

REFERRAL OF A PROJECT FOR A DECISION ON THE NEED FOR ASSESSMENT UNDER THE *ENVIRONMENT EFFECTS ACT 1978*

REFERRAL FORM

The *Environment Effects Act 1978* provides that where proposed works may have a significant effect on the environment, either a proponent or a decision-maker may refer these works (or project) to the Minister for Planning for advice as to whether an Environment Effects Statement (EES) is required.

This Referral Form is designed to assist in the provision of relevant information in accordance with the *Ministerial Guidelines for assessment of environmental effects under the Environment Effects Act 1978* (Seventh Edition, 2006). Where a decision-maker is referring a project, they should complete a Referral Form to the best of their ability, recognising that further information may need to be obtained from the proponent.

It will generally be useful for a proponent to discuss the preparation of a Referral with the Impact Assessment Unit (IAU) at the Department of Environment, Land, Water and Planning (DELWP) before submitting the Referral.

If a proponent believes that effective measures to address environmental risks are available, sufficient information could be provided in the Referral to substantiate this view. In contrast, if a proponent considers that further detailed environmental studies will be needed as part of project investigations, a more general description of potential effects and possible mitigation measures in the Referral may suffice.

In completing a Referral Form, the following should occur:

- Mark relevant boxes by changing the font colour of the 'cross' to black and provide additional information and explanation where requested.
- As a minimum, a brief response should be provided for each item in the Referral Form, with a more detailed response provided where the item is of particular relevance. Cross-references to sections or pages in supporting documents should also be provided. Information need only be provided once in the Referral Form, although relevant cross-referencing should be included.
- Responses should honestly reflect the potential for adverse environmental effects. A Referral will only be accepted for processing once IAU is satisfied that it has been completed appropriately.
- Potentially significant effects should be described in sufficient detail for a reasonable conclusion to be drawn on whether the project could pose a significant risk to environmental assets. Responses should include:
 - a brief description of potential changes or risks to environmental assets resulting from the project;
 - available information on the likelihood and significance of such changes;
 - the sources and accuracy of this information, and associated uncertainties.

Any attachments, maps and supporting reports should be provided in a secure folder with the Referral Form.

A USB copy of all documents will be needed, especially if the size of electronic documents may cause email difficulties. **Individual documents should not exceed 10MB as they will be published on the Department's website.**

A completed form would normally be between 15 and 30 pages in length. Responses should not be constrained by the size of the text boxes provided. Text boxes should be extended to allow for an appropriate level of detail.

The form should be completed in MS Word and not handwritten.

The party referring a project should submit a covering letter to the Minister for Planning together with a completed Referral Form, attaching supporting reports and other information that may be relevant. This should be sent to:

Postal address

**Minister for Planning
PO Box 500
EAST MELBOURNE VIC 8002**

Couriers

**Minister for Planning
Level 16, 8 Nicholson Street
EAST MELBOURNE VIC 3002**

In addition to the submission of the hardcopy to the Minister, separate submission of an electronic copy of the Referral via email to ees.referrals@delwp.vic.gov.au is required. This will assist the timely processing of a referral.

PART 1 PROPONENT DETAILS, PROJECT DESCRIPTION & LOCATION

1. Information on proponent and person making Referral

Name of Proponent:	AusNet Asset Services Pty Ltd
Authorised person for proponent:	Marisa Feher
Position:	Environment and Land Manager
Postal address:	Level 31, 2 Southbank Boulevard, Southbank VIC 3006
Email address:	marisa.feher@ausnetservices.com.au
Phone number:	0476 580 666
Facsimile number:	Not applicable
Person who prepared Referral:	Jessica Reid
Position:	Principal Consultant
Organisation:	Tetra Tech Coffey Pty Ltd
Postal address:	Level 11, 2 Riverside Quay, Southbank VIC 3067
Email address:	jessica.reid@tetrattech.com
Phone number:	9290 7007
Facsimile number:	Not applicable
Available industry & environmental expertise: (areas of 'in-house' expertise & consultancy firms engaged for project)	<p>AusNet is a diversified Australian energy infrastructure business. It owns and operates the Victorian electricity transmission network, one of five electricity distribution networks, and one of three gas distribution networks in Victoria. AusNet delivers safe and reliable gas and electricity to more than 1.4 million customers across Victoria.</p> <p>Tetra Tech Coffey, who has supported AusNet in the preparation of this referral, has more than 40 years' experience providing technical and advisory services including environmental and social impact assessment (ESIA), stakeholder engagement and management through the project life cycle.</p>

2. Project – brief outline

Project title: Gippsland Renewable Energy Zone Project
<p>Project location: (describe location with AMG coordinates and attach A4/A3 map(s) showing project site or investigation area, as well as its regional and local context)</p> <p>The Gippsland Renewable Energy Zone™ project (G-REZ™) involves the development of a new terminal station near Giffard and approximately 85 km of 500 kV (kilovolt) overhead transmission line (OHTL) as shown in Figure 1. The G-REZ project area spans between the proposed terminal station near Giffard in the Wellington Shire local government area to the connection point into the Victorian electricity grid at the existing Hazelwood Terminal Station in the Latrobe City Council local government area. The project area as described in this referral is the boundary within which the G-REZ's route is proposed and will be refined over time through the environmental assessment process and landowner discussions. The project area will be narrowed to what will be the transmission line easement, the terminal station site and the location of ancillary facilities and infrastructure needed to support G-REZ, such as access tracks and laydown areas. The project area traverses the Ninety Mile Beach coastal plain, Merriman Creek valley, Flynn's Creek valley, Traralgon Creek valley and the Latrobe Valley south of the Latrobe River. Preliminary</p>

planning and environmental assessments have been undertaken to define the proposed route, which will undergo further assessment and design for approval.

An alternative project area is identified at the western end of the route that would allow for G-REZ to connect into the existing switchyard at Loy Yang Power Station (see Figure 1). This is not currently AusNet's preferred project area for the G-REZ project due to the lack of available land surrounding and within the switchyard to host necessary connection infrastructure. In the event of land surrounding the switchyard becoming available to AusNet, this alternative project area may become the preferred one.

AusNet is continuing to investigate this area further, including the potential to secure land surrounding the switchyard and the infrastructure and upgrades that may be required at the Loy Yang switchyard to facilitate a connection for G-REZ.

Short project description (few sentences):

G-REZ involves the construction of approximately 85 km of high-voltage transmission line to connect the proposed terminal station in Giffard in the Wellington Shire local government area to the connection point at the existing Hazelwood Terminal Station in the Latrobe City Council government area, or an alternative connection point to the existing switchyard at the Loy Yang Power Station. The proposed transmission line would be developed as a double-circuit overhead transmission line (OHTL) and the infrastructure (i.e. lattice towers, monopoles, or overhead with partial underground) will be refined through the planning and approvals process. The project area as described in this referral is the boundary within which the G-REZ's route is proposed and will be refined over time through the environmental assessment process and landowner discussions. The project area will be narrowed to what will be the transmission line easement, the terminal station site and the location of ancillary facilities and infrastructure needed to support the G-REZ, such as access tracks and laydowns.

3. Project description

Aim/objectives of the project (what is its purpose / intended to achieve?):

G-REZ will act as a collector hub to facilitate connection of various renewable generation projects in Gippsland and enable cost effective supply into the Victorian electricity grid and the National Energy Market (NEM). It will avoid the need for multiple renewable energy generators within Gippsland to establish project-specific transmission lines connecting to the Victorian electricity grid.

Background/rationale of project (describe the context / basis for the proposal, eg. for siting):

The Australian Energy Market Operator (AEMO) is responsible for energy system security including transmission planning for the NEM. Developed in collaboration with jurisdictional planners and transmission network service providers, AEMO published two reports that inform electricity market participants and prospective participants of forecast demand, generation, constraints and opportunities. These reports are:

- *Electricity Statement of Opportunities* (published annually).
- *Integrated System Plan* (published every two years).

The *Integrated System Plan*, first published in 2018 and most recently in 2020, responds to the market transitioning from coal-fired to renewable generation and decentralised energy resources. The plan identifies renewable energy zones and requires transmission investment to efficiently unlock and transport energy in a rapidly transforming NEM. Specifically, the 2020 *Integrated System Plan* (AEMO 2020) identifies six renewable energy zones in Victoria, including Gippsland.

AusNet is leading the development of G-REZ which will unlock 3-4GW of renewable energy in Gippsland by 2027 – enough to power two million homes. It will play a vital role in delivering affordable, clean and reliable energy, and will help prepare Victoria for the retirement of coal-fired power stations.

G-REZ will ensure Gippsland continues to play an important role in Victoria's energy future by attracting more than \$70 million of direct investment and unlocking approximately \$2.6 billion

worth of renewable energy development in the region. It will support around 2,100 local jobs during peak construction of new energy projects related to G-REZ and 140 local jobs during operations with benefits across the local supply chain.

G-REZ, proposed by AusNet, will facilitate connection of renewable energy developments within Gippsland, by constructing a collector hub (Giffard Terminal Station) and a 500 kV transmission line into the NEM that enables cost effective supply and consolidation of transmission infrastructure for renewable energy projects in the region.

AusNet recently undertook an Expression of Interest process with renewable energy developers to understand their connection requirements and level of interest in utilising the proposed G-REZ infrastructure. AusNet received a generally positive response from proponents who confirmed the locations of their project. The outcome of the Expression of Interest increased AusNet's confidence in the proposed route. Giffard was identified as an attractive area for the collector hub due to its proximity to proposed wind and solar developments. The proposed 500 kV transmission line will connect the proposed Giffard Terminal Station to the existing Hazelwood Terminal Station or the existing switchyard at the Loy Yang Power Station. The Hazelwood Terminal Station is a strong node in the Victorian Transmission Network with sufficient available capacity for G-REZ and is therefore a suitable connection point and AusNet's current preferred option. The alternative project area incorporates the Loy Yang Power Station to acknowledge investigations that will also be undertaken at this location, in the event that the existing switchyard becomes a viable connection point for consideration.

The electricity transmission infrastructure will be strategically aligned to optimise the potential for proposed renewable generation developments within Gippsland to connect to G-REZ. Potential developments include the Gippsland Renewable Energy Park and onshore and offshore wind energy projects. The proposed project area, route and type of infrastructure (i.e., lattice towers, monopoles, or combination overhead with limited underground) will be refined and finalised following further environmental investigation and consultation.

Main components of the project (nature, siting & approx. dimensions; attach A4/A3 plan(s) of site layout if available):

This referral predominantly addresses an overhead transmission line comprising of lattice towers. However, AusNet will continue to assess other types of infrastructure (ie monopoles or overhead with partial undergrounding) during the approvals process.

- Construction and use of a new Giffard Terminal Station (500 kV high voltage) on a plot size of approximately 35 ha (Table 1 and Figure 2).
- Construction and use of approximately 85 km of new 500 kV high voltage OHTL (Figure 3) from the proposed Giffard Terminal Station to the existing Hazelwood Terminal Station.
- Construction of approximately 208 steel lattice (flat spacer or vertical) towers, typically 65 m in height, with some up to 80 m.

