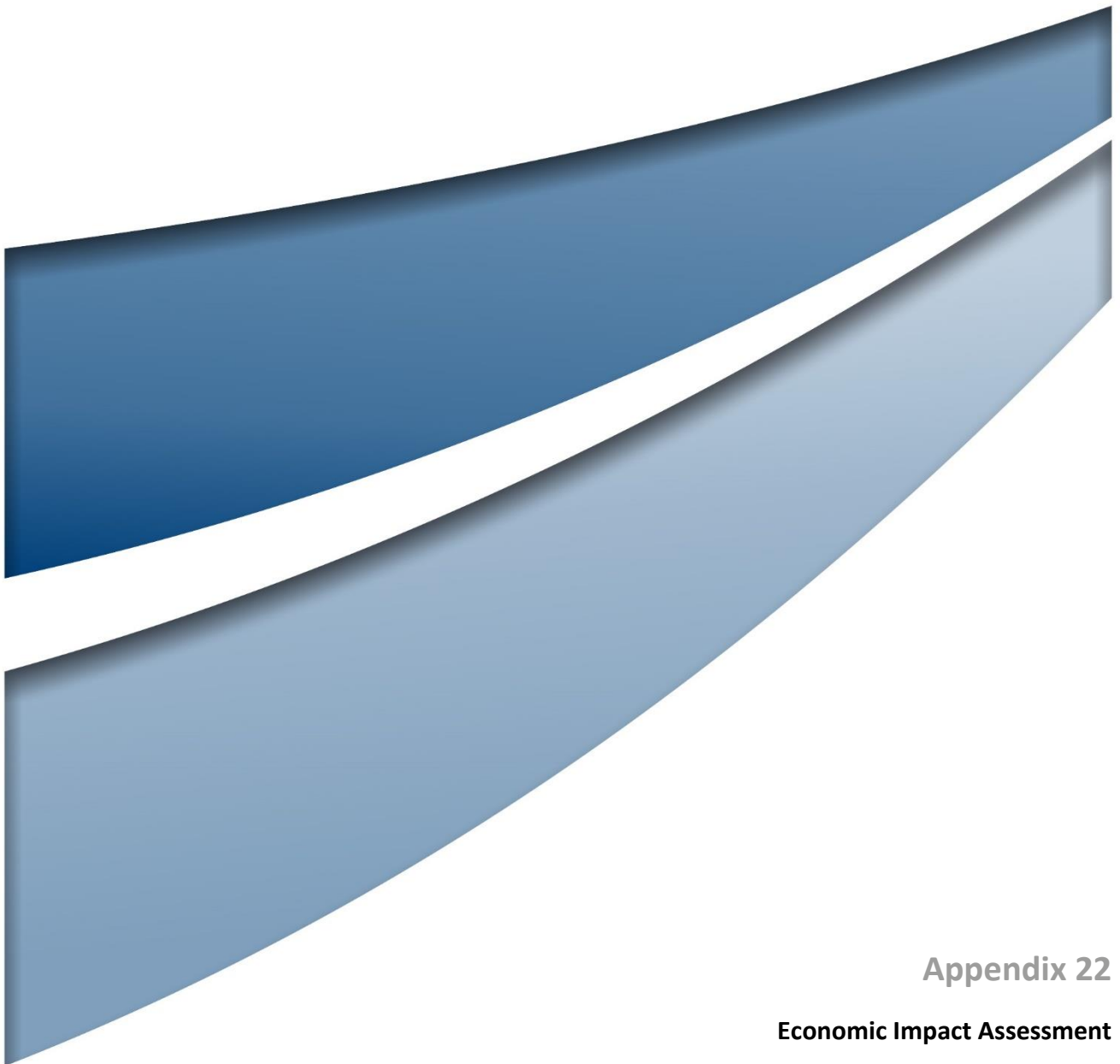




Appendix 22

Economic Impact Assessment

Junction Rivers Wind Farm

Economic Impact Assessment (EIA)





'Gura Bulga'

Liz Belanjee Cameron

'Gura Bulga' – translates to Warm Green Country. Representing New South Wales.



'Dagura Buumarri'

Liz Belanjee Cameron

'Dagura Buumarri' – translates to Cold Brown Country. Representing Victoria.



'Gadalung Djarri'

Liz Belanjee Cameron

'Gadalung Djarri' – translates to Hot Red Country. Representing Queensland.

Ethos Urban acknowledges the Traditional Custodians of Country throughout Australia and recognises their continuing connection to land, waters and culture.

We pay our respects to their Elders past, present and emerging.

In supporting the Uluru Statement from the Heart, we walk with Aboriginal and Torres Strait Islander people in a movement of the Australian people for a better future.

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This document has been prepared by:

This document has been reviewed by:

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Executive Summary

Windlab (the Proponent) is seeking to develop the proposed Junction Rivers Wind Project (the Project) in the NSW South West Renewable Energy Zone (SW REZ). The Project Area is located approximately 15 kilometres (km) southeast of Balranald and approximately 60km north of Swan Hill, and is positioned in the Murray River Local Government Area (LGA).

The Project will involve the construction (potentially over two stages), operation and decommissioning of up to 96 wind turbine generators with a total installed capacity of up to approximately 750 megawatt (MW). The Project will connect to the national grid through the approved EnergyConnect 330 kilovolt (kV) transmission line, or the existing TransGrid 220kV transmission line. Grid support will consist of up to four battery energy storage system (BESS) facilities (to a total of 200 megawatts (MW) with a 4 hour delivery capacity), or up to four static synchronous compensator (STATcom) facilities.

Regional Economic Context

1. The population of the Study Area for this assessment (LGAs of Murray River, Balranald and Swan Hill) totalled 36,410 persons as of June 2022, including 21,120 persons located in Swan Hill LGA, 13,010 persons located in Murray River LGA, and 2,200 persons located in Balranald LGA. Over the period 2022-2036, annual population growth in the Study Area is expected to be +0.3% p.a. (or +130 persons p.a. over 14 years). However, Balranald and Swan Hill LGAs are projected to experience a decline in population of a combined -470 persons over the period. This decline in population highlights the need for local investment projects which provide new employment opportunities for residents and may potentially attract new residents to the area. Further, large scale renewable energy projects provide an alternative income stream for local farmers and workers. These factors may contribute to retaining, and potentially expanding the population within the three LGAs.
2. The Study Area had an unemployment rate of 2.7% in March 2023, compared to the NSW rate of 3.3%; with approximately 560 persons unemployed in the Study Area. The Project may provide new short-term employment opportunities for the region's labour force participants (including unemployed job seekers, subject to suitable skills match), with a small amount of ongoing employment also supported once the Project is operational. The low unemployment rate in the Study Area may impact on the amount of local labour able to be sourced for the construction phase of the Project.
3. The Study Area's occupational and business structures indicate a good base exists to service the needs of the Project, with approximately 5,950 workers and 605 businesses in the Study Area involved in construction-related industries.
4. The major regional townships in the Study Area of Swan Hill and Balranald have the capacity and labour force to service some aspects of the Project, with smaller settlements such as Tooleybuc, Moulamein and Robinvale, also likely to provide labour, accommodation and other general services to the Project.

Economic Impact Assessment

5. The Project will require approximately \$1.5 billion in investment during the construction phase (of which approximately \$230 million will be retained in the Study Area) and will support 250 direct and 400 indirect Full Time Equivalent (FTE) positions (monthly average) over the potential two-stage construction phase, with a combined 48-month construction period (Stage 1 – 18-months and Stage 2 – 30-months) anticipated. Once operational, 15 direct and 45 indirect FTE jobs will be supported by the Project.
6. Of these employment totals, the Study Area is expected to benefit from 130 FTE construction jobs and 24 FTE ongoing jobs (includes direct and indirect jobs) associated with the Project.
7. The Study Area has moderate capacity in terms of construction-related workers (5,950 workers) and businesses (605 businesses) to manage the requirements of the Project, and concurrent regional infrastructure projects if required.
8. The Project will provide new participation opportunities for businesses and workers located in the Study Area, having regard for the good match of skills and resources available and the Proponent's procurement initiatives.

9. The 'external' Project labour requirement is expected to generate an accommodation need for 320 FTE workers at the peak of the Project. This represents 38% of total commercial accommodation rooms/cabins within a 60-minute drive of the Project Area. However, some further capacity is available in caravan parks (powered sites), private rentals (e.g., long-term houses/units, short-term Airbnb), and potentially unoccupied dwellings, some of which may become available to the market to support the Project. While this data indicates some capacity currently exists in the Study Area to accommodate non-local workers, it is recognised the long-term rental housing market (a preference for many construction workers) has very limited supply; while increased demand from concurrent regional infrastructure projects (refer to section 4.3) and seasonal accommodation demands (tourism, agricultural activities etc) also needs to be factored in. In this regard, all viable accommodation options should be considered, including the potential reuse of the existing 400-bed Balranald Temporary Workers Camp.
10. Construction workers relocating to the region are anticipated to inject approximately \$30.1 million in new spending into the economy over the construction phase, supporting approximately 38 FTE jobs in the service sector in the Study Area over the construction phase.
11. Cumulative impacts are associated with significant development of major renewable energy projects in the SW REZ in the coming years and ongoing demand from the tourism, agriculture and mining sectors. Potential impacts may include insufficient accommodation and workers to service the Project and concurrent demands. In this regard, strategies to manage accommodation demand, and local procurement and employment should be considered by the Proponent.
12. Approximately 16,367 ha of existing agricultural land will be required to host the Project, with a development footprint of 768 ha. This land, which will be leased from the existing landowners, is mainly used for cropping cereal and some sheep grazing. No loss of employment associated with the Project Area is anticipated, either directly (on-site) or through the supply chain. Agricultural activities are expected to be ongoing in the Project Area and ultimately co-existing with the Project during the operational phase of the wind farm.
13. Ongoing economic stimulus associated with the operation of the Project is estimated at approximately \$280 million (over 30 years, CPI adjusted) relating to landowner leases and neighbourhood payments, operational wage stimulus and community benefit payments.
14. The Project has the capacity to supply sufficient clean energy to power the equivalent of approximately 434,000 homes p.a., which represents approximately thirty times the total annual residential requirements of the Study Area (15,460 private dwellings).

Net Economic Benefit Assessment

A summary of net economic outcomes is included in Table A.

Table A: Junction Rivers Wind Farm – Net Economic Benefit Assessment

Factor	Value
Negative Economic Outcomes	
Temporary loss of agricultural land (30 years) (Development Footprint)	768 ha
Loss of employment (includes direct and indirect jobs)	0 jobs
Positive Economic Outcomes	
Construction Phase (48-Months)	
Estimated Development Costs	+\$1.5 billion
Study Area investment (including wage stimulus)	+\$230 million (assumes 15% of total investment)
Construction employment (average no. of FTE jobs for 48 months)	250 FTE Direct + 400 FTE Indirect <i>Total: 650 FTE</i>
	<i>Study Area jobs</i>
	50 FTE direct on-site
Study Area employment (average no. of FTE jobs for 48 months)	80 FTE indirect off-site <i>Total: 130 FTE</i>
Operational Phase (30 Years)	
Operational employment average no. of ongoing FTE jobs)	15 FTE Direct + 45 FTE Indirect <i>Total: 60 FTE</i>
	15 FTE direct on-site
Study Area operational employment (average no. of FTE ongoing jobs)	9 FTE indirect off-site <i>Total: 24 FTE</i>
Operational Economic Stimulus	
Total net local economic stimulus (operational wage stimulus, Community Benefit Fund payments, landowner lease and neighbourhood payments. <u>Excludes</u> increased Council rates returns).	\$280 million
Total Economic Benefits (Construction and Operational Phases)	\$505 million
Decommissioning Phase	
Likely to generate employment, business contract and spending stimulus benefits for the Study Area	Not quantified

15. In order to minimise potential Project impacts the following mitigation measure is recommended:

Prior to commencing construction of the Project, it is recommended the Proponent prepare a Construction Workforce Accommodation Strategy, in consultation with relevant stakeholders. Consideration of the reuse of the existing Balranald Temporary Workers Camp should be included in this Strategy.

