
Appendix E

Socio-economic assessment

Socio-economic assessment

Gelliondale Wind Farm and BESS

30 July 2025



Socio-economic assessment

Gelliondale Wind Farm and BESS

AE1289

July 2025

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Abbreviations

%	percent
ABS	Australian Bureau of Statistics
Accent	Accent Environmental Pty Ltd
AEMO	Australian Energy Market Operator
AES	Accommodation and Employment Strategy
ARENA	Australian Renewable Energy Agency
BESS	battery energy storage system
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DEECA	Department of Energy, Environment, and Climate Action
DFFH	Department of Families, Fairness and Housing
DJSIR	Department of Jobs, Skills, Industry and Regions
DPIE	NSW Department of Planning, Industry and Environment (now known as the Department of Planning, Housing and Infrastructure (DPHI))
EIS	environmental impact statement
DTP	Victorian Department of Transport and Planning
EES	Environmental Effects Statement
EMS	Environmental Management System
EOI	expression of interest
EPA	Environmental Protection Authority
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ESD	Ecologically Sustainable Development
FNCEN	First Nations Clean Energy Network
FPIC	Free, Prior and Informed Consent
FTE	full-time equivalent
GHG	greenhouse gas emissions
GLaWAC	Gunaikurnai Land and Waters Aboriginal Corporation
GPHN	Gippsland Public Health Network
GRP	gross regional product
GW	gigawatt (1,000 MW)

ha	hectares
HV	high voltage
ICN	Industry Capability Network
IHAD	Index of Household Advantage and Disadvantage
IRSD	Index of Relative Socioeconomic Disadvantage
IWG	innovation working group
KL	kilolitre
km	kilometre
km ²	square kilometre
kV	kilovolt
LALC	Local Aboriginal Land Council
LC	Latrobe City (pertaining to the Council or LGA)
LGA	local government area
LVA	Latrobe Valley Authority
m	metre
MW	megawatts
MWac	megawatts alternating current
NSW	New South Wales
OSOM	oversize and over-mass
pa	per annum
PCRZ	Public Conservation and Resource zone
PER	Public Environment Report
RDV	Regional Development Victoria
REZ	renewable energy zone
SA1	Statistical Area Level 1
SEIFA	Socio-Economic Indexes for Areas
SG	South Gippsland (pertaining to the Council or LGA)
SIA	Social Impact Assessment
SLO	social licence to operate
STRA	short-term rental accommodation
TAFE	Technical and Further Education

TIA	Traffic Impact Assessment
TMP	Traffic management plan
UCL	Urban centre and localities
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
VCAT	Victorian Civil and Administrative Tribunal
VET	vocational education and training
VIC	Victoria
vpd	vehicles per day
VRET	Victorian Renewable Energy Target
WF	wind farm
WS	Wellington Shire
WSC	Wellington Shire Council
WTG	wind turbine generator

Glossary

Action Area	The total area of all lots forming the Project Area, and all portions of crown land utilised for the Project's vehicle access, underground cables and road upgrades (1,622 ha).
Decile	A decile is a quantitative method of splitting up a set of ranked data into 10 equally sized subsections. This type of data ranking is performed as part of many academic and statistical studies in the finance and economics fields
Family	A family is defined by the ABS as two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household. For the purposes of the ABS, a household is defined as one or more persons resident in the same dwelling (ABS 2014).
Project Area	The area covered by the Project Footprint, plus an additional 100m buffer around each WTG and 25m buffer around all other Project infrastructure other than road upgrades (162 ha).
Project Footprint	The impact area of all development forming part of the Gelliondale Wind Farm, including vegetation removal and road upgrades along the turbine transport route (38.2 ha).
Statistical Area Level 1	SA1 blocks are geographic areas built from whole Mesh Blocks. They are the second smallest statistical area used by the Australian Bureau of Statistics. They are derived from the Australian Statistical Geography Standard (ASGS) Edition 3 (which divides Australia into a hierarchy of statistical areas and is updated every 5 years). Though SA1s generally have a population of 200 to 800 people (with an average population of about 400 people), those in remote and regional areas generally have smaller populations than those in urban areas.
Study area - local	The local study area comprises three Statistical Areas Level 1 (SA1s) blocks, reference numbers 20505110405, 20505110409 and 20503108709. These comprise the majority of local populations, settlements and townships within a 5 km buffer from the Action Area in which the Project is planned. The local study area contains the settlements of Hedley, Gelliondale and the townships of Welshpool, Port Welshpool and Alberton.
Study area - regional	The regional study area comprises Wellington Shire LGA (WS LGA), South Gippsland Shire LGA (SG LGA) and Latrobe City LGA (LC LGA). WS LGA is the focus of the regional study area, because the Action Area in which the Project is planned is fully located within this LGA. However, Project-related social and economic influences will not be limited to WS LGA and will extend into other areas. Therefore, relevant data for the SG LGA, LC LGA and associated towns are also taken into consideration for this report.

Travel time isochrone	A line on a map or diagram connecting places from which it takes the same time to travel to a set location or a set distance.
Urban Centres and Localities	Urban Centres and Localities (UCLs) are an ASGS standardised statistical area used by the ABS. UCL units represent areas of concentrated urban development. They are identified using dwelling and population density criteria and data from the 2021 Census of Population and Housing.

1 Introduction

Synergy Wind Pty Ltd. (Synergy Wind or the Proponent) has engaged Accent Environmental Pty Ltd. (Accent) to support the development of a Public Environment Report (PER) for the Gelliondale Wind Farm (referred to ahead as the Project).

This report details the findings and conclusions of a socio-economic impact assessment and a cumulative impact assessment for the Project.

1.1 Assessment objectives

This report addresses the relevant requirements of Section 13 of the *Guidelines for the Content of a Draft Public Environment Report – Gelliondale Wind Farm Project, Gelliondale, Victoria Reference 2023/09577* (hereafter referred to as the PER guidelines) and Section 8 insofar as they relate to potential cumulative impacts of the Project from a socio-economic perspective.

Section 13 of the PER guidelines aligns with section 136(1)(b) of the EPBC Act and also with the Ecologically Sustainable Development (ESD) Principles (section 3A of the EPBC Act).

Accordingly, this report assesses the Project-related social and economic impacts at local, regional and national levels, including the consideration of short-term and long-term impacts.

Section 8 of the PER guidelines requires assessment of potential cumulative impacts.

Accordingly, this report considers cumulative, socio-economic impacts with other large-scale Projects.

The detailed requirements of the PER guidelines are listed in Table 1.1 along with the sections of the report where these have been addressed.

Table 1.1 Detailed requirements of the PER guidelines

Key matter of interest	Section of the study
Section 8 – Impact assessment	
8.1 d) The PER must identify and address cumulative impacts, where potential Project impacts are in addition to existing impacts of other activities (including known potential future expansions or developments by the proponent and other proponents in the region and vicinity)	Section 8
Section 13 - Economic and social matters	
13 a) Details of any public consultation activities undertaken, and their outcomes	Section 5
13 b) Projected economic costs and benefits of the Project, including the basis for their estimation through cost/benefit analysis or similar studies	Section 6
3 (j)13 c) Employment opportunities expected to be generated by the Project (including construction and operational phases).	Sections 6 and 7

Key matter of interest	Section of the study
13 d) Short- and long-term impacts on the local and regional communities (including First Nations people) from implementation of the development.	Sections 6 and 7
13 e) Any training, employment, business and other economic opportunities and social benefits (including energy use benefits) for First Nations people, communities and businesses in the region.	Sections 6 and 7

1.2 Assessment approach

This socio-economic assessment gathers information from multiple sources to gain an understanding of the prevailing social and economic conditions in the designated study areas. A socio-economic baseline provides a benchmark against which Project-related social and economic impacts can be assessed.

Victorian and Commonwealth guidance regarding social impact assessment methodology or content were not available at the time of writing this report. Therefore, the methodology described in the New South Wales (NSW) Government's *Social Impact Assessment Guideline* (DPIE 2023) (referred to as the SIA guideline from this point onwards) has been used in this report. The SIA guideline is founded upon agreed principles and frameworks of various international institutions, including the International Association for Impact Assessment and the Interorganizational Committee on Principles and Guidelines for Social Impact Assessment. Its application is standard practice in EIS for state-significant development and infrastructure proposals, including utility scale renewable energy and energy storage Projects.

The economic analysis in this report evaluates the costs and benefits of the Project to assess whether it is economically beneficial. The analysis was run in real prices with 2025 kept as the base year for calculations. Direct costs and benefits of the Project were monetised to gauge changes to incomes and livelihoods due to the Project. Direct impacts are primarily impacts on businesses, organisations, households and individuals that are directly associated with the Project, such as through employment or supply contracts. Indirect impacts are impacts on a wider scale, including other households and organisations or businesses, that are not directly employed by the Project. Indirect impacts have been assessed qualitatively.

Socio-economic impacts considered in this report can be physically observable (e.g. additional access tracks on agricultural properties leading to wind turbines), tangible (e.g. community investment leading to the creation of community spaces) and intangible (e.g. effects on community cohesion, such as a change in the sense of belonging).

The term 'cumulative impacts' in this report refers to the incremental effects (both positive and negative) of two or more Projects in a given area, which may result in increased social and economic impacts. For example, the overlap of utility-scale renewable energy Project construction phases may result in positive impacts such as increased community benefits including local employment and business opportunities.

The cumulative impact assessment is based upon publicly available documents and the information they contain. The construction dates provided in these documents are indicative and may be subject to delays or not materialise at all. Therefore, cumulative impact assessments are indicative only when completed during the permit application phase of a Project.

The assessment methodology is described in *Appendix A – Detailed methodology* of this report.

2 Project description

This section describes key aspects of the Project to help inform the scope and scale of the socio-economic impact assessment.

2.1 Project overview

The Gelliondale Wind Farm is a proposed wind energy facility located in Victoria, approximately 210 kilometres southeast of Melbourne, in South Gippsland, within the Wellington Shire. The Project is situated along the South Gippsland Highway, approximately seven kilometres southwest of Yarram, three kilometres west of Alberton, and eight kilometres east of Welshpool.

The Project comprises 13 wind turbine generators (WTGs) with rotor diameters of 164 metres, and maximum/minimum tip heights of 210 and 40 metres above natural ground level respectively. The Project also contains hardstand areas adjacent to each WTG, meteorological masts, construction compounds and operation and maintenance areas. The Project features approximately 14 kilometres of unsealed tracks and underground cabling, linking the WTGs to a centralised substation, with ancillary 40 MW Battery Energy Storage System (BESS) and direct link to the existing 66kV transmission line crossing the site. The Project will require upgrades to local roads and the clearing of 1.244 hectares of native vegetation, as well as ancillary signage and fire safety design requirements. These works collectively form part of the proposed 'action' to be assessed as part of the PER.

The construction, operation and decommissioning of the Gelliondale Wind Farm has been declared a Controlled Action under the *Environmental Protection and Biodiversity Conservation Act 1997* (Cth), to be assessed through the preparation of a Public Environment Report (PER). The Project proponent is Alberton Renewable Energy Pty Ltd, a subsidiary of Synergy Wind Pty Ltd.

The Action Area within which the Project is planned has a total area of 1,622 hectares, while the exact Project Footprint is 38.2 hectares.

The Project is proposed to be constructed over 24 months and will require an estimated average workforce of 60 workers with an estimated peak workforce of 85 workers. The Project will operate for 35 years, and then either be decommissioned or repowered with replacement WTGs.

The Action Area is entirely located within the Wellington Shire LGA (WS LGA), but it is located close to the administrative boundary with the South Gippsland Shire LGA.

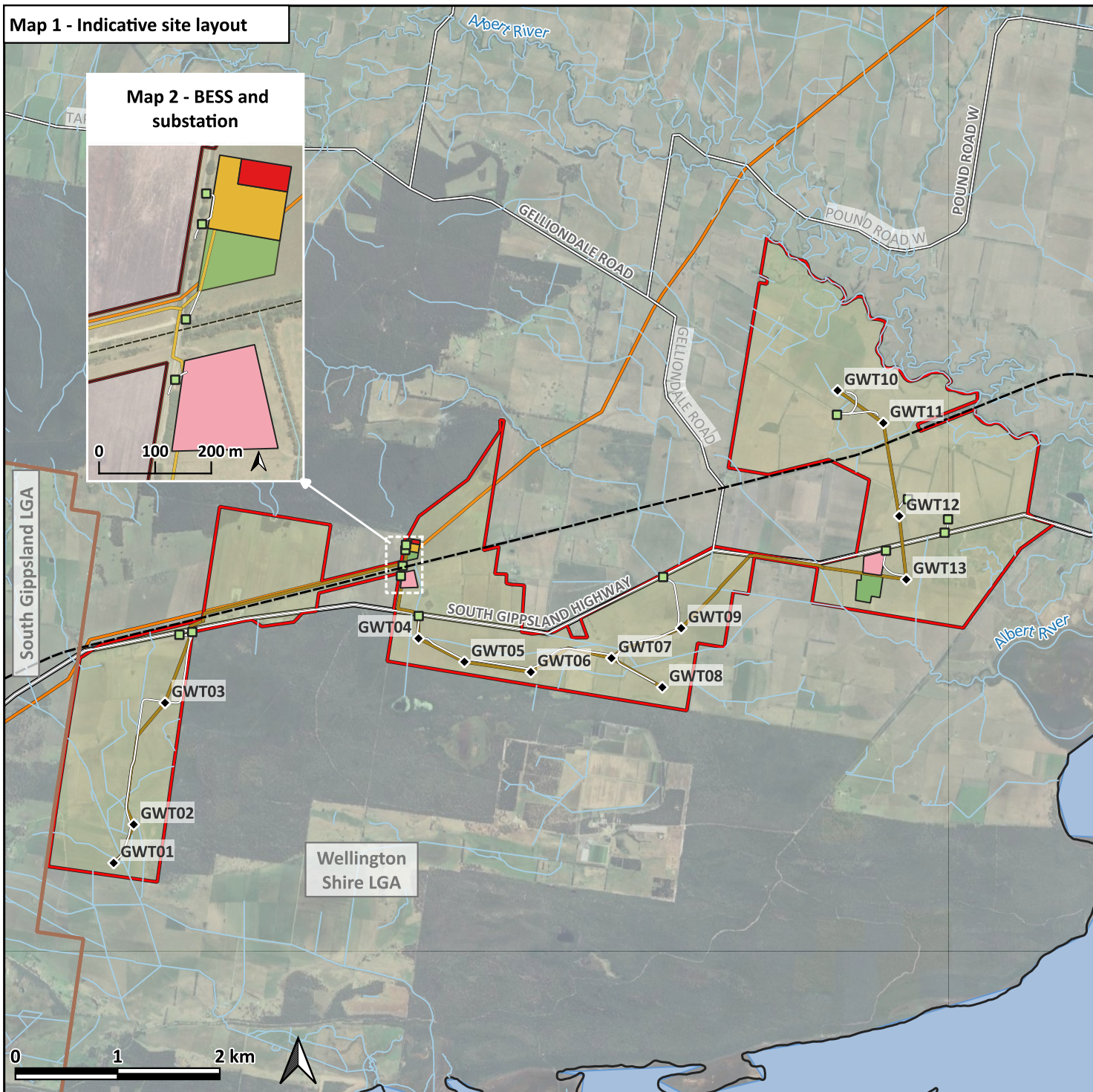
Approximately 94% of the land use in WS LGA is designated as either Farming zone (FZ, 40%) or Public Conservation and Resource zone (PCRZ, 54%) under the Wellington Shire Planning Scheme. Due to the limited size of the Action Area in which the Project is located and the relatively small size of the Project Footprint, it is unlikely that the anticipated change in land use from agriculture to electricity generation associated with the Project is going to impact on agricultural outputs at the local and regional (LGA) scales.

The Action Area in which the Project is planned does not include any PCRZ.

The South Gippsland Highway bisects the Action Area in an east to west direction. The highway commences at the Princes Highway junction in Dandenong, connecting towns including Korumburra, Leongatha, Foster, Welshpool, Yarram before terminating at Sale. As such, the Project is well connected to these towns, which are potential sources for the recruitment of local workers and/or may provide accommodation options for the Project workforce during construction, operation and decommissioning.

The highway also serves as a vital connector for locals and for the transport of various goods and will be used as a transport corridor to convey Project infrastructure to site.

Map 1 - Indicative site layout



AE1289 Gelliondale WF

Figure 2.1 Proposed site layout

Created: 30/04/2025

Updated: 15/07/2025

CRS: GDA 20 MGA 55

Scale: 1:60,000 at A4 (main map)

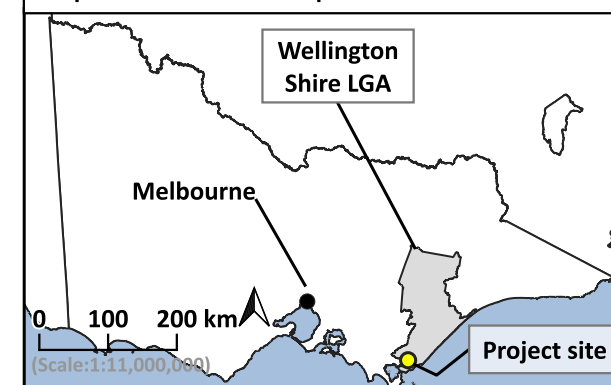
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- Site_centroid_MGA55
- Access Points
- ◆ WTG - proposed location
- Road
- Conceptual electrical connection
- Site access track
- Watercourse
- ▭ LGA boundary
- ▭ Project site
- ▭ BESS
- ▭ Construction staging area
- ▭ Operations and Maintenance building
- ▭ Substation
- Existing transmission line

Base map: Google Satellite [Jul 2025]

Additional data: VIC_TR_Road, VIC_HY_Watercourse,
VIC_LGA_POLYGON, STE_2021_AUST_GDA2020.

Map 3 - State context map



2.2 Expected Project-related traffic

This section describes the indicative Project-related logistics requirements and includes an estimation of heavy goods vehicle (HGVs), over size/over mass OSOM vehicle and light vehicle movements for the construction, operation and decommissioning phases of the Project. This section uses information provided in *Traffic Impact Assessment Gelliondale Wind Farm* (Stantec 2023).

2.2.1 Construction phase

Site infrastructure including wind turbine towers, blades and nacelles will be delivered by sea to Barry Beach Marine Terminal and then to site via Barry Road, South Gippsland Highway, Coal Mine Road and Old Alberton West Road. There may be up to 12 Project site access points (five located on South Gippsland Highway, four located on Coal Mine Road and three located on Old Alberton West Road) (as shown in Figure 2.2).

It is estimated that during peak construction periods approximately 150 heavy vehicle trips (300 vehicles per day (vpd)), up to 50 light vehicle trips (100 vpd) and a maximum of 10 OSOM vehicles per day.