Table 1: Typical infrastructure for terminal station

Aspect	Description
Electrical infrastructure	<ul style="list-style-type: none"> • Circuit breakers • Instrument transformers • Surge arrestors • Shunt reactors
Station infrastructure	<ul style="list-style-type: none"> • Line termination structure • Control room and amenities (toilet, mess room and storage) • Security – chain wire mesh with access gate and thermal camera • Lighting – flood lighting controlled remote • Oil treatment facility – filtration and storing unit • Diesel generator – backup support for a failure of station services transformer

General technical specifications are outlined in Table 2 below:

Table 2: Technical specification for overhead transmission line (OHTL)

Project component	Specification
Nominal voltage	500 kV
Minimum design and ground clearance	10.2 m
Proposed configuration	Double circuit 500 kV
Proposed tower types	Steel lattice (flat spaces or vertical) and/or steel mono-poles
Nominal tower height	Double circuit; typically 65 m with some up to 80 m
Nominal tower footprint	20 m by 20 m
Nominal area required to construct tower	50 m by 50 m (– refer to ancillary components of the project below)
Nominal easement width	Between 80 m and 100 m
Nominal terminal station plot size	800 m by 800 m (64 ha)
Nominal access track width	Up to 6 m



Figure 2: Typical terminal station configuration – Haunted Gully Terminal Station (Source: AusNet, 2020)

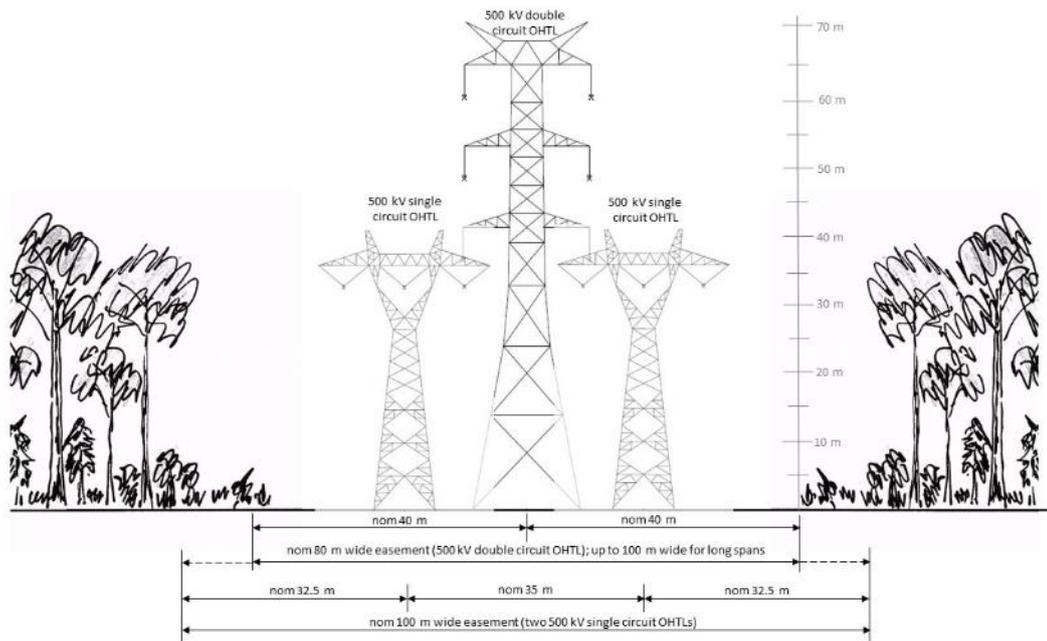


Figure 3: Conceptual arrangement for easements configured as two single circuit or one double circuit 500kV OHTLs

Ancillary components of the project (eg. upgraded access roads, new high-pressure gas pipeline; off-site resource processing):

- Construction of access tracks (up to 6 m wide) connecting the road network to transmission line tower locations.
- Construction of two to three construction compounds / laydown areas along the project area, each approx. 2 – 5 ha in size.
- Concrete batching plants, if required.
- Road upgrades, where required.

For 500kV towers, typically 50m x 50m construction and laydown area is needed to install tower footings, assemble towers members, and erect tower. An additional 12m x 12m may be required to create a crane pad at each tower location.

Approximately 208 towers are expected to be constructed for G-REZ. Each tower will have four foundations. Foundation sizes will typically vary between 1.5m to 3m diameter and 5.5m to 17m depth dependent on ground conditions encountered.

A 50m x 50m construction and laydown area is required for conductor stringing. Temporary buried earth is required for conductor drum and wrench sites when work is parallel to existing power lines. Approximately a 6m wide temporary access track is typically established between the towers during stringing.

Some of the above may be temporary depending on the final design and construction requirements of the project.

Key construction activities:

- Removal, destruction and lopping of native and non-native vegetation.
- Construction and use of access tracks for construction and/or maintenance.
- Road and/or intersection upgrades.
- Construction of temporary hard stand areas and excavation of foundations.
- Construction of construction compounds / laydown areas, including adequate car parking.
- Construction of terminal station and operations and maintenance buildings.
- Installation of towers and OHTL conductors (line stringing), see Figure 4.
- Progressive rehabilitation of sites.

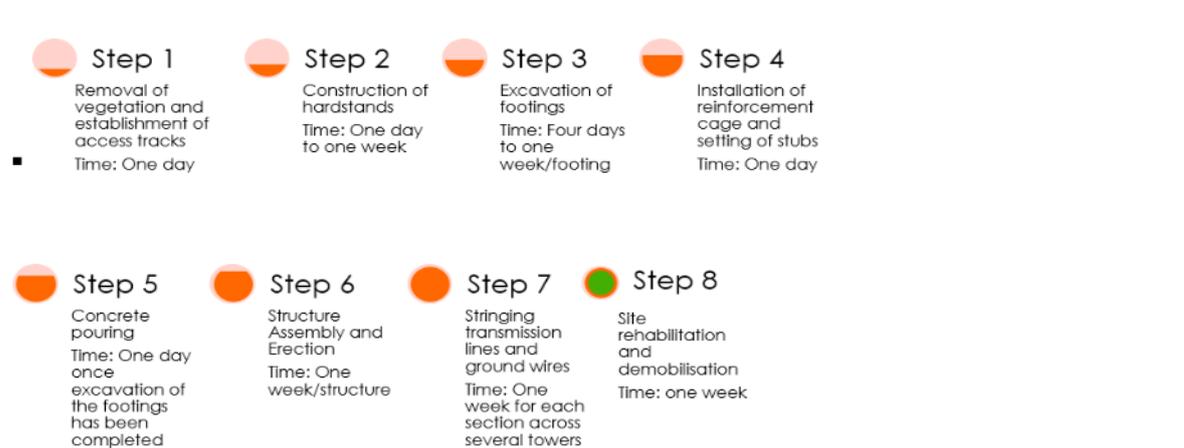


Figure 4: Typical transmission tower construction sequence

Key operational activities:

AusNet will build, own, operate and maintain the new infrastructure required for G-REZ. Transmission line easements are required to enable the development and use (operation and maintenance) of transmission line infrastructure. Easements will include all land required for ongoing maintenance and operations including access tracks. This referral predominantly addresses an overhead transmission line comprising of lattice towers. However, AusNet will continue to assess other types of infrastructure (ie monopoles or overhead with partial undergrounding) during the approvals process.

The average easement width for double circuit 500 kV transmission lines is expected to be 80 to 100 m.

Ownership of the land subject to the easement remains with the landowner. Grazing, cropping and other agricultural practices can continue in the easement underneath overhead transmission lines, however certain uses may be restricted including but not limited to: buildings, stockpiling and storage of waste, fuelling and repairs to vehicles, use of equipment such as excavators (depending on height restrictions), operation of large spray irrigators (Gun irrigators are prohibited however other rain gun irrigators are permitted subject to a safety assessment) and electrical conducting materials such as pipes and power cables within 30 m of tower steelwork.

The land hosting the proposed Giffard Terminal Station will be acquired by AusNet and will contain electrical equipment, switchgear (circuit breaker, isolators etc), transformers and shunt reactors, racks (for lines to land on) and buildings (to house secondary equipment) and will be remotely monitored from an offsite control room.

Key decommissioning activities (if applicable):

The operational lifespan of G-REZ is anticipated to be between 60 and 100 years. At the end of its operational lifespan, G-REZ will either be decommissioned or upgraded to extend its operational lifespan. If G-REZ is decommissioned, infrastructure will be removed, and associated land returned to the previous land use or as agreed with the landowner.

Is the project an element or stage in a larger project?

No Yes If yes, please describe: the overall project strategy for delivery of all stages and components; the concept design for the overall project; and the intended scheduling of the design and development of project stages).

Is the project related to any other past, current or mooted proposals in the region?

No Yes If yes, please identify related proposals.

What is the estimated capital expenditure for development of the project?

Capital expenditure is not able to be provided at this stage as detailed design has not been undertaken.

4. Project alternatives

Brief description of key alternatives considered to date (eg. locational, scale or design alternatives. If relevant, attach A4/A3 plans):

In seeking to develop the electricity transmission infrastructure required to support proposed and foreseeable renewable energy developments in Gippsland through a single, consolidated corridor, AusNet conducted a route and terminal station site options analysis. The options considered were required to achieve a transmission connection from a collector hub in the Giffard area, where a number of wind and solar developments are proposed, to a strong connection point in the Victorian transmission network. Such options included:

- Five site options for the Giffard Terminal Station
- Potential route options within broader corridors
- Connection points including the existing switchyard at the Loy Yang Power Station and Hazelwood Terminal Station in the Latrobe Valley.

The analysis was informed by selection criteria that considered the broader engineering, environmental, cultural and social constraints in the area, and a qualitative assessment to determine sites, infrastructure, routes and connection points that are least constrained and provide the most opportunity for connection of renewable generation projects.

In general, constraints for linear infrastructure routes are primarily based on statutory requirements, technical considerations and requirements of landowners hosting infrastructure. For example, legislation and planning controls detail what land use and development are permissible in planning zones and overlays, while other State and Commonwealth legislation lists and protects threatened ecological communities and species and cultural heritage sites.

AusNet sought to identify a corridor for G-REZ that would minimise impacts on constraints such as the Holey Plains State Park and Giffard (Rifle Range) Flora Reserve. Part of the consideration was maximising the separation distance from residences as far as practicable, avoiding crossing existing high voltage overhead transmission lines, such as the Basslink high-voltage direct current overhead transmission line, and avoiding the highly constrained areas around the Loy Yang mine.

AusNet identified corridor options (referred to southern and northern corridors) from which the G-REZ project area could be developed, comprising the following alternatives:

- Giffard to Hazelwood north of Basslink;
- Giffard to Hazelwood north of Holey Plains State Park;
- Giffard to Loy Yang north of Basslink;
- Giffard to Loy Yang north of Holey Plains State Park.

Conceptual routes were identified in these corridors noting that all routes have pinch points or areas of high constraint. In most instances pinch points can be managed through design and construction methods and engineering solutions. Figure 5 shows the identified conceptual routes.

The two overhead transmission line route options directly to Hazelwood (north of Basslink and north of Holey Plains State Park) overcome potential connection issues at Loy Yang Power Station switchyard which has limited capacity for new connections and constraints traversing Loy Yang mine and power stations infrastructure areas.

Based on available information, the northern corridor, Giffard to Hazelwood north of Holey Plains State Park, is least constrained and maximises opportunities for renewable energy generators to connect into G-REZ. The overhead transmission line route from Giffard to Hazelwood north of Holey Plains State Park within this corridor is the proposed route for G-REZ.

Suitable locations for the proposed terminal station at Giffard were also investigated, with five sites identified in the Gippsland Renewable Energy Park (see Figure 5). Each of the five identified sites

are prudent and feasible, and able to support development of the G-REZ terminal station, the energy park and adjacent renewable energy developments.

The preferred site (option 5) least encumbers the Gippsland Renewable Energy Park, is less visible from Giffard Road (approximately 1,300 m west of that road) and maximises separation (approximately 1,000 m) from houses along that road.

Brief description of key alternatives to be further investigated (if known):

The final design of the proposed route within the project area will be refined throughout the assessment and planning approvals process where further field investigations identify sensitive values that require avoidance and in discussion with landowners.

G-REZ is proposing the design and construction of a predominantly overhead transmission line. The outcomes of the investigations undertaken throughout the assessment and planning approval process would inform the appropriate transmission infrastructure to be utilised including the required towers and whether a partial underground configuration can be combined with the overhead transmission line.

5. Proposed exclusions

Statement of reasons for the proposed exclusion of any ancillary activities or further project stages from the scope of the project for assessment:

Not applicable.

6. Project implementation

Implementing organisation (ultimately responsible for project, ie. not contractor):

AusNet Asset Services Pty Ltd (AusNet)

Implementation timeframe:

Construction is anticipated to commence in 2025, following receipt of required approvals.

Construction is anticipated to take two to three years with completion expected in 2027/28 subject to approvals timing and weather conditions.

Proposed staging (if applicable):

Not applicable.

7. Description of proposed site or area of investigation

Has a preferred site for the project been selected?

No Yes If no, please describe area for investigation.
If yes, please describe the preferred site in the next items (if practicable).