1.0 Introduction

1.1 Background

Windlab (the Proponent) is seeking to develop the proposed Junction Rivers Wind Project (the Project) in the South West Renewable Energy Zone (SW REZ). The Project Area is located approximately 15 kilometres (km) southeast of Balranald and approximately 60km north of Swan Hill and is positioned in the Murray River Local Government Area (LGA).

The Project will involve the construction (potentially over two stages), operation and decommissioning of up to 96 wind turbines with a total installed capacity of approximately 750 megawatt (MW). The Project will connect to the national grid through the approved EnergyConnect 330 kilovolt (Kv) transmission line, or the existing TransGrid 220Kv transmission line. Grid support will consist of up to four battery energy storage system (BESS) facilities (to a total of 200 megawatts (MW) with a 4 hour delivery capacity), or up to four static synchronous compensator (STATcom) facilities.

The Project will have road access via Yanga Way, Balranald-Moulamein Road and Arundel Road.

For the purposes of this assessment, the Project Area is defined as the area inclusive of the:

- Wind farm and associated infrastructure development area
- Surrounding land that contains agricultural land and vegetation (which will be avoided as far as practicable).

Refer Figure 1 for visual representation of Project Area.

The Project encompasses four land parcels, covering an area of 16,367 ha. These properties are primarily utilised for dryland cropping, including the growing cereals along with sheep grazing activities. The development footprint for the Project is approximately 768 ha.

The Project is a State Significant Development (SSD) under the *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP) as it is electricity generating works (including wind) and the capital value of the Project is over \$30 million (estimated development cost for the Project is \$1.5 billion). A development application (DA) for the Project is required to be submitted under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The Proponent has commissioned Ethos Urban to prepare an Economic Impact Assessment (EIA) for the Project. This EIA report supports the Project's Environmental Impact Statement (EIS) and responds to the Secretary's Environmental Assessment Requirements (SEARs) dated 19 December 2023 for economic impacts, which are:

- **Economic** – *including any benefits of the economic impacts or benefits of the project for the region and the State as a whole, including consideration of any increase in demand for community infrastructure services, and details of how the construction workforce will be managed to minimise local impacts, including a consideration of the construction workforce accommodation.*
- **Capital Investment Value and Employment** – Provide an estimate of the retained and new jobs that would be created during the construction and operational phases of the development, including details of the methodology to determine the figures provided.

This EIA addresses economic impacts and benefits for the region and State as a whole, including construction workforce accommodation considerations. SEARs relating to social factors are addressed in a separate Social Impact Assessment which has been prepared for the Project.

1.2 Methodology

The following methodology has been applied to this EIA:

- Identification of relevant Study Area for the assessment which reflects likely labour force, accommodation, and supply chain linkages available to support the Project. The Study Area is defined in terms of host and surrounding LGA boundaries.
- Review of federal and state policies relevant to investment in the renewable energy sector, including the Paris Climate Accord, NSW DPE (now DPHI) Large Scale Wind Energy Guideline, 2016, and published resources by EnergyCo relevant to the SW REZ.
- Baseline analysis of population, labour markets, occupational structure and business structure for the Study Area and NSW, with reference to latest available data (at the time of writing) relating to ABS Estimated Resident Population, Department of Environment and Planning State and Local Government Population Projections, ABS Census, ABS Business Counts and Department of Education, Skills and Employment Small Area Labour Markets.
- Assessment of the capacity and opportunities of townships in the Study Area to participate and service the Project. This information has been compiled through a site visit, a desktop review of townships and accommodation data (accommodation provider websites, SQM, Airbnb and Vrbo databases, website searches) and discussions with local real estate agents and the Proponent.
- Estimated Project investment, with investment figures provided by the Proponent, and the estimated share of investment retained in the Study Area informed by benchmarking analysis of similar sized completed renewable energy facilities located in regional areas.
- Assessment of Project employment (direct and indirect) for construction and operational phases. Direct employment is jobs created to support the on-site construction and operation of the Project. Indirect employment is jobs supported through the industrial and consumption/induced impacts of each Project stage. Relevant ABS multipliers are applied to construction and operational phases. Employment numbers have been provided by the Proponent based on estimated Project labour requirements. Ratios of direct Study Area (local) and non-Study Area (imported) employment are based on the Proponent anticipated labour force requirements and the Study Area's existing workforce capacity.
- Identification of business and industry participation opportunities, with reference to baseline analysis outcomes regarding workforce size and skills composition and procurement activities proposed by the Proponent.
- Assessment of agricultural impacts which includes employment and production impacts through land consumption and disruption to activities, and benefits to host landowners from new incomes and improved on-site infrastructure.
- Assessment of accommodation and housing impacts with reference to the baseline analysis and the estimated number of construction workers that may require accommodation at the Project's peak.
- Assessment of cumulative impacts relating to the potential concurrent construction of major infrastructure projects in the Study Area/within 100km of the Project Area. Importantly the introduction of the SW REZ is likely to generate significant demand for new projects over the coming years. This includes assessing potential impacts on accommodation and labour and providing measures to manage identified cumulative impacts.
- Estimates of economic stimulus impacts (construction and operation phases) including Project wages and spending, landowner rental incomes, neighbour benefit payments, and Proponent's Community Benefit Sharing Program. Construction stimulus is expressed in 2023 dollars (and calculated over the project's combined 48 months), while operational stimulus is calculated over 30 years using 2023 dollars but indexed to 3.0% CPI annually.
- Description of proposed mitigation measures relating to accommodation, workforce and procurement and community benefit sharing.

Note, detailed assumptions and calculations are provided throughout the report.

The following specific data sources have been used in compiling this EIA:

- ABS Average Weekly Earnings, November 2023
- ABS, Counts of Australian Businesses, including Entries and Exits, June 2018 to June 2022
- ABS Census of Population and Housing, 2021
- ABS Estimated Resident Population, 2022 (April 2023 release)
- ABS Household Expenditure Survey, 2015-16
- NSW Tourist Accommodation Snapshot December Qtr 2022, STR.com

- Australian National Accounts: Input-Output Tables, 1998-99
- Air DNA, July 2023
- Department of Employment – Small Area Labour Markets, March Quarter 2023
- Department of Environment and Planning NSW, State and Local Government Population Projections 2022, 2022 NSW Common Planning Assumption Projections
- Sinclair Knight Merz (SKM), Economic Impact Assessment of Oaklands Hill and Macarthur Wind Farms, 2012
- Tourism Research Australia 2017
- NGH, Burrawong Wind Farm Scoping Report, November 2021
- www.energy.nsw.gov.au/renewables/renewable-energy-zones
- www.tripadvisor.com

1.3 This Report

This report contains the following chapters:

- Chapter 1:** Introduction
- Chapter 2:** Project Context
- Chapter 3:** Baseline Regional Economic Profile
- Chapter 4:** Economic Impact Assessment

2.0 Project Context

2.1 Site Location

The proposed Junction Rivers Wind Farm will be developed on a 16,367 ha site in the southwestern region of NSW, in proximity to a number of small, medium and major regional centres and towns located within approximately a 60-minute drive from the Project Area's main access point along Yanga Way (-34.834, 143.507). These settlements are listed below (in order of 2022 population size) and include locations in Victoria, due to the Project's close proximity to the NSW-Victorian border:

- **Swan Hill (VIC)**, a significant regional service centre located approximately a 45-minute drive to the south of the Project Area.
- **Balranald**, an important regional service centre located approximately a 15-minute drive to the north-west of the Project Area.
- **Tooleybuc**, a small tourist and agricultural focused township located approximately a 15-minute drive from the Project Area to the south.
- **Kyalite**, a small sized agricultural locality approximately a 5-minute drive to the south of the Project Area, and is the locality the Project is in. Kyalite borders to Balranald Shire Council and Murray River Council.
- **Euston**, a small agricultural focused township located approximately a 65-minute drive from the Project Area to the west in the Balranald Shire.
- **Robinvale (VIC)**, a medium sized township which borders the Euston (NSW) township. These two towns are either side of the Murray river & often 1 community i.e. www.robinvaleeuston.com
- **Moulamein**, medium sized township with focus to servicing the local agricultural activities, located approximately a 45-minute drive to the southeast of the Project Area.

These regional centres and townships, to differing extents, are likely to play important roles in supporting the requirements of the Project.

The Project Area, which is held by four landowners, is currently used for farming purposes including cereal cropping, and grazing under the Rural Use 1 Zone (Primary Production).

The Project will require planning approval by the NSW State Government as a State Significant Development (SSD).

2.2 Project Description

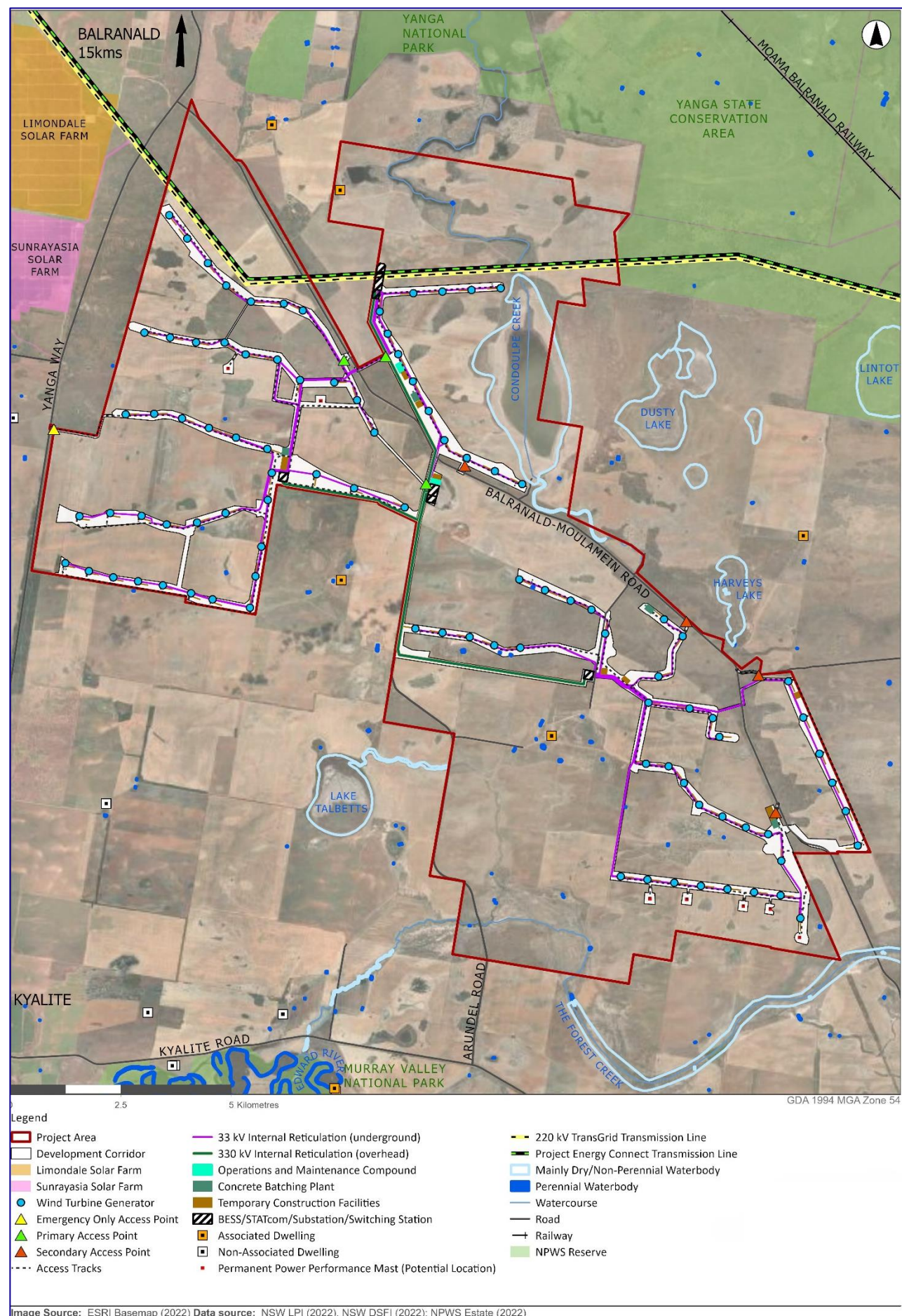
The Project is expected to include the following key components:

- up to 96 (3 blade) WTGs with a maximum total height (tip height) of 300 metres (m)
- electrical connections between the proposed WTGs and substations/switching stations consisting of a combination of underground cables and overhead powerlines
- substations/switching stations and transmission connections to connect to the existing 220 kV transmission line and/or the approved Project EnergyConnect transmission line
- up to four battery energy storage system (BESS) facilities (to a total of 200 megawatts (MW) with a 4 hour delivery capacity), or up to four static synchronous compensator (STATcom) facilities
- other associated infrastructure including access roads and tracks, operation and maintenance buildings and construction facilities
- temporary on-site concrete batching plants and rock crushing facilities during the construction phases
- targeted road network upgrades to facilitate delivery of WTG components to the site as required.

