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Acknowledgement of Country

AusNet acknowledges the Traditional Owners of the lands on which the proposed Western Renewables Link will operate, and pays respect to Elders past and present.

We recognise the role of each Registered Aboriginal Party (RAP) in the management, protection, and promotion of cultural heritage on Country, cultural awareness, and land access. AusNet are engaging with each RAP along the Western Renewables Link alignment, to understand the benefits and outcomes of the Western Renewables Link that would be meaningful to each RAP and their communities.



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1 Introduction

Western Renewables Link will 'unlock' the renewable energy generation potential of Victoria and play a key role in facilitating access to clean, reliable and affordable energy.





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Renewable energy sources like wind and solar are essential for Victoria's future electricity generation and will play a key role in the state's transition to clean net zero emissions energy to combat climate change. Large amounts of additional renewable energy generation are expected to be operational in the near future as Victoria seeks to transition away from coal-fired power. Targeted and timely delivery of transmission infrastructure in western Victoria is required to harness renewable energy and maintain the reliability and security of the state's electricity supply. The Project will help increase Victoria's renewable energy supply, assisting with reducing electricity prices for consumers and decreasing emissions from coal-fired generation. The Project is included on the Commonwealth's National Renewable Energy Priority List, which identifies projects critical to supporting Australia's transition to net zero emissions by 2050. The Commonwealth, State and Territory Governments developed the list collaboratively, and will provide coordinated support for regulatory planning and environmental approval processes for identified priority projects.

In December 2019, the Australian Energy Market Operator (AEMO) selected AusNet to deliver the Project following a competitive tender process. Based in Melbourne, AusNet is the largest diversified energy network business in Victoria, currently operating 6,500km of transmission lines across the state. AusNet will own the Project and will be responsible for the building, operation, and maintenance.

This Summary Report provides an overview of the Project and the Environment Effects Statement (EES). The EES describes the existing environment, identifies the benefits and potential impacts during construction, operation and decommissioning, and proposes ways to avoid, minimise, manage and offset these impacts.



2 Why is the Project needed?

Western Renewables Link addresses constraints in the western Victorian transmission network by providing the additional capacity, reliability and security needed to service existing renewable generation and drive the development of further renewable energy resources in western Victoria.



Australia's energy supply is undergoing a rapid transformation, transitioning from large, centralised power stations to more dispersed renewable energy sources. Energy consumption patterns are also changing. This transition is reshaping how Australians use and access energy. In Victoria, the shift to renewable energy is evolving, especially with the closure of coal-fired power plants in the Latrobe Valley. The increase in large-scale renewable projects, and more solar power and battery investments by consumers, are also driving this change.

As more renewable energy sources are adopted in Victoria, new energy generation hubs are emerging across the state. These hubs are in areas that have excellent renewable resources but are often not near traditional energy generation centres and as such do not have access to existing transmission infrastructure.

The current transmission network also has limits and constraints, which is impeding new and existing renewable energy developments. These constraints also make it difficult to effectively and efficiently transmit renewable energy to the wider network, leading to higher electricity costs and reduced reliability for consumers (AEMO, 2021a).

The electrification of transport, households and industry will more than double demand for electricity in the National Electricity Market (NEM) by 2050, reaching over 410 terra-watt hours per year. This presents a key challenge as Australia-wide, coal-fired generation capacity is retiring two to three times faster than anticipated, creating supply reliability risks. Without transmission infrastructure that supports the flow of energy from Victoria's REZs to consumers, the operation of renewable energy generators will continue to be constrained, and Victoria will become reliant on interstate electricity supply to meet demand.

To 'unlock' Australia's renewable energy potential, transmission and network improvement projects are required to assist with upgrading transmission capacity, reducing network congestion, and improving the productivity of existing assets (AEMO, 2022a; AEMO, 2023a).

The Project is one of several initiatives necessary to address network capacity issues in western Victoria. AEMO has identified the need for the Project as part of an optimal development path for the NEM and essential to expanding generation capacity in the Western Victoria REZ (AEMO, 2021a; AEMO, 2023a).

Following this determination, five broad options that could potentially deliver the required outcomes were assessed under the Regulatory Investment Test for Transmission (RIT-T) process, focussing on their technical and economic viability. This process considers net economic benefit to electricity consumers but does not examine matters related to social and environmental impacts on local communities, unless it conflicts with the law. Through the RIT-T process the five broad investment options were refined, and a preferred option was identified - the Project - that delivers the highest economic net benefit to all those who produce, transport and consume electricity in the market.

In May 2023, an order was issued by the Minister for Energy and Resources under the *National Electricity (Victoria) Act 2005* (NEVA) that proposed changes to the Project to facilitate connection to the Victoria to New South Wales Interconnector (VNI) West project. VNI West is a 500kV double circuit transmission line that will provide a direct link between the New South Wales and Victorian high voltage electricity grids. This connection will significantly strengthen the reliability and security of the Victorian transmission system by providing access to replacement dispatchable capacity across the NEM as coal retires. The new 500kV terminal station near Bulgana has been proposed to provide this connection.

2.1 **Project objectives**

The Project was developed to meet the objectives, shown in Table 1, developed by AEMO and AusNet, having regard to the Western Victoria Renewable Integration RIT-T and reinforced by the NEVA orders issued in 2023. The Project objectives aim to address the capacity, security and reliability constraints facing Victoria and the NEM.

Table 1. Project objectives

Project objectives

Maintain the security and reliability of the transmission network for customers by:

- Increasing electricity transmission capacity in western Victoria to minimise the congestion constraining current and future electricity generation in the region; and
- Ensuring the Project complies with the power system security requirements of the National Electricity Rules.

Create opportunities for strategic development of the NEM by:

- Increasing electricity transmission capacity, thereby facilitating more efficient connection and dispatch of electricity generation in and from the region; and
- Enabling future transmission network expansion from Victoria to New South Wales.

Deliver infrastructure which realises a net benefit for Victorians by:

- Delivering the Project in a timely and costefficient manner; and
- Delivering transmission infrastructure which, by increasing capacity, facilitates the further development of renewables in western Victoria, encouraging further investment in the industry and associated economic growth.

3 Project benefits

Western Renewables Link will enhance energy security across Victoria. By increasing capacity for future renewable energy in western Victoria, the Project will deliver social and economic benefits at national, state, and regional levels.



3.1 Energy supply benefits

The Project will address the most critical constraints in western Victoria's transmission network, allowing for more efficient connections and dispatch of renewable energy. This will enhance the state's power system capabilities, increase the diversity and availability of energy supply, and lower electricity costs for consumers in the long run.

In particular, the new 500kV terminal station near Bulgana proposed as part of the Project, will facilitate interconnection to the proposed VNI West and provide a direct link between the New South Wales and Victorian electricity grids. This means the Project will significantly strengthen the reliability and security of the Victorian transmission system by providing access to replacement dispatchable capacity across the NEM as coal retires.

By facilitating connection to renewable energy generation in western Victoria and direct connection between the New South Wales and Victorian electricity grids, the Project will deliver the necessary transmission infrastructure to:

- Support the transition towards increased renewable energy generation in Victoria
- Maintain the reliability and security of the state's electricity, as Victoria transitions away from coal-fired power generation and energy demands grow.

Without this critical transmission infrastructure to support the flow of energy from Victoria's REZs to consumers, the operation of renewable energy generators will continue to be constrained, and Victoria will become reliant on interstate supply to meet demand.

3.2 Create opportunities for strategic development of the NEM

The Project is part of a larger, long-term power system plan underway to strategically coordinate future development in transmission and generation across Victoria and the NEM. The NEM operates across eastern and southern Australia, connecting regional electricity grids into a large, interconnected system. There is a market benefit when a project facilitates more costefficient investment patterns across the NEM for generators and large-scale storage.

The future connection of VNI West at the new 500kV terminal station near Bulgana will realise benefits by:

- Efficiently maintaining supply reliability in Victoria following the closure of further coal-fired generation and the decline in aging generator reliability including mitigation of the risk that existing plants close earlier than expected
- Facilitating efficient development and dispatch of generation in areas with high quality renewable resources in Victoria and southern New South Wales through improved network capacity and access to demand centres
- Enabling more efficient sharing of resources between NEM regions.

Through enabling the strategic development of the NEM, the Project will result in net benefit for Victorians.

3.3 Local and regional benefits

The Project will create jobs during both the construction and operation stages, including up to 700 direct jobs during the peak of construction, boosting the local and regional economy. Engagement with local western Victorian communities has also identified benefitsharing programs that will address key social, economic, and environmental needs. Key local benefits will include:

- Using local goods and services during construction
- Working with businesses in western Victoria to maximise local participation in the Project
- Working with Traditional Owner communities to secure jobs and other benefits throughout the Project's construction and operation stages
- Making western Victoria more attractive for renewable energy investment, which will create future local employment opportunities.

Subject to Project approval, the Project team will implement a Community Benefit Fund to provide opportunities for community input into the Project's legacy and contribution to the region. The fund will be co-designed in partnership with the community and key Project stakeholders, and provides an opportunity to give back to the community, within the approved Community Benefit Fund budget. There are significant opportunities to maximise the impact of the Community Benefit Fund by partnering with state and federal funding programs, as well as aligning with planned local government spending.

AusNet will implement schemes to provide training and skills development and build energy resilience through in-kind contributions to community energy projects. It will also work with stakeholders and the community to determine the most appropriate allocation of funding, recognising each community's unique needs and circumstances.



4 About the Project

By increasing network capacity, Western Renewables Link aims to reduce constraints within the existing electricity transmission network in western Victoria.



The Project will involve the construction and operation of a new 190km 500kV overhead double circuit transmission line, from near Bulgana in Victoria's west to Sydenham in Melbourne's north-west, and a new terminal station, along with upgrades to other existing terminal stations. The Project spans six local government areas (LGAs), namely, the Northern Grampians, Pyrenees, Ballarat, Hepburn, Moorabool and Melton.



Key components of the Project's infrastructure include:

A new

500kV terminal station near Bulgana

and connections into two existing terminal stations, including an expansion of the existing Bulgana Terminal Station.

Approximately 2.5km of 220kV transmission line

between the existing Bulgana Terminal Station and the new Bulgana terminal station.

Protection system upgrades

at connected terminal station sites.

Around

155km of access tracks (total length)

outside the easement, providing access to each tower site for construction, operation and maintenance. Theses tracks will be located in agreement with landholders.

Ground wires

on the transmission towers may incorporate a fibre optic core to provide communication between terminal stations.

418 double circuit 500kV lattice towers typically between 60 to 80m in height.

36 single circuit 500kV lattice towers

(18 sets of two side-by side) typically between 30 to 50m in height.

Approximately

190km of 500kV transmission line

between a new terminal station near Bulgana in Victoria's west and Sydenham in Melbourne's north-west. The transmission line will be located within an easement that is predominantly 70 to 100m wide, but ranges from 55 up to 115m.



An overview of the Project's infrastructure is shown in Figure 3.

All infrastructure components are located within the areas required for Project construction and operation. The Project location can be described by the following key terms:

- **Proposed Route:** The Proposed Route is approximately 100m to 170m wide and encompasses the nominal future easement (including a buffer either side), and the terminal station areas. The Proposed Route was progressively refined from an initial area of interest and is located within the Project Area
- **Project Area:** The Project Area is contained within the Project Land and encompasses all areas that would be used to support the construction and operation of the Project
- **Project Land:** The Project Land encompasses all land parcels that could be used for the purpose of temporary Project construction and permanent operational components. The Project Land corresponds with the extent of the Specific Controls Overlay proposed in the draft Planning Scheme Amendment (PSA) for the Project. This generally includes the entire land parcel intersected by a Project component.

The Project's broad components are shown in Figure 3, with the location of the Project Area and Project Land shown in Figure 4.



Figure 3. Western Renewables Link overview



4.1 **Project components**

4.1.1 Overhead transmission line and towers

The Project comprises of the construction and operation of a new 190km overhead double circuit 500kV transmission line between Bulgana in Victoria's west and Sydenham in Melbourne's north-west, and approximately 2.5km of 220kV single circuit transmission line between the existing Bulgana Terminal Station and a new 500kV terminal station near Bulgana.

The transmission line will be supported by approximately 418 double circuit lattice towers typically between 60 to 80m in height, and 36 single circuit lattice towers (18 sets of two side-by-side) typically between 30 to 50m in height. The typical span between towers for the Project is between 450 and 550m. Access tracks will be required to each tower location to enable construction, operation and maintenance.

Once operational, the proposed transmission line will be located within an easement that is predominantly 70 and 100m wide, but ranges from 55 up to 115m.

4.1.2 Terminal stations

Terminal stations contain electrical equipment used to convert power between different voltage levels (transformers), stabilise voltage levels along the transmission line, move electrical energy from one point to another, and monitor and protect the transmission network.

4.1.2.1 New 500kV terminal station near Bulgana

The new 500kV terminal station near Bulgana will support the connection of the Project and future connections, including the proposed VNI West. The new 500kV terminal station near Bulgana will require additional land to the north-east of the existing Bulgana Terminal Station.

4.1.2.2 Existing terminal stations

The following works are proposed for existing terminal stations as part of the Project, with further construction detail provided in Section 4.2.2:

- Bulgana Terminal Station:
 - Expansion of the existing terminal station to support connection of the new 500kV terminal station near Bulgana into the existing 220kV switchyard.
- Elaine Terminal Station:
 - Relocation of the existing 220kV lines to an adjacent bay
 - Diverting an existing 220kV line into the terminal station.
- Sydenham Terminal Station:
 - Works at the Sydenham Terminal Station will facilitate the connection of the new 500kV transmission line into the 500kV Victorian transmission network.

4.1.3 Laydown areas and workforce accommodation facilities

Five temporary laydown areas will be required for the Project, as shown on Figure 4. There will be one at each existing terminal station, one at the new 500kV terminal station near Bulgana, and two intermediate laydown areas that are proposed to be co-located with workforce accommodation facilities south-east of Lexton and south-east of Ballan.