General description of preferred site, (including aspects such as topography/landform, soil types/degradation, drainage/ waterways, native/exotic vegetation cover, physical features, built structures, road frontages; attach ground-level photographs of site, as well as A4/A3 aerial/satellite image(s) and/or map(s) of site & surrounds, showing project footprint):

The following preliminary baseline studies have been completed to characterise terrestrial environmental and heritage values within the project area, and to inform a preliminary assessment of impacts for this referral:

- Ecology constraints assessment report (Attachment 1)
- Preliminary Aboriginal and historic cultural heritage assessment report (Attachment 2)

The proposed project area is located within the West Gippsland Catchment Management Authority, Latrobe City Council, Wellington Shire Council and the Gippsland Plain bioregion. The linear nature of the project area and broad study areas means the proposed route will traverse a range of landforms from near coastal plains around Giffard, through low foothills and sandy ridges associated with the Holey Plains State Park, to the inland floodplains of the Latrobe Valley.

The land where G-REZ is proposed is dominated by barrier dunes, floodplains and swampy flats. The barrier dunes in the eastern extent of the project area are predominately sandy soils supporting Heathy Woodland, Estuarine Wetland and Damp Sands Herb-rich Woodland ecological vegetation communities. Further north-west in the project area, the soils associated with the low foothills and sandy ridges around the Holey Plains State Park and surrounds are both texture contrast and gradational texture soils, supporting the Lowland Forest ecological vegetation community¹. The fertile floodplains and swamps surrounding and within the Latrobe Valley (west of Holey Plains State Park) are pale yellow and grey texture contrast soils, supporting Swamp Scrub, Plains Grassy Woodland, Plains Grassy Forest, Plains Grassland and Gilgai Wetland ecological vegetation communities.

Native vegetation has been extensively cleared for agriculture in the region, with plantations also a significant land use in the Gippsland area, extending west from Giffard to Traralgon. Remnant vegetation persists on coastal ranges, in conservation reserves (such as the Stradbroke Flora and Fauna Reserve and the Giffard (Rifle Range) Nature Conservation Area), state forests (such as Holey Plains State Forest), road reserves and along major watercourses as relatively intact tracts.

The proposed project area intersects the northwest corner of Holey Plains State Park given the amenity constraints identified in this area. The park comprises several sites of regional geological and geomorphological significance including wetlands, a mosaic of swamps and the Holey Hill ridge, the most prominent of several ridges on the Holey Plains². The park covers an area of 10,460 hectares of mostly banksia and eucalypt open-forest and woodlands growing on a series of low sandy ridges. The park contains a high diversity of native flora and wildlife³, and one of the last of two known locations where the nationally threatened Wellington mint-bush (*Prostanthera galbraithiae*) populations occur.

The proposed project area intersects the eastern portion of the Giffard (Rifle Range) Flora Reserve which is part of the wider Mullungdung Darriman landscape, containing lowland forest and heathy woodland that has escaped clearing for grazing. These areas support representative flora and fauna for these types of forest as well as threatened species. This landscape also provides important habitat for the genetically diverse South Gippsland koala population and quality patches of native grassland remain between the Mullungdung forest and the coast⁴.

The proposed project area crosses several environments, including the Ninety Mile Beach coastal plain, plantation forestry, Flynn's Creek valley, Traralgon Creek valley and the Latrobe Valley south of the Latrobe River. The proposed project area traverses the Merriman Creek, Deep Creek, Crooke Creek, Blind Joe Creek, Flynn's Creek, Sheep Wash Creek, Traralgon Creek, Boyds Creek, Plough Creek, Waterhole Creek and Bennetts Creek.

The project area also crosses or runs in proximity to a large number of roads including: Giffard Road, Nichols Road, South Gippsland Highway, Chessum Road, Rosedale-Longford Road, Rosedale-Stradbroke Road, Rosedale-Flynn's Creek Road, Hyland Highway, Clarkes Road and Hazelwood Road.

¹ Bioregions and EVC benchmarks – Gippsland Plain bioregion. Site accessed online at environment.vic.gov.au/biodiversity/bioregions-and-evc-benchmarks

² Agriculture Victoria – Victorian Resources Online West Gippsland. Site accessed online at vro.agriculture.vic.gov.au/dpi/vro/wgregn.nsf/pages/wg_if_sig_traralgon10

³ Parks Victoria Holey Plains State Park Visitor Guide. Site accessed online at gippslandinfo.com.au/images/gipps/Holey-Plains.pdf

⁴ DELWP Biodiversity Response Planning Landscape - Mullungdung Darriman – 26. Fact sheet accessed online at environment.vic.gov.au/biodiversity/working-together-for-biodiversity

<p>Rural residential subdivision occurs and is expanding around the major cities and towns in the Latrobe Valley. Subdivisions around Rosedale, Traralgon, Traralgon South, Morwell, Churchill and Hazelwood South are significant constraints G-REZ aims to avoid, along with Loy Yang mine which is extending east from Traralgon Creek towards Flynn's Creek within the mining licence (MIN5189) and associated exploration licence (EL4683 and EL4684).</p> <p>Other key physical features along the project area include the Gippsland Water's Regional Outfall Sewer and Hancock Victorian Plantations' Longford plantation.</p>
<p>Site area (if known):</p> <p>Corridor length (for linear infrastructure) and width</p> <p>The project area spans a length of approximately 85 km from the proposed Giffard Terminal Station to the existing Hazelwood Terminal Station. The proposed route will be refined and informed by the planning and approvals processes. The Giffard Terminal Station will require a plot size of approximately 35 ha (700 m by 500 m). The proposed site for the terminal station identified within the Gippsland Renewable Energy Park and north of Baslink, is approximately 1,300 m west of Giffard Road, located in farmland previously used for plantations.</p>
<p>Current land use and development:</p> <p>Existing land uses that the project area intersects include:</p> <ul style="list-style-type: none"> • Grazing irrigated modified pastures • Irrigated plantation forests • Cropping • Nature conservation • Special use zone, brown coal • Road reserves • Rural residential properties.
<p>Description of local setting (eg. adjoining land uses, road access, infrastructure, proximity to residences & urban centres):</p> <p>The majority of the project area traverses farming and plantation forest freehold land, with a small section of the project area traversing the Holey Plains State Park. The project area also crosses land north of and including the Loy Yang mine before reaching the existing Hazelwood Terminal Station. The project area aims to avoid the nearby town centres of Giffard, Stradbroke, Longford, Rosedale, Flynn, Traralgon, and ends just south of Hazelwood North, and north of the town of Churchill.</p> <p>The project area straddles Giffard Road in the east, up to Rosedale Longford Road to the north, follows Princes Highway west past Rosedale, and travels south along Hazelwood Road.</p>
<p>Planning context (eg. strategic planning, zoning & overlays, management plans):</p> <p><u>Planning Schemes</u> The proposed project area is covered by the Wellington and Latrobe Planning Schemes.</p> <p><u>Zones</u></p> <ul style="list-style-type: none"> • Farming Zone (FZ) • Public Conservation and Resource Zone (PCRZ) • Public Use Zone (PUZ) • Special Use Zone (SUZ) • Road Zone (RDZ) • Rural Living Zone (RLZ) <p><u>Overlays</u> A number of overlays apply to the project area including:</p> <ul style="list-style-type: none"> • Environmental Significance – Schedule 1 (Latrobe Planning Scheme) and Schedule 2, 3 and 7 (Wellington Planning Scheme)

- Environmental Audit
- Bushfire management
- Land subject to inundation
- Floodway
- Specific Controls – Schedule 2 (Wellington Planning Scheme)
- State Resource – Schedule 1 (Latrobe Planning Scheme) and Schedule 1 (Wellington Planning Scheme)
- Design and Development – Schedule 3, 11 (Latrobe Planning Scheme) and Schedule 6 (Wellington Planning Scheme)
- Development Plan – Schedule 6 (Latrobe Planning Scheme) and Schedule 8 (Wellington Planning Scheme)

Local government area(s):

The proposed project area crosses the Wellington Shire and Latrobe City local government areas.

8. Existing environment

Overview of key environmental assets/sensitivities in project area and vicinity

(cf. general description of project site/study area under section 7):

Desktop assessments of environmental and cultural heritage values (see attachments 1 and 2), with targeted ground-truthing of biodiversity values, was completed for the proposed project area. The key environmental values and sensitivities identified in these assessments are summarised in the following sections.

- Sensitive land uses
- Terrestrial biodiversity
- Hydrology and surface water quality
- Aboriginal heritage
- Historic heritage

Sensitive land uses

The project area passes through many areas of rural living within 10 km of the town centres of Giffard, Stradbroke, Longford, Rosedale, Flynn, Traralgon, and ends just south of Hazelwood North, and north of the town of Churchill. The project area also crosses areas of public land used for recreation or conservation purposes, such as Holey Plains State Park, Giffard (Rifle Range) Flora Reserve and the Rosedale Racecourse and Recreation Reserve.

The project area is located within or near landscapes in the following towns where an Environmental Significance Overlay protecting environmental and amenity values that require consideration applies in the planning scheme: Rosedale, Traralgon, Morwell, Churchill, Gormandale and Hazelwood.

Terrestrial biodiversity

Flora

Since European colonisation, native vegetation has been removed from large parts of the Gippsland Plains, including segments within the project area. However, significant areas of remnant vegetation remain in the following locations:

- Giffard (Rifle Range) Flora Reserve and adjoining lands.
- Merriman Creek and associated tributaries and reserves, including Merriman Creek Flora Reserve.
- Holey Plains State Park and adjoining lands.
- Rosedale Racecourse and Recreation Reserve.
- Major and minor road reserves, including Giffard Road, South Gippsland Highway, Rosedale-Longford Road, Rosedale-Flynn's Creek Road, Hyland Highway, Broomfields Lane, Scales Road, Traralgon Creek Road, Hazelwood Road and Firmins Lane.
- Major and minor watercourses in the Latrobe Valley including Blind Joe Creek, Sheepwash Creek, Flynn's Creek, Traralgon Creek, Plough Creek, Waterhole Creek and Bennetts Creek.

In addition, remnant vegetation persists in private land to varying degrees depending on past and current land use. This may include derived vegetation communities (e.g., grasslands and scattered trees) and small patches of remnant forests, woodlands and scrubs. Revegetation around mines at Hazelwood and Loy Yang A, including along constructed waterways, may also qualify as native vegetation.

The desktop review identified a total of 44 significant flora species considered likely to occur within the project area. All species are listed under the *Flora and Fauna Guarantee Act 1988* (FFG Act), as amended by the *Flora and Fauna Guarantee Amendment Act 2019* in June 2020 (i.e., state significant), with 13 species also listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (i.e., nationally significant). Based on the likely extent of suitable habitat and prevalence of the species within the region, there is a moderate or high likelihood of significant (unmitigated) impacts to 23 of these species:

- River Swamp Wallaby-grass (*Amphibromus fluitans*)
- Small-leaf Star-hair (*Astrotricha parvifolia* subsp. 1)
- Velvet Apple-berry (*Billardiera scandens* s.s.)
- Variable Bossiaea (*Bossiaea heterophylla*)
- Orange-tip Finger-orchid (*Caladenia aurantiaca*)
- Dwarf Kerrawang (*Commersonia prostrata*)
- Fringed Helmet-orchid (*Corybas fimbriatus*)
- Grey Billy-buttons (*Craspedia canens*)
- Eastern Water-ribbons (*Cycnogeton microtuberosum*)
- Bear's-ear (*Cymbonotus lawsonianus*)
- Matted Flax-lily (*Dianella amoena*)
- Purple Diuris (*Diuris punctata* var. *punctata*)
- Gippsland Lakes Peppermint (*Eucalyptus arenicola*)
- Coast Grey-box (*Eucalyptus bosistoana*)
- Green Scentbark (*Eucalyptus fulgens*)
- Strzelecki Gum (*Eucalyptus strzeleckii*)
- Yarra Gum (*Eucalyptus yarraensis*)
- Golden Grevillea (*Grevillea chrysophaea*)
- Golden Pomaderris (*Pomaderris aurea*)
- Wellington Mint-bush (*Prostanthera galbraithiae*)
- Fisch's Greenhood (*Pterostylis fischii*)
- Rush Lily (*Sowerbaea juncea*)
- Pink Zieria (*Zieria veronicea* subsp. *Veronicea*).

