



TALLAWANG SOLAR FARM

Social Impact Assessment

FINAL

June 2022



TALLAWANG SOLAR FARM

Social Impact Assessment

FINAL

Prepared by
Umwelt (Australia) Pty Limited
on behalf of
RES Australia Pty Ltd

Project Director: Malinda Facey
Project Manager: Marion O'Neil
Technical Director: Dr Sheridan Coakes
Technical Manager: Jessica Anagnostaras/Sheree Ansen
Report No. 21139/R12
Date: June 2022



QMS Certification Services

This report was prepared using
Umwelt's ISO 9001 certified
Quality Management System.

Acknowledgement of Country

Umwelt would like to acknowledge the traditional custodians of the country on which we work and pay respect to their cultural heritage, beliefs, and continuing relationship with the land. We pay our respect to the Elders – past, present, and future.

Disclaimer

This document has been prepared for the sole use of the authorised recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by Umwelt (Australia) Pty Ltd (Umwelt). No other party should rely on this document without the prior written consent of Umwelt.

Umwelt undertakes no duty, nor accepts any responsibility, to any third party who may rely upon or use this document. Umwelt assumes no liability to a third party for any inaccuracies in or omissions to that information. Where this document indicates that information has been provided by third parties, Umwelt has made no independent verification of this information except as expressly stated.

©Umwelt (Australia) Pty Ltd

Document Status

Rev No.	Reviewer		Approved for Issue	
	Name	Date	Name	Date
Final	Dr. Sheridan Coakes	20 April 2022	Dr. Sheridan Coakes	20 April 2022

Abbreviations

Abbreviation	Description
ABS	Australian Bureau of Statistics
AC	alternating current
BESS	Battery Energy Storage System
BSAL	Biophysical Strategic Agricultural Land
CSEP	Community and Stakeholder Engagement Plan
DC	direct current
DPIE	New South Wales Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EP&A Act	NSW Environmental Planning and Assessment Act 1979
GP	General Practitioner
GRRR	Gulgong Residents for Responsible Renewables
GW	gigawatts
the Guideline	NSW DPIE Social Impact Assessment Guideline for State Significant Projects (2021)
IER	Index of Economic Resources
LGA	local government area
MW	megawatts
MWRC	Mid-Western Regional Council
NSW	New South Wales
PV	photovoltaic
RES	Renewable Energy Systems Australia Pty Ltd
REZ	Renewable Energy Zone
SBS	Shared Benefit Scheme
SEARs	Secretary's Environmental Assessment Requirements
SEIFA	Socio-Economic Indexes for Areas
SIA	Social Impact Assessment
SSC	State Suburb
SSD	State Significant Development
TRRA	Three Rivers Regional Assembly
TSR	Travelling Stock Reserve
Umwelt	Umwelt (Australia) Pty Ltd
VPA	Voluntary Planning Agreement

Table of Contents

Abbreviations

1.0	Introduction	1
1.1	Project Overview	1
1.2	Assessment Requirements	2
1.3	Report Overview	5
1.4	Area of Social Influence	5
1.5	Assessment Methodology	7
1.6	Social Baseline Profile	7
1.6.1	Sustainable Livelihoods Approach	7
1.6.2	Data Sources	8
1.7	Stakeholder Identification	10
1.8	Stakeholder and Community Consultation	11
1.9	Social Impact Evaluation	13
2.0	Social Baseline	16
2.1	Energy Policy in NSW and Public Perceptions	16
2.2	Regional Development and Strategic Planning Context	21
2.2.1	Comparable Solar Farm Developments	25
2.2.2	Other Major Development Projects	26
2.3	Natural Capital	30
2.4	Political Capital	31
2.4.1	Traditional Owners and Aboriginal Governance	31
2.4.2	Federal Government	32
2.4.3	State Government	32
2.4.4	Local Government	32
2.5	Human Capital	32
2.6	Cultural Capital	36
2.7	Social Capital	37
2.8	Economic Capital	38
2.9	Physical Capital	42
2.10	Challenges and Opportunities for Local Development	45
3.0	Perceived Social Impacts	48
3.1	Changes to Community Surroundings	50
3.1.1	Changes to Social Amenities	52
3.1.2	Protection of Flora and Fauna	53

3.1.3	Land Use Changes	54
3.1.4	Decommissioning and Rehabilitation	55
3.1.5	Energy Transition	56
3.1.6	Water Access and Use	56
3.1.7	Traffic, Noise and Road Safety	57
3.2	Local Livelihoods	58
3.2.1	Economic, Social and Township Sustainability	59
3.2.2	Effect on Rural Property Values	62
3.2.3	Local Employment and Training	63
3.3	Community Participation and Decision-Making Systems	65
3.3.1	Community Identified Strategies	67
3.4	Changes to Community Cohesion and Character	68
3.5	Accessibility to Housing	71
3.5.1	Community Identified Strategies	74
3.6	Community Health and Wellbeing	74
3.6.1	Community Identified Strategies	75
3.7	Aboriginal Cultural Values and Heritage	75
4.0	Social Impact Evaluation	77
4.1	Summary of Social Impact Evaluation	78
4.2	Population Change	83
4.2.1	Construction Workforce	83
4.2.2	Operational Workforce	85
4.3	Changes to Community Surroundings	85
4.4	Changes to Social Amenity	87
4.5	Effect on Rural Property Values	88
4.6	Traffic, Noise and Road Safety	90
4.7	Economic, Social and Township Sustainability	91
4.8	Local Employment and Training	92
4.9	Community Participation and Decision-Making Systems	93
4.10	Changes to Community Character and Cohesion	95
4.11	Access to Housing and Community Services	96
4.12	Community Health and Wellbeing	100
4.13	Aboriginal Cultural Values and Heritage	100
5.0	Social Impact Management Plan	103
5.1	Community Engagement Strategy	104
5.2	Community Shared Benefit Strategy	105
5.2.1	Community Enhancement Program	106

5.2.2	Neighbours Benefit Program	109
5.3	Accommodation, Employment and Procurement Strategy	109
5.3.1	Construction Workforce Accommodation	110
5.3.2	Local Employment, Training and Procurement	110
6.0	Conclusion	111
7.0	References	112

Figures

Figure 1.1	SIA and EIA Process Alignment	2
Figure 1.2	SIA Process	3
Figure 1.3	Social Impact Categories	4
Figure 1.4	Area of Social Influence	6
Figure 1.5	Community Capitals Framework	8
Figure 1.6	Key Stakeholder Groups	10
Figure 1.7	Social Impact Significance Matrix	15
Figure 2.1	Energy Produced by Renewable Source	16
Figure 2.2	Central West Renewable Energy Zone	17
Figure 2.3	Community Sentiment Relating to Renewable Energy in NSW	18
Figure 2.4	Levels of Support for Renewable Energy Projects	19
Figure 2.5	Proximal stakeholder identified benefits of Renewable Energy Projects in NSW	20
Figure 2.6	Proximal stakeholder identified concerns of Renewable Energy Projects in NSW	21
Figure 2.7	Mid-Western Regional LGA Population Projections	33
Figure 2.8	Warrumbungle Shire LGA Population Projections	34
Figure 2.9	SEIFA Index of Education and Occupation	35
Figure 2.10	SEIFA Index of Relative Socio-economic Disadvantage	38
Figure 2.11	SEIFA Index of Economic Resources	41
Figure 2.12	Local economic profiles in the Central-West Orana Region	41
Figure 2.13	Economic Diversification Strategy for the Central-West Orana Region	42
Figure 3.1	Project Impacts by Social Impact Category	48
Figure 3.2	Perceived Project Impact Sub-Themes	49
Figure 3.3	Perceived Impacts on People's Surroundings by Stakeholder Group	51
Figure 3.4	Perceived Impacts on People's Livelihoods by Stakeholder Group	58
Figure 3.5	Perceived Impacts on Decision-Making Systems by Stakeholder Group	65
Figure 3.6	Community consultation occurring at Dunedoo Show on 12 February 2022	67
Figure 3.7	Perceived Impacts on Community Cohesion and Character	68
Figure 3.8	Perceived Impacts on Access to Accommodation by Stakeholder Group	72
Figure 4.1	Social Impact Evaluation Process	77
Figure 4.2	Gulgong Yearly Accommodation Provision	97
Figure 4.3	Estimated Commercial Accommodation Capacity in Gulgong (number of people)	97
Figure 4.4	Gulgong Accommodation User Profile	98
Figure 5.1	Framework for Social Impact Management	103
Figure 5.2	Focus Areas for Community Engagement and Benefit Sharing in Central West Orana REZ	106

Tables

Table 1.1	Social Baseline Profile Indicators and Sources	9
Table 1.2	Engagement Mechanisms	11
Table 1.3	Stakeholders Consulted	12
Table 1.4	Dimensions of Social Magnitude	13
Table 1.5	Defining Magnitude Levels for Social Impacts	15
Table 1.6	Defining Likelihood Levels for Social Impacts	15
Table 2.1	Review of Local and Regional Strategic Plans	22
Table 2.2	Other Major Development Projects	27
Table 2.3	Key Populations (ABS, 2016)	32
Table 2.4	Education Facilities within the Area of Social Influence	43
Table 2.5	Accommodation Availability in the Area of Social Influence	45
Table 2.6	Challenges and Opportunities for Local Development	46
Table 4.1	Social Impact Assessment Summary	79
Table 4.2	Construction Workforce Population Change Estimates	84
Table 4.3	Summary of Mitigation and Enhancement Strategies – Population Change	85
Table 4.4	Summary of Mitigation and Enhancement Strategies for Community Environmental Values	87
Table 4.5	Summary of Mitigation and Enhancement Strategies – Changes to Social Amenities	88
Table 4.6	Summary of Mitigation and Enhancement Strategies – Property Values	89
Table 4.7	Summary of Mitigation and Enhancement Strategies – Traffic, Noise and Road Safety	91
Table 4.8	Summary of Mitigation and Enhancement Strategies – Economic, Social and Township Sustainability	92
Table 4.9	Summary of Mitigation and Enhancement Strategies – Local Employment and Training	93
Table 4.10	Summary of Mitigation and Enhancement Strategies – Community Participation and Decision-Making Systems	95
Table 4.11	Summary of Mitigation and Enhancement Strategies – Community Character and Cohesion	96
Table 4.12	Summary of Mitigation and Enhancement Strategies – Access to Accommodation and Community Services	99
Table 4.13	Summary of Mitigation and Enhancement Strategies – Health and Wellbeing	100
Table 4.14	Summary of Mitigation and Enhancement Strategies – Aboriginal Cultural Values and Heritage	102

Appendices

Appendix A	Community Profile
Appendix B	Community and Stakeholder Engagement Plan
Appendix C	Consultation Record
Appendix D	Survey Instrument

1.0 Introduction

This Report documents the process and outcomes of the Social Impact Assessment (SIA) undertaken by Umwelt (Australia) Pty Limited (Umwelt) for the proposed Tallawang Solar Farm (the Project). This SIA forms part of the Project's Environmental Impact Statement (EIS) required under Part 4 of the New South Wales (NSW) *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1 Project Overview

The Project by Renewable Energy Systems (RES) Group Australia would include the construction, operation and decommissioning of a photovoltaic (PV) solar farm with a capacity of up to 500 MW that would generate and supply power to the national electricity grid.

The Project is approximately 8 km from the township of Gulgong, 40 km from the regional centre of Mudgee, and is situated within the Mid-Western Regional Local Government Area (LGA). The Project Area comprises approximately 1,370 hectares (ha) within the locality of Tallawang and encompasses eight freehold rural properties. The development footprint for the Project is approximately 866 ha.

The Project includes a Battery Energy Storage System (BESS) of approximately 200 MW/400 MW-hours, with panels installed at a height of up to five metres above the ground. The Project would further include an approximate 13km of overhead 330 kV transmission line. The final alignment of the Project's overhead transmission line is subject to the final placement of the switching station and the grid connection point, however a 60 m wide corridor of approximately 13 km long has been identified by RES to support access to the anticipated connection point. The final placement of the transmission line for the Project will be determined in coordination with the Barneys Reef Wind Farm project, also proposed by RES.

Grid connection for the Project is reliant on the development of TransGrid's Central-West Orana Renewable Energy Zone Transmission Project, currently proposed to the north of the Project Area and in its preliminary planning phase.

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

The Project's 34-month construction period would be followed by an expected operational life of 35 years. Following its expected operations period, the solar farm would either be decommissioned, removing all above ground infrastructure, returning the site to its existing land capability, or repurposed with new equipment subject to technical feasibility and planning consents at that time.

The transportation of construction material and supplies required for the Project is planned from the Port of Newcastle via the Golden Highway to the Castlereagh Highway, using an access point to the solar farm site directly off the Castlereagh Highway. Further project information and specifications can be found in EIS (Umwelt, 2022).

1.2 Assessment Requirements

This SIA has been prepared in alignment with the NSW Department of Planning, Industry and Environment's (DPIE) *Social Impact Assessment Guideline for State Significant Projects* (2021) ('the Guideline'), as per **Figure 1.1**.

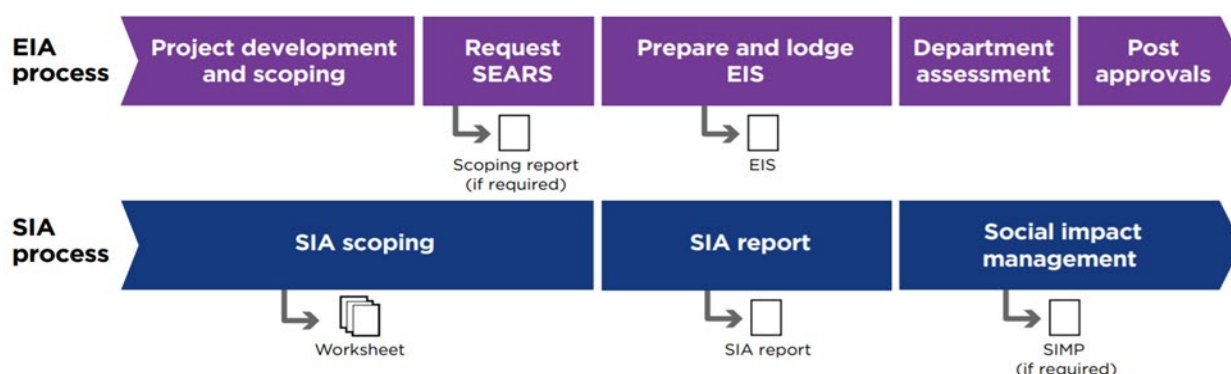


Figure 1.1 SIA and EIA Process Alignment

Source: (DPIE, 2021)

Furthermore, this SIA has been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) by NSW DPIE which outlines:

The EIS must include an assessment of the social and economic impacts in accordance with Social Impact Assessment Guideline (DPIE, July 2021) (subject to transitional arrangements) and benefits of the project for the region and the State as a whole, including consideration of any increase in demand for community infrastructure services, assessment of impact on agricultural resources and agricultural production on the site and region.

As is the case with any type of social change, some individuals or groups within the community may benefit, while others may experience negative consequence or effect. If negative impacts are predicted, it is the role of the SIA to determine how such impacts may be addressed effectively to reduce the degree of social disruption to those affected. If positive impacts are predicted, the aim of the SIA is to maximise these opportunities and identify how they might be further enhanced.

Monitoring and evaluation are also key components of the SIA process, to identify any unanticipated impacts that may arise as a result of the project in the future, and to monitor social impacts, should the project proceed.

Figure 1.2 provides an overview of the SIA process undertaken for the Project.

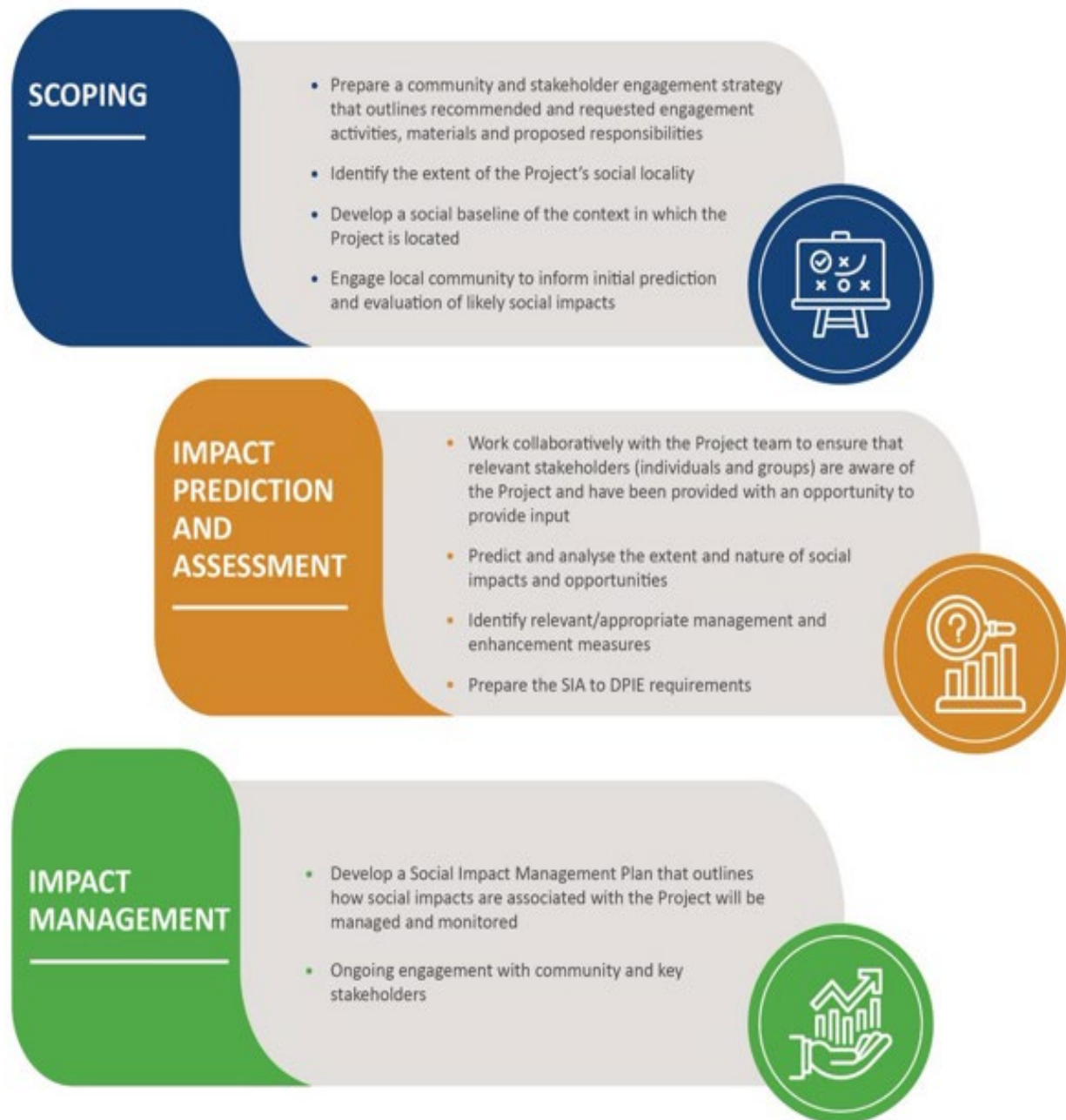


Figure 1.2 SIA Process

According to the SIA Guideline, and as outlined in **Figure 1.3**, social impacts can be grouped, and may involve changes to people's way of life, community, accessibility, culture, health and wellbeing, surroundings, livelihoods, and decision-making systems.



Figure 1.3 Social Impact Categories

1.3 Report Overview

This Report is structured as follows:

Section 1.0: Introduction, including a Project Overview, Assessment Requirements and Methodology

Section 2.0: Social Baseline, consisting of the community profile and identification of development challenges and opportunities

Section 3.0: Perceived Social Impacts, containing a thematic overview of community and stakeholder consultation outcomes

Section 4.0: Social Impact Evaluation, presenting a technical assessment of the Project's social impacts (positive and negative)

Section 5.0: Social Impact Management Plan, providing a framework and overview of the approach to social impact management for the Project moving forward

Sections 6.0 and 7.0: Conclusion and References.

1.4 Area of Social Influence

The Project's social locality or 'area of social influence' has been defined as follows for the purposes of this SIA:

- The landholdings, property owners and residents situated on or intersecting with the Project Area including the footprint of any ancillary infrastructure.
- The proximal rural localities of Tallawang, Beryl, Mebul, Dunedoo, Birriwa, Stubbo, Gulgong and Merotherie.
- The local government areas (LGA) of the Mid-Western Regional Council (MWRC) and Warrumbungle Shire Council area.
- The Central West and Orana region of NSW to encapsulate locations from which construction contractor workforces may be sourced and where materials may be supplied for the Project.

Figure 1.4 represents the area of social influence.

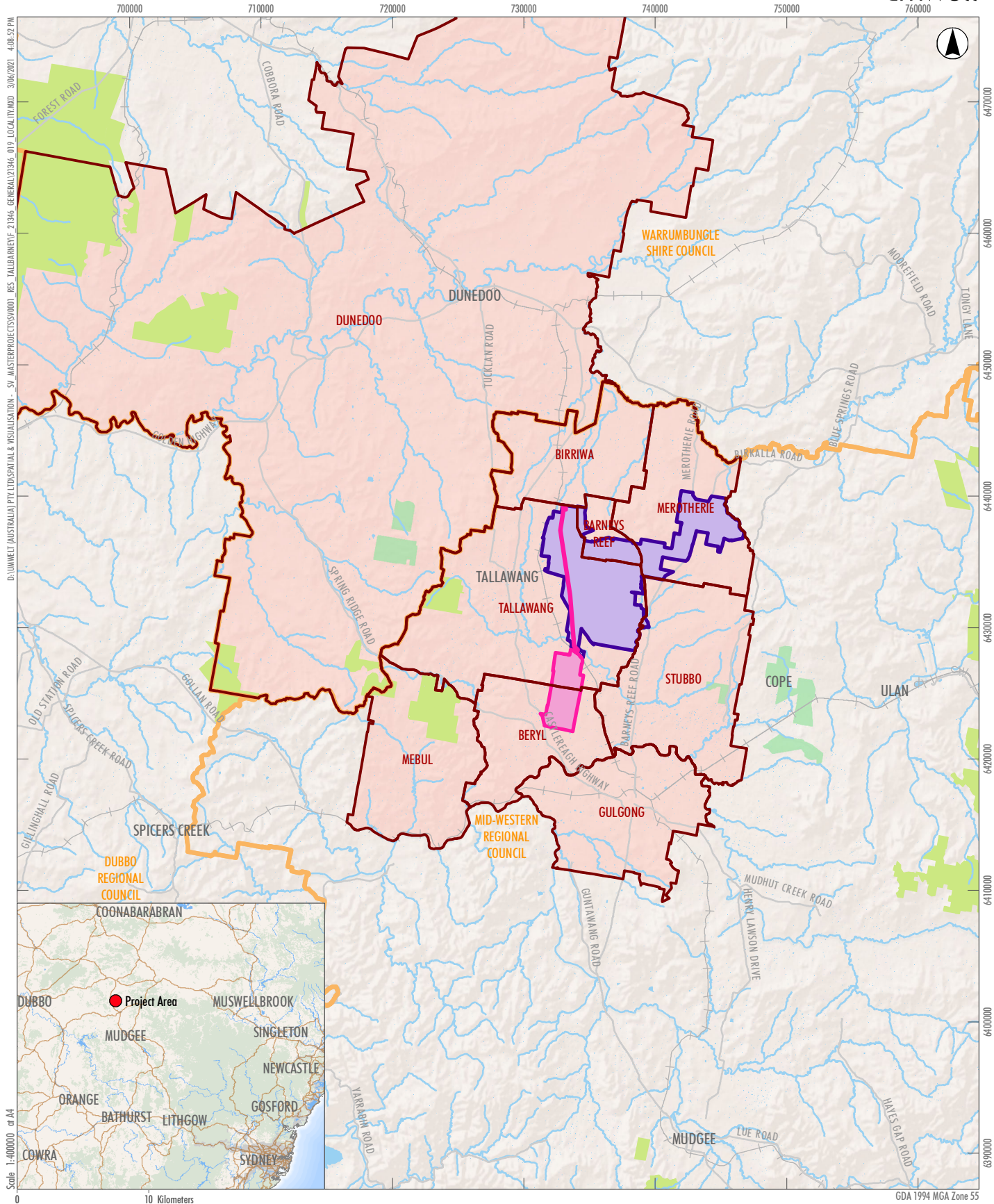


FIGURE 1.4

Area of Social Influence

- Legend**
- Tallawang Solar Farm Project Area
 - Barneys Reef Wind Farm Project Area
 - Local Government Boundary
 - State Suburb (SSC)
 - National Parks (NPWS Estate)
 - State Forest
 - Road
 - Drainage Line
 - Railway Line

1.5 Assessment Methodology

SIA, when informed by local communities and stakeholders, affords opportunities to effectively identify, integrate and address social impacts of projects within planning, design, and development processes. SIA comprises a number of key phases that relates to: developing an understanding of the social context and area of influence of a project; the scoping of issues of importance and interest to key stakeholders and local communities; an assessment and evaluation of social impacts that may occur as a result of a proposed project; and the identification of strategies to address negative impacts and enhance positive impacts.

1.6 Social Baseline Profile

A social baseline profile gathers knowledge from both primary and secondary data sources to inform an understanding of the existing social environment in which a project is proposed and of potentially affected communities. The social baseline profile is a foundational component of SIA as it provides the basis for which social impacts associated with the Project may be predicted, assessed, monitored, and managed over time.

The Guideline (DPIE, 2021) outlines the key components of a social baseline profile, including:

- The scale and nature of the project
- Who may be affected, including identification of any vulnerable or marginalised groups
- Any built or natural features on or near the project
- Relevant social, cultural, and demographic trends and other change processes

The history of the proposed project and/or development in the area, including community response to previous change.

1.6.1 Sustainable Livelihoods Approach

To understand the communities of interest to the Project and to evaluate their resilience and adaptive capacity to change, the social baseline has utilised the Sustainable Livelihoods Approach or ‘community capitals’ analysis (U.K. Department for International Development [DFID] 1999).

According to this framework, people seek to maintain their livelihood within a context of vulnerability. Specifically, threats to their livelihood include shocks (such as sudden onsets of natural disasters, problems, conflicts, and economic crises), trends (for instance, those relating to the economy, health, resources, and governance) and seasonality (such as cyclical fluctuations in prices or employment). People draw upon these assets to build and maintain their livelihood. A livelihood is considered sustainable ‘...when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base’.

The DFID (1999) approach draws on broad categories of community capitals as a fundamental basis to identifying and further enhancing community capacity and resilience. This methodology has been further developed by Coakes and Sadler (2011) to reflect the capitals approach - human, social, natural, physical, economic, and political. The vulnerability of each capital area can be assessed through the selection of a suite of indicators specific to each capital area to assess a community’s vulnerability to change, or conversely, their adaptive capacity. Elements of each capital area are further outlined in **Figure 1.5**.

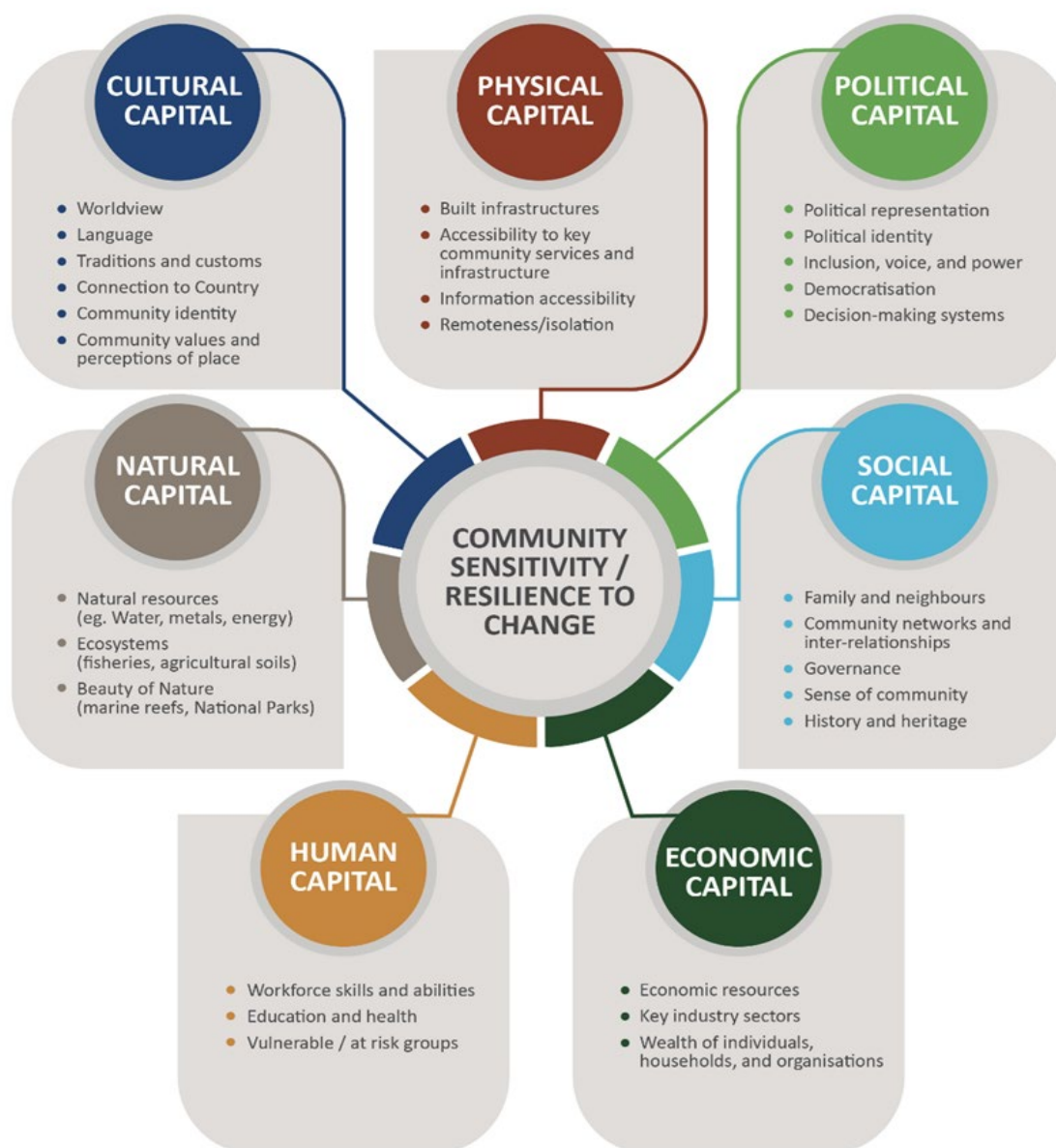


Figure 1.5 Community Capitals Framework

1.6.2 Data Sources

To gain an understanding of the demographic characteristics and composition of communities within the area of social influence, and to ascertain how the Project may change or affect people, socio-economic and demographic data has been gathered and summarised from key publicly available datasets, including the ABS Census (2016) and the Social Health Atlas of Australia (PHIDU, 2020), as well as through a literature review of local media, local and State government strategic plans.

Appendix A contains the dataset that has been used to inform the social baseline. The key indicators of interest are outlined in **Table 1.1**.

Table 1.1 Social Baseline Profile Indicators and Sources

Capital	Indicator	Source
Natural	- Land use profile - Community and recreational values associated with natural environment - Measures of access to and level of dependency on natural assets and ecosystem services	- Local Government strategic planning documents - Regional Statistics by LGA (ABS, 2018) - State of the Environment Snapshot 2018-19, Mid-Western Regional Council - Central West and Orana Regional Plan 2036 - Bureau of Meteorology
Political	- Existing political and governance structures at local, state, and federal levels - Representation and governance of Aboriginal and Torres Strait Islander people	- State representative and electoral information (Parliament of New South Wales, n.d.; Electoral Commission NSW, 2020) - NSW Aboriginal Land Council (NSWALC)
Human	- Population trends and projections - Educational attainment - Public health conditions and community health risk factors - Vulnerable persons/groups	- ABS Census (2016) - Social Health Atlas of Australia (PHIDU, 2020) - Index of Education and Occupation, 2016 - DPIE population projections (2019) - Western NSW Local Health District strategic plan
Cultural	- Native Title claims and/or determinations - Aboriginal ethnography and histories - Aboriginal heritage places - Cultural values	- ABS Community Profiles (2006, 2011, 2016) - Local Government strategic planning documents
Social	- Household size and composition - Population mobility/stability - Community participation and volunteering - Community diversity - Prevalence of crime - Index of Relative Advantage and Disadvantage (SEIFA)	- ABS Census (2016) - ABS Census of Population and Housing (2016) - SEIFA Indexes for Australia (ABS, 2018) - Towards 2030, Mid-Western Region Community Plan
Economic	- Labour force participation and trends - Key industries of employment - Housing tenure - Housing costs and levels of housing stress - Household income - Economic diversity and growth priorities	- ABS Census of Population and Housing (2016) - ABS Community Profiles (2016) - Index of Economic Resources (2016)
Physical	- Availability of social infrastructure (health and educational facilities) - Transport infrastructure and networks - Availability of short-term accommodation - Access to internet from dwelling	- ABS Community Profiles (2006, 2011, 2016) - Central West and Orana Regional Plan 2036 (NSW Government, 2016) - Local Government strategic planning documents

1.7 Stakeholder Identification

Social impact assessment involves the participation and collaboration of people who have an interest in or those that are affected by a project.

As Burdge (2004) outlines, stakeholders may be affected groups or individuals that:

- live, work, or recreate near the Project
- have an interest in the proposed action or change
- use or value a resource associated with the Project
- are affected by the Project e.g., may be required to relocate because of the project.

A stakeholder identification process was undertaken for the Project to support the planning and delivery of community and stakeholder consultation to inform the SIA. This process involved identifying stakeholders with an interest in the Project, or those directly and indirectly affected. This included identifying any potentially vulnerable or marginalised groups within the community.

Further, this process has considered the interconnectivity with the adjacent Barneys Reef Wind Farm Project and any mutual stakeholders. Further definition of the stakeholder identification process is outlined in the Community and Stakeholder Engagement Plan in **Appendix B**. Stakeholder groups who were consulted as part of this SIA process are outlined in **Figure 1.6**.



Figure 1.6 Key Stakeholder Groups

1.8 Stakeholder and Community Consultation

As outlined in the Community and Stakeholder Engagement Plan (Umwelt, 2021) in **Appendix B**, a number of engagement mechanisms have been utilised to obtain the input of various stakeholder groups to inform this SIA.

A coordinated approach to community and stakeholder engagement for the Project with the adjacent Barneys Reef Wind Farm Project has also been adopted due to:

- RES being the proponent for both the Tallawang Solar Farm and the Barneys Reef Wind Farm projects
- The Projects being proposed adjacent to each other and within the same locality, and
- The Projects being subject to concurrent EIS programs.

This approach intended to streamline the two projects' consultation programs and integrate a common approach, aiming to:

- Ensure the development and implementation of engagement that is transparent and provides clear and consistent information on both projects
- Reduce social risks associated with either project, including stakeholder confusion and/or consultation fatigue
- Establish and develop trust with key stakeholders, and
- Afford the opportunity for meaningful participation in the assessment phases for both projects.

Information provision and consultation activities that have been undertaken are outlined in **Table 1.2**. The survey instrument used to undertake consultation is contained in **Appendix D**.

Table 1.2 Engagement Mechanisms

Mechanisms	Description
Information Provision	
Website, community information line and email	Platforms and tools were established in March 2021 to provide opportunity for the broader community and members of the public to receive information on the Projects and to have the opportunity to make contact with the Project team.
Local media release	A holding statement outlining key messages of the projects and the plans for community consultation was distributed to local media in June 2021 to target information provision for the broader community with local media adverts published in August 2021.
Project information sheets	Project information sheets have been distributed via mail drop and email distribution to provide updates on the projects to proximal residents and community members. No. 1 – Project introduction and overview was distributed in March 2021 No. 2 – Project update and outcomes of the scoping was distributed in August 2021 No. 3 – Project update and outcomes of impact assessment was distributed 7 February 2022
Consultation	
Project briefings	Project briefing meetings with key stakeholders were held in March and April 2021, including with community, industry, and environmental groups or organisations, as well as with Local Government agencies and traditional owners.

Mechanisms	Description
Personal meetings or interviews	One-on-one meetings with host landholders and neighbouring landholders took place in March and April 2021 and again between August and November 2021. These meetings were semi-structured discussions to listen to individual concerns, interests, issues, provide responses to queries, and to gather feedback on the Project, as well as to understand future engagement preferences.
Surveys	An online and telephone survey was conducted with local businesses and service providers between August and October 2021 to identify and assess potential social issues, impacts and opportunities relating to the Project.
Community information sessions	Two structured online information sessions were hosted in September 2021 following the issuance of SEARs to provide Project information and preliminary results of technical studies, and an opportunity for members of the community to pose questions to the Project team and provide feedback. Face-to-face sessions to provide an update on the Project and the final results of the technical studies as part of the EIS were conducted in February 2022. Two informal drop-in sessions at the local Dunedoo and Gulgong Shows (February 12 th and 19 th 2022) and one online semi-structured information session (February 23 rd , 2022) were conducted to provide feedback regarding the technical assessments of the Project, as well as articulate the proposed mitigation and enhancement measures under consideration to minimise negative and enhance positive impacts of the Project.

Table 1.3 provides a breakdown of the stakeholder groups that have participated in the Project's planning and assessment process to date through the engagement mechanisms outlined above, and whose feedback and input has informed this SIA. **Appendix C** provides a complete list of stakeholders consulted. For the purposes of analysis of the perceived social impacts discussed in **Section 3.0**, number of participants has been recorded, rather than number of stakeholder groups engaged.

Quantitative and qualitative information collected through consultation and engagement activities has been analysed to inform the identification and analysis of social impacts associated with the Project, as outlined in **Section 3.0**.

Table 1.3 Stakeholders Consulted

Stakeholder group	Mechanism	Phase 1 - Scoping		Phase 2 – SIA/EIS	
		No. Contacted	No. Participants Engaged	No. Contacted	No. Participants Engaged
Host Landholders	Written questionnaire	2	1	3	2
Proximal Landholders	Personal meeting	15	11	20	19 ¹
Traditional Owners	Project briefing	1	1	4	1
Local Government	Project briefing	2	2	4	2
Community Group	Project briefing and interview	8	4	20	28 ²
Local Businesses and Service Providers	Personal meeting/interview	4	2	39	15 ³

¹ Proximal Landholders: 20 identified residences with 19 participants engaged; some from the same residence; for analysis host and proximal landholders have been combined to protect anonymity of host landholders having low sample size (i.e., n=21).

² Community groups: 15 discrete groups engaged with 28 participant's total. Due to small sample size, Traditional Owners have been included in Community Group analysis (i.e., n=29).

³ Local Businesses and service providers: 15 discrete businesses/services contacted, with 15 participants engaged.

Stakeholder group	Mechanism	Phase 1 - Scoping		Phase 2 – SIA/EIS	
		No. Contacted	No. Participants Engaged	No. Contacted	No. Participants Engaged
Local and Broader Community	Project information sheets (includes advertising of Community Information Sessions)	1,788	-	1,774	-
	Online community information sessions (9 & 10 Sept 2021)	-	-	-	24 ⁴
	Community information session - Dunedoo (12 Feb 2022)	-	-	-	49
	Community information session – Gulgong (19 Feb 2022)	-	-	-	73
	Online community information session (23 Feb 2022)	-	-	-	9
	Media statement	4	2	4	3
	Project website	-	630	-	1,045
	Personal meeting/interview	-	-	-	47 ⁵
TOTAL		1,824	653	1,868	1317

1.9 Social Impact Evaluation

The SIA has utilised data from a range of sources to identify and develop a layered picture of the potential social impacts arising from the Project. Social impacts associated with the Project have been evaluated by providing a ranking of impacts according to impact characteristics, as defined in the SIA Guideline (DPIE 2021). Dimensions of impact used to conduct the evaluation are outlined in **Table 1.4**.

Table 1.4 Dimensions of Social Magnitude

Dimensions		Details needed to enable assessment
Magnitude	Extent	Who specifically is expected to be affected (directly, indirectly, and/or cumulatively), including any vulnerable people? Which location(s) and people are affected? (e.g. near neighbours, local, regional, future generations).
	Duration	When is the social impact expected to occur? Will it be time-limited (e.g. over particular project phases) or permanent?
	Severity or scale	What is the likely scale or degree of change? (e.g. mild, moderate, severe)
	Intensity or importance	How sensitive/vulnerable (or how adaptable/resilient) are affected people to the impact, or (for positive impacts) how important is it to them? This might depend on the value they attach to the matter; whether it is rare/unique or replaceable; the extent to which it is tied to their identity; and their capacity to cope with or adapt to change.
	Level of concern/interest	How concerned/interested are people? Sometimes, concerns may be disproportionate to findings from technical assessments of likelihood, duration and/or intensity.

Source: SIA Guideline (DPIE 2021)

⁴ Some stakeholders may have attended multiple community information sessions held in September 2021 and February 2022, as well as participated in a personal meeting.

⁵ Broader Community: 47 participants from 44 meetings undertaken; some from the same residence. Total number of broader community participants for analysis in **Section 3.0** does not include media statement or project website traffic; rather analysis only includes formal and informal statements collected via community information session feedback forms and discussions and personal meetings with residences determined to be outside of the proximal 4km radius, i.e., n=202. Note: stakeholders may have been consulted multiple times; where possible, data has been consolidated to reduce duplication.

To prioritise the identified social impacts, a risk-based framework has been adopted. Traditionally, the technical risk assessment process has not been greatly amenable to the inclusion of social impacts. One key adaptation of the approach is that both technical ratings and stakeholder perceptions of impacts are assessed. This approach is consistent with Sandman's risk equation ($\text{Risk} = \text{Hazard} + \text{Outrage}$) (Sandman, 1993), which acknowledges often low correlations between a risk's technical 'hazard' (how much harm it's likely to do) and its 'outrage' (how upset it's likely to make people).

Stakeholder perception of impact is considered an independent and no less valid component of risk; with stakeholder perceptions often varying between individuals and groups, with no single perception more important than another. However, for the purpose of assessment the most common, or what is judged to be the general perception/sentiment of a stakeholder group has been used as a measure of perceived stakeholder risk or impact.

The integration of the outcomes of technical ranking (severity/scale) with stakeholder perceived ranking of impacts (intensity or importance), thus affords a true integration of expert and local knowledge in SIA and enables both types of risk to be addressed in the development of impact mitigation, amelioration, and enhancement strategies. Such an approach is acknowledged in the SIA guidelines in relation to estimating material effects.

Prioritising impacts in this integrated manner ensures that appropriate assessment and mitigation strategies can be developed that not only address impacts that may require more technical management, but also those impacts that are perceived by stakeholders as of high importance/concern. These perceived concerns are just as important to manage as they have the potential to result in elevated levels of community concerns, complaints and grievances if not addressed appropriately.

As outlined in **Section 3.0**, a range of social impacts have been identified in relation to the Project, that require prioritisation for assessment and appropriate management and/or enhancement. These impacts relate to several social impact categories and have been informed through community engagement and consultation. It should also be noted that social impacts are often not mutually exclusive, with higher order impacts such as population change, resulting in second order impacts such as impacts on sense of community and service provision.

Section 4.0 provides an evaluation of the significance of each potential negative and positive social impact. The assessment is undertaken using the impact characteristics noted above and through the application of a consequence and likelihood framework, as identified in the SIA Guideline (DPIE 2021).

The social significance matrix (refer to **Figure 1.7**), that considers both the magnitude of the potential social impact (minimal, minor, moderate, major and transformational) and the likelihood of the impact occurring (very unlikely, unlikely, possible, likely and almost certain) is then used to determine an overall evaluation of the social impact as 'low', 'medium', 'high' or 'very high'. **Table 1.5** and **Table 1.6** contain further detail regarding magnitude and likelihood classifications.

Both positive and negative impacts are considered in this regard, with slight adjustments made to the approach to reflect positive impacts, for example, the level of concern becomes level of interest, severity becomes scale of improvement or benefit, sensitivity becomes importance of the improvement or benefit and the equity of its distribution, and so forth.

As noted in the Guideline (DPIE, 2021), the definitions and scale assigned to each of the likelihood and magnitude categories need to be relevant to the impact that is being evaluated, explained, and justified in the SIA; and where possible the consequence scale should be based on established measures and standards.

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

Figure 1.7 Social Impact Significance Matrix

Source: SIA Guideline (DPIE 2021)

Table 1.5 Defining Magnitude Levels for Social Impacts

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

Source: SIA Guideline (DPIE 2021)

Table 1.6 Defining Likelihood Levels for Social Impacts

Likelihood level	Meaning
Almost certain	Definite or almost definitely expected (e.g. has happened on similar projects)
Likely	High probability
Possible	Medium probability
Unlikely	Low probability
Very unlikely	Improbable or remote probability

Source: SIA Guideline (DPIE 2021)

2.0 Social Baseline

This section describes the social baseline profile of the communities within the area of social influence. The following components have been considered:

- Geographic and spatial – identification of communities of interest and relevant stakeholders
- Governance – an understanding of the relevant governance structures including those of the Traditional Owners and local, State and Federal government jurisdictions
- Development context – a review of the recent history of local communities, including cultural characteristics and community values, as well as previous experiences with renewable energy development projects and other development issues to ascertain the response of local communities to these changes
- Community capital/assets – an assessment of levels of vulnerability or resilience across the communities of interest and their capacity to cope with change
- Key community values, issues, and concerns – documentation of current community issues, as identified in key strategic planning documents, regional plans, or studies as well as within local or regional media.

2.1 Energy Policy in NSW and Public Perceptions

Australia's commitment at the international level to the Paris Climate Accord has influenced the growth of and investment in the renewable energy sector across the country.

In 2013, the NSW Government released the *NSW Renewable Energy Action Plan* outlining the Government's intention to work with communities and the renewable energy industry to increase renewable energy generation across the State. The Plan was implemented alongside the *Energy Efficiency Action Plan*, and the successful implementation of the Plan was completed in December 2018. More broadly, as shown in **Figure 2.1**, production of wind and solar energy has increased significantly over the past two decades across Australia.