The terminal station laydown areas will be situated within the existing boundaries of the Bulgana and Sydenham terminal stations, and the new 500kV terminal station near Bulgana on land owned by AusNet. The designated areas allow for storage of materials, sorting as well as pre-assembly of terminal station and transmission line materials.

The two intermediate laydown areas are required for the construction of the transmission towers and lines. The locations of these sites were selected based on their proximity to the Proposed Route and central location, as well as consideration of bushfire risk, environmental and cultural values. At these locations workforce accommodation facilities are also proposed to accommodate construction personnel. Each facility will have capacity for up to 350 people and will include individual accommodation units, a communal kitchen and meals area, laundry, and a gym.

The accommodation facilities aim to minimise the demand for housing by the construction workforce, limit their reliance on nearby community and recreational facilities, and manage potential negative effects on social cohesion during the Project's construction phase.

4.2 Construction

Project construction is scheduled to commence in late 2026 and be completed by late 2028.

Works may occur at multiple tower sites at the same time. Equipment used may include mobile cranes, piling rigs, concrete production facilities, bulldozers, and light and heavy vehicles. Helicopters may be used where required to install transmission lines in some locations.

Preparatory activities will include a detailed site assessment and survey of the Project's confirmed route and proposed terminal station sites. This survey will also document pre-construction conditions at each property affected by the Project. Geotechnical investigations and opportunistic soil sampling will also be completed, and protection for existing water and power infrastructure put in place.

Construction work will generally be undertaken during normal working hours (Monday to Friday 7am-6pm, Saturday 7am-1pm). Works can only take place outside of these hours if they comply with noise targets set by the Environment Protection Authority (EPA) Victoria or are considered Unavoidable Works or Managed-Impact Works as defined by the EPA. The project team will notify relevant authorities and potentially noise-affected neighbours in advance if noise limits are likely to exceed these targets. The following section provides an overview of the key construction activities for the overhead transmission line, towers and terminal stations.

4.2.1 Overhead transmission line and towers

Work crews will move through sections of the Proposed Route to construct the transmission line following the steps described below. Construction may occur simultaneously at multiple tower sites, and the construction steps outlined below would take place at several locations concurrently.



Figure 5. Transmission tower components

4.2.2 Terminal station

The works proposed at the new 500kV terminal station near Bulgana, the existing Bulgana Terminal Station, and connection to Sydenham Terminal Station will take approximately 20 months to complete, with several tasks overlapping. The typical construction sequencing is described in the steps below. The connection works required for the Project at Sydenham are separate to the works being undertaken for the Sydenham Terminal Station Rebuild project.

| Step 1: | Step 2: | Step 3: | Step 4: |
|---|--|--|---|
| Site preparation | Earthworks | Main construction | Completion works |
| Construction works at the existing Sydenham and Bulgana Terminal Stations will be contained within the existing terminal station site. The construction site for the new 500kV terminal station near Bulgana will be surrounded by a security fence with a minimum height of 3m. Access tracks will be required to accommodate heavy vehicles to transport construction materials to the terminal station sites. | Footing and foundations for the terminal station structures and equipment will be constructed and surfaces at each terminal station site will be prepared using a cut and fill process to provide a level base. | Materials and equipment required for each terminal station will be delivered to the designated laydown areas within the terminal station sites. Pre-assembly of the components of the terminal station will be carried out on-site, allowing for erection by mobile cranes. Some larger items such as the control building and transformer will be constructed mostly off-site and delivered by special heavy haulage equipment. | Following completion of the terminal stations main works, the terminal stations will be commissioned, and temporary construction sites rehabilitated. |

4.3 Operation

Operation refers to activities AusNet will complete once the infrastructure is built and in use. These activities will enable the Project to function according to its objectives and be maintained according to legislation, regulatory and public safety standards.

The operation and maintenance of transmission lines are governed by strict regulatory controls to protect public safety and the uninterrupted supply of electricity. All transmission line operators must comply with these requirements and regularly report to relevant authorities, including Energy Safe Victoria.

Key operation activities include:

- Vegetation management, including removal and pruning to maintain minimum clearance space around Project infrastructure
- Mitigating fire risks associated with fuel loads below the transmission line
- Routine inspections of the transmission line and terminal stations
- Other activities to comply with the Project requirements and AusNet's established procedures for maintenance. This includes pollution management and biosecurity requirements.

In addition to routine in-person inspections, a Supervisory Control and Data Acquisition monitoring system will alert AusNet to any damage or fault along the line. This system will use a combination of monitoring equipment, sensors and other digitally enabled devices to provide information to a monitoring interface. From there, AusNet can dispatch appropriate work crews to fix the fault.

During operation, the terminal stations are operated remotely and staff are only present for inspections or maintenance. Routine inspections will occur bi-monthly, with personnel checking the overall condition of the terminal station's assets. Workforce accommodation facilities would no longer be required.

4.4 Decommissioning

Decommissioning refers to the retirement of the Project infrastructure once it has reached the end of its service life. The service life of a terminal station is approximately 45 years, and 80 years for a transmission line, at which time the infrastructure will either be decommissioned or upgraded to extend its service life to ensure the security and reliability of the transmission network as determined by the network planner at that time.

Decommissioning will be planned and carried out in accordance with regulatory and landholder requirements at the time.

Key decommissioning activities may include:

- Lowering the overhead transmission lines and ground wires to the ground and cutting them into manageable lengths to roll onto drums or reels for disposal as scrap metal
- Removing insulators and line hardware from structures at the site and disposal at an approved waste facility
- Dismantling towers in manageable sections, removing from the site and selling steel as scrap
- Excavation of footings below finish surface level
- Decommissioning and removal of terminal stations
- Easement restoration and rehabilitation, where required
- Removal of access tracks not required by landholders.

For more detail on construction, operation and decommissioning activities refer to:



EES Chapter 6: Project description



5 Engaging with Traditional Owners and community

Engaging with Traditional Owners, key stakeholders, landholders, and the community has been essential to informing the development of the Western Renewables Link, and the impact assessments presented in the EES.



Successful coordination and integration of engagement, planning and design is critical to achieving successful Project outcomes.

Engagement on the Project began in early 2020 to raise awareness, provide information and gather community and stakeholder feedback and input from people living and working along the area investigated for the Project. An iterative approach to engagement has taken place to inform the development and refinement of the Project, and the preparation of the EES. Four key principles have informed the engagement approach, shown in Figure 6.



Figure 6. Engagement principles

The Project's engagement program consisted of a combination of face-to-face and online forums, supported by digital, print and in-person methods.

Community and stakeholder feedback has informed the Project's development and construction planning. This includes practical design changes to the alignment, tower locations, access tracks, and terminal station locations to minimise environmental, social, cultural and economic impacts and improve land use and farming opportunities, where possible.

An overview of these key responses is shown in Figure 7 with a summary of community feedback and how it has influenced Project design included in the Project development section of this report.

Engagement with Traditional Owners, landholders, the community, and stakeholders will continue beyond the completion of the EES process.

AusNet recognises that ongoing engagement will play a key role in identifying and resolving any issues that may arise during the life of the Project. As such, subject to Project approvals, the Project team will continue to engage with Traditional Owners, the community, and stakeholders, including landholders and neighbouring landholders, during secondary approvals, construction and operation.



Figure 7. Key responses

5.1 Engaging with Traditional Owners

AusNet acknowledges and respects the Wotjobaluk Nations, Djaara (Dja Dja Wurrung), Eastern Maar, Wadawurrung and Wurundjeri Woi-wurrung Traditional Owners deep connection to the lands on which the Western Renewables Link Project is proposed.

Through the development of the Project and preparation of the impact assessments, AusNet has engaged with the Registered Aboriginal Parties (RAPs), Traditional Owners and First Peoples-State Relations to avoid and minimise potential impacts on Aboriginal cultural heritage values and areas of sensitivity through design, where practicable. A Cultural Values Assessment (CVA) has also been completed with each RAP to understand the intangible values along the Proposed Route.

5.2 Community Consultation Group

A Community Consultation Group (CCG) was established by AusNet to provide a forum for community members to provide feedback on the Project. Since August 2024, six community members plus council representatives have regularly attended the CCG, enabling a cross-section of community groups and interests to be represented.

Feedback from the CCG shaped how AusNet distributed information, designed and developed the Project and conducted assessments for the EES. The CCG has helped shape the engagement program by suggesting locations for pop-ups, sharing communication preferences, reviewing Project fact sheets and providing feedback.

5.3 Council Advisory Group

A Council Advisory Group (CAG) was established in 2020 to keep council representatives informed about Project updates and to gather feedback for the Project team. The group includes an officer from each of the six councils along the Proposed Route and members of the Project team. This information sharing complements the briefings with councils and CEOs routinely offered by the Project team.

To 1 November 2024, the CAG met 34 times, with topics ranging from Project and EES updates, through to land access, undergrounding, laydown areas, alternative approaches to construction, Technical Reference Group discussions, and the CCG.

The CAG will remain in place to support local government authorities in the lead-up to the EES public exhibition and will continues to serve as a key forum during the final pre-approval stage.

When the Project moves to public exhibition, the advisory groups (CAG and CCG) will conclude to allow the formal process to take place independently. New advisory groups will be developed in consultation with delivery partners to support engagement through construction and delivery stages.

AusNet continues to engage with Traditional Owners for the preparation of Cultural Heritage Management Plans (CHMPs) and benefit sharing and social value initiatives. These initiatives include additional funding for the RAPs to support the engagement required to develop the Traditional Owner Benefit Sharing Strategy. AusNet will continue to engage with Traditional Owners throughout the development of the Project.

6 Planning for Western Renewables Link

Western Renewables Link requires the preparation of an EES to identify, assess and reduce the Project's possible environmental, economic, social and community impacts.



6.1 Requirement for an EES

The Project was originally referred by AusNet to the former Minister for Planning under the *Environment Effects Act 1978* (EE Act) on 9 June 2020, after determining an EES was required to inform decisionmakers issuing statutory approvals for the Project.

In 2023 a new referral was submitted to reflect changes to the Project which excluded the construction of a new terminal station north of the existing Sydenham Terminal Station. In August 2023, the Minister for Planning reconfirmed that an EES was required to assess the Project's potential environmental effects. These include the potential for significant impacts on ecological, cultural heritage and visual and landscape values. The Project was also determined to be a 'controlled action' by the Commonwealth Minister for the Environment and Water on 20 November 2024 requiring assessment and approval under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act). The Minister's decision stated that the Project will be 'assessed under the assessment bilateral agreement with the Victorian Government'. Accordingly, the Minister will be informed by the EES process, including the Victorian Minister for Planning's Assessment, in determining whether to approve the Project under the EPBC Act.

6.2 EES process

The EES process provides a comprehensive assessment of the potential environmental, social, cultural and economic impacts associated with a project. The Minister for Planning will assess the EES, public submissions and the recommendations in the Inquiry and Advisory Committee's report, and may recommend changes to the Project proposed by AusNet. Subject to the outcome of the Minister's assessment, the Project will require several approvals, including from the Victorian and Commonwealth governments. Decision-makers must carefully consider the Victorian Minister for Planning's assessment - including the Minister's conclusions and recommendations regarding the acceptability of impacts - before making decisions on Project approvals.

The EES assessment process and primary approvals required for the Project are shown in Figure 8.



Figure 8. EES assessment process and primary Project approvals

6.2.1 EES Scoping requirements

The Minister for Planning issued scoping requirements to outline the environmental issues that need to be investigated as part of an EES. The scoping requirements include evaluation objectives that will be used to assess the Project's overall impacts on existing conditions. The scoping requirements and evaluation objectives set up a framework to guide the integrated assessment of the potential effects of the Project through the EES.

Scoping requirements were issued by the Minister for Planning in 2020 and were reconfirmed with minor changes in 2023 following the acceptance of the revised EES referral. The evaluation objectives for the Project are shown in Table 2.

This EES has been prepared in accordance with the final scoping requirements issued in 2023.

Table 2. Evaluation objectives

| EES Evaluation objectives | Description |
|--|--|
| Biodiversity and habitat | Avoid, and where avoidance is not possible, minimise potential adverse effects on protected native vegetation and animals (particularly listed threatened species and their habitat and listed ecological communities), as well as address offset requirements consistent with state and Commonwealth policies. |
| Land use and socioeconomic | Avoid, or minimise where avoidance is not possible, adverse effects on land use, social fabric of the community, businesses including farming and tourism, local and state infrastructure, aviation safety and to affected and neighbouring landholders during construction and operation of the project. |
| Community amenity, safety, roads and transport | Avoid, or minimise where avoidance is not possible, adverse effects for community amenity, health and safety, with regard to construction noise, vibration, dust, lighting, waste, greenhouse gas emissions, transport network, operational noise, fire risk management and electromagnetic radiation. |
| Cultural heritage | Avoid, or minimise where avoidance is not possible, adverse effects on Aboriginal cultural heritage and historic heritage values. |
| Landscape and visual | Avoid, or minimise where avoidance is not possible, and manage potential adverse effects on landscape and visual amenity. |
| Catchment values and hydrology | Maintain the functions and values of aquatic environments, surface water and groundwater quality and stream flows and prevent adverse effects on protected beneficial uses. |

6.2.2 Technical Reference Group

The Department of Transport and Planning (DTP, formerly DELWP) convened a Technical Reference Group (TRG) for the purpose of providing expert advice throughout the EES process. The TRG comprised of representatives of government agencies, regional authorities, Registered Aboriginal Parties and municipal councils that have a statutory or policy interest in the Project. These meetings allowed the TRG to advise on matters that should be included in the scoping requirements for the EES, the need for and adequacy of technical EES studies, and the technical adequacy of the proposed EES and its response to the scoping requirements. Organisations represented on the TRG are included in Table 3.