Ecological communities

Recognising that ecological communities (in Victoria assigned an Ecological Vegetation Class (EVC) and associated habitats occur in a mosaic across the landscape where the project area is proposed, and vary with local topography and soils. The ecological constraints assessment has identified the following broad categories as potentially present within the project area:

- Heathy forests and woodlands including Lowland Forest (EVC 16), Heathy Woodland (EVC 48) and Damp-sands Heath Woodland (EVC 3). These typically occur on low slopes or plains with sandy soils to the east of the Latrobe valley.
- Grassy woodlands and grasslands including Plains Grassy Woodlands (EVC 55), Plains Grassy Forest (EVC 151) and Plains Grasslands (EVC 132). Occur typically within the Latrobe Valley on alluvial sediments.
- Swamp scrubs and swampy woodlands associated with coastal floodplains or minor water courses east of Latrobe Valley. Includes Swamp Scrub (EVC 53) and Riparian Scrub (EVC 191).
- Damp forests (EVC 29). Small patches may occur within steep gullies on south facing slopes.
- Ephemeral wetlands and swamps including Sedge Wetlands (EVC 136) and Plains Grassy Wetland (EVC125). Occurs frequently in depressions within Heathy forests and woodlands in eastern sections outside Latrobe Valley.
- Riparian woodlands associated with major watercourses, primarily in the Latrobe Valley, including Floodplain Riparian Woodland (EVC 56) and Swampy Riparian Woodland (EVC 83).

- Farmland comprised predominantly of introduced pasture species. May include scattered remnant trees or remnant grassland elements where pasture improvement has not occurred.

Of these categories, the following vegetation classes are listed as endangered or of high conservation significance along the proposed project area⁵: Damp Forest (EVC 29), Swamp Scrub (EVC 53), Plains Grassy Woodland (EVC 55), Floodplain Riparian Woodland (EVC 56), Swampy Riparian Woodland (EVC 83), Plains Grassy Wetland (EVC 125).

The following nationally significant ecological communities (both listed as critically endangered) may be present within the project area:

- EPBC Act listed Gippsland Red Gum (*Eucalyptus tereticornis subsp. mediana*) Grassy Woodland and Associated Native Grassland. May be present within Grassy woodland and Grasslands vegetation communities in the Latrobe Valley.
- EPBC Act listed Natural Damp Grassland of the Victorian Coastal Plains. May be associated with native grassland vegetation within coastal plains around Giffard. May be present within private land with 'native' pastures.

Gippsland Red Gum (*Eucalyptus tereticornis subsp. mediana*) Grassy Woodland and Associated Native Grassland are common throughout the Latrobe Valley, albeit restricted to small patches associated with roadsides, reserves and occasionally private land. There is a moderate likelihood that G-REZ may have a significant (unmitigated) impact on this EPBC Act listed community.

The local range for Natural Damp Grassland of the Victorian Coastal Plains community sits outside the project area to the south of Giffard. Whilst small, localised patches of this community may persist within the project area, these are likely to be extremely rare due to the conversion of much of the area to farming with improved pastures. As a result, there is a low likelihood of significant impacts to this community.

Fauna

The desktop review identified a total of 46 significant fauna species considered likely to occur within the project area. All species are listed under the FFG Act (i.e., state significant), with 15 species also listed under the EPBC Act (i.e., nationally significant). Based on the likely extent of suitable habitat and prevalence of the species within the region, there is a moderate likelihood of significant (unmitigated) impact to 26 significant fauna species:

- Hardhead (*Aythya australis*)
- Musk Duck (*Biziura lobata*)
- Chestnut-rumped Heathwren (*Calamanthus pyrrhopygius*)
- Little Egret (*Egretta garzetta*)
- Painted Honeyeater (*Grantiella picta*)
- Swift Parrot (*Lathamus discolor*)
- Swamp Skink (*Lissolepis coventryi*)
- Green and Golden Bell Frog (*Litoria aurea*)
- Hooded Robin (*Melanodryas cucullata*)
- Flinders Pygmy Perch (*Nannoperca sp.1*)
- Orange-bellied Parrot (*Neophema chrysogaster*)
- Barking Owl (*Ninox connivens*)
- Powerful Owl (*Ninox strenua*)
- Platypus (*Ornithorhynchus anatinus*)
- Australian Grayling (*Prototroctes maraena*)
- Glossy Grass Skink (*Pseudemoia rawlinsoni*)
- New Holland Mouse (*Pseudomys novaehollandiae*)
- Southern Toadlet (*Pseudophryne semimarmorata*)
- White-footed Dunnart (*Sminthopsis leucopus*)
- Australasian Shoveler (*Spatula rhynchotis*)
- Freckled Duck (*Stictonetta naevosa*)

⁵ Department of Environment and Sustainability Bioregional Conservation Status for each BioEVC. Accessed online at environment.vic.gov.au/_data/assets/pdf_file/0012/50511/Bioregional-Conservation-Status-for-each-BioEVC.pdf

- Yellow Ochre Butterfly (*Trapezites luteus luteus*)
- Marsh Sandpiper (*Tringa stagnatilis*)
- Masked Owl (*Tyto novaehollandiae*)
- Martin's Toadlet (*Uperoleia martini*)
- Lace Monitor (*Varanus varius*)

Hydrology and surface water quality

G-REZ crosses several rivers, creeks and streams along the approximately 85 km project area, including Merriman Creek, Flynn's Creek and Traralgon Creek. Towers will be sited in a way that avoids waterways with appropriate buffers applied to minimise impacts to water quality that may arise from construction works. Some vegetation clearances near waterways may be required depending on clearance requirements for required infrastructure. Further investigations will determine the extent that this will be required along with mitigation measures to minimise impacts to water quality and hydrology.

Aboriginal heritage

The project area intersects areas of Aboriginal cultural heritage sensitivity defined under the Aboriginal Heritage Regulations 2018 as registered Aboriginal cultural heritage places (reg. 25), waterways (reg. 26), park (reg. 32) and dunes (reg. 40).

Aerial photography of intersecting areas of Aboriginal cultural heritage sensitivity showed land use histories associated with grazing farmland or timber plantations. Prior disturbance within the project area includes the construction of roadways and utility installation. Aboriginal cultural heritage values are presumed to remain within the project area since most of the areas of Aboriginal cultural heritage sensitivity have not been subject to significant ground disturbance from this prior disturbance (as per reg. 25).

Fifty-eight registered Aboriginal cultural heritage places are located within the project area, comprising 30 artefact scatters, 9 low density artifact distributions, 8 scarred trees, 1 earth feature and 13 object collections associated with reburied artefacts. Note the total number of VAHR places listed is greater than 58, since some places are registered with multiple component types (e.g. artefact scatter and object collection). Impacts to these areas will be managed through a Cultural Heritage Management Plan developed in consultation with, and approved by, the Registered Aboriginal Party the Gunaikurnai Land and Waters Aboriginal Corporation.

Historic heritage

There are no National Heritage Listed or Commonwealth Heritage Listed sites in the project area, nor any sites on the Victorian Heritage Register (VHR).

There is one Victorian Heritage Inventory (VHI) listed site within the project area, H8321-0018: Woodside/Longford artefact scatter (see Attachment 2 for full details). The artefact scatter comprised mostly broken bottle glass (dating to between the late 19th to early 20th century) and handmade bricks and the condition of the site was listed as poor.

The Holey Plains Homestead, a listed place in the Wellington Shire Council planning scheme heritage overlay (HO70), is located approximately 800 m from the project area.

Heritage Victoria advised during consultation that the study area contains several unlisted historic heritage places. These have not been considered at this stage, as they are not registered on the VHR or VHI, however consultation with Heritage Victoria will continue as the project assessment progresses.

9. Land availability and control

<p>Is the proposal on, or partly on, Crown land?</p> <p><input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, please provide details.</p> <p>Eighteen Crown land parcels are intersected by the project area, including Crown land in the Holey Plains State Park. The proposed Giffard Terminal Station straddles Crown Allotment 23B Section C Parish of Giffard (112.1 ha) and Crown Allotment 23A Section C Parish of Giffard (113.7 ha).</p>
<p>Current land tenure (provide plan, if practicable):</p> <p>The project area crosses predominantly freehold land and some public land, along with government roads and reserved and unreserved Crown land.</p>
<p>Intended land tenure (tenure over or access to project land):</p> <p>AusNet will seek freehold for the terminal station and easements for the transmission line.</p>
<p>Other interests in affected land (eg. easements, native title claims):</p> <p>The Gunaikurnai people are the Traditional Owners of the land within the project area. The Gunaikurnai Land and Waters Aboriginal Corporation is the Registered Aboriginal Party for Aboriginal cultural heritage assessment under the <i>Aboriginal Heritage Act 2006</i>.</p> <p>The project area intersects areas of native title, depending on the ultimate configuration of G-REZ, there is potential that following further engagement with the Gunaikurnai Land and Waters Aboriginal Corporation, G-REZ may enter an Indigenous Land Use Agreement (ILUA) or other agreement under the <i>Traditional Owner Settlement Act 2010</i>.</p>

10. Required approvals

<p>State and Commonwealth approvals required for project components (if known):</p> <p><u>Commonwealth</u></p> <p>In parallel to this referral, AusNet is submitting a referral under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) to determine whether the action requires assessment under the EPBC Act, and if so, what form the assessment must take.</p> <p><u>State (Victorian)</u></p> <ul style="list-style-type: none"> • While not an approval process, this referral under the <i>Environment Effects Act 1978</i> has been submitted to determine whether assessment under the Act is required to inform decision-makers. • Planning scheme amendments to the Latrobe and Wellington planning schemes under the <i>Planning and Environment Act 1987</i> will be required. • Based on current provisions within the <i>Aboriginal Heritage Act 2006</i> and the Aboriginal Heritage Regulations 2018, a mandatory cultural heritage management plan (CHMP) will be required. • Potential consent under <i>Heritage Act 2017</i> if impacts on any sites on the Victoria Heritage Register / the Victorian Heritage Inventory. • Consent under the <i>Road Management Act 2004</i> from the coordinating road authority (Regional Roads Victoria, Department of Transport or Council, depending upon the category of road) for works on, in or under a road reserve. • Consent to undertake works on Crown land. • Potential permit to remove protected flora on public land under <i>Flora and Fauna Guarantee Act 1988</i>. • Potential authorisation to relocate wildlife under the <i>Wildlife Act 1975</i>.

- Potential license under the *Water Act 1989* to construct, alter, operate or decommission works on, over or under a waterway.
- Potential for Indigenous Land Use Agreement (ILUA) or other agreement under the *Traditional Owner Settlement Act 2010* following further engagement with the Gunaikurnai Land and Waters Aboriginal Corporation.

Have any applications for approval been lodged?

No Yes If yes, please provide details.

Approval agency consultation (agencies with whom the proposal has been discussed):

Department of Environment, Land, Water and Planning Impact Assessment Unit.

Department of Agriculture, Water and the Environment (CwIth).

Other agencies consulted:

Department of Environment, Land, Water and Planning (environment and property portfolios)

West Gippsland Catchment Management Authority

Gunaikurnai Land and Waters Aboriginal Corporation

Latrobe City Council

Wellington Shire Council

Gippsland Water

Regional Roads Victoria

Heritage Victoria

PART 2 POTENTIAL ENVIRONMENTAL EFFECTS

11. Potentially significant environmental effects

Overview of potentially significant environmental effects (identify key potential effects and comment on their significance and likelihood, as well as key uncertainties):

While G-REZ will employ practicable measures to avoid or minimise potential impacts, the following potentially significant impacts are anticipated:

- G-REZ will likely result in native vegetation clearance in the order of several hectares which will be determined as an outcome of further environmental investigations. The extent of vegetation clearance required for G-REZ will be informed by further field investigations to be undertaken along the proposed route.
- Habitat loss: G-REZ will result in habitat loss. Further assessment of the habitat along the project area will be required to determine the extent of habitat impacted by G-REZ.
- Habitat fragmentation: G-REZ will most likely intersect areas of contiguous habitat which would result in habitat fragmentation and a reduction in natural dispersal of biodiversity across the landscape. At this stage, areas of potential habitat fragmentation include:
 - Holey Plains State Park
 - The Giffard (Rifle Range) Flora Reserve
 - Rosedale Racecourse Reserve

Vegetated roadside corridors throughout the project area may also provide important habitat corridors in agricultural areas devoid of other contiguous vegetation. These areas may be impacted by G-REZ.