The Project's traffic impact assessment report states that based on theoretical capacities of Barry Road and the South Gippsland Highway, Gelliondale WF construction traffic will be sufficiently accommodated within the existing road network (Stantec 2025).

Up to 10 intersections along the proposed route including Barry Road (three sections), the South Gippsland Highway (four sections) and Old Alberton West Road (three sections) will require some median and/or roadside infill works, potential roadside furniture removal and traffic management works to cater for 85 m turbine blade vehicles.

2.2.2 Operational phase

Traffic movements associated with the operational phase of the Project will be negligible compared with those of the construction and decommissioning phases. Such movements will likely be limited to those needed for the fortnightly minor maintenance requirements.

2.2.3 Decommissioning phase

The eventual decommissioning of the Project site will involve the removal of any structure above ground and to a depth of 500 mm. Traffic volumes associated with the Project's decommissioning phase will likely be significantly less than that required for the construction phase. The specific impacts and mitigation measures would be reviewed and resolved closer to the time of decommissioning.

2.3 Expected workforce requirements

This section outlines the expected workforce requirements throughout the life cycle of the Project.

2.3.1 Expected construction workforce

The construction phase will require a minor workforce of up to 85 workers at the peak of the construction phase with various skill sets including:

- technicians and trades workers (e.g. surveyors, civil engineers, electrical engineers, Project engineers, structural steels and welding workers, fabrication supervisors, air conditioning, SCADA engineers, meteorological mast technicians and refrigeration mechanics etc.)
- labourers, truck drivers and plant and machinery operators including crane operators
- civil workers and traffic control personnel
- managers (e.g. production, engineering, grid transmission and construction).

The Proponent estimates that up to 50% of the Project workforce will be sourced from within the regional study area, which at construction peak is approximately 42 persons.

2.3.2 Expected operational workforce

During operation, it is estimated that there will be up to 5 full-time personnel (FTE) based at Gelliondale WF to manage site activities and to support routine plant operation and routine maintenance. The operational staff are likely to originate from the WS LGA or surrounding region. If the operation positions cannot be filled locally, personnel will be recruited from further afield and will likely relocate locally and integrate into the local community.

The operational activities of the proposed Gelliondale WF will generally be limited to monitoring, maintenance and repairs. Operation and maintenance is likely to include activities such as routine inspections, service and repair of turbines, regrading of access tracks and the maintenance of the electrical reticulation system and buildings and plant, including control systems. Specialist workers may be required occasionally for scheduled and unscheduled maintenance when components of the Project need to be replaced e.g. replacing a blade or gearbox.

2.3.3 Expected decommissioning workforce

It is likely the size of the decommissioning workforce will be considerably smaller to that of the construction workforce. Further details regarding decommissioning workforce requirements will be determined closer to the decommissioning phase.

2.3.4 Potential sources of local workforce

Every endeavour will be made to optimise the number of local workers in the construction workforce. It is likely that the workforce will be drawn from a larger radius around the Project that will likely extend to regional towns in Wellington Shire (WS), South Gippsland (SG) and Latrobe City (LC) LGAs.

The potential employment opportunities for First Nations people are an ongoing topic of engagement with the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC).

Regional towns considered in this report are shown in Table 2.1 and Figure 4.2. These towns are considered because they are well connected with the Project through the regional road network including the South Gippsland Highway (A440) and main country roads (C484 / C483).

This does not mean that towns or townships other than the ones listed in Table 2.1 are exempt from being viable sources for local workers. On the contrary, this report assumes that the identified socio-economic baseline (Section 4), impact assessment (Sections 6 and 7) and conclusions (Section 9) of this report are applicable also to regional towns and townships not explicitly mentioned in this report.

Table 2.1 Potential sources of local workforce, commute distances and travel times

Location	LGA	Distance from Project*	Estimated travel time*	Workforce size** (No. people/% population)
Yarram	WS	23 km	19 minutes	615 / 41.2%
Foster	SG	45 km	33 minutes	436 / 37.2%
Leongatha	SG	68.5 km	49 minutes	5,618 / 52.6%
Traralgon	LC	69 km	56 minutes	13,442 / 59.7%
Rosedale	WS	74 km	57 minutes	768 / 53.0%#
Morwell	LC	77 km	61 minutes	5,137 / 44.2%
Sale	WS	78 km	56 minutes	6,345 54.9%
Inverloch	SG	83 km	59 minutes	6,046 / 47.6%
Korumburra	SG	83 km	61 minutes	3,869 / 52.1%
Moe-Newborough	LC	93 km	71 minutes	6,287 / 47.4%

*Google Maps – Distance by road <https://www.google.com/maps/>

**ABS 2021 a to e at the Urban Centres and Locality (UCL) scale

ABS 2021f at the Suburbs and Localities scale

Figure 2.2 illustrates potential sources of local workforce in the context of a travel time isochrone of 60 minutes¹², which gives an indication of the towns and areas that are approximately 60 minutes travel by motor vehicle to site.

¹ Using the TravelTime API and generated using the point on the South Gippsland Highway closest to the Project's centroid.

² Work Safe Victoria recommends a risk management approach to eliminate or reduce the risk of fatigue at a workplace and mentions long commutes as a fatigue risk in *Work-related fatigue – A guide for employers* (WorkSafe

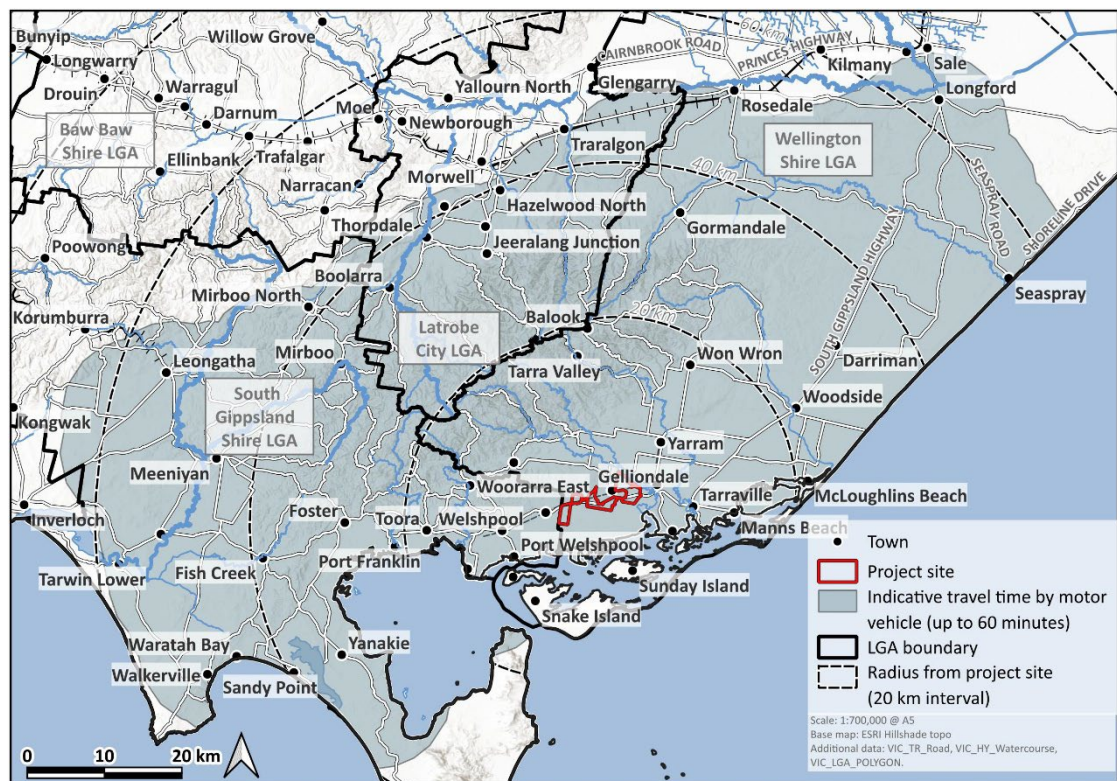


Figure 2.2 Potential sources of local workforce to the Project

Victoria 2020). The NSW Resources Regulator recommends a daily commute time from a worker's place of residence to their place of work area of 60 minutes or less (NSW Resources Regulator 2019).

3 Study area

3.1 Study area

In order to complete this socio-economic assessment, a socio-economic baseline needs to be determined. This determination is centred around defining the area of socio-economic influence. There is no predefined geographic boundary to place bounds around a project's area of socio-economic influence. Projects must be considered on a case-by-case basis, taking into consideration:

- the scale and nature of the project
- those who may be affected by the project (individuals, groups, communities, vulnerable and/or marginalised individuals or groups)
- the receiving environment; built and natural features
- relevant social, cultural and demographic trends
- the primary administrative authority
- the history of the proposed project and the area in which it is located.

These considerations, as applied to this assessment report, resulted in the determination of regional and local study areas as shown in Figure 3.1.

	Study area	Study area
Nation	Australia	Australia
State	Victoria	Victoria
Region	Wellington Shire LGA	South Gippsland Shire LGA Latrobe City LGA
Local	SA1 areas adjacent to the project: SA1 20505110409, SA1 20505110405 (including Gelliondale, Alberton)	SA1 area adjacent to the project: SA1 20503108709 (including Welshpool, Port Welshpool, Hedley)
Important towns / townships	Yarram, Rosedale, Sale	Toora, Foster, Leongatha, Inverloch, Korumburra, Morwell, Traralgon, Moe-Newborough

Figure 3.1 Regional and local study areas

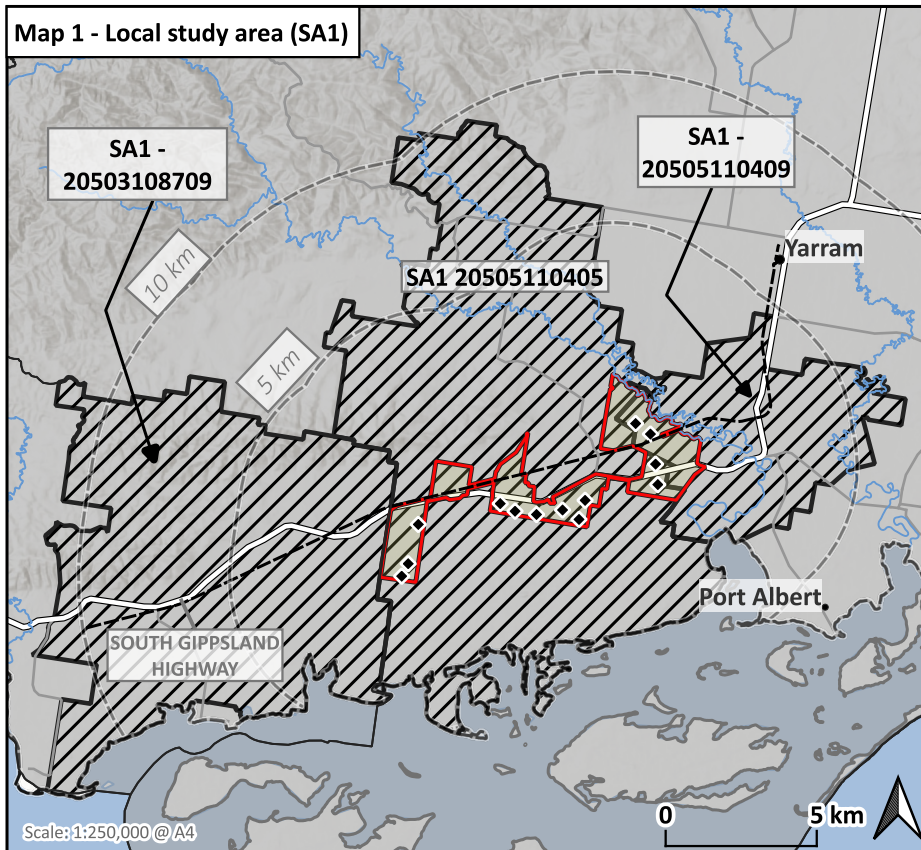
Taking the criteria above into account, main areas of socio-economic influence (referred to hereafter as 'study area') have been determined for this assessment report. These include:

- Regional study area:
 - **Wellington Shire LGA (WS LGA)** selected for the following reasons:
 - the Project area is totally located within the LGA boundary

- the LGA will be the administrative authority for the Project
- the LGA will receive ongoing municipal payments from the Project through its operational life
- the LGA will be an important source of local workers, business providers and workforce accommodation options.
- **South Gippsland Shire LGA (SG LGA)** and **Latrobe City LGA (LC LGA)** selected for the following reasons:
 - the Project is located at the administrative boundary between WS LGA and SG LGA ('spillover effect' into SG LGA)
 - the LGAs will be an important source of local workers, business providers and workforce accommodation options.
- A local study area: this comprises three Australian Statistical Geography Standard (ASGS) Edition 3 areas, Statistical Area Level 1 which immediately surround the Action Area in which the project is located:
 - SA1 – 20505110409 (WS LGA)
 - SA1 – 2050511045 (WS LGA)
 - SA1 – 20503108709 (SG LGA).

The regional and local study areas are shown in Figure 3.2 and are discussed in more detail in Sections 3.1.1 and 3.1.2.

The socio-economic baseline utilise public information based on the ASGS Edition 3 areas, which are used by the ABS for various purposes including the 5-yearly Census. The ASGS Edition 3 areas include multiple geographies at varying scales that approximate urban and administrative areas. These areas (ranging from small to large) include Statistical Areas Levels 1 (smallest) to 4 (large), indigenous structures (locations, area and regions), tourism regions, Suburbs and localities, Urban Centres and Localities (UCLs), LGAs, State Electoral Division areas, State and Territories boundaries and the National boundary.



AE1289 Gelliondale WF

Figure 3.2 Study areas

Created: 15/07/2025

CRS: GDA 20 MGA 55

Page size: A4

Base map: ESRI Hillshade topo

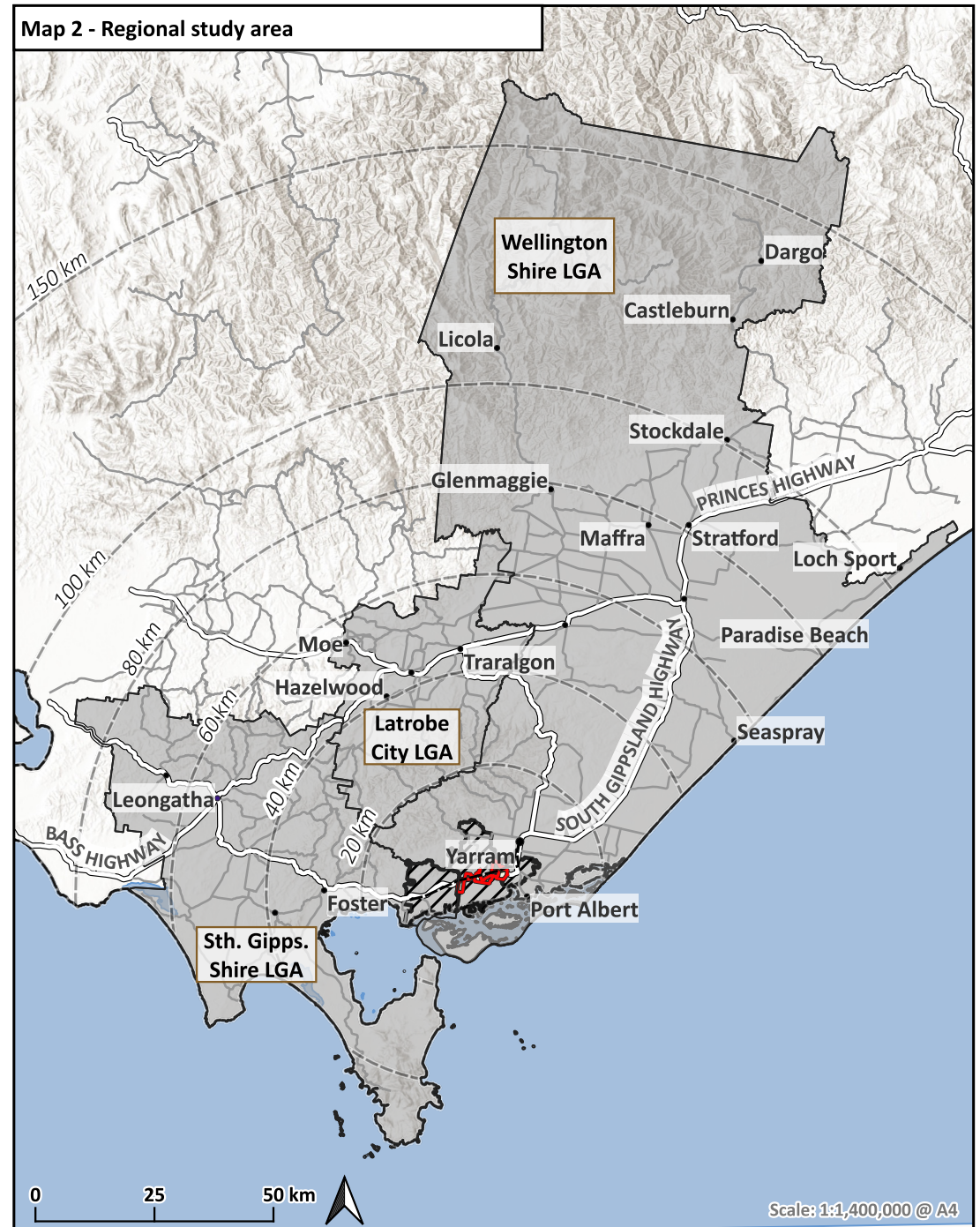
Additional data: VIC_TR_Road,

VIC_HY_Watercourse,

VIC_LGA_POLYGON,

ABS_SA1_2021_AUST_GDA2020

- Town
- ◆ Proposed WTG location
- Main road
- Road
- Rail trail (Map 1)
- Project site
- Radius from project site
- Regional study area - Wellington Shire LGA and SA1-20503108709
- Local study area



3.1.1 Regional study area

The regional study area for the purposes of this assessment report has been designated as the WS LGA (ABS LGA code 26810) including supporting data from the adjacent SG LGA and LC LGA.

It is likely that local workers, business providers and workforce accommodation options will be drawn from a larger radius around the Project that will include regional towns as shown in Figure 3.1, Table 2.1 and Figure 4.2. These towns are considered because they are well connected with the Project through the regional road network including the South Gippsland Highway (A440) and main country roads (C484 / C483).

This does not mean that other towns or townships are exempt from the assessment. On the contrary, this report assumes that the identified socio-economic baseline (Section 4), impact assessment (Section 6) and conclusions (Section 8) of this report are applicable also to regional towns and townships not explicitly mentioned in this report.

The WS LGA covers an area of approximately 10,817 km² and is the third largest municipality by area in Victoria. As of the 2021 Census, it had a population of 45,639 people with the city of Sale being the primary commercial hub and administrative capital.

