



APPENDIX S

ECONOMIC IMPACT ASSESSMENT



Economic Impact Assessment

Garoo Solar Farm and BESS

PREPARED FOR
The Trustee for Greenpulse Solar
Farm and BESS Unit Trust

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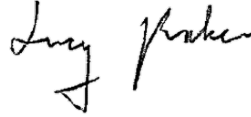
Economic Impact Assessment

Garoo Solar Farm and BESS

0751750



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CONTENTS

EXECUTIVE SUMMARY	I
1. INTRODUCTION	1
1.1 PROJECT OVERVIEW	1
1.2 PURPOSE OF THIS REPORT	1
1.3 ASSESSMENT GUIDELINES AND REQUIREMENTS	1
1.4 STRUCTURE OF THE REPORT	1
2. METHODOLOGY	3
2.1 OVERVIEW	3
2.2 STUDY AREA	3
2.3 INPUT-OUTPUT ANALYSIS	3
2.4 DIRECT AND INDIRECT IMPACTS	4
3. DESCRIPTION OF REGIONAL ECONOMY	6
3.1 RESIDENTS OF THE REGION	6
3.2 HOUSING	10
3.3 POPULATION GROWTH	10
3.4 ECONOMIC STRUCTURE	10
3.5 SUMMARY	11
4. CONSTRUCTION PHASE	13
4.1 THE PROJECT	13
4.2 DIRECT AND INDIRECT IMPACTS	13
4.2.1 Regional Impacts	13
4.2.2 State Impacts	14
4.3 OTHER IMPACTS	15
4.3.1 Agricultural Impacts	15
4.3.2 Housing Impacts	16
5. OPERATION PHASE	17
5.1 THE PROJECT	17
5.2 DIRECT AND INDIRECT IMPACTS	17
5.2.1 Regional Impacts	17
5.2.2 State Impacts	18
5.3 OTHER IMPACTS	18
5.3.1 Agricultural Impacts	18
5.3.2 Housing Impacts	19
6. CUMULATIVE IMPACTS	20
6.1 INTRODUCTION	20
6.2 POTENTIAL CUMULATIVE IMPACTS	20
6.2.1 Nearby Renewable Energy and Related Projects	20
6.2.2 Labour Force	21
6.2.3 Resident Population	21
6.2.4 Housing	21

6.2.5	Prices	21
7.	BENEFIT SHARING SCHEMES	22
8.	CONCLUSION	25
	REFERENCES	26

APPENDIX A THE INPUT-OUTPUT FRAMEWORK

LIST OF TABLES

TABLE 2-1	STUDY AREA FOR ECONOMIC ASSESSMENT	3
TABLE 3-1	CHARACTERISTICS OF USUAL RESIDENTS OF TAMWORTH REGIONAL LGA	6
TABLE 3-2	TOP 5 INDUSTRY SECTORS OF EMPLOYMENT FOR USUAL RESIDENTS (FOUR DIGIT ANZSIC)	9
TABLE 3-3	POPULATION GROWTH	10
TABLE 3-4	PROJECTED POPULATION GROWTH	10
TABLE 3-5	GROSS REGIONAL OUTPUT FOR THE 5 LARGEST INDUSTRIES IN THE REGIONAL ECONOMY (ANZSIC ONE DIGIT) (\$2024)	11
TABLE 3-6	GROSS VALUE ADDED FOR THE 5 LARGEST INDUSTRIES IN THE REGIONAL ECONOMY (ANZSIC ONE DIGIT) (\$2024)	11
TABLE 4-1	AVERAGE ANNUAL ECONOMIC IMPACTS OF THE CONSTRUCTION ON THE REGIONAL ECONOMY (\$2024)	14
TABLE 4-2	AVERAGE ANNUAL ECONOMIC IMPACTS OF THE CONSTRUCTION ON THE NSW ECONOMY (\$2024)	15
TABLE 4-3	ANNUAL ECONOMIC IMPACTS OF FORGONE AGRICULTURE ON THE REGIONAL ECONOMY (\$2024)	15
TABLE 4-4	ANNUAL ECONOMIC IMPACTS OF FORGONE AGRICULTURE ON THE NSW ECONOMY (\$2024)	16
TABLE 5-1	AVERAGE ANNUAL ECONOMIC IMPACTS OF THE PROJECT ON THE REGIONAL ECONOMY (\$2024)	17
TABLE 5-2	AVERAGE ANNUAL ECONOMIC IMPACTS OF THE PROJECT ON THE NSW ECONOMY (\$2024)	18
TABLE 6-1	NEARBY RENEWABLE ENERGY AND RELATED PROJECTS	20
TABLE 7-1	NEIGHBOURHOOD BENEFITS DETAILS (P.A \$2024)	22
TABLE 7-2	LOCAL BENEFITS DETAILS (P.A \$2024)	23
TABLE 7-3	MAXIMUM VALUE OF BENEFIT SHARING (P.A \$2024)	23
TABLE 7-4	PRIVATE AGREEMENTS (P.A \$2024)	24

LIST OF FIGURES

FIGURE 3-1	TAMWORTH REGIONAL LGA EMPLOYMENT BY INDUSTRY (ONE-DIGIT ANZSIC) AND OCCUPATIONS	8
FIGURE 3-2	TAMWORTH REGIONAL LGA TOP INDUSTRIES OF EMPLOYMENT	9

ACRONYMS AND ABBREVIATIONS

Name	Description
<i>Terminologies</i>	
Applicant	GreenPulse (trading as The Trustee for GreenPulse Solar Farm and BESS Unit Trust)
Project	Garoo Solar Farm and BESS
Project Area	The area to which the development application applies. This area encompasses temporary and permanent Project infrastructure, and additional areas that have been excluded from the project design.
Development Footprint	Maximum area directly impacted by Project construction and operation. The Disturbance Area is located entirely within the Project Area and will be subject to permanent disturbance during construction and operation of the Project until decommissioning.
<i>Acts</i>	
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
<i>Acronyms and Abbreviations</i>	
ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
BESS	Battery Energy Storage System
CGE	Computable general equilibrium
DIDO	Drive-in drive-out
EIS	Environmental Impact Statement
FIFO	Fly-in fly-out
FTE	Full time equivalent
ha	hectares
IO	input-output
kV	Kilovolt
LGA	Local Government Area
MW	Megawatt
MWh	Megawatt hours
NSW	New South Wales
REIA	Real Estate Institute of Australia
SSD	State Significant Development
SEARs	Secretary's Environmental Assessment Requirements

EXECUTIVE SUMMARY

The Trustee for GreenPulse Solar Farm and BESS Unit Trust (the Applicant) is seeking approval for the construction, operation, and decommissioning of the Garoo Solar Farm and Battery Energy Storage System (BESS) (the Project), a renewable energy development situated over several allotments on the eastern side of the New England Highway in the rural locality of Garoo, New South Wales (NSW), 2340. The Project is proposed to commence construction in 2026, and commissioning and operation is anticipated from 2028.

This report assesses the potential economic impacts of the construction and operation of the Project on the regional and state economy using Input-Output (IO) analysis. It has been prepared to support and inform the Environmental Impact Statement (EIS) for the Project. The Project impacts have been assessed in accordance with the Secretary's Environmental Assessment Requirements (SEARs) issued on 4 March 2025 by the NSW Department of Planning, Housing and Infrastructure (DPHI) and in line with the relevant legislation and guidelines.

POTENTIAL BENEFITS DURING THE CONSTRUCTION AND OPERATION PHASES

The Project will support economic activity that benefits the regional and state economy during both the construction and operation phases. During the construction phase, agricultural production on the construction site will be disrupted, with potentially minor impacts also anticipated on neighbouring properties. The Project has proposed to work with neighbours to minimise any disruption. Based on our assessment, the economic benefits of the Project will outweigh the loss of agricultural production.