For more information see:

EES Chapter 7: Community and stakeholder engagement

Table 3. Organisations represented on the TRG

| Organisations represented on the TRG | |
|---|---|
| Country Fire Authority (CFA) | First Peoples - State Relations |
| Department of Energy, Environment and Climate Action (DEECA) – Energy (formerly DELWP – Energy) | Heritage Victoria |
| Department of Energy, Environment and Climate Action (DEECA) – Grampians Region (formerly DELWP – Grampians Region) | Melbourne Water |
| DTP – Impact Assessment (formerly DELWP – Impact Assessment) | Parks Victoria |
| DTP – Planning (formerly DELWP – Planning) | Southern Rural Water |
| DJPR – Regional Development Victoria | Victorian Planning Authority (VPA) |
| Department of Jobs, Precincts and Regions (DJPR) - Agriculture Victoria | EPA Victoria |
| Energy Safe Victoria | DTP – Transport (formerly Department of Transport (DoT)) |
| Relevant Catchment Management Authorities (CMA): Corangamite CMA Glenelg Hopkins CMA North Central CMA Port Phillip and Western Port CMA Wimmera CMA | Relevant RAPs: Barengi Gadjin Land Council Aboriginal Corporation Dja Dja Wurrung Clans Aboriginal Corporation Eastern Maar Aboriginal Corporation Wadawurrung Traditional Owners Aboriginal Corporation Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation |
| Relevant local councils: City of Ballarat Hepburn Shire Council Melton City Council Moorabool Shire Council Northern Grampians Shire Council Pyrenees Shire Council | |

6.3 EES assessment framework

The foundations of the EES assessment framework were established through legislation, policy, guidelines, and EES evaluation objectives. The Project's development and refinement were iterative, conducted throughout the impact assessment process. These assessments, undertaken by specialists, identified and evaluated the environmental impacts of the Project via desktop reviews, field surveys, stakeholder consultation, and characterisation of the existing environment. Key issues and impacts were identified, and the potential effects on the existing environment were assessed.

The impact assessment process and technical reports also considered cumulative impacts. This included examining other relevant future projects of a similar scale and potential impact that may overlap in time and location. This assessment identified 23 projects with sufficient impact information to be included in the assessment. Following this initial assessment, mitigation measures were developed to avoid, minimise, manage, rehabilitate, and offset the Project's impacts. The remaining potential impacts – known as residual impact – were then assessed after these measures were applied. These measures informed the development of Environmental Performance Requirements (EPRs), which define the environmental outcomes that the Project must achieve through the construction, operation and decommissioning stages. EPRs were incorporated into an Environmental Management Framework.

The EES assessment framework is summarised in Table 4.

For the full list of relevant future projects refer to:



EES Chapter 4: EES assessment framework and approach



Table 4. EES assessment framework

| | Stage | Description |
|---|---|--|
| 9 | Establish existing conditions | Existing conditions are the current condition and values of the physical, biological and social environment - namely the assets, values and uses of the environment and sensitive receptors within that environment. |
| | | The existing conditions form the baseline and identify the values which the Project could potentially impact. |
| þ | Risk screening and identifying key values | A risk screening process was undertaken to identify the key risks of the Project and informed the development of the scope and method, and defining the extent of the impact assessment for each technical report. |
| | | This risk-based approach directs a proportionate level of effort to the matters that pose a relatively higher risk of adverse effects. |
| | CONDESIGN Refinements | Environmental values defined for the Project included: |
| | | • A quality or physical characteristic of the environment that is important to ecological health, cultural value, public benefit, amenity, safety or human health |
| | | • A quality, feature or use identified and declared to be biological, physical, socioeconomic or cultural value under a statutory policy or regulation. |
| q | Consultation | In preparing the Project's EES, input has been sought from community groups and other stakeholders - including landholders - to assist in identifying potential adverse impacts and propose strategies to avoid and minimise these in accordance with the mitigation hierarchy. |
| | Design Refinements | Ongoing engagement with Councils, relevant government agencies and the TRG enabled two-way communication on the key issues and concerns from their respective areas of concern. |
| | Design Refinements | Identifying and assessing impacts to the environment due to the Project forms the basis of the EES. The process involved desktop reviews, field surveys, stakeholder consultation, characterisation of the existing environmental values, identification of key issues and impacts, and assessment of the potential effects on the existing environment. Typical mitigation measures to avoid, minimise, manage, rehabilitate and offset those effects were identified to inform the development of EPRs, and assessment of residual impacts. The impact assessment also involved consideration of other relevant projects that could lead to cumulative impacts. |
| | Prepare the Environmental Management Framework | An Environmental Management Framework is prescribed in the EES scoping requirements, and provides a transparent governance framework for the management of environmental effects of the Project during construction, operation and decommissioning. It is one component of the overall governance framework developed for the delivery of the Project to meet statutory requirements and protect environmental values. The Environmental Management Framework outlines the roles, responsibilities, and requirements for environmental management, monitoring, reporting, and auditing. It also includes accountabilities for the implementation of, and compliance with, the Environmental Management Framework and EPRs. |

6.3.1 Cumulative impacts

Cumulative impacts may occur where incremental, successive and combined effects of actions or projects are added to other proposed actions or projects. To assess the potential for cumulative impacts, the technical reports considered relevant future projects that overlap with the location of Western Renewables Link Project and where impacts could occur, and the timeframe of when the project will be delivered:

- 2022 Melbourne Airport Masterplan
- Beaufort Bypass (Western Highway)
- Brewster Wind Farm
- Delahey Urban Development
- Elaine (Akaysha) BESS
- Elaine Solar Farm
- Lerderderg River Nature Trail
- Lerderderg-Wombat National Park
- Melbourne Airport Business Park Sky Road West Warehouse Developments
- Melbourne Renewable Energy Hub
- Merrimu Precinct Structure Plan/Bacchus Marsh Urban Growth Framework
- Navarre Green Power Hub
- Nyaninyuk Wind Farm

- Outer Metropolitan Ring Road/E6
- Powercor Mt Cottrell Zone Substation
- Coimadai Sand Quarry
- Sunbury Line Level Crossing Removals
- Sydenham Terminal Station Rebuild
- Toolern Vale Solar Farm
- VNI West
- Watta Wella Renewable Energy Project
- West Gate Tunnel (formerly the Western Distributor Project)
- Western Irrigation Network Scheme Recycled Water Supply Infrastructure Project.

6.3.2 Environmental Performance Requirements

The EPRs define the environmental outcomes that must be achieved during construction, operation and decommissioning. While some EPRs are performance based to allow flexibility in how they will be achieved, others include more prescriptive measures that must be implemented.

Mitigation measures will be developed to achieve the EPRs to avoid, minimise and manage identified impacts and the risk of harm to human health and the environment so far as reasonably practicable. Standard measures to reduce potential impacts have been considered in the impact assessments to inform the development of EPRs. However, alternative approaches may be used to comply with the EPRs based on the specific site conditions, available resources, industry innovations, and the Principal Contractor's expertise.

This approach encourages innovation as it allows for flexibility in how outcomes are achieved, regardless of the final design of the Project. The Principal Contractor and AusNet can determine the best way to achieve EPRs and manage impacts, which allows for flexibility to optimise design solutions and construction methods. In developing EPRs, technical specialists have considered industry standards and guidelines, good practice and the latest approaches to mitigating impacts.

AusNet will engage an Independent Environmental Auditor to review environmental documentation to verify compliance with the EPRs, the Environmental Management Framework and relevant approvals prior to commencement of construction. The Independent Environmental Auditor will also undertake audits of construction activities to assess compliance with the Environmental Management Framework, Construction Environmental Management Plan (CEMP) and any other plans required by the EPRs. During operation, Energy Safe will complete annual network safety audits, and ISO certification audits will be completed regularly by a third-party independent auditor.

6.4 Project approvals

The outcome of the EES process is not an approval. The Victorian Minister for Planning prepares an assessment that outlines whether the environmental effects of the Project are acceptable. The Minister's assessment provides decision-makers with the information they need to decide if the Project should be approved under Commonwealth and Victorian laws and, if so, what conditions should be applied.

The Project requires approval under Commonwealth and Victorian legislation. This section outlines the key legislation relevant to Project approval.

6.4.1 Commonwealth

The EPBC Act applies to projects that may have a significant impact on Matters of National Environmental Significance (MNES). The assessment of the Project will consider the potential for significant impacts to the following MNES:

• Listed threatened species and communities (Sections 18 and 18A of the EPBC Act).

The Minister for the Environment and Water will be informed by the EES process, including the Victorian Minister for Planning's Assessment, in determining decision as to whether to approve the Project under the EPBC Act.

6.4.2 Victorian

An EES prepared under the EE Act provides an assessment of the impacts of the Project which informs decisions under associated legislation. The key pieces of Victorian legislation under which the Project must seek approval are:

- Planning and Environment Act 1987 (Vic)
- Aboriginal Heritage Act 2006 (Vic).

The construction and operation of the Project is subject to provisions of the planning schemes of six LGAs. Due to the number of planning schemes affected, permit triggers under each planning scheme, and stakeholders involved in the Project, approval under the *Planning and Environment Act 1987* (Vic) will be sought through a Group of Councils PSA rather than separate planning permits. The PSA will allow for the simultaneous amendment of more than one planning scheme by the Minister for Planning. The Group of Councils PSA would introduce a Specific Controls Overlay and Incorporated Document for the Project into each of the six planning schemes.

Approval under the *Aboriginal Heritage Act 2006* (Vic) must be obtained before commencing any project or action that has the potential to impact Aboriginal cultural heritage in Victoria. Under the Act, a CHMP must be prepared if an EES is required. AusNet is consulting with the RAPs, Traditional Owner groups, and First Peoples – State Relations to develop nine CHMPs for the Project, which will cover the Project's Activity Area.

For more detail about legislative and approval requirements see:



EES Chapter 3: Legislative framework and approval requirements

7 Project development

Western Renewables Link has evolved based on the findings of technical reports, field surveys, environmental investigations, and feedback from Traditional Owners, landholders, community members, and other stakeholders.



The Project has been in development since 2017 after AEMO identified the need to upgrade existing transmission infrastructure in western Victoria. The Project was subsequently confirmed by AEMO in the 2020 Integrated System Plan as essential for addressing energy cost, security, and reliability, securing its role in the future of the NEM.

Since then, ongoing investigations have progressively narrowed the Project's area of interest – starting with a broad geographic area, refining it into potential corridors, and finally determining a Proposed Route. For more detail about the development of the Proposed Route, see:



EES Chapter 5:

Project development



7.1 Area of interest

An area of interest for the Project was defined by the start and end points to be connected. A straight line between these points is the starting point for route selection. Refinements have been made to avoid and mitigate adverse impacts as much as possible, considering the need to avoid highly constrained areas of regional, state and national importance.

An overview of this process is shown in Figure 9.

7.2 Refining the Proposed Route

To refine the area of interest into a Proposed Route, ongoing engagement with landholders, community members, and other local key stakeholders commenced in 2020. Engagement activities have helped build an understanding of community values and to identify environmental, social and heritage constraints.

Interactive mapping tools were used to collect data and feedback about the opportunities and constraints. This highlighted destinations, sites and features important to the community such as environmental features, historic sites, land and economic uses, and recreational or social sites.

Ultimately, engagement outcomes informed several changes to the Proposed Route. Additionally, the opportunities and constraints identified, along with information from technical reports, fieldwork and ground truthing, formed the criteria for refining the area of interest into a Proposed Route.

Broader considerations in the refinement of the Proposed Route are outlined in Figure 10.

Potential landowners impacted as route developed



Figure 9. Process narrowing down the Project area of interest



Figure 10. Key considerations in the refinement of the Proposed Route

Following extensive investigations, a Proposed Route was selected that seeks to:

- Avoid sensitive land uses as much as possible, including dwellings, towns and settlements, and land in the Environmental Significance Overlay, Significant Landscape Overlay or Heritage Overlay
- Avoid severing or separating large areas of productive properties
- Avoid parks and reserves, including Wombat State Forest, Werribee Gorge State Park, Lerderderg State Park and the Long Forest Flora and Fauna Reserve
- Avoid identified areas of the Critically Endangered Grassy Eucalypt Woodland of the Victorian Volcanic Plain and Endangered Natural Temperate Grassland of the Victorian Volcanic Plain
- Avoid fragmenting large contiguous areas of native vegetation and habitat
- Avoid impacts on Aboriginal places, historical heritage places and areas of cultural sensitivity
- Co-locate with existing 220kV transmission lines to mitigate impacts, where possible
- Use the natural terrain and existing vegetation to screen the transmission towers from views from houses and public viewing areas, where possible
- Minimise impacts on waterways and associated habitat, and to avoid steep slopes, floodplains, areas with erosion potential, known areas of contamination and geologically significant sites.

7.3 Project alternatives

AusNet's consideration of feasible alternative corridor and route options that could meet Project objectives and avoid or minimise environmental effects began in early 2020. At each stage of the process, consideration was given to environmental, social, cultural, land use and planning constraints, and opportunities provided by existing linear infrastructure corridors. Feedback and information gathered through consultation with the community, government entities and other stakeholders was also considered.

AusNet's approach to identifying potential feasible corridors for the Project focused on minimising and mitigating the potential adverse impacts of new infrastructure on the environment and communities, while delivering a project that met technical and economic objectives.

Different options were considered in the development of the Project, including alternative overhead routes, partial underground routes at Darley, and a full underground route.

Two alternative overhead Projects were considered; however, these options were ruled out because they were either not preferred by AEMO in the RIT-T process, not considered to be an option in the RIT-T assessment, or did not meet the Project objectives. For the partial underground options, AusNet engaged independent technical specialists to assess and compare available technologies, impacts, and costs related to each construction method. The assessment concluded that although underground construction is technically feasible and has significantly less visual and landscape impacts, it would result in increased negative impacts to several environmental and heritage values, and a significantly higher cost.