The nearest town to the Project is Yarram (approximately 7 km northeast of the Project), which is the central service centre of the southern part of the LGA with a population of 1,739 people, providing vital retail, community and health services. Yarram is serviced by the South Gippsland Highway and is a local service centre for a prosperous farming district. The town has a strong tourism industry. It has retail outlets, leisure facilities, health care services, various sporting and social clubs as well as various dining options from cafes, bakeries to take aways. Yarram Parkside Aerodrome provides airport-related services to light aircraft. Yarram is also the location of the Project office. A comprehensive online town and district directory can be found at <https://www.yarram.org.au/directory>.

The Project workforce is likely to use both Yarram and Alberton as immediate service centres (particularly the retail and recreational facilities) due to their proximity. Project workers may also seek opportunities to service their living and recreation needs further afield. Local services for selected locations within the WS and SG LGAs are summarised in Table 3.1.

Table 3.1 Summary of facilities available in selected locations

Facility	WS LGA			SG LGA		
	Alberton	Yarram	Sale	Toora	Foster	Leongatha
Council offices	0	1	1	0	0	1
Post office	1	1	1	1	1	1
Police station	0	1	1	1	1	1
Fire Services	1	1	2	1	1	1

Facility	WS LGA			SG LGA		
	Alberton	Yarram	Sale	Toora	Foster	Leongatha
SES	0	1	1	0	1	1
Ambulance station	0	1	1	0	1	1
Hospital	0	0	1	0	1	1
Multi-purpose services	0	1	0	0	0	0
Doctors' surgery	0	1	3	1	1	3
Dental services	0	2	6	0	1	6
Airport/ aeropark	0	1	1	1	0	1
Railway - operating	0	0	1	0	0	1
Pharmacy	0	2	5	1	1	2
Banks/credit unions	0	4	7	1	2	5
Supermarkets	Gen. store	2	4	1	2	3
Library	0	1	1	1	1	1
Places of worship	1	5	16	1	5	9
Swimming pool (seasonal)	0	1	1	1	1	1
Petrol station	1	2	7	1	3	6
Mechanic (approx. count)	0	5	16	2	6	11
Cinema	0	1	1	0	0	1
Childcare centre	1	1	5	0	1	3
Pre-school	0	1	10	1	2	3
School – up to year 6	1	2	5	1	1	1
School – years 7 to 12	0	1	3	0	1	1
TAFE/college	0	0	1	0	0	1
Real-estate agents	0	3	4	0	3	7
Hotels/motels	1	4	12	1	2	2
Caravan Parks	0	2	2	1	1	1

The landscape in the region consists of low rolling hills descending to the coast in the south and the Latrobe Valley to the north, separated by the Strzelecki Ranges. The region has multiple tourist attractions and there are several scenic drives through the area including

Grand Ridge Road. To the seaward side of the Strzelecki Ranges, several marine and wetland reserves, as well as coastal reserves and seaside towns can be found. The lowlands are used primarily for agricultural production whilst the hills of the Strzelecki Ranges are used for timber production and recreation.

The region is a popular tourist destination and is within a relatively short commute of Melbourne. There are over 800,000 visitors to the WS LGA annually spending approximately \$103 million across multiple sectors (accommodation, food and drink, tours etc.) (WSC 2016).

A regionally important development is that native timber harvesting in Victoria's forests ended in January 2024. A \$120 million transition package³ was announced by the Government to help communities adapt, including support programs for impacted workers, communities and businesses.

Several concerned councils commissioned an economic impact study to assess potential associated impacts. The resulting report showed that up to 1,100 jobs would be lost (both direct and indirect), which has regionally important implications as forestry is a major employer, with the towns of Heyfield and Yarram bearing the brunt of the impact (id 2021).

The Latrobe Valley may also experience Project-related socio-economic effects. However, it may be difficult to attribute any influence directly to the Project as multiple renewable energy Projects are either undergoing the approvals process, the post approval process or are under construction. The Latrobe Valley is located approximately 40 km north of the Project with the city of Traralgon as its regional economic hub. The area is connected to Melbourne via the Princes Highway and a rail line. Latrobe Valley has a rich industrial history, including power generating, mining, manufacturing and agriculture.

The Latrobe Valley coal-fired power stations are being phased out⁴. There are opportunities and programs in place to assist workers to transition to the renewable energy sector should they choose to do so. These could be a possible source of local workers for the Project.

The existing power transmission infrastructure used to convey power to the consumer from the coal-fired power stations, a local and regional supply chain and a skilled labour force places the Latrobe Valley in a strong, strategic position for transition into the renewable energy sector (Urban Enterprise 2024).

The socio-economic effects of the Project may extend beyond the regional study area. The addition of renewable energy infrastructure will assist the state in its renewable energy transition, benefitting its entire population and beyond. Goods and services not available locally may be sought from beyond the local and regional study areas, with Project-related opportunities for businesses within Victoria, interstate and from overseas.

³ As at the time of report writing, the status of the roll out of the transition package was unknown.

⁴ Energy Brix closed in 2014 and Hazelwood power station closed in 2017. The Yallourn power station is scheduled to close in 2028, the Loy Yang A Power Station is planned to close in 2035 (AGL 2024) and the Loy Yang B Power Station is planned to close in 2047.

3.1.2 Local study area

The three Statistical Area Level 1 (SA1) areas within which the Project is contained are shown in Figure 3.2. These comprise the local study area for the purposes of this report and include the settlements of Hedley, Gelliondale and the townships of Welshpool, Port Welshpool and Alberton.

The closest township to the Project is Alberton (approximately 2 km east of the Project). As of the 2021 Census, Alberton had a population of 297 people with a median age of 51 years. Alberton is serviced by a general store and post office, petrol station and a hotel.

Together, the three SA1 areas cover a combined area of 291 km² and a combined population of 1,101 people. ABS Census 2021 data for the three SA1 areas has been used for both the social and economic impact assessments.

4 Socio-economic baseline

This section summarises the socio-economic baseline against which Project-related socio-economic benefits and impacts are assessed.

4.1 Demographics and population trends

A demographic data summary is provided in Table 4.1.

As of the 2021 Census, the local study area had a combined population of 1,101 people (2.4% of the population in the WS LGA and 3.6% of the SG LGA population). WS LGA had a population of 45,639 people and SG LGA had a population of 30,577 (ABS 2021a to i).

The local and regional study areas have an ageing population compared with that at state and national levels. The median age of the population of the local study areas was 50 years for SA1 20505110405 and 53 years for SA1 20505110409 and SA1 20502108709. The median age of the Wellington Shire population was 53 years. The median age of the Victorian and Australian populations was considerably lower at 38 years. Therefore, the median age of the populations in the local and regional study areas are significantly higher when compared to that at the state and national levels.

The population of the WS LGA is Projected to increase to 51,070 people by 2036 (an increase of 5,600 people over the next 15 years or approximately 0.8% (373 people) per annum) (DTP 2023b). One of the main migration drivers is the WS LGA's natural amenity which appeals particularly to sea changers. Population gains in the Shire are attributed to migration from eastern and southern Melbourne, with local losses to neighbouring LGAs. The Shire loses young adults to Melbourne and other cities for education, employment and lifestyle reasons (.id population forecast 2024).

The population Projection data available from the .id Wellington Shire population and age structure page indicates for the time span 2021 to 2031 a likely decrease in the population under working age (8.8%), an increase in the working population of 5.5% and a larger increase in the retirement age population of 23.6% by 2031.

The WS LGA is home to 923 Aboriginal and/or Torres Strait Islander persons, forming 2.0% of the total LGA population which is higher than that of Victoria (1.0%) but lower than that of Australia (3.2%) (ABS 2021i). At the local study area scale, the percentage of Aboriginal and/or Torres Strait Islander persons was 4.9% in SA1 20505110409, exceeding the percentages at the state and national levels (ABS 2021g). However, the 2021 Census also indicated that there were no Aboriginal and/or Torres Strait Islander persons residing within SA1 20505110405 (ABS 2021h) and four people identified as Aboriginal and/or Torres Strait Islander in SA1 20503108709.

The *Gippsland Region Population Health Catchment Plan 2023-2029* (Latrobe Regional Health 2023) states that Gippslanders face various health challenges, including higher rates of lung disease, mental health conditions, heart disease and stroke compared to state levels (Latrobe Valley Health 2023). This may be partly due to the region's reliance on large-scale industry including paper mills, coal-fired power stations, lead smelters and intensive dairy farming to

drive the economy, with the population being vulnerable to health impacts associated with these industrial activities. The prevalence of smoking in Gippsland is higher than the state average, for instance 21.4% of the population smoked in 2020 compared to 12.0% of the Victorian population (Latrobe Valley Health 2023).

First Nations people are more likely to experience poorer health outcomes than non-indigenous people. For instance, First Nations people are 2.8 times more likely to die from cancer compared to non-indigenous Victorians (Cancer Council 2023). Social determinants of health for First Nations people include connection to culture, experiences of racism, food insecurity, financial stress, family violence and social capital (resources accessed by an individual due to their membership of a group or network) (Victorian Agency for Health Information 2021).

The proportion of the population at the local scale with long-term health conditions is higher (34.0% for SA1 20505110405, 39.3% for SA1 20505110409 and 35.1% for SA1 20503108709) compared to state (27.4%) and national (27.7%) data (ABS 2021h and i). This trend continues for Yarram (41.4%) and the regional scale (33.1%). This may in part be due to the higher median age of the populations and the higher proportion of people aged 65 years and over at the local and regional scales compared to state and national age-related data.

The dependency ratio⁵ of the WS LGA is estimated using the *Victoria in Future 2023* population Projection data at 66 (interpreted as 66 persons in the economically dependent age groups to every 100 persons within the economically independent age groups) in 2021. Given the current population Projections, the resulting dependency ratio may increase to 78 by 2036.

The proportion of the population with qualifications in the regional and local study areas is significantly lower than the state and national levels. For instance, between 9.4% and 10.5% of the local study area population have attained a bachelor degree or higher compared to the regional (LGA) study area population (13.8%); which in itself is significantly lower than the state (29.2%) or national (26.3%) population levels. A lower proportion of populations in the local and regional study areas passed Year 12 (up to 8.5% fewer) compared to state and national populations. This may be due in part to the qualification levels required by the current major employment industries of the region (Victoria Government 2022b).

⁵ The dependency ratio is an age-based population ratio that expresses the number of non-working-age persons and retirement age persons (dependants) (less than 15 years and 65 years and over), in a community dependent on working-age persons (ages 15 to 64 years) in a population (Wikipedia 2024c). The ratio is an indicator of the level of economic and social support that may be required in a population. It is used as an indicator of the relative economic burden of the workforce.

Table 4.1 Demographic data summary

Parameter		SA1 areas (local study area)			Yarram (closest town to Project)	Wellington Shire LGA (regional study area)	Victoria (state scale)	Australia (national scale)
		20505110405 (in WS LGA)	20505110409 (in WS LGA)	20503108709 (in SG LGA)				
Total population		321	283	497	1,739	45,639	6,503,491	25,422,788
Population Projections 2021 to 2036		Not available	Not available	Not available	157/0.23 % p/a [@]	4,703/0.69 % pa [@]	8.4 million /1.91% pa ^{@@}	26.01 million /1.64% pa ^{@@@}
People (% of the population)	Males	46.9%	50.4%	52.4%	46.4%	50.4%	49.2%	49.3%
	Females	53.1%	49.6%	47.6%	53.6%	49.6%	50.8%	50.7%
	Aboriginal and/or Torres Strait Islander	0%	4.9%	4 (0.8%)	2.0%	2.0%	1.0%	3.2%
Age* (% of the population except for median age)	0 to 14 years	16.7%	15.7%	13.9%	13.9%	17.0%	18.0%	18.2%
	15 to 24 years	7.5%	6.1%	7.8%	10.1%	10.3%	11.9%	11.9%
	25 to 64 years	50.8%	49.2%	47.5%	41.4%	49.7%	53.3%	52.6%
	65 + years	24.5%	29.0%	31%	34.6%	23.2%	16.8%	17.2%
	Median age (non- Aboriginal and/or Torres Strait Islander)	50 years	53 years	53 years	53 years	44 years	38 years	38 years

Parameter		SA1 areas (local study area)			Yarram (closest town to Project)	Wellington Shire LGA (regional study area)	Victoria (state scale)	Australia (national scale)
		20505110405 (in WS LGA)	20505110409 (in WS LGA)	20503108709 (in SG LGA)				
	Median age (Aboriginal and/or Torres Strait Islander)	12 years	12 years	7 years	23 years	25 years	24 years	24 years
Health (% of the population)	Up to 3 or more long- term health conditions	34.0%	39.3%	35.1%	41.4%	33.1%	27.4%	27.7%
	No long-term health conditions	56.1%	54.1%	51.3%	49.2%	55.6%	65.0%	64.1%
Household family type*	Couple family, no children	46.9%	54.2%	53.9%	48.8%	47.5%	37.6%	38.8%
	Couple family with children	40.6%	30.1%	32.8%	27.0%	36.5%	45.5%	43.7%
	One parent family	8.3%	15.7%	17.2%	21.6%	14.7%	15.2%	15.9%
	Other family	0%	0%	0%	2.3%	1.4%	1.7%	1.6%
	Lone person household	27.1%	27.7%	32.1%	41.6%	30.3%	25.9%	25.6%
	Group household	2.3%	0%	2.1%	3.0%	2.4%	4.0%	3.9%

Parameter		SA1 areas (local study area)			Yarram (closest town to Project)	Wellington Shire LGA (regional study area)	Victoria (state scale)	Australia (national scale)
		20505110405 (in WS LGA)	20505110409 (in WS LGA)	20503108709 (in SG LGA)				
	Ave. household size (persons)	2.5	2.3	2.2	2.0	2.3	2.3	2.59 ^
	Median monthly mortgage repayments	\$1,283	\$1,200	\$1,100	\$1,083	\$1,300	\$1,859	\$1,863
	Median weekly rent	\$248	\$250	\$200	\$220	\$260	\$370	\$375
Income	Median personal weekly income	\$535	\$492	\$528	\$494	\$658	\$803	\$805
	Median weekly family income	\$1,350	\$1,260	\$1,302	\$1,165	\$1,661	\$2,136	\$2,120
	Median weekly household income	\$1,192	\$961	\$936	\$822	\$1,272	\$1,759	\$1,746
	Renter households with rent payments > 30% of household income	32.1%	0.0%	36.4%	26.9%	31.8%	30.9%	32.2%
	Mortgaged households with mortgage payments >	25.8%	25.0%	13.3%	10.3%	10.7%	15.5%	14.5%

Parameter		SA1 areas (local study area)			Yarram (closest town to Project)	Wellington Shire LGA (regional study area)	Victoria (state scale)	Australia (national scale)
		20505110405 (in WS LGA)	20505110409 (in WS LGA)	20503108709 (in SG LGA)				
	30% of household income							
Employment/ training	In labour force	62.5%	48.7%	52.7%	41.2%	53.5%	62.4%	61.1%
	Unemployed	1.8%	7.9%	7.2%	7.0%	4.7%	5.0%	5.1%
	Attained Year 12	9.4%	6.4%	10.9%	12.4%	10.8%	14.9%	14.9%
	Bachelor degree or higher	9.4%	10.3%	10.5%	9.9%	13.8%	29.2%	26.3%
Occupation	Managers	57 (35.2%)	16 (15.0%)	57 (28.5%)	57 (10%)	3,093 (16%)	14%	13.7%
	Professionals	13 (8.0%)	17 (15.9%)	15 (7.5%)	79 13.9%	3,276 (17%)	25%	24%
	Technicians and trades workers	18 (11.1%)	11 (10.3%)	28 (14%)	96 (16.8%)	3001 (15.5%)	12.6%	12.9%
	Clerical and administrative workers	17 (10.55)	12 (11.2%)	17 (8.5%)	55 (9.6%)	1,843 (11.9%)	12.4%	12.7%
	Machinery operators and drivers	6 (3.7%)	8 (7.5%)	14 (7.0%)	42 (7.4%)	1,288 (6.7%)	5.9%	6.3%
	Labourers	25 (15.4%)	18 (16.8%)	39 (19.5%)	95 (16.7%)	2,306 (11.9%)	8.8%	9.0%

Parameter		SA1 areas (local study area)			Yarram (closest town to Project)	Wellington Shire LGA (regional study area)	Victoria (state scale)	Australia (national scale)
		20505110405 (in WS LGA)	20505110409 (in WS LGA)	20503108709 (in SG LGA)				
Dwellings	Occupied private dwellings	89.2%	86.5%	71.9%	85.9%	79.2%	88.9%	89.9%
	Unoccupied private dwellings	12.9%	12.8%	27.4%	14.5%	20.8%	11.1%	10.1%
Tenure	Owned outright	43.5%	56.5%	52.8%	50.0%	42.3%	32.2%	31.0%
	Owned with a mortgage	25.0%	31.3%	30.5%	20.3%	32.9%	36.1%	35.0%
	Rented	22.6%	8.7%	11.2%	24.2%	20.6%	28.5%	30.6%
	Other tenure type	7.3%	0.0%	2.5%	1.4%	2.3%	1.7%	2.0%
Ethnicity	Born in Australia	85.0%	81.6%	74.8%	78.4%	81.3%	65.0%	66.9%
	Households: non-English language used	4%	2.6%	2.5%	5.5%	5.5%	30.2%	24.8%
SEIFA index Score/decile /ranking (state level)	Index of Relative Socio-Economic Disadvantage (IRSD) (score/decile/rank)	962 / 3 / 3,549 ^{th*}	949 / 3 / 3,041 ^{st*}	943 / 2 / 2,830 th	912 / 1 / 103 ^{rd**}	973 / 3 / 22 ^{nd#}	Not applicable	Not applicable
	Index of Relative Socio-Economic	947 / 3 / 3,357 ^{th*}	924 / 2 / 2,664 ^{th**}	916 / 2 / 2,364 th	887 / 1 / 90 ^{th**}	943 / 3 / 21 ^{st#}	Not applicable	Not applicable

Parameter		SA1 areas (local study area)			Yarram (closest town to Project)	Wellington Shire LGA (regional study area)	Victoria (state scale)	Australia (national scale)
		20505110405 (in WS LGA)	20505110409 (in WS LGA)	20503108709 (in SG LGA)				
	Advantage and Disadvantage (IRSAD)							
	Index of Economic Resources (IER)	1012 / 5 / 7,356 ^{th*}	997 / 5 / 6,393 ^{rd*}	987 / 4 / 5,787 th	925 / 1 / 112 ^{th**}	985 / 5 / 35 ^{th#}	Not applicable	Not applicable
	Index of Occupation and Education (IEO)	985 / 4 / 5,647 ^{th*}	912 / 2 / 1,981 ^{th*}	912 / 2 / 2,002 nd	897 / 1 / 141 ^{st**}	937 / 2 / 15 ^{th#}	Not applicable	Not applicable

Sources: ABS Census 2021 unless otherwise specified

*n = 15,013 (SA1 areas in Victoria as of the 2021 Census)

**n = 2,816 (Suburbs and Localities in Victoria as of the 2021 Census)

n = 80 (LGAs in Victoria as of the 2021 Census)

@ .id Wellington Shire Residential development webpage

@@ *Victoria in Future 2023 Population Household Projections to 2051.*

@@@ ABS Population Projections, Australia webpage (using the high range (worst-case scenario) data

^GlobalData Average Size of Households in Australia (2010 to 2021) webpage

4.2 Gross regional product

The gross regional product (GRP) is a measure of the total value of goods and services produced in a region. It is used as an assessment of the size of the regional economy relative to other regions. Wellington Shire's GRP is estimated at \$4.97 billion and comprises 20.2% of the Gippsland Region's GRP and 0.8% of Victoria's gross state product (REMPPLAN 2024). The per capita GRP is \$108,955 (based on a population of 45,639 people) and the per worker GRP is \$266,627 (based on 18,651 jobs).

