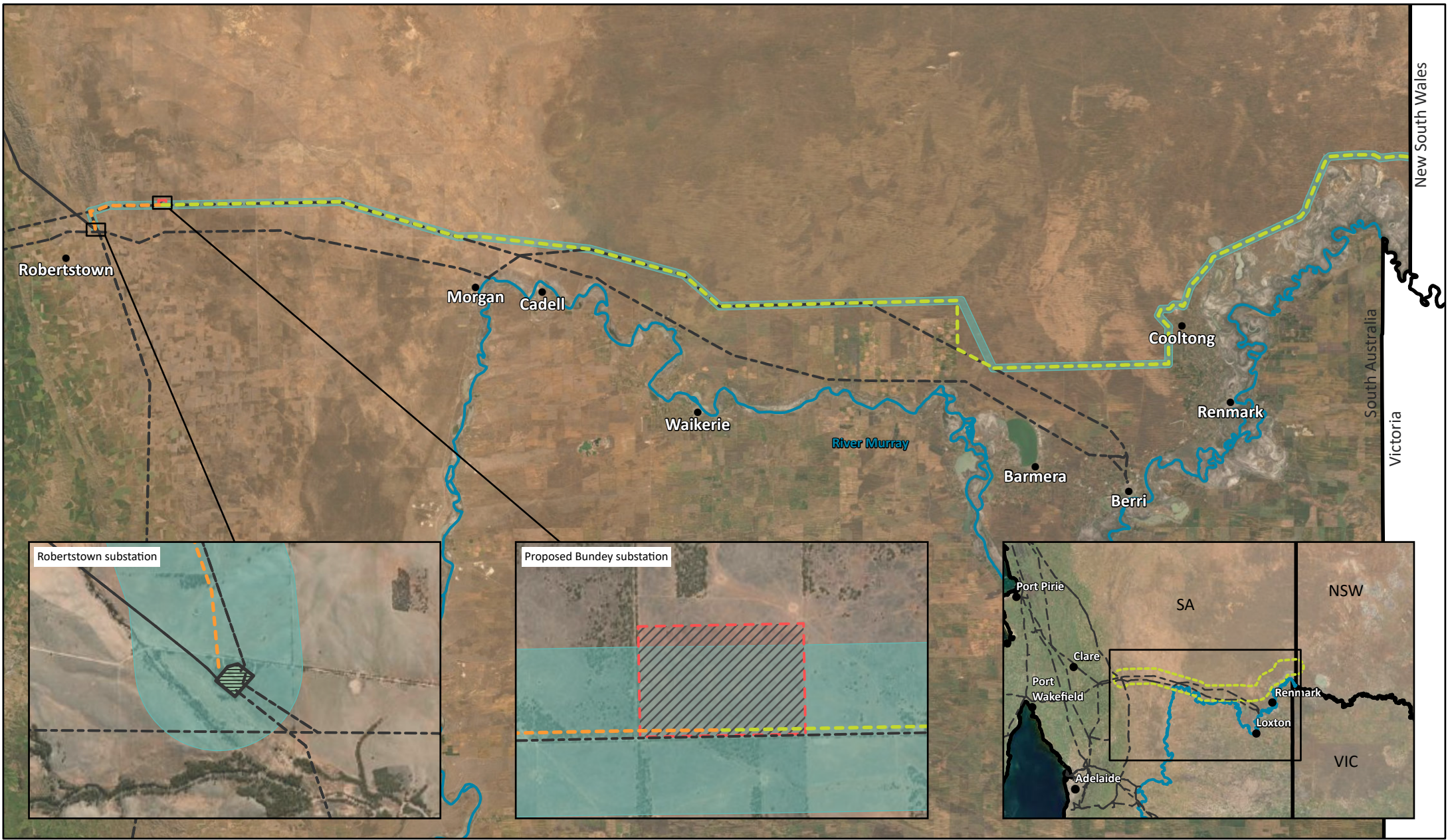


Figure 1-2
Proposed Project location

0 20

Kilometres

N

1.3. Background to the Proposal

1.3.1. Previous proposals

There have been several previous proposals to link the SA and NSW energy markets through the construction of an interconnector, which did not proceed largely due to historical issues in the administration of the NEM.