The Project will potentially be constructed in two stages. Stage 1 would see the construction of up to 30 WTGs and required ancillary infrastructure and Stage 2 would see the construction of the remaining WTGs and required ancillary infrastructure. Whether the Project is staged or not, the total construction period would be approximately four years (48-months).

If staged, construction of stage 1 is expected to commence in July 2025 and last 18-months with an anticipated operational start date of December 2026 and last for 30 years. Stage 2 of the project is then expected to begin construction in December 2026 with a 30-month construction timeframe, with the project reaching full completion in June 2029. Stage 2 is also expected to have a lifespan of 30 years. The Project layout is shown in Figure 1

Figure 1 Junction Rivers Wind Farm – Project Overview



Source: Umwelt

2.3 Policy Context

International agreements and domestic government policy settings are important factors in influencing demand and investment in the renewable energy sector. An overview of the key policies relevant to the Project is provided below.

Paris Climate Accord and Updated Federal Government Target

The Paris Accord is a comprehensive international climate agreement to which Australia is a party. The Accord provides a framework for participating nations to set themselves nationally determined contributions (NDCs) beginning in 2020, with review at five-year intervals. It sets out a global consensus to limit temperature increases to below two degrees Celsius when compared to pre-industrial levels. An additional goal is to maintain this increase at less than one and a half degrees Celsius. NDCs do not have any set lower limit but are required to progress over time (beginning with the intended NDC pledged during the Paris conference), and to be 'ambitious.' Australia's previous target was to achieve a reduction of emissions by 5% from 2000 levels by 2020 and the previous Liberal Federal Government committed to a reduction of 26-28% below 2005 levels by 2030 and net zero emissions by 2050.

In July 2022, an updated Nationally Determined Contribution (NDC) was submitted by the Federal Government and reflected a pre-election promise by the incoming Labor Party to fulfill Australia's obligations under the Paris Agreement. The updated NDC includes a commitment to a reduce greenhouse gas emissions by 43% by 2030 and reaffirms the previous commitment to net zero emissions by 2050.

NSW Wind Energy Guideline 2016

The NSW DPE (now DPHI) Wind Energy Guideline, 2016 provides the community, industry and regulators with guidance on the planning framework for the assessment of large-scale wind energy development proposals that are State significant developments (SSD). The objectives of this Guideline are to:

- provide clear and consistent guidance to the community, industry and regulators about how to measure and assess key environmental impacts of SSD wind energy development in NSW
- facilitate better outcomes by requiring early identification of impacts to drive better siting and design
- facilitate meaningful, respectful and effective community and stakeholder engagement across the development assessment process, from pre-lodgement to post-approval
- encourage benefit-sharing between wind energy operators and the communities in which they operate, where appropriate
- provide greater accountability for the management of impacts over the life of a project by linking commitments to conditions and / or appropriate monitoring and adaptive management strategies.

Project EnergyConnect

South Australia, New South Wales and Victoria are being connected via an interconnector (Project EnergyConnect) that will allow power to flow between the regions in the National Energy Market, with transmission infrastructure a key factor supplying renewable energy to the national grid. Project EnergyConnect will deliver a 330 kilovolt (kV) above ground transmission line, with approximately 800MW transfer capacity from Robertstown in South Australia to Wagga Wagga in NSW with a connection to Red Cliffs in Victoria. The total length of the transmission line will be approximately 900km with the approved corridor illustrated in Figure 2

Project EnergyConnect is now under construction with the South Australian component completed with 206km of transmission lines installed as of December 2023.

NSW Department of Planning Housing and Infrastructure granted approval for the NSW – Western Section (SA / NSW border to Buronga) on 28 September 2021. This section of the project involves the construction of 130km of 330Kv transmission line between the NSW / SA border near the township of Chowilla connecting to the existing Buronga substation (with the substation being upgraded).

On 2 September 2022, the eastern section of Project EnergyConnect was granted approval by the NSW Department of Planning and Environment. This section of the project contains two key components including a 375km of 330Kv transmission line constructed between the soon to be upgraded Buronga substation, a new Dinawan substation, near Coleambally; and 162 km long 500 kV transmission line between the new Dinawan substation and the existing Wagga Wagga substation. Work has begun on the eastern section in mid-2023 with the first transmission tower expected to be constructed in mid 2024.

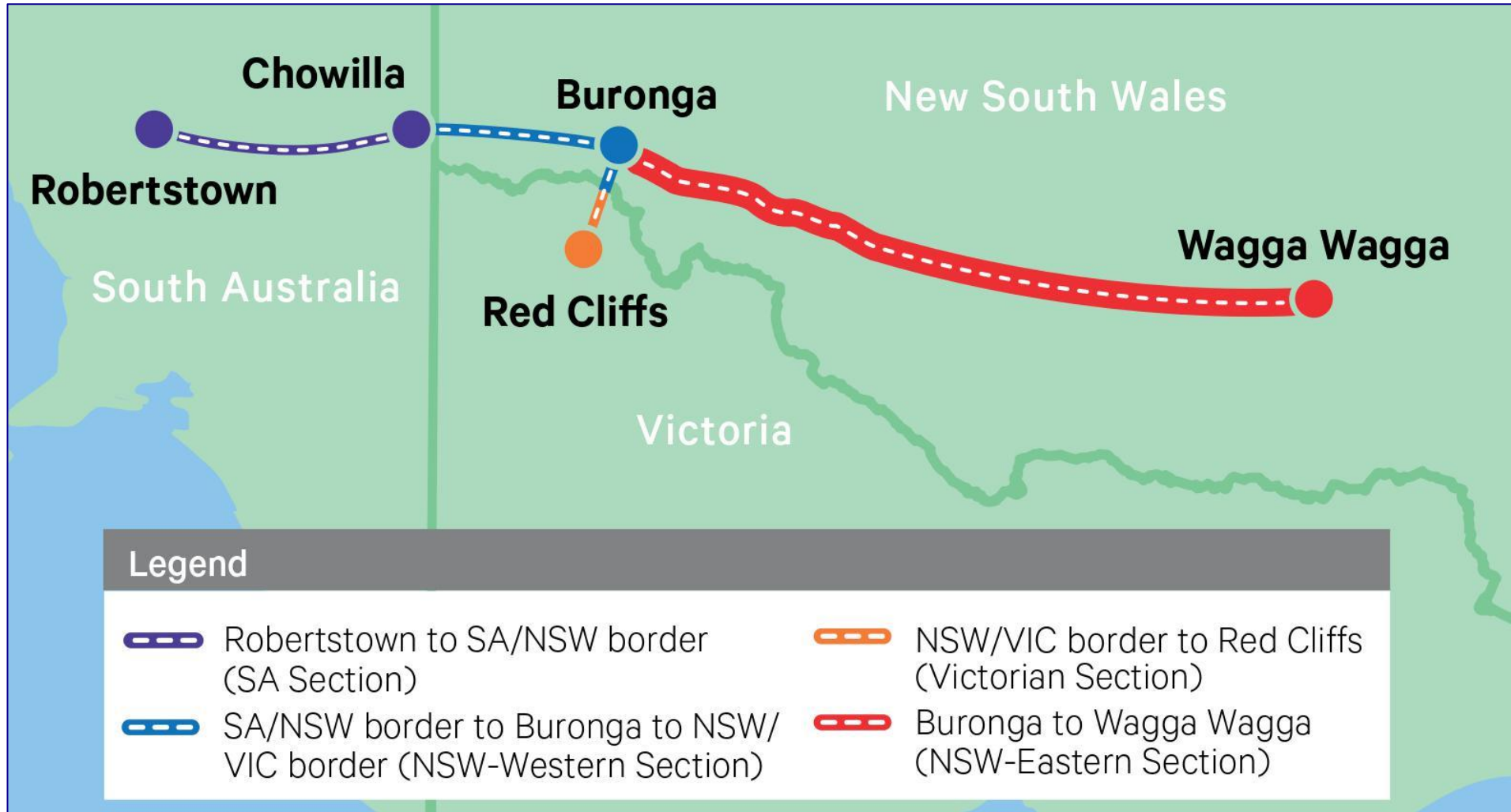
South-West Renewable Energy Zone

The state's South-West has been chosen as a REZ location due to a host of approved and planned projects, relatively low build costs and a strong mix of solar and wind resources. It is part of the NSW government's long-term plan to deliver five REZs across the state.

The SW REZ aims to produce enough energy to power up to 1.3 million homes each year. The Energy Corporation of NSW (EnergyCo) is the network planner and will bring together investors and undertake early planning for the SW REZ so benefits for local communities are maximised. Where appropriate, the NSW Government will change the regulatory settings to incentivise generators to cover part of the cost of building new transmission for REZs (NSW Electricity Strategy (Overview), pg. 11). The SW REZ is expected to support over 2,000 construction jobs during peak construction periods.

The SW REZ is outlined in Figure 3.

Figure 2 Project EnergyConnect – Approved Corridor



Source: Transgrid

Figure 3 South West Renewable Energy Zone (SW REZ)



Source: www.energyco.nsw.gov.au/renewable-energy-zones/south-west-renewable-energy-zone

2.4 Study Area

The Study Area for this assessment has been defined in terms of the following Local Government Areas (LGAs):

- Murray River Council
- Balranald Shire Council
- Swan Hill Rural City Council

The main regional cities/townships/settlements in the Study Area are all located within a 60-minute drive (approximately) of the Project Area.

The Study Area's local and regional communities, to differing extents, have the potential to contribute to the Project and derive economic benefits from both the construction and operational phases of the Project.

The Study Area is shown in Figure 4.

Figure 4 Junction Rivers Wind Farm – EIA Study Area



Source: Ethos Urban using Mapinfo, StreetPro, BingMaps

2.5 Summary

1. The Proponent is proposing the construction of the approximately 750 MW Junction Rivers Wind Project. The Project is located approximately 15 km south of Balranald and approximately 60 km north of Swan Hill, with key surrounding municipalities including Swan Hill, Murray River and Balranald LGAs.
2. The Project Area covers 16,367 ha and is well connected to the regional centre of Swan Hill and to smaller townships including Balranald, Robinvale, Tooleybuc and Kyalite.
3. Subject to planning approval, grid connection approval and financing; it is anticipated construction of the Project could start in July 2025 with a potential staged construction rollout seeing the Project split into two construction stages, and the facility may be operational in 2026 (Stage 1), and Stage 2 operational in 2029 after a 48-month construction phase for both stages. If not constructed in stages, it is expected that the Project would be operational in 2029 after a 48-month construction phase.
4. Federal (Paris Climate Accord) and State (NSW Wind Energy Guideline) policies provide guidance for the renewable energy sector in the short-to medium-term. Additionally, the NSW Government has declared the SW REZ which covers the area in which the Project is to be located. The SW REZ will provide more certainty for the sector, especially with regard to the transmission network, and in doing so stimulate major investment in the sector. The SW REZ will be connected to the National Grid via Project EnergyConnect that will allow renewable energy to be supplied to the national grid. Project EnergyConnect will deliver a 900km 330 kilovolt (Kv) and/or 500 Kv above ground transmission line, with approximately 800MW transfer capacity.