Ultimately, other Project alternatives were ruled out, with assessments demonstrating that the proposed Project is best able to deliver AEMO's objectives of 'unlocking' the renewable sector in western Victoria, increasing electricity transmission capacity, and reducing congestion, while also delivering critical transmission infrastructure in a timely and in a cost-efficient manner.

7.4 Full underground transmission line

During the RIT-T process, AEMO considered other potential options to address the network need, including building a new full underground transmission line. It was concluded that a full underground transmission line did not address the identified network need, and was not technically or commercially feasible for the purpose of the Project. As such it was not included as a 'credible option'.

AusNet assessed the feasibility of an underground 500kV transmission line in response to community interest in undergrounding and EES scoping requirements.

The assessment found:

- A high voltage direct current (HVDC) underground cable would not easily facilitate connections from renewable energy generation sources along the route in the Western Victoria REZ. This is a key objective and functional requirement of the Project. Underground HVDC cables require terminal stations with alternating current to direct current converter stations for electricity generators to be able connect to the cable.
- Capital costs estimated for a conceptual underground project are substantially higher when compared to an overhead project cost and would not be likely to represent a cost-efficient solution for the transmission network requirements.

A full underground project would also take much longer to deliver, combined with a lead time of up to eight years to manufacture the required alternating current to direct current converter stations. Delivering this connection for the Western Victoria REZ at the earliest possible time is a key requirement to meet the energy needs of Victoria and to help replace supply from retiring coal-fired power plants.

For more information see:



EES Attachment II: Assessment of feasibility for an underground 500kV transmission line for Western

Renewables Link



7.5 How engagement feedback has shaped the Project

Engagement with landholders combined with feedback from stakeholders and the broader community has influenced the development of the Project.

Instances where the Project has been shaped by feedback are summarised in Table 5.

Table 5. Response to community feedback

| Feedback | How we have responded |
|---------------------------|---|
| Route selection | Proposed route minimises impacts raised by stakeholders including to large areas of forested public land, sites of Aboriginal cultural heritage significance, productive agricultural land, and urban and built-up areas. Proposed terminal station relocated from north of Ballarat to Bulgana. Proposed Route moved to align with northern boundary of MacPherson Park. |
| Tower location and design | Towers moved in several locations to align Proposed Route with fences, cultivated paddocks and paddock headland areas. Lower towers around MacPherson Park to reduce impact on Melton Aerodrome, community facilities and homes. |
| Agricultural impacts | Tower locations adjusted on individual properties to reduce impacts on agricultural operations, including irrigation. Greater than minimum clearances provided to improve land use and farming opportunities within easements. Added use of drones as a permitted activity. |
| Visual amenity | Proposed Route changed near Myrniong to reduce visual impacts. |
| Flora and fauna | Proposed Route moved along southern boundary of Merrimu Reservoir to avoid native vegetation and ecological values. |

For more information see:





For more information see:



8 **Project impacts**

To understand the potential impacts of the Western Renewables Link, 20 technical reports, or impact assessments, were prepared in accordance with the EES assessment framework.



The EES assesses the potential impacts from the construction, operation and decommissioning of the Project. By applying the assessment framework described in Section 6.3, the technical reports determined the existing conditions and values within the study area identified for each discipline and assessed potential impacts across the Project Area.

The sections below use the term 'study area' which is specific to each discipline and defined by the technical specialist. The study area defined by each specialist has considered the local, regional, or state context needed to understand the issues, and assess the impacts of the Project, relevant to their discipline. The study area for each technical report is also described in each of the technical EES chapters.

These impact assessments also helped shape the Project's design and inform development of a Proposed Route that avoids impacts as far as reasonably practicable, considering the Project's competing technical, environmental, social, and economic requirements. Topics covered by the technical reports are shown in Figure 11. Based on the design and construction method, where the assessments have identified the need to reduce impacts, mitigation measures have been recommended in accordance with the mitigation hierarchy (avoid, minimise, manage, rehabilitate and offset). These recommendations have informed the development of EPRs. Following application of the EPRs, technical reports assessed the residual impacts on values.

This section provides a summary of the key issues and impacts considered in the technical reports. Further information is provided in the main EES report, with the full technical reports attached as appendices. They can be accessed here: westernrenewableslink.com.au/ees



Figure 11. Key Topics in the EES

8.1 Construction and operation

8.1.1 Biodiversity and habitat



Technical Report A provides a

comprehensive understanding of the nature and significance of potential impacts on existing flora and fauna along the Proposed Route and defines measures to avoid and minimise impacts.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

SCAN ME

EES Chapter 8 and Chapter 27



Please read this to understand your interests before making a submission. Impacts to biodiversity and habitat values are unavoidable due to the Project's size and the vegetation that needs to be cleared for it. To help reduce these impacts, a key consideration in route selection and refinement has been avoiding native vegetation, threatened species habitat, and threatened ecological communities (TECs), where possible.

The Project is located in Western Victoria where a lot of native vegetation has been removed historically to enable the establishment of agriculture, settlements and other land uses. To reduce impacts on remaining biodiversity and habitat, a key design criteria for the route selection and refinement process has been avoiding large contiguous areas of native vegetation and habitat. Avoiding these areas will prevent the creation of easements that fragment national parks, state and regional parks, and state forests. The route selection and refinement process has achieved this by:

- Locating the Project to avoid Wombat State Forest, Werribee Gorge State Park, Creswick Regional Park, Lerderderg State Park and the Long Forest Nature Conservation Reserve and identified areas of the critically endangered EPBC Act listed Grassy Eucalypt Woodland of the Victorian Volcanic Plain
- Locating the Project to avoid fragmenting large contiguous areas of native vegetation and habitat, including a number of smaller conservation reserves such as Mt Beckworth Scenic Reserve and Ben More Bushland Reserve
- Identifying a high-quality area of the critically endangered EPBC Act listed Natural Temperate Grassland of the Victorian Volcanic Plain on the Kingston Road Travelling Stock Route and establishing this as a no-go area for all Project activities

- Making changes to the Project to avoid important biodiversity values around Merrimu and Hayden's Hill, including potential impacts to the Southern Greater Glider and threatened flora species
- Co-locating the Project with an existing 200kV transmission line within the Lexton Bushland Reserve, to reduce fragmentation in the surrounding areas of high-quality bushland
- Locating transmission towers and access tracks to avoid wetland and riparian areas, patches of native grassland and known nesting trees.

The assessment found the key impacts to biodiversity and habitat values will arise during construction due to the direct removal of vegetation, and ongoing management of this vegetation during operation. The assessment has adopted a conservative approach, assuming all vegetation within the easement will be directly impacted. In practice, not all areas will need to be cleared. The area used to calculate the clearing required to construct and operate the Project is described as the Construction Footprint.

The extent of native vegetation has been mapped using a combination of information collected from field surveys and desktop sources, including DEECA modelling. Where survey access was not available, the assessment used modelling data to map the extent of vegetation, TECs and threatened species habitat as a conservative approach. Before construction begins, surveys will occur to identify the extent of native vegetation and threatened species habitat areas. The outcomes of the surveys will inform micro-siting and refine the establishment of no-go zones to reduce the overall area of impact, where practicable.

The results of all completed surveys will confirm the total amount of vegetation to be removed and refine final offset requirements, in accordance with the Guidelines for the removal, destruction or lopping of native vegetation (DELWP, 2017a). A draft Offset Management Strategy has been prepared to outline how these offsets will be obtained as part of the Project based on the conservative approach of using field surveys and modelled data consistent with the EPBC Act Environmental Offsets Policy and the DELWP Guidelines.

For more information see:



EES Attachment V: Offset Management

Strategy



8.1.1.1 Native vegetation and threatened flora

The removal of 238.61ha native vegetation will result in a moderate residual impact from the Project. While the Project will require the removal of native vegetation - which could be meaningful at the population level - it is unlikely to significantly alter the wider landscape. This is because historical land use has already contributed to modification or reduction in native vegetation cover across the area, and the route has been selected to avoid and minimise biodiversity impacts. As a result, the Proposed Route largely passes through areas of lower biodiversity values.

The removal of two *Flora and Fauna Guarantee Act* 1988 (FFG Act) listed TECs, comprising of up to 7.31ha of Creekline Grassy Woodland (Goldfields) Community and up to 17.33ha of Rocky Chenopod Open Scrub Community will result in a high residual impact. While measures to comply with EPRs will minimise the extent to which understorey vegetation comprising the TEC is degraded, the required canopy removal will likely result in the loss of the TEC within the Construction Footprint.

The extent of the removal of three EPBC Act listed TECs during construction, along with the ongoing management of this vegetation during operation, is expected to result in high to moderate residual impacts:

- Up to 16.61ha of Endangered Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia (including 6.79ha confirmed and 9.82ha modelled), resulting in a high residual impact
- Up to 5.37ha of Critically Endangered Natural Temperate Grassland of the Victorian Volcanic Plain (including 4.47ha confirmed and 0.90ha modelled), resulting in a moderate residual impact
- Up to 17ha of White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (all 17ha of this TEC is modelled, however based on desktop reviews and completed surveys it is estimated that no more than 5ha of the modelled extent is likely to qualify as the TEC), resulting in a moderate residual impact.



Figure 12. Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of Southeastern Australia, example from the Darley area



Figure 13. High-quality example of EPBC Act listed Natural Temperate Grassland of the Victorian Volcanic Plain recorded in the vicinity of Kingston Road Stock Route

When assessed against the criteria from the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance, the Project is likely to have a significant residual impact on two of the EPBC Act listed TECs: Grey Box Grassy Woodlands and Derived Native Grasslands of South-eastern Australia and Natural Temperate Grassland of the Victorian Volcanic Plain. As field surveys have confirmed the presence of the TEC in some areas, vegetation removal and ongoing management are likely to reduce their extent, increase fragmentation, and change the species composition within the TECs.

A significant impact on the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland is possible, as the presence of this TEC has been assumed based on available information. Surveys are required to confirm its presence, and if confirmed, to determine whether the community can be avoided or impacts minimised. The outcome of the surveys will inform the Project's final Offset Management Strategy.

The extent of vegetation removal and maintenance activities are also expected to impact seven FFG Act listed threatened flora species, including:

- Brittle Greenhood (approximately 1,388 individuals and 20.60ha of potential habitat) and Melbourne Yellow Gum (534 individuals and 19.42ha of potential habitat), which have a high impact rating
- Buloke (27 individuals and 47.25 ha of potential habitat), Brooker's Gum (233 individuals and 22.83ha of potential habitat), Yarra Gum (63 individuals and 40.23ha of potential habitat), Bacchus Marsh Wattle (500 individuals and 21.53ha of potential habitat) and Fragrant Saltbush (approximately 3,081 individuals and 33.05ha of potential habitat) have a moderate impact rating.

Measures to minimise further impacts during construction, such as controls to prevent unauthorised disturbance and identifying no go zones, will be implemented as part of the Vegetation Management Plan.

8.1.1.2 Species habitat and threatened fauna

The extent of removal of threatened fauna species habitat during the construction and operation of the Project will result in the following impacts to species listed under both the EPBC Act and FFG Act:

- Golden Sun Moth (40 individuals recorded, 21.00ha of habitat impacted, including 9.71ha of confirmed habitat and 11.29ha of potential habitat) resulting in a moderate residual impact
- Southern Greater Glider (12.06ha of potential field mapped habitat impacted) resulting in a low to moderate residual impact
- Striped Legless Lizard (1.44ha of potential field mapped habitat impacted) resulting in a moderate residual impact
- Victorian Grassland Earless Dragon (3.48ha of potential field mapped habitat impacted) under the guidelines resulting in a moderate residual impact.

Species-specific measures will be documented in Threatened Fauna Management Plans and will include requirements for a qualified and experienced ecologist or wildlife handler during habitat tree clearing and to facilitate relocation.

8.1.1.3 Wetlands

Project infrastructure, such as towers and access tracks, will have a moderate impact on three wetlands mapped on the DEECA inventory (DEECA wetlands), due to the removal of native vegetation and threatened flora species within the wetland boundaries. This includes a temporary freshwater swamp, grassland patch, and permanent freshwater swamps (Masons Swamp). The largest of the three, Masons Swamp, supports habitat for FFG Act listed fauna and flora and EPBC Act listed flora, including Western Burrowing Cray habitat, Swamp Fireweed and Floodplain Fireweed.

Impacts to these wetland areas will occur where removal of vegetation is required, and this has been accounted for in the native vegetation loss calculation described in Section 8.1.1.1. For other wetlands, impacts are generally low due to the type of infrastructure proposed (i.e., access road across a dam wall or removal of a scattered exotic tree for fuel reduction) and / or it is generally in a relatively dry location, lacking native or wetland vegetation.

To manage residual impacts to wetlands, measures will be implemented to minimise impacts to water quality and minimise the potential for erosion and sedimentation, stormwater runoff, and contamination entering the surface water system. The measures will be documented in the Surface Water Management Plan, as required by the EPRs. Following the implementation of measures to comply with EPRs, the overall residual impact to wetland areas directly intersected by Project infrastructure is moderate to low. This is due to the removal of native vegetation and potential impact to threatened species at three DEECA wetlands, with limited impacts to the remaining DEECA wetlands intersected by the Project.

8.1.1.4 Collision risk

The Proposed Route crosses several Important Bird Areas, including movement corridors. Due to the long and linear nature of the Project, there is a risk that bird or bat species could collide with the overhead transmission line. The risk of collision is associated with a species' flight behaviour and their ability to detect and avoid the overhead transmission line.

The various bird and bat species known throughout the Project Area all have reasonably specific flight behaviours associated with their food sources, their movement patterns in the landscape, and their habitat. Many migratory bird and bat species will occupy the air space above the canopy, putting them more at risk. While some larger bird species have a higher risk of collision than smaller and more agile species, no species will be subject to major population level impacts. This is due to the Project being located away from large wetland complexes and coastal zones, which are utilised by threatened bird species at higher risk, and due to the sizing and spacing of the conductors associated with transmission lines.