A wide range of industry and business contribute to the local economy such as offshore gas and oil extraction and associated support services, primary production and agriculture, tourism, mining, retail, service industries, healthcare, education and community services. The strong dairy, beef and vegetable growing industries are supported by the Macalister Irrigation District. The ESSO gas plant, south of Sale, supplies Victoria and New South Wales with natural gas.

4.3 Top five industries by employment and output

The top five industries in Wellington Shire by employment are as follows (REMPPLAN 2024):

- Healthcare and Social Assistance (2,831 jobs)
- Agriculture, Forestry and Fishing (2,396 jobs)
- Public Administration and Safety (2,148 jobs)
- Construction (1,918 jobs)
- Retail Trade (1,751 jobs).

These industries provide approximately 59% of all jobs in the Shire.

The top five industries by output are as follows (REMPPLAN 2024):

- Mining (\$1,918.5 million)
- Agriculture, Forestry and Fishing (\$1,175.2 million)
- Construction (\$1,133.4 million)
- Public Administration and Safety (\$1,020.4 million)
- Manufacturing (\$852.3 million).

These industries account for approximately 65% of the total output of all the Shires industries.

4.4 Labour force

Wellington Shire supports 18,650 jobs (REMPPLAN 2024). Employment drives socioeconomic opportunity, providing financial security to individuals and families, social mobility and access to higher standards of living. Employment is also associated with physical and mental health benefits, social acceptance and inclusion and improved developmental outcomes for children of employed people (Australian Institute of Health and Welfare 2023).

In 2021, the estimated labour force in the local study area was 503 people (45.7% of the population) (ABS 2021i); at the regional (WS LGA) study area scale, there were 20,265 people

in the labour force (53.5% of the population), the latter being almost 10% lower than the state and national percentages (62.4% and 61.1%, respectively) (ABS 2021i). This may in part be due to the high proportion of people of retirement age and higher residing in the WS LGA compared to state and national populations. Of the First Nations population, 296 people (47.6%) were in the labour force.

In the ten years between the 2011 Census and the 2021 Census, WS LGA work force increased by 1,402 people. The Jobs and Skills Australia (JSA) smoothed labour force estimate for the December 2024 quarter is 21,885 workers; an increase of 817 workers since the 2021 ABS Census (JSA 2024a). Both data sources show an increase in the regional study area workforce but differ by the number of workers.

In the 2021 Census, 296 First Nations People were in the WS LGA workforce (approximately 47.6% of the population) which was 10.9% lower than at the state and 6.5% lower than at the national levels.

Renewable energy industry-relevant occupation sectors for the local and regional study areas are summarised in Table 4.2. Workers in these occupations may have skills which align with those required for the construction of a renewable energy facility should they choose to apply for such a role.

Table 4.2 Summary of Project-relevant occupation sectors in the study areas

Occupation Sector	Local study area			WS LGA	Yarram UCL	VIC	AUS
	20505110405	20505110409	20503108709				
Managers	57 (35.2%)	16 (15.0%)	57 (28.5%)	3,093 (16%)	57 (10%)	14%	13.7%
Professionals	13 (8.0%)	17 (15.9%)	15 (7.5%)	3,276 (17%)	79 (13.9%)	25%	24%
Technicians and trades workers	18 (11.1%)	11 (10.3%)	28 (14%)	3001 (15.5%)	96 (16.8%)	12.6%	12.9%
Clerical and administrative workers	17 (10.55)	12 (11.2%)	17 (8.5%)	1,843 (11.9%)	55 (9.6%)	12.4%	12.7%
Machinery operators and drivers	6 (3.7%)	8 (7.5%)	14 (7.0%)	1,288 (6.7%)	42 (7.4%)	5.9%	6.3%
Labourers	25 (15.4%)	18 (16.8%)	39 (19.5%)	2,306 (11.9%)	95 (16.7%)	8.8%	9.0%

Data sources: ABS 2021a, g, h and i.

At a regional scale, there is a greater proportion of labourers, machinery operators and drivers and technicians and trades workers compared to the state or national levels. Conversely, the proportions of workers in the clerical and administrative and professional sectors were lower

at the regional scale compared to the equivalent values at the state and national scales. At the local study area scale, the proportions of sectors generally track the trends shown at the regional scale (with some exceptions) compared to the state and national scales. This is to be expected due to the small sample size at the SA1 (local area) scale.

4.4.1 Workforce training needs, ongoing programs and actions

There is wide consensus that a skills shortfall exists against renewable energy projected workforce requirements. Several programs and actions aim to address this shortfall:

- Wellington Renewable Energy Forum Group – a networking platform instigated by WS Council to facilitate, support and progress Projects within the shire. The Council welcomes participation in the forum via the Economic Development Team.
- Gippsland New Energy website is a one stop shop for information regarding the renewable energy transition and provides a range of information including renewable energy descriptions, the approvals process, latest news and skills and training options.
- TAFE Gippsland –
 - Clean Economy Workforce Transition Framework this Project identifies the main steps to enable coal-fired energy production workers to transition into the renewable energy sector. The document identifies relevant skills already in the workforce and the skills gaps that need to be addressed.
 - TAFE Gippsland has developed a Clean Energy Course Guide and is offering a variety of renewable energy sector-relevant courses to supplement existing skills and address skills gaps.
 - TAFE Gippsland’s Skills and Job Centre provides specialist support to a variety of job seekers (school leavers, career changers etc.) to become workforce ready.
- Clean Energy Council has launched the Energising Australia campaign and has published a renewable energy sector careers guide.
- The Energy Skills Mapping Report outlines the skills required to enable employment in the renewable energy sector.
- The Australian Renewables Academy offers renewable energy courses, new energy apprenticeships mentoring program, acts as a point of contact for anyone interested in employment in the renewable energy industry, provides a list of skills that are relevant to the renewable energy sector and provides news regarding training.
- First Nations Clean Energy Network – Jobs Pathway Initiative - aims to identify clear pathways for quality jobs and careers for First Nations Australians in the clean energy sector by developing a First Nations Clean Energy Jobs Strategy.
- Federation University – Asia Pacific Renewable Energy Training centres in Ballarat and Gippsland. The Gippsland centre will provide relevant training to upskill local workforces and address renewable energy skills shortfalls and support the growth of the renewable energy sector in Gippsland.

- Gippsland Tech School has developed a Teaching and Learning Framework and Framework for Improved Student Outcomes to challenge students to take charge of their learning. As well as courses based on art and design and cyber safety, courses on sustainable and renewable futures are also on offer. There is a mobile tech school and online classroom to connect with Wellington and East Gippsland Shire secondary schools to provide to new and emerging technologies, careers, curriculum and real-world learning opportunities.
- Industry Capability Network (ICN) Australia is a platform upon which Projects can advertise goods and services needs, providing local businesses with opportunities to bid for work packages.

4.5 First Nations

The traditional owners of much of the Gippsland region are the Gunaikurnai People. The Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) has been proactive in becoming a critical partner in Gippsland's renewable energy transition, engaging with federal, state and local government and Project proponents, with the intent of protecting and healing Country and ensuring that economic, business, employment and lifestyle opportunities are available to First Nations people.

The GLaWAC website has a dedicated energy transition page which describes how it will optimise renewable energy transition opportunities. Various publications include a renewable energy strategy, strategic plan and a document describing engagement expectations regarding developers and governments involved in major Projects (*Pathways to Partnership – Gunaikurnai and Major Projects*).

4.6 Median income

The median weekly personal, household and family incomes (ABS 2021) are summarised in Table 4.3.

Table 4.3 Summary of weekly incomes in the local and regional study areas

Location	Median weekly personal income	Median weekly family income	Median weekly household income
SA1 20505110405	\$535	\$1,350	\$1,192
SA1 20505110409	\$492	\$1,260	\$961
SA1 20503108709	\$528	\$1,302	\$936
Yarram UCL	\$494	\$1,165	\$822
WS LGA	\$658	\$1,661	\$1,272
Victoria	\$803	\$2,136	\$1,759
Australia	\$805	\$2,120	\$1,746

Data sources: ABS 2021a, g, h and i.

The following conclusions can be drawn from this data:

- median weekly personal incomes at the local and regional study area scales are between \$145 to \$311 (up to 38%) lower than the state equivalent and \$147 to \$313 (38%) lower than the national equivalent
- median weekly family incomes at the local and regional study area scales are between \$475 to \$876 (up to 41%) lower than the state equivalent and \$459 to \$860 (up to 40%) lower than the national equivalent
- median weekly household incomes at the local and regional study area scales are between \$487 to \$798 (up to 45%) lower than the state equivalent and \$474 to \$785 (up to 45%) lower than the national equivalent
- Yarram had the lowest median weekly family and household income of those assessed, being 45% to 53% lower than the state and national equivalents.

It is possible that not only the Project, if approved, but the renewable energy transition within the proposed Gippsland REZ as a whole, will benefit the local and regional study area communities through the provision of employment and business opportunities.

4.7 Unemployment

Unemployment is an important indicator of the economic success of an area. The International Labour Organisation describes unemployed people as individuals who during a specific period were not working, available to work and were actively seeking work (ILO 2023). In addition to these factors, the ABS also includes individuals waiting to start a new job in this definition. The unemployment rate is defined as the number of people who are unemployed, expressed as a proportion of those in the labour force. The ABS estimates the number of unemployed people every month, releasing trend, seasonally adjusted and original data.

A low unemployment rate can indicate an affluent area with a high rate of access to jobs, or a place where those who cannot find jobs leave the area. A high unemployment rate can indicate a declining economy.

ABS data is used by JSA to produce quarterly Small Area Labour Market (SALM) estimates of unemployment and unemployment rates. Data is available at the LGA and SA2 scales (SA1 level unemployment data is not available). The December 2024 quarter unemployment figures (unless otherwise indicated) are as follows:

- Wellington Shire LGA total population – 4.8% (JSA 2025); First Nations population 14.0% derived from ABS 2021 Census data (.idcommunity 2024)
- South Gippsland LGA – 3.1% (JSA 2025)
- Latrobe City LGA – 7.4% (JSA 2025)
- Victoria – 4.4% (JSA 2024b)
- Australia – 4.1% (JSA 2024b).

The above data indicates that First Nations people unemployment rates are higher than those of other Australians.

4.8 Supply chains

Presently, renewable energy Projects in Australia rely on sourcing much of their infrastructure from overseas as its renewable energy infrastructure supply capability is at a fairly immature stage.

There are currently no Australian manufacturers of wind turbine blades or nacelles. Vestas (a Danish company and the world leader in WTG components) has established the Vestas Renewable Energy Hub at the former Ford plant in Geelong for the assembly of WTG s (Urban Enterprise 2023). There are more existing capabilities established along the supply chain including technical services, logistics, assembly and installation, construction and operations and maintenance.

Gippsland is in a strong position to develop local industries along the renewable energy supply chain with its existing heavy manufacturing industry and proposed renewable energy industry developments.

For instance, the ElecSome solar panel upcycling plant in Kilmany (12.5 km east of Sale) processes end-of-life solar panels, recovering glass, silicon, polymers, aluminium, copper, and silver transforming them into products such as high-grade concrete, cables, construction feedstock, PV/battery grade silicon and recyclable consumables.

4.9 Businesses

Business opportunities generated for local businesses under the Project, in the form of provision of goods and services, is a tangible benefit of the Project.

The relevant business types were determined using the critical occupations for clean energy that have been identified in Jobs and Skills Australia (JSA)'s Clean Energy Capacity Study and resulting report (JSA 2023). A summary of these business/service type and their numbers in the local study area is provided in Table 4.4.

Table 4.4 Summary of critical business/service types and Nos. available in WS LGA

Critical business/service type category	No. businesses in WS LGA
Manufacturing	147 businesses
Electricity, gas, water and waste	11 businesses
Construction	681 businesses
Transport, postal and warehousing	191 businesses
Professional, scientific and technical services e.g. surveying	241 businesses
Administrative and support services	128 businesses
Public administration and safety	6 businesses
Education and training	44 businesses
Accommodation and food services	198 businesses
Rental, hiring and real estate	314 businesses

Data source: ABS (2024b)

As of the end of June 2023, there were 4,327 registered business in the WS LGA, comprising (ABS 2024b):

- 2,741 non-employing
- 1,093 businesses employing one to four workers
- 404 businesses employing between 5 and 19 workers
- 89 businesses employing 20 or more workers.

The data in Table 4.4 shows that there is a range of businesses within the WS LGA that could potentially provide some goods and services to the Project. However, the local and regional renewable energy industry supply chain is only partly developed. It is likely that businesses located both within and beyond the WS LGA boundary (within and beyond Victoria and overseas) will compete to supply goods and services for the Project (Urban Enterprise 2023).

4.10 Tourism

The 2019 TRA local government area profile for WS LGA stated that there were 485 tourism associated businesses, which catered for 54,000 inter- and 347,000 intrastate domestic overnight visitors, spending a total of up to \$168 million AUD (TRA 2019). Approximately 50% of these visitors were on holiday, 28% were visiting family and friends, 12% were visiting for business reasons and the remaining 10% were visiting for other reasons.

In WS LGA, tourism supports approximately 1,026 jobs, worth approximately 2.1% of the Shire's total output (\$193.8 million AUD) (equivalent to 2.8% of the output generated by tourism in Victoria) and the value added is approximately \$95.4 million AUD (REMPPLAN 2024). The average domestic stay is three nights and 13 nights for international visitors. The average spend for a domestic day trip is \$125 AUD, \$407 AUD for domestic overnight trips and \$1,293 AUD by international visitors (REMPPLAN 2024).

Various events are held within the Shire which in 2025 include the RL24 national championships (sailing), Heyfield Timber Festival and Gippy Rocks 2025. There are multiple events scheduled in the surrounding LGAs too. Festivals and events can attract attendees who may need to source accommodation, bringing in additional tourism revenue. Competition by renewable energy constructions workers for accommodation normally used by tourists could impact the tourism industry.

4.11 Accommodation overview

A variety of accommodation types might be required to accommodate the non-local proportion of the Project construction workforce. For the purposes of this report, these are broadly classified into the following:

- short-term accommodation: accommodation required for three months or less e.g. (commercial accommodation including motels, hotels, serviced apartments, bed and breakfast, self-contained homes, and caravan and camping parks)

- long-term accommodation: accommodation required for more than three months (e.g., rental homes, or homes for sale).

It is assumed that any local temporary Project construction phase workers will not require accommodation as they will already be housed in the area and can commute by vehicle to and from the Project on a daily basis.

4.11.1 Unoccupied properties

In the WS LGA, approximately 42.3% of the population owned their homes and a further 32.9% owned mortgaged properties (compared to 32.2% and 36.1% respectively at the state level). Approximately 20.6% of the population in the LGA rent their dwellings which is considerably lower than the state (28.5%) or national (30.6%) equivalents (ABS 2021i).

As of the 2021 Census, 20.8% of private dwellings were unoccupied (approximately double that at the state (11.1%) and national (10.1%) scales. These reasons for this are various but will include unoccupied second homes and holiday lets.

There was a total of 583 unoccupied dwellings in nearby locations relative to the Project as of the 2021 Census as follows (Urban Enterprise 2023):

- Yarram – 151 (13% of all private dwellings)
- Alberton - 20 (13% of all private dwellings)
- Port Albert -114 (37% of all private dwellings)
- Woodside and Woodside Beach - 99 (30% of all private dwellings)
- Seaspray - 199 (51% of all dwellings)
- Toora – 38 (16% of all private dwellings)
- Foster – 59 (9.0% of all private dwellings)
- Leongatha – 211 (8.3% of all private dwellings)
- SG LGA – 3,820 (excluding the unoccupied dwelling counts for Toora, Foster and Leongatha)
- WS LGA – 4,029 (excluding the unoccupied dwelling counts for Yarram, Alberton, Port Albert, Woodside and Woodside Beach and Seaspray)
- LC LGA – 29,102 (19.8% of all private dwellings).

If each of the unoccupied properties in the above listed settlements, townships and towns alone (excluding the overall LGA unoccupied dwelling counts) had a total of two bedrooms each (assuming one worker per bedroom), up to 1,782 non-local workers could be accommodated. This equates to between 21 to 31 times the estimated peak number of construction workers for the Project. When applying the same estimations to the ABS Census 2021 unoccupied dwelling counts at the LGA scale (excluding the township unoccupied property counts above), there is potentially sufficient accommodation for almost 74,000 people (over 900 times greater than the estimated Project peak workforce).

It is highly likely that a proportion of these properties could be used to accommodate non-local Project construction personnel, subject to successful contact of the owners of the unoccupied dwellings and their amenability to letting their properties for some or all of the construction phase duration (up to 24 months).

4.11.2 Property market

A review of the property market was completed in early May 2025 across 13 locations as follows:

- six locations in WS LGA
- five locations in SG LGA
- two locations in LC LGA.

Various parameters were collated including rental vacancy rates, number of properties for rent, median weekly rent, number of properties for sale and median property prices. This data is shown in Table 4.5.

A total of 1,198 properties were on the market as of May 7 2025, distributed between 13 locations in WS, SG and LC LGAs. The lowest median house price for a 3-bedroom house was in Morwell \$341,000 AUD (lower than the WS LGA median of \$365,000 AUD in 2021 (Urban Enterprise 2023). The highest median 3-bedroom house price was in Inverloch (\$800,000 AUD) (Real Estate.com 2025). The majority of the dwellings for sale were located in Morwell (23.5%), Traralgon (22%), Sale (19.5%) and Inverloch (11.8%).

The workforce requirements and associated accommodation demand of the Project are minor (with 85 construction workers at peak times), therefore it is highly unlikely that Project-related housing needs could cause house price increases.