In the mid-1990s, the South Australia-New South Wales Interconnector project (known as SANI) was proposed with support from both States. Following a decision by the then electricity market operator¹ not to approve the project as a regulated interconnector, (based on considerations of customer benefit, as opposed to public benefit), the South Australian government withdrew its active involvement in the project. The regulated asset test which was used to assess the SANI was later reviewed by the Australian Competition and Consumer Commission (ACCC) to address perceived inadequacies (SKM 2002).

Similarly, the subsequent South Australia-New South Wales Interconnector project known as SNI which was proposed in the early 2000s, also failed to progress. Regulator approval for the SNI was sought at the same time as the MurrayLink market link was being built and operated, which exposed deficiencies in the national electricity code in relation to interactions between market and regulated transmission companies. While market benefits could have been maximised using a co-operative approach, the proponents of the regulated and market interconnectors were unable to achieve this. The approval process for SNI was the subject of ongoing appeals and TransGrid as proponent of the SNI eventually decided not to proceed with the project. (ACCC 2004).

1.3.2. Transition of the energy market

A significant energy market transition away from traditional fossil fuel-based electricity generation to a greater input from renewable energy sources and other emerging technologies has been underway in Australia since the early 2000s. This movement has had implications for energy prices and system stability and security in SA.

Wholesale electricity prices are increasingly volatile while SA remains solely reliant on Victoria for interconnection with rest of the NEM. The growing penetration of renewable energy generation (wind and solar) and uptake of rooftop photovoltaic systems in SA, combined with the looming closure of ageing coal-fired generators elsewhere in the NEM over the next 20 years, are also significant factors driving the need to ensure the national power system remains reliable and secure.

The Finkel Review in 2017, which followed the State-wide blackouts in SA in 2016, similarly found that better system planning was required to provide access for emerging renewable energy technologies and to protect the integrity of the system from extreme weather and climate effects.

To address these issues, and as part of planning for securing reliable supply and lower prices for South Australian consumers in the future, ElectraNet has been exploring options to facilitate South Australia's Energy Transformation (SAET). This has involved the assessment of the technical and economic feasibility of constructing and operating a new interconnector (including an assessment of alternative non-network solution options), through a Regulatory Investment Test for Transmission (RIT-T)² process. In February 2019, ElectraNet released the SAET Project Assessment Conclusions Report (PACR) and on 24 January 2020, the Australian Energy Regulator (AER) approved the RIT-T.

¹ National Electricity Marketing and Management Company (NEMMCO)

² The RIT-T process is the economic cost-benefit test overseen by the Australian Energy Regulator (AER) and applies to all major network investments in the NEM.

ElectraNet has lodged their Contingent Project Applications with the AER which is the final step in the regulatory approval process.

1.4. Objective of Project EnergyConnect

The objective of Project EnergyConnect is to improve the affordability, reliability and sustainability of electricity supply in the NEM through increased electricity transmission between SA, NSW and Victoria of about 800 megawatts (MW). The Project aims to create a net benefit to consumers and producers of electricity and support transition of the energy market to a lower carbon economy using the following means:

- enhancing security of electricity supply in SA by providing a second major interconnector to the rest of the NEM
- increasing electricity supply competition and trade by improving network access and capacity, thereby reducing wholesale electricity costs using market means
- providing new opportunities for renewable energy and other energy projects to connect to the NEM, thereby stimulating economic activity and facilitating transition to a low carbon economy.

It is expected that achievement of these objectives will provide a wide range of benefits at a local, state and national level, as discussed in Chapter 2 Project Justification.