Increased economic activity in the regional and state economy arise from:

- expenditure in the region and state on non-labour inputs to production;
- direct employment of local labour or in migration of labour;
- temporary increases in the local resident population; and
- expenditure of wage income in the local economy.

Most of the economic impact will be in the Construction sector with significant flow-on effects to the Manufacturing sector, Transport sector, Administration and Support Services sector, Wholesale Trade sector, and Professional and Scientific Services sector.

Our analysis estimates the Project will stimulate increased annual total economic output of:

- \$428 million during the construction phase for the regional economy,
- \$489 million during the construction phase for the state economy,
- \$163 million during the operation phase for the regional economy,
- \$185 million during the operation phase for the state economy.

Our analysis estimates the Project will generate:

- 247 jobs annually during the construction phase in the regional economy,
- 279 jobs annually during the construction phase in the state economy,
- 14 jobs annually during the operation phase in the regional economy,
- 16 jobs annually during the operation phase in the state economy.

The Project represents significant economic benefits to the region and the state. It is likely that some employment will be from outside the region, given the limited labour force available in the region. Current unemployment in the Tamworth Regional Local Government Area (LGA) is 1.6% which provides limited labour force flexibility for the Project. There are less than 2,500 people currently employed in the construction industry. A sustained labour shortage can lead to an increase in wages and potential price inflation as firms pass on the increased costs.

MANAGING THE COMMUNITY IMPACTS OF INCREASED ECONOMIC ACTIVITY

Given the prevailing local market conditions, this investment, and renewables investment more broadly, may also have unintended negative impacts on the local community. Whilst this Project is relatively small, any negative impact will be amplified by the cumulative impact of slated projects in the vicinity of this Project. Notably, whilst incoming labour will increase the local resident population and drive increased economic activity, it may also result in:

- tension within the currently tight housing market. Tamworth Regional LGA has a 1.3% rental vacancy rate, and the city of Tamworth 0.9%. With a sudden influx of labour for this and other projects, housing demand is expected to outstrip supply. This can lead to higher rents and potential crowding out of current residents as housing markets are typically slow to respond to large changes.
- pressure on services, entertainment, transport and retail where there is scarcity. Unlike the housing market, many of these pressures are likely to be temporary as markets can adjust quickly. An exception to this is health services and public transport which can take longer to adjust.
- wage pressure and labour shortages across the regional economy as renewable projects compete with local businesses across multiple industries for skills. This could have inflationary impacts as higher operating costs are passed through to end users in the local communities.

These impacts are sensitive to the balance between Drive-In Drive-Out (DIDO)/Fly-In Fly-Out (FIFO) and localised labour adopted by this Project and other renewable energy projects in the region. The Applicant intends to collaborate closely with local councils and communities to mitigate the above risks associated with an increase in economic activity. This may include:

- creating commutable routes to the Project from a wider region to alleviate housing pressure
- supporting community health services by contributing to a community health fund,
- prioritising employment opportunities for current residents through a local opportunity framework,
- sourcing local inputs for production where possible,
- establishing benefit sharing schemes within the local community including scholarships and cultural funds,
- working with neighbours to minimise agricultural disruption during the construction and operation phases.

1. INTRODUCTION

1.1 PROJECT OVERVIEW

The Trustee for Greenpulse Solar Farm and BESS Unit Trust (the Applicant) proposes to construct and operate the Garoo Solar Farm and Battery Energy Storage System (BESS) (the Project), a renewable energy development situated over several allotments on the eastern side of the New England Highway in the rural locality of Garoo, New South Wales (NSW), 2340. The Project is proposed to commence construction in 2026, and commissioning and operation is anticipated from 2028. Garoo is located within the Tamworth Regional Local Government Area (LGA), which is in the New England and North West geographical area. The key land use in the area is centred

around primary agriculture (grazing and cropping), with mining, forestry, national parks and state forests also present. The Project is approximately 370 kilometres (km) northwest of Sydney, 40 km south of Tamworth and 14 km west of Wallabadah. Tamworth is the closest urban centre to the Project.

The Project will occupy approximately 369 hectares (ha), with a development footprint of approximately 306.23 ha. However, the solar farm, BESS and interconnection facilities installation will be limited to approximately 275 ha. The proposed Project is anticipated to consist of a solar farm with an installed capacity of up to 133.76 Megawatt (MW) and a 350 MW / 1,400 Megawatt hour (MWh) BESS facility. It will be connected to the grid via the existing 330 kilovolt (KV) Line 84 Liddel-Tamworth-overhead transmission line.

1.2 PURPOSE OF THIS REPORT

This report has been prepared to evaluate the direct and indirect economic impacts of the Project and inform the Environmental Impact Statement (EIS) submitted in support of a State Significant Development (SSD) Development Consent application under Part 4, Division 4.7 of the *Environmental Planning and Assessment Act (EP&A Act) 1979*.

1.3 ASSESSMENT GUIDELINES AND REQUIREMENTS

This report has been prepared in accordance with the requirements of the NSW Department of Planning, Housing and Infrastructure (DPHI) which are set out in the Large-scale solar energy Secretary's Environmental Assessment Requirements (SEARs) (NSW DPIE, 2022). SEARs were issued for the Project on 4 March 2025 and outline matters which must be addressed in the EIS. Specifically, the following requirements were pertinent to this economic assessment:

Economic – an assessment of the economic impacts or benefits of the project for the region and the State as a whole and provide details of any proposed voluntary benefit sharing programs in accordance with the Solar Guideline.

1.4 STRUCTURE OF THE REPORT

This report is structured as follows:

- **Section 2** outlines the methodology used for the Economic Assessment.
- **Section 3** provides background context about the regional economy.
- **Section 4** assesses the economic impacts of the construction phase of the Project on the regional and NSW economy.

- **Section 5** assesses the economic impacts of the operational phase of the Project on the regional and NSW economy.
- **Section 6** considers potential cumulative impacts on the region and NSW given other projects in the region.
- **Section 7** provides details of the proposed benefit sharing scheme.
- **Section 8** provides conclusions of the assessment.

2. METHODOLOGY

2.1 OVERVIEW

An input-output (IO) analysis has been undertaken to evaluate the potential economic impacts of the Project on the regional and NSW economy. The IO analysis provides a quantitative assessment of the direct and indirect economic effects during the construction and operational phases of the Project. In addition, other potential economic considerations are addressed qualitatively to determine the broader economic influence of the Project.

2.2 STUDY AREA

The study area for the regional economic impact assessment encompasses the Tamworth Regional LGA. The neighbouring LGAs of Liverpool Plains Shire, Upper Hunter Shire and Walcha (Estimated Residential Populations of 7,667, 14,338, and 2,968 in 2023, respectively) have relatively small populations (Australian Bureau of Statistics, July 2021-June 2026). It is anticipated that there will be some economic impact distributed across the LGAs, with provisions made for income leakage beyond the Tamworth Regional LGA.

The Tamworth Regional LGA has been selected as the focus due to its direct association with the Project's location and anticipated economic influence. It represents the primary geographical area where the economic effects from the construction and operation of the Project are most likely to be concentrated. Analysis of this region captures the economic interactions, workforce movements, and supply chain activities associated with the Project, and reflects the most significant benefits or impacts, such as employment opportunities, infrastructure development, and changes in local economic activity. Impacts on the broader statewide economy are also assessed.

TABLE 2-1 STUDY AREA FOR ECONOMIC ASSESSMENT

Economic boundary assessed	ABS statistical area
Regional economy	Tamworth Regional LGA
State economy	NSW

2.3 INPUT-OUTPUT ANALYSIS

An input-output framework is an established methodology to assess economic impacts from changes to the economy including large projects that result in an increase in production in an industry sector. We use a proprietary input-output model to assess the direct and indirect economic impacts of the construction and operational phases of the Project on the regional and state economy.

Our input-output model is based on the latest Australian Bureau of Statistics (ABS) data to underpin the relationships and structure of the economy. The first step of our analysis is to develop an input-output model that reflects the regional and state economy. We use regional employment and state production to calibrate the input-output models to reflect the regional and state economic structure.