3.0 Baseline Regional Economic Profile

3.1 Population

The population of the Study Area totalled 36,410 persons as of June 2022 (ABS Estimated Resident Population, 2023), including 21,210 persons located in Swan Hill City Council area, 13,010 persons located in Murray River Council Area and 2,200 persons located in Balranald Shire Council.

Over the period 2022-2036, annual population growth in the Study Area is expected to be +0.3% p.a (or +130 persons p.a. over 14 years) and this compares to the New South Wales (NSW) growth rate of +1.0% p.a. over this period. While the Study Area's projected population growth is comparatively subdued, it is noted that the Murray River Council Area is projected to experience an average population growth of +1.2% p.a. between 2022-2036.

However, Balranald and Swan Hill LGAs are projected to experience a decline in population of a combined -470 persons over the period. This decline in population highlights the need for local investment projects which provide new employment opportunities for residents and potentially attract new residents to the area. Further, large scale renewable energy projects provide an alternative income stream for local farmers and workers. These factors may contribute to retaining, and potentially expanding the population within these two LGAs.

The Project will provide new income to the host landowners (farm operators), while the construction and operational phases of the Project will provide an economic stimulus (additional jobs, Project contracts, new spending etc) to the local economy, as well as support the emergence of the region's renewable energy sector.

Population estimates, which are reflected in Table 1, are based on official population projections prepared by New South Wales and Victorian governments and the most recent ABS estimated resident population figures for 2022.

Table 1 Population Trends and Projections – Study Area, 2016-2036 (No. of Persons)

	2016	2021	2022	2026	2031	2036	2022 to 2036
Population (no.)							
Balranald	2,330	2,210	2,200	2,120	2,010	1,890	-310
Murray River	11,870	12,780	13,010	13,610	14,460	15,280	+2,270
Swan Hill	20,900	21,380	21,210	21,140	21,080	21,050	-160
Study Area	35,100	36,370	36,410	36,870	37,550	38,220	+1,810
Average Annual Growth (no.)							
Balranald		-20	-10	-20	-20	-20	-20
Murray River		+180	+230	+150	+170	+160	+160
Swan Hill		+100	-170	-20	-10	-10	-10
Study Area		+250	+40	+120	+140	+130	+130
Average Annual Growth (%)							
Balranald		-1.1%	-0.5%	-0.9%	-1.1%	-1.2%	-1.1%
Murray River		+1.5%	+1.8%	+1.1%	+1.2%	+1.1%	+1.2%
Swan Hill		+0.5%	-0.8%	-0.1%	-0.1%	-0.0%	-0.1%
Study Area		+0.7%	+0.1%	+0.3%	+0.4%	+0.4%	+0.3%
<i>New South Wales</i>		<i>+0.9%</i>	<i>+0.8%</i>	<i>+0.9%</i>	<i>+1.1%</i>	<i>+1.0%</i>	<i>+1.0%</i>

Source: ABS, 3218.0 Regional Population Growth, Australia; Department of Environment and Planning – NSW State and Local Government Population Projections 2022, 2022 NSW Common Planning Assumption Projections; Victoria in Future, 2019

Notes: All figures rounded

3.2 Labour Force

The Study Area had a labour force of 20,270 persons and an unemployment rate of 2.7% in March 2023, which is significantly lower than the rate for NSW and VIC (3.3% and 3.7% respectively). The Study Area currently has approximately 560 residents who are unemployed. This information is sourced from the Australian Government – *Small Area Labour Markets* data.

The Project is likely to require 400 workers (at the Project's peak), with potentially 20% of these workers (80 workers) sourced from within the Study Area, providing new opportunities for unemployed job seekers (subject to appropriate skills match) or 'back filling' employment opportunities associated with jobs vacated by workers taking up Project employment.

Table 2 Resident Labour Force Statistics – Study Area, March 2023 (No. of Persons)

LGA/Area	Labour Force	Unemployed	Employed	Unemployment Rate
Balranald	1,420	20	1,400	1.4%
Murray River	7,220	130	7,090	1.8%
Swan Hill	12,080	410	11,670	3.4%
Total Study Area	20,720	560	20,160	2.7%
New South Wales	4,423,000	147,500	4,111,000	3.3%
Victoria	3,662,200	134,500	3,444,400	3.7%

Source: Australian Government National Skills Commission, *Small Area Labour Markets*, March Quarter 2023

Note: Figures rounded.

3.3 Occupational Structure

The skills base of the Study Area is reflected in its occupational structure. ABS Census data for 2021 shows 36.1% of employed residents in the Study Area were occupied in activities generally associated with the types of skills (e.g., technicians and trades workers, machinery operators and drivers, and labourers) required for the construction of major utility-scale renewable energy projects, such as the proposed Junction Rivers Wind Farm.

The Study Area's representation in these occupations is well above the State average of 28.4%, indicating a generally suitable occupational base for the Project is present in the region. In total numbers, 5,950 workers in the Study Area are occupied in construction-related activities, highlighting the strong worker base potentially available to support the Project. However, the expected rapid development of the SW REZ may impact on the availability of these local workers to support the Project (refer to Section 4.3).

Table 3 Study Area and NSW Workers – Occupational Structure, 2021

Occupation	Study Area (no.)	Study Area (%)	New South Wales (%)
Managers	3,250	19.7%	15.9%
Professionals	2,210	13.4%	28.2%
Technicians and Trades Workers	2,090	12.7%	12.9%
Community and Personal Service Workers	1,770	10.7%	11.6%
Clerical and Administrative Workers	1,690	10.2%	14.2%
Sales Workers	1,240	7.5%	8.7%
Machinery Operators and Drivers	1,090	6.6%	6.6%
Labourers	2,770	16.8%	8.9%
Inadequately described/ Not Stated	390	2.4%	2.0%
Total	16,500	100.0%	100.0%

Source: ABS, Census of Population and Housing, 2021, General Community Profile

Note: Figures rounded.

3.4 Business Structure

A tangible benefit of a major investment project, such as this Project, is the extent to which local businesses can participate through Project contracts and other service provisions.

The Study Area includes approximately 605 construction businesses or 13.7% of all businesses located in the Study Area, based on ABS Business Count data for June 2022. This data, which is outlined in Table 4, indicates a reasonable presence in the Study Area of the types of firms that are likely to be well-placed to service aspects of the Project.

Although construction-related businesses will likely be the main beneficiaries of the Project, businesses in other sectors supporting the Project (directly and indirectly) are also likely to benefit from increased revenue, including:

- Retail trade
- Accommodation and food services
- Financial and Insurance Services
- Rental, hiring and real estate services
- Health care and social assistance.

The aforementioned sectors make up approximately 23.8% or 1,050 businesses located in the Study Area and their services will play an important role in supporting the needs of Project workers, especially those relocating to the Study Area to work on the Project.

Table 4 Business Structure – Study Area, 2022

Industry	Non employing	1-19 Employees	20-199 Employees	200+ Employees	Total Business (no.)	Total Business (%)
Agriculture, Forestry and Fishing	1,101	384	94	31	1,610	36.4%
Mining	0	0	0	0	0	0.0%
Manufacturing	89	38	38	12	177	4.0%
Electricity, Gas, Water and Waste Services	16	0	0	0	16	0.4%
Construction	358	207	37	3	605	13.7%
Wholesale Trade	52	34	20	6	112	2.5%
Retail Trade	100	82	37	7	226	5.1%
Accommodation and Food Services	69	81	65	16	231	5.2%
Transport, Postal and Warehousing	150	64	39	3	256	5.8%
Information Media and Telecommunications	3	0	3	0	6	0.1%
Financial and Insurance Services	61	18	9	3	91	2.1%
Rental, Hiring and Real Estate Services	335	31	10	0	376	8.5%
Professional, Scientific and Technical Services	98	42	16	0	156	3.5%
Administrative and Support Services	91	47	25	11	174	3.9%
Public Administration and Safety	0	0	0	0	0	0.0%
Education and Training	9	8	3	0	20	0.5%
Health Care and Social Assistance	64	44	11	8	127	2.9%
Arts and Recreation Services	11	8	7	0	26	0.6%
Other Services	96	92	17	3	208	4.7%
Currently Unknown	3	0	0	0	3	0.1%
Total	2,706	1,180	431	103	4,420	100.0%

Source: ABS, Counts of Australian Businesses, including Entries and Exits, June 2018 to June 2022, by Industry Division by Annualised Employment Size Ranges

3.5 Township Services Capacity

Commercial Accommodation

A review of commercial and private accommodation located within the Study Area's major townships has been undertaken. These townships generally represent a maximum drivetime of 60 minutes, via accessing the main entry point at Yanga Way to the Project Area.

These selected townships have a limited supply and mix of accommodation noting the relatively low number of established motels, hotels, guest houses, caravan/holiday parks (including cabins) in the Study Area. Most accommodation options are located in Swan Hill (refer to Table 5), which is within reasonable proximity (approximately 60 minutes) to the Project Area and provides regional-level services. More limited options in smaller townships are located closer to the Project Area including Balranald, Tooleybuc, Kyalite, Robinvale, Moulamein and Euston.

The following accommodation has been identified in Swan Hill and the surrounding townships as of July 2023:

- 680 hotel, motel and serviced apartment rooms
- 160 cabins (caravan/holiday parks)

Table 5 Commercial Accommodation located in the Study Area, July 2023

Surrounding township	Establishments	Rooms	Cabins	Total
Swan Hill	19	395	94	489
Balranald	7	93	17	110
Tooleybuc	6	66	7	73
Robinvale	6	60	21	81
Kyalite	1	na	na	na
Moulamein	3	6	8	14
Euston	4	55	13	68
Total	46	675	160	835
Total (Rounded)	50	680	160	840

Source: Ethos Urban; Trip Advisor; STR

Note: na: not available

Room Occupancy Rates

The Murray River Region, which part of the Study Area is located, averaged annual room occupancy rate of 71.4%, which is below the NSW occupancy rate of 72.7% for this period. This is based on the NSW Government's quarterly snapshot data sourced from the STR database (an official Australian Government database), noting official room occupancy rates are unavailable at a local level. The Murray River Region's commercial accommodation vacancy rate of approximately 29.6% for the March quarter, noting the March quarter includes significant holiday times, therefore the vacancy rate indicates a reasonable supply of room availability as unoccupied supply is likely to be higher during non-peak seasons. Importantly, the Murray River Region includes townships beyond the Study Area with comparatively high levels of accommodation including Albury, Moama and Deniliquin.

Swan Hill is located in the Mid-Western Murray Tourism Region of Victoria, and includes other townships such as Cohuna, Kerang and Robinvale. The *Murray Region Accommodation Study, 2022* outlined that the region had 86 establishments, 1,260 rooms and 2,323 beds of accommodation supply with motels and motor inns reflecting 45% of total room supply. An occupancy rate of 60% applied to the region across the full year.