1.5. The Proposal

The proposed Project involves the construction and operation of the South Australian portion (Robertstown to SA / NSW border) of Project EnergyConnect which comprises:

- approximately 10 km of 275 kV transmission line supported by steel towers from the existing Robertstown substation to a proposed new substation located towards the western extent of the transmission line at Bunday, near Robertstown
- approximately 195 km of 330 kV transmission line supported by steel towers from the new Bunday substation to the SA / NSW border
- associated telecommunications infrastructure
- associated access tracks
- associated temporary facilities (e.g. temporary construction compounds, site offices, laydown areas and mobile construction camps).

The route selection process for the proposed interconnector alignment is described in Chapter 4 Route Selection. The proposed Project infrastructure, works and activities are described in detail in Chapter 7 Project Description.

1.6. Project Timeline

Construction on the Project would commence once all access to land and necessary environmental and development approvals are obtained. ElectraNet anticipates that construction would take approximately 18 - 24 months to complete, with energisation occurring progressively through 2023 (refer Figure 1-3). Where possible, scheduling in relation to approvals and construction of the Project is being aligned with the NSW portion of Project EnergyConnect, with ElectraNet and TransGrid executing a coordinated approach in order to optimise construction timeframes as far as possible. Details of Project activities, staging and timeframes are provided in Chapter 7 Project Description. The operational life of the asset is expected to be 100 years.