4.11.3 Rental market

Rental properties are considered to be long-term accommodation for the purposes of this report. Our research reveals a high demand in rental housing at the local and regional scale..

The *Wellington Shire Renewable Energy Impact and Readiness Study* reported the following:

- in 2022, there were around 2,800 active rental properties in the WS LGA
- around the time of the study's publication, there were approximately 280 rental properties managed by agents in Yarram
- demand for rental properties was high with properties being leased quickly when available
- some businesses in the southern Wellington area reported difficulties finding short-term accommodation for workers.

The rental vacancy rate is defined as the percentage of rentals in a defined area that are vacant. In a balanced rental market, the vacancy rate is usually around 3%. A vacancy rate of less than 3% indicates a tight rental market with a prevailing undersupply of rental properties

(review Real Estate 2023). An overview of May 2025 vacancy rates for locations near the Project are shown in Table 4.5.

The data shows that vacancy rates for Alberton and Yarram (the nearest towns to the Project) were at 0% for May 2025 (as was Port Albert and Toora). This indicates the rental market in these areas is tight. It is likely that a low supply and high demand environment will prevail in the area at the time of Project construction.

The vacancy rate at the remaining locations was also below 3% with the exceptions of Foster (3.5%) and Seaspray (22.2%). This suggests that the local and regional rental markets are tight except for Foster and Seaspray.

Table 4.5 May 2025 housing market data snapshot

Location (and post code)	Vacancy rate (Mar 2025)	No. rentals on market	Median weekly rent house (3 bdrm)	Median weekly rent unit (3 bdrm)	No. dwellings on the market	Median price House (3 bdrm)**	Median price unit (3 bdrm)**
Alberton (3971)	0%	1 (\$580/wk)	No data	No data	5	No data	No data
Yarram (3971)	0%	0	\$385/wk	No data	0 (residential land plots)	\$425,000	No data
Port Albert (3971)	0%	0	No data	No data	19	No data	No data
Seaspray (3851)	22.2%	1 (\$470/wk)	No data	No data	15	No data	No data
Sale (3850)	0.7%	37	\$450/wk	\$440/wk	234	\$455,000	\$400,000
Rosedale (3847)	1.7%	3	\$475/wk*	No data	22	\$417,500	No data
Toora (3962)	0%	1 (\$450/wk)	No data	No data	18	No data	No data
Foster (3960)	3.5%	3	\$400/wk	\$340/wk*	42	\$535,000	\$315,000*
Leongatha (3953)	1.5%	5	\$450/wk	\$360/wk*	84	\$517,500	\$415,000*
Inverloch (3996)	0.7%	14	\$475/wk	\$450/wk	142	\$800,000	\$600,000*
Korumburra (3950)	0.6%	3	\$440/wk	\$340/wk*	69	\$530,000	No data
Traralgon (3844)	1.2%	69	\$450/wk	\$495/wk	266	\$470,000	\$557,500
Morwell (3840)	2.6%	55	\$390/wk	\$285/wk*	282	\$341,000	\$255,000*

Data source: Real Estate.com.au and SQM Research - Residential Vacancy Rates (by postcode)

*Median rental or purchase price snapshot for houses or units – all bedrooms category

The Department of Families, Fairness and Housing (DFFH) publish quarterly rental report statistics. The quarterly median rent by local government area provides time series data of median rents for a variety of flat and house configurations (1-bedroom up to 4-bedroom). This data is presented in Figure 4.3 and shows general upward trends in median weekly rent prices for the Wellington Shire LGA over the last five years. This report assumes a similar upward trend for the South Gippsland LGA.

As of September 2024, median weekly rents varied between \$260 AUD/week for a 1-bedroom flat to \$515 AUD/week for a 4-bedroom house.

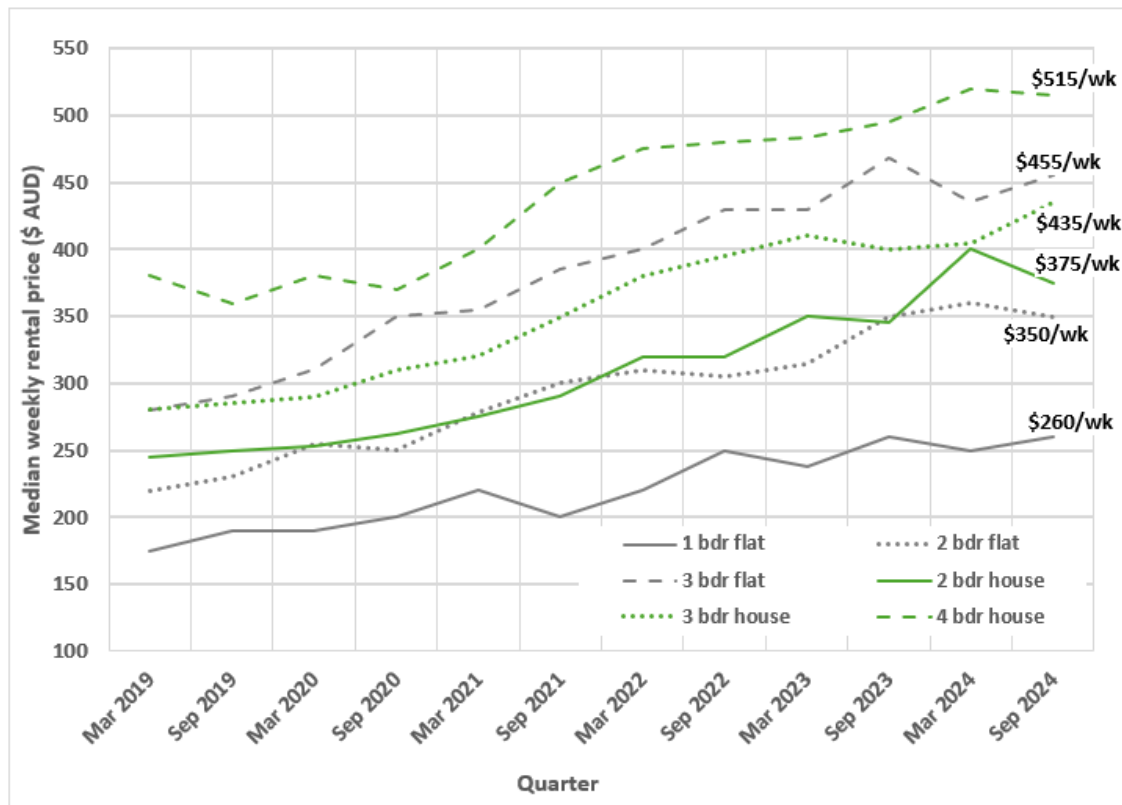


Figure 4.1 Median rents over 5 years in the Wellington Shire LGA

Data source: DFFH 2025

Housing stress describes a situation where the cost of housing is high relative to household income. It occurs when households in the lower 40% of income distribution spend more than 30% of their income on rent payments or mortgage repayments. People in such situations are vulnerable to increases in housing costs which can be triggered by increased demand. As of the 2021 Census, 31.8% of renters in Wellington were in housing stress (which generally aligns with state (30.9%) and national (32.2%) data).

Regarding mortgage payers, approximately 10.5% were in housing stress, lower than the state (15.5% or national figures (14.5%)) (ABS 2021i). Up to 32.1% of renters and around 25% of mortgage payers in the local study areas were experiencing housing stress (ABS 2021g and h). People experiencing housing stress can be vulnerable to changes in prevailing housing market conditions, whether it be increases in median weekly rent or increases in loan interest rates.

The Project's peak workforce is expected to be 85 workers, with an average of 60 workers anticipated outside the peak construction period. Given the minor number of workers, workforce accommodation requirements are manageable with appropriate planning, so that Project-related impacts on the local and regional property and rental markets are expected to be low. However, the risk of potentially contributing to housing and/or rental unaffordability at the local and regional scale should be addressed through careful planning and in due time prior to Project construction begin.

4.11.4 Short-term accommodation

For the purpose of this report, short-term accommodation is predominantly used by tourism and for business purposes and comprises hotels, motels, holiday parks, caravan parks and self-contained houses/units/apartments lodged on online platforms (e.g. Airbnb, Stayz etc). It is likely that most of the non-local Project construction workforce will make use of this type of accommodation (dependent upon their work contract durations).

The summary of a desk top assessment of short-term accommodation up to an approximate 60-minute commute from the Project is shown in Table 4.6.

Table 4.6 Short-term accommodation summary

Location	Accommodation type					
	Hotel/motel (No.)	Rooms	Camping/holiday parks (No.)	Sites	Airbnb/Stays accommodation (No.)	Rooms
Yarram	7	52	2	171	5	16
Alberton	5	16	0	0	2	4
Port Albert	6	29	1	4	11	25
Woodside	1	6	1	100	9	29
Seaspray	0	0	1	130+	6	18
Sale	17	354*	1	9 cabins	63	129
Toora	1	14	1	cabins*	14	26
Foster	2	49	1	4 cabins	4	14
Traralgon	10	358	2	Cabins*	37	96

Data sources: Urban Enterprise (2023), Google search, Airbnb search.

*information regarding the number of rooms or cabins was unavailable at the time of the search

Approximately 878 rooms were found across 49 hotels and motels and 357 rooms potentially available on Airbnb websites or similar. This would be more than sufficient to accommodate non-local Project workers without competing for local rental stock which is in short supply.

Approximately 6.9% of these rooms would potentially be required by the Project construction workforce (assuming that they were all non-locals, required 1 room each in a local accommodation).

However, tourism demands for these accommodation types are unknown and should be monitored closer to the start of Project construction. In particular, potential competition with tourists during holiday seasons and local and/or regional events should be minimised through appropriate planning.

5 Stakeholder consultation

This section summarises the ongoing Project engagement, its outcomes and a planned escalation of engagement post re-submission.

5.1 Overview of key consultation activities

Stakeholder consultation for the Project has been carried out through multiple engagement methods, including direct outreach, an information centre, and public information sessions. These activities provided opportunities for stakeholders to access Project information, ask questions, and share feedback.

Community and other stakeholders have been offered regular opportunities to engage directly with the Project team, either face-to-face, over the phone or via correspondence. These opportunities were facilitated through direct phone contact, door knocks, correspondence, Project advertisements, surveys and via the Project website.

The engagement activities shown in Table 5.1 were targeted at residents and communities that are most likely to be affected by the Project, i.e. within a 5 km radius.

Table 5.1 Summary of consultation activities within a 5 km radius of the Project

Date	Activity undertaken
August 2021	Phone contact campaign, near neighbours.
October 2021	A5 project info flyer distributed by mail and direct letterbox drop to 3km from site boundary Launched project website.
November 2021	Follow-up direct meetings with neighbours/community members.
May 2022	Public notice advertising in 3 x newspapers re: investigative studies at site.
July 2022	Direct correspondence with specific neighbours re: background noise monitoring.
October 2022	Public notice advertising in 3 x newspapers re: investigative studies at site.
November 2022	Opening of project Information Centre in Yarram (Project info material available for community members to view and take). The Information Centre was open to the public every Thursday. Since May 2024, the Information Centre has been open every second Thursday.
December 2022	Release of public opinion survey, mail to ~400 addresses in site vicinity with accompanying project update.
February 2023	Project update media release in 3 x newspapers.
March 2023	Wind Farm Noise Information Session at Info Centre, Yarram (targeted at near neighbours and presenting results of the background noise monitoring).

Date	Activity undertaken
April 2023	Tarra Festival attendance with info booth, release of new A5 project info flyer.
May 2023	Flora & Fauna Information Session at Info Centre, Yarram (announced via project website update and included in associated media release to 3 x newspapers).
July 2023	Planning permit application submitted
August 2023	Submission announcement in 3 x newspapers
September 2023	Follow-up submission announcement in 3 x newspapers
December 2023	Assessment status update in 3 x newspapers
March 2024	Public Notice period commences 19 March (min. 28 days) - written notice to over 1,400 addresses out to 5km from site, formal public notice in 3 x newspapers.
April 2024	Tarra Festival attendance with information booth, during public notice phase. Public Notice period concludes on 26 April (actually 38 days) - only 85 submissions received (10 supporting, 71 objecting, and 4 statutory agency responses). Application paused.
October 2024	Call for feedback on draft Community Benefit Program published in 3 x newspapers and project website.
May 2025	Project status update re: ongoing ecological studies and EPBC PER.
July 2025	Pending public notices in 3 x newspapers and project website announcing resubmission and conclusion of field studies, forecast August for draft PER submission.
August 2025	Anticipated formal public notice period, repeat of March/April 2024. Planned resumption of weekly attendance at the Information Centre to coincide with the resubmission notice period and PER submission/review window.

5.2 Project information centre in Yarram

In November 2022, the Project proponent opened an information centre in Yarram to provide weekly or fortnightly opportunities for public interaction and a venue for information sharing.. The information centre is currently open on a fortnightly basis. However, representatives of the Project team will attend the information centre at weekly intervals during the resubmission notice period and PER submission/review window. Project team members are

also available by appointment at a time and place that is convenient to interested community members. Contact details are provided on the Project website.

Among others, the information centre hosted targeted public information sessions organised by the Project team and featuring external consultants and sector experts to address community concerns, e.g. in relation to potential noise emissions or impacts to flora and fauna.

5.3 Public opinion survey

A public opinion survey was launched in December 2022, designed to gauge public sentiment toward the Project and to identify key community priorities for a Community Benefit Sharing Program. A total of 50 respondents participated in the survey, 43 respondents (86%) living within a 20 km radius of the proposed Gelliondale Wind Farm.

The survey identified the 5 key priorities listed below:

- upgrade of local infrastructure (roads, water supply, climate resilience, telecommunication networks)
- local industry and employment
- environmental programs
- support for local tourism
- support for local community groups and sports clubs.

These priorities will be considered in further detail when finalising the Community Benefit Sharing Program. The Project will continue to conduct community surveys as required, and these will continue to inform appropriate Project responses to community issues and priorities.

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5.4 Consultation with Indigenous Groups

The Registered Aboriginal Party (RAP) for the Region is the Gunaikurnai Land & Waters Aboriginal Corporation (GLaWAC).

An approved Cultural Heritage Management Plan (CHMP number 15167, 27 October 2022) exists for the Action Area in which the Project is located. In relation to the development and amendment of this CHMP, several RAP consultations were carried out in the context of cultural heritage assessments (July 2017 – November 2017), participation in the conduct of the assessment (October 2017), amendment of the CHMP (July 2022) and consultation in relation to the conditions (October 2017 – July 2022).

As per Sections 2.3.4 and 4.5 continuous engagement with GLaWAC will occur to identify potentials for employment and other forms of cooperation.

5.5 Outcomes from consultation activities

The public opinion survey identified key priorities for consideration when finalising the Project's Community Benefit Sharing Program.

Several RAP consultations were undertaken during the CHMP development and amendment processes. These resulted in an overall agreement and mutual understanding with the RAP that no recorded cultural heritage would be impacted by the proposed works, and that it was unlikely that any undetected cultural heritage would be impacted by Project activities.

It was agreed that that a requirement for a cultural heritage induction for all contractors should be included as a condition (management measure) in the CHMP. .

6 Assessment of economic benefits and impacts

Individuals, groups and businesses can receive potential socio-economic benefits from renewable energy Projects through multiple pathways such as:

- increased income for suppliers and contractors through business opportunities to deliver materials and services to the Project
- enhanced livelihood opportunities for labour force members through Project-based employment opportunities
- flow-on (multiplier) economic stimuli generated through secondary business and work opportunities generated to support Project delivery
- community benefit-sharing schemes contributing to increase in incomes (Clean Energy Council 2025).

In addition, the shift from fossil fuel-based energy generation to renewable sources is a pivotal strategy to reduce greenhouse gas emissions to combat global warming and mitigate climate change-induced impacts, which will benefit current and future generations.

At a local scale, there are some socio-economic impacts of renewable energy Projects, related mainly to conflicts with existing uses of land, such as agriculture, conservation, and residential uses.

The Project's socio-economic impacts are discussed further ahead. Note although it is anticipated that significant income and employment will be generated indirectly from the Project, the flow-on impacts have not been quantified following ABS advice on the shortcomings and limitations of multipliers for economic impact analysis (ABS 2021). Therefore, the analysis focuses mainly on the direct socio-economic benefits.

6.1 Direct investment benefit

The distribution of economic benefits from renewable energy projects may not always result in benefits to be retained entirely within communities that are in immediate proximity to the project location. Communities with skilled workforce in construction, engineering, and maintenance have higher capacity to capitalise on job opportunities created by renewable energy projects. In the same way, communities with diversified economies are better positioned to absorb and amplify the direct and flow-on benefits from investments in renewable energy.

The estimated capital cost of the Project is A\$388 million, 30.1% of which is associated with the procurement and installation of the 13 wind turbines units, and 15.5% with the 40 MW BESS. A significant outlay is also required for civil, electrical and grid connection works.

In constructed renewable energy projects, it is reported that typically 10 to 15% of the investment (Ethos Urban, 2024) remains in the host economy (host in this context carries a similar scale to that of the regional study area as defined in Section 3.1) through direct purchases and contracts with businesses and suppliers, as well as wages of employees hired from within the same region. A review of confidential information from a recently

commissioned renewable energy project in Australia shows that up to 30% of the investment benefits can be retained within the regional study area economy.

Based on the above, during the construction and commissioning phases of the Project it is estimated that the regional study area economy may receive direct economic benefit in the range of A\$58 to 116 million, which is 15 to 30% of the capital cost, respectively. The Project's construction and commissioning phases are expected to last for a duration of 24 months.

6.2 Direct employment benefit

Construction phase

At peak construction the Project will require 85 full time equivalent (FTE) workers and 60 workers on the average. The regional study area labour force data, provided in Section 4.4, suggests presence of a skilled workforce with occupations relevant to the Project. The Proponent estimates that up to 50% of the Project workforce will be sourced from within the regional study area, which at construction peak is approximately 42 persons. Though the direct employment benefit at construction phase will be a short-term benefit, it will positively impact the regional study area labour force by providing opportunities for workers to upskill for renewable energy industry and gain relevant experience, which will help grow the renewable energy workforce supply in the region. These workers will be able to transfer this knowledge to other renewable energy Projects in the future, which is important noting the renewable sector in the region is expected to grow significantly.⁶ The Project will offer the opportunity to unemployed persons seeking a job to gain employment.

Operational phase

The Proponent indicates that up to 5 FTE jobs will be supported on an ongoing basis through the operations of the Project. All of the 5 FTE positions will be ongoing over the 35-year operational life of the Project and will be filled by the local or regional study area labour force. Assuming that on average each worker earns a construction industry wage of \$97,900 per annum (ABS 2024c), the total wage bill benefits during the 35-year operational life of the Project amount to A\$17.1 million.