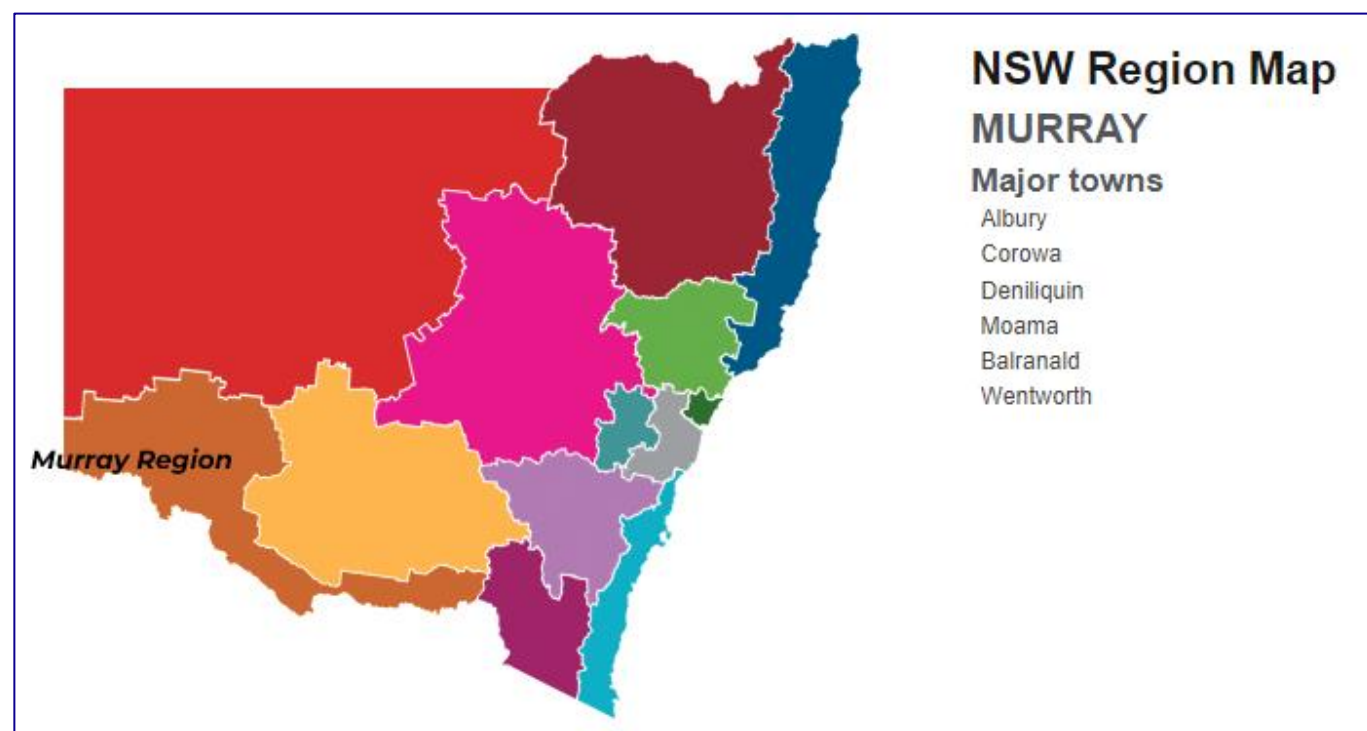
NSW Tourist Accommodation Snapshot for March 2023 is summarised in Table 6, with the Murray Tourism Region shown in Figure 5.

Table 6 *NSW Commercial Room Accommodation Occupancy Rates by Tourism Region, March 2023*

Tourism Region	Occupancy March Qtr. 2023
NSW	72.7%
Sydney	75.0%
Blue Mountains	59.2%
Capital Country	59.7%
Central Coast	65.2%
Central NSW	63.8%
Hunter	69.8%
New England North West	64.8%
North Coast NSW	64.1%
Riverina	71.3%
Snowy Mountains	54.2%
South Coast	71.8%
Murray River Regions	71.4%

Source: NSW Tourist Accommodation Snapshot March Qtr. 2023

Figure 5 *The Murray Tourism Region, NSW*



Source: destinationnsw.com.au

Private Accommodation

Private accommodation is often used to support construction worker needs for major projects. This could be through leasing of holiday homes and investment properties, either privately (including Airbnb), or through real estate agents.

The Study Area has a notably higher share of unoccupied dwellings (13.8%) when compared to the average for NSW (9.4%). The Balranald and Murray River municipalities have a significant share of unoccupied dwellings (20.7% and 16.0% respectively) or a total of around 1,120 dwellings (numbers rounded), which is likely related to a large number of holiday homes in this well toured area. Shared private housing accommodation is one potential option for project workers, with some of the Study Area's unoccupied dwellings having the potential to enter the housing market to support the construction phase of the Project.

Table 7 Unoccupied Dwellings – Study Area, 2021

LGA	Occupied Dwellings		Unoccupied Dwellings	
	no.	%	no.	%
Balranald	730	79.3%	190	20.7%
Murray River	4,880	84.0%	930	16.0%
Swan Hill	7,720	88.4%	1,010	11.6%
Total Study Area	13,330	86.3%	2,130	13.8%
New South Wales	2,900,470	90.6%	299,520	9.4%

Source: ABS, Census of Population and Housing, 2021

Note: Figures rounded

Approximately 34 active short-term rentals are advertised on Airbnb and Vrbo (www.airdna.co) in Swan Hill, with no listings in Murray River or Balranald LGAs (July 2023). These active rentals have an average of 3.1 bedrooms per rental. Therefore, in the order of 87 rooms could be available in the Study Area through the short-term rental market – but noting no information is available on occupancy rates for these properties.

Traditionally major infrastructure projects (including large renewable energy projects), tend to utilise the local rental market to accommodate the majority of day-to-day workers (e.g. shared accommodation). As a result, local rental markets can reach full occupancy and at times require further supply be brought to the market. At times, this can be achieved through homeowners offering their fully furnished homes for rent during the construction phase. It is possible this situation would occur during the construction phase (stages) of the Project, noting the constrained nature of the local rental market (see below). This is if a temporary worker camp (TWC) was not utilised.

Anecdotal information gathered from local community members suggested private term rentals and short-stay private accommodation (Airbnb) was made available within the Balranald township during the construction of the Limondale and Sunraysia solar farms, both located in close proximity to the Project.

Residential Occupancy

High demand for rental properties within the postcodes that broadly reflect a one-hour drive time from the Project Area is evident when observing recent rental vacancy rates.

Data sourced from SQM Research for May 2023, reflects a very constrained rental market in the Study Area/ surrounding region with vacancy rates generally under 1% (average 0.6%). The highest vacancy rate is in the postcode of 2736 (which includes the Tooleybuc township) at 3.6% (or 2 vacant dwellings). In total only 5 rental properties are vacant in postcodes within a one-hour drive from the Project Area.

Township Services

In addition to accommodation, workers locating temporarily to the Study Area will require a wide range of other convenience services, and the Project will also need to source trade supplies, equipment hire, fuel, vehicle mechanical services, and other services from businesses located in the immediate region.

The following sections provide an overview of the services located in the Study Area's regional centres and main townships, and are listed in order of driving distance from the Project Area.

Balranald

Balranald situated approximately 15km north-west (or a 15-minute drivetime) from the Project Area, is a township of 1,060 persons located on the Sturt Highway, the key transport route connecting Adelaide to Sydney. Balranald Shire's Council offices are located on the town's main street (Market Street / Sturt Highway). The township offers a reasonable range of facilities and services including:

- Commercial accommodation – a good range of accommodation establishments (refer to Table 5 above)
- Automotive mechanics and detailing
- Industry – Rural ag supplies, Bulldozing, Freight Services, Engineering etc.
- Supermarket – Supa IGA and Foodworks
- Cafes, bakeries, restaurants and take-away
- Westpac Bank Branch

- Fuel supplies (Murrumbidgee Petroleum (Papa's Fuel), AMPOL and BP)
- Postal Services
- Pharmacy
- Entertainment (parks, hotels, clubs, sports and recreational activities – swimming pool, bowls club etc)
- Balranald District Hospital – medium sized local hospital.
- Education – Balranald Central School and St Joseph's Parish Primary School.
- Temporary workers camp (TWC) located on Church Street with a 400 bed capacity (discussed further in section 3.5).

Kyalite

Kyalite is a small locality of approximately 90 residents, with the main township located a short distance from the Project Area. Very limited services exist in the township including Kyalite Community Hotel with services; pub/general store and caravan park.

Tooleybuc

Tooleybuc, with a population of 340 persons, is located approximately 30 minutes' drivetime to the southwest of the Project Area. Situated in the Murray River LGA, Tooleybuc functions as a local service hub for surrounding agriculture activities and visitors to the Murray River. Key services in Tooleybuc include:

- A moderate range of commercial accommodation options (see Table 5 above)
- Tooleybuc community health – a small regional medical centre.
- Entertainment & dining – Sporting club, Tooleybuc Country Hotel, takeaway options
- AusPost post office
- Education – Tooleybuc Central School, Tooleybuc Pre-School.

Euston

Euston is a small township located along the NSW side of the Murray River in the Balranald Shire. The township has a population of approximately 500 persons and is located a 60-minute drivetime from the Project Area. Key services in Euston include:

- A limited range of commercial accommodation options
- Grocers – a small convenience grocer (Foodworks and liquor), butcher and bakery
- Recreation, entertainment & dining – Euston Bowling and recreation club various small cafes
- Postal Services (AUSPost)
- Education – Euston Public School.

Service industry in Euston is limited, as the township is principally residential in nature and mainly supports agricultural activities for the surrounding area.

Robinvale

Robinvale, with a population of 2,450 persons, is a key regional service in the northern portion of the Swan Hill Rural Council. Positioned on the Victorian side of the Murray River, Robinvale is an important connection between Victoria and New South Wales. The township is located approximately 70km northwest from the Project Area (direct line distance) and approximately a 60-minute drivetime. While the Robinvale district is historically noted for grape and citrus farming, the township now operates as a regional services hub.

The level of services/facilities available in Robinvale is generally consistent with the township's regional service role, and includes:

- A moderate range of commercial accommodations options
- Mechanic and trade supplies – Moore Street Plumbing Supplies, Autopro, various automotive related businesses, Elders
- Supermarket – refurbished SUPA IGA
- Cafes, bakeries, restaurants and take-away
- Range of commercial and financial institutions – banks, solicitors, conveyancing etc
- Fuel supplies & Automotive Mechanics
- Entertainment (parks, hotels, clubs, sports and recreational activities)

- Education – Robinvale is serviced by two educational facilities both being combined schools (p-12) although one is a public (government) school with the other being private (non-government) school.
- Community, Medical and emergency services (Murray Valley Aboriginal Cooperative, Robinvale Hospital, police station etc).

Swan Hill

Swan Hill, located 60km south east of the Project Area (approximately a 55-minute drivetime), is a major regional centre for Victoria's Murray region and includes a population of 10,850 persons. Swan Hill provides significant access to major civic, education, health and commercial services for an expansive rural area comprising a network of many smaller towns. Key services include:

- Good range of commercial accommodation options
- Notable range of retail services in the CBD including:
 - K HUB (regional Kmart offering)
 - Supermarket – Woolworths, Coles and ALDI
 - Cotton On Mega
 - Cheap as Chips
 - Automotive Retailers – Supercheap Auto, Repco and Autobarn
 - Bunnings Warehouse
 - Harvey Norman
- Large range of professional/commercial services – solicitors, accounting, conveyancing etc.
- Major banks and financial institutions
- Entertainment – parks, hotels, clubs, sports and recreational activities
- Swan Hill Airport, which operates primarily for recreational flights and limited commercial services
- Swan Hill District Health Precinct, which operates as the major regional hospital with emergency department for the Victorian Murray region
- Education – network of education institutions comprises one tertiary institution (Sunraysia Institute of TAFE); two secondary schools (one public, one private) and four primary schools (two public and two private); and a one special school.

Importantly, Swan Hill has a large range of service industry geared to civil construction works. Key businesses include:

- Boral Concrete
- Diesel / truck repairs (HNL Diesel Repairs, Swan Hill Truck Services)
- Various engineering firms (including: Eyels Engineering, Grizzly Engineering and Prestige Engineering Fabrication and Welding)
- Steel and fasteners suppliers (Vernon's Steel Yards, Elsteel and Roofing, Steel N' Screws)
- Soil and sand suppliers (Mallee Sand & Garden Supplies, T & S Sand and Garden Supplies)
- Skip Bin Hire (Swan Hire Ship Bin Hire)
- Plant hire (Yellow Hire)
- Transport/ Heavy Haulage (Swan Hill Freight Agents, Town and Country Transport, Parsons Bulk Haulage, Pickering Transport Group Swan Hill).