- Aboriginal cultural heritage: given the prevalence of areas of Aboriginal cultural heritage sensitivity within the project area, it is unlikely that G-REZ can completely avoid areas of Aboriginal cultural heritage sensitivity. Impacts to these areas will be identified and managed through a Cultural Heritage Management Plan developed in consultation with the Registered Aboriginal Party, the Gunaikurnai Land and Waters Aboriginal Corporation.
- Introduction and spread of weeds and pathogens: there is potential that activities proposed to construct and maintain G-REZ may introduce or spread existing weed material or pathogens along the project area. G-REZ will implement appropriate weed and pathogen hygiene protocols to reduce the risks associated with this impact.
- Impacts to landscape values: G-REZ will impact on landscape values due to the length and height of the transmission line. It will be visible from many vantage points, including from some land within parks and reserves.
- Sedimentation of waterways: investigations are currently underway as to determine whether environmental values of water environments will be affected. Towers will be sited where possible so lines span over waterways and terminal stations will be sited to avoid locating them in areas affected by streamflow. Waterways will be avoided where possible, erosion and sediment controls will be put in place to mitigate potential impacts.
- G-REZ will have impacts on the visual amenity of rural residents, due to the extent of visibility of the transmission line within the landscapes along the project area. Potential mitigation measures to manage visual impact at locations where there are significant visual impacts include screening or micro-siting tower locations to where they will have less visual impact.
- It is expected that plantation land within any easement along the proposed route will be managed so that woody debris will be regularly cleared to reduce fire risk. G-REZ will endeavour to minimise the loss of hollow-bearing tree habitat along the project area where possible.
- Potential for birds to collide with OHTL: birds may be at risk of in-flight collision with the G-REZ infrastructure, including towers and electricity lines⁶. Further assessment of the habitat and subsequent species present along the project area will be required to determine the risk

⁶ Development of Wind Energy Facilities in Victoria Policy and Planning Guidelines. Accessed online at planning.vic.gov.au/data/assets/pdf_file/0024/95361/Development-of-Wind-Energy-Facilities-Mar2019.pdf
Version 7: March 2020

for this impact, and particularly the likelihood for the present avifauna to collide with this static infrastructure.

12. Native vegetation, flora and fauna

Native vegetation

Is any native vegetation likely to be cleared or otherwise affected by the project?
 NYD No **Yes** If yes, answer the following questions and attach details.

What investigation of native vegetation in the project area has been done? (briefly describe)

Eco Logical Australia (ELA) undertook a desktop assessment of ecological values including native flora, fauna and ecological communities in the project area and its surrounds (Attachment 1). The presence or likely occurrence of ecological values in this area were sourced from online databases (e.g., Victorian Biodiversity Atlas, Native Vegetation Information System, Protected Matters Search Tool and VicPlan), spatial datasets (e.g., modelled vegetation and habitat extent), scientific literature and environmental legislation, regulations and policies.

Based on the results of the desktop review, the likelihood of occurrence was determined for significant flora and fauna within the project area ('significant' defined as values listed as threatened under the EPBC Act and FFG Act). More information regarding the determination of likelihood of occurrence method can be found in Attachment 1.

To further refine the assessment of ecological constraints in the project area, a preliminary field survey was also undertaken on public land to determine the extent and nature of vegetation and habitat for threatened species. The survey involved a rapid field-based assessment from 15 to 18 March 2022.

A preliminary review of potential impacts and implications has been undertaken based on the proposed project area. The assessment considered potential impacts on native vegetation, without implementation of site-specific mitigation measures. Landscape-scale avoidance, such as utilising cleared farmland rather than remnant bushland, has been assumed where the project area is unconstrained.

What is the maximum area of native vegetation that may need to be cleared?
 NYD Estimated area

The extent of native vegetation that may need to be cleared for construction is not yet known. There is capacity for the proposed route to avoid specific areas of sensitive native vegetation but impacts to native vegetation patches and scattered trees will occur.

Vegetation will be retained to the greatest extent possible having regard to the minimum electrical safety clearance requirements for safe and reliable operation of the transmission line. For the purposes of informing this referral, a conservative estimate that does not account for instances where vegetation can be retained or avoided through overflying of wires and siting of towers has been calculated. The estimate is also based on DELWP EVC mapping, which will be ground-truthed through the proposed ecological survey program.

The total amount of EVCs mapped within a 100 m corridor centred on the project's proposed route and within the footprint of the proposed Giffard terminal station is approximately 20 ha of endangered EVCs and 60 ha of vulnerable EVCs.

These areas are not reflective of the efforts that will be taken to avoid and minimise native vegetation clearance as the project progresses but provide an indication of the quantum of potentially present EVCs intersected by the project at this stage.

How much of this clearing would be authorised under a Forest Management Plan or Fire Protection Plan?
 N/A approx. percent (if applicable)

Which Ecological Vegetation Classes may be affected? (if not authorised as above)

NYD **Preliminary/detailed assessment completed.** If assessed, please list.

Recognising that vegetation communities (EVCs) and associated habitats occur in a mosaic across the landscape where the project area is proposed, and vary with local topography and soils, the ecological assessment has identified the following broad categories:

Table 3 Ecological Vegetation Classes within or near the G-REZ project area

Category	Location	EVC	Conservation Status
Heathy forests and woodlands	Typically occurring on low slopes or plains with sandy soils to the east of the Latrobe valley	Lowland Forest (EVC 16)	Vulnerable
		Heathy Woodland (EVC 48)	Least concern
		Damp-sands Heath Woodland (EVC 3)	Vulnerable
Grassy woodlands and grasslands	Typically occurring within the Latrobe Valley on alluvial sediments	Plains Grasslands (EVC 132)	Endangered
		Plains Grassy Woodlands (EVC 55)	Endangered
		Plains Grassy Forest (EVC 151)	Vulnerable
Swamp scrubs and swampy woodlands	Associated with coastal floodplains or minor water courses east of Latrobe Valley	Swamp Scrub (EVC 53)	Endangered
		Riparian Scrub (EVC 191)	Vulnerable
Damp forests	Small patches may occur within steep gullies on south facing slopes	Damp Forest (EVC 29)	Endangered
Ephemeral wetlands and swamps	Frequently occurring in depressions within Heathy forests and woodlands in eastern sections outside Latrobe Valley	Sedge Wetlands (EVC 136)	Vulnerable
		Plains Grassy Wetland (EVC 125)	Endangered
Riparian woodlands	Associated with major watercourses, primarily in the Latrobe Valley	Floodplain Riparian Woodland (EVC 56)	Endangered
		Swampy Riparian Woodland (EVC 83)	Endangered

The following FFG Act listed ecological communities may be present within the project area:

- Forest Red Gum Grassy Woodland Community
- Plains Grassland (South Gippsland) Community
- Warm Temperate Rainforest (Coastal East Gippsland) Community.

The following EPBC Act listed ecological communities may also be present within the project area:

- Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*) Grassy Woodland and Associated Native Grassland. This community may be present within Grassy woodland and Grasslands vegetation communities in the Latrobe Valley.
- Natural Damp Grassland of the Victorian Coastal Plains. This community may be associated with native grassland vegetation within coastal plains around Giffard or within private land with 'native' pastures.

Have potential vegetation offsets been identified as yet?

NYD Yes If yes, please briefly describe.

Other information/comments? (eg. accuracy of information)

The ecological assessment was designed and undertaken with the purpose of informing ecological constraints within the proposed project area and environmental and planning referrals. The assessment was based on desktop information and rapid surveys from publicly accessible locations, however further broadscale surveys (including targeted seasonal surveys and completion of habitat condition assessments) are planned over the next 12 months to further refine the accuracy of the assessment.

NYD = not yet determined

Flora and fauna

What investigations of flora and fauna in the project area have been done?

(provide overview here and attach details of method and results of any surveys for the project & describe their accuracy)

ELA undertook a desktop assessment and a preliminary field survey on public land to determine the extent and nature of vegetation and habitat for threatened species.

The desktop assessment included review of Victorian Biodiversity Atlas, Native Vegetation Information System, Protected Matters Search Tool and VicPlan, spatial datasets (e.g. modelled vegetation and habitat extent), scientific literature and relevant environmental legislation, regulations and policies.

The Ecology constraints assessment report (provided as Attachment 1) describes the method in further detail.

Have any threatened or migratory species or listed communities been recorded from the local area?

NYD No Yes If yes, please:

- List species/communities recorded in recent surveys and/or past observations.
- Indicate which of these have been recorded from the project site or nearby.

Threatened Fauna

The desktop review identified a total of 46 significant fauna species considered likely to occur within the project area. All species are listed under the FFG Act (i.e., state significant):

- Grey Goshawk (*Accipiter novaehollandiae*)
- Swamp Antechinus (*Antechinus minimus maritimus*)
- Fork-tailed Swift (*Apus pacificus*)
- Eastern Great Egret (*Ardea alba modesta*)
- Intermediate egret (*Ardea intermedia plumifera*)
- Hardhead (*Aythya australis*)
- Musk Duck (*Biziura lobata*)
- Australasian Bittern (*Botaurus poiciloptilus*)
- Chestnut-rumped Heathwren (*Calamanthus pyrrhopygius*)
- Little Egret (*Egretta garzetta*)
- Grey Falcon (*Falco hypoleucos*)
- Black Falcon (*Falco subniger*)
- Dwarf Galaxias (*Galaxiella pusilla*)
- Painted Honeyeater (*Grantiella picta*)
- White-bellied Sea-Eagle (*Haliaeetus leucogaster*)
- Giant Burrowing Frog (*Heleioporus australiacus*)
- Little Eagle (*Hieraaetus morphnoides*)
- Black-winged Stilt (*Himantopus Himantopus*)
- White-throated Needletail (*Hirundapus caudacutus*)
- Australian Little Bittern (*Ixobrychus dubius*)
- Swift Parrot (*Lathamus discolor*)
- Lewin's Rail (*Lewinia pectoralis*)
- Swamp Skink (*Lissolepis coventryi*)
- Green and Golden Bell Frog (*Litoria aurea*)

- Growling Grass Frog (*Litoria raniformis*)
- Square-tailed Kite (*Lophoictinia isura*)
- Hooded Robin (*Melanodryas cucullate*)
- Flinders Pygmy Perch (*Nannoperca sp.1*)
- Orange-bellied Parrot (*Neophema chrysogaster*)
- Barking Owl (*Ninox connivens*)
- Powerful Owl (*Ninox strenua*)
- Platypus (*Ornithorhynchus anatinus*)
- Blue-billed Duck (*Oxyura australis*)
- Australian Grayling (*Prototroctes maraena*)
- Glossy Grass Skink (*Pseudemoia rawlinsoni*)
- New Holland Mouse (*Pseudomys novaehollandiae*)
- Southern Toadlet (*Pseudophryne semimarmorata*)
- Grey-headed Flying-fox (*Pteropus poliocephalus*)
- Australian Painted-snipe (*Rostratula australis*)
- White-footed Dunnart (*Sminthopsis leucopus*)
- Australasian Shoveler (*Spatula rhynchotis*)
- Freckled Duck (*Stictonetta naevosa*)
- Yellow Ochre Butterfly (*Trapezites luteus luteus*)
- Marsh Sandpiper (*Tringa stagnatilis*)
- Masked Owl (*Tyto novaehollandiae*)
- Martin's Toadlet (*Uperoleia martini*)
- Lace Monitor (*Varanus varius*)

Five of the above species are also listed as migratory or marine species under the EPBC Act, these are:

- White-bellied Sea-Eagle
- White-throated Needletail
- Orange-bellied Parrot
- Australian Painted-snipe
- Marsh Sandpiper

The desktop review also identified that there were 24 significant fauna species considered to have a low likelihood of occurring within the project area:

