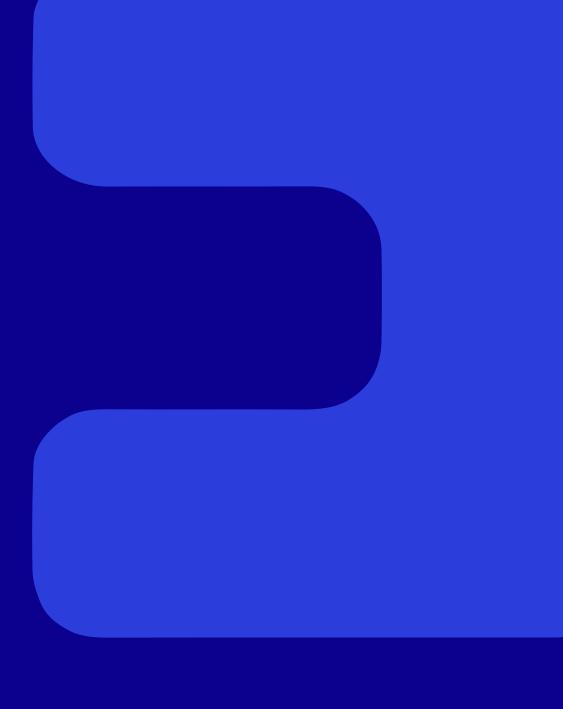


Tallawang Solar Farm

Amended Project - Economic Impact Assessment (EIA)

Prepared for RES Group







'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.

Contact:	John Noronha	jnoronha@ethosurban.com		
	Director, Economics			
This document has been prepared by:		This document has been reviewed by:		
Alex Wilson	17 May 2024	John Noronha	17 May 2024	
Version No.	Date of issue	Prepared by	Approved by	
1.0 DRAFT	15/10/2021	AW	JN	
2.0 DRAFT V2	18/03/2022	AW	JN	
3.0 DRAFT V3	14/04/2023	AW	JN	
4.0 DRAFT V4	06/02/2024	AW	JN	
5.0 Revised DRAFT	13/05/2024	AW	JN	
6.0 Final Report	17/05/2024	AW	JN	

Reproduction of this document or any part thereof is not permitted without written permission of Ethos Urban Pty Ltd. Ethos Urban operates under a Quality Management System. This report has been prepared and reviewed in accordance with that system. If the report is not signed, it is a preliminary draft.



 $Ethos\ Urban\ Pty\ Ltd\ |\ ABN\ 13\ 615\ 087\ 931\ |\ Sydney\ NSW\ |\ Melbourne\ VIC\ |\ Brisbane\ QLD\ |\ ethosurban.com$

Contents

Execut	tive Summary	5
1.0	Introduction	8
1.1	Background	8
1.2	Methodology	8
2.0	Project Context	10
2.1	Site Location	10
2.2	The Amended Project	10
2.3	Policy Context	12
2.4	Study Area	15
2.5	Summary	17
3.0	Baseline Economic Profile	18
3.1	Population	18
3.2	Labour Force	18
3.3	Industry Structure	19
3.4	Occupational Structure	19
3.5	Business Structure	20
3.6	Township Service Capacity	21
3.7	Summary	25
4.0	Economic Impact Assessment	26
4.1	Project Investment	26
4.2	Project Employment	26
4.3	Cumulative Effects Assessment	28
4.4	Labour Force and Business Participation Assessment	31
4.5	Housing and Commercial Accommodation Sector Impacts	31
4.6	Local Wage Spending Stimulus	32
4.7	Agricultural Impacts	32
4.8	Ongoing Economic Stimulus	32
4.9	National Grid Supply Benefits	33
4.10	Tourism Opportunities	33
4.11	Estimated State Benefits	33
4.12	Proposed Mitigation Measure	34
4.13	Project Decommissioning	34
4.14	EIA Conclusions	34

Figures

Figure 1	Tallawang Solar Farm – Preliminary Site Layout	11
Figure 2	Tallawang Solar Farm – Preliminary Temporary Workforce Accommodation Facility Site Layout	12
Figure 3	Central West Orana Renewable Energy Zone	14
Figure 4	Tallawang Solar Farm – Study Area	16
Tables		
Table 3.1	Population Projections – Study Area, 2021-2036 (No. of Persons)	18
Table 3.2	Resident Labour Force Statistics – Study Area, December 2023 (No. of Persons)	18
Table 3.3	Study Area Worker Industry of Employment, 2021 (No. of Persons)	19
Table 3.4	Study Area Worker Occupations, 2021 (No. of Persons)	19
Table 3.5	Business Structure – Study Area, June 2022	20
Table 4.1	Construction Employment Summary	27
Table 4.2	Planned, Approved and Under Construction Renewable Energy and Other Major Projects	29
Table 4.3	Tallawang Solar Farm Accommodation Breakdown	31
Table 4.4	Dronosed Mitigation Measures	3/1

Executive Summary

RES Australia Pty Ltd (the Proponent) has commissioned Ethos Urban to prepare an Updated Economic Impact Assessment (EIA) for the proposed 500 MW Tallawang Solar Farm development (the Amended Project), at 900 Castlereagh Highway, approximately 8 km northwest of Gulgong in the Mid-West Regional Local Government Area (LGA), NSW. The Amended Project is located in the Central West Orana Renewable Energy Zone (CWO REZ).

The Amended Project will be located across an approximate 1,300-ha site (Project Area) comprising four landowners and, subject to planning approval, grid connection and financing, the facility is expected to be operational by Q4 2026.

The main findings of this EIA are summarised as follows.

Regional Economic Context

- 1. The population of the Study Area totalled 148,430 persons (rounded) as of June 2021 (ABS Estimated Resident Population 2024 release). Over the period 2021-2036, annual population growth in the Study Area is expected to be +0.8% p.a. compared to the NSW growth rate of +1.0% p.a, and Warrumbungle LGA is projected to experience population decline over the coming years. Local investment in renewable energy projects (such as the Project) can generate new employment opportunities for residents, help workers transition from the mining sector, and provide new income streams for local farmers. These factors may contribute to population levels within the Study Area being retained or potentially increasing.
- 2. The Study Area had an unemployment rate of 1.6% in December 2023, compared to the NSW rate of 3.3%; with approximately 1,270 jobseekers unemployed at that time. Construction of the Amended Project will provide new short-term employment opportunities for the Study Area's labour force participants (including unemployed jobseekers subject to suitable skills match), with a small amount of ongoing employment also supported once the facility 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 23,380 workers (based on occupations such as trades, labourers, machinery operators) and 2,680 businesses in the Study Area involved in construction-related activities. The Study Area's construction sector employs 5,750 workers, which includes administrative and managerial positions.
- 4. The major regional cities/townships of Dubbo, Mudgee, Scone and Bathurst have the capacity and labour force to service many aspects of the Project, with smaller settlements such as Gulgong, Dunedoo, Wellington, and Coolah, also likely to provide labour, and other general services to the Project.

Economic Impact Assessment

- 5. The Amended Project will require approximately \$1.3 billion in investment during the construction phase (of which approximately \$195 million will be retained in the Study Area) and will support 230 direct and 370 indirect Full Time Equivalent (FTE) positions on average over the 36-month construction period (i.e., 600 FTE jobs in total). Once operational, 13 direct and 40 indirect FTE jobs will be supported by the Project.
- 6. Of this total, the Study Area is expected to benefit from 85 FTE construction jobs (on average) and 21 FTE ongoing jobs (includes direct and indirect jobs) associated with the Project.
- 7. The Study Area has some capacity to contribute to the Amended Project and concurrent regional infrastructure projects based on its economic structure and relatively large share of construction-related workers (23,380 workers) and businesses (2,680 businesses). However, the regional labour market is tight, highlighted by the Study Area's low unemployment rate of 1.6% and significant demand from emerging renewable energy construction projects. Accordingly, the Proponent has been advised by MWRC that only approximately 5% of the workforce could realistically be sourced from the Study Area. The Amended Project will provide some new participation opportunities for businesses and workers located in the Study Area, having regard for the good match of skills and resources available.
- 8. The 'external' (or non-local) Project labour requirement is expected to generate an accommodation need for 400 direct FTE workers at the peak of construction. The Project's Accommodation and Employment Strategy (AES) identified extremely limited capacity in short term accommodation for the Project's workforce, especially when considering cumulative impacts from neighbouring projects with overlapping construction timeframes. There may be up to 88 rooms available to the Amended Project at any given time. However, many of these are located in Dubbo, over an hour from the Project.

Therefore, the AES recommends avoiding using short-term accommodation, except for sporadic use by non-regular workers such as consultants, or short-term term use by the small workforce required to construct the recommended on-site Temporary Worker Accommodation (TWA) facility.

- 9. Construction workers relocating to the region would be expected to inject approximately \$24.6 million in new spending into the economy over the construction phase, supporting approximately 41 FTE jobs in the service sector in the Study Area over this time.
- 10. The Amended Project Site will be leased from the existing landowners and is mainly used for grazing activities. No loss of agriculture employment associated with the Amended Project Site is anticipated, either directly (on-site) or through the supply chain, as agricultural activities will continue largely unhampered during the operational phase (including within the development footprint).
- 11. Ongoing economic stimulus associated with the operation of the Amended Project is estimated at approximately \$180 million (over 35 years, CPI adjusted) relating to, operational wage stimulus, landowner payments, VPA and shared benefits payments.
- 12. Operation of the Amended Project could potentially support small-scale tourism and educational opportunities in the future, especially in light of the significant development of the renewable energy sector in the nearby CWO REZ over the coming years.
- 13. In addition to supporting NSW State policy directions and national grid supply benefits the Amended Project will deliver the following key Statewide economic benefits:
- Capital investment: \$520 million or 40% of total Project capital investment (recognising the large import component associated with Solar Farms)
- Construction employment: 480 FTE jobs or 80% of total (direct and indirect) construction employment)
- Ongoing employment: 40 FTE jobs, or 80% of total (direct and indirect) operating employment
- · Future decommissioning investment and employment opportunities, to be determined.