The second step of our analysis is to calculate the direct impacts of the Project. Direct impacts are estimated based on data received from the Applicant on employment, energy generation and storage and annual revenue generation.

The third step of our analysis is to calculate the indirect impacts of the Project. This includes the flow-on effects from an increase in household income (through wages), expenditure on intermediate products and production.

Our analysis determines which industries in the economy benefit most from the Project and determines the overall change in gross output, value added, household income and employment.

Our methodology is based on assumptions listed in **Appendix A**. Some key assumptions that will affect the interpretation of results include fixed production ratios, fixed prices and no supply side constraints. These assumptions lead to results reflecting average economic impacts rather than marginal impacts and results are an upper bound of potential economic impacts.

A limitation of fixed prices and production ratios is that any structural changes to the relationship between industries and price impacts are not captured in the analysis. This limitation can be overcome with Computable General Equilibrium (CGE) modelling. However, this would likely lead to opaqueness in a regional analysis and have historically overestimated an economy's ability to adapt to large changes.

A limitation of no supply side constraints is that crowding out effects are not captured in the analysis. Crowding out is when productive resources in the economy are shifted away from their current use due to the introduction of new expenditure. Crowding out is assumed to be outside of the model. Without crowding out effects incorporated in the model, the analysis creates an upper bound on potential economic impacts. We therefore provide a qualitative assessment of crowding out effects in other impacts.

2.4 DIRECT AND INDIRECT IMPACTS

The economic impacts of the Project are categorised into direct and indirect impacts for analysis. Direct impacts are those that result from project expenditure. The direct impact is the summation of economic impact across all sectors of the economy. For example, a direct impact of the Project is the wages provided to households as employment compensation. In the tables described in this report, this is referred to as household income.

Indirect impacts are those that result from the flow-on effects of expenditure in an industry. For example, an increase in construction output will necessitate inputs from other industries, such as manufacturing. To meet this additional demand, manufacturing will increase its output. This rise in manufacturing output will, in turn, require inputs from various industries, stimulating further increase in production from downstream sectors. This cascading effect, in total, constitutes the indirect impact of the project.

The key economic indicators that have been used to calculate the direct and indirect economic impacts include:

- **Gross Output** – The total amount of expenditure across all industries in the economy annually.

- **Gross Value added** – The annual value of employee compensation, gross operation surplus, and other taxes on production, less subsidies. This reflects the gross revenue minus input costs (excluding employee-related expenses).
- **Gross Household Income** – The total amount of wage expenditure by the Project annually.
- **Employment** – The total number of FTE employees employed annually.

3. DESCRIPTION OF REGIONAL ECONOMY

Characteristics of the regional economy have been explored to provide context for the information provided by the IO analysis. This analysis provides a deeper understanding of the economic structure, workforce distribution, industry composition, and key drivers of economic activity within the area. Information is sourced from the ABS and extracted data is provided at different levels of aggregation (i.e., one-digit and four-digit Australian and New Zealand Standard Industrial Classification (ANZSIC)) to deliver an overview of the region and its economic trends.

3.1 RESIDENTS OF THE REGION

Table 3-1 provides various characteristics of the usual residents of the regional economy based on the ABS's Regional Summary and 2021 Population and Housing Census information (ABS 2021). The Tamworth Regional LGA is located within the New England and North West Statistical Area Level 4 (SA4¹). In 2021, this geographical area had an Estimated Residential Population (ERP) of 186,972 and a labour force of 84,212, of which the Tamworth Regional LGA constituted an ERP of 63,670 (approximately 34% of the New England and North West population), with a median age of 38.8 years, and a labour force of 29,980 (approximately 35.6% of the New England and North West labour force). In 2021, 1,341 people (approximately 1.6% of the New England and North West labour force) identified as being unemployed.

As illustrated in **Table 3-1** below, the top occupations of usual residents² in the Tamworth Regional LGA in 2021 were Professionals (17.6%), Labourers (14%), Technicians and Trade Workers (14%), Managers (12.7%), Community and Personal Service Workers (12.6%), Clerical and Administrative works (11.5%), Sales Workers (9%), and Machinery Operators and Drivers (7%).

TABLE 3-1 CHARACTERISTICS OF USUAL RESIDENTS OF TAMWORTH REGIONAL LGA

Demographics	No.	
Population	63,670	
Median Age	38.8	
In labour force (no.)	29,980	
Unemployed (no.)	1,341	
Median household weekly income (\$)	915	
Unoccupied private dwellings (%)	8.9	
Median weekly rent (\$)	300	
Occupations	No.	%
Managers	3,638	12.7
Labourers	4,010	14

¹ The ABS defines Statistical Areas Level 4 (SA4) to generally have a population above 100,000 people and provide sufficient sample sizes for Labour Force estimates. In regional areas, SA4s tend to have smaller populations of 100,000 to 300,000 people (Australian Bureau of Statistics, 2024).

² Employed people aged 15 years and over.

Demographics	No.	
Technicians and Trades Workers	4,010	14
Machinery Operators and Drivers	2,005	7
Community and Personal Service Workers	3,609	12.6
Clerical and Administrative Workers	3,294	11.5
Professionals	5,041	17.6
Sales Workers	2,578	9

Source: Australian Bureau of Statistics, 2024, Region summary: Tamworth Regional & 2021 Population and Housing Census.

The main industries and occupations of usual residents are presented in **Figure 3-1**.