- Common Sandpiper (*Actitishypoleucos*)
- Magpie Goose (*Anseranas semipalmata*)
- Regent Honeyeater (*Anthochaera phrygia*)
- Australian Bustard (*Ardeotis Australia*)
- Ruddy Turnstone (*Arenaria interpres*)
- Red Knot (*Calidris canutus*)
- Curlew Sandpiper (*Calidris ferruginea*)
- White-browed Treecreeper (*Climacteris affinis*)
- Spot-tailed Quoll (*Dasyurus maculatus maculatus*)
- Striped Legless Lizard (*Delma impar*)
- Australian Gull-billed Tern (*Gelocheidon macrotarsa*)
- Caspian Tern (*Hydroprogne caspia*)
- Southern Brown Bandicoot (*Isodon obesulus obesulus*)
- Broad-toothed Rat (*Mastacomys fuscus mordicus*)
- Eastern Curlew (*Numenius madagascariensis*)
- Southern Greater Glider (*Petauroides volans*)
- Brush-tailed Phascogale (*Phascogale tapoatafa*)
- Long-footed Potoroo (*Potorous longipes*)
- Yellow-bellied Sheath-tail Bat (*Saccolaimus flaviventris*)
- Diamond Firetail (*Stagonopleura guttata*)
- Little Tern (*Sternula albifrons*)
- Fairy Tern (*Sternula nereis*)
- Hooded Plover (*Thinornis cucullatus*)
- Common Greenshank (*Tringa nebularia*)

Threatened Flora

The desktop review identified total of 44 significant flora species considered likely to occur within the project area. All species are listed under the FFG Act (i.e. state significant):

- Stunted Sheoak (*Allocasuarina nana*)
- Small-leaf Star-hair (*Astrotricha parvifolia* subsp. 1)
- Veined Spear-grass (*Aurolistipa rudis* subsp. *Australis*)
- Velvet Apple-berry (*Billardiera scandens* s.s.)
- Variable Bossiaea (*Bossiaea heterophylla*)
- Elegant Daisy (*Brachyscome salkiniae*)
- Orange-tip Finger-orchid (*Caladenia aurantiaca*)
- Eastern Spider-Child (*Caladenia orientalis*)
- Slender Pink-fingers (*Caladenia vulgaris*)
- Dwarf Kerrawang (*Commersonia prostrata*)
- Pale Swamp Everlasting (*Coronidium gunnianum*)
- Spurred Helmet-orchid (*Corybas aconitiflorus*)
- Fringed Helmet-orchid (*Corybas fimbriatus*)
- Grey Billy-Buttons (*Craspedia canens*)
- Small Scurf-pea (*Cullen parvum*)
- Eastern Water-ribbons (*Cycnogeton microtuberosum*)
- Bear's-ear (*Cymbonotus lawsonianus*)
- Matted Flax-lily (*Dianella amoena*)
- Purple Diuris (*Diuris punctata* var. *punctata*)
- Rough-grain Love-grass (*Eragrostis trachycarpa*)
- Gippsland Lakes Peppermint (*Eucalyptus Arenicola*)
- Coast Grey-box (*Eucalyptus bosistoana*)
- Green Scentbark (*Eucalyptus fulgens*)
- Yarra Gum (*Eucalyptus yarraensis*)
- Strzelecki Gum (*Eucalyptus strzeleckii*)
- Veiled Fringe-sedge (*Fimbristylis velata*)
- Golden Grevillea (*Grevillea chrysophaea*)
- Purple Blown-grass (*Lachnagrostis semibarbata* var. *semibarbata*)
- Heath Platysace (*Platysace ericoides*)
- Golden Pomaderris (*Pomaderris aurea*)
- Striped Pomaderris (*Pomaderris pilifera* subsp. *pilifera*)
- Maroon Leek-orchid (*Prasophyllum frenchii*)
- Wellington Mint-bush (*Prostanthera galbraithiae*)
- Green-striped Greenhood (*Pterostylis chlorogramma*)
- Fisch's Greenhood (*Pterostylis fischii*)
- Mentone Greenhood (*Pterostylis X toveyana*)
- Lacey River Buttercup (*Ranunculus amplus*)
- Annual Fireweed (*Senecio glomeratus* subsp. *Longifructus*)
- Rush Lily (*Sowerbaea juncea*)
- Winter Sun-orchid (*Thelymitra hiemalis*)
- Dusky Violet (*Viola fuscoviolacea*)
- Parsley Xanthosia (*Xanthosia leiophylla*)
- Swamp Everlasting (*Xerochrysum palustre*)
- Pink Zieria (*Zieria veronicea* subsp. *Veronicea*)

The desktop review also identified that there were 30 significant flora species considered to have a low likelihood of occurring within the project area:

- Sticky Wattles (*Acacia howittii*)
- Wavy Swamp Wallaby-grass (*Amphibromus sinuatus*)
- Slender Tree-fern (*Cyathea cunninghamii*)
- Japanese Lady-fern (*Deparia petersenii* subsp. *congrua*)
- Glaucous Flax-lily (*Dianella longifolia* var. *grandis* s.l.)
- Trailing Hop-bush (*Dodonaea procumbens*)
- Carpet Willow-herb (*Epilobium willisii*)
- Common Pipewort (*Eriocaulon scariosum*)

- Buxton Gum (*Eucalyptus crenulate*)
- Southern Blue-gum (*Eucalyptus globulus* subsp. *Globulus*)
- Nerveless Pocket-moss (*Fissidens dealbatus*)
- Austral Crane's-bill (*Geranium solanderi* var. *solanderi* s.s.)
- Clover Glycine (*Glycine latrobeana*)
- Rough Blown-grass (*Lachnagrostis rudis* subsp. *rudis*)
- Purple Blown-grass (*Lachnagrostis semibarbata* var. *filifolia*)
- Basalt Peppercross (*Lepidium hyssopifolium* s.s.)
- Lanky Buttons (*Leptorhynchos elongatus*)
- Coast Fescue (*Poa billardierei*)
- Round-leaf Pomaderris (*Pomaderris vacciniifolia*)
- Oval-leaf Pseudanthus (*Pseudanthus ovalifolius*)
- Cobra Greenhood (*Pterostylis grandiflora*)
- Sale Greenhood (*Pterostylis incognita*)
- Prawn Greenhood (*Pterostylis pedoglossa*)
- Sharp Greenhood (*Pterostylid X ingens*)
- Blakely's Bush-pea (*Pultenaea blakelyi*)
- Shingle Fireweed (*Senecio disachides*)
- Metallic Sun-orchid (*Thelymitra epipactoides*)
- Slender Fork-fern (*Tmesipteris elongata*)
- Oval Fork-fern (*Tmesipteris ovata*)
- Tiny Arrowgrass (*Triglochin minutissima*)

Ultimately, the species that will be impacted will depend on the final design of the proposed route as there is capacity to avoid potential habitat by avoiding areas of extensive native vegetation and known populations of threatened species as far as practicable. Further assessments will be required to determine the potential for the G-REZ to impact on particular species.

If known, what threatening processes affecting these species or communities may be exacerbated by the project? (eg. loss or fragmentation of habitats) Please describe briefly.

At this stage of assessment, the potentially threatening processes under the FFG Act may be:

- Degradation of native riparian vegetation along Victorian rivers and streams. G-REZ will avoid clearing riparian vegetation as far as practicable, and limit the number of waterway crossings.
- Habitat fragmentation as a threatening process for fauna in Victoria. G-REZ will avoid large patches as far as practicable.
- Increase in sediment input into Victorian rivers and streams due to human activities. G-REZ will employ appropriate sediment control measures.
- Invasion of native vegetation by 'environmental weeds'. G-REZ will implement appropriate weed and pest hygiene practices.
- Loss of coarse woody debris from Victorian native forests and woodlands. Avoidance of coarse woody debris as far as practicable.
- Loss of hollow-bearing trees from Victorian native forests. G-REZ will avoid hollow-bearing trees as far as practicable, and will investigate measures for replacement through artificial hollows if found to be appropriate.
- The spread of *Phytophthora cinnamomi* from infected sites into parks and reserves, including roadsides, under the control of a state or local government authority. G-REZ will implement appropriate weed and pest hygiene practices.

Are any threatened or migratory species, other species of conservation significance or listed communities potentially affected by the project?

NYD No Yes If yes, please:

- List these species/communities:
- Indicate which species or communities could be subject to a major or extensive impact (including the loss of a genetically important population of a species listed or nominated for listing) Comment on likelihood of effects and associated uncertainties, if practicable.

Of the significant fauna species identified above as potentially occurring, ELA identified the following 23 listed species as having moderate to high likelihood of experiencing significant impacts prior to mitigation:

- Hardhead (*Aythya australis*)
- Musk Duck (*Biziura lobata*)
- Chestnut-rumped Heathwren (*Calamanthus pyrrhopygius*)
- Little Egret (*Egretta garzetta*)
- Painted Honeyeater (*Grantiella picta*)
- Swift Parrot (*Lathamus discolor*)
- Swamp Skink (*Lissolepis coventryi*)
- Green and Golden Bell Frog (*Litoria aurea*)
- Hooded Robin (*Melanodryas cucullata*)
- Orange-bellied Parrot (*Neophema chrysogaster*)
- Barking Owl (*Ninox connivens*)
- Powerful Owl (*Ninox strenua*)
- Platypus (*Ornithorhynchus anatinus*)
- Glossy Grass Skink (*Pseudemoia rawlinsoni*)
- New Holland Mouse (*Pseudomys novaehollandiae*)
- Southern Toadlet (*Pseudophryne semimarmorata*)
- Australasian Shoveler (*Spatula rhynchotis*)
- Freckled Duck (*Stictonetta naevosa*)
- Yellow Ochre Butterfly (*Trapezites luteus luteus*)
- Marsh Sandpiper (*Tringa stagnatilis*)
- Masked Owl (*Tyto novaehollandiae*)
- Martin's Toadlet (*Uperoleia martini*)
- Lace Monitor (*Varanus varius*)

Of the significant flora species identified above as potentially occurring, ELA identified the following 22 listed species as having moderate to high likelihood of experiencing significant impacts prior to mitigation:

- Small-leaf Star-hair (*Astrotricha parvifolia* subsp. 1)
- Velvet Apple-berry (*Billardiera scandens* s.s.)
- Variable Bossiaea (*Bossiaea heterophylla*)
- Orange-tip Finger-orchid (*Caladenia aurantiaca*)
- Dwarf Kerrawang (*Commersonia prostrata*)
- Fringed Helmet-orchid (*Corybas fimbriatus*)
- Grey Billy-buttons (*Craspedia canens*)
- Eastern Water-ribbons (*Cycnogeton microtuberosum*)
- Bear's-ear (*Cymbonotus lawsonianus*)
- Matted Flax-lily (*Dianella amoena*)
- Purple Diuris (*Diuris punctata* var. *punctata*)
- Gippsland Lakes Peppermint (*Eucalyptus arenicola*)
- Coast Grey-box (*Eucalyptus bosistoana*)
- Green Scentbark (*Eucalyptus fulgens*)
- Strzelecki Gum (*Eucalyptus strzeleckii*)
- Yarra Gum (*Eucalyptus yarraensis*)
- Golden Grevillea (*Grevillea chrysophaea*)
- Golden Pomaderris (*Pomaderris aurea*)
- Wellington Mint-bush (*Prostanthera galbraithiae*)
- Fisch's Greenhood (*Pterostylis fischii*)
- Rush Lily (*Sowerbaea juncea*)
- Pink Zieria (*Zieria veronicea* subsp. *veronicea*)

Is mitigation of potential effects on indigenous flora and fauna proposed?

NYD No Yes If yes, please briefly describe.

Transmission towers, access tracks and the terminal station will be sited to avoid impacts to native vegetation and habitat, as far as practicable. Where avoidance isn't practicable, impacts will be minimised and mitigated. Any unavoidable native vegetation removal will be offset in accordance with DELWP's *Guidelines for the removal, destruction or lopping of native vegetation*.