Areas will be identified where there is a higher risk for collision or electrocution of birds due to proximity to preferred bird habitat such as wetlands, forested areas or feeding sites. Measures will be implemented at the key risk areas, which may include suspended insulators and/ or vertical line marking such as bird flappers, to improve the visibility of the transmission line and minimise the potential of collision. These higher risk locations and mitigation measures will be identified and documented in the Collision Risk Management Plan, as required by the EPR.

Following the implementation of measures to comply with EPRs, the risk of collision associated with the presence of operational Project infrastructure will be reduced. Residual impacts vary depending on the species, however the overall residual impact is moderate to low.

8.1.2 Aboriginal cultural heritage



Technical Report B considers the

significance of Aboriginal cultural heritage, including both tangible and intangible values, and highlights AusNet's commitment to working in partnership with Registered Aboriginal Parties to protect cultural heritage values through delivery of the Project.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 9



Please read this to understand your interests before making a submission.

Aboriginal cultural heritage values include Country, places and objects that are of significant value to Traditional Owners and the wider Indigenous community. At the time of European contact, the Project Land was occupied and utilised by clans from the Jadawadjali, Djab wurrung, Dja Dja Wurrung, Wadawurrung, and Woi wurrung. These clans are represented by five Registered Aboriginal Parties (RAPs), the Barengi Gadjin Land Council Aboriginal Corporation, Eastern Maar Aboriginal Corporation, Dja Dja Wurrung Clans Aboriginal Council, Wadawurrung Traditional Owners Aboriginal Corporation, and Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation, respectively.

Aboriginal heritage places provide a connection between generations and help to connect landscapes with past and current generations. The Project traverses unique cultural landscapes containing specific landforms. landscape features and artefacts that are sensitive for Aboriginal cultural heritage and hold Aboriginal cultural values. Generally, large scale evidence of diverse and wide-ranging activities across the study area, such as huts, weirs and traps, has not survived due to high levels of surface and below ground disturbance. However, field investigations identified archaeological materials in the study area, including surface and subsurface artefacts, scarred trees and ring trees, earth features, guarries and stone features. Predictive modelling also indicates Aboriginal Places are likely to be found on rises, hill slopes and crests, ridgelines and terraces or on elevated landforms within 200m of water sources.

Both tangible and intangible Aboriginal heritage values have the potential to be impacted by the Project. Tangible values are physical artefacts and sites. Intangible values are cultural elements that are not physical, but link the practices, representations, expressions, knowledges and skills to places, landmarks, landscape features or broader landscapes.

The assessment identified 77 known Aboriginal cultural heritage values, comprising of five previously recorded (all tangible cultural heritage) and 72 new values, (66 tangible values, six intangible values) within the Project Area. Where impacts to Aboriginal cultural heritage values were unable to be avoided through design and changes to the Proposed Route, there is the potential for physical disturbance from construction activities to impact tangible values. The EPRs require the implementation of measures that will be defined in the CHMPs to minimise the potential impacts to tangible values, such as on-site works exclusion zones, surface and sub-surface salvage, and other measures specific for each value.

Nine CHMPs are currently being prepared for the Project, in consultation with RAPs, Traditional Owners, and First Peoples - State Relations. The CHMPs document general and specific management conditions to protect and manage registered as well as unidentified Aboriginal places and values and will serve as the primary mechanism for managing the potential impacts on Aboriginal cultural heritage. The CHMPs will also contain contingency conditions for unexpected finds, which will provide a protocol for managing any values discovered, including reporting, minimising harm and any further management.

The CHMP management conditions outline an agreed approach to manage and minimise the extent of construction impacts to identified and non-identified tangible values. Project construction will impact on registered Aboriginal places, including 13 high residual impacts, however AusNet will apply the CHMP management conditions and continue to work with the RAPs to manage and minimise impacts.

The unavoidable and ongoing physical presence of operational Project infrastructure will result in a residual high impact to the six intangible Aboriginal cultural heritage values (cultural landscapes) identified during the Cultural Values Assessment (CVA) process. AusNet will continue to engage with RAPs to work through the recommendations in the CVAs on how to minimise impacts to intangible values. This could include measures to further avoid and minimise remnant vegetation, waterways, cultural landscapes, and native fauna through planning, design, and construction methods.

8.1.3 Historical heritage



Technical Report C examines the Project's potential impacts on historical sites, including gold mines, homesteads, and World War II relics. The Project design avoids registered heritage places, but construction activities may affect their visual significance or archaeological sites.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 10



Please read this to understand your interests before making a submission. Historical heritage is tangible evidence and places associated with Australia's history since the arrival of European settlers, encompassing values associated with historical settings, places or objects. The Project Area contains a range of historical heritage places, including archaeological sites such as former gold mines and diggings, as well as buildings and structures like historical homesteads and precincts, churches, residences, mills, bridges and dry-stone walls.

The Project Area is located in parts of the Victorian goldfields in Western Victoria, including areas that as of March 2025 were added to Australia's Tentative World Heritage List. Within the Victorian goldfields is the Berry Deep Leads mining landscape, which is near Allendale and Smeaton and is densely populated with mining sites, particularly those associated with the Former Berry Deep Lead System that was the Colony's richest deep alluvial gold system in the late 19th century.

The design of the Project has minimised impacts by avoiding known heritage values as far reasonably practicable, and through consultation with Heritage Victoria, local councils, and other relevant statutory authorities.

With ongoing input from Heritage Victoria and local councils, AusNet will develop and implement site-specific measures to manage potential physical disturbance impacts during construction at 19 identified heritage places. These places include historical shearing sheds, mining camps and bridges. Measures to reduce the impacts will include requirements for excavation methodology, reporting and artefact management, the implementation of physical barriers and exclusion zones, and historical heritage awareness training for all construction workforce personnel. If required by a consent or permit, an Archaeological Management Plan may be developed to document these measures. Unexpected historical heritage finds will be managed in accordance with the unexpected finds protocol documented in the CEMP. Residual impacts to potential historical heritage places from construction works are low to nil after implementation of measures to comply with the EPRs.

Although the operational Project infrastructure will be a visible addition to the landscape for a large number of heritage places, its presence will not detrimentally impact the understanding of the relationship between these heritage places and their historic settings, resulting in a residual impact of low to nil for historical heritage sites. This includes the Berry Deep Leads mining landscape which was assessed by a specific detailed significance and impact assessment for the Project. Whilst the Project will be a highly prominent addition to the landscape, it will not have detrimental physical or visual impact on the significance or the understanding of the Berry Deep Leads mining landscape from a historical heritage perspective.

8.1.4 Landscape and visual



Technical Report D assesses the potential visual impact of the Project on the landscape, recognising that transmission lines are generally seen as a negative addition. It outlines measures to minimise adverse effects by avoiding sensitive areas where possible.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 11



Please read this to understand your interests before making a submission.

Landscape and visual values refer to the importance placed on the aesthetic qualities and character of a landscape, including how it is viewed and experienced by people. The Proposed Route spans landscapes of varied character and visual conditions including highly modified landscapes with a low sensitivity to change. It also crosses landscapes valued for their natural features, cultural values, amenity, biodiversity and recreational uses, with a high sensitivity to change. The Proposed Route and design of the Project has sought to minimise impacts on landscapes and landforms that hold significant value for communities, residents, and landholders by avoiding sensitive landscapes. This includes national and state parks, scenic reserves, flora and fauna reserves and bushland areas.

Construction works for the transmission line will progressively move along the Proposed Route. Changes in visual amenity from construction activities will be temporary and short-term in duration. The primary visual impacts for the Project during construction are associated with the laydown areas and workforce accommodation facilities. Existing vegetation screening will minimise the potential for visual impact for most dwellings and public viewpoints near these locations.

However, works will be visible from two dwellings south of the laydown area at the new 500kV terminal station near Bulgana. Adequate vegetation screening is unable to be established at these two dwellings in the time required, resulting in a high residual impact. For all other locations that view this site, the residual impact is low or negligible. Following the completion of construction works, temporary infrastructure for the laydown area will be removed, and the site rehabilitated and returned to its prior use. During operation, landscape screening would assist to partially screen or filter views of the Project towers and the new 500kV terminal station from these dwellings. While dependent on eligible land title holder approval, screening would reduce the impact to low.

During operation, the Project will be visible from residential dwellings and from significant landscapes valued for their environmental features, vegetation, landforms, open spaces and cultural significance, including recreational viewing opportunities. For many, the Project will predominately be a glimpse or a brief experience as they drive around the local road network, or a longer view

from a recreational area such as an elevated lookout or picnic area. The Project will result in high to moderate residual impacts at certain viewpoints for significant landscapes and landforms. This is evident at Bolwarrah Weir, due to impeding views of significant landscape features, the proximity and prominence of the Project in views from publicly accessible areas, and the potential for landscape screening to be ineffective as a mitigation measure, as it would also screen desirable viewpoints. At Merrimu Reservoir, landscape screening, and potential redesign of the public facilities and the War Memorial to orientate them away from the Project will be offered to the landholder or land manager in accordance with the EPR. If accepted, this will reduce impacts at Merrimu Reservoir to moderate. Remaining residual impacts to significant landscapes was assessed to be nil to low.

From most dwellings in townships and urban areas, views toward the Project will be screened by fencing and vegetation in neighbouring allotments or roadside vegetation. Residual impacts on neighbouring dwellings during operation are considered high where landscape screening does not effectively mitigate views from private living areas. The areas of high visual impacts includes neighbouring dwellings in farming areas that are immediately adjacent to the Project, and dwellings in the elevated areas in Darley to the west of Links Road on north facing slopes.

Screening measures will be developed in consultation with eligible land title holders, to reduce the visual impact of the Project to the extent reasonably practicable. The EPRs require landscape screening to be offered to eligible land title holders in both the public and private domain. The private domain eligibility criteria detailed in EPR LV2 includes the requirement that a dwelling be located within 2km of the Proposed Route, with transmission towers visible from habitable rooms or areas of private open space on the property.

Photomontage

Figure 14. Landscape and visual impact photomontage

300°



330°

340°

350°



320°

NŴ

310°

8.1.5 Land use and planning



Technical Report E considers how the Project aligns with planning policies and controls, evaluates its impact on existing and future land uses, and outlines measures to mitigate and manage residual impacts.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 12



Please read this to understand your interests before making a submission. Existing land use in the study area is a combination of agriculture, residential, industry and natural environment areas (conservation and open space). Land use impacts can occur when project activities change how land is used. These changes may be temporary, occurring during the construction stage, or long-term, occurring for the life of a project.

The Project spans the Northern Grampians, Pyrenees, Ballarat, Hepburn, Moorabool and Melton LGAs and will be subject to the Planning Schemes and policies of each council. The land use assessment considered the Project's consistency with planning and land use policy, and the potential effects of the Project on existing land uses.

In Victoria, land use and development are guided by the policies in the Planning Policy Framework and Municipal Planning Strategy. The overarching policy drivers for the Project, as outlined in the Framework, relate to energy supply and renewable energy. They seek to facilitate the delivery of transmission infrastructure to increase electricity transmission capacity and enable further development of renewable energy generation. AusNet's policies and procedures for the Project are aligned to comply with state and local planning policies, and support various current and future state, regional and local land use objectives, including those designed to support growth in the renewable energy industry.

Construction activities for the Project will result in temporary changes or disruptions to existing land use, due to the occupation of land for construction activities. This will temporarily limit how land is used or accessed, such as for the use of irrigators and large machinery for agriculture. Dust, noise and visual impacts during construction work have the potential to temporarily change the amenity of existing land uses. These impacts are discussed in the relevant discipline sections and have been assessed to have a minor to negligible residual impact on land use.

During construction, temporary land use impacts will generally be confined to the proposed easement, however, components located outside the easement - such as workforce accommodation facilities - may also result in impacts. The EPRs require baseline site conditions at affected properties to be assessed, and mitiaation measures that minimise the construction footprint and maintain landowner access to the extent practicable. Following implementation of mitigation measures, the residual impact is minor to negligible. There will be a moderate residual impact at Melton Aerodrome due to construction activities, however the CEMP will include measures for early and regular consultation with the operator to co-ordinate and manage the duration and operation of cranes within 4km to minimise impacts to the aerodrome operations.

During operation, the transmission infrastructure will be visible from land uses with local or regional significance. These areas, or areas where there is an existing high level of visual amenity, will be screened as far as practicable. The change in views will not change the underlying use of the land, resulting in a residual impact of negligible.

8.1.6 Bushfire



Technical Report K examines the potential bushfire risks associated with the Project, considering its location in a high-risk landscape and outlining measures to minimise risk and ensure safety in bushfire-prone areas.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 13



Please read this to understand your interests before making a submission.

Bushfires are a natural part of Australia's ecosystems, and Victoria often experiences weather conditions that can lead to dangerous bushfire events. Most of the surrounding landscape for the Project has been designated by the Victorian Government as bushfire prone and subject to frequent smaller fires and infrequent large fires. There is potential for the Project to affect bushfire conditions during construction and operation. With implementation of the planned design, construction and operational measures, bushfire risk in many parts of the landscape surrounding the Project will remain high but will not be materially increased by the Project.

Bushfire ignition prevention controls are incorporated into the Project design, including features of the overhead transmission line and towers to provide lightning protection (AS/NZS 7000:2016), and to prevent tower collapse or conductors falling to the ground due to structural failure or reasonably foreseeable extreme wind conditions (AS/NZS 1170.2-2021). In compliance with the Electricity Safety Act 1998 (Vic) and its regulations, the operation of transmission lines requires the preparation of an Electricity Safety Management Scheme and its acceptance by Energy Safe Victoria. Bushfire Mitigation and Vegetation Management plans are also required. AusNet's current Bushfire Mitigation Plan documents how it manages bushfire risks across its transmission network. The Vegetation Management Plan documents measures required to maintain prescribed clearance spaces and compliance with the Electricity Safety (Electric Line Clearance) Regulations 2020. These plans will apply to the Project once it is operational and will be supplemented by fire detection and suppression activities carried out by emergency services.