Moulamein

Moulamein, with a population of approximately 340 persons, is located 55km (or a 50-minute drivetime) to the southeast of the Project Area. Situated along the Edward River and Billabong Creek, the Moulamein Lake attracts visitors throughout the year. Containing a satellite office for Murray River Council, the township's focus is servicing the surrounding agricultural industry. With wheat and rice being a main commodity grown in the surrounding region, Moulamein hosts a significant grain storage facility. Other key services include:

- A limited range of commercial accommodation options
- Moulamein Supermarket – a small convenience IGA X-press grocer
- Entertainment & dining – various small cafes
- Fuel Supplies – Ampol
- Postal Services
- Education – Moulamein Public School.

Service industry in Moulamein is limited as the township is principally residential in nature and mainly supports agricultural activities for the wider region.

3.6 Summary

The key findings of this Regional Economic Profile are as follows:

1. The population of the Study Area (LGAs of Balranald, Swan Hill Rural City Council and Murray River Council) totalled 36,410 persons as of June 2022 (ABS Estimated Resident Population 2023 release). Over the period 2022-2036, annual population growth in the Study Area is expected to be +0.3% p.a. compared to the New South Wales growth rate of 1.0% p.a. Balranald and Swan Hill LGAs are projected to experience a decline in population of a combined -470 persons over the period. This decline in population highlights the need for local investment projects which provide new employment opportunities for residents and potentially attract new residents to the area. Further, large scale renewable energy projects provide an alternative income stream for local farmers and workers. These factors may contribute to retaining, and potentially expanding the population within the two local LGAs.
2. The Study Area had an unemployment rate of 2.7% in March 2023, compared to the NSW rate of 3.3%; with approximately 560 jobseekers unemployed. The Project provides new short-term employment opportunities for the region's labour force participants (including unemployed job seekers, subject to suitable skills match), with a small amount of ongoing employment also supported once the Project is operational.
3. The Study Area's occupational and business structures indicate a good base exists to service the needs of the Project, with approximately 5,950 workers and 605 businesses involved in construction related industries.
4. The Study Area's major regional township of Swan Hill has the capacity and labour force to service many aspects of the Project, with smaller settlements such as Balranald, Tooleybuc, Moulamein and Robinvale, also likely to provide labour, accommodation and other general services to the Project.

4.0 Economic Impact Assessment

4.1 Project Investment

The total estimated development cost for the Project is approximately \$1.5 billion, according to information provided by the Proponent. Major investment costs are associated with the purchase of turbine components including the blades, rotors, towers and nacelles, associated equipment, battery storage components etc. Additionally significant investment is required for civil, electrical and grid connection works.

A review of confidential information sourced from constructed renewable energy projects in Australia (based on unpublished Engineering, Procurement and Construction (EPC) data) shows approximately 15% of construction investment is generally retained within the host Study Area for these types of projects. Applying this ratio of 15%, and noting the proximity of the Project to the major regional centre of Swan Hill, the construction phase is likely to generate \$230 million in wages, contracts and other service provision for the Study Area's economy over the construction period.

4.2 Project Employment

Project employment is assessed in terms of direct jobs (i.e., on site-related) and indirect (or flow-on) jobs in the local and wider economies (i.e., jobs that are supported through the industrial and consumption impacts of the initial investment).

Data provided by the Proponent indicates an average of 250 Full Time Equivalent (FTE) jobs will be supported over the construction phase, which is expected to be a combined 48-months (allowing for a two-stage process). Actual workforce numbers will vary from month to month depending on the intensity of construction at the time. At the Project's peak, which may occur multiple times if the Project is developed in a staged approach, with the peak estimated to last for several months, the Proponent estimates 400 FTE positions will be supported by on-site construction activities.

The estimated employment figures are based on the following assumptions:

- Direct employment during construction = 1.57 FTE workers x no. of WTGs
- Peak employment = 2.47 FTE workers x no. of WTGs
- Permanent jobs during operation = 0.1 FTE workers x no. of WTGs + 5

Source: Sinclair Knight Merz (SKM), 2012, Economic Impact Assessment of Oaklands Hill and Macarthur Wind Farms

Construction Phase

Direct Construction Employment

Based on Ethos Urban's experience of wind farm construction projects in similar rural locations, anticipated demands of multiple concurrent projects within the SW REZ, and estimates provided by the Proponent that consider the specialist skill sets required for wind farm construction are often difficult to be sourced locally; the following employment split is considered realistic:

- Local employment: 20% or an average of 50 FTE jobs are expected to be sourced from within the Study Area, rising to 80 FTE local jobs at the Project's peak.
- Non-local employment: 80% or an average of 200 FTE jobs are expected to be sourced from outside the Study Area, rising to 320 FTE non-local jobs at the Project's peak.

Construction-related jobs are expected to be associated with a wide-range of on and off-site activities, including:

- Labour recruitment
- Training
- Installation and assembly of turbine components
- Vehicle and equipment hire
- Civil works including earthworks, supply of construction materials, foundations, external roads and internal access tracks

- Engineering services
- Operation of specialised equipment including cranes
- Transport and logistics
- Electrical works including cabling, connections, and BESS setup.
- Installation of monitoring equipment
- Fencing
- Security
- Waste disposal
- Business and financial services
- Administrative services.

As indicated in Chapter 3.0, the business structure of the Study Area indicates that a reasonable mix of these types of services are present, although somewhat constrained in the Study Area due to its relatively small economic base. Swan Hill will be the main township with business capacity to service some aspects of the Project. Smaller township may be able to provide limited Project support services.

Indirect Construction Employment

In addition to direct employment, significant employment will be supported indirectly through the employment multiplier effect. By applying an industry-standard multiplier for the construction industry of 1.6 (based on ABS Type B multipliers), the Project is estimated to support and additional 400 FTE jobs indirectly (on average) during the combined 48-month (across two-stages) construction phase .

Indirect or flow-on jobs (which captures industry and consumption effects) include those supported locally and in the wider economy (including within other parts of NSW, and nationally), as the economic effects of the capital investment flow through the economy. Indirect employment creation in local and regional economies includes jobs supported through financial and property services, accommodation, food and beverage, trade supplies, fuel supplies, mechanical support, transportation, etc.

For the purposes of this assessment, it is assumed 20% of indirect jobs or 80 FTE jobs (rounded) are supported in the Study Area. This assumption is made with reference to findings from completed renewable energy projects in regional areas, where generally 20% share of indirect jobs is applied and noting the impact of non-local workers (and their spending) likely to be associated with the Project.

Total Construction Employment

In summary, 650 FTE jobs (250 FTE direct jobs and 400 FTE indirect jobs) are expected to be supported (on average per month) by the Project during the combined 48-month (across two-stages) construction phase.

The amount of direct Study Area employment (i.e., related to on-site construction activities) required for the Project is estimated to be approximately 50 FTE jobs per month, with a further 80 FTE jobs per month supported indirectly in the Study Area (i.e., off-site through supply chains and consumption activities).

Table 8 Construction Employment Summary

Direct Average Monthly Employment FTE	Direct Average Monthly Study Area Employment FTE (20% Share)	Indirect Average Monthly Employment FTE	Indirect Average Monthly Study Area Employment FTE (20% Share)	Total Average Monthly Employment FTE	Total Average Monthly Study Area Employment FTE
250	50	400	80	650	130

Source: The Proponent; Ethos Urban, ABS Input-Output Tables.

Note: Figures rounded

Operational Phase

The Proponent indicates that 15 FTE direct jobs will be supported locally (on-site) on an ongoing basis through the operation and maintenance of the Project.

Indirect Operational Employment

Additional jobs will also be supported indirectly through the employment multiplier effect. By applying an industry-standard multiplier for the electricity industry of 2.9 (based on ABS Type B multipliers) to the direct operational and maintenance jobs, a further 45 FTE permanent jobs (rounded) would be supported in the wider State and national economies, with some of these jobs supported locally through operational supply chains and consumption impacts.

For the purposes of this assessment, it is assumed that 20% of indirect operational jobs are created in the Study Area (refer to previous assumption). This equates to approximately 9 ongoing FTE Study Area positions.

Operational-related employment is for the lifetime of the Project (i.e., 30 years); therefore, while ongoing job creation is relatively small, it represents new long-term employment opportunities at a local, regional and national level.

Total Operational Employment

In summary, approximately 60 FTE jobs (15 FTE direct and 45 FTE indirect) are expected to be supported by the Project, with 24 FTE of these positions supported in the Study Area.

4.3 Cumulative Effects Assessment

The Project will likely compete for labour, accommodation, and other resources with major infrastructure projects being constructed concurrently in the Study Area (principally renewable energy projects being driven by investment in the SW REZ). Identified projects located within a 100 km radius of the Project Area and an assessment of their risk to the Project are outlined in Table 9.

In relation to proposed renewable energy projects, the following is noted:

- The development status of projects varies, some projects are approved but construction has yet to start, and other projects are currently going through the planning process; therefore, construction timing is uncertain and not all projects may end up proceeding, particularly given the limited grid capacity in SW REZ.
- New developments, currently not in the planning system, may emerge in the period prior to construction of the Project especially as the SW REZ matures.

When assessing the potential cumulative impacts, the anticipated timing of the Project is an important factor. If the Project is staged, construction of Stage 1 is expected to commence in July 2025 and last 18-months with an anticipated operational start date of December 2026 and be operational for 30 years. Stage 2 of the Project is then expected to begin construction in December 2026 with a 30-month construction timeframe, with the Project reaching full completion in June 2029. In this regard, there are a number of major renewable energy and energy storage projects which are almost certain to overlap with the Project which may result in labour, accommodation and supplier shortages.

Referring to the NSW DPI (now DPHI) Cumulative Impact Assessment Guidelines for State Significant Projects, a Standard Assessment as been determined for the EIA, based on the following definition:

- **Standard Assessment** - The Project is unlikely to result in significant impacts on the matter, including cumulative impacts. Standard assessments are characterised by:
 - Impacts are well understood
 - Impacts are relatively easy to predict using standard methods
 - Impacts are capable of being mitigated to comply with relevant standards or performance measures
 - the assessment is unlikely to involve any significant uncertainties or require any detailed cumulative impact assessment.

The Economic Impact Ratings, included in Table 9, are based on the following parameters:

Low: Impacts possible but unlikely. No mitigation required.

Medium: Impacts likely. Targeted mitigation required.

High: Impacts certain. Significant mitigation measures required.