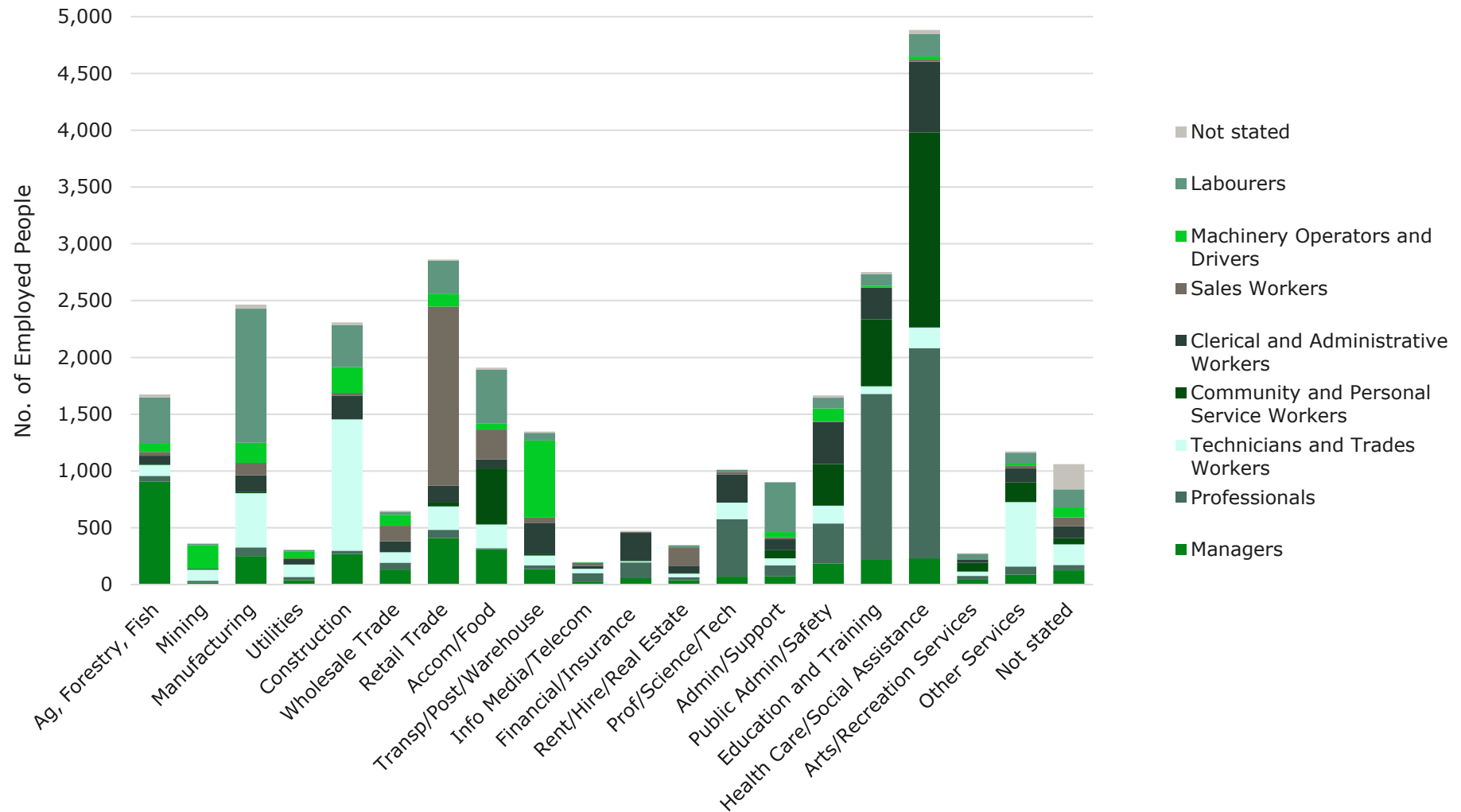


FIGURE 3-1 TAMWORTH REGIONAL LGA EMPLOYMENT BY INDUSTRY (ONE-DIGIT ANZSIC) AND OCCUPATIONS

At a finer level, **Table 3-2** indicates the main four-digit ANZSIC industry sectors in which usual residents were employed in 2021 in the Tamworth Regional LGA compared to the total New England and North West geographical area. In the Tamworth Regional LGA, *Hospitals (except Psychiatric Hospitals)* was the most significant industry of employment (5.6%), followed by *Secondary Education*, *Meat Processing*, *Other Social Assistance*, and *Supermarket and Grocery Stores* (3.3%, 3.2%, 3.1%, and 2.6%, respectively).

TABLE 3-2 TOP 5 INDUSTRY SECTORS OF EMPLOYMENT FOR USUAL RESIDENTS (FOUR DIGIT ANZSIC)

Tamworth Regional LGA	%	New England and North West geographical area	%
Hospitals (except Psychiatric Hospitals)	5.6	Hospitals (except Psychiatric Hospitals)	3.9
Secondary Education	3.3	Beef Cattle Farming (Specialised)	3.8
Meat Processing	3.2	Secondary Education	2.8
Other Social Assistance Services	3.1	Supermarket and Grocery Stores	2.7
Supermarket and Grocery Stores	2.6	Local Government Administration	2.7

Source: Australian Bureau of Statistics, 2021, Population and Housing Census.

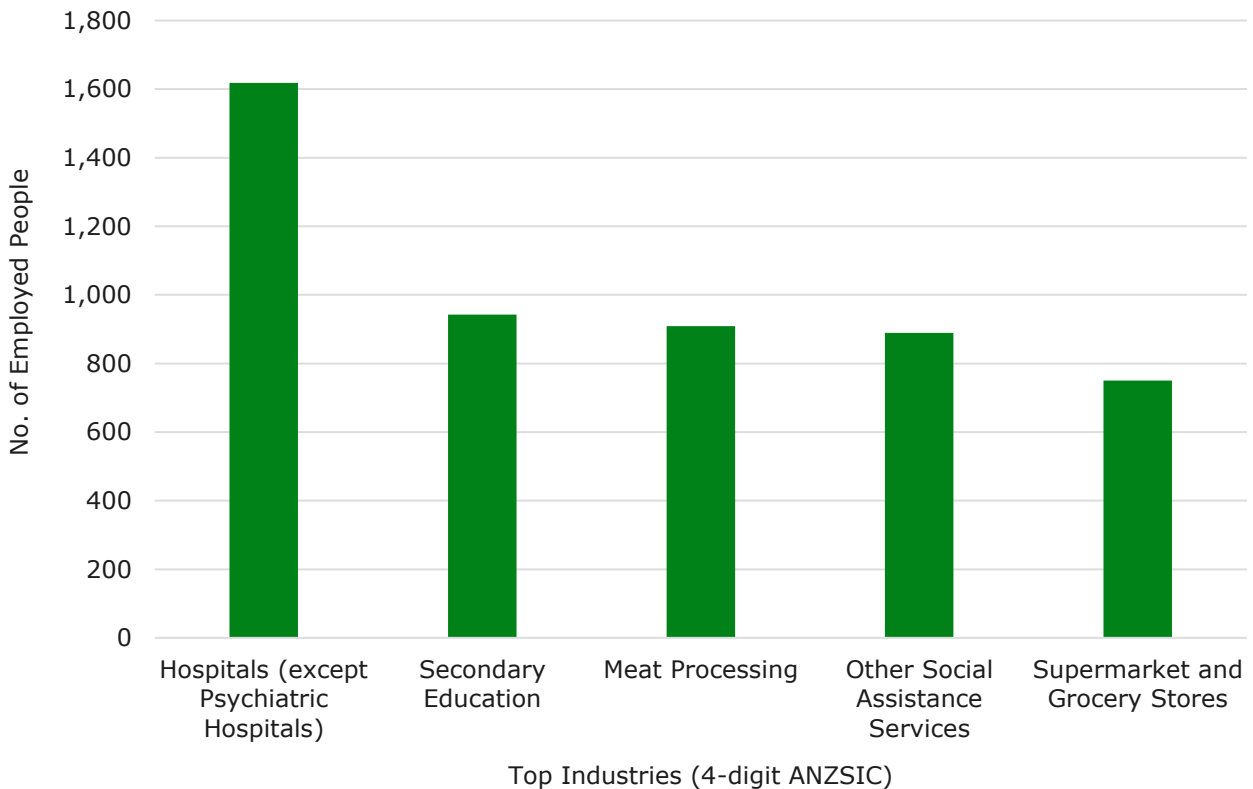


FIGURE 3-2 TAMWORTH REGIONAL LGA TOP INDUSTRIES OF EMPLOYMENT

3.2 HOUSING

Based off the ABS 2021 census data of the Tamworth Regional LGA, 7,934 people fully owned their homes, 7,382 people were homeowners with a mortgage, and 7,336 people rented their residences. The median weekly household income was \$1,416, the median monthly mortgage repayment was \$1,517, and the median weekly rent was \$300. Declining vacancy rates were observed across 2024 in the Tamworth Regional LGA, with a vacancy rate of 1.3% recorded for September 2024.³ Tamworth City had an even lower vacancy rate of 0.9% in the same period (PRD, 2024).

3.3 POPULATION GROWTH

The population in Tamworth Regional LGA has been growing steadily, but at a slower pace than NSW. This is projected to continue to 2041 with an expected annual growth of +0.5% (NSW Government, 2024). The median age in Tamworth is 39 (in 2021) slightly above the Australian average of 38 (in 2021), however matching the NSW median of 39 (in 2021).

TABLE 3-3 POPULATION GROWTH

Local Government Area	Population				Average Annual Growth		
	2020	2021	2022	2023	2020-2021	2021-2022	2022-2023
Tamworth Regional LGA	63,405	63,670	64,520	65,246	265	850	726

Source: Australian Bureau of Statistics, 2024, Region summary: Tamworth Regional

TABLE 3-4 PROJECTED POPULATION GROWTH

Local Government Area	2021	2041	Change	Annual %
Tamworth Regional	63,670	70,069	+6,399	+0.5%
NSW	8,097,062	10,070,467	+1,973,405	+1.1%

Source: NSW Government Planning, 2024, Population projections

3.4 ECONOMIC STRUCTURE

The economic structure of Tamworth Regional LGA is derived from our input output model for the regional economy. **Table 3-5** outlines the industries with the highest economic output in the regional economy, indicating 45.3% of the total output is derived from five key industries. Manufacturing represents the largest industry in the regional economy. In terms of value added, the Health Care and Social Assistance industry is the largest contributor to the regional economy and the largest industry of employment in the regional economy (17%).