Proposed Mitigation and Management Measures

- 14. In order to minimise adverse impacts and maximise benefits of the Project, the following mitigation measures are recommended for the Proponent's consideration:
- Prior to commencing construction, it is recommended the Proponent update the AES for the Amended Project in consultation with relevant stakeholders.

Net Economic Benefit Assessment

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

Table A. Tallawang Solar Farm – Net Economic Benefit Assessment

Factor	Value				
Negative Economic Outcomes					
Temporary loss of agricultural land (35 years) (Development Footprint)	1,016 ha				
Loss of employment (includes direct and indirect jobs)	0 jobs				
Positive Economic Outcomes					
Construction Phase (36-Months)					
Estimated Development Costs	+\$1.3 billion				
EIA Study Area investment (including wage stimulus)	+\$195 million				
EIA Study Area Investment (including wage stimulus)	(assumes 15% of total investment)				
Construction employment (average no. of FTE jobs for 36 months)	230 FTE Direct + 370 FTE Indirect				
	Total: 600 FTE				
	<u>EIA Study Area jobs</u>				
	10 FTE direct on-site				
EIA Study Area employment (average no. of FTE jobs for 36 months)	75 FTE indirect off-site				
	Total: 85 FTE				
Operational Phase (35 Years)					
Operational employment average no. of ongoing FTE jobs)	13 FTE Direct + 40 FTE Indirect				
	Total: 53 FTE				
	13 FTE direct on-site				
EIA Study Area operational employment (average no. of FTE ongoing jobs)	8 FTE indirect off-site				
	Total: 21 FTE				
Operational Economic Stimulus					
Total net local economic stimulus (operational wage stimulus, Community Benefit Sharing payments, landowner lease and \$180 million neighbourhood payments. Excludes increased Council rates returns).					
Total Economic Benefits (Construction and Operational Phases)	\$375 million				
Decommissioning Phase					
Likely to generate employment, business contract and spending stimulus benefits for the EIA Study Area	Not quantified				

1.0 Introduction

1.1 Background

RES Australia Pty Ltd (RES) is seeking to develop the proposed Tallawang Solar Farm (the Amended Project) in the Central West region of New South Wales (NSW), approximately eight kilometres (km) northwest of Gulgong within the Mid-Western Local Government Area (LGA).

An Economic Impact Assessment was prepared in support of the Environmental Impact Statement (EIS) for the Tallawang Solar Farm (Umwelt, 2022) and was placed on public exhibition in late 2022.

Following exhibition of the EIS, RES is proposing to make amendments to the projectAmended Project as presented in the EIS to address community and agency submissions. The proposed amendments include the introduction of a 400-person Temporary Workers Accommodation (TWA) facility, removal of the proposed overhead electricity transmission line (ETL), BESS capacity increase and an updated treatment design for the proposed intersection upgrade at the new site access on the Castlereagh Highway (the Amended Project). Some minor layout refinements and readjustment of the Amended Project Area boundary and development footprint are also proposed as part of the Amended Project.

This updated Economic Impact Assessment has been prepared to assess the economic impacts and benefits associated with the Amended Project on the region and the State as a whole.

1.2 Methodology

The following methodology has been applied to this EIA:

- Identification of a relevant Study Area for the assessment which reflects likely labour force, accommodation, and supply chain linkages available to support the Amended Project. The Study Area is defined in terms of host and surrounding relevant LGA boundaries.
- Review of federal and state policies relevant to investment in the renewable energy sector, including the Paris Climate Accord and NSW Large Scale Solar Energy Guideline 2022.
- Baseline analysis of population, labour markets, occupational structure and business structure for the Study Area and NSW, with reference to latest available data 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.
- Updated Assessment of Project investment, with investment figures provided by the Proponent. The share of investment retained in the Study Area is informed by benchmarking analysis of similar sized completed renewable energy facilities located in regional areas.
- Updated Assessment of Project employment (direct and indirect) for construction and operational phases. Direct
 employment is assessed as jobs supported through on-site construction and operation of the Amended Project.
 Indirect employment is assessed as jobs supported through the industrial and consumption/induced impacts of
 each Project stage. Relevant ABS multipliers are applied to construction and operational phases. Updated
 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 and share of indirect employment
 supported in the Study Area are advised from the Proponent based on experiences from previous renewable energy
 construction projects in similar regional locations, and preliminary discussions with the local councils and local
 contractors.
- 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 accommodation and housing impacts with reference to the baseline analysis and the estimated number of construction workers that may require accommodation at the Amended Project's peak.
- Updated Assessment of cumulative impacts relating to the potential concurrent construction of major
 infrastructure projects in the Study Area/within 100 km of the Amended Project Site. Importantly the introduction of
 the nearby CWO REZ has supported significant demand for new projects and is likely to continue to generate
 opportunities over the coming years. This includes assessing potential impacts on accommodation and labour and
 providing measures to manage identified cumulative impacts.
- Updated estimates of economic stimulus impacts (construction and operation phases) including Project wages and spending, neighbour benefit payments, uplift in Council rates revenues, and Proponent's Community Shared Benefits Strategy payments. Construction stimulus is expressed in 2023 dollars (and calculated over 36 months), while operational stimulus is calculated over 35 years using 2023 dollars but indexed to 3.0% CPI annually.
- · Description of proposed mitigation measures relating to accommodation, workforce and procurement.

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

The following data sources have been used in preparing is EIA:

- ABS Average Weekly Earnings, November 2023
- ABS, Counts of Australian Businesses, including Entries and Exits, June 2019 to June 2023 (Data cube 10)
- ABS Census of Population and Housing, 2021
- ABS Estimated Resident Population, 2023 (March 2024 release)
- ABS Household Expenditure Survey, 2015-16
- NSW Tourist Accommodation Snapshot December Qtr 2023, STR.com
- Australian National Accounts: Input-Output Tables, 1998-99
- Air DNA, June 2023
- National Skills Commission Small Area Labour Markets, June Quarter 2023
- PwC, Managing the Impacts of State Significant Development, January 2024
- Department of Environment and Planning NSW, State and Local Government Population Projections 2022, 2022 NSW Common Planning Assumption Projections
- SQM Research, June 2023
- Tallawang Solar Farm Social Impact Scoping Report, 30 June 2021
- Tallawang Solar Farm Capital Value Investment Report
- Tallawang Solar Farm Accommodation and Employment Strategy, April 2024 (Umwelt)
- <u>www.energy.nsw.gov.au/renewables/renewable-energy-zones</u>
- <u>www.energyco.nsw.gov.au/index.php/renewable-energy-zones/centralwest-orana-renewable-energy-zone</u>
- www.tripadvisor.com

2.0 Project Context

2.1 Site Location

The proposed Tallawang Solar Farm will be developed on a 1,300-ha site in the central western region of NSW, which is well-connected to a number of major regional centres and towns located within approximately a 60–70-minute drive from the Amended Project Area. These settlements are listed below (in order of population size):

- **Dubbo,** significant regional city located approximately a 70-minute drive to the north west of the Amended Project Area.
- Mudgee, major regional city located approximately a 30-minute drive to the south of the Amended Project Area.
- **Wellington,** small-medium township located approximately a 60-minute drive to the south west of the Amended Project Area.
- Gulgong, small township located approximately a 10-minute drive to the south east of the Amended Project Area.
- Coolah, small township located approximately a 45-minute drive from the Amended Project Area to the north east.
- Dunedoo, small township located approximately a 25-minute drive to the north of the Amended Project Area.
- **Mendooran,** small township located approximately a 50-minute drive from the Amended Project Area to the north west.

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

The Amended Project Area, which comprises four separate landholdings, is currently used for farming purposes (cattle and sheep grazing, with some cropping) under the Rural Use 1 Zone (Primary Production)

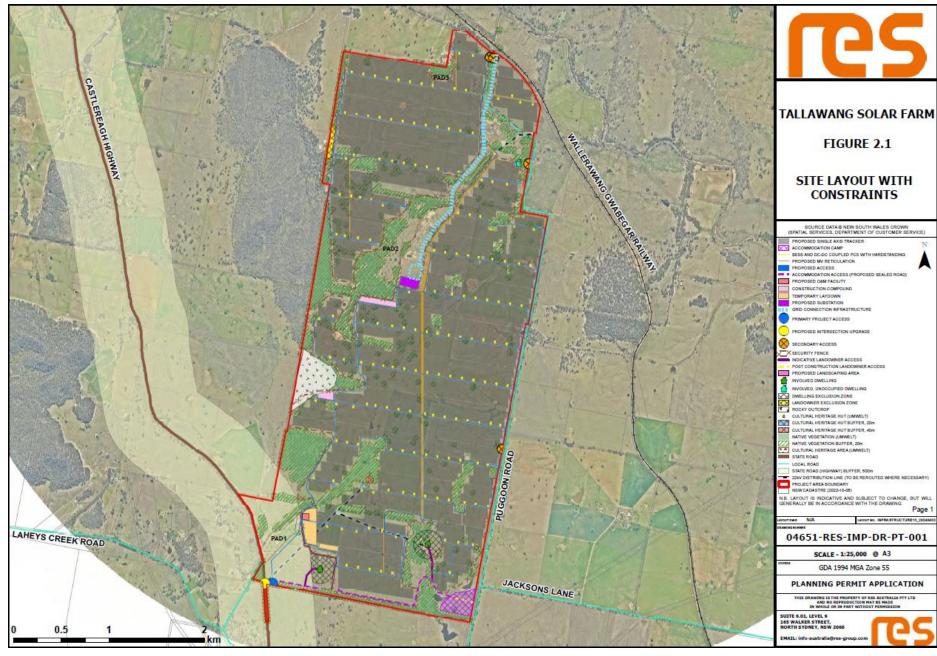
2.2 The Amended Project

The Tallawang Solar Farm project remains generally as described in **Section 3** of the EIS. However, some key design amendments have been made to Amended Project in response to public and agency submissions received during the exhibition period and based on further consultation with agencies, affected landholders and stakeholders more broadly. These include:

- Introduction of a 400-person Temporary Workers Accommodation (TWA) facility
- Updated design for the proposed intersection upgrade on the Castlereagh Highway
- Removal of proposed 13 km overhead electrical transmission line extending north of the Tallawang Solar Farm project area to connect to the proposed CWO Transmission project being planned by EnergyCo
- Increased BESS capacity from 200MW/400MW-h to 500MW/1000MW-h
- Minor layout refinements to optimise the solar array layout within already disturbed areas
- Minor Project Area boundary adjustments due to some of the above amendments.
- No other project amendments have been made.

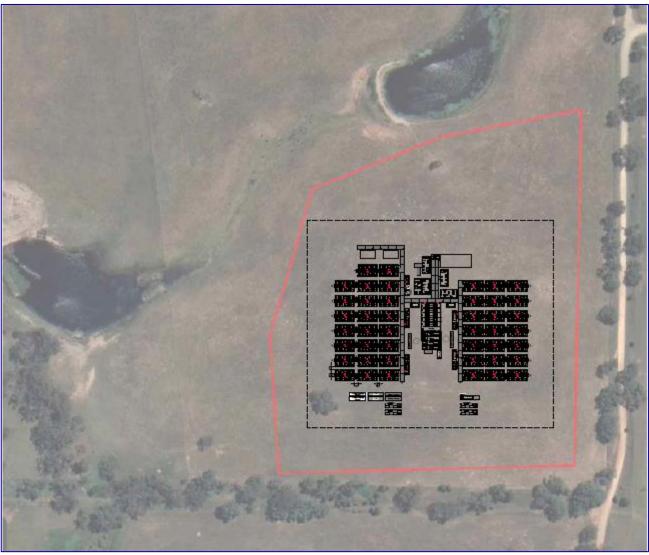
The preliminary site layout for the Amended Project is shown in **Figure 1** and the preliminary layout of the TWA facility is shown in **Figure 2**.

Figure 1 Tallawang Solar Farm – Preliminary Site Layout



Source: RES Group

Figure 2 Tallawang Solar Farm - Preliminary Temporary Workforce Accommodation Facility Site Layout



Source: RES Group; AUSCO

2.3 Policy Context

International agreements and government policy settings are important factors in influencing demand and investment in the renewable energy sector, as noted below.

Paris Climate Accord

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 (NDC) 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 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.

2.3.1 Commonwealth Renewable Energy Target Scheme

The Commonwealth Renewable Energy Target (RET) Scheme has legislated objectives that include encouraging additional electricity generation from renewable sources, reducing greenhouse gas emissions in the electricity sector, and ensuring the use of ecologically sustainable renewable energy sources. The RET operates by creating a market for renewable energy certificates, which promotes investment in the renewable energy sector.

The RET provides the opportunity to both major power stations and owners of smaller systems to generate certificates for each megawatt hour of power they produce. These certificates come in two types: large-scale generation certificates and small-scale technology certificates. Electricity retailers, responsible for supplying power to households and businesses, purchase these certificates and present them to the Clean Energy Regulator. As a result, a market is established, offering financial incentives to both large-scale renewable energy power stations and owners of small-scale renewable energy systems.

The RET aimed to achieve a large-scale renewable generation of 33,000GWh in 2020, accounting for approximately 23.5% of Australia's total electricity generation at the time. This target was met in January of 2021 and will remain at 33,000GWh until 2030.

The Amended Project represents an electricity provider which will be capable of creating large scale generation certificates and participating in the RET. As a provider, the Proponent may sell these certificates to liable entities (mainly electricity retailers who to demonstrate renewable energy use for voluntary purposes.

NSW Large Scale Solar Energy Guidelines 2022

The NSW Large Scale Solar Energy Guidelines issued by the NSW Department of Planning, Housing, and Infrastructure (DPHI) notes (p.34):

"A social impact assessment is required for all state significant Projects and must be undertaken in accordance with the department's Social Impact Assessment Guideline for State Significant Projects (PDF 2,181 KB). The assessment will include both positive and negative impacts of the proposed development on potentially affected people and groups, including how the impacts are distributed. This includes workforce accommodation, job creation opportunities and flow-on economic impacts to local communities."

The SIA prepared by Umwelt and this EIA report addresses these impacts in an integrated approachCentral-West Orana Renewable Energy Zone

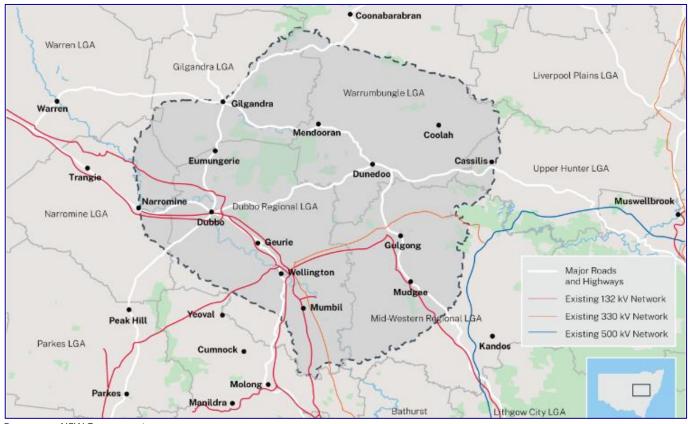
The NSW Government's Electricity Strategy and Electricity Infrastructure Roadmap (Electricity Strategy) sets out a plan to deliver the State's first five Renewable Energy Zones (REZs). The REZs will:

- Group new wind and solar power generation into locations where it can be efficiently stored and transmitted across NSW.
- Keep NSW electricity reliable as coal-fired power stations retire, delivering large amounts of new energy to power our regions and cities.
- Help deliver lower wholesale electricity costs and place downward pressure on customer bills through increased competition, while also supporting new local jobs and business opportunities during construction and operation
- Help service the growing energy needs of emerging green manufacturing, energy intensive agriculture and export market opportunities.

Source: https://www.energyco.nsw.gov.au/renewable-energy-zones/what-renewable-energy-zone

The Amended Project is located within the CWO REZ (refer **Figure 3**) which is the State's first REZ and was formally declared on 5 November 2021.

Figure 3 Central West Orana Renewable Energy Zone



Source: NSW Government

2.3.2 Draft Energy Policy Framework, 2023

Department of Planning, Housing and Infrastructure (DPHI) have provided a section in the Draft Energy Policy Framework namely 'Updates to the Solar Energy Guideline'. The proposed changes to the Large-scale Solar Energy Guideline are still preliminary with further changes expected before the guidelines are finalised. The proposed changes to the Large-scale Solar Energy Guideline are as follows:

Area of Change	Proposed Change
Planning framework	 Consistent with section 2.6 of the draft Wind Energy Guideline, identify that the Minister will consider requests to declare solar energy development as Critical State Significant Infrastructure if it includes a significant energy storage system (for example, a delivery capacity of 750 megawatts or more).
Site selection	 Update section 4.2 of the existing Solar Energy Guideline to identify suitable locations for solar energy development (as shown in Figure 3) to help communities anticipate development and change.
Decommissioning	 Provide a calculator for estimating decommissioning costs to ensure landholders are well informed about the likely costs.
Benefit sharing	 Repeal existing guidance on benefit sharing in section 5.3.2 of the Solar Guideline and replace with a reference to the draft Benefit Sharing Guideline (2023). This encourages applicants to pay \$850 per megawatt per annum (in 2023 dollars) in benefit sharing.
Private agreements	 Repeal existing guidance on private agreements in section 5.3.3 and Appendix B of the Solar Energy Guideline and replace it with a reference to the draft Private Agreement Guideline (2023).
Landscape and visual impact assessment	 Define dwelling and clarify assessment requirements for dwelling entitlements, in accordance with the draft Wind Energy Guidelines (2023), where relevant. Update the assessment methodology in line with the proposed approach for wind and transmission to allow a more proportionate approach that does not rely exclusively on photomontages.

2.4 Study Area

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

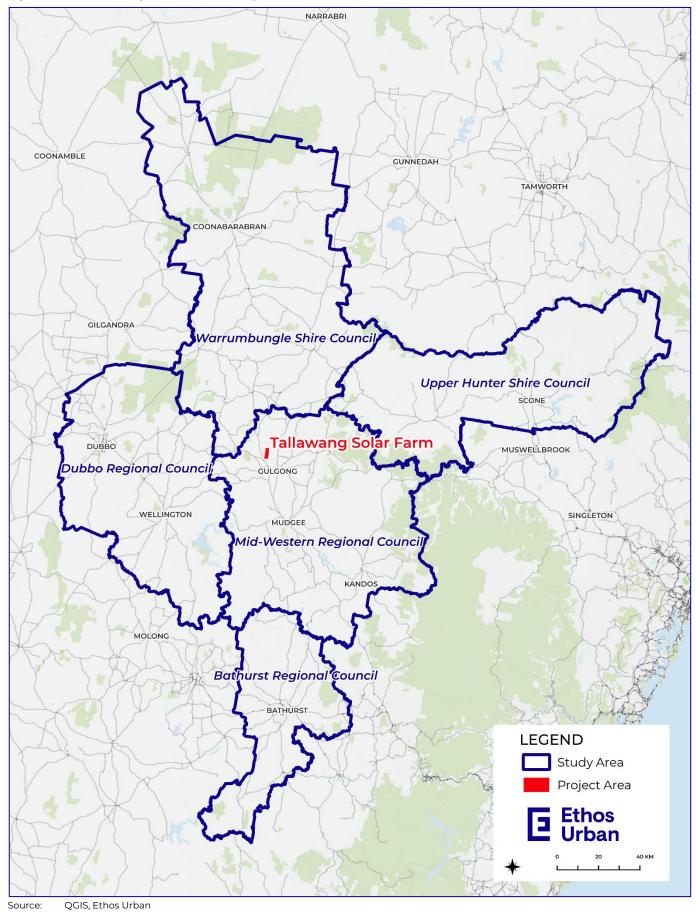
- Mid-Western Regional Council (in which the Amended Project is to be located)
- Dubbo Regional Council
- Warrumbungle Shire
- Bathurst Regional Council
- Upper Hunter Shire Council

The main regional cities/townships/settlements in the Study Area are all located within a 120-minute drive of the Amended Project Area. The Study Area represents feasible drive times for local workers (maximum 60 minutes) and likely service catchment areas for procurement purposes (approximately 120 minutes).

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

The Study Area is illustrated in Figure 4.

Figure 4 Tallawang Solar Farm – Study Area



17 May 2024 | Tallawang Solar Farm Amended Project – Economic Impact Assessment | 3230143 | 16

2.5 Summary

- 1. The Proponent is proposing the construction of the 500 MW Tallawang Solar Farm, which includes a 500 MW BESS and temporary workforce accommodation facility (for the construction phase only). The Amended Project will be located approximately 8 km north-west of Gulgong and is bounded to the west by the Castlereagh Highway, and by agricultural land on the other sides of the Amended Project Area.
- 2. The Amended Project lies within the Mid-West Regional Local Government Area (LGA) in central western NSW and is well connected to the major regional centres of Dubbo, Mudgee, Scone and Bathurst.
- 3. The Amended Project will be located across four properties totalling approximately 1,300 ha of agricultural land, which is currently used mainly for cattle and sheep grazing.
- 4. Subject to planning approval, grid connection approval and financing; it is anticipated construction of the Amended Project could start in Q4 2026, and the construction phase spanning 36-months with the Amended Project completed expected in Q4 2029
- 5. Federal (Paris Climate Accord) and State (NSW Large Scale Solar Energy Guidelines) policies provide guidance for the renewable energy sector in the short-to medium-term. Additionally, the NSW Government is in the process of setting up a Renewable Energy Zone in the State's Central-West, which covers the area in which the Amended Project is to be located. This initiative is aimed at providing more certainty for the sector, especially with regard to the transmission network, and in doing so stimulate major investment in the sector.
- 6. This EIA will provide an understanding of potential economic benefits arising for the local and regional economies and communities through the construction and operational stages of the Amended Project, as well as any other impacts associated with the Amended Project.

3.0 Baseline Economic Profile

3.1 Population

The population of the Study Area totalled 148,430 persons as of June 2021 (ABS Estimated Resident Population, 2024), including 55,530 persons located in in the Dubbo Regional Council LGA.

Over the period 2021-2036, annual population growth in the Study Area is expected to be +0.8% p.a. (or +18,120 persons p.a. over 15 years) compared to the New South Wales growth rate of +1.0% p.a. While this level of growth is comparatively subdued, it is noted that Dubbo Regional Council and Mid-Western Regional Council are both projected to experience an average population growth rate (+0.8% and +0.7% respectively).

Conversely, Warrumbungle and Upper Hunter LGAs are projected to experience a decline in population over the period. This highlights the need for local investment projects which provide new employment opportunities for residents and alternative income streams for local farmers. Both these factors can contribute to retaining, and potentially expanding, population within this LGA.

The proposed Amended Project will provide new income to the host landowners (farm operators), while the construction and operational phases of the Amended 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 shown in **Table 3.1**, are based on official population projections prepared by New South Wales government and the most recent ABS estimated resident population figures.

Table 3.1 Population Projections – Study Area, 2021-2036 (No. of Persons)

New South Wales	8,097,060	8,455,150	9,398,170	+1,301,110	+1.0%
Total Study Area	148,430	154,380	166,550	+18,120	+0.8%
Bathurst Regional	43,670	46,430	52,850	+9,180	+1.3%
Upper Hunter Shire	14,260	14,260	13,830	-430	-0.2%
Mid-Western Regional	25,710	26,590	28,740	+3,030	+0.7%
Warrumbungle Shire	9,260	9,010	8,260	-1,000	-0.8%
Dubbo Regional	55,530	58,080	62,880	+7,350	+0.8%
Population (no.)					
Locality	2021	2026	2036	Total Growth (no.)	o 2036 Average Annual Growth Rate (%)
	3	irea, 2021-2030 (140. 0	, , , , , ,		

Sources: ABS, 3218.0 Regional Population Growth, Australia; Department of Environment and Planning – NSW State and Local Government Population Projections 2022

Notes: Figures rounded

3.2 Labour Force

The Study Area has an unemployment rate of 1.6%, which is significantly lower than the rate for NSW (3.3%), as of December 2023 (latest available). The Study Area currently has approximately 1,270 persons unemployed. This information is sourced from the Australian Government – Small Area Labour Markets data.

It is anticipated that the Amended Project would require 420 workers (at the Project's peak), with potentially 5% of these workers (20 workers) sourced locally or from within the Study Area, providing new opportunities for unemployed job seekers (subject to appropriate skills match) (Umwelt, 2024).

Labour supply and demand factors are further explored in Section 4.4.

Table 3.2 Resident Labour Force Statistics – Study Area, December 2023 (No. of Persons)

LGA/Area	Labour Force	Unemployed	Employed	Unemployment Rate
Dubbo	28,190	520	27,670	1.8%
Warrumbungle	4,250	100	4,150	2.4%
Mid-Western	13,180	170	13,010	1.3%
Upper Hunter	7,920	190	7,730	2.4%
Bathurst	23,500	290	23,210	1.2%
Total Study Area	77,040	1,270	75,770	1.6%
New South Wales	4,530,400	148,600	4,381,800	3.3%

Source: Australian Government Department of Jobs and Skills, Small Area Labour Markets, December Quarter 2023

Note: Figures rounded.

3.3 Industry Structure

The Study Area has 8.9% (or 5,750 persons) of its workforce employed in the Construction industry, in line with the NSW benchmark of 9.0% (ABS Census, 2021). This similarity reflects the region's well-established construction sector. Notably, this workforce will likely play a role in the Project's construction phase.

Table 3.3 Study Area Worker Industry of Employment, 2021 (No. of Persons)

In dustry	Study	Area	NSW
Industry	no.	%	%
Agriculture, Forestry and Fishing	4,820	7.4%	2.1%
Mining	3,410	5.2%	1.0%
Manufacturing	3,860	5.9%	5.7%
Electricity, Gas, Water and Waste Services	850	1.3%	1.0%
Construction	5,750	8.9%	9.0%
Wholesale Trade	1,380	2.1%	2.9%
Retail Trade	6,100	9.4%	9.4%
Accommodation and Food Services	4,660	7.2%	6.5%
Transport, Postal and Warehousing	2,240	3.5%	4.8%
Information Media and Telecommunications	520	0.8%	1.9%
Financial and Insurance Services	910	1.4%	5.5%
Rental, Hiring and Real Estate Services	730	1.1%	1.8%
Professional, Scientific and Technical Services	2,480	3.8%	9.3%
Administrative and Support Services	1,890	2.9%	3.4%
Public Administration and Safety	4,890	7.5%	6.3%
Education and Training	6,520	10.0%	9.2%
Health Care and Social Assistance	10,450	16.1%	15.1%
Arts and Recreation Services	980	1.5%	1.5%
Other Services	2,540	3.9%	3.6%

Source: ABS, Census of Population and Housing, 2021, TableBuilder - Usual Place of Residence

Note: Figures rounded.

3.4 Occupational Structure

The Study Area's occupational structure has 35.0% of employed residents in construction-related roles, representing approximately 23,380 workers (ABS Census, 2021. This share is notably higher compared to the NSW benchmark of 26.1%, reflecting a favourable environment for major infrastructure development in the region.

The higher share of workers employed in the construction-related sectors likely reflects the presence of regionally significant mining and agricultural operations in the Study Area.

The occupational structure of the Study Area is shown in the ${f Table~3.4}$ with the key occupations highlighted.

Table 3.4 Study Area Worker Occupations, 2021 (No. of Persons)

Occupation -	Stud	New South Wales	
Occupation	(no.)	(%)	(%)
Managers	9,110	13.6%	14.6%
Professionals	11,440	17.1%	25.8%
Technicians and Trades Workers	9,960	14.9%	11.9%
Community and Personal Service Workers	9,180	13.7%	10.6%
Clerical and Administrative Workers	7,550	11.3%	13.0%
Sales Workers	5,570	8.3%	8.0%
Machinery Operators and Drivers	5,560	8.3%	6.0%
Labourers	7,860	11.8%	8.2%
Inadequately described/ Not Stated	630	0.9%	1.9%
Total	66,860	100.0%	100.0%

Source: ABS, Census of Population and Housing, 2021, TableBuilder – Usual Place of Residence

Note: Figures rounded.

3.5 Business Structure

The Study Area includes 2,680 construction businesses (rounded), representing 17.3% of all businesses located in the Study Area. This data indicates a reasonable presence in the Study Area of the types of firms that are likely to service aspects of the Amended Project. This opportunity is discussed in more detail in the following chapter (**Chapter 4.0**).

Construction-related businesses are expected to be the main beneficiaries of the Proponent developing the Amended Project, however, businesses in sectors supporting the Amended Project (directly and indirectly) are also expected 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.

These sectors make up 24.5% of all businesses located in the Study Area and their services will likely play a role in supporting the needs of the Amended Project workforce, especially non-local workers relocating to the Study Area.

The Study Area's business structure is shown in **Table 3.5.**

Table 3.5 Business Structure – Study Area, June 2022

In all cations	Study Area			
Industry –	Total	Industry Share	Industry Share	
Agriculture, Forestry and Fishing	4,459	28.7%	6.2%	
Mining	70	0.5%	0.2%	
Manufacturing	490	3.2%	3.3%	
Electricity, Gas, Water and Waste Services	42	0.3%	0.3%	
Construction	2,682	17.3%	17.2%	
Wholesale Trade	343	2.2%	3.4%	
Retail Trade	744	4.8%	5.9%	
Accommodation and Food Services	720	4.6%	4.3%	
Transport, Postal and Warehousing	800	5.2%	7.6%	
Information Media and Telecommunications	53	0.3%	1.1%	
Financial and Insurance Services	318	2.0%	5.4%	
Rental, Hiring and Real Estate Services	1,249	8.0%	11.3%	
Professional, Scientific and Technical Services	1,019	6.6%	14.0%	
Administrative and Support Services	530	3.4%	4.6%	
Public Administration and Safety	33	0.2%	0.3%	
Education and Training	173	1.1%	1.7%	
Health Care and Social Assistance	750	4.8%	7.1%	
Arts and Recreation Services	185	1.2%	1.5%	
Other Services	847	5.5%	4.6%	
Currently Unknown	9	0.1%	0.1%	
Total	15,516	100.0%	100.0%	

Source: ABS, Counts of Australian Businesses, including Entries and Exits, June 2019 to June 2023

3.6 Township Service Capacity

3.6.1 Accommodation

Based on discussions with the Proponent and a stance by MWRC to have a projects source less than 10% of their workforce locally, approximately 95% of the of the Project's construction workforce are likely to be non-local (i.e. sourced from the beyond the Study Area). This means that on average, around 220 workers would require accommodation per month across the 36-month construction phase, with this figure increasing to approximately 400 persons at peak construction.

Part of the Response to Submissions (RTS) process the Proponent commissioned Umwelt to prepare an Accommodation and Employment Strategy (AES). The key findings from the Projects AES in terms of current accommodation landscape are as follows:

- Based on the current conditions in the social locality, the accommodation strategy has identified extremely limited capacity in short term accommodation beds available to workforce associated with the Amended Project, especially when considering cumulative impacts from neighbouring projects with overlapping construction timeframes. There may be up to 88 rooms available to the Amended Project on any given night. However, many of these are located in Dubbo, over an hour from the Amended Project.
- The strategy acknowledges the cumulative impact of multiple construction projects competing for access to remaining short-term accommodation. It aims to avoid the use of short-term accommodation, unless associated with sporadic visits from non-regular workers, such as consultants or visiting company representatives.
- Therefore, the proposed strategy aims to **avoid using short-term accommodation**, **except for sporadic use** by non-regular workers such as consultants, or **short-term term use by a small workforce**, such as that required for construction of the TWA.

3.6.2 Study Area Township Services

Workers relocating temporarily to the Study Area will require a wide range of convenience services, and the Amended Project will also need to source trade, 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 within regional/townships in the Study Area that may service some needs of the Amended Project.

Mid-Western Regional Council Townships

Mudgee

Mudgee, with a population of some 12,250 persons (rounded) (ABS ERP 2023), is the second largest town in the Study Area and is the regional service centre for the Cudgegong River Valley region and Mid-Western Regional Council. Mudgee is approximately 30-minutes (drive-time) south of the Amended Project Site. While the Mudgee district is historically noted for gold mining, the township now operates as a regional services hub for local agriculture including viticulture, sheep and cattle grazing, cropping etc, as well as mining (Ulan, Wilpinjong and Moolarben Coal Mines). The level of services/facilities available in Mudgee is generally consistent with the township's regional service role, and includes:

- · A wide range of commercial accommodations options (hotels, motels, caravan parks etc), as outlined previously
- Mechanic and trade supplies (including Bunnings)
- Construction and transport services (including Coates Hire, Westrac CAT, Mid State Freight, Mudgee Cranes, West Crane Services)
- Fuel supplies & automotive mechanics
- Supermarkets full-line Coles and Woolworths supermarkets, as well as ALDI
- · Cafes, bakeries, restaurants and take-away
- Range of commercial and financial institutions banks, solicitors, conveyancing etc
- Entertainment (parks, hotels, clubs, sports and recreational activities)
- Education including TAFE NSW, the Australian Rural Education Centre, five primary schools, one secondary school, two combined schools and one Special school.
- Medical and emergency services (Mudgee District Hospital, police station etc)

Additionally, Mudgee Airport operates as a regional airport within NSW's Mid-Western Region. Fly Pelican operates weekly return flights to Sydney and select regional centres.

Gulgong

Gulgong, a township of approximately 1,930 persons (rounded) (ABS ERP 2023) is located in Mid-Western Regional LGA and is situated 10-minutes (drive-time) southeast of the Amended Project Site. Founded as a gold mining settlement, the township today predominantly functions as a service hub for local agricultural activities and has a tourism role due to its historic features. Gulgong offers a mix of facilities and services, including:

- Automotive Mechanics
- Industry Almac Hardware & Welding Supplies, Ace Engineering, R & J Andrews Haulage
- Grocer Supa IGA
- A range of cafes and bakeries
- Commonwealth Bank branch
- Fuel supplies (Shell and bp)
- Postal Services
- Pharmacy
- Entertainment (parks, hotels, clubs, sports and recreational activities swimming pool, bowls club etc)
- Medical Centre Gulgong Multi-Purpose Service and Gulgong Medical Centre
- Education primary and secondary schools (both public) and an independent primary school

Rylstone

Rylstone, with a population of approximately 620 persons (ABS ERP 2023), is located 100 km to the southeast of the Amended Project Site or a 65-minute drive-time. Rylstone is a small township located along the Cudgegong River and traditionally known for its history including gold mining and agriculture. Key services in Rylstone include:

- Health Services Rylstone Multi-Purpose Health Services.
- Grocers a small convenience grocer (Foodworks and liquor), butcher and bakery.
- Entertainment & Dining various small cafes, Rylstone Club (sports club social and bowls club) and two Hotels
- Fuel Supplies Enhance and Shell
- Postal Services
- Education Rylstone Public School
- Rylstone aerodrome

Service industry in Rylstone is limited, as the township is principally residential in nature and mainly supports agricultural activities for the wider municipality.

Dubbo Regional Council Townships

Dubbo

Dubbo, a 70-minute drive northwest of the Amended Project Site, is the major regional centre for NSW's Central West region and has a population of approximately 39,950 persons (rounded) (ABS ERP 2023). Dubbo supports a range of major civic, education, health and commercial services for an expansive rural area comprising a network of many smaller towns.

Key services in Dubbo include:

- Higher order retailing including the following malls/shopping centres:
 - Dubbo Square (anchored by Coles and Kmart)
 - Orana Mall (anchored by Woolworths and Big W)
 - Riverdale Shopping Centre (anchored by Woolworths and Reading Cinema).
- Large range of professional/commercial services solicitors, accounting, conveyancing etc.
- Major banks and financial institutions
- Entertainment parks, hotels, clubs, sports and recreational activities.
- Dubbo Airport the main regional airport for the NSW Central West region has daily flights to destinations including Sydney, Brisbane, Canberra, Melbourne, as well regional centres such as Newcastle and Broken Hill. Four airlines operate from Dubbo Airport: Qantas Link, Rex Regional Express, Link Airways, and Airlink.
- Dubbo Base Hospital which operates as the major regional hospital with emergency department for the Central West region.

- Dubbo Private Hospital offers a comprehensive range of acute medical and surgical services and rehabilitation programs.
- Education. Dubbo's network of education instructions comprises four tertiary institutions (Charles Sturt University,
 University of Sydney of School of Rural Health, TAFE Western Dubbo College and Western College); three private
 secondary schools and three public secondary schools; and a range of primary and early education facilities.

Dubbo has an expanded range of service industry geared to civil construction works. Key businesses include:

- NACAP (an engineering, procurement and constructure contractor that specialises in large infrastructure projects)
- Mining Camps Australia (provider of portable accommodation)
- EMS Group (equipment and labour for mining and other infrastructure projects)
- Cobra (plant and crane hire)
- Wes Trac Cat (supplier of construction, mining and agriculture equipment)
- Ezyquip Hire (earthmoving equipment
- UGL depot (associated with delivery of the Regional Rail Project)
- Rod Pilon Transport
- Summit Cranes

Wellington

Wellington, with a population of 4,690 persons (rounded) (ABS ERP 2023), is located approximately a 60-minute drive-time west of the Amended Project Site. The township functions as a local service hub for surrounding agriculture areas and attracts visitors to the Wellington Caves Complex, Lake Burrendong State Park, and Mount Arthur Reserve. In addition, two prisons Wellington Correctional Centre and Macquarie Correctional Centre, and Wellington Solar Farm are situated to the north-east of the township off Gulgong Road.

Key services in Wellington include:

- A range of commercial accommodation options
- Wellington District Hospital a small regional hospital with an emergency department
- Two full-line supermarkets Coles and Woolworths
- Entertainment and dining several hotels and a variety of cafes and restaurants
- A limited collection of commercial and financial services, including Commonwealth and NAB branches
- Fuel Supplies EG Ampol, BP and Metro Petroleum
- Postal Services
- Education two primary schools (Catholic and public), a secondary school (public) and a TAFE NSW Campus.
- Train Station Wellington Station is situated in the Central West line which has a daily service operating between Sydney and Dubbo.

Warrumbungle Council Townships

Dunedoo

Dunedoo, with a population of approximately 720 persons (ABS ERP 2023), is located 30 km to the north of the Subject Area, or a 25-minute drive. Situated at the intersection of the Castlereagh and Golden highways, Dunedoo is a small township located along the Talbragar river and traditionally known for its history including mining, agriculture, military and Aboriginal heritage.

Key services in Dunedoo include:

- A limited range of commercial accommodation options
- Dunedoo Memorial Health Service a small medical centre.
- Dunedoo Supermarket a small convenience grocer
- Entertainment & Dining various small cafes, Dunedoo Sports Club (access to Golf Course, squash, tennis and touch football areas) and Hotel Dunedoo
- Fuel Supplies Caltex and Shell
- Postal Services
- Education Dunedoo Central School

Service industry in Dunedoo is limited, as the township is principally residential in nature and mainly supports agricultural activities for the wider municipality.

Mendooran

A township of some 260 persons (ABS ERP 2023), Mendooran is located in the south in Warrumbungle Shire Council and is located 50 minutes drive to the northwest of the Amended Project Area. The township contains very limited retail and commercial offerings with the following service available:

- Auto Mechanic
- Hardware Store
- Pub (Royal Hotel) containing accommodation
- News agency and general store.
- Independent service station
- Bakery
- Bowls Club
- Post Office

Coolah

Coolah, a township of some 710 persons (ABS ERP 2023) is located centrally in Warrumbungle Shire Council and is situated 45 minute drive to the north east of the Amended Project Area. The township predominantly functions as a service hub for local agricultural activities gateway to the Coolah national park.

The township has a moderate range of facilities and services, including:

- Commercial accommodations including a motel and caravan parks
- Coolah Multipurpose service medium regional medical centre
- Supermarkets IGA plus Liquor
- Cafes, bakeries, restaurants and take-away
- Fuel supplies (Shell, BP and Independent)
- Postal Services
- Automotive Mechanics
- Entertainment (parks, hotels, clubs, sports and recreational activities golf course, swimming pool, bowls club etc)
- Education one private primary school and a government kindergarten to year 12 combined school.
- Limited industry Haynes Farm and Hardware, Coolah Auto Smash & Mechanical, Leigh's Auto Centre and Coolah Custom Cars.

Bathurst Council Townships

Bathurst

Bathurst, with a population of 36,670 persons (rounded) (ABS ERP 2023), is located approximately a 120-minute drive-time to the south-west of the Amended Project Site. The township is a significant regional service hub for surrounding agriculture areas and attracts visitors to mount panorama for multi motor sports events annually. The township is the commercial, industrial and administrative centre for the municipality.

Key services in Bathurst include:

- A good provision of accommodation options
- Bathurst Health Service a regional significant Hospital containing an emergency department and inpatient beds, as well as community health services.
- Four full-line supermarkets Coles, Woolworths (x2) and ALDI
- Entertainment and dining good provisions of hotels ,cafes and restaurants
- Commercial and financial services, including ANZ, St. George, Commonwealth, Westpac and NAB branches.
- Numerous Fuel Suppliers EG Ampol, BP, United, Shell, 7-Eleven and Metro Petroleum retailers.
- Postal Services (AusPost)
- Education 11 education institutions including six primary schools (Catholic and public), four secondary schools (public and private), and one special school.
- Tertiary Education Charles Sturt University and TAFE NSW
- Bathurst Airport The airport is owned and operated by Bathurst Regional Council, located a short 10-minute drive
 from the Bathurst CBD. The airport is primarily used for private and recreational use with limited commercial flights
 operated.

Upper Hunter Shire Council Townships

Scone

Scone, with a population of 5,010 persons (ABS ERP 2023), is located approximately 120-minute drive or 135 km direct line distance to the north-east of the Amended Project. Known for its rich history of horse breeding and being one of the world's largest and most lucrative regions. The township is a medium sized service centre primarily supporting the surrounding agricultural activities with a tourism component due the various national parks, reserves and campgrounds in the area.

Key services in Scone include:

- Multiple medical facilities a regional hospital (Scott Memorial Hospital) with an emergency department, and Scone medical practice.
- Two full-line supermarkets Coles and Woolworths
- Recreation, Entertainment & Dining Scone has a good range of options including the Scone golf club, bowls club, RSL; and a rather limited array of takeaway and restaurant options including cafés, pubs, Chinese and Thai restaurants, and fast food outlets including McDonald's and Dominos
- A limited collection of commercial and financial services, including Commonwealth, Westpac and Regional Bank Australia branches
- Fuel Supplies Liberty, BP and Caltex
- Postal Services
- Education two primary schools (Scone Public School, St Mary's Primary school), a government secondary school (Scone High School) and a non-government Combined School (Scone Grammar School)
- Service industry in Scone is rather diverse despite the comparatively small allocation of industrial land. A range of
 construction (domestic and industrial), manufacturing and civil companies are located in the township. Companies
 with particular relevance to the Amended Project includes Boral Concrete, Scone Landscape Supplies, Fulljames
 Engineering, Scone Concrete Industries, PPW Engineering, Farrow Mechanical, Gordon Martin Bulk Haulage and
 others.

3.7 Summary

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

- 1. The population of the Study Area totalled 148,430 persons (rounded) as of June 2021 (ABS Estimated Resident Population 2024 release). Over the period 2021-2036, annual population growth in the Study Area is expected to be +0.8% p.a. compared to the NSW growth rate of +1.0% p.a. Warrumbungle and Upper Hunter LGAs are projected to experience population decline over the coming years. Local investment in renewable energy projects (such as the Project) can generate new employment opportunities for residents, help workers transition from the mining sector, and provide new income streams for local farmers. These factors may contribute to population levels within the Study Area being retained or potentially increasing.
- 2. The Study Area had an unemployment rate of approximately 1.6% in December 2023 (latest available), with 1,270 jobseekers unemployed. New short-term employment opportunities for the region's labour force participants (including unemployed job seekers, subject to suitable skills match) will be generated by the Amended Project, with a small amount of ongoing employment also supported once the facility is operational.
- 3. The Study Area's occupational and business structures indicate a good base exists to service the needs of the Amended Project, with approximately 23,380 workers and 2,680 businesses involved in construction related occupations and industries.
- 4. The major regional townships of Dubbo, Mudgee, Scone and Bathurst have some capacity and labour force to service aspects of the Amended Project, while smaller settlements such as Gulgong, Wellington and Dunedoo have the potential to provide more limited provision of labour and other general services.

4.0 Economic Impact Assessment

4.1 Project Investment

The total construction cost for the Amended Project is estimated to be approximately \$1.3 billion. Major investment costs are associated with the purchase of solar panels and associated equipment, substation components etc., significant investment is also required for civil, electrical and grid connection works.

Typically, around 15% of construction investment is generally retained within the host Study Area for these types of projects. This is based on unpublished confidential engineering, procurement and construction (EPC) information from a range of renewable energy projects in Australia accessed by the consultant in the course of undertaking many economic impact assessments for renewable energy projects in the last 10 or so years.

Applying this ratio to total investment indicates approximately \$195 million in wages, contracts and other service provision may be generated for the Study Area's economy over the 36-month construction phase.

4.2 Project Employment

Construction Phase

Project employment is assessed in terms of direct jobs (i.e., 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).

Direct Construction Employment

Data provided by the Proponent indicates 230 Full Time Equivalent (FTE) jobs will be supported on average over the construction phase, which is expected to be up to 36 months. That is, on average 230 FTE jobs will be supported for each of the 36 months of the construction phase. However, actual workforce numbers will vary from month to month depending on the intensity of construction at the time. At the Amended Project's peak, which may last for several months, the Proponent estimates 420 FTE positions will be supported by on-site construction activities.

Based on demands of multiple concurrent projects within the CWO REZ (refer to Section 4.3), MWRC's position for less than 10% of construction labour being sourced locally, and estimates provided by the Proponent; the following employment split is considered realistic:

- Local Employment: 5% or an average of 10 FTE jobs are expected to be sourced from within the Study Area, increasing to 20 FTE local jobs at the Amended Projects peak.
- Non-Local Employment: 95% or an average of 220 FTE jobs are expected to be sourced from outside the Study Area, increasing to 400 FTE non-local jobs at the Amended Projects peak.

Note, sourcing 5% of the construction workforce locally should be considered a target rather than a commitment by the Proponent, given the low unemployment rate in the Study Area.

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

- Labour recruitment
- Training
- Installation of solar panel mounting system foundations
- Vehicle and equipment hire
- Earthworks
- Engineering services
- Roads and access tracks
- Transport and logistics
- Assembly and installation of key components
- Electrical works (cabling and connections)
- Installation of monitoring equipment
- Fencing
- Landscaping

- Security
- Waste disposal
- Business and financial services

Administrative services.

As highlighted in **Chapter 3.0**, the business structure of the Study Area indicates that a reasonable mix of these types of services is available, especially in Dubbo, Mudgee, Scone and Bathurst.

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 Amended Project is estimated to support an additional 370 FTE jobs on average over the construction period.

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 catering, accommodation, trade supplies, fuel supplies, transportation, food and drink etc.

For the purposes of this assessment, it is assumed 20% of indirect jobs or 75 FTE jobs (rounded) are supported in the Study Area. This assumption is made with reference to commercially sensitive information and findings from completed renewable energy projects in regional areas, where generally 20% share of indirect jobs is applied and noting the significant influx of non-local workers (and their spending) likely to be associated with the Amended Project.

Total Construction Employment

In summary, approximately 600 FTE jobs (230 FTE direct jobs and 370 FTE indirect jobs) are expected to be supported by the Amended Project during the 36-month construction phase.

The amount of direct Study Area employment (i.e., related to on-site construction activities) required for the Amended Project is estimated to be approximately 10 FTE jobs (or 5% of the construction workforce), with a further 75 FTE jobs supported indirectly in the Study Area (i.e., off-site through supply chains and consumption activities).

Table 4.1 Construction Employment Summary

Direct Average Monthly Employment FTE	Direct Average Monthly Study Area Employment FTE (5% 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
230	10	370	70	600	85

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

Note: Figures rounded

Operational Phase

Direct Operational Employment

The Proponent indicates that between 10 and 15 FTE direct jobs will be supported locally (on-site) on an ongoing basis through the operation and maintenance of the Amended Project. These jobs include general managing roles, civil maintenance and electricians.

Indirect Operational Employment

A number of 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 40 FTE ongoing 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 8 ongoing FTE Study Area positions.

Operational-related employment is for the lifetime of the Amended Project (i.e., 35 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 53 FTE jobs (13 FTE direct and 40 FTE indirect) are expected to be supported by the Amended Project, with 21 FTE positions supported in the Study Area.

4.3 Cumulative Effects Assessment

The Amended Project will likely compete for labour, accommodation, and other resources with major infrastructure projects being constructed concurrently in the EIA Study Area (principally renewable energy and energy storage projects being driven by investment in the CWO REZ). Additionally, impacts on key industry sectors and demand from population growth needs to be factored on Identified projects located within a 60-minute drive time of the Amended Project area and an assessment of their potential impact to the Amended Project from an economic perspective are outlined in **Table 4.2.**

In relation to proposed renewable energy and energy storage 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.
- New developments, currently not in the planning system, may emerge in the period prior to construction of the Amended Project especially as the CWO REZ matures.

When assessing the potential cumulative impacts, the anticipated timing of the Amended Project is an important factor. For the Amended Project, the indicative timing for the construction is spread across 36 months, with the construction phase expected to commence in Q4 2026. In this regard, there are a number of major renewable energy and energy storage projects which are almost certain to overlap with the construction phase of the Amended Project.

Referring to the Cumulative Impact Assessment Guidelines for State Significant Projects (DPE, 2022), a Standard Assessment has been determined for the EIA, based on the following definition:

- **Standard Assessment** The Amended 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 4.2** 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 4.2 Planned, Approved and Under Construction Renewable Energy and Other Major Projects

	Estimated Workforce Timeframe (Targeted)					
Project	Construction	Operation	Construction	Operation	Construction Phase Impact Rating	Operational Phase Impact Rating
Bowdens Silver Project	320	228	2024 ,18 months	2026 to 2045	Low	Low
Moolarben OC3 Extension Project	250	0	2025, 36 moths	2028, to 2038	Low	Low
Ulan Coal Modification 6 Underground Mining Extension	0	931	2021	2021, to 2035	n/a (Operational)	Low
Mayfair Solar Farm	150	2	2025, 12 months	2026 to 2046	Low	Low
Narragamba Solar Farm	400	10	2025, 36 months	2028 to 2053	Low	Low
Wollar Solar Farm	400	5	2023, 12-18 months	2024 to 2050	Low	Low
Stubbo Solar Farm	507	10	2024, 24 months	2026 to 2050	Low	Low
Birriwa Solar Farm	800	15	2024, 36 months	2027, to 2057	High (Construction phase is likely to overlap, Cumulative impacts during construction may include economic impacts affecting the availability of labour, key services and accommodation in nearby towns.)	Low
Mavis Solar Farm	150	5	2025, 12 months	2026 to 2065	Medium (Construction phase is likely to overlap, Cumulative impacts during construction may include economic impacts affecting the availability of labour, key services and accommodation in nearby towns.)	Low
Barneys Reef Wind Farm	340	10	2028, 36 months	2031, to TBD	Medium (Construction phase is likely to overlap, Cumulative impacts during construction may include economic impacts affecting the availability of labour, key services and accommodation in nearby towns.)	Low
Burrendong Wind Farm	250	15	2025, 30 months	TBD	Low (Construction phase not likely to overlap, also 100 km away)	Low
Piambong Wind Farm	400	15	2026, 30 months	2028, to 2058	Low	Low
Orana Wind Farm	580	27	2026, TBD	2028, to TBD	Low	Low
Liverpool Range Wind Farm	800	47	2024, 36 months	2027, to 2052	Medium (Construction phase is likely to overlap, Cumulative impacts during construction may include economic impacts affecting the availability of labour, key services and accommodation in nearby towns.)	Low
Bellambi Heights BESS	100	3	2024, 12-18 months	TBD	Medium (Construction phase is likely to overlap, Cumulative impacts during construction may include economic impacts affecting the availability of labour, key services and accommodation in nearby towns.)	Low
Beryl BESS	40	2	2025, 12 months	2026 to 2056, 30 years	Low	Low
Cobbora Solar Farm	700	8	2024, 36 months	2027, to TBD	Low	Low

	Estimated \	Vorkforce	Timeframe (Targeted)			
Project	Construction	Operation	Construction	Operation	Construction Phase Impact Rating	Operational Phase Impact Rating
Dunedoo Solar Farm	125	3	2025, 12 months	2023, to 2053	low (Project approved, construction expected to be imminent)	Low
Dapper Solar Farm	350	20	2025, 18-24 months	2027, to 2057	Low	Low
Wellington North Solar Farm	400	4	2023, 24 months	2025, to 2055	Low	Low
Sandy Creek Solar Farm	700	15	2025, 24 months	2027, to 2057	Low	Low
Goulburn River Solar Farm	350	10	2023, 36 months	2026, to 2061	Low (Construction phase not likely to overlap, and its 100 km away)	Low
Valley of the Winds Wind Farm	400	50	2023, 42 months	2027, to TBD	Medium (Construction phase is likely to overlap, Cumulative impacts during construction may include economic impacts affecting the availability of labour, key services and accommodation in nearby towns.)	Low
Spicers Creek Wind Farm	840	12	2025, 30 months	TBD, 30 years	Medium (Construction phase is likely to overlap, Cumulative impacts during construction may include economic impacts affecting the availability of labour, key services and accommodation in nearby towns.)	Low
Uungula Wind Farm	262	12	2023, 36 months	TBC	Low (Currently under construction)	Low
Apsley BESS	50	TBC	TBC, 12 to 18 months	TBC, 30 years	Low	Low
Orana BESS	100-150	TBC	TBC, 12 to 18 months	TBC	Low	Low
Wellington South BESS	100	30	2023, 12 to 18 months	2024, TBC	Low	Low
Forest Glen Solar Farm	200	10	2024, 12-18 months	TBC, 35 years	Low	Low
Aquila Wind Farm			2026, 24 months	30 years	Low	Low
Kerrs Creek Wind Farm	340	10	2026, 28 months	30 years	Low	Low
Dubbo Firming Power Station	150	6	late 2025, 12 months	40 years	Low (Construction phase not likely to overlap, and approximately 100km away.)	Low
CWO REZ Transmission Project	924 (1,507 peak)	50	2024 to 2027, 48- months	40 to 50 years	Medium (Construction phase is likely to overlap, Cumulative impacts during construction may include economic impacts affecting the availability of labour, key services and accommodation in nearby towns.)	Low
Ulan Solar Farm	120 (peak)	4	2024, 8 to 12 months	30 years	Low	Low

Source: MWRC, PwC - Managing the impacts of State Significant Development, 2024; Ethos Urban

4.4 Labour Force and Business Participation Assessment

Large infrastructure projects located in regional areas are generally, where possible, serviced locally or from within the immediate region due to cost efficiencies (lower transport, labour costs etc).

While the anticipated number of direct and indirect local jobs sourced from the Study Area (85 FTE workers) represents only 0.3% of the Study Area's labour force in construction-related activities (23,380 workers), significant demand on construction labour is expected over the next decade due to the considerable number of planned renewable energy projects that might be constructed this part of the in the CWO REZ. (Refer to **Section 4.3**.)

The recently released report 'Managing the Impacts of State Significant Development' (PwC, January 2024), prepared for Mid-Western Regional Council, shows an additional 7,000 workers may be required to service peak renewable energy development in 2026, with approximately 95% of these workers likely to come from outside the region (i.e. non-local workers).

The Study Area has approximately 1,270 unemployed labour force participants, some of whom could potentially work on the Amended 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 local workers transferring to employment on the Amended Project or other major infrastructure projects. Providing new work opportunities for unemployed residents (directly or indirectly), would be a tangible benefit from the Amended Project.

4.5 Housing and Commercial Accommodation Sector Impacts

Project Accommodation Needs

It is anticipated that approximately 400 non-local FTE workers may need to be accommodated in the region at the Amended Project's peak.

This calculation is based on 95% of the 420 peak on-site FTE workers coming from outside the Study Area and requiring accommodation. This level of accommodation relates to the Amended Project's <u>peak only</u>, which might last for several months. The average number of non-local staff requiring accommodation across the 36 months is estimated at 220 FTE workers (noting this number will be much lower during periods of low site activity). These temporarily relocating staff are likely to include general managers, project managers, supervising engineers, electricians and solar specialists with contract lengths varying.

Summary of Project Accommodation and Employment Strategy (AES)

Based on the accommodation constraints of the Study Area and the expected demand associated with the Amended Project, a TWA is planned to house the non-local workforce. Details of the requirements of the TWA are outlined in the AES:

There is currently no temporary workforce accommodation available within the social locality with the capacity to house workforce associated with the Amended Project. Baseline research undertaken indicated that approximately 20 workers (of the peak 420 workers) anticipated to work on the Tallawang Solar Farm project are likely to be locally based and existing residents in the locality. The remaining workforce, approximately 400 workers at peak construction, are proposed to be accommodated in a purpose-built TWA facility on the Amended Project site. This accommodation will accommodate around 95% of the workforce population at the peak of construction activity and has the capacity to accommodate the entire workforce for most of the extended construction period, as summarised in **Table 4.3.**

The Proponent has chosen to include a temporary workforce accommodation (i.e., an onsite campsite) as part of the SSD assessment process. As such, the design and potential impacts of the campsite is considered as part of the Amended Project and is outlined in the Amendment Report to be submitted to DPHI.

Table 4.3 Tallawang Solar Farm Accommodation Breakdown

Accommodation components	Predicted number of workers	Housing Form	
Local workforce	21 (5% of peak)	Existing homes	
Short-term accommodation access	20-25*	Local short-term accommodation	
Rental Accommodation	0	0	
Subtotal available beds	Up to 46		
Temporary workforce accommodation beds	400	TWA facility	
Total available beds	Up to 446		

4.6 Local Wage Spending Stimulus

Construction employment targets outlined earlier in this report indicate that 95% of the average 230 direct FTE construction jobs (220 FTE workers) may need to be sourced from outside the Study Area, particularly specialist and management positions.

This level of employment will equate to an estimated \$49.3 million in after tax wages (2023 dollars) on the basis that each non-local worker is employed for 36 months and earns the average construction wage of \$100,000 p.a (source: ABS, Average Weekly Earnings 6302.0 – Full Time Adult Ordinary Time Earnings, November 2023).

A share of these wages will be spent in the Study Area, where these workers will be based. An estimated \$24.6 million in wages (2023 dollars) will likely be directed to local and regional businesses and service providers during the construction period. This estimate is based on 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. The spending by non-local workers in the regional economy will likely include:

- · Retail expenditure, including spending on supermarket items, clothing, books, homewares etc
- <u>Recreation spending</u> 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 will generate the equivalent of approximately 41 FTE jobs in the services sector and associated supply chains (based on 1 FTE job allocated for every \$200,000 of induced spending <u>per year</u>), supporting jobs in the Study Area and beyond, such as in retail, trade supplies, health services, fuel supplies, cafes, and restaurants, etc. These jobs are included in the 'indirect employment' estimates outlined in **Section 4.2** above).

4.7 Agricultural Impacts

Approximately 1,300 ha of existing agricultural land will be required to host the Amended Project with this land mainly used for sheep grazing, which includes a development footprint of 1,016 ha.

No loss of employment associated with the Amended Project is anticipated, either directly (on-site) or through the supply chain, as sheep will be grazed around the solar farm structure. The new mixed-use arrangement is likely to require a similar number of employees as the present setup.

Additionally, new internal tracks will be constructed across the Amended Project Area providing productivity and safety benefits to host farmers. Four alternative access points are proposed along Puggoon Road to allow for stock movement.

4.8 Ongoing Economic Stimulus

Financial Returns to Landowners

The Proponent will be leasing the land to host the Amended Project. While these annual lease payments are confidential, they may provide a local stimulus through investment in farming (or other) activities and through business and individual consumption impacts associated with the host landowners.

Financial Returns to the Community

The Proponent has proposed a VPA to Mid-Western Regional Council that represents an investment of \$850 per MW per annum for the duration of the Amended Project Operational Life (35 years). This is a total investment per annum of \$425,000 and indexed to CPI. Based on an operating lifespan of 35 years \$25.7 million is estimated be paid to the Councils over the life of the Amended Project.

Funds provided by this VPA will be utilised to deliver projects identified in Mid-Western Regional Council's Community Plan and Delivery Program. The Community Plan is prepared by Council on behalf of the community and is developed collaboratively with the community. The Mid-Western Region Community Plan sets out the community's vision for the future including current situation, future goals and actions to achieve goals. The outcomes of the plan determine the priorities for the region, including services and projects Council will focus on.

Additionally, a shared benefit scheme will be paid from the commencement of construction for 35 years, the financial benefits will equal \$136,000 in year 1 + CPI beyond.

Financial Returns to Council

Change in land use to facilitate the development of the Amended Project will likely result in an increase in annual land tax payments to Councils from the site (compared with existing land uses) during construction and operation. The

amount payable will be subject to discussions between the Proponent and the Council prior to construction starting. As such, this net uplift in payments has <u>not</u> been included in this assessment.

The Proponent will also pay the Council to upgrade the local roads to facilitate efficient delivery of solar farm components to the site during construction.

Local Operational Wage Stimulus

The Amended Project will support 21 FTE jobs in the Study Area (direct and indirect). These 21 FTE jobs will provide an estimated stimulus within the Study Area of approximately \$1.8 million (2023 dollars) in Year 1 of operations. This figure assumes there will be no loss in direct or indirect agricultural jobs associated with the use of part of the land to host the Amended Project (i.e., existing agricultural activities will continue on the remainder of the land and around the Amended Project infrastructure). Refer to **Section 4.6** for wage stimulus methodology. Over the 35-year lifespan of the Amended Project, the 21 local jobs supported by the Amended Project will generate economic stimulus of \$54.8 million.

Total Operational Stimulus

The total economic stimulus associated with the operation of the Amended Project is estimated at approximately \$180 million over 35 years, (2023 dollars, CPI adjusted) relating to landowner payments, Council rate / land tax revenue, operational wage stimulus, and VPA /shared benefits payments.

4.9 National Grid Supply Benefits

With an installed capacity of between 500 MW, the Amended Project has the potential to provide sufficient renewable energy to support the annual electricity needs of the equivalent of approximately 330,000 NSW households, according to information provided by the Proponent.

To provide context and theoretical perspective on the scale of the anticipated output from the Solar Farm, the Study Area currently contains approximately 36,360 dwellings (ABS Census 2021); therefore, the Amended Project has the potential to provide over four times the annual electricity requirements of the Study Area, highlighting the importance of the facility from a clean electrical generation perspective.

4.10 Tourism Opportunities

Over time, the Amended Project may provide opportunities to attract new visitors to the area to view the facility. It is also noted that there is a number of existing/approved or planned utility scale renewable energy facilities in the broader region (stimulated by developer interest in the CWO REZ) which may provide opportunities for linked tours to these facilities. Visitors might include environmentalists, school and further education students, general tourists etc.

Benefits of attracting new visitors to the area include increased expenditures on accommodation, food and beverage, fuel, retail, entertainment etc, all of which will support businesses and employment, especially in nearby townships such as Gulgong and Mudgee.

4.11 Estimated State Benefits

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

- Capital investment: \$520 million or 40% of total project capital investment (recognising the large import component associated with Solar Farms)
- Construction employment: 450 FTE jobs or 80% of total (direct and indirect) construction employment (direct and indirect of average employment)
- Ongoing employment: 40 FTE jobs, or 80% of total (direct and indirect) operating employment
- Future decommissioning investment and employment opportunities, to be determined (refer to Section 4.13).

4.12 Proposed Mitigation Measure

The potential mitigation measure recommended by this assessment is summarised below in Table 4.4.

Table 4.4 Proposed Mitigation Measures

Mitigation ID	Mitigation measure
EIA01	Accommodation and Employment Strategy (AES)
	Prior to commencing construction, it is recommended the Proponent update the AES for the Amended Project in consultation with relevant stakeholders.

Source: Ethos Urban

4.13 Project Decommissioning

The Amended Project has an operating life of approximately 35 years, at which stage there are likely to be three main options for consideration:

- Continue to use the Amended Project Area as a Solar Farm using the existing infrastructure, potentially with some refurbishments.
- Replace/modernise all project infrastructure and continue to operate as a new/significantly upgraded Solar Farm
- Decommission the Amended Project by removing all above ground infrastructure and rehabilitating the Amended Project Area so the land can be returned to agricultural use.

The decision on whether to refurbish, replace or decommission the Solar Farm would be subject to an assessment of the economic viability closer to the time, and in consultation with key stakeholders and approval authorities.

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 site 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.

Given decommissioning will not occur for at least 35 years after the operation of the Amended Project commences, it is not possible to estimate potential impacts and benefits at this stage noting economic, technological and environmental factors may change considerably over this period. Note however, the Proponent is committed to ensure as much infrastructure as possible is recycled on decommissioning.

4.14 EIA Conclusions

- 1. The Amended Project will require approximately \$1.3 million in investment during the construction phase (of which approximately \$195 million will be retained in the Study Area) and will support 230 direct and 370 indirect FTE positions in the national economy on average over the 36-month construction period. Once operational, 13 direct and 40 indirect FTE jobs will be supported nationally by the Amended Project. Of this national total, the Study Area is expected to benefit from 85 FTE construction jobs and 21 FTE ongoing jobs (includes direct and indirect jobs) associated with the operational phase of the Amended Project.
- 2. The Study Area has some capacity to contribute to the Amended Project and concurrent regional infrastructure projects based on its economic structure and relatively large share of construction-related workers (23,380 workers) and businesses (2,680 businesses). However, the regional labour market is tight, highlighted by the Study Area's low unemployment rate of 1.6% and significant demand from emerging renewable energy construction projects. Accordingly, the Proponent has been advised by MWRC that only approximately 5% of the workforce could realistically be sourced from the Study Area. The Amended Project will provide some new participation opportunities for businesses and workers located in the Study Area, having regard for the good match of skills and resources available.
- 3. The 'external' (or non-local) project labour requirement is expected to generate an accommodation need for 400 direct FTE workers at the peak of construction. Based on the accommodation constraints of the Study Area and the expected demand associated with the Amended Project, a TWA is planned to house the non-local workforce. The Proponent has included the TWA as part of the SSD assessment process.

- **4.** Construction workers relocating to the region would be expected to inject approximately \$24.6 million in new spending into the economy over the construction phase, supporting approximately 41 FTE jobs in the service sector in the Study Area over this time.
- 5. The Amended Project Study Area will be leased from the existing landowners and is mainly used for grazing activities. No loss of agriculture employment associated with the Amended Project Site is anticipated, either directly (on-site) or through the supply chain, as agricultural activities will continue largely unhampered during the operational phase (including within the development footprint).
- **6.** Ongoing economic stimulus associated with the operation of the Amended Project is estimated at approximately \$180 million (over 35 years, CPI adjusted) relating to, operational wage stimulus, landowner payments, VPA and shared benefits payments.
- 7. Operation of the Amended Project could potentially support small-scale tourism and educational opportunities in the future, especially in light of the significant development of the renewable energy sector in the nearby CWO REZ over the coming years.
- **8.** In addition to supporting NSW State policy directions and national grid supply benefits the Amended Project will deliver the following key Statewide economic benefits:
 - Capital investment: \$520 million or 40% of total project capital investment (recognising the large import component associated with Solar Farms)
 - Construction employment: 480 FTE jobs or 80% of total (direct and indirect) construction employment (direct and indirect of average employment)
 - Ongoing employment: 40 FTE jobs, or 80% of total (direct and indirect) operating employment
 - Future decommissioning investment and employment opportunities, to be determined.
- 9. In order to minimise potential Amended Project impacts and maximise project benefits, the following mitigation measures are recommended:
 - Prior to commencing construction, it is recommended the Proponent update the AES for the Amended Project in consultation with relevant stakeholders.
- 10. Decommissioning of the Amended Project is likely to support significant employment generation, new business contracts and provide a spending stimulus to the Study Area over the decommissioning period. However, given decommissioning will not occur for at least 35 years after the operation of the Amended Project commences, it is not possible to estimate potential impacts and benefits at this stage noting economic, technological and environmental factors may change considerably over this period.