6.3 Business participation

Local business participation may provide opportunities in terms of cost efficiencies (lower transport, equipment hiring, labour costs, etc.). Large construction projects located in regional areas should be serviced where possible from within the same region.

The regional study area has approximately more than 650 construction firms and other businesses associated with services likely to be required for the Project. This means that within the regional study area there are likely to be firms of sufficient scale and expertise to compete for contracts or provide services and equipment to the Project.

⁶ Investments of up to \$54 billion are proposed for more than 25 renewable energy generation and energy storage projects in the region with up to 11,700 additional jobs by 2026 (Latrobe Valley Authority 2024).

6.4 Additional retail expenditure

As described above, the Proponent estimates that approximately 42 FTE jobs at peak and 30 FTE jobs on the average during the construction phase would be sourced from outside the regional study area, particularly specialists (electricians) and management positions. This level of employment would therefore equate to \$5.8 million in wages on the basis that each non-local worker is employed for 24 months and earns the average construction wage of \$97,900 per annum (ABS 2024c).

However, only a portion of these wages would be spent within the regional study area, with the rest either saved or spent external to the region. Data from ABS Household Expenditure Survey 2015-16, shows that the average weekly expenditure on goods and service of a household in Victoria is A\$1,430, with a household on the average comprising of 2.6 individuals. This translates to A\$28,600 in annual household spending per person. Therefore, it is estimated \$1.7 million in wages is likely to be directed towards the purchases of goods and services from businesses and service providers in the regional study area during the construction phase. Spending would include the following:

- Housing expenditure, including spending on accommodation at hotels, motels, private rental dwellings, etc
- Retail expenditure, including spending on groceries, restaurants, cafes, clothing, homewares, etc
- Recreational spending at cinemas, cafes, restaurants, pubs and bars
- Personal, medical and other services, such as doctor's fees and local prescriptions, fuel, vehicle maintenance, etc.

6.5 Community benefit sharing

A community benefits sharing program (CBSP) will be implemented during the operational phase of the Project. At this stage the structure of the CBSP has not been finalised and the program is in draft form. The outcomes of further direct consultations with neighbours and the broader community will be used to refine the final program structure and benefits. In the interim until relevant matters are finalised, annual payments may be in the order of:

- Neighbours and near-neighbour funds component of A\$80,000 per annum
- Community funds component of A\$100,000 per annum.

This amounts to payments in the order of A\$6.3 million (as of April 2025) that will be dispensed throughout the 35-years of Project operations.

The community funds component can be used to support local Projects and programs, which may include community, educational and environmental initiatives.

6.6 Avoided greenhouse gas emissions

When fully operational, the Project is expected to generate 300 GWh of electricity per year, which will power approximately 37,000 Victorian households. This will boost Victoria's renewable energy generation capacity and contributes to Victoria's renewable generation

capacity targets. All of which aligns with the national strategy to grow renewables generation capacity across Australia.

According to the ABS Census 2021, the regional study area contains approximately 17,538 occupied private dwellings (ABS 2021i). Therefore, the proposed Project has the potential to provide 2.1 times the annual electricity requirements of the regional study area.

The Proponent estimates that the Project will result in 320,000 tonnes of carbon dioxide equivalent (tCO₂e) abatement per year, equivalent to a total of 11.2 million tCO₂e of avoided emissions over 35-years of operations. The NSW Government Guide to Cost-Benefit Analysis (TPG23-08) advice was used to determine the value of avoided CO₂ emissions.⁷ In 2028 (Project's expected year of commissioning), up to A\$46.1 million worth of emissions will be avoided due to the Project. Over the 35 years of the Project's operational life this amounts to A\$2.4 billion equivalent worth of emissions avoided.

6.7 Agricultural impacts

The Action Area comprises of cleared agricultural land over 1,622 ha. Of this, 38.2 ha (or 2.36%) constitutes the Project Footprint, which is the area upon which the Project infrastructure (e.g. WTGs, BESS, substation, site roads etc.) will be sited. The agricultural land use within the Action Area will continue in tandem with renewable energy generation, diversifying the existing land use and providing supplementary, guaranteed income for the landholders. The proportion of agricultural land will be minimal onsite (2.36%) and negligible when considered at the regional scale (0.008%, refer to Section. 2.1.1).

The ABS Census 2021 reports data for agricultural commodities and the gross value of agricultural production up to the SA2 level. The Project Footprint falls in the Yarram SA2 (region code: 205051104). The gross value of agricultural production for Yarram SA2 amounts to A\$146.8 million in 2021 or A\$2,320.8 per hectares (ABS 2021m). Majority of the value added comes from livestock (dairy production and animal slaughter). Using the ABS Census 2021 data, the Project footprint is estimated to displace A\$85,810.8 worth of agricultural output per annum, representing a 0.06% loss in Yarram SA2's annual agricultural output.

Agricultural enterprises will re-commence at an equivalent agricultural productivity upon decommissioning. Through the 35-years of the Project's operational life, a total loss of A\$3.0 million of agricultural output will be incurred.

It is unlikely that there will be any agricultural job losses associated with the Project given it's minimal Project Footprint and given that both agricultural and energy generating activities can be carried out simultaneously at the site.

⁷ The current market price of carbon can be considered as an indicator for the social cost of carbon. NSW's Technical Note to TPG23-08: *Carbon value in cost-benefit analysis* provides detailed guidance on valuation of mitigated carbon emissions. The technical note requires that carbon costs should be escalated at a rate of 2.25% per year in real terms and using European Union Emissions Trading System as the benchmark price. The spot price for CO₂ emissions was at EUR 83/tCO₂ or A\$128.9/tCO₂ in 2023 (ESMA, 2024).

7 Assessment of socio-economic benefits and impacts (pre- and post-mitigation)

The Project is going to have socio-economic benefits and impacts affecting individuals, groups and businesses living and operating in the local and regional study areas. Their significance is assessed and summarised in Table 7.1 (pre-mitigation) and in Table 7.2 (post-mitigation).

A total of 23 potential socio-economic benefits and impacts were assessed, of which 8 were classified as potential benefits (i.e. anticipated positive effects from Project activities) and 15 were classified as potential impacts (i.e. anticipated negative effects from Project activities).

According to this assessment, no residual impacts are expected from the Project. Residual impacts are classified as impacts with a significance rating of medium or higher post application of mitigation measures. Potential benefits from the Project that were rated with a high significance include:

- increased investment through Community Benefit Sharing Program
- increased local employment including prosperity with potential for under-represented groups
- opportunity for local and regional workers to upskill and address employment barriers to increase pathways to employment in the renewable energy sector.

Table 7.1 Socio-economic benefits and impacts significance assessment (pre-mitigation)

Impact / benefit Category	No. and description	Basis for consideration	Duration	Rating (pre-mitigation)			Impact / benefit scale
				Likelihood	Magnitude	Significance	
Community	1a. Short-term community cohesion impacts due to an influx of non-local workers into the local area during the 24-month construction phase and the decommissioning phase (impact).	This has been experienced and reported by small communities near similar utility scale Projects (e.g. multiple Projects in the Gulgong area in NSW) Some responses in the community feedback records suggest community cohesion could be disrupted.	Construction Decommissioning	Possible (C)	Minor (2)	Medium	Local and regional businesses and communities, vulnerable and marginalised individuals and groups, tourists
	1b. Increased community investment through community benefit sharing program to be implemented throughout the 35-year operational phase (benefit).	Community benefit sharing of between (subject to CPI) will be invested locally for the life of the Project Community benefits to date include [Section 6.5] Neighbour benefit scheme [Section 6.5]	Construction Operation Decommissioning	Almost certain (A)	Moderate (3)	High	Local and regional communities and community groups (e.g. social / sporting / environmental), Project neighbours
Surroundings	2a. Changes in landscape characteristics and visual amenity (impact)	Renewable energy Projects change visual amenity and landscape characteristics through the installation of infrastructure such as wind turbines e.g. the nearby operational Toora Wind Farm; utility scale Projects are required to provide technical reports regarding visual impacts together with suggested mitigations. Feedback received during community and stakeholder engagement activities.	Construction Operation	Almost certain (A)	Minor (2)	Medium	Project neighbours, local communities, users of local roads and visitors to the area.
	2b. Changes in land use and loss of productive agricultural land through the siting of renewable energy infrastructure throughout the entire Project (impact).	Common general concern regarding renewable energy Projects	Construction Operation Decommissioning	Almost certain (A)	Minimal (1)	Low	WTG hosts, local and regional communities
	2c. Safety and hazard risks (perceived and actual) throughout the entire Project but particularly during the construction and decommissioning phases when site activities are most intense (e.g. risk of fire breakout in a nacelle) (impact).	Utility scale renewable energy Projects are required to provide technical reports and plans including identification of potential Project-related hazards and propose mitigation as part of the approvals process. Data/incidents regarding wind farm-related fires in Victoria and beyond.	Construction Operation Decommissioning	Unlikely (D)	Moderate (3)	Low	Project neighbours
Health and well being	3a. Project-related psychological health impacts (uncertainty and stress, concern regarding the exposure of individuals and others to perceived or actual Project-related emissions) during the construction and operation phases (impact).	Caused for example by the presence of a wind farm nearby or the perception of inequity e.g. perception of being forced to compromise personal values or belief systems to benefit others; the perception of rural communities being disrupted for the benefit of urban centres (Moss <i>et al.</i> 2014). Feedback received during community and stakeholder engagement activities.	Construction Operation	Unlikely (D)	Minor (2)	Low	Project neighbours, local communities
	3b. Temporary physiological impacts through exposure to construction-generated environmental emissions such as noise and dust during the construction and decommissioning phases (impact).	Project construction activities can result in environmental emissions including noise and dust.	Construction Decommissioning	Possible (C)	Minor (2)	Medium	Project neighbours, local communities

Impact / benefit Category	No. and description	Basis for consideration	Duration	Rating (pre-mitigation)			Impact / benefit scale
				Likelihood	Magnitude	Significance	
	3c. Chronic health impacts (physiological and psychological) caused by Project-related environmental emissions such as noise during the operational phase (e.g. causing sleep deprivation) (impact) .	Some health concerns raised during the ongoing community and stakeholder engagement activities e.g. related to noise, blade flicker (triggering epilepsy) and electromagnetic field exposure. Literature available proposing counter arguments e.g. nocebo effects (individual experiences harm due to the expectation of experiencing it i.e. psychosomatic)(Moss et al. 2014, Groso et al. 2024)_ Utility scale renewable energy Projects are required to provide technical reports and plans including identification of Project-related hazards and propose mitigation as part of the approvals process. Regulatory guidelines e.g. Environment Protection Authority Victoria Publication 2061 <i>Wind Energy Facility Turbine Noise Regulation Guidelines</i> and post-construction noise assessment requirement.	Operation	Unlikely (D)	Minor (2)	Low	WTG hosts, Project neighbours
	3d. Health impacts due to Project-related vehicle movements on local roads temporarily increasing the risk of road traffic accidents (e.g. during times of transporting large site infrastructure components) (impact) .	Increased Project-related construction and decommissioning traffic movements could increase the risk of traffic accidents on local roads resulting in injury and/or fatalities. Common potential impact among utility scale renewable energy Projects. Utility scale renewable energy Projects are required to provide technical reports and plans including identification of Project-related hazards , including traffic impact assessments or similar) and propose mitigation as part of the approvals process.	Construction Decommissioning	Possible (C)	Minor (2)	Medium	Near neighbours, local communities, public transport providers and tourists
Way of life	4a. Temporarily changed traffic conditions on local roads caused by the delivery of Project infrastructure and possible road upgrades may disrupt peoples' freedom of movement (e.g. access to their homes, daily commute delays) potentially causing inconvenience and frustration (impact) .	Increased Project-related construction and decommissioning traffic movements (particularly using over size-over mass vehicles) could increase the risk of traffic delays and disrupt traffic flow on local roads resulting in disruptions to peoples' daily routines. Common potential impact among utility scale renewable energy Projects. Utility scale renewable energy Projects are required to provide technical reports and plans including identification of Project-related hazards, including traffic impact assessments or similar) and propose mitigation as part of the approvals process.	Construction Decommissioning	Possible (C)	Minor (2)	Medium	Near neighbours, local communities, public transport providers and tourists
Accessibility	5a. Temporary reduced access to the section of the Great Southern Rail Trail that traverses the Project site (impact) .	The 130 km Great Southern Rail Trail traverses the Project site for approximately 4.1 km (approx. 3% of the entire length), passing within 65 metres of the Operations and Maintenance/substation/BESS complex.	Construction Decommissioning	Almost certain (A)	Minor (2)	Medium	Users (local community and visitors) of the rail trail and local businesses who may temporarily lose their patronage.

Impact / benefit Category	No. and description	Basis for consideration	Duration	Rating (pre-mitigation)			Impact / benefit scale
				Likelihood	Magnitude	Significance	
	5b. Potential increased competition for local accommodation by influx of non-local workforce during the construction and possibly the decommissioning phases (impact).	Local accommodation, both short- and long-term is finite (RealEstate.com, Google search and Airbnb snapshot data captured in January 2025). Non-local workforces of Projects in other locations have contributed to increased pressure on finite short- and long-term accommodation stocks causing: – local increases in rent (construction workers may be able to pay more rent than some locals) – displacement of vulnerable individuals, families and groups (evidence - reported by Mid-West Regional Council in the Central West Orana REZ; vulnerable household data from ABS Census data) – temporarily reduce tourism income in affected areas.	Construction Decommissioning	Likely (B)	Minor (2)	Medium	Local community, vulnerable and marginalised individuals and groups, tourists
	5c. Potential increased competition for community services such as health care by influx of non-local workforce during the construction and possibly the decommissioning phases (impact).	Healthcare resources in the local area are limited.	Construction Decommissioning	Unlikely (D)	Minor (2)	Low	Local community, including vulnerable community members
	5d. Increased access to renewable energy and security of energy supply during the 35-year operational phase (benefit).	Outcomes of the implementation of the renewable energy transition process.	Operation	Almost certain (A)	Minor (2)	Medium	Local and regional communities, State of Victoria
Livelihoods	6a. Increased local employment increasing prosperity (up to 85 FTE in construction and decommissioning phases and up to 5 FTE in the operations phase), with potential opportunities for under-represented groups (benefit).	Renewable energy Projects will employ local people as far as reasonably practical.	Construction Operation Decommissioning	Almost certain (A)	Moderate (3)	High	Local and regional workforce
	6b. Opportunity for local and regional workers to upskill and address employment barriers to increase pathways to employment in the renewable energy sector (benefit).	Workforce shortages across the renewable energy sector (JSA 2023). Various workforce transition programs in place in the region. Renewable energy training centres established in the region.	Construction Operation Decommissioning	Likely (B)	Moderate (3)	High	Local and regional workforce
	6c. Project-related local business opportunities at the local, regional, state, interstate and national scales together with increased local business revenue due to non-local workforce patronage (benefit).	It is likely that some local businesses would have the capability and capacity to supply relevant goods and services.	Construction Operation Decommissioning	Likely (B)	Minor (2)	Medium	Local and regional businesses and their employees
	6d. Increased Council revenue from the Project (benefit).	In accordance with state legislation, renewable energy generator proponents must make annual payments to local government (a fixed charge combined with a variable charge based on the generating site's capacity).	Operation	Almost certain (A)	Minor (2)	Medium	WS Council (Enhance provision of and/or maintenance of local services and infrastructure)

Impact / benefit Category	No. and description	Basis for consideration	Duration	Rating (pre-mitigation)			Impact / benefit scale
				Likelihood	Magnitude	Significance	
	6e. Remuneration of WTG hosts for the life of the Project (benefit).	Renewable energy generator proponents remunerate host landowners for the right to use their land for the construction and operation of renewable energy infrastructure. Dual use of the land (e.g. grazing and energy generation) enables a diversification of revenue and provides financial security.	Operation	Almost certain (A)	Minor (2)	Medium	WTG hosts, local communities
	6f. Neighbour benefit scheme (benefit).	Renewable energy generator proponents remunerate nearby neighbours on an annual basis during the operational phase of the renewable energy facility. Project neighbour benefit scheme under development.	Operation	Almost certain (A)	Minor (2)	Medium	Project neighbours, local communities
	6g. Project-related impacts on local property values and insurance premiums (impact).	Perceived concern has been raised by community members near other Projects. Property values are subject to multiple varying factors including cyclical market forces, location, prevailing economic climate, amenity characteristics etc.	Operation	Unlikely (D)	Minimal (1)	Low	Project neighbours, local communities
Cultural	7a. Loss of or impact on items or locations of Aboriginal cultural and/or heritage value (impact).	Utility scale renewable energy Projects are required to consult with First Nations groups regarding potential cultural heritage impacts Utility scale renewable energy Projects are required to provide technical reports and plans including identification of Project-related potential cultural and heritage impacts and propose mitigation as part of the approvals process.	Construction Operation Decommissioning	Unlikely (D)	Minimal (1)	Low	First Nations community group
Decision making systems	8a. Local individuals and groups may feel powerless and/or that they don't have a say or are not heard; some individuals may not want to participate in Project engagement activities regardless of communication efforts (impact).	Project-related risk; the decision-making process is perceived in different ways by people and this perception can be subject to change as circumstances vary.	Construction Operation Decommissioning	Possible (C)	Minimal (1)	Low	Project neighbours, individuals and local community groups, local communities

Table 7.2 Socio-economic benefits and impacts significance assessment (post-mitigation)