³ Based on the number of rented homes in 2021, this vacancy rate would suggest approximately 94 homes are available in Tamworth Regional LGA. This, however, would differ from unoccupied private dwellings as some dwellings though unoccupied will not be available to rent.

TABLE 3-5 GROSS REGIONAL OUTPUT FOR THE 5 LARGEST INDUSTRIES IN THE REGIONAL ECONOMY (ANZSIC ONE DIGIT) (\$2024)

Industry	Gross Regional Output (\$m)	Proportion of Regional Economy (%)
Manufacturing	546	11.31%
Health care and social assistance	536	11.1%
Construction	438	9.09%
Education and training	343	7.12%
Agriculture, forestry and fishing	324	6.72%
Total	\$2,187m	45.3%

TABLE 3-6 GROSS VALUE ADDED FOR THE 5 LARGEST INDUSTRIES IN THE REGIONAL ECONOMY (ANZSIC ONE DIGIT) (\$2024)

Industry	Gross Value Added (\$m)	Proportion of Regional Employment (%)
Health care and social assistance	368	17.1%
Education and training	239	9.6%
Retail trade	181	10%
Manufacturing	155	8.6%
Public administration and safety	153	5.9%
Total	\$1,098m	51%

3.5 SUMMARY

The Tamworth Regional LGA economy (the regional economy) represents a significant proportion of the New England and North West geographical area. Tamworth City within the local economy is an important urban centre for regional communities and represents a large proportion of the resident population. It is expected that many employees of the Project will come from Tamworth or choose to reside there if moving from another region given its services and proximity to the Project.

A main driver of the regional economy is the Health Care and Social Assistance sector which is the primary employer and primary source of gross value added. Manufacturing is also a significant driver of economic activity and the primary source of gross regional output. The Construction sector is the third largest sector by gross regional product.

The regional economy has low unemployment of 1.6%, indicating that some of the employment for the Project will come from outside the region. This will bring additional economic activity and temporary population growth. Long term, some of the incoming residential population may choose to remain increasing the overall population growth rate.

As with much of regional NSW, housing pressure is high in the regional economy. The vacancy rate in the region is 1.3% with approximately a third of the local population currently renting their homes. Any increase in local population is likely to increase housing demand and lead to increased housing pressure.

4. CONSTRUCTION PHASE

4.1 THE PROJECT

The construction phase of the Project will drive economic activity, benefiting both the local, regional and broader NSW economy. This phase is expected to last 18 months, directly employing approximately 180 workers, with the direct workforce peaking at 250 Full Time Equivalent (FTE) employees.

4.2 DIRECT AND INDIRECT IMPACTS

The economic impacts described in this report are calculated across one-digit ANZSIC industry sectors. During the construction phase, direct impacts will primarily flow through to the construction industry, which includes heavy and civil engineering construction, construction services and non-residential building.

The ABS defines the construction division as:

- *Units mainly engaged in the construction of buildings and other structures, additions, alterations, reconstruction, installation, and maintenance and repairs of buildings and other structures.*
- *Units engaged in demolition or wrecking of buildings and other structures and clearing of building sites.*
- *Units engaged in blasting, test drilling, landfill, levelling, earthmoving, excavating, land drainage and other land preparation (Australian Bureau of Statistics, 2006-revision-2.0).*

4.2.1 REGIONAL IMPACTS

On a regional level, most direct impacts generated by the Project are within the construction industry. In total, the direct output from the Project is estimated at \$119 million per annum (p.a). The annual total impact of the indirect output from the Project on the regional economy is estimated at \$309 million. During the construction phase, this brings the modelled annual impact of the total output from the Project to \$428 million.

The IO analysis indicates that the industries with the highest indirect output from the Project (based on a one-digit ANZSIC classification) include Construction, Manufacturing, Transport, Administration and Support Services, Wholesale Trade, and Professional and Scientific Services.

The annual value added by the Project to the regional economy is estimated at \$139 million. This is split into \$41 million from direct impacts and \$97 million from indirect annually.

Household direct income is calculated based on the number of full-time employees on average during the construction phase. Peak employment is not used as the economic impacts assessed are average impacts. The average direct impact on household income is estimated \$26 million annually. The indirect impact on household income is expected to be \$9 million p.a, leading to a modelled total impact of \$35 million p.a on the regional economy during the construction.

The indirect impacts of household income are calculated with an expected leakage rate of 50% from the regional economy. This is because the regional economy is limited in size compared to the wider region. It is likely household income will be spent beyond the regional economy and thus the multiplier effect of household income has been adjusted. This assumption is also reasonable because a proportion of income earners will not reside in the region and hence spend their income outside of the regional economy.

The direct impacts on employment are measured by the expected annual average employment during the construction phase, 180 FTEs. This will flow through the economy and create an estimated additional 67 jobs leading to an overall expected increase of 247 jobs.

TABLE 4-1 AVERAGE ANNUAL ECONOMIC IMPACTS OF THE CONSTRUCTION ON THE REGIONAL ECONOMY (\$2024)

	Direct Impact	Indirect Impact	Total Impact
Output (\$m)	119	309	428
Value added (\$m)	41	97	139
Income (\$m)	26	9	35
Employment (FTE No.)	180	67	247

Note: Total impact may differ from the sum of the direct and indirect impact due to rounding in the tables

4.2.2 STATE IMPACTS

Most of the direct output generated by the Project is in the construction industry. In total, direct output from the Project is estimated at \$136 million. The indirect impact on the state economy is larger than that of the regional economy because of a reduction in leakage and continued multiplier effects from consumption. The indirect impacts total \$353 million for NSW. Overall, the total impact of the Project is an estimated \$489 million annually during the construction phase.

The main industries that benefit from indirect Project impacts are Construction, Manufacturing, Professional and Scientific Services, Rental, Hiring and Real Estate Services, Financial and Insurance Services, and Transport, Postal and Warehousing.

Value added by the Project to the state economy is estimated at \$168 million p.a. This is split into \$49 million from direct and \$119 million from indirect impacts.

The total impact on household income is \$40 million p.a on the NSW economy during the construction phase. Of which, direct household income is estimated at \$26 million annually.

The indirect impacts of household income are calculated with an expected leakage rate of 25% from the NSW economy. This is to account for expenditure outside of the state that will not create cascading flow-on effects within the NSW economy.

The direct impacts on employment are measured by the expected annual average employment during the construction phase, 180 FTEs. This will flow through the economy and create an estimated additional 99 jobs leading to an overall expected increase of 279 jobs.

The indirect impacts on the NSW economy are larger than those in the regional economy because of the larger multiplier effect in the NSW economy and the reduction in leakage.

TABLE 4-2 AVERAGE ANNUAL ECONOMIC IMPACTS OF THE CONSTRUCTION ON THE NSW ECONOMY (\$2024)

	Direct Impact	Indirect Impact	Total Impact
Output (\$m)	136	353	489
Value added (\$m)	49	119	168
Income (\$m)	26	14	40
Employment (FTE No.)	180	99	279

Note: Total impact may differ from the sum of the direct and indirect impact due to rounding in the tables

4.3 OTHER IMPACTS

In this section we described the impact of the construction phase of the Project on agriculture and housing. Impacts on transport and social community are considered in detail in the respective chapters of the Environmental Impact Assessment.

4.3.1 AGRICULTURAL IMPACTS

The construction phase of the Project is expected to be 18 months. During this time, it is likely that there will be disruption to grazing and disruption to access for neighbouring properties. The footprint of the Project is 369 ha on cleared agricultural land used for grazing with minimal vegetation. The loss of agricultural production from the Project area is expected to be \$175,000 p.a based on average agricultural production per hectare of agricultural holding in the Tamworth Regional LGA (Australian Bureau of Statistics, 1990-2023). The economic impact of this loss of production is estimated to be \$325,000 annually for the region and \$382,000 annually for the state.