Other information/comments? (eg. accuracy of information)

N/A

13. Water environments

<p>Will the project require significant volumes of fresh water (eg. > 1 GI/yr)? <input type="checkbox"/> NYD <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, indicate approximate volume and likely source.</p>
<p>Will the project discharge waste water or runoff to water environments? <input type="checkbox"/> NYD <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, specify types of discharges and which environments.</p> <p>The G-REZ will not discharge wastewater or runoff to water environments. The transmission line and terminal station will be constructed and operated in accordance with the appropriate erosion and sediment controls to manage any discharges or runoff.</p>
<p>• Are any waterways, wetlands, estuaries or marine environments likely to be affected? 1. <input type="checkbox"/> NYD <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, specify which water environments, answer the following questions and attach any relevant details.</p> <p>The project area crosses the following waterways:</p> <ul style="list-style-type: none"> • Merriman Creek • Flynns Creek • Traralgon Creek • Deep Creek • Crooke Creek • Blind Joe Creek • Sheep Wash Creek • Boyds Creek • Plough Creek • Waterhole Creek • Bennetts Creek.
<p>Are any of these water environments likely to support threatened or migratory species? <input checked="" type="checkbox"/> NYD <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, specify which water environments.</p> <p>Investigations are planned to determine whether these water environments support threatened or migratory species. The potentially occurring species described in the flora and fauna section includes species whose distribution ranges and potential habitat encompass water environments within the project area, such as the waterways listed above. These species include the magpie goose, swamp antechinus, hardhead, Flinders pygmy perch, platypus, eastern water-ribbons and swamp everlasting.</p>
<p>Are any potentially affected wetlands listed under the Ramsar Convention or in 'A Directory of Important Wetlands in Australia'? <input type="checkbox"/> NYD <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, please specify.</p>
<p>Could the project affect streamflows? <input type="checkbox"/> NYD <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, briefly describe implications for streamflows.</p> <p>G-REZ will not affect stream flows. Towers will be sited to span over waterways and avoid floodplains as far as practicable, and the terminal station will be sited to avoid areas affected by streamflow.</p>
<p>Could regional groundwater resources be affected by the project? <input type="checkbox"/> NYD <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, describe in what way.</p> <p>Regional groundwater resources are not expected to be affected G-REZ.</p>

<p>Could environmental values (beneficial uses) of water environments be affected? <input checked="" type="checkbox"/> NYD <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, identify waterways/water bodies and beneficial uses (as recognised by State Environment Protection Policies)</p> <p>G-REZ is unlikely to impact environmental values of water environments, given towers will be sited where possible so transmission lines span over waterways to avoid impacts from works near waterways or clearing of riparian vegetation. The proposed Giffard terminal station will be sited to avoid areas affected by streamflow. Investigations are planned to support and confirm this position, and the investigations would propose additional mitigation or design measures if found to be necessary.</p>
<p>Could aquatic, estuarine or marine ecosystems be affected by the project? <input checked="" type="checkbox"/> NYD <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, describe in what way.</p> <p>As with the beneficial uses of water environments, G-REZ is unlikely to impact aquatic, estuarine or marine ecosystems, given towers will be sited where possible so transmission lines span over waterways to avoid impacts from works near waterways or clearing of riparian vegetation, however investigations are also planned to support and confirm this position and the investigations would propose additional mitigation or design measures if found to be necessary.</p>
<p>Is there a potential for extensive or major effects on the health or biodiversity of aquatic, estuarine or marine ecosystems over the long-term? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, please describe. Comment on likelihood of effects and associated uncertainties, if practicable.</p> <p>G-REZ will not have extensive or major effects on the health or biodiversity of aquatic, estuarine or marine ecosystems over the long-term. Towers will be sited where possible so lines span over waterways and terminal stations will be sited to avoid locating them in areas affected by streamflow.</p>
<p>Is mitigation of potential effects on water environments proposed? <input checked="" type="checkbox"/> NYD <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, please briefly describe.</p> <p>Investigations are planned to firstly determine if there will be any impacts to water environments or values, and once complete will determine what mitigation measures are necessary.</p>
<p>Other information/comments? (eg. accuracy of information)</p> <p>N/A.</p>

14. Landscape and soils

Landscape

<p>Has a preliminary landscape assessment been prepared? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, please attach.</p>
<p>Is the project to be located either within or near an area that is:</p> <ul style="list-style-type: none"> <p>Subject to a Landscape Significance Overlay or Environmental Significance Overlay? <input type="checkbox"/> NYD <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, provide plan showing footprint relative to overlay.</p> <p>Figures 6, 7 and 8 show the Environmental Significance Overlays intersected by or near the project area.</p> <p>Identified as of regional or State significance in a reputable study of landscape values? <input checked="" type="checkbox"/> NYD <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, please specify.</p> <p>A landscape and visual impact assessment will be undertaken to inform the required assessment process, and as part of the planning scheme amendment application.</p>

<p>• Within or adjoining land reserved under the <i>National Parks Act 1975</i>? <input type="checkbox"/> NYD <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, please specify.</p> <p>The project area is partly within Holey Plains State Park and adjoins Mullungdung State Forest.</p> <p>• Within or adjoining other public land used for conservation or recreational purposes? <input type="checkbox"/> NYD <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, please specify.</p> <p>The project area includes Giffard (Rifle Range) Flora Reserve and the Rosedale Racecourse Recreation Reserve.</p>
<p>Is any clearing vegetation or alteration of landforms likely to affect landscape values? <input type="checkbox"/> NYD <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, please briefly describe.</p> <p>No alterations of landforms are proposed for the G-REZ, however there will be clearing of vegetation for the transmission lines which will impact landscape values.</p>
<p>Is there a potential for effects on landscape values of regional or State importance? <input checked="" type="checkbox"/> NYD <input type="checkbox"/> No <input type="checkbox"/> Yes Please briefly explain response.</p> <p>A landscape and visual impact assessment will be undertaken to inform the required assessment process, and as part of the planning scheme amendment application.</p>
<p>Is mitigation of potential landscape effects proposed? <input type="checkbox"/> NYD <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, please briefly describe.</p> <p>It is recognised that large towers can be unavoidably visible and will often contrast with the environments in which they are situated.. The G-REZ will commission a landscape and visual impact assessment study to inform the required assessment and approvals processes. Potential mitigation measures to manage visual impact at locations where there are significant visual impacts include screening or micro-siting tower locations to where they will have less visual impact..</p>
<p>Other information/comments? (eg. accuracy of information)</p>

Note: A preliminary landscape assessment is a specific requirement for a referral of a wind energy facility. This should provide a description of:

- The landscape character of the site and surrounding areas including landform, vegetation types and coverage, water features, any other notable features and current land use;
- The location of nearby dwellings, townships, recreation areas, major roads, above-ground utilities, tourist alignments and walking tracks;
- Views to the site and to the proposed location of wind turbines from key vantage points (including views showing existing nearby dwellings and views from major roads, walking tracks and tourist alignments) sufficient to give a sense of the overall site in its setting.

Soils

<p>Is there a potential for effects on land stability, acid sulphate soils or highly erodible soils? <input type="checkbox"/> NYD <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, please briefly describe.</p> <p>The construction of tower foundations and access roads could potentially impact on land stability, acid sulphate soils or highly erodible soils. However, the intention is to site project infrastructure in locations which would avoid susceptible areas as far as practicable.</p> <p>Additionally, a landform, soils and geology assessment will be undertaken to inform the required assessment process, and as part of the planning scheme amendment application.</p>
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<p>Are there geotechnical hazards that may either affect the project or be affected by it? <input checked="" type="checkbox"/> NYD <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, please briefly describe.</p> <p>Investigations are proposed to determine whether there are potential geological hazards that may affect G-REZ or be affected by it.</p>
<p>Other information/comments? (eg. accuracy of information)</p> <p>N/A</p>

15. Social environments

<p>Is the project likely to generate significant volumes of road traffic, during construction or operation? <input checked="" type="checkbox"/> NYD <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, provide estimate of traffic volume(s) if practicable.</p> <p>G-REZ will generate traffic during construction however, as a linear infrastructure project, construction activities will move along the project area during construction, which means the impact experienced to individuals during construction will be short-term in nature. G-REZ is planning to undertake a traffic and transport technical assessment to quantify these potential impacts.</p>
<p>Is there a potential for significant effects on the amenity of residents, due to emissions of dust or odours or changes in visual, noise or traffic conditions? <input type="checkbox"/> NYD <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, briefly describe the nature of the changes in amenity conditions and the possible areas affected.</p> <p>The project has the potential for significant effects on the amenity of residents, due to visual impact from the construction of the 500 kV OHTL.</p> <p>No significant effects are expected as a result of dust, noise or traffic conditions. Assessments undertaken to quantify the impacts from dust, noise and traffic will inform the required assessment and approvals processes.</p>
<p>Is there a potential for exposure of a human community to health or safety hazards, due to emissions to air or water or noise or chemical hazards or associated transport? <input type="checkbox"/> NYD <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, briefly describe the hazards and possible implications.</p>
<p>Is there a potential for displacement of residences or severance of residential access to community resources due to the proposed development? <input type="checkbox"/> NYD <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, briefly describe potential effects.</p> <p>There may be potential for severance of access to some residences for short periods (hours rather than days) during construction. Consultation with affected residents will occur during the design and construction planning phases, along with appropriate prior notification of timing of construction to minimise disturbance.</p>
<p>Are non-residential land use activities likely to be displaced as a result of the project? <input checked="" type="checkbox"/> NYD <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, briefly describe the likely effects.</p> <p>The site of the new terminal station near Giffard will result in displacement of a non-residential land use i.e., agriculture. An area of approximately 700 m by 500 m is required for the terminal station. Further assessment to understand the current land use and where the terminal station can be situated to minimise the extent of impact will inform the required assessment and approvals processes.</p> <p>The approximately 85 km project area will intersect plantation forestry and agricultural land uses. Plantation forestry owned by Hancock Victorian Plantations Pty Ltd, and Grand Ridge Plantations Pty Ltd are intersected by the project area, requiring clearance of some forestry plantation to enable easement development. Easements associated with the project area will also intersect</p>

private agricultural land, although the extent to which agricultural land use activities will be impacted on individual properties is yet to be determined.
<p>Do any expected changes in non-residential land use activities have a potential to cause adverse effects on local residents/communities, social groups or industries? <input checked="" type="checkbox"/> NYD <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, briefly describe the potential effects.</p> <p>As discussed previously, it is recognised that OHTL in non-residential land use areas will be visible and will often contrast with the environments in which they are situated which may have impacts on landscape values and amenity to local residents and communities. Easements associated with the project area will intersect plantation forestry and private agricultural land, although the extent to which these non-residential land use activities will be impacted is yet to be determined and will be considered in the proposed social impact assessment study.</p>
<p>Is mitigation of potential social effects proposed? <input checked="" type="checkbox"/> NYD <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, please briefly describe.</p> <p>G-REZ will commission a social impact assessment study to inform the required assessment and approvals processes. The study will quantify potential social effects and once complete will determine what mitigation measures are necessary.</p>
<p>Other information/comments? (eg. accuracy of information)</p> <p>N/A.</p>

Cultural heritage

<p>Have relevant Indigenous organisations been consulted on the occurrence of Aboriginal cultural heritage within the project area? <input type="checkbox"/> No If no, list any organisations that it is proposed to consult. <input checked="" type="checkbox"/> Yes If yes, list the organisations so far consulted.</p> <p>The Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) is the Registered Aboriginal Party (RAP) for Aboriginal cultural heritage assessment under the <i>Aboriginal Heritage Act 2006</i>. AusNet has commenced consultation with GLaWAC, and this will continue throughout the life of the G-REZ.</p> <p>GLaWAC will be consulted and approval sought for a Cultural Heritage Management Plan for the project.</p>
<p>What investigations of cultural heritage in the project area have been done? (attach details of method and results of any surveys for the project & describe their accuracy)</p> <p>A desktop assessment of Aboriginal and historical cultural heritage constraints was undertaken for the project area (refer to Attachment 2) which included:</p> <ul style="list-style-type: none"> • Inspection of aerial imagery and key statutory Victorian databases relating to Aboriginal cultural heritage planning matters, including searches for registered Aboriginal cultural heritage places, culturally sensitive landforms and other resources (e.g., consultancy reports, academic research) in the Victorian Aboriginal Heritage Register. Databases were accessed through the Aboriginal Cultural Heritage Register and Information System (ACHRIS) online tool managed by First Peoples-State Relations. • Searching the Australian Heritage Database, the Victorian Heritage Database and local government planning schemes for information relating to the study area. • A review of relevant Aboriginal and historical cultural heritage legislation and planning permit requirements including government online mapping resources and planning schemes. <p>Results of the desktop assessment are found in the sections below.</p> <p>The cultural heritage desktop assessment does not constitute a Cultural Heritage Management Plan as defined in Division 1 of the <i>Aboriginal Heritage Act 2006</i>. This will be developed through the planning and approvals process.</p>