Table 9 **Junction Rivers Wind Farm – Potential Economic Cumulative Impacts**

Project	Detail	Potential Economic Cumulative Impacts	Economic Impact Rating - Construction	Economic Impact Rating - Operation
Solar Projects				
Limondale Solar Farm	Approximately 1 km to Project Area. Operational solar farm.	Cumulative impacts are possible due to the proximity of the projects. Economic impacts during operation are expected to be minimal	n/a Already operational	Low
Sunraysia Solar Farm	Approximately 1 km to Project Area. Operational solar farm.	Cumulative impacts are possible due to the proximity of the projects. Economic impacts during operation are expected to be minimal	n/a Already operational	Low
Keri Keri Solar Farm	Approximately 20 km to Project Area. Currently in planning and assessment phase. If approved, construction would be undertaken over 18-24 months commencing in 2024-2025 with a peak construction workforce of 300 employees.	Construction: Cumulative impacts are possible if there is an overlap of peak construction periods. Economic impacts include insufficient availability of labour, key services and accommodation in nearby towns. (Refer to section 4.11 for proposed mitigation measures). Operational: Economic impacts during operation are expected to be minimal	Medium	Low
Wind Projects				
Baldon Wind Farm	Approximately 40 km from the Project Area. Currently in planning and assessment phase. If approved, construction would be undertaken over a 24-month period with public information outlining an expected start date in 2024 with a peak construction workforce of 350 employees.	Construction: Cumulative impacts are possible if there is an overlap of peak construction periods. Economic impacts include insufficient availability of labour, key services and accommodation in nearby towns. (Refer to section 4.11 for proposed mitigation measures). Operational: Economic impacts during operation are expected to be minimal	Medium	Low
Euston Wind Farm	Approximately 75 km from the Project Area. Currently in planning and assessment phase. If approved, construction would be over 18-24 months commencing in Q2 2025 with a peak construction workforce of 250 employees.	Construction: Cumulative impacts are possible if there is an overlap of peak construction periods. Economic impacts include insufficient availability of labour, key services and accommodation in nearby towns. (Refer to section 4.11 for proposed mitigation measures). Operational: Economic impacts during operation are expected to be minimal	Medium	Low
Keri Keri Wind Farm	Approximately 20 km from the Project Area. Currently in planning and assessment phase. If approved, construction would be over 18-24 months commencing in 2024-2025 with a peak construction workforce of 400 employees.	Construction: Cumulative impacts are possible if there is an overlap of peak construction periods. Economic impacts include insufficient availability of labour, key services and accommodation in nearby towns. (Refer to section 4.11 for proposed mitigation measures). Operational: Economic impacts during operation are expected to be minimal	Medium	Low

Project	Detail	Potential Economic Cumulative Impacts	Economic Impact Rating - Construction	Economic Impact Rating - Operation
Pottinger Energy Park	Approximately 107 km from the Project Area. Currently in planning and assessment phase. If approved, construction would be over 24-months commencing in 2026	Construction: Cumulative impacts are possible if there is an overlap of peak construction periods. Economic impacts include insufficient availability of labour, key services and accommodation in nearby towns. (Refer to section 4.11 for proposed mitigation measures). Operational: Economic impacts during operation are expected to be minimal	Medium	Low
Tchelery Wind Farm	Approximately 50 km from the Project Area. Currently in planning and assessment phase. If approved, construction would be over 30-months commencing in early 2026 with a workforce of 500 employees.	Construction: Cumulative impacts are possible if there is an overlap of peak construction periods. Economic impacts include insufficient availability of labour, key services and accommodation in nearby towns. (Refer to section 4.11 for proposed mitigation measures). Operational: Economic impacts during operation are expected to be minimal	Medium	Low
The Plains Renewable Energy Park	Approximately 110 km from the Project Area. Currently in planning and assessment phase. Unknown construction time frame and workforce details.	Construction: Cumulative impacts are possible if there is an overlap of peak construction periods. Economic impacts include insufficient availability of labour, key services and accommodation in nearby towns. (Refer to section 4.11 for proposed mitigation measures). Operational: Economic impacts during operation are expected to be minimal.	Medium	Low
Wilan Wind Farm	Approximately 24 km from the Project Area. Currently in planning and assessment phase. If approved, construction would be over a 24-month period commencing in late 2024 with a construction workforce of 400 employees.	Construction: Cumulative impacts are possible if there is an overlap of peak construction periods. Economic impacts include insufficient availability of labour, key services and accommodation in nearby towns. (Refer to section 4.11 for proposed mitigation measures). Operational: Economic impacts during operation are expected to be minimal	Medium	Low
Other Projects				
Balranald Mineral Sands Mine	Approximately 40 km from the Project Area. Operational mineral sands mine.	Cumulative impacts are possible due to the proximity of the projects.. Economic impacts during operation are expected to be minimal	n/a Already operational	Low
Euston Mineral Sands Project	Approximately 75 km from the Project Area. Currently in planning and assessment phase. If approved, construction would be over 18-months commencing in 2026 with a construction workforce of 250-300 employees.	Construction: Cumulative impacts are possible if there is an overlap of peak construction periods. Economic impacts include insufficient availability of labour, key services and accommodation in nearby towns. (Refer to section 4.11 for proposed mitigation measures). Operational: Economic impacts during operation are expected to be minimal	Medium	Low

Project	Detail	Potential Economic Cumulative Impacts	Economic Impact Rating	Economic Impact Rating
			Construction	Operation
Project EnergyConnect (NSW - Eastern Section)	Partly within Project Area. Project is approved and currently under construction. The Construction phase is anticipated to last 18-month period commencing in late 2026 with a peak construction workforce of 500 employees.	Construction: Cumulative impacts are possible if there is an overlap of peak construction periods. Economic impacts include insufficient availability of labour, key services and accommodation in nearby towns. (Refer to section 4.11 for proposed mitigation measures). Operational: Economic impacts during operation are expected to be minimal.	Medium	Low

Source: Umwelt; NSW Major Projects Portal; Ethos Urban

4.4 Labour Force and Business Participation Assessment

In terms of cost efficiencies (lower transport, labour costs etc), many large construction projects located in regional areas are, where possible, serviced locally or from within the immediate region (Study Area).

The Study Area has moderate capacity in terms of construction-related workers (5,950 workers) and construction-related businesses (605 businesses), including many located in the immediate region and this overall capacity may be able to service the local Project needs and concurrent infrastructure projects, subject to careful management.

Additionally, the Study Area currently contains 560 unemployed labour force participants, some of whom could work on the Project and/or other major infrastructure projects (subject to suitable skills mix). Alternatively, unemployed jobseekers may play a 'backfill' role in the labour market, engaging in jobs vacated by other workers transferring to employment on the Project or other major infrastructure projects.

Procurement of goods and services for the Project will be sourced from a combination of local/regional and non-local/regional locations, depending on the nature of the good or service. Some goods and services, such as WTG installation or transformer components are specialised and unlikely to be available locally or regionally.

Where a good or service is available locally to the Project Area, businesses will be given the opportunity to tender for supply in parallel to procurement for the supply and installation of WTGs, as well as design and construction of the Ancillary Infrastructure and Temporary Facilities.

Local contractors and service providers will be encouraged to register their interest in supplying goods and services through the Industry Capability Network (ICN) throughout the development phase of the Project. This database will be provided to the key tenderers to encourage local procurement and employment.

Given a level of uncertainty exists regarding labour force and supplier availability in the Study Area due to identified cumulative impacts together with the desire to maximise local inputs; the Proponent will prepare a workforce plan/strategy (refer to Section 4.11) to guide the sourcing of local employment and suppliers based on market conditions in the lead up to the construction phase of the Project commencing.

Economic Development Initiatives

Positive economic development outcomes in regions where large renewable energy projects are constructed and operate is vital for the transition of these economies. With regard to the Project, the Proponent has identified a range of initiatives and commitments relating to procurement and skill development that will build capacity in the local economy. These include:

- **Education and Training Opportunities**, the Proponent supports the Aboriginal economic participation objectives outlined in the NSW Office of Energy and Climate Change Electricity - Infrastructure Roadmap, First Nations Guidelines (August 2022). Aligned with these objectives, at a minimum the Proponent commits to one or a combination of the following:
 - at least 1.5% of the contract value to be subcontracted to Aboriginal owned businesses.
 - at least 1.5% of the contract's Australian based workforce that directly contributes to the contract to be Aboriginal or Torres Strait Islander peoples; and

- at least 1.5% of the contract value to be applied to the cost of education, training or capacity building for Aboriginal staff or businesses directly contributing to the contract.
- **Local Jobs, Suppliers and Contractors.** The Proponent will setup a Project page on the Industry Capability Network (ICN) or a similar platform. By doing so, this will enable local and regional businesses to express their interest in specific packages of works associated with the construction of the Project. The Proponent would then provide this information to the EPC/major contractor(s) to ensure that the local and regional businesses with specific capabilities are considered.

4.5 Housing and Commercial Accommodation Sector Impacts

Project Accommodation Needs and Study Area Capacity

Data provided by the Proponent indicates 320 non-local FTE workers may need to be accommodated in the Study Area at the Project's peak (which is likely to last for several months and potentially occur multiple times if the construction of the Project is staged).

This calculation is based on 80% of the 400 peak on-site FTE workers and represents workers coming from outside the Study Area and requiring accommodation. This level of accommodation relates to the Project's peak only. The average number of non-local staff requiring accommodation across the combined 48 months (two-stage construction phase) is estimated at 200 FTE workers (noting this number will be much lower during periods of low site activity).

Temporarily relocating staff are likely to include general managers, project managers, supervising engineers and wind farm specialists. Contract lengths will vary. This highlights the need for a range of accommodation types including higher-end options for staff on longer contracts, to convenient low-cost options for those on short-term contracts or lower paid employment.

As outlined in Chapter 3.0, the Study Area currently has a capacity of approximately 840 rooms and cabins in commercial accommodation in locations within a 60-minute drive of the Project Area. Assuming each non-local worker requires individual accommodation, approximately 38% (or 320 rooms) of this accommodation stock would be required at peak times to service the Project (if all workers resided in short-term commercial accommodation).

However, this requirement is likely to be much lower as many workers are likely to choose to be accommodated in B&Bs, shared private rentals (e.g., holiday homes, Airbnb), or stay with family or friends (where possible). Additionally, other workers may share motel rooms/cabins/rentals etc to reduce costs.

There are approximately 34 private short-term rentals and 2,130 unoccupied dwellings in the Study Area. Potential likely exists for some of the unoccupied dwellings to be released to the market and support the Project.

While this data indicates that adequate capacity currently exists in the Study Area to accommodate the number of non-local workers expected at the peak of the Project, increased demand from concurrent regional infrastructure projects (refer to Section 4.3) has significant potential to result in accommodation shortages, as highlighted by consultation undertaken by the Proponent. There is a risk that a constrained accommodation sector resulting from the cumulative impacts of concurrent infrastructure projects (including the Project) could negatively impact other sectors in the local economy such as tourism and agriculture.

In view of these factors, the reuse of the Balranald Temporary Workers Camp (TWC) should be considered as part of a broader Construction Workforce and Accommodation Strategy (CWAS) (refer to Section 4.11). The Balranald TWC can accommodate 400 workers and as such may significantly assist in ensuring no further pressure is put on the Study Area's commercial and short-term accommodation and rental markets.

The Proponent has received written support from the TWC operator noting timing arrangements with the EnergyConnect transmission project must align. As such, the use of the Balranald TWC is a potential key option for housing the Project workforce.

4.6 Local Wage Spending Stimulus

Construction employment estimates outlined earlier in this report indicate that 80% of the direct FTE of 250 construction jobs (200 FTE workers) may need to be sourced from outside the Study Area, particularly specialist and management positions.

This level of employment would equate to \$60.1 million in after tax wages (2023 dollars) on the basis that each non-local worker is employed for combined 48 months two stage construction phase and earns the average fulltime total construction wage of \$100,000 p.a.(source: ABS, *Average Weekly Earnings 6302.0 - Full Time Adult Total Earnings*, November 2023).

A considerable portion of these wages would be spent in the Study Area, where these workers will be based. An estimated \$30.1 million in wages (2023 dollars) would likely be directed to local and regional businesses and service providers during the construction period. This estimate is based on reference to the ABS *Household Expenditure Survey* which indicates that approximately 50% of post-tax wages are likely to be spent by workers in the regional economy in view of the wide range of goods and services available in the Study Area. This spending would include the following:

- Housing expenditure, including spending on accommodation at hotels, motels, caravan/holiday parks, B&Bs, and private rental dwellings
- Retail expenditure, including spending on supermarket items, clothing, books, homewares etc
- Recreation spending associated with day trips and excursions, gaming (lottery, sports betting, etc), purchases in pubs and clubs (although noting that expenditures at restaurants is included in the retail category)
- Personal, medical and other services, such as GP fees and local prescriptions, fuel, vehicle maintenance and so on.

This level of personal spending would generate the equivalent of approximately 38 FTE jobs (on average per month) in the services sector and associated supply chains (based on 1 FTE job allocated for every \$200,000 of induced spending), supporting jobs in the Study Area such as in retail, accommodation, trade supplies, health services, fuel supplies, cafes and restaurants etc. These jobs are included in the 'indirect employment' estimates outlined in Section 3.2 above.

4.7 Agricultural Impacts

Approximately 16,347 ha of existing agricultural land will be required to host the Project, with a relatively small Development Footprint of 768 ha (~4.5%). Land within the Development Footprint is currently used for cropping of cereal crops and some sheep grazing.