Impact / benefit category	No. and description	Rating (pre-mitigation)	Examples of potential avoidance, mitigation, management or enhancement measures	Rating (post-mitigation)			Residual impact
				Likelihood	Magnitude	Significance	
Community	1a. Short-term community cohesion impacts due to an influx of non-local workers into the local area during the 24-month construction phase and the decommissioning phase (impact).	Medium	Regular, timely and appropriate communications with relevant stakeholders in accordance with Project specific community and stakeholder engagement plan. Investigation of options to maximise employment of local workers. Worker Code of Conduct – to include expected behaviours on- and off-site. Rigorous complaints management system implemented.	Unlikely (D)	Minor	Low	No
	1b. Increased community investment through community benefit sharing program to be implemented throughout the 35-year operational phase (benefit).	High (benefit)	Publicise community benefit sharing program (CBSP) in accordance with Project specific community and stakeholder engagement plan. Continued engagement with the community stakeholders to ensure the program is relevant to community values and aspirations.	Almost certain (A)	Moderate (3)	High	Benefit
Surroundings	2a. Changes in landscape characteristics and visual amenity (impact).	Medium	Implementation of recommendations in relevant technical reports, management plans and any Agency advice regarding mitigation and monitoring actions. Compliance with any relevant Ministerial permit conditions.	Almost certain (A)	Minimal (1)	Low	No
	2b. Changes in land use and loss of productive agricultural land through the siting of renewable energy infrastructure throughout the entire Project (impact).	Low	The Project footprint is small due to the modest number of WTGs and will have minimal impact on current agricultural land uses which will continue throughout the operational phase in conjunction with renewable energy generation. This impact considered minimal at the local and at the regional scale.	Almost certain (A)	Minimal (1)	Low	No
	2c. Safety and hazard risks (perceived and actual) throughout the entire Project but particularly during the construction and decommissioning phases when site activities are most intense (e.g. risk of fire breakout in a nacelle) (impact).	Low	Implementation of recommendations in relevant technical reports, management plans and any Agency advice regarding mitigation and monitoring actions. Liaise with and implement relevant recommendations made by safety agencies and regulators such as the Country Fire Authority and Energy Safe Victoria. Compliance with any relevant Ministerial permit conditions.	Very unlikely (E)	Minor (2)	Low	No
Health and well being	3a. Project-related psychological health impacts (uncertainty and stress, concern regarding the exposure of individuals and others to perceived or actual Project-related emissions) during the construction and operation phases (impact).	Medium	Regular, timely and appropriate communications with relevant stakeholders in accordance with Project specific community and stakeholder engagement plan.	Very unlikely (E)	Minimal (1)	Low	No
	3b. Temporary physiological impacts through exposure to construction-generated environmental emissions such as noise and dust during the construction and decommissioning phases (impact).	Medium	The construction phase is scheduled to be a relatively short 24-month duration. Regular, timely and appropriate communications with relevant stakeholders in accordance with Project specific community and stakeholder engagement plan. Compliance with relevant guidance and regulations.	Unlikely (D)	Minimal (1)	Low	No

Impact / benefit category	No. and description	Rating (pre-mitigation)	Examples of potential avoidance, mitigation, management or enhancement measures	Rating (post-mitigation)			Residual impact
				Likelihood	Magnitude	Significance	
			Implementation of recommendations in relevant technical reports, management plans and any Agency advice regarding mitigation and monitoring actions during the construction phase. Compliance with any relevant Ministerial permit conditions.				
	3c. Chronic health impacts (physiological and psychological) caused by Project-related environmental emissions (e.g. noise during the operational phase causing sleep deprivation) (impact).	Low	Regular, timely and appropriate communications with relevant stakeholders in accordance with Project specific community and stakeholder engagement plan. Compliance with relevant guidance and regulations. Implementation of recommendations in relevant technical reports, management plans and any Agency advice regarding mitigation and monitoring actions during the operational phase. Compliance with any relevant Ministerial permit conditions.	Unlikely (D)	Minimal (1)	Low	No
	3d. Health impacts due to Project-related vehicle movements on local roads temporarily increasing the risk of road traffic accidents (e.g. during times of transporting large site infrastructure components mainly during the construction and decommissioning phases) (impact).	Medium	Regular, timely and appropriate communications with relevant stakeholders e.g. Council, National Heavy Vehicle Regulator, Project neighbours etc., in accordance with Project specific community and stakeholder engagement plan. Compliance with relevant guidance and regulations. Implementation of recommendations in relevant technical reports, management plans and any Agency advice regarding mitigation and monitoring actions. Compliance with any relevant Ministerial permit conditions.	Unlikely (D)	Minimal (1)	Low	No
Way of life	4a. Temporarily changed traffic conditions on local roads caused by workforce vehicle movements, the delivery of Project infrastructure and possible road upgrades may disrupt peoples' freedom of movement (e.g. access to their homes, daily commute delays) potentially causing inconvenience and frustration; occurring mainly during the construction and decommissioning phases (impact).	Medium	Implementation of recommendations in relevant technical reports, management plans and any Agency advice regarding mitigation and monitoring actions. Explore options to reduce/manage workforce vehicle movements where practicable. Compliance with any relevant Ministerial permit conditions. Regular, timely and appropriate communications with relevant stakeholders e.g. Project neighbours etc., in accordance with Project specific community and stakeholder engagement plan.	Unlikely (D)	Minor (2)	Low	No
Accessibility	5a. Temporarily reduced access to the 4.1 km section of the Great Southern Rail Trail that traverses the Project site during the construction and decommissioning phases (impact).	Medium	Regular, timely and appropriate communications with relevant stakeholders e.g. posts on the Great Southern Rail Trail website regarding potential closures etc., in accordance with Project specific community and stakeholder engagement plan. Explore options to minimise rail trail closures such as Project scheduling and security fencing to restrict trail user access to specific areas.	Unlikely (D)	Minimal (1)	Low	No

Impact / benefit category	No. and description	Rating (pre-mitigation)	Examples of potential avoidance, mitigation, management or enhancement measures	Rating (post-mitigation)			Residual impact
				Likelihood	Magnitude	Significance	
	5b. Potential increased competition for local accommodation by influx of non-local workforce during the construction and possibly the decommissioning phases (impact).	Medium	Modest Project construction workforce numbers (with the peak workforce estimated at 85 workers for a 3-month period) will reduce Project-related accommodation impacts. Investigation of options to minimise worker accommodation requirements e.g.: – maximise employment of local workers who already reside in the area. – investigation of local and regional accommodation options prior to construction commencement – extend Project scheduling to reduce workforce requirements.	Unlikely (D)	Minimal (1)	Low	No
	5c. Potential increased competition for community services such as health care by influx of non-local workforce during the construction and possibly the decommissioning phases (impact).	Low	Modest Project construction workforce numbers (with the peak workforce estimated at 85 workers for a 3-month period) will reduce Project-related community services impacts. Investigate and implement actions to maximise the local worker component of the Project construction workforce (for example, local workers will already be registered with a local medical practitioner). Investigate and implement actions to manage non-local workforce expectations and use of local community services, particularly health care.	Unlikely (D)	Minimal (1)	Low	No
	5d. Increased access to renewable energy and security of energy supply during the 35-year operational phase (benefit).	Medium (benefit)	The Project, if approved, will contribute to Victoria's renewable energy transition and associated targets.	Almost certain (A)	Minor (3)	Medium	Benefit
Livelihoods	6a. Increased local employment increasing prosperity (up to 85 FTE in construction and decommissioning phases and up to 5 FTE in the operations phase), with potential opportunities for under-represented groups (benefit)	High (benefit)	Investigate and implement actions aimed at maximising the local worker component of the Project construction workforce.	Almost certain (A)	Moderate (3)	High	Benefit
	6b. Opportunity for local and regional workers to upskill and address employment barriers to increase pathways to employment in the renewable energy sector (benefit)	High (benefit)	Engage with providers of local programs designed to train workers in skills relevant to the renewable energy industry may be a source of local workers.	Almost certain (A)	Moderate (3)	High	Benefit
	6c. Project-related local business opportunities at the local, regional, state, interstate and national scales during all phases of the Project, together with increased local business revenue due to non-local workforce patronage (benefit)	Medium (benefit)	Investigate and implement actions to maximise Project-related opportunities for local businesses.	Likely (B)	Minor (2)	Medium	Benefit
	6d. Increased Council revenue from the Project during the 35-year operational phase (benefit)	Medium (benefit)	Legislative requirements are in place regarding this matter.	Almost certain (A)	Minor (2)	Medium	Benefit

Impact / benefit category	No. and description	Rating (pre-mitigation)	Examples of potential avoidance, mitigation, management or enhancement measures	Rating (post-mitigation)			Residual impact
				Likelihood	Magnitude	Significance	
	6e. Remuneration of WTG hosts during the 35-year operational phase (benefit)	Medium (benefit)	Agreements will be in place regarding this matter.	Almost certain (A)	Minor (2)	Medium	Benefit
	6f. Neighbour benefit scheme during the 35-year operational phase (benefit)	Medium (benefit)	Neighbour benefit scheme will be implemented when finalised.	Almost certain (A)	Minor (2)	Medium	Benefit
	6g. Project-related impacts on local property values and insurance premiums (impact)	Low	The Clean Energy Council has issued a fact sheet which states that wind farms do not negatively impact property prices. The Insurance Council of Australia is unaware of any instances where property insurance has not been provided, or premiums have increased due to a property hosting renewable energy infrastructure (Clean Energy Council (no date)).	Unlikely (D)	Minimal (1)	Low	No
Cultural	7a. Loss of or impact on items or locations of Aboriginal cultural and/or heritage value (impact)	Medium	Implementation of recommendations in relevant technical reports, management plans and any Agency advice regarding mitigation and monitoring actions. An approved Cultural Heritage Management Plan exists. Regular, timely and appropriate communications with relevant stakeholders in accordance with Project specific community and stakeholder engagement plan. Compliance with any relevant Ministerial permit conditions.	Unlikely (D)	Minimal (1)	Low	No
Decision making systems	8a. Local individuals and groups may feel powerless and/or that they don't have a say or are not heard; some individuals may not want to participate in Project engagement activities regardless of communication efforts (impact)	Low	Clear and transparent communications opportunities open to the public regarding the planning decision process.	Unlikely (D)	Minimal (1)	Low	No

8 Cumulative impacts

8.1 Overview of nearby renewable energy Projects

Nearby large-scale projects can cause cumulative impacts (and benefits). For instance, if the construction and/or decommissioning phases of projects within a given vicinity of each other partly or completely overlap, impacts associated with incoming workforces, the supply of goods and/or services or project-logistics can be exacerbated.

Cumulative impacts associated with construction and decommissioning phases are generally short-lived but intense in nature. Impacts include construction workforce sourcing, temporary accommodation, service needs such as medical care, utility demands e.g. water, and transport movements associated with workforce and site infrastructure deliveries. Cumulative impacts associated with the operational phase are of a much longer duration (three decades or more) but less intense as the workforce is significantly smaller and transport movements are fewer.

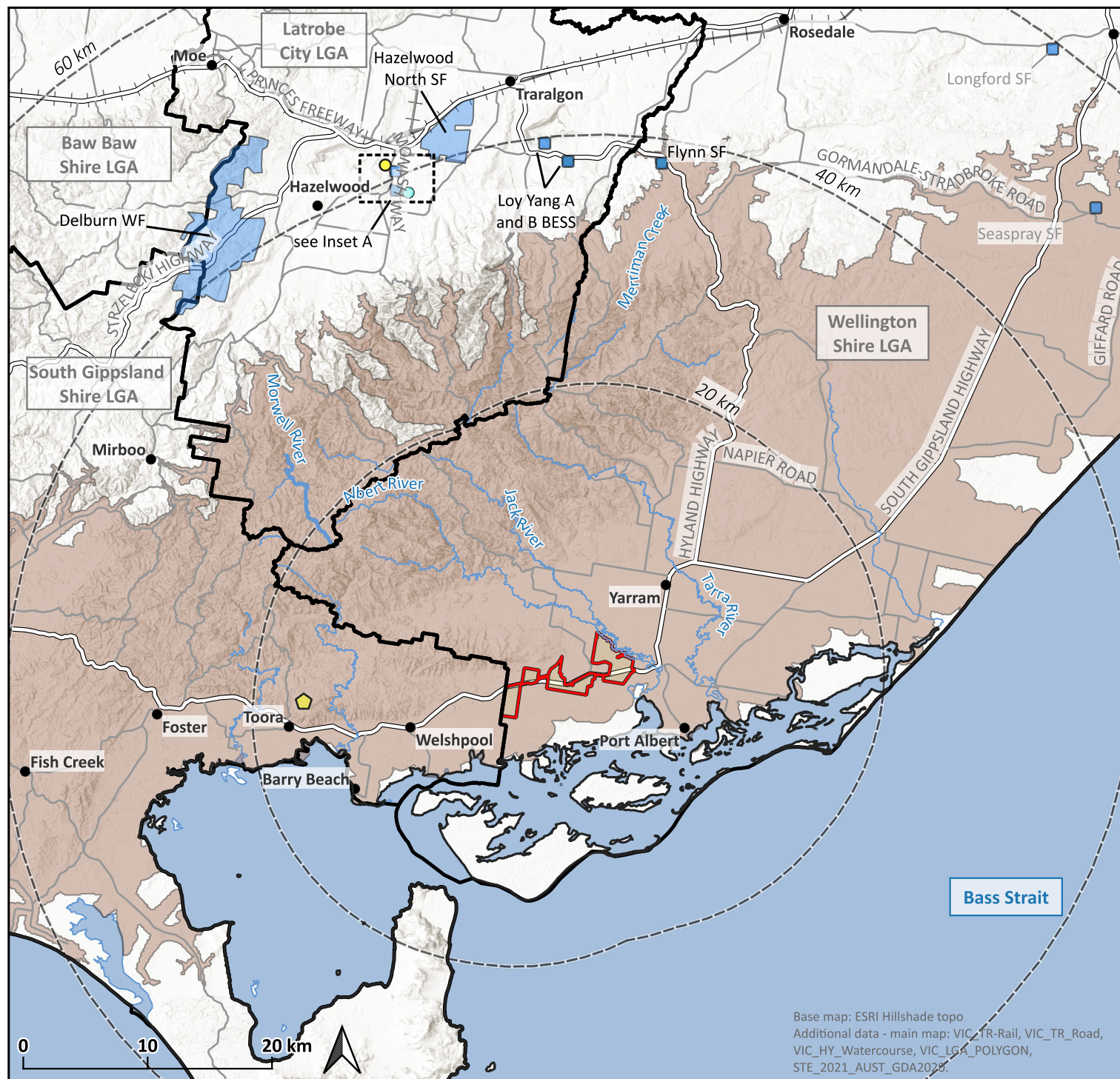
As at the time of this report, the authors were not aware of other large-scale industrial projects, approved or in planning in the vicinity of the Project, other than renewable energy projects. As such, the Victorian Government's *Renewable Energy Projects Victoria* map share platform⁸ was reviewed to identify large-scale renewable energy projects, which due to their proximity to the Project might drive cumulative impacts on local and regional communities including influx of high numbers of non-local workers, increased traffic movements, deteriorating transport routes, increased competition for accommodation etc.

As of May 2025, there were approximately ten renewable energy Projects within a 40 km radius of the Project⁹ These Projects are shown in Figure 9.1 and are as follows:

- one Project is operational (Toora WF)
- one Project is currently shelved and may not proceed to construction (Morwell SF)
- five approved BESS Projects (Loy Yang A, Loy Yang B, and Bennetts Creek BESS), with two under construction (Wooreen and Latrobe Valley BESS)
- one approved wind farm in the preconstruction phase (Delburn WF)
- two approved solar farm Projects (Hazelwood North SF and Flynn SF)

⁸ The platform is an interactive, open source map of current large-scale solar, wind, battery and bioenergy projects across the state of Victoria.

⁹ Information sourced from <https://mapshare.vic.gov.au/planningwebmaps/RenewablesSummary.html> and <https://gippslandnewenergy.com.au/maps/>.



AE1289 Gelliondale WF **Figure 6.1 Neraby renewable energy and energy storage projects**

Created: 6/05/2025

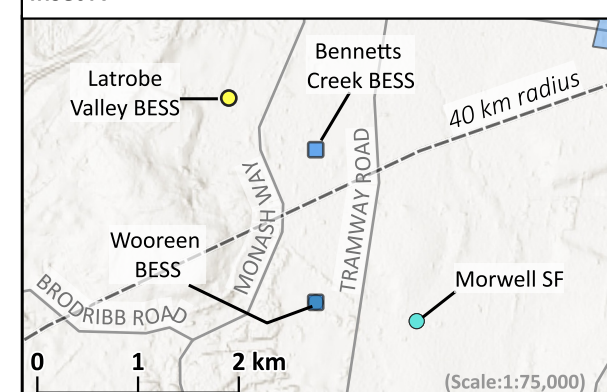
CRS: GDA 20 MGA 55

Scale: 1:450,000 at A4 (main map)

Page size: A4

- Town
- Approved project
- Project under construction
- ◆ Project operational
- ▲ Proposal phase
- Project unlikely to proceed
- ⋈ Railway
- Road
- Watercourse
- ▭ Project site
- ▭ LGA boundary
- SSDs_May2025
- Indicative 60-minute commute radius (by motor vehicle)
- ▭ LGA boundary
- ▭ Radius from project site (20 km intervals)

Inset A



Based on the information available at the time of the assessment, the following conclusions can be made in relation to potential cumulative impacts:

- Projects that will not, or are unlikely to have any construction phase cumulative impacts include:
 - Toora WF (operational since 2002)
 - Morwell SF (currently on hold)
 - Wooreen and Latrobe Valley BESSs are unlikely to have any cumulative impacts with the Project as their construction phases are likely to be complete before the Project's anticipated construction start date.
- A construction phase overlap may occur with Delburn WF; though this may create minor cumulative impacts regarding workforce, accommodation needs and Project-related vehicle movements. The Delburn WF may be a potential source of suitable workers for the Project. Cumulative impacts between the Project and Delburn WF are expected to be minimal as there will likely be no overlap of peak construction phases.
- Details regarding the commencement of construction of the remaining five approved Projects within the 40 km radius of the Project are sparse. It is possible that there may be some cumulative impacts. However, it is likely the cumulative impacts will be spatially constrained, e.g. to shared traffic routes between nominated ports and workforce accommodation locations in the Latrobe Valley. Construction-related cumulative impacts are anticipated to be minimal.

The Project is minor in size (13 WTGs) and workforce requirements. On top of that, the other large-scale renewable energy projects identified within a 40 km radius seem to be separated either geographically or through their respective construction schedules. As such, this assessment concludes that minimal cumulative impacts with other large-scale renewable energy projects are to be expected.

However, the authors recommend that the Project proponent continues to engage with councils, and also other project proponents to pro-actively minimise potential cumulative impacts and to increase potential synergies / benefits for local communities and businesses.

9 Conclusions and recommendations

Overall, this assessment concludes that the Project will be economically beneficial throughout its lifecycle at the local, regional and state level with no residual socio-economic impacts to be expected, subject to the implementation of industry-standard management and control measures.

The direct and indirect Project-related economic benefits will significantly outweigh expected costs.

Key findings and conclusions are summarised below:

- The Project's economic benefits significantly outweigh the costs. The Project will require approximately A\$388 million in investment over the 24-month construction phase with up to 15 to 30% expected to flow directly to the regional study area economy through direct contracts and labour wages.
- The anticipated economic costs of the Project are expected to be minimal. No significant impacts in terms of loss of productive agricultural land and/or the provision of agricultural produce is expected. On the contrary, associated landholders are expected to benefit from diversifying the existing land use and providing supplementary, guaranteed income from the Project.
- It is estimated that the Project will result in 320,000 tonnes of CO₂ abatement per year, which amounts to an estimated greenhouse gas emissions value of approximately A\$2.4 billion over the 35-year Project's operational life, contributing to national and state goals of reducing greenhouse gas emissions.
- The Project will require approximately 60 FTE on average during construction but will support up to 85 FTE workers at the peak. The Proponent expects 50% of these workers to be sourced locally, providing opportunities for businesses and workers located in the regional study area to develop necessary skills in wind Project construction. This should create efficiencies for future renewable energy Projects proposed in the surround regions. Significant indirect jobs will also be supported during both the construction and operational phases.
- Additionally, once operational, up to 5 FTE, all locally based, will be supported by the Project generating A\$17.1 million in wages over the 35-year of Project's operational life.
- Non-local construction workers relocating to the regional study area are expected to spend up to \$1.7 million in additional spending into the economy over the construction phase.
- CBSP payments amounting to around A\$180,000 per annum will be dispensed, amounting to A\$6.3 million worth of funds to be dispensed during the 35-years of Project operations.