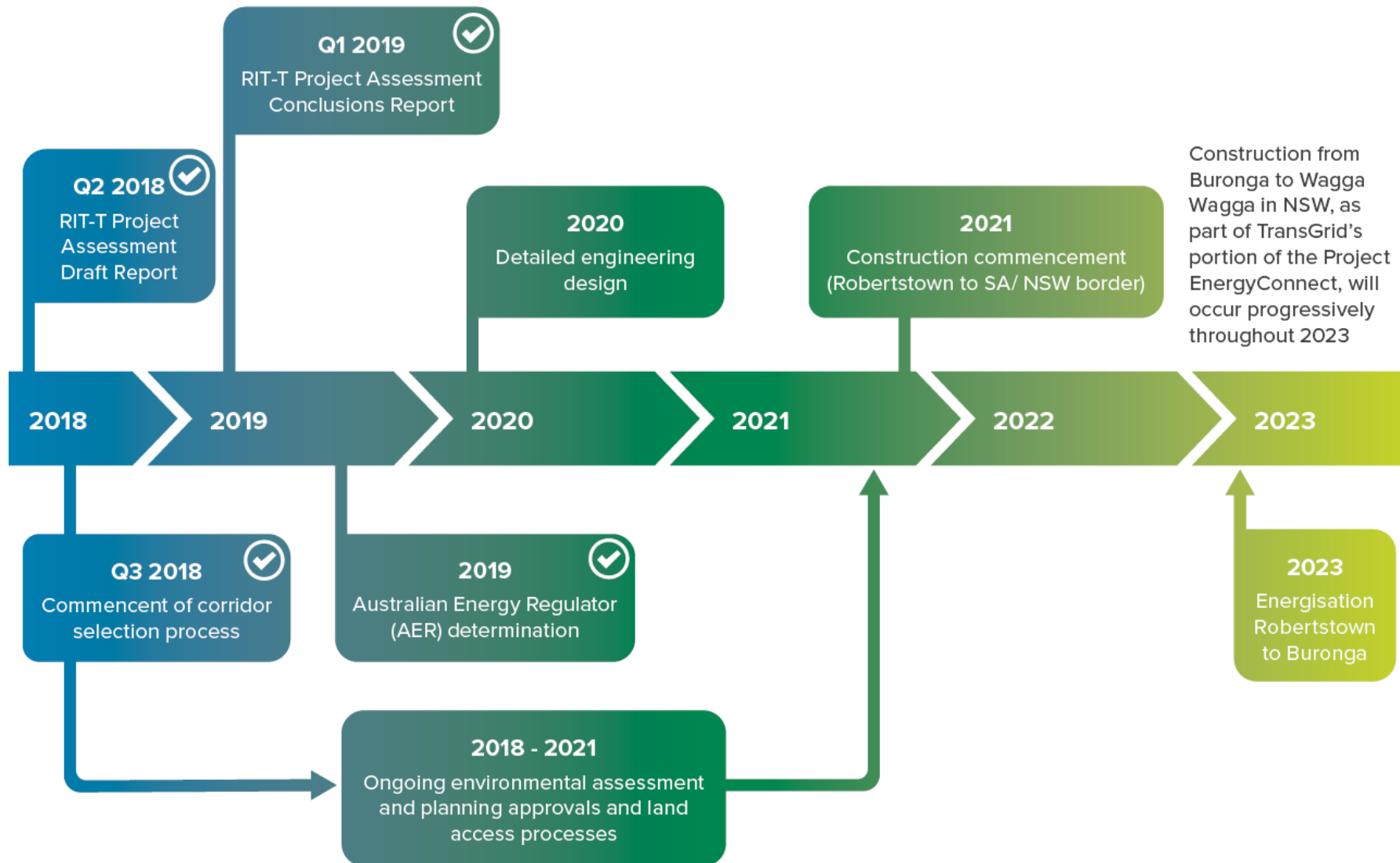


Figure 1-3: Indicative Project timeline

1.7. Overview of Regulatory Approvals Process

This EIS has been prepared by ElectraNet as the proponent for the Project in accordance with the EIS Guidelines for the Project issued by the Minister for Planning on 20 November 2019 (refer Appendix B Guidelines for the Preparation of an EIS). The EIS Guidelines include the Commonwealth's environmental assessment requirements for the Controlled Action.

The Project will be assessed by the State and Commonwealth governments under the Major Development provisions of the *Development Act 1993* (SA) in accordance with the Bilateral Agreement between the Commonwealth and South Australian governments under Section 45(2) of the EPBC Act (refer Section 5.3.4).

An EIS for the Project was considered appropriate by the State Planning Commission due to the number of issues that required investigation and an EIS level of assessment also aligns with the assessment assigned by the NSW planning system for the section of the transmission infrastructure located from the NSW border to Wagga Wagga via Buronga.

In addition to ensuring each Guideline is addressed, the EIS is required to provide a clear, detailed and comprehensive analysis of the proposed development, the existing environment in which it will be located (physical and socio-economic), the likely impacts of the development and how those impacts will be addressed.

Assessment of the EIS involves the following steps:

- submission of a draft EIS to Planning and Land Use Services in the Attorney-General's Department (PLUS-AGD) for review before being released for public consultation
- a public exhibition / consultation period of at least 6 weeks
- preparation of a Response Document by ElectraNet responding to submissions made during the public consultation period
- assessment of the Response Report by PLUS-AGD, and preparation of an Assessment Report for the consideration of the SA Planning Minister and the Commonwealth Environment Minister
- decision to approve or not approve by the SA Planning Minister, and the Commonwealth Environment Minister in relation to Matters of National Environmental Significance.

An overview of the EIS approvals process is set out in Figure 1-4.

The Major Development and EIS provisions under the Development Act, the Bilateral Agreement arrangements under the EPBC Act and other relevant Commonwealth, State and local legislative planning and approvals in relation to the Project are discussed in detail in Chapter 5 Legislative and Planning Framework.