No loss of employment associated with the Project Area is anticipated, either directly (on-site) or through agricultural supply chains. Some disruption is likely during construction; however the scale of current activities can continue broadly similar after construction.

Agricultural activities are expected to be ongoing on the Project Area and will co-exist with the operation of the Project. It is also important to recognise benefits to host landowner properties from the Project, including improved access facilitated by 90 km of new internal tracks which will assist in improving farming efficiencies such as access to stock. The improved access would also reduce bushfire risks across the landholdings decreasing the likelihood of loss of buildings, machinery, livestock, fencing etc.

4.8 Local Road Improvements

Movement of large equipment and everyday worker access to the Project Area during the construction phase will principally occur via the existing local road network; with the main access occurring via Yanga Way, Balranald-Moulamein Road and Arundel Road.

Where required, roads will be upgraded by the Proponent to accommodate transportation of Project components. This may include (but is not limited to) temporary road widening, temporary removal of street signage and lighting, and temporary protection near overhead power lines.

Intersection upgrades on Sturt Highway/Yanga Way intersection, Yanga Way/Balranald Road intersection, as well as upgrade works to significant lengths of Balranald road are likely to be of benefit to local road users and may increase road safety, especially during periods of high seasonal traffic/haulage, such as grain harvest.

4.9 Ongoing Economic Stimulus

Landowners

Local landowners involved in the Project will receive annual lease payments to host Project infrastructure. These payments are confidential between the Proponent and landowners.

Some non-host neighbouring property owners will also receive annual payments. These payments are confidential between the Proponent and neighbouring landowners. The payments have been aggregated and included in the operational stimulus figure outlined later in Section 4.9.

Community

Once the Project is operational, the Proponent will make payments into a Community Benefit Fund (linked to CPI increases) for the operating life of the Project.

The Proponent is proposing to establish a two-tiered fund that is currently in the initial stages of discussions with both Murray River Council and Balranald Shire Council. The Community Benefit Fund will be allocated via a merit selection process conducted by a panel made up of Proponent representatives, council representatives and broader community representatives, and led by an independent chair. The two-tiered fund is outlined in Table 10.

Table 10 *Proposed Community Benefit Fund*

Fund type	Amount	Description
Donations, sponsorships, and events	Up to \$50,000 per donation, sponsorship and event Requests under \$50,000 will involve a fast-track approval process`	Small amounts may be awarded outside the defined funding rounds, subject to approval by Project Manager. These are available for small community groups, local events or fundraising initiatives. Examples include: - Focus on grassroots initiatives addressing community needs - Support for community fundraising and local events - Sponsorships for regional events by local organisations.
Community partnerships and legacy projects	Over \$50,000	Intended for larger regional infrastructure and development initiatives, identified in consultation with community, stakeholders, and government. Focus areas including but not limited to: - Social resilience and wellbeing - Economic development and diversification - Environmental stewardship and conservation

Source: WindLab

Local Wage Stimulus

The Project will support 24 FTE jobs (direct and indirect) in the Study Area during the operational phase. These 24 FTE jobs will provide an estimated stimulus within the Study Area of approximately \$1.0 million (2023 dollars) in Year 1 of operations. This figure is based on the assessment that there will be no loss in direct or indirect agricultural jobs associated with the Project (i.e., agricultural activities will continue at existing levels across the Project Area). Refer to Section 4.6 for wage stimulus methodology.

Total Operational Stimulus

The total economic stimulus associated with the operation of the Project is estimated at approximately \$280 million over 30 years of operation, (2023 dollars, CPI adjusted) relating to operational wage stimulus, host and neighbouring landowner payments and Community Benefit Fund payments.

4.10 National Grid Supply Benefits

With a capacity of 750 MW, the Project has the potential to provide sufficient renewable energy to support the annual electricity needs of the equivalent of approximately 434,000 NSW households, according to information provided by the Proponent.

In a regional context, the Study Area currently contains approximately 15,460 private dwellings (ABS Census 2021); therefore, the Project has the potential to provide almost thirty times the annual electricity requirements of the Study Area, highlighting the importance of the Project from a clean electrical generation perspective. Moreover, the Project will have the potential to supply 12.9% of NSW homes or 33.9% of Regional NSW homes, further reflecting the importance of the Project on a state-wide scale.

4.11 Proposed Mitigation Measures

Ten projects have been assessed as medium impact as a result of the construction phase of the Project in Section 4.3. The following mitigation measures if appropriately implemented will greatly reduce the impact of the Project on the projects and local communities surrounding the Project.

Construction Workforce and Accommodation Strategy

A 400-bed Balranald TWC has in the past been used by solar farm developers during the construction phase of the Limondale and the Sunraysia solar farms.

Positioned in proximity to the Balranald Main Street (on the corner of Bank Street and Church Street in Balranald), the facility offers convenience to key services for construction workers relocating to the area, reflecting the need to 'import' a large workforce to service these projects due to limitations (size, skills, availability etc) of the local workforce.

Development approval for the accommodation facility was granted in 2018 by the Balranald Shire Council, to operate until October 2023 (5 years). The development approval has now been modified and the TWC is now classified as a permanent accommodation camp with the condition that it must not be inactive for 12 consecutive months. The worker accommodation facility contains the following buildings:

- Office
- Kitchen
- Gym
- Recreation
- Laundry
- Linen.

The constrained nature of accommodation supply in the Study Area and likely small proportion of Project workers able to be sourced locally (20%) will require a range of accommodation responses. The Proponent has received written support from the TWC operator noting timing arrangements with the EnergyConnect transmission project must align. As such, the use of the Balranald TWC is the principal solution for housing the Project workforce.

The Balranald Settlement Strategy, December 2022 (Settlement Strategy (Enhancement & Growth) – Shire Of Balranald) has identified the Balranald TWC site as an infill development opportunity with "perhaps the greatest potential to be leveraged to meet a substantial amount of housing need for the major projects & peak agricultural employment." (pg23).

Other relevant Settlement Strategy recommendations include:

- Council continue to work with the owners of the Temporary Workers Camp to encourage more permanent & higher amenity facilities to service a range of projects over the next 10 years including EnergyConnect / Solar Farms / key picking seasons etc.
- Council should work with the current owner to see if there is flexibility to extend operations to address a wide range of projects in the next 5 years (& ongoing).
- There may be opportunity for Council to partly invest in some of the facilities or facilitate more permanent / higher amenity accommodation & support services.
- Links between the TWC to the town centre should be improved.
- Identify a smaller site for temporary workers for other projects.

Prior to commencing construction the Proponent will prepare a Construction Workforce and Accommodation Strategy (CWAS) for the Project in consultation with relevant stakeholders (including Council).

This CWAS might include the following:

- Measures to ensure there is sufficient accommodation for the workforce associated with the construction phase of the Project (which might include the Balranald TWC)
- Measures to addresses any specific cumulative impacts arising associated with other State significant development projects in the area
- Measures to prioritise the employment of local workers and the procurement of local businesses for the construction and operation of the Project

- A program to monitor and review the effectiveness of the Strategy over the life of the Project, including regular monitoring and review during the construction phase.

4.12 Project Decommissioning

The Project has an operating life of approximately 30 years, at which stage there are likely to be three main options for consideration:

- Continue to use the Project Area as a wind farm using the existing infrastructure, potentially with some refurbishments.
- Replace/modernise all Project infrastructure and continue to operate as a new/significantly upgraded wind farm (subject to planning approvals)
- Decommission the Project by removing all above ground infrastructure and rehabilitating the Project Area so the land can be returned to agricultural use.

Decommissioning funding is being investigated by the Proponent as well as working with the industry to continue to explore options to recycle wind turbine blades.

If decommissioning were to occur, these activities pose similar potential impacts and benefits as construction activities, albeit over a shorter timescale. Decommissioning activities would involve a significant on-site workforce to dismantle the infrastructure and other workers to transport of project components from the site for disposal or recycling. The Project Area then would require a range of resources to undertake rehabilitation activities.

Decommissioning would therefore support significant employment, business contracts and provide a spending stimulus to the Study Area over the decommissioning period.

4.13 Estimated State Benefits

A requirement of the Project's supplementary SEARS (19 December 2023) is to identify the Project's economic benefits for the state of NSW as a whole. The Project is estimated to deliver the following key NSW State-wide economic benefits:

- Development costs: \$460 million or 30% of total Project development cost, recognising the large import component associated with wind farms and noting the Project is located close to Victoria. As such Swan Hill is expected to provide labour and key services to the Project.
- Construction employment: 455 FTE jobs or 70% of total average construction employment (direct and indirect)
- Ongoing employment: 36 FTE jobs, or 70% of total operating employment (direct and indirect)
- Supports ongoing industry transition in Regional NSW from agriculture and other activities to renewable energy.

Future decommissioning investment and employment opportunities, to be determined (refer to Section 4.12).

4.14 Conclusions

1. The Project will require approximately \$1.5 billion in investment during the construction phase (of which approximately \$230 million will be retained in the Study Area) and will support 250 direct and 400 indirect Full Time Equivalent (FTE) positions on average over the two-stage combined 48-month construction period. Once operational, 15 direct and 45 indirect FTE jobs will be supported by the Project.
2. The Study Area is expected to benefit from 130 FTE construction jobs (50 direct and 80 indirect) and 24 FTE (15 direct and 9 indirect) ongoing jobs associated with the Project.
3. The Study Area has moderate capacity in terms of construction-related workers (5,950 workers) and businesses (605 businesses) to manage the requirements of the Project, and concurrent regional infrastructure projects if required.
4. The Project will provide new participation opportunities for businesses and workers located in the Study Area, having regard for the good match of skills and resources available and procurement activities by the Proponent.
5. The 'external' Project labour requirement is expected to generate an accommodation need for 320 FTE workers at the peak of the Project. This represents 38% of total commercial accommodation rooms/cabins within a 60-minute drive of the Project Area. However, some further capacity is available in private rentals (e.g., long-term houses/units, and potentially unoccupied dwellings) - some of which may become available to the market to support the Project. While this data indicates some capacity currently exists in the Study Area to accommodate non-local workers it is

recognised the long-term rental housing market (a preference for many construction workers) has very limited supply; while increased demand from concurrent regional infrastructure projects (refer to Section 4.3) and seasonal accommodation demands (tourism, agricultural activities etc) also needs to be factored in. In this regard, the Proponent has received written support from the TWC operator noting timing arrangements with the EnergyConnect transmission project must align. As such, the use of the Balranald TWC is the principal solution for housing the Project workforce.

6. Construction workers relocating to the region would be expected to inject approximately \$30.1 million in new spending into the economy over the construction phase, supporting approximately 38 FTE jobs in the service sector in the Study Area over this time.
7. Cumulative impacts are associated with significant development of major renewable energy projects in the SW REZ in the coming years and ongoing demand from the tourism, agriculture and mining sectors. Potential impacts may include insufficient accommodation and workers to service the Project and concurrent demands. In this regard strategies to manage accommodation demand, local procurement and employment should be considered by the Proponent.
8. Approximately 16,367 ha of existing agricultural land will be required to host the Project, with a development footprint of 768 ha. This land, which will be leased from the existing landowners, is mainly used for cropping cereal and some sheep grazing. No loss of employment associated with the Project Area is anticipated, either directly (on-site) or through the supply chain. Agricultural activities are expected to be ongoing on the Project Area and ultimately co-existing during the operational phase of the Project.
9. Ongoing economic stimulus associated with the operation of the Project is estimated at approximately \$280 million (over 30 years, CPI adjusted) relating to landowner leases and neighbourhood payments, operational wage stimulus and community benefit payments.
10. The Project has the capacity to supply sufficient clean energy to power the equivalent of approximately 434,000 homes pa, which represents approximately thirty times the total annual residential requirements of the Study Area (15,460 homes).
11. In order to minimise potential Project impacts the following mitigation measure is recommended:
Prior to commencing construction of the Project, it is recommended the Proponent prepare a Construction Workforce Accommodation Strategy, in consultation with relevant stakeholders. Consideration of the reuse of the existing Balranald TWC should be included in this Strategy.