TABLE 4-3 ANNUAL ECONOMIC IMPACTS OF FORGONE AGRICULTURE ON THE REGIONAL ECONOMY (\$2024)

	Direct Impact	Indirect Impact	Total Impact
Output (\$m)	0.075	0.25	0.325
Value added (\$m)	0.035	0.117	0.152
Income (\$m)	0.014	0.028	0.041
Employment (FTE No.)	0.3	0.5	0.8

Note: Total impact may differ from the sum of the direct and indirect impact due to rounding in the tables

TABLE 4-4 ANNUAL ECONOMIC IMPACTS OF FORGONE AGRICULTURE ON THE NSW ECONOMY (\$2024)

	Direct Impact	Indirect Impact	Total Impact
Output (\$m)	0.085	0.298	0.382
Value added (\$m)	0.04	0.14	0.18
Income (\$m)	0.056	0.112	0.168
Employment (FTE No.)	1.26	2.64	3.9

Note: Total impact may differ from the sum of the direct and indirect impact due to rounding in the tables

4.3.2 HOUSING IMPACTS

The construction phase, the Project is expected to employ 180 individuals on average and 250 individuals at its peak. The Project intends to build a temporary workers accommodation camp at the project site, with a maximum capacity of 250 FTE. This will be sufficient to cover the average construction and peak period workforce.

The vacancy rate for private dwellings in the Tamworth Regional LGA was 1.3% in 2024. This is significantly below the industry benchmark of 3.0% set by the Real Estate Institute of Australia (Real Estate Institute of Australia (REIA), 2024). A vacancy rate at the benchmark is considered a stable market with supply and housing demand roughly in equilibrium. A vacancy rate below this, as in the Tamworth Regional LGA, indicates strong rental demand. The construction of the workers accommodation should alleviate all potential housing impacts associated with the project.

5. OPERATION PHASE

5.1 THE PROJECT

The operation phase of the Project will drive economic activity, benefiting both the local region and the broader NSW economy. During this phase, the estimated number of FTE employees is 10, with all employees expected to reside in the region. Other operational roles will be periodical and are anticipated to come from outside the region.

The operational phase is scheduled to commence in 2028 for a 30-year minimum period. Throughout the entire operational life of the Project, the solar farm area is expected to be utilised for sheep grazing.

5.2 DIRECT AND INDIRECT IMPACTS

Within the operation phase of the Project direct impacts will be focused predominantly in: Electricity supply, and Electricity transmission, distribution, on selling and electricity market operations sectors.

5.2.1 REGIONAL IMPACTS

During the operation phase, the annual direct output to the region from the Project will be \$61 million. The indirect output in the regional economy is smaller than that of the state economy because of benefits leakage from the region to the broader economy and decreased multiplier effects from consumption within the regional boundary. Annual indirect outputs total \$102 million for the region. In total the output of the Project is an estimated \$163 million annually during the operation phase.

The main industries that receive indirect impacts from the Project are Electricity, Gas and Water Supply, Financial and Insurance Services, Construction, Professional and Scientific Services, and Manufacturing.

Value added to the region is estimated at \$35 million p.a over the operation phase. This is split into \$21 million from direct impacts and \$14 million from indirect impacts.

The average direct impact on household income is estimated at \$2 million annually. The indirect impact of household income is expected to be \$1 million p.a, leading to a total impact of \$3 million p.a on the regional economy during the operation phase.

The direct impacts on employment are measured by the expected annual average employment during the operation phase, i.e. 10 FTE. This will flow through the economy and create an estimated additional 4 jobs leading to an overall expected increase of 14 jobs.

TABLE 5-1 AVERAGE ANNUAL ECONOMIC IMPACTS OF THE PROJECT ON THE REGIONAL ECONOMY (\$2024)

	Direct Impact	Indirect Impact	Total Impact
Output (\$m)	61	102	163
Value added (\$m)	21	14	35
Income (\$m)	2	1	3
Employment (FTE No.)	10	4	14

Note: Total impact may differ from the sum of the direct and indirect impact due to rounding in the tables

5.2.2 STATE IMPACTS

During the operation phase, the annual direct output from the Project is estimated at \$61 million. The indirect impact on the state economy is larger than that of the regional economy because of a reduction due to both leakage and the lower multiplier effects from consumption. The indirect output totals for the state are estimated at \$124 million p.a. In total the output of the Project is an estimated \$185 million annually during the operation phase.

The main industries that receive indirect impacts from the Project are Electricity, Gas and Water Supply, Financial and Insurance Services, Professional and Scientific Services, Construction, Rental, Hiring and Real Estate Services and Manufacturing.

The estimated value added by the Project to the NSW economy is \$42 million p.a, split evenly at \$21 million for both direct and indirect impacts.

The average direct impact on household income is estimated at \$2 million annually. The annual indirect impact of household income is expected to be \$1 million, leading to an annual total impact of \$3 million on the state economy during the operation phase.

The indirect impacts of household income are calculated with an expected leakage rate of 25% from the NSW economy. This is to account for expenditure outside of the state that will not create cascading flow-on effects within the NSW economy.

The direct impacts on employment are measured based on the expected annual average employment during the operation phase, i.e. 10 FTE. This will flow through the economy and create an additional 6 jobs leading to an overall expected increase of 16 jobs.

The indirect impacts on the NSW economy are larger than those in the regional economy because of the larger multiplier effect in the NSW economy and the reduction in leakage to areas outside the state boundary.

TABLE 5-2 AVERAGE ANNUAL ECONOMIC IMPACTS OF THE PROJECT ON THE NSW ECONOMY (\$2024)

	Direct Impact	Indirect Impact	Total Impact
Output (\$m)	61	124	185
Value added (\$m)	21	21	42
Income (\$m)	2	1	3
Employment (FTE No.)	10	6	16

Note: Total impact may differ from the sum of the direct and indirect impact due to rounding in the tables

5.3 OTHER IMPACTS

5.3.1 AGRICULTURAL IMPACTS

The footprint of the Project is 369 ha on cleared agricultural land used for grazing with minimal vegetation. It is expected that the Project once operational will accommodate sheep grazing minimising the impact to landowners and farmers (Jinko Power & Bright Path Renewables, n.d.).

Solar grazing of sheep in Australia has seen slow adoption with ongoing research into the benefits (Brown, 2024). For this reason, quantification of the impacts of solar grazing would not lead to reliable results. Nonetheless, there have been studies on individual solar farms that have reported a 15% rise in wool production (Brown, 2024), wool carrying capacity increases of 25% (Jose, 2022), and increased wool quality of 20% superior quality from solar sheep (Carroll, 2024).

A study commissioned by the Queensland government into agrivoltaic grazing systems provides a synthesis of anecdotal evidence to date in Australia (Bowen, 2024) .

From this report potential economic benefits of solar grazing are:

- free agistment of sheep where land is leased to the solar developer,
- additional grass growth due to the concentration of dew on the panels overnight,
- decreased mowing costs, and
- shelter for the sheep over summer months.

Potential negative economic impacts of solar grazing are:

- increased shearing to prevent wool being caught in the motor drive shaft of the solar panels,
- mustering difficulties,
- wild dog incursions, and
- minor damage to solar panels from rubbing and pushing beneath panels.

Solar grazing will require engaged design between solar developers and farmers from the beginning to ensure agricultural benefits and solar production (Williamson, 2024). Jointly developed suitable management practices will ensure success of both the solar farm and sheep grazing. On balance, the current plan to continue grazing is likely to lead to minimal agricultural losses during the operation phase.

5.3.2 HOUSING IMPACTS

Given the small number of employees during the operational phase of the project, there is unlikely to be any crowd out of housing or adverse impacts on the rental market attributable to this Project.