The Project's construction and operation infrastructure have the potential to contribute to on and offsite bushfire ignition and impact fire suppression activities and bushfire fuel management. Without mitigation measures, they may also impede access and egress to and from bushfire sites by emergency services and the public. Acknowledging the existing landscape is already bushfire prone, avoidance and minimisation measures have been defined in the draft Incorporated Document as part of the PSA proposed for the Project. The conditions include the requirement to develop and implement a Project Construction Bushfire Management Plan, as well as a specific plan for the Workforce Accommodation Facilities. These plans will have controls on hot works, storage of flammables, and fire ignition risks. They will also set out requirements for the provision of water supplies at construction sites, vegetation management, as well as coordination with councils and relevant fire authorities for Project use of access routes and fire control lines.

The Proposed Route will cross strategic fire control lines and fuel breaks identified in local government Municipal Fire Management Plans. Aerial and ground-based fire responses could be impeded if severe wind or structural failure led to the collapse of Project infrastructure. Design criteria will place transmission towers outside of public road reserves, greatly reducing the chance of accidental contact by vehicles, and most towers are typically located at sufficient distances from fire access routes and fire control lines, thereby minimising the potential for obstruction in the rare event of a structural failure. While ground-based Country Fire Authority (CFA) crews can safely drive below transmission lines, electrical safety procedures do not permit them to work or patrol within the transmission line easement. At locations where the Project crosses strategic fire control lines and fuel breaks, and depending on the relative orientation of the approaching fire front, this inability to work within the easement may reduce the CFA's effectiveness and impair aspects of fire response, resulting in a residual moderate impact during Project operation. This would only be the case in specific areas and under certain scenarios. This potential disruption to the use of fire control lines may be minimised by the CFA adapting their fire response tactics to account for the Project infrastructure. In other areas, the design of the Project avoids strategic fire control lines and fuel breaks.

8.1.7 Economic



Technical Report G assesses the Project's economic impacts at local, state, and national levels, considering industry effects and overall economic benefits.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 14



Please read this to understand your interests before making a submission.

The Project traverses areas with a range of economic conditions relating to population, jobs, income levels, industries and tourism. The top employing industries across the study area are health care and social assistance; agriculture, forestry and fishing; construction; education and training; and retail trade. Economic impacts have been assessed through a quantitative economy-wide analysis, and a qualitative assessment of industry-level business impacts. Economy-wide modelling assessed the direct and flowon macroeconomic impacts of the Project. The modelling showed that, by Financial Year 2050, the Project is expected to contribute significantly to economic growth. It is expected to increase in Australia's GDP by \$4.5 billion, and the Gross Regional Product of the study area by \$0.9 billion. Victorian investment is projected to rise by \$2.0 billion (with some offset across the rest of Australia). Increases in private and government consumption are expected to be \$3.7 billion and \$1.4 billion respectively, and the Project is expected to result in a \$4.7 billion net increase in national living standards.

The Project will also contribute both directly and indirectly to new employment opportunities in the study area and wider Victoria. New employment in the study area will peak at 346 workers in 2028, with total employment in Victoria due to the Project modelled to peak in the same year at 2,089 workers. By facilitating connection to the Western Victorian REZ, the Project will create new employment opportunities from renewable energy investment, indirectly contributing to additional employment opportunities in the study area and wider Victoria. Following the construction of the Project, both the study area and rest of Victoria will experience a slow fall back to base case employment by 2032.

A qualitative assessment of the potential impacts of the Project on businesses operating within the study area at an industry-level found:

- A neutral effect for most industries during the Project's construction, operation and decommissioning stages
- Potential highly localised negative impacts on businesses in the accommodation and food services, and arts and recreation services industries, within 2km of the Project during construction and operation, due to reduced visitation to the area, with a neutral effect during operation at an industry level
- Potential positive impacts on the manufacturing industry during the construction stage from direct investment in services and materials to facilitate the construction of the Project.

The potential impacts to the accommodation and food services and arts and recreation services industries will depend on each business' specific characteristics, including viewpoints impacted, proximity to the Project and operating hours. Overall, a net negative economic impact may be experienced by some businesses in these industries within 2km of the Project due to temporary changes to amenity from noise, dust and traffic generated by the Project, and due to changes to visual amenity during Project operation. During construction, areas could on average be affected for nine to 22 weeks over a twoyear period due to the proposed staggered approach to construction. Temporary changes to amenity will be managed through the implementation of measures to reduce dust, noise emissions and vibration in accordance with EPRs recommended by the traffic, air quality and noise and vibration technical specialists. During operation, impacts would be long-term, given the 80-year service life of the transmission line. However, impacts are likely to be highly localised and business-specific.

AusNet will develop and implement a Business Mitigation and Support Strategy for directly affected businesses, along with a Business Mitigation and Support Strategy for eligible businesses within 2km, to avoid and minimise impacts on businesses that could be affected by the Project. These strategies will include, but are not limited to, measures to avoid and minimise impacts on individual business operations from changes in air quality, noise and vibration levels, and traffic. There will also be measures to maintain access for business operations, avoid impacts on business assets, or reconfigure, relocate or reorientate assets in an agreed location. Early and ongoing information about, and notification of, proposed works in proximity to the business will also be provided.

The Project will also develop and implement initiatives to maximise employment opportunities for local communities, First Nations people and vulnerable and disadvantaged groups. This includes recruiting as many employees as possible from local communities, and a commitment to deliver training and upskilling through apprenticeships, traineeships and cadetships. Where practicable, AusNet will also prioritise the procurement of goods and services from local communities and social enterprises.

8.1.8 Agriculture and forestry



Technical Report H examines the potential impacts of the proposed transmission line on agriculture and plantation forestry, recognising the economic and social importance of farming in the region. It considers effects on food production, farm operations, and agroforestry systems, and outlines measures to minimise disruption for landholders.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 15



Please read this to understand your interests before making a submission.

Agriculture is the dominant land use along the Project, with landholders using their properties for grazing, broadacre cropping, horticulture, and plantation forestry. The range and value of agricultural products produced by properties varies widely, with local industries contributing significantly to production in Victoria. Construction of the project may temporarily disrupt routine activities and restrict land use, leading to the temporary removal of land from production. During operation, there is the potential for permanent infrastructure to restrict land uses under the transmission line. This may be because of easement restrictions that affect the ability to manoeuvre large machinery to prepare the soil, sow, harvest, spray and irrigate. In this case, landowners or operators will require a safety assessment or permit to work for certain equipment, activities or land uses within in an easement.

Agricultural and forestry residual impacts were assessed as minor for construction as the occupation of productive agricultural and forestry land will be localised and temporary, and mitigation measures will be implemented to minimise impacts. However, potential impacts from restrictions and disruptions to routine activities, and the temporary isolation and redundancy of productive land may vary property to property and in some cases could be greater. This variation is due to individual properties potentially experiencing different types of construction activities and mitigation measures, and the varying enterprise mix, property size and management practices. Impacts will be managed through the development and implementation of property-specific management plans and strategies.

An Agriculture and Forestry Business Mitigation and Support Strategy will be developed to manage impacts to individual properties. The support strategy will be developed in consultation with landholders to understand individual property needs. It will document practical mitigation measures to minimise impacts from access restrictions, disruption to normal operations, and implications for production – including the potential for isolated or redundant land. This includes but is not limited to, maintaining access for farm operations, water supply for livestock troughs, and all farm infrastructure, or re-establishing these assets to maintain normal farm operations.

This strategy will also require avoiding irrigation infrastructure, minimising disruption to irrigation operations

or supporting an irrigation evaluation to determine if adjustments are necessary and providing for reinstatement and rehabilitation of construction areas. Any agreed Specific Property Access Requirements (SPAR) would be recorded and maintained throughout both Project construction and operation to avoid or minimise ongoing impacts to the property and its operations.

An overarching Project Property Access and Management Plan (PAMP) will also be developed to set out the process and procedures to access landholders' property throughout construction. This will include procedures regarding notification, biosecurity and baseline assessments of land conditions as a reference point for rehabilitation and reinstatement after construction is completed. A Project Communications and Stakeholder Engagement Management Plan, supported by the support strategy, the PAMP, and SPAR, will specify that landholders are provided with adequate notice of construction activities, minimising the chance that farmers invest in crops or activities that will not reach the point of financial return before construction starts.

Financial compensation for land title holders where Project infrastructure is located will be provided either in accordance with a voluntary Option for Easement Agreement or the Land Acquisition and Compensation Act 1986. Compensation will address the loss of land for production and foregone income, as well as disruption that results in expense or time impositions - including removal or detrimental alteration of farm infrastructure, and the temporary redundancy of land during construction. Compensation will continue until rehabilitation is complete. The level of compensation will be negotiated between AusNet and the land titleholder, with an independent valuer ensuring the fair assessment of compensation. In accordance with a voluntary Option for Easement Agreement or the legislated Land Acquisition and Compensation Act 1986, land title holders will also be able to obtain and be compensated for appropriate advice (agronomic, legal and financial) to inform the compensation agreement.

8.1.9 Aviation



Technical Report J considers the potential effects of the Project on aviation activities, focusing on safety measures for light aircraft operations and ensuring minimal disruption within the region's uncontrolled airspace.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 16



Please read this to understand your interests before making a submission. The aviation study area contains four Certified Aerodromes, including Melbourne Airport, and ten Uncertified Aerodromes, including Melton Aerodrome. It also includes a range of aviation infrastructure and services that use the air space along the Proposed Route to support commercial enterprises, farming operations, education and training, emergency services and recreation. The aviation assessment considered how the Project could impact on these values and associated air navigation, air traffic management services, existing transiting air routes, and authorised low flying activities including aerial agricultural applications for crop disease and weed control, aerial firefighting, emergency services operations, aliding clubs, and flight training schools. Maintaining safe distances from aerodromes and avoiding prescribed airspaces was a key factor in planning the Proposed Route.

Due to proximity, there is the potential for Project construction work to impact operations at the Melton Aerodrome and Melbourne Airport. Where sections of the new 500kV transmission line are near protected air space, the towers are designed to sit below the minimum vertical extents of the airspace, providing safe clearance and reducing impacts to aircraft operations so far as reasonably practicable. The EPRs require Airservices Australia to be notified of the relevant details of Project plant, equipment, and infrastructure to inform pilots of the existence and location of aspects of the Project that may pose a hazard to aircraft operations. While the towers near the Melton Aerodrome have been designed to sit below minimum extents, construction plant and equipment - such as helicopters - may need to be used at heights that create additional obstacles and constraints for pilots when assessing suitable take-off or landing locations. To manage potential impacts on aerodrome operations, towers and transmission line are to be marked with standard obstacle markings to increase their visibility to pilots. Prior to construction, the Project will also consult and liaise with the Melton Aerodrome to minimise the extent and duration of impacts to aircraft operations. While flight adjustments may be required, the presence of the infrastructure will not prevent aircraft activities from occurring, resulting in a minor to negligible residual impact.

Following the implementation of measures to comply with EPRs, residual impacts to all other aviation values are minor to negligible, as the activities can still occur, though the presence of infrastructure could result in minor adjustments when flying.

8.1.10 Electromagnetic interference and electric and magnetic fields



Technical Report L examines electric and magnetic fields generated by electrical systems and the potential for electromagnetic interference to affect nearby electronic devices. It considers how these factors interact with the environment and outlines measures to minimise any impacts.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 17



Please read this to understand your interests before making a submission. Electric and magnetic field (EMF) impacts may occur where the Project adds to existing natural or power infrastructure-generated levels of electromagnetic fields and causes them to exceed the reference level, or electromagnetic interference (EMI) limit, for a sensitive receptor.

Standard controls have been incorporated into the design of the Project to maintain EMF levels within defined acceptable limits directly under the line and reduce the risk to human and animal health. The design process has also aimed to maximise separation from sensitive receptors, such as sensitive medical and research equipment, through route and terminal station site selection. Project design will be informed by the outcome of a Project-wide EMI and EMF verification assessment completed at the detailed design stage. The assessment will identify existing sensitive receptors and committed future developments within the study area.

With the implementation of standard controls into the design of the Project and separation distance between receptors, EMF impacts on human and animal health are avoided. There is the potential for operational Project infrastructure to cause EMI impacts to Differential GPS (DGPS) correction signals for land navigation directly under the transmission line in heavy rain conditions. However, the potential impacts are short-lived and the DGPS will correct itself once the equipment clears the transmission line area, resulting in a minor residual impact. All other EMI and EMF residual impacts are minor to negligible, with most impacts either avoided through design (e.g., avoiding sensitive medical and research facilities), or reduced to near or below relevant standards, resulting in little to no interference of radio, TV, emergency services broadcasts, point-to-point radio, or mobile signals.

8.1.11 Air Quality



Technical Report I examines potential impacts from dust, emissions, and airborne hazards during construction and operation and considers measures to minimise dust and emissions from equipment and handling of materials.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 18



Please read this to understand your interests before making a submission. Air quality impacts occur when pollutants are discharged into the air from the Project and interact with sensitive receptors and disrupt amenity. The air quality assessment identified sensitive receptors as locations where people spend time, and properties that may be impacted by dust, exhaust emissions, odours, and airborne hazards associated with construction and operation. For the Project, these are all residential properties.

Activities that may produce dust and air quality impacts during construction include excavation; the handling, transport, storage and placement of soil; construction traffic; and erosion of exposed surfaces such as unsealed access tracks. Measures to minimise and manage these impacts will be implemented, including watering, sealing and / or revegetating exposed and disturbed areas; modifying the intensity of activities based on observed dust levels and weather conditions; avoiding the burning of trimmed and cleared vegetation; covering loads; stockpile management; and sensitive receptor setback requirements. Measures and associated monitoring documented and implemented through the Air Quality Management Plan will reduce residual air quality impacts during construction to low. There is the potential for dust to be a minor nuisance experienced at sensitive receptors, however this would be short-term and non-harmful to human health.