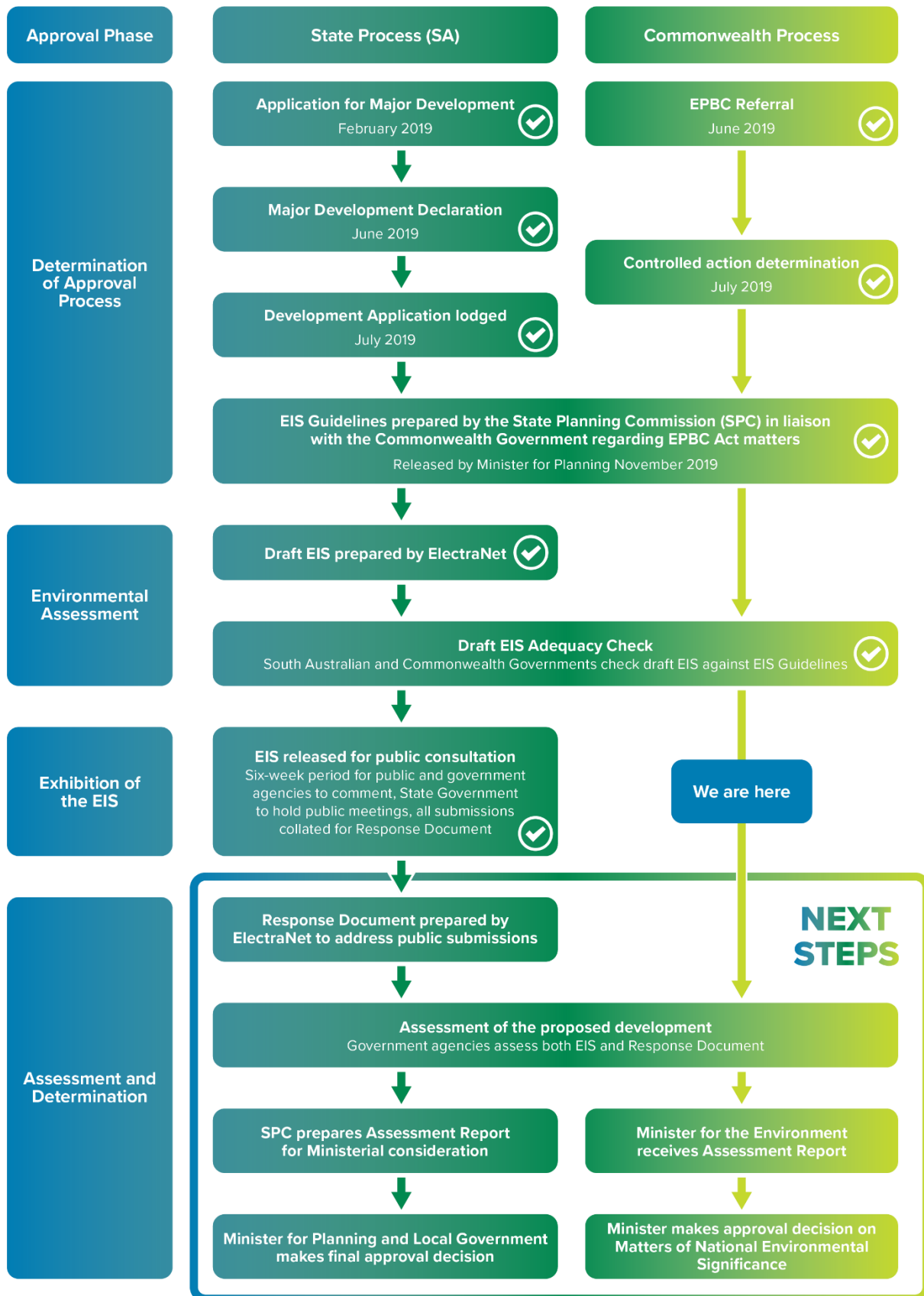


Figure 1-4: Overview of the assessment and approval process

1.8. Purpose and Description of the EIS

1.8.1. Purpose of the EIS

An EIS is an important, iterative process that will inform the construction and operational requirements of the Project. By understanding the relevant positive and negative environmental impacts of a development, appropriate mitigation measures and management actions can be incorporated into the concept and detailed design of the Project.

This EIS has been prepared to identify and assess the environmental, social and economic impacts and benefits of constructing the proposed interconnector between Robertstown and the SA / NSW border, including cumulative impacts and benefits.