Potential socio-economic impacts of the Project with a medium significance rating (pre-mitigation) were identified. However, these impacts can be mitigated and managed through

the appropriate planning and implementation of industry-standard management and control measures.

The authors recommend below management and control measures to minimise and manage potential socio-economic impacts:

- Short-term community cohesion impacts due to an influx of non-local workers during construction and commissioning phases and increased competition for accommodation. In particular, local and regional long-term rental properties are in very high demand (Section 4.11.3). As such, appropriate planning and management of a portfolio of accommodation options for non-local workers should be completed well in advance of the anticipated construction start to avoid and/or minimise potential impacts.
- Long-term changes in landscape characteristics and visual amenity. The mitigation of potential landscape character and visual amenity impacts is a priority for the Project, although the overall expected impact (pre-mitigation) is assessed as medium only due to the modest size of the Project (13 WTG). The recommendations from landscape and visual impact assessments should be carefully considered when designing and implementing appropriate landscaping and screening solutions.
- Short-term access, amenity and potential health and safety impacts potentially caused by construction and decommissioning activities including from Project-related traffic volumes and control measures, as well as dust and noise emissions must be minimised. The implementation of standard technical assessments and industry-standard management and control measures is deemed sufficient to minimise potential impacts.

Potential cumulative impacts with other renewable energy projects in the region (within a radius of 40 km) are low to negligible as at the time of report writing.

Despite residual socio-economic impacts (post-mitigation) expected to be low to negligible, the authors recommend implementation of appropriate monitoring and adaptive management measures to ensure impacts are effectively minimised. This should be accompanied by ongoing engagement with key stakeholders including the WS Council, the GLaWAC, industry bodies and platforms, local communities and community organisations.

Opportunities to optimise potential economic and social benefits at the local, regional and state level should be sought pro-actively together with other nearby project proponents and other relevant stakeholders.

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Appendix A: Detailed methodology

11 Appendix A – Detailed methodology

This section describes the detailed methodology used to determine the socio-economic baseline and impact assessment for the Project.

There is currently no specific Victorian guidance regarding social impact assessment. The social assessment documented in this report were derived using a combination of established and industry-tested economic and SIA methodologies, principles and frameworks described in published documents including:

- *International Principles for Social Impact Assessment* (Vanclay 2003)
- *Social Impact Assessment: Guidance for Assessing and Managing the Social Impacts of Projects* (Vanclay et al. 2015)
- *Social Impact Assessment: Guidance for assessing and managing the social impacts of Projects* (International Association for Impact Assessment 2015)
- *Social Impact Assessment Guideline* (NSW Department of Planning, Industry and Environment (DPIE) 2023a)
- *Technical Supplement - Social Impact Assessment Guideline for State Significant Projects* (DPIE 2023b).

The following Victorian documents were also consulted regarding social and economic impact assessment:

- *Planning Guidelines for the Development of Wind Energy Facilities* (Department of Transport and Planning (DTP) 2023)
- *Community Engagement and Benefit Sharing in Renewable Energy Development in Victoria* (Department of Environment, Land, Water and Planning (DELWP) 2021).

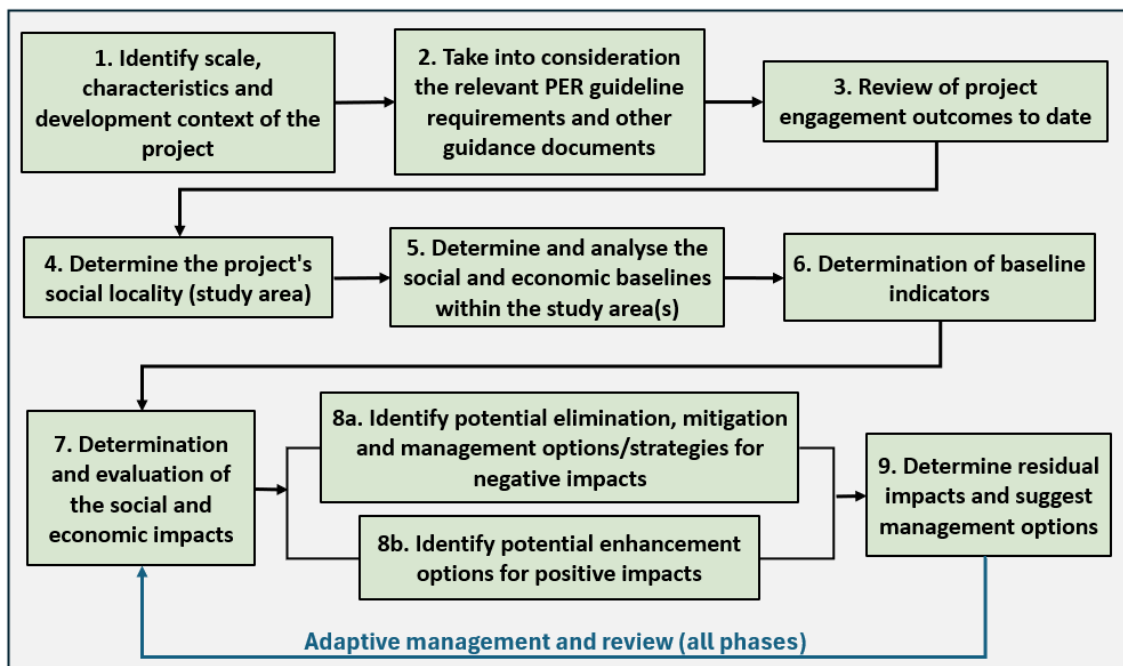


Figure 11.1 Socio-economic impact assessment process

11.1 Determination of baseline indicators

11.1.1 Social baseline indicators

The social baseline indicators summarised in Table 11.1 have been applied to this study. Potential Project-related impacts can be categorised using these baseline indicators to facilitate meaningful assessment.

Table 11.1 Social baseline indicators and definitions

Social impact	Definition
Way of life	Including how people live, work, play and interact.
Community	Including composition, cohesion, character, how it operates and sense of place.
Accessibility	Including how people access and use infrastructure, services and facilities provided by public, private or not-for-profit organisations.
Culture	Including shared beliefs, customs, values and stories and connection to Country, land, places, waterways and buildings, both Aboriginal and non-Aboriginal.
Health and wellbeing	Including physical and mental health, especially for vulnerable people.
Surroundings	Including ecosystem services such as erosion control and public safety and security, and access to and use of natural and built environment, and aesthetic value and amenity.
Livelihoods	Including how people sustain themselves through employment or business, their capacity to do so, and whether disadvantage is experienced.
Decision-making systems	Including the extent to which people can have a say in decisions that affect their lives, and have access to complaint, remedy and grievance mechanisms.

11.1.2 Economic baseline indicators

A cost-benefit assessment was conducted, which involved evaluating the economic pros and cons of the Project, focusing on the following key indicators:

- **Investment:** The analysis assessed the total capital required for the Project, including initial setup costs, ongoing operational expenses, and any additional investments needed over the Project's lifecycle, including the CBSP spending.
- **Employment:** It estimated the number of jobs created by the Project. This included construction jobs, operational roles, and any ancillary employment generated in the regional economy.
- **GHG Emissions:** The impact on greenhouse gas (GHG) emissions was evaluated. This involved calculating reductions in emissions due to the Project's implementation.

- **Agricultural Impacts:** The analysis examined the effects on agriculture due to the loss of land. This included assessing the reduction in agricultural output, changes in land use, and any potential impacts in terms of loss of associated livelihoods.
- **Other impacts:** The analysis considered other impacts including impacts of retail expenditure on the local and regional economies.

By comparing the quantified costs and benefits across these indicators, the approach provides an assessment of the Project's overall potential for economic impact.

11.2 Social impact assessment

Project-related benefits and impacts refer to potential changes that caused by a Project can be experienced by people. These benefits and impacts can be perceived in different ways, depending upon their individual circumstances and values. As such, impact perceptions are dynamic and to some degree subjective and can change over time and from place to place.

A likelihood and magnitude matrix methodology was applied to assess the significance of social impacts and is assessed, as far as practicable, from the perspective of those likely to be affected.

The likelihood criteria (an indication of the chance or probability of something happening) are shown in Table 11.2.

Table 11.2 Likelihood criteria applied to Project-related predicted impacts

Rating	Likelihood level	Definition
A	Almost certain	Definite or almost definitely expected (e.g., has happened on similar Projects)
B	Likely	High probability
C	Possible	Medium probability
D	Unlikely	Low probability
E	Very unlikely	Improbable or remote probability

Source: SIA Technical Supplement (DPE 2023b)

Various aspects are considered when assigning social impact magnitude ratings including:

- extent (those affected and their location)
- duration (when and timeframe)
- intensity or scale (extent and severity)
- sensitivity or importance (how the potential impact may affect people and how resilient/vulnerable they may be)
- level of concern/interest (how concerned people may be to a potential impact).

The magnitude criteria used to assess how social impacts are experienced by the community and stakeholders are shown in Table 10.3.

Table 11.3 Magnitude criteria applied to Project-related predicted impacts

Rating	Magnitude level	Description
1	Minimal	Little noticeable change experienced by people in the locality
2	Minor	Mild deterioration/improvement, for a reasonably short time, for a small number of people who are generally adaptable and not vulnerable
3	Moderate	Noticeable deterioration/improvement to something that people value highly, either lasting for an extensive time, or affecting a group of people
4	Major	Substantial deterioration/improvement to something that people value highly, either lasting for an indefinite time, or affecting many people in a widespread area.
5	Transformational	Substantial change experienced in community wellbeing, livelihood, infrastructure, services, health, and/or heritage values; permanent displacement or addition of at least 20% of a community.

Source: SIA Technical Supplement (DPIE 2023b)

The likelihood and magnitude criteria are combined in the significance matrix in Table 11.4.

Table 11.4 Social impact significance matrix

Social impact significance		Magnitude				
		1	2	3	4	5
Likelihood level		Minimal	Minor	Moderate	Major	Transformational
A	Almost certain	Low	Medium	High	Very high	Very high
B	Likely	Low	Medium	High	High	Very high
C	Possible	Low	Medium	Medium	High	High
D	Unlikely	Low	Low	Medium	Medium	High
E	Very unlikely	Low	Low	Low	Medium	Medium

Source: SIA Technical Supplement (DPIE 2023b)

11.3 Mitigation and management measures

The management measures outlined in this report seek to prevent or mitigate the impacts and optimise the potential benefits. The key to ongoing social acceptance of a Project is to monitor, assess and manage impacts, and to respond to individual or community perceptions and opinions throughout the Project lifecycle. Project-related impacts may vary over time and need to be monitored to enable the adaptation of mitigation strategies to ensure their ongoing effectiveness.

Impacts assessed with a significance rating of medium, high or very high require management measures, e.g. such as:

- mitigation integrated in design (avoidance and reduction)
- impact abatement at source or receptor (e.g., landscaping, noise dampening/attenuation)
- Consideration of advances in key technical components, e.g. sensor and remote-control components, that may become available on the market and be a viable alternative to components proposed for inclusion in the Project at the time of planning application
- loss or damage compensation or offsets.

11.4 Residual impact identification

Residual impacts are those which remain or were unanticipated following mitigation and management actions. These are assessed in Section 7.

11.5 Stakeholder consultation

A summary of stakeholder and community engagement activities and outcomes is given in Section 5.

11.6 Data sources, assumptions and exclusions

A summary of the social and economic baseline data sources is provided in Section 11.6.1 and potential sources of error, assumptions and exclusions in the data sets selected are discussed in Section 11.6.2.

11.6.1 Social and economic baseline data sources

A series of queries regarding the social and economic aspects have been developed as a guide to indicate the most appropriate data sets required to establish the socio-economic baseline, as shown in Table 11.5.

Table 11.5 Key questions, related indicators and data sources

Key factors	Social and economic indicators	Data sources
What are the community demographics of the study areas and are there any trends? What renewable energy industry-relevant skills exist in the region, particularly for the construction and operation of the Project? Are there language, cultural or educational barriers impeding the participation of certain groups i.e. any Project engagement adaptations required?	Baseline population and indicative trends/forecasts Key industries of employment Unemployment rate Educational attainment Age distribution and median age Ownership and tenure of private dwellings Proportion of vulnerable groups (First Nations people, elderly, infirm, low-income families, unemployed, people with disabilities) Which towns are in the 60-minute commute catchment?	ABS Census 2021 SA1 20505110405 SA1 20505110409 UCLs: Yarram, Foster, Traralgon, Morwell, Moe-Newborough, Sale SAL: Rosedale LGA: Wellington Shire .idcommunity – Wellington Shire: community profile, social atlas, population forecast, economic profile Realestate.com.au Dec 2024 Wellington Shire Council web pages SQM Research Small Area Labour Markets (SALM) TravelTime Application Programming Interface
What are the Victorian Government's and Council's key priority areas? Does the proposed Project align with Council's strategic plan?	Support for renewables at local and state government levels Alignment of the Project with relevant aspects of local and state government policy	Government strategic plans and policies Renewable Energy Projects in Victoria interactive map Cheaper, Cleaner, Renewable: Our Plan for Victoria's Electricity Future (Aug 2024) Gippsland 2035 Regional Development Plan Latrobe Valley Authority – Energy in Gippsland Report Wellington Shire Council Planning Scheme Community Vision 2031 Wellington Shire Sustainability Strategy 2020-24 Wellington Shire Council Plan 2021-2025

		Wellington Shire Economic Development Strategy (2016-2022) Wellington Renewable Energy Impact and Readiness Study
What are the perspectives of First Nations People? Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC)	Number of First Nations People in the workforce Outcomes following engagement with First Nations People, groups and representatives	Pathways to Partnership – Gunaikurnai and Major Projects <u>Recognition and Settlement Agreement</u> Leading Practice principles: First Nations and Renewable Energy Projects Engagement outcomes to date
What are the prevailing factors driving the local and regional economies?	Sectors contributing to local and regional economy Number of construction and operational jobs	State and local GDP - .id-economy Capital investment value of the Project
What are peoples' general attitudes to the renewable energy transition, both regional and local?	Statistics provided in recent surveys and reports regarding the renewable energy transition Local reactions to similar Projects in the area Web sites of local groups e.g. Guardians of Nooramunga Coastal Communities, Landcare Groups (e.g. Hedley, Alberton and Alberton River)	Outcomes of Gelliondale WF consultation to date Reports and surveys CSIRO Australian attitudes toward the renewable energy transition Pts. 1 and 2 Victorian Trades Hall Council survey conducted by the Redbridge Group in 2020. Internet search on key words
What natural disasters and major incidents have impacted communities and the local environment in the recent past?	Potential stressors that have adversely impacted locals e.g. pandemics, bush fires and floods	COVID-19 Impact and Recovery in Latrobe report Hazelwood Mine Fire Inquiry Report. After the Hazelwood coal fired power station closure <u>History of Fire in Gippsland Overview web page</u> Wellington Municipal Flood Emergency Plan

How is the general health of the community (both physiological and psychological)?	Level of chronic disease, health risk factors and premature death in the community Crime rate and common crime types in Wellington LGA Level of volunteering in the community	ABS 2021 PHDIU 2021 Gippsland Region Health Catchment Plan Crime Statistics Agency data – Latest crime data by area
What is the socio-economic status of the community?	Socio-Economic Indexes for Areas (SEIFA) 2021 Index of Household Advantage and Disadvantage (IHAD 2021)	ABS SEIFA data 2023 (based on ABS Census 2021) ABS IHAD data 2024 (based on ABS Census data 2021)
What strategies are in development or underway preparing the region and workforce for the renewable energy transition?	How will existing infrastructure, supply chains and workforce evolve to meet renewable energy transition requirements now and in the future?	Victorian Renewable Energy Zones Development Plan Directions Paper (Feb 2021) 2024 Victorian Transmission Renewable Energy Impact and Readiness Study (SG and LC Councils, Aug 2024) State Government web site: Free TAFE for more Victorians and Learn Local web pages Transition Opportunities: Coal to Offshore Wind Jobs Victoria New Energy Project Clean Economy Workforce Transition Framework for Gippsland (TAFE Gippsland)

11.6.2 Data assumptions, error sources and exclusions

This section outlines any assumptions that apply to this study including limitations to data and potential sources of error.

This study is based on the outcomes of a desktop study, field visit, and information made available or publicly available at the time of writing. Assumptions are based on the Project indicative layout, estimated workforce, estimated logistical movements and stakeholder/community feedback up to May 2025.

The Project team did neither directly engage in community and/or stakeholder consultation nor did it collect primary data.

The ABS has published information regarding its data product limitations. These are provided in Table 11.6.

Table 11.6 ABS data error types

Error type	Description
Respondent error	People (respondents) may provide incorrect answers either intentionally or unintentionally for various reasons.
Processing error	Most census forms are completed online. Errors may occur during the automatic coding of written text responses. Census data collected using paper forms are read using Intelligent character recognition and other automated processes; errors may arise.
Non-response	A small proportion of households may not provide census data or may not submit a response to all questions. In such instances, missing variables may be imputed based on responses from similar dwellings.
Undercount	A small number of people will be missed and some may be counted more than once. The former is more common and may lead to parameter undercounts.

Source: ABS – [Managing Census quality \(ABS 2022a\)](#)

A comparison of SEIFA indexes between Census years has not been carried out for this study for various reasons including changes in the ASGS editions and changes in the variables which underpin them. The indexes are assigned to areas and indicate the collective socio-economic characteristics of the people living in an area. The ABS advises precaution if performing longitudinal or time series analysis.

The TravelTime API in an interface used with QGIS and can generate a variety of outcomes including travel time isochrones (a line on a map connecting points to the same time). The algorithm requires several inputs including travel date, travel time and mode of transport. The isochrones created may underestimate the extent of the input travel time (when verified with a freely available product like GoogleMaps). Therefore, travel time isochrones used in this report are for indicative purposes.

The cumulative impact assessment is based on publicly available data. This data e.g. anticipated construction start dates, is indicative only and may be subject to review and

amendment later. Therefore, the cumulative impact assessment outcomes in this report should be considered as indicative.

The area of social influence may extend beyond the local and regional study areas and the towns and localities that they contain. For instance, construction workers may come from further afield (other parts of Victoria or interstate) and require local accommodation. Project infrastructure is likely in part to come from overseas and will need to be transported from receiving port to the Project site.