Should contaminated soil or groundwater be unexpectedly identified during earthworks, there may be odour impacts. Measures to avoid and minimise these impacts will include requirements for the removal and disposal of contaminated and hazardous materials, and industry standard measures to control impacts, such as odour suppressing agents. These will be documented and implemented through the Unexpected Finds Plan.

During operation, dust may be generated during maintenance and inspection activities particularly from the use of vehicles, plant and equipment. Residual impacts associated with dust generation during operation are low as they will be occasional, short-term (i.e., hours), and remain non-harmful to human health.

8.1.12 Noise and vibration



Technical Report O examines potential noise and vibration impacts during construction, operation, and decommissioning, finding that they will be temporary and manageable with mitigation measures to protect community health and amenity.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 19



Please read this to understand your interests before making a submission. The noise and vibration assessment identified sensitive receivers based on known residential dwelling locations and non-residential locations such as schools and hospitals.

Construction noise and vibration will be minimised so far as reasonably practicable through implementation of mitigation measures consistent with EPA Publication 1834.1: Civil construction, building and demolition guide. These measures include selecting the quietest available best practice equipment or processes, shielding noisy activities, and scheduling works during less sensitive periods. Additionally construction activities outside of normal working hours would be minimised, where practicable, unless they are unavoidable works. However, some construction noise will be audible at times particularly during activities such as helicopter use for transmission line stringing or tower construction, where the nature of the work limits the feasibility of practicable noise and vibration controls. Residual noise impacts on sensitive receivers will be minor as they will be limited to relatively short durations (days or weeks) near the towers and transmission line. While impacts will extend over months at the terminal stations they will generally not exceed existing ambient environmental noise and vibration levels. Measures to minimise construction noise, including additional measures specific to the final construction methodology, will be documented in the Construction Noise and Vibration Management Plan (CNVMP), in accordance with the EPRs.

The operational noise from the new 500kV terminal station near Bulgana and at the connection to the Sydenham Terminal Station will comply with EPA Victoria Publication 1826.4, which sets out the standards for acceptable noise levels. Intermittent noise from transmission lines arising from specific weather conditions and maintenance activities may be above the ambient environment. Noise and vibration emissions will be minimised so far as reasonably practicable through requirements to design the transmission line infrastructure to reduce aeolian and corona noise, firewalls to reduce noise generation at the new and upgraded terminal stations, and using guieter equipment for maintenance activities such as drones, where possible. The residual impact of noise associated with maintenance activities will be minor as it will be infrequent and will be minimised so far as reasonably practicable following application of the EPRs.

8.1.13 Transport



Technical Report P assesses the transport needs of the Project, including the delivery of materials, equipment, and workforce movement, with most transport occurring via major roads and some oversized vehicle movements required for terminal station components.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 20



Please read this to understand your interests before making a submission. The transportation of materials and equipment to the region for the Project will lead to increased levels of traffic on the road network. Most Project-related traffic will originate at the Port of Melbourne and travel west via the Western and Calder freeways to the Project Area.

The assessment compared traffic volumes against peak construction traffic levels for the Project. The performance of most roads along the proposed construction transport route will not change. However, three sections - Barkstead Road to Bungaree-Creswick Road, Bungaree-Creswick Road to Ballarat-Daylesford Road, and Gisborne Road to Old Western Highway - which already experience poor performance, will experience a potential one per cent increase in peak hour traffic volumes. Given the minor increase in traffic volumes, the Project will not impact traffic performance or cause major congestion.

Impacts to road safety may occur when traffic generated by the Project, particularly heavy vehicles, interact with public transport, schools and school bus routes, and walking and cycling networks. To minimise interactions between Project traffic and vulnerable users, alternative routes and heavy vehicle restrictions will be documented in consultation with relevant road authorities, and safety audits will be undertaken to monitor compliance with relevant road and transport authority requirements. These measures will be recorded and implemented through Traffic Management Plans, in accordance with the EPRs. Given the addition of Project traffic volumes is minor (i.e., less than one per cent), interactions between Project traffic and other roads users will be infrequent and minimal and would result in a residual impact of minor for road safety.

Before works begin, the Principal Contractor will complete dilapidation surveys of council-managed roads that will be used during construction. The results of these surveys, along with consultation with relevant road authorities, will inform the development of haulage routes, any required road modifications, detour routes and access points, or other measures. These will be documented in the Traffic Management Plans. Throughout construction, road condition monitoring will also be undertaken on council-managed roads used for construction traffic. This will identify and rectify any Project-related condition impacts, with road restoration undertaken at the end of construction. With application of these measures, residual road condition impacts are short-term, limited to the local transport setting, and minor.

During operation, traffic will comprise of vehicles used by maintenance staff travelling to the terminal stations and transmission tower sites every other month. While irregular events, such as an emergency restoration, may generate more traffic, these volumes will be small compared to the construction stage, and the residual impacts are negligible.

8.1.14 Social



Technical Report F examines how the project may impact local communities, considering effects on economic opportunities, community cohesion, land use and amenity, and quality of life, while outlining measures to mitigate disruption and support social well-being.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 21



Please read this to understand your interests before making a submission. The Project traverses six LGAs with varying characteristics, from social, economic and land use contexts focused on agricultural production in the west, to areas in the east that are increasingly influenced by metropolitan Melbourne. Moderate residual social impacts during construction could occur in relation to changes to land use and amenity of private properties, surrounding properties and recreational focal points. There are 222 private properties traversed by the Project which will be directly affected and host infrastructure during operation.

The assessment considered the potential social impacts due to changes in land use and amenity, including from noise, traffic and air quality (dust), and due to the Project's workforce. Although potential changes during construction will be temporary, they may pose a source of irritation for landholders. Measures will be put in place to minimise air and noise emissions, and impacts from construction traffic. For instance, noise management measures would include scheduling works during less sensitive periods, selection of the quietest available equipment and use of site structures to shield sensitive receivers from the works.

Workforce accommodation facilities have been included as part of the Project to minimise potential effects on the availability of visitor accommodation, affordable rental accommodation, and access to community services and amenities resulting from increased demand from the Project construction workforce. Two workforce accommodation facilities are proposed: one in the western (Lexton) and one in the eastern (Ballan) portion of the Project. Each facility will have capacity for up to 350 personnel and will include individual accommodation units and a communal kitchen and meals area. Residual social impacts of the construction workforce are negligible as the accommodation facilities minimise the demand for housing by the construction workforce and limit the dependence of workers on nearby community and recreational facilities.

An Operational Management Plan for workforce accommodation facilities will be developed in consultation with local councils, and document specific requirements for managing the Project workforce and the facilities themselves. AusNet will also develop a Code of Conduct outlining expectations of staff when interacting with members of the local community. This aims to reduce the potential for negative social impacts by managing Project construction personnel, as required by EPRs.

During operation, residual social impacts relate to the attractiveness of some dwellings and the surrounding landscape, inconvenience caused by the Project, and in some cases a challenged sense of connection and stewardship towards landholders' property and community. This may result in some changes to the composition, capacity and cohesiveness of the broader community as landholders adjust to changed conditions once the Project is constructed. Residual social impacts on directly affected landholders are major to moderate, and for surrounding landholders are moderate to minor. Mitigations include the development and implementation of processes and requirements for consulting with landholders, and identifying, offering and implementing any practicable mitigation measures that could be applied to lessen the impacts of the Project on their dwelling and lifestyle, through the Residential Mitigation and Support Strategy. Additionally, the Project will develop and implement initiatives to maximise employment opportunities for local communities, First Nations people and vulnerable and disadvantaged groups. This includes recruiting as many employees as possible from within local communities, and a commitment to deliver training and upskilling through apprenticeships, traineeships and cadetships. Additional mitigations described in Sections 8.1.4, 8.1.7 and 8.1.8, would also manage social impacts through consultation with landholders and/or land managers to manage visual impacts in the public and private domains, and an Agriculture and Forestry Business Mitigation and Support Strategy to avoid, minimise and mitigate disruptions to farm and forestry businesses.

The Project has the potential to interfere with the operation of nearby tourism-based businesses, which would add to the overall strain it places on the local community. A Business Mitigation and Support Strategy for directly affected businesses, and a Business Mitigation and Support Strategy for eligible businesses within 2km will be implemented to avoid and minimise impacts on businesses that could be directly affected by the Project. The strategies will address impacts that could occur as a result of the transmission line easement being placed on land associated with the business, and for businesses within 2km of the Project that rely on the existing character of the natural landscape to attract customers. These strategies will outline the process and requirements for consulting with business owners to discuss their business and the specific impacts that their business may experience, and to develop measures to mitigate and manage Project-related impacts to the extent reasonably practicable.

8.1.15 Geology and soils



Technical Report Q examines the geological conditions, soil types, and natural earth processes in the Project Area, identifying potential impacts such as erosion, slope instability, and effects on significant geological features. It outlines measures to manage impacts and protect surrounding landforms and waterways.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 22



Please read this to understand your interests before making a submission. Construction activities - including earthworks and excavation - may alter the natural processes that shape the land and disturb soil or rock through activities such as construction of access tracks, transmission towers and terminal station foundations, and general earthworks. To minimise impacts on geological values, the Project design has sought to avoid, as far as practicable, steep slopes and geologically significant sites.

Residual impacts to soil erosion, land stability and geologically significant sites during construction are minor to negligible as they will be managed through avoidance, engineering and administrative controls, and an ongoing inspection and maintenance schedule. If avoidance of areas susceptible to soil erosion, dispersive soils, steep slopes and geologically significant sites is not possible, works will be conducted in accordance with industry standards and impacts managed through the implementation of mitigation measures. Measures include temporary and permanent earthworks and subgrade treatment, as required, treatment of dispersive or reactive soils on site, and inspection requirements for erosion prone areas. These will be documented in the Erosion and Sediment Control Management Plan, in accordance with the CEMP. During operation, measures to maintain safe access to publicly accessible geologically significant sites will be implemented in accordance with AusNet's existing operational procedures, and residual impacts are negligible.

8.1.16 Contaminated land



Technical Report R examines potential interactions between the project and existing soil and groundwater contamination, considering risks to human health and the environment. It outlines measures to manage and minimise disturbance, spills, and leaks during construction and operation.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 23



Please read this to understand your interests before making a submission. The Proposed Route traverses potential sources of contamination from current and historical uses including sand and gravel quarries, agricultural land, and historic gold mining sites. Soil investigations have not identified significant contamination and there are no sites publicly identified by EPA Victoria as presenting unacceptable exposure to contamination. Where practicable, the Project avoids areas with high contamination potential, however, soil conditions that could result in contamination when exposed to oxygen are likely to occur in some sections of the study area. Residual impacts are negligible, as exposure to encountered contamination would be short-term, and have localised impacts to human health, the environment and land use. Furthermore, the Project will manage potential impacts of uncovering unknown contamination sources through land investigations prior to earthworks, implementation of measures to reduce the spread of contamination during construction, and development and implementation of a Spoil Management Plan, including a Contingency and Unexpected Finds Plan.

Residual impacts of generating spoil and accidental spill of oil, chemicals or wastes from inappropriate storage are negligible, as requirements for the appropriate storage, handling, and disposal of these potential contaminants, including spoil, will be documented and implemented through the CEMP and Spoil Management Plan.

8.1.17 Groundwater



Technical Report S examines groundwater resources, their role in sustaining ecosystems and supporting agriculture, and potential interactions with the Project. It considers the likelihood of encountering groundwater during construction and outlines measures to minimise impacts on water quality and availability.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 24



Please read this to understand your interests before making a submission. Across the Project Area there is a high-degree of groundwater-surface water interaction and most major rivers, creeks, wetlands and riparian vegetation have a high or moderate potential for groundwater dependence. State-wide mapping shows the expected depth to the watertable across the study area varies from less than five metres to greater than 50m, with groundwater typically occurring 10 to 20m below the surface.

Construction activities may intercept saturated ground in an aquifer, called a watertable. It is not yet confirmed whether groundwater will be encountered during works at terminal station locations as the depth of below ground works is dependent on geotechnical investigations, and the degree of earthworks that will occur. However, given the expected shallow nature of works, it is considered unlikely.

There is the potential for the Project to intersect groundwater at several transmission tower locations. When groundwater is encountered during piling works (up to 9m in depth), work can be progressed under 'wet conditions', however other works may need to progress under 'dry conditions' and require dewatering. When dewatering occurs, groundwater is drawn down within an excavation. This also lowers the groundwater level immediately adjacent to the excavation location. If dewatering is required, groundwater levels are expected to return to current levels, as works would be localised and short term. The Project will develop and implement planned dewatering protocols, in accordance with the EPRs. If not managed appropriately, construction activities may also lead to groundwater contamination. Measures to manage potential impacts include designing all surface seals to minimise the potential for contaminants to enter groundwater, and other standard controls.

Management measure will be documented and implemented through the Groundwater Management Plan as required by the EPRs, resulting in negligible residual impacts.

Groundwater Dependent Ecosystems (GDEs) are natural ecosystems that rely on groundwater to support their function on a permanent or intermittent basis to maintain their communities of plants and animals. There are also groundwater dependant values that support land uses such as irrigation and groundwater bores. Buffer distances of 100m between construction works and groundwater bores, and 50m from GDEs will be implemented to minimise the potential for physical disturbance to these receptors. Where these buffers cannot be achieved, site-specific assessments, monitoring and mitigation strategies will be implemented in accordance with the EPRs, where impacts are identified. The removal of patches of vegetation in three areas along the Proposed Route may result in an increase in groundwater levels; however, only minor and temporary changes to water levels are expected.

8.1.18 Surface water



Technical Report T examines the Project's interaction with rivers, creeks, wetlands, and reservoirs, considering potential impacts on water quality and flow. It outlines measures to manage erosion, runoff, and contamination to protect surface water resources.