<p>Is any Aboriginal cultural heritage known from the project area?</p> <p><input type="checkbox"/> NYD <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, briefly describe:</p> <ul style="list-style-type: none"> • Any sites listed on the AAV Site Register • Sites or areas of sensitivity recorded in recent surveys from the project site or nearby • Sites or areas of sensitivity identified by representatives of Indigenous organisations <p>58 registered Aboriginal cultural heritage places are located within the project area. These places consist of 30 subsurface/surface artefact scatters, 8 scarred trees, 9 low density artefact distributions, 1 earth features and 13 objects associated with reburied artefacts. Note the total number of VAHR places listed is greater than 58, since some places are registered with multiple component types (e.g. artefact scatter and object collection).</p>
<p>Are there any cultural heritage places listed on the Heritage Register or the Archaeological Inventory under the <i>Heritage Act 1995</i> within the project area?</p> <p><input type="checkbox"/> NYD <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, please list.</p> <p>The project area does not contain any places registered on the Victorian Heritage Register and one site listed on the Victorian Heritage Inventory (described in Section 8).</p> <p>Is mitigation of potential cultural heritage effects proposed?</p> <p><input type="checkbox"/> NYD <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, please briefly describe.</p> <p>Given the prevalence of defined areas of Aboriginal cultural heritage sensitivity across the project area, it will not be possible to avoid all mapped areas of Aboriginal cultural heritage sensitivity. A Cultural Heritage Management Plan will be prepared to address impacts to cultural heritage places.</p>
<p>Other information/comments? (eg. accuracy of information)</p> <p>N/A</p>

16. Energy, wastes & greenhouse gas emissions

<p>What are the main sources of energy that the project facility would consume/generate?</p> <p><input checked="" type="checkbox"/> Electricity network. If possible, estimate power requirement/output</p> <p><input type="checkbox"/> Natural gas network. If possible, estimate gas requirement/output</p> <p><input type="checkbox"/> Generated on-site. If possible, estimate power capacity/output</p> <p><input checked="" type="checkbox"/> Other. Please describe.</p> <p>Fuel powered equipment and vehicles, and fuel powered electric generators will be utilised during construction. The terminal station will be powered by the electricity network.</p> <p>Please add any relevant additional information.</p>
<p>What are the main forms of waste that would be generated by the project facility?</p> <p><input checked="" type="checkbox"/> Wastewater. Describe briefly.</p> <p><input type="checkbox"/> Solid chemical wastes. Describe briefly.</p> <p><input checked="" type="checkbox"/> Excavated material. Describe briefly.</p> <p><input checked="" type="checkbox"/> Other. Describe briefly.</p> <p>Please provide relevant further information, including proposed management of wastes.</p> <p>Most of the waste will be generated during construction of G-REZ, such as wood pallets, concrete, conductor and control cable off-cuts. Soils excavated during construction would be reused where possible or transported offsite for disposal. Cut and fill activities will be minimised to the extent possible, and materials excavated will be reused for site rehabilitation where appropriate. Contaminated material will be managed in accordance with relevant legislation.</p> <p>Sewage wastes from onsite facilities for the construction workforce will be collected on site and stored temporarily for disposal at an appropriate facility to avoid spills and contamination of</p>

ground and surface water. General refuse generated will not be significant and would be managed in accordance with standard construction-site mitigation measures.

The transmission lines and terminal station are not expected to generate any significant volume of waste during operations.

What level of greenhouse gas emissions is expected to result directly from operation of the project facility?

- Less than 50,000 tonnes of CO₂ equivalent per annum
- Between 50,000 and 100,000 tonnes of CO₂ equivalent per annum
- Between 100,000 and 200,000 tonnes of CO₂ equivalent per annum
- More than 200,000 tonnes of CO₂ equivalent per annum

Please add any relevant additional information, including any identified mitigation options.

17. Other environmental issues

Are there any other environmental issues arising from the proposed project?

- No Yes If yes, briefly describe.

18. Environmental management

What measures are currently proposed to avoid, minimise or manage the main potential adverse environmental effects? (if not already described above)

- Siting: Please describe briefly

G-REZ considered the broader engineering, environmental, cultural and social constraints in the area to arrive at the preferred project area presented in this referral. Further engineering, environmental, cultural and social studies will inform the final design of the proposed route within this project area, including the siting of towers and the terminal station, to avoid environmental and social values as far as practicable.

- Design: Please describe briefly

Transmission infrastructure design measures that minimise impacts on environmental, cultural and social constraints in the area will be considered as the proposed route is finalised within the project area through the planning and approvals process.

- Environmental management: Please describe briefly.

Environmental management measures applicable for the construction, operation and maintenance and decommissioning phases will be developed to minimise adverse impacts to the values of the biological, physical and social environments to the maximum extent practicable.

- Other: Please describe briefly (Add any relevant additional information)

N/A

19. Other activities

Are there any other activities in the vicinity of the proposed project that have a potential for cumulative effects?

- NYD No Yes If yes, briefly describe.

Star of the South is an offshore wind farm which is proposed to be located 7 to 25 km off the south coast of Gippsland, and its proposed transmission line route is expected to pass through Loy Yang and connect to a potential grid connection point in Hazelwood. The project is currently undergoing assessment under the *Environment Effects Act 1978* and EPBC Act.

The Flotation Energy Seadragon project is a proposed 1,500 MW offshore wind farm situated off the Gippsland coast in Victoria. Several corridors are currently under investigation by the Seadragon project to a terminal connection at either the existing Loy Yang or Hazelwood terminal stations. The project recently submitted referrals under the *Environment Effects Act 1978* and EPBC Act.

Marinus Link is a 1500 MW high voltage direct current electronic interconnector between Burnie, Tasmania and the Latrobe Valley in Victoria. This project involves land cables in Victoria from a transition station connecting to the converter station site in either the Driffield or Hazelwood areas. The project is currently undergoing assessment under the *Environment Effects Act 1978* and EPBC Act.

Detailed assessment of cumulative impacts is proposed for each study that will identify all relevant projects potentially contributing to cumulative impacts in the region.

20. Investigation program

Study program

Have any environmental studies not referred to above been conducted for the project?

No Yes If yes, please list here and attach if relevant.

Has a program for future environmental studies been developed?

No Yes If yes, briefly describe.

The following studies are proposed to inform the required assessment and approval processes for the G-REZ:

- Landform, soils and geology
- Contaminated land
- Groundwater
- Hydrology
- Freshwater ecology
- Terrestrial ecology
- Bushfire
- Air quality
- Greenhouse gas and climate change
- Noise and vibration
- Land use and planning
- Landscape and visual impact
- Agriculture
- Social impact assessment
- Economic assessment
- Traffic and transport
- Electromagnetic frequency
- Aboriginal cultural heritage
- Historic heritage
- Aviation assessment

Consultation program

Has a consultation program conducted to date for the project?

No Yes If yes, outline the consultation activities and the stakeholder groups or organisations consulted.

AusNet commenced stakeholder engagement for G-REZ in late 2021 through a series of targeted briefings to key regional leaders. These briefings provided an early opportunity to build awareness of G-REZ and gain local insights and feedback regarding the development and delivery of G-REZ, in particular, how to best engage stakeholders, including landowners and the broader community.

Since May 2022, AusNet has been actively engaging with landowners along the proposed route for G-REZ, in addition to key state and local government agencies.

Engagement with Key Stakeholders (in addition to landowners)

The following government agencies have been consulted with on the G-REZ to date:

- Department of Environment, Land Water and Planning (Impact Assessment Unit, and Environment Portfolio)
- West Gippsland Catchment Management Authority
- Gunaikurnai Land and Waters Aboriginal Corporation
- Department of Agriculture, Water and the Environment
- Latrobe City Council
- Wellington Shire Council
- Committee for Gippsland
- Local Members of Parliament
- Heritage Victoria
- Latrobe Valley Authority
- VicGrid

Engagement with Landowners

As at 27 June 2022, AusNet has met with all landowners along the proposed G-REZ transmission route.

These early discussions have focussed on providing landowners with an overview of G-REZ, in particular, where the current proposed route crosses their property. These meetings have also been a valuable opportunity for the G-REZ team to understand the individual land uses of each property and identify early opportunities for refinements to the route, as well as understand landowners' views regarding the project.

A summary of the feedback provided to date by the landowners in initial meetings is included below.

Nature of infrastructure

In general, landowners have been keen to learn more about the transmission infrastructure proposed as part of G-REZ. This has included whether the infrastructure is proposed to be overhead or underground, the potential height and number of transmission towers, opportunities to reduce the height and overall footprint of transmission towers and their proximity to dwellings and other structures (such as sheds) on the property.

Some of this information was able to be provided in these initial meetings. AusNet is committed to providing further information regarding these matters in future meetings with landowners.

Impacts on visual amenity

A number of landowners shared concerns regarding the potential impact on visual amenity associated with overhead infrastructure and expressed a preference for the transmission line to be developed underground.

While landowners understood the significant cost differential between underground and overhead infrastructure, a number of them were seeking further information regarding the benefits and deficits associated with both options.

AusNet is working to develop public collateral such as factsheets and interactive digital graphics/videos that provides the information sought.

The proposed route

Landowners have been interested in understanding how the current proposed route for G-REZ has been determined and what consideration has been given to other alignments. In particular, landowners have been keen to better understand why AusNet is not able to utilise other easements and infrastructure (such as Basslink) to deliver G-REZ.

AusNet has undertaken a significant amount of preliminary work, including analysis of multiple alignments, to identify a preferred route for G-REZ that has the least impact on the environment, landowners and the community.

The route serves as a starting point for AusNet to commence discussions with landowners and may be subject to change as a result of these discussions. AusNet will continue to engage with landowners to understand the implications and potential impacts of the proposed route on each individual property. AusNet is committed to working with landowners to pursue a route that minimises as much as practicable the impacts on the environment, landowners and their use of the land, and the community.

Engagement with Local Community Groups

A project update with further information about G-REZ has been distributed to a number of community groups as well as to neighbours along the proposed route.

This update has also been distributed to all landowners within the wider catchment of the G-REZ.

Has a program for future consultation been developed?

NYD No Yes If yes, briefly describe.

AusNet continues to meet with landowners and is committed to engaging in an open and transparent manner with all stakeholders throughout the life of G-REZ.

AusNet will broaden its engagement activities in accordance with a Stakeholder Engagement Plan to be informed by the social impact assessment and engagement progress and outcomes.

Engagement activities will include:

- Hosting a number of community pop ups in locations along the proposed route. This will provide an opportunity for members of the community and other interested stakeholders to learn more about G-REZ and talk to members of the team.
- Launching a project website (which includes a feedback form) and an online engagement space.
- Distributing a regular newsletter.
- Establishing a Community Advisory Group (CAG) for the G-REZ.
- Developing and administering a community benefits fund that supports priority projects and initiatives identified by the community.
- Maintaining a complaints framework to ensure that any complaints to the project team are appropriately considered.

Supporting documentation

Attachment 1 - Ecology constraints assessment report

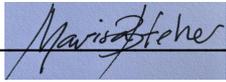
Attachment 2 - Preliminary Aboriginal and historic cultural heritage assessment report

Figures:

- Figure 1 Project area
- Figure 5 Project alternatives
- Figure 6 Planning overlays that intersect the project area – Map 1 of 3
- Figure 7 Planning overlays that intersect the project area – Map 2 of 3
- Figure 8 Planning overlays that intersect the project area – Map 3 of 3

Authorised person for proponent:

I,Marisa Feher.....(full name),
.....Environment and Land Manager(position), confirm that the
information contained in this form is, to my knowledge, true and not misleading.

Signature _____ 
Date 15 September 2022

Person who prepared this referral:

I,Jessica Reid.....(full name),
.....Principal Consultant.....(position), confirm that the information
contained in this form is, to my knowledge, true and not misleading.

Signature _____ 
Date 15 September 2022