The objectives of the EIS are to:

- provide a source of information for stakeholders to facilitate informed consultation and feedback
- explain the need for the Project and evaluate the case for approval of the Project over the alternatives which have been considered
- identify and assess the potential impacts of the Project on the community and the environment, and the measures to avoid, minimise and mitigate those impacts
- provide a framework for decision-makers to consider the Project in line with environmental, social, economic, cultural and technical factors; and
- address the EIS Guidelines which will be assessed against the legislative framework described in Chapter 5 Legislative Framework and Planning.

1.8.2. Consultation

Community consultation is an integral part of the impact assessment process, contributing to understanding of impacts and through the development of mitigation measures and management actions, mutually benefitting both the community and the proponent. Engagement with the community provides understanding of what is happening in their 'backyard' and provides the proponent with useful feedback on the proposed development.

ElectraNet has undertaken extensive and ongoing stakeholder engagement during the preparation of the studies that support this EIS, the assessment of the interconnector options considered by the RIT- T process (refer Chapter 2), corridor and route selection studies and refinement of the proposed alignment (refer Chapter 4). Engagement will be ongoing as part of the consultation phase for the EIS and as part of micro-siting of infrastructure and final design. This engagement has included consultation with landholders, Traditional Owners, the broader community in the region of the Project, energy generators and developers, State and Commonwealth approval authorities and local government.

Stakeholder engagement undertaken for the Project is discussed further in Chapter 6 Stakeholder Engagement.

1.8.3. EIS Guidelines

This EIS has been prepared in accordance with the EIS Guidelines for the Project issued by the Minister for Planning (refer Appendix B Guidelines for the Preparation of an EIS). The specific Guidelines which are addressed in each chapter are listed at the beginning of the chapter and a summary table cross referencing each Guideline requirement (action or investigation needed) with the relevant section and page of the EIS is at Appendix C EIS Guidelines Reference Table.

The Guidelines relating to the Introduction Chapter of this EIS are set out in Table 1-1.

Table 1-1: EIS Guidelines addressed in the Introduction chapter

EIS Guidelines and Assessment Requirements
General Requirements
<ul style="list-style-type: none"> Background to, and objectives of, the proposed development.
<ul style="list-style-type: none"> Details of the proponent.
<ul style="list-style-type: none"> Staging and timing of the proposal, including expected dates for construction and operation.
<ul style="list-style-type: none"> Relevant legislative requirements and approval processes.
<ul style="list-style-type: none"> Purpose and description of the EIS process.

1.9. Structure of the EIS

This EIS has been prepared to ensure that the Project is described adequately, the potential environmental impacts are assessed and proposed mitigation measures are identified. To present this information, the EIS consists of three volumes incorporating:

- Volume One – EIS main report
- Volume Two – Supporting documentation and technical reports (Appendices A – O)
- Volume Three – Environmental and social management plans (Appendices P – S)

The structure and contents of these volumes is detailed in Table 1-2 to Table 1-4.

Table 1-2: Volume One - EIS

Chapter	Title	Chapter Summary
1	Introduction	Provides background to the proposed Project, the proponent and structure of the EIS.
2	Project Justification	Sets out the objectives and justification for the Project
3	Alternatives to the Project	Sets out the Project alternatives and other options which have been investigated
4	Route Selection	Describes the approach used to refine the transmission line corridor to date, and how a preferred route was identified.
5	Legislative and Planning Framework	Describes the Commonwealth, State and local government legislative framework relevant to the Project, together with an assessment against the relevant State and local planning documents.
6	Stakeholder Engagement	Presents a summary of the key engagement activities undertaken as part of the EIS process, as well as future engagement opportunities.
7	Project Description	Provides a detailed description of the proposed Project
8	Impact Assessment Methodology	Describes the impact and risk assessment process employed for the EIS
9	Land Use and Tenure	These chapters set out the impact assessment for each environmental and social-economic element and: <ul style="list-style-type: none"> describe the existing baseline conditions for each environmental and social element and identify relevant environmental values identify and discusses potential impact events and proposed controls and mitigation strategies present the outcomes of impact assessment for identified impact events for each environmental and social element, including any additional mitigation where relevant.
10	Physical Environment	
11	Flora and Fauna	
12	Cultural Heritage	
13	Visual Amenity	
14	Air Quality	
15	Noise and Vibration	
16	Traffic and Transport	
17	Socio-Economic Environment	
18	Hazards and Risk Management	
19	Waste Management	