Detailed information on existing conditions, predicted impacts and mitigation is available in:

EES Chapter 25



Please read this to understand your interests before making a submission. The Proposed Route traverses several waterways and water bodies with varying characteristics including small, ephemeral creeks that only flow after rain and major waterways with permanent flows.

The removal of vegetation during construction may increase the potential for erosion and weaken the stability of waterway beds, banks and channels. Residual impacts to waterway beds and banks across the whole Project Area during construction is minor, as the EPRs require minimum recommended setback distances of towers, terminal stations and access tracks from waterways. Where minimum recommended setback distances are not possible, the Principal Contractor will complete a site-specific assessment to inform the development of appropriate mitigation measures.

Residual impacts to surface water flows during construction is minor as Project infrastructure, where practicable, will be sited to avoid the diversion or blockage of flows. Measures to maintain existing flow paths and drainage lines and avoid diverting or blocking flows to farm dams and other extractive users, will be implemented and documented in the Surface Water Management Plan (SWMP). These measures and the final design of the Project will be informed by a flood assessment and flood modelling.

Rainfall, leaks or spills from machinery and equipment may lead to sediment or contaminants being transported to adjacent waterways. A monitoring program will be implemented to establish baseline water quality conditions for designated waterways, conduct ongoing monitoring during construction to detect changes to water quality, and outline requirements for corrective action. These measures, implemented in accordance with the EPRs, will reduce residual impacts to minor. Measures for liquid storage and spill controls will be documented and implemented through the SWMP.

8.1.19 Greenhouse gas and climate change



Technical Report M considers the emissions from construction and operation, primarily from machinery and landscape disturbance. It highlights the importance of measuring and minimising emissions while recognising the longterm role of renewable energy in reducing reliance on fossil fuels.

Technical Report N considers the risks to the Project from climate change.



Further information about these assessments is available in:

EES Chapter 26 and Chapter 28



Please read this to understand your interests before making a submission. Greenhouse gas (GHG) emissions include carbon dioxide (CO₂), sulphur hexafluoride (SF₆), and methane (CH₄) emissions, and are reported in terms of carbon dioxide equivalents (CO_{2e}). Climate change results from the accumulation of heat in the atmosphere and the oceans caused by increased concentrations of greenhouse gases.

Assessments were completed to understand the risks of climate change to the Project and estimate the greenhouse gas emissions generated by its construction.

The Commonwealth Government has committed to reducing Australia's greenhouse gas emissions by 43% by 2030 and to net zero by 2050, established under the *Climate Change Act 2022*. Construction activities for the Project will generate greenhouse gas emissions. As a requirement of the *National Greenhouse and Energy Reporting Act 2007* (NGER Act) and documented in the CEMP, AusNet will monitor, and report greenhouse gas emissions produced during construction. The CEMP will also document the reporting of Scope 1 and Scope 2 greenhouse gas emissions during construction, in accordance with guidance from EPA Victoria. Scope 3 emissions are not required to be reported.

The primary source of greenhouse gas emissions are embedded emissions from the production of construction materials (cement and steel), vegetation clearance and the generation of waste. To reduce these emissions, the Principal Contractor will select materials with low associated emissions, where practicable. Measures to reduce greenhouse gas emissions will be documented in the Sustainability Management Plan.

Scope 1 and Scope 2 greenhouse gas emission generated during the overall construction period are estimated to be 110 kilotonnes CO_{2e} in total, or 55 kilotonnes of CO_{2e} annually. Residual impacts are moderate as the emissions generated by construction activities will exceed the NGER Scheme reporting threshold (25,000 tonnes CO_{2e} per year).

During the detailed design stage, a climate change risk assessment will be undertaken to further understand the potential risks to Project infrastructure arising from climate change, and to identify practicable adaptation measures, where necessary. These measures must address priority risks and ensure the infrastructure meets performance expectations as critical electricity supply infrastructure over its planned operating life under projected climate change. This risk assessment will be reviewed and updated every five years based on the best available climate change science relating to key climate-related hazards for Project infrastructure.

8.2 Decommissioning

The transmission line (including the easement) and terminal stations will be decommissioned (retired) at the end of their service life or upgraded to extend their service life. Decommissioning will be planned and carried out in accordance with regulatory and landholder requirements at the time.

The process of dismantling and removing the transmission line will involve lowering the overhead conductors and ground wires, removing insulators and line hardware and dismantling towers. The tower footings will be demolished and the area backfilled. The decommissioning of the terminal stations will require the dismantling of all above ground structures, removal of footings and backfilling of the area. All waste material, including scrap metal and concrete will be disposed of at appropriately licenced facilities.

Should the easements no longer be required, passive rehabilitation such as natural regrowth of vegetation over the easements will be allowed and encouraged. Active rehabilitation will include planting of native, endemic species. Control of significant weed infestations may be undertaken where warranted. The establishment of regrowth and planting will be monitored and, where necessary, further works will be undertaken to rehabilitate the easement as required. Access tracks not required by landholders will also be rehabilitated.

The Project's technical reports considered the potential impacts from decommissioning activities and found the activities would be like those required for construction of the Project, therefore the impacts to values would also be similar.

Measures to comply with EPRs developed for construction will be applicable for decommissioning, in accordance with the regulations of the time. The potential impacts and relevant mitigation measures would also be managed by a Decommissioning Management Plan which will be developed prior to the commencement of decommissioning works, with approval sought under the relevant legislation at the time.

8.3 Cumulative impacts

Cumulative impacts may occur where incremental, successive and combined effects of actions or projects are added to other proposed actions or projects. Two technical assessments identified the potential for cumulative impacts with relevant future projects.

The biodiversity and habitat assessment identified the potential for moderate cumulative impacts on native vegetation (EVCs and scattered trees), two EPBC Act listed TECs, three EPBC Act listed threatened fauna species, and two FFG Act listed TECs. This includes consideration of impacts to the entire easement corridor, which is a conservative approach as it assumes vegetation across the entire easement will be impacted. However, as the design is refined, the area of impact within the easement will be reduced. Therefore, cumulative impacts will be further reduced through the application of additional survey information and design refinement to reduce the area of impact.

The Project will contribute to but not significantly increase the cumulative impact on regional Aboriginal cultural heritage. Potential cumulative impacts will be managed through the implementation of CHMPs and measures to manage potential impacts, for both the Project and other relevant future projects. Therefore, the Aboriginal cultural heritage assessment identified the potential for a moderate residual impact.

9 Environmental Management Framework

The Environmental Management Framework provides a transparent governance framework for the management of environmental effects of the Project during construction, operation and decommissioning.



The Project will be designed, constructed, operated, and maintained by AusNet in accordance with an Environmental Management Framework. The Environmental Management Framework is one component of the overall governance framework developed for the delivery of the Project to meet statutory requirements, protect environmental values and provide stakeholder confidence that approval requirements are being implemented.

The Environmental Management Framework outlines the roles and responsibilities for managing and monitoring the Project's environmental performance. It also sets out the requirements and accountabilities for implementing measures, including monitoring, reporting and auditing.

The requirement for an Environmental Management Framework is prescribed in the EES scoping requirements and is a condition of the Incorporated Document proposed as part of the draft PSA. Once approved, it will outline the management arrangements for the Project, including:

- Summary of key statutory approvals obtained and their compliance requirements
- Requirements for community consultation, stakeholder engagement and communications during construction, operation and decommissioning
- Minimum environmental outcomes that must be achieved by the Project as outlined in the EPRs

- Requirements for identification, assessment and management of environmental risks
- Environmental management documentation (including review and approval requirements) as specified by the Incorporated Document, Environmental Management Framework and EPRs to manage environmental risks and impacts through design, construction, operation and decommissioning
- Approaches to evaluating the Principal Contractor's CEMP and other documents in compliance with the Environmental Management Framework and EPRs, including monitoring, auditing and reporting processes
- Process for assessment and management of design changes.

The development of the Environmental Management Framework, including the EPRs, has been informed by technical studies completed as part of the EES and reflects the requirements of relevant legislation, policies, and guidelines. The Environmental Management Framework and EPRs will be subject to revision following the Minister for Planning's assessment of the EES. The Minister's assessment will consider submissions made on the EES, submissions and presentations to the Inquiry and Advisory Committee (IAC) hearing, and the IAC report. As the Project proponent obtaining the approvals, AusNet is responsible for compliance with approval requirements and the Environmental Management Framework. Figure 15 provides a summary of the Project's key environmental management documents and the review and reporting requirements.





Figure 15. Key environmental management documentation for the Project

10 Next steps

The EES exhibition period gives you a chance to have your views considered as part of the assessment of the Western Renewables Link.







10.1 Viewing EES documents and making a submission

The EES will be on public exhibition for 40 business days for the community to view the documents and make written submissions. The draft PSA will be published with the exhibited EES. Copies of the EES, draft PSA and supporting materials can be downloaded at the Western Renewables Link website: westernrenewableslink.com.au/ees Submissions must be made in writing and received by the exhibition closing date. Written submissions on the EES and draft PSA will be received by Planning Panels Victoria via the Engage Victoria website. Public submissions will be considered by the independent Inquiry and Advisory Committee and the Minister for Planning.

Submissions must relate to the information and topics covered in the Western Renewables Link EES and/or draft PSA.

Table 6. How to access EES documents and make a submission

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Read the EES and draft PSA



The EES and draft PSA are available to view and download from the Project website.

westernrenewableslink.com.au/ees

You can also find printed copies of the full EES documentation on display at public locations during office hours, including:

| isplay locations | Address | LGA |
|--|---|-------------------------------------|
| tate Library Victoria | 328 Swanston St, Melbourne VIC 3000 | City of Melbourne |
| tawell Town Hall | 59-69 Main St, Stawell VIC 3380 | Northern Grampians Shire Council |
| eaufort Community Resource Centre & Library | 72 Neill St, Beaufort VIC 3373 | Pyrenees Shire Council |
| he Phoenix Building (Ballarat) | 25 Armstrong St South, Ballarat 3350 | City of Ballarat |
| reswick Hub | 68 Albert St, Creswick VIC 3363 | Hepburn Shire Council |
| aylesford Library | 33 Albert St, Daylesford, Victoria 3460 | Hepburn Shire Council |
| allan Council Office | 15 Stead St, Ballan VIC 3342 | Moorabool Shire Counci |
| erderderg Library Bacchus Marsh) | 215 Main St, Bacchus Marsh VIC 3340 | Moorabool Shire Counci |
| lelton Library & Learning Hub | 31 McKenzie St. Melton VIC 3337 | Melton City Council |

A map of locations where the full EES documentation will be displayed is shown in Figure 16.

Free copies of the EES Summary Report and USBs containing all the EES and draft PSA documentation are available at the public exhibition locations or directly from AusNet.

AusNet is limiting the printing of the full EES and encourage accessing the digital copies noting it is a large document. If electronic copies are not practical and hard copies of sections are required, or other assistance is needed to access the EES and draft PSA, please contact AusNet.

Phone: 1800 WRL WRL (975 975) Email: info@westernrenewableslink.com.au

How you can make a submission

Planning Panels Victoria (PPV) manages the EES submission process independently.

Submissions can be made via the online form on the Victorian Government's Engage Victoria website at: engage.vic.gov.au Only one submission is needed to address all your views about the Project, its effects and the relevant documents.

If you do not have internet access and are unable to lodge a submission online, contact PPV through the DEECA Customer Call Centre on 136 186 (select option 6) and request a hard copy submission coversheet. Each hardcopy written submission must be accompanied by a completed coversheet issued by PPV. All submissions must state the name and address of the person making the submission.

Submissions will be treated as public documents and will be published on the Engage Victoria website. Do not include personal information in the body of your submission (such as your email address or phone number or photos of people, particularly children). If you want to present to the IAC, you will need to make a written submission, and mark on the online submission form that you would like to be heard.

For more information about the EES submission process or any enquiries regarding the IAC process, contact PPV.

Phone: 136 186 (select option 6) Email: planning.panels@transport.vic.gov.au



10.2 Inquiry and Advisory Committee process

Prior to the conclusion of the EES exhibition period, the Minister for Planning will appoint a joint Inquiry and Advisory Committee (IAC) for the Project. The IAC will review the EES, the draft PSA, and all written submissions received. It will consider the environmental effects of the Project in accordance with the Terms of Reference issued by the Minister for Planning.

The IAC will conduct a public hearing at which AusNet and submitters who indicated they wanted to be heard can speak in support of their written submission. The duration of the public hearing will be dependent on the number of submissions received. Further detail on the public hearings is available via **engage.vic.gov.au**

Following the public hearings, the IAC will make recommendations via a report to the Minister for Planning. The Minister will consider this report to inform the Minister's assessment of the Project's environmental effects under the EE Act.

10.3 Concluding the EES assessment process

Following receipt of the IAC report, an assessment of the acceptability of the Project's environmental effects will be made by the Minister for Planning. The Minister's assessment report will consider all relevant information including the EES, public submissions, AusNet's response and the IAC report. The Minister's assessment may conclude that the Project:

- Would have acceptable environmental effects, having regard to overall Project outcomes
- Would have unacceptable environmental effects
- Would need major modifications and/or further investigations to establish that acceptable environmental outcomes would be achieved.

Subject to the outcome of the Minister's assessment, AusNet will need to address the recommendations provided by the Minister. As part of this process, AusNet will consider any recommendations and directions that form part of the Minister's assessment and make any necessary updates to further planning and environmental approvals documentation, such as the draft PSA. Following this process and also subject to the outcome of the Minister's assessment, AusNet will then request that the Minister for Planning prepare, adopt and approve the draft PSA and also request that no further public notice and consultation will be required given the exhibition, consideration and opportunity for public comment afforded by activities undertaken by AusNet in preparing the EES. If the Minister's assessment concludes that the environmental effects of the Project would be acceptable, AusNet will then obtain the necessary statutory approvals required for the Project, as outlined in EES Chapter 3: Legislative framework and approval requirements.



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