6. CUMULATIVE IMPACTS

6.1 INTRODUCTION

The cumulative impacts of the Project refer to the combined effects when considered alongside other existing, planned, or reasonably foreseeable activities in the area. In the context of the Project, it is important to assess how the construction and operational impacts, when combined with other local developments or factors, could result in a broader economic effect.

6.2 POTENTIAL CUMULATIVE IMPACTS

6.2.1 NEARBY RENEWABLE ENERGY AND RELATED PROJECTS

As indicated in the Garoo Solar Farm and BESS Scoping Report, there are several existing or proposed renewable energy projects located near the Project Area (Environmental Resources Management (ERM), 2024). These are detailed in **Table 6-1** below. The combined impacts of these projects are likely to lead to cumulative impacts on labour force, resident population, housing and prices.

TABLE 6-1 NEARBY RENEWABLE ENERGY AND RELATED PROJECTS

Project	Developer / Operator	Energy	Indicative Scale	Proximity to Project ⁴	Status
<i>Solar Energy Developments</i>					
Middlebrook Solar Farm and BESS	Total Eren	Solar	320 MW of solar capacity with a 300 MW / 600 MWh BESS	25 km	Recommendation with IPC
Lambruk Solar Farm	Venn Energy	Solar	500 (DC) / 300 (AC) MW of solar capacity with a 300 MW / 1200 MWh BESS	37.6 km	Prepare EIS
Nottingham Park Solar Farm	Nottingham Park Solar Farm Renewables	Solar	250 MW of solar capacity with a 400 MWh BESS	62.5 km	Prepare EIS
<i>Wind Energy Developments</i>					
Hills of Gold Wind Farm	Wind Energy Partners	Wind	420 MW of wind capacity	48.8 km	Approved
<i>Energy Storage & Supply</i>					
Kingswood BESS	Iberdrola Australia Development	Electricity supply	500MW / 1000 MWh BESS	41.4 km	Response to Submissions
Calala BESS	Equis Energy	Electricity supply	300 MW / 600 MWh BESS	45.6 km	Approved
Tamworth BESS	Maoneng	Electricity supply	200 MW BESS	42.6 km	Response to Submissions

⁴ Estimated distance by road

6.2.2 LABOUR FORCE

The labour force in the region is expected to be insufficient to meet the demand from the projects in the region. As a result, it is likely that some labour will shift industries, individuals outside of the labour force may rejoin, and there may be inward movement of labour from other regions. Given the demand for labour, wage increases may occur depending on whether the shortage can be met at the current wage rate.

Developers may also adopt a combination of localised labour hiring and training approaches, combined with Drive-In Drive-Out (DIDO)/Fly-In Fly-Out (FIFO) approaches as may be appropriate for their Project specific locations. The balance between these approaches may alleviate some of the negative impacts on the local community.

6.2.3 RESIDENT POPULATION

As a result of an increase in the labour force in the region, the resident population will grow. Given the current population dynamics in the region, this increase in the resident population is likely to be higher than the current underlying rate (+0.5%).

An increase in the resident population will lead to economic growth through increased economic activity driven by expenditure on goods, services, accommodation and entertainment. These flow-on effects will boost the regional economy, so long as there is excess capacity to meet demand. In the event of scarcity, there could be an erosion in the quality of services and an increase in the cost of living for existing residents.

6.2.4 HOUSING

The influx of new residents to the region will increase the need for accommodation. Regional NSW has a vacancy rate of 0.9% in 2022 (NSW Planning 2022) revealing a rental market already under pressure. Beyond the formal rental market, availability of short-term rentals (e.g. Airbnb) may alleviate some of the housing pressures. In the absence of building temporary housing, it is likely that there will be an increase in housing pressure when new residents enter the region. This could lead to increased rents and the crowding out of lower income tenants.

6.2.5 PRICES

An increase in the resident population and reduction in unemployment, coupled with housing pressure can lead to an increase in prices as demand for goods and services increases. The interconnectedness of the broader region will mitigate this to an extent, allowing for price pressures to ease across a wider geographic footprint. Further, the increase in new residents is foreseeable and will likely lead to increases in the supply of goods and services to meet demand. Prices in these situations tend to adjust quickly and any price increases are likely to be temporary.

7. BENEFIT SHARING SCHEMES

The Project has proposed a model of community benefit sharing in line with the Benefit-Sharing Guideline (NSW Department of Planning, Housing and Infrastructure, 2024). The proposed scheme is guided by the six policy principles for benefit sharing schemes for large-scale renewable projects. These are: benefit-sharing is standard practice, cooperative, transparent, community focused, proportionate and delivers a positive outcome.

The proposed scheme has been collaboratively designed through discussions with neighbours to the project area, community drop-in sessions, council meetings and DPHI meetings. There were 10 participants across two community drop-in sessions, with most of the participants being direct neighbours. The scheme was also raised in a meeting with the Tamworth Regional Council where the Council's expectations were expressed as in line with the Benefit-Sharing Guideline. The proposed scheme includes a diverse set of stakeholders and community groups ensuring a broad distribution of benefits.

The proposed scheme is set out below:

- **Neighbourhood benefits:** An annual residential energy rebate for 6 nearby properties (R2-R8) in the local neighbourhood. Total financial value of \$7,200 p.a. during both the construction and operation phases.
- **Local community benefits:** The project intends to support a range of community benefit-sharing programs within the local township, namely
 - during the Construction phase (total of \$51,496 p.a.):
 - **Community-based rehabilitation and social projects:** Located in the local rural township. Financial value of \$20,000 p.a.
 - **Cultural Activities Fund:** Fund cultural festivals and sustainability-themed events. Financial value of \$31,496 p.a.
 - during the Operation phase (total of \$86,496 p.a.):
 - **Scholarship:** Partner with local institutions to support students in engineering and renewable energy at TAFE (\$35,000 p.a. during Operation phase)
 - **Community Medical Support:** Support local health infrastructure or mobile health services (\$20,000 p.a. during Operation phase)
 - **Cultural Activities Fund:** Fund cultural festivals and sustainability-themed events (\$32,696 p.a. during the Construction and Operation phase)

The estimated total financial value of the neighbourhood and local community benefits in the Construction phase is \$58,696 p.a, and \$93,696 p.a. in the Operation phase.

TABLE 7-1 NEIGHBOURHOOD BENEFITS DETAILS (P.A \$2024)

Name	Details	Total benefit (\$/year)	Phase
R2	Annual residential energy rebate	\$1,200	Construction and Operation
R3	Annual residential energy rebate	\$1,200	Construction and Operation
R4	Annual residential energy rebate	\$1,200	Construction and Operation

Name	Details	Total benefit (\$/year)	Phase
R5	Annual residential energy rebate	\$1,200	Construction and Operation
R6	Annual residential energy rebate	\$1,200	Construction and Operation
R8	Annual residential energy rebate	\$1,200	Construction and Operation

TABLE 7-2 LOCAL BENEFITS DETAILS (P.A \$2024)

Name	Details	Scale	Total benefit (\$/year)	Phase
Scholarship	Partner with local institutions to support students in engineering and renewable energy or TAFE training	Beneficiaries: local residents	\$35,000	Operation
Community Medical Support	Support local health infrastructure or mobile health services	Target: local community (~3,000 people)	\$20,000	Operation
TBD	Support community-based rehabilitation and social projects	Located at the local rural township	\$20,000	Construction
Cultural Activities Fund and/or Council suggestions	Fund cultural festivals and sustainability-themed events	To be managed jointly with local Council	\$31,496	Construction and Operation

Table 7-3 indicates the maximum total financial value of the benefit sharing scheme is \$113,696 for this Project. The estimated total of the proposed scheme is in line with this threshold and therefore assessed to comply with the Benefit Sharing Guideline.

TABLE 7-3 MAXIMUM VALUE OF BENEFIT SHARING (P.A \$2024)

Development	\$/MW	MW	Financial Value
Solar	\$850	133.76	\$113,696
Wind	N/A	N/A	N/A
Battery	N/A	N/A	N/A
Total	\$850	133.76	\$113,696

\$/MW (MWh) is stipulated in the Benefit Sharing Guideline NSW (Nov 2024)

The BESS benefit-sharing rate only applies to stand-alone systems and must not be applied to a battery that is developed alongside solar and wind energy generation.