Chapter	Title	Chapter Summary
20	Environmental Management Framework	Describes the environmental management framework that will be applied during construction and operation for the Project.
21	Conclusion	Conclusions of the EIS
22	References	Lists references referred to or relied on in the EIS

Table 1-3: Volume Two - Supporting documentation and technical reports

Appendix	Report	Reference in EIS
A	Ministerial Major Project Declaration	Chapter 1
B	Guidelines for the Preparation of an EIS	Chapter 1
C	EIS Guidelines Reference Table	All chapters
D	Preliminary Plans of the Proposed Route	Chapter 7
E	Preliminary Plans of the Proposed Substation	Chapter 7
F	Certificates of Title	Chapter 9
G	Stakeholder Consultation Materials	Chapter 6
H	Route Selection Feedback Report	Chapter 4
I	<u>Ecology Assessments</u> I-1: Species Likelihood Assessments I-2: Vegetation Assessment Summary I-3: Significant Impact Assessments I-4: Threatened Mallee Birds Assessment I-5: Review of Potential Impacts to Wetland Birds I-6: Native Vegetation Clearance Data Report	Chapter 11
J	Environmental Noise Impact Assessment	Chapter 15
K	Air Quality Impact Assessment and Greenhouse Gas Assessment	Chapter 14
L	<u>Visual Impact Assessments</u> L-1: Visual Impact Assessment L-2: Addendum to the Visual Impact Assessment	Chapter 13
M	Traffic Impact Assessment	Chapter 16
N	<u>Socio-Economic Assessments</u> N-1: Updated Analysis on Electricity Prices and Assessment of Broader Economic Benefits N-2: Project EnergyConnect (South Australian portion) Socioeconomic Assessment	Chapter 17
O	Impact Event Uncertainty Evaluation	Chapter 8

Table 1-4: Volume Three – Environmental and social management plans

Appendix	Report	Reference in EIS
P	Draft Construction Environmental Management Plan	Impact Assessment Chapters
Q	Draft Operation Environmental Management Plan	Impact Assessment Chapters
R	Cultural Heritage Management Plan Framework	Chapter 18 and 19
S	Draft Fire Hazard Management Plan	Chapter 18
T	Draft Waste Management and Minimisation Plan	Chapter 19

1.10. Key EIS Terminology

Table 1-5 lists the key terms that are discussed throughout the EIS. A full list of terms used in the EIS is provided in the EIS Glossary.

Table 1-5: Key EIS terminology

Term	Definition / Explanation
Proposed alignment	The alignment of the transmission line identified through the Project route selection process which is the subject of this EIS. The proposed alignment will be subject to ongoing refinement at the local level as the design phase progresses and engagement continues with landholders, Traditional Owners and other stakeholders.
Transmission line corridor	A nominal 1 km wide corridor (500 m buffer either side of the alignment as at January 2021) used as a guide for the assessment of impacts. The final alignment of the transmission line is expected to remain largely within the transmission line corridor (refer Section 4.8).
Study area	The area used for investigation for an impact assessment study, which is specifically defined in each relevant EIS chapter (e.g. the ecological study area is defined as a corridor 50 km wide).
Transmission line easement	An area surrounding and including the transmission line, which is a legal 'right of way' and allows for ongoing access and maintenance of the line and will be acquired from landholders. The easement would typically be 80 m wide.