Table 7-4 provides documentation listing the private agreements that have been entered into by the Applicant as required by the Private Agreement Guideline.

TABLE 7-4 PRIVATE AGREEMENTS (P.A \$2024)

Landholder Number	Type (landholder or neighbour)	Exclusions	Impact duration
R2	Neighbour	All impacts	Life of project
R3	Neighbour	All impacts	Life of project
R4	Neighbour	All impacts	Life of project
R5	Neighbour	All impacts	Life of project
R6	Neighbour	All impact	Life of project
R8	Neighbour	All impact	Life of project

8. CONCLUSION

The Project will have a positive economic impact on the regional economy during both its construction and operation phases. This positive impact will outweigh the temporary disruption to agricultural activity within the region, with significant flow-on effects to the regional, as well as the state economy more broadly.

Managing the impacts of the growing labour force in the construction industry may present some challenges that need to be carefully managed, particularly when considering the current size of the construction industry within the region. The Applicant is committed to prioritising employment opportunities for current residents and has developed a local opportunity framework to meet this objective.

The framework includes: an Expressions of Interest process for contractors and job seekers during the Community Drop-in Session, an application link on the Project website for local contractors and job applicants, and the delivery of all local applicant and contractor details to the EPC contractor prior to the start of construction. This framework ensures current residents gain priority in the tendering process. By committing to employment opportunities, the Applicant mitigates the impacts of a growing labour force on the local community and ensures the Project's benefits flow directly to the existing community. The construction of temporary workers accommodation on-site should alleviate any negative effects on the housing market in the Project LGA.

Economic gains from the Project could be maximised by working closely with local councils and communities to ensure benefits from the Project are realised and negative impacts reduced. The Applicant has committed to a benefit sharing scheme to ensure that benefits from the Project are shared widely across the community. This scheme includes a cultural fund, community health support, scholarships at local institutions and annual energy rebates for neighbouring properties.

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APPENDIX A THE INPUT-OUTPUT FRAMEWORK

OVERVIEW

The input-output framework is an equilibrium framework with four general uses. Firstly, it can be used to understand how industries in an economy are inter-related by accounting for relationships among industries in the economy over a given period of time. Secondly, it is useful to assess economic impact of changes in final demand and evaluate how impacts flow through various sectors of the economy. Thirdly, it can be used to calculate the inputs required from each sector due to demands from other sectors of the economy and final demand. Fourthly, it can be used to assist with economic development planning (Jackson, R.W., 2020)

Within the input-output framework there are different styles and types of input-output models (Miller, R. E., & Blair, P. D., 2009). Consistent among all input-output models is a mapping of how goods are used in production across the economy. This mapping allows an understanding of how outputs feed through the economy and their intermediate use in production.

The ERM Energetics' input-output model (IO model) underpinning this economic assessment is used to analyse how a change in production in one sector affects other sectors in the economy and the indirect effects of this change.

METHODOLOGY

Our proprietary IO model is based on the most recent Australian Bureau of Statistics (ABS) data. We use this data to build an input-output table with four quadrants (McLennan, W, 1995).

1. Quadrant 1: The top left quadrant is a matrix that shows the intermediate usage of goods across each sector. The rows represent the inputs required by each sector, while the columns represent the outputs produced by each sector. Each cell indicates the value of inputs used by one sector from another.
2. Quadrant 2: The top right quadrant shows final demand for outputs in each sector, for example household expenditure, capital expenditures.
3. Quadrant 3: The bottom left quadrant is a matrix of primary inputs into production, for instance compensation of employees, taxes and imports.
4. Quadrant 4: The bottom right quadrant shows the contribution of primary inputs into final demand.

The direct coefficients table is derived from the input-output table and shows the amount of extra output required from each industry to produce an extra dollar of output in the column industry. These are called the direct impacts.

There is a cascading effect from the direct impacts which is called the indirect impacts. This is because for the extra output in the column industry the row industries must contribute extra production. In turn, this means inputs into the row's industry production need to increase and



so on. The indirect and direct effects are captured by the Leontief inverse matrix also known as the total requirements coefficients.

STATE AND REGIONAL ADJUSTMENTS

Industry production level data is provided by the ABS only at the national level. Therefore, adjustments need to be made to translate this data into state and regional input-output models.

The national model uses four-digit Australian and New Zealand Standard Industrial Classification (ANZSIC) categories. To match this with State and Regional data, we aggregate the ANZSIC groupings to one-digit classifications.

Following the aggregation we use location quotients (LQ) to adjust the national input-output table to a state table and a regional table (Miller, R. E., & Blair, P. D., 2009). The state LQ is determined on each one-digit classification as the proportional share of each industry's output in the state as compared to the national. The regional LQ is determined on each one-digit classification as the proportional share of each industry's employment in the region as compared to the state. The location quotients scale the industries in the economy to match that of the state and the region to ensure that the input-output table reflects the localised economy.

PROJECT EXPENDITURE

Project expenditure is a key variable in the input-output framework. It represents the additional economic activity in the economy that triggers the direct and indirect impacts.

We measure project expenditure from the construction phase using an estimate of capital expenditure based on the size of the project. The CSIRO GenCost 2024 report provides the estimated costs for renewable projects in Australia based upon energy generation and storage (Graham, 2024). To remove imports from the capital expenditure we use the minimum requirements from the NSW Renewable Energy Sector Board's Plan (NSW Office of Energy and Climate Change, 2022).

SUPPLY CHAIN INPUTS: LOCALLY SOURCED MINIMUM REQUIREMENTS

	Solar	Battery Storage	Wind	Pumped Hydro
Development Phase	49%	23%	40%	66%

Source: (NSW Office of Energy and Climate Change, 2022)

Project expenditure in the operation phase is estimated using annual revenue generation from the Applicant.



ASSUMPTIONS AND LIMITATIONS

Although versatile, input-output frameworks are based on assumptions that limit the interpretation of results. The main assumptions and associated limitations are listed below (Australian Bureau of Statistics, 2021).

- Fixed ratios for intermediate inputs and production. An input-output model is based on an economic structure as at a given point in time. This necessarily fixes the ratios of inputs and production within the economy based on that point in time. Analysis that extends from the model uses these fixed ratios and therefore results in average effects rather than marginal effects.
- Fixed prices. Similar to fixed ratios, prices in an input-output model are fixed at a point in time. This means that changes in the prices of inputs are not considered in the model. Any response to a change in prices cannot be modelled in an input-output model.
- No supply side constraints. It is assumed in an input-output model that production inputs can be sourced if required. This can lead to an overstating of impacts.
- Fixed employment proportions. Input-output models assume employment is perfectly proportional to output over all scales of production. This is related to the assumption of fixed ratios and results in the trade-off between capital and labour being fixed.
- Constant proportions of income for consumption. Input-output models assume that constant proportions of income are used for consumption. This means that the household budget is spent in the exact proportion to the initial budget even if household income increases. This is a limitation that does not account for income effects on the household budget. E.g. leisure goods may increase in the household budget share when income goes up.

DATA USED

Our input-output model uses the following data sources.

Data set	Input-output model
Australian Bureau of Statistics (2021-2022) 5209.0.55.001 Australian National Accounts: Input-Output Tables [https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-input-output-tables/latest-release#data-downloads], accessed 11 November 2024	National, state, regional
Australian Bureau of Statistics (1990-2023) 5220.0 Australian National Accounts: State Accounts [https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-state-accounts/latest-release#data-downloads], accessed 11 November 2024	State
Australian Bureau of Statistics (2011-2023) Data by Region [https://www.abs.gov.au/methodologies/data-region-methodology/2011-23#data-downloads], accessed 11 November 2024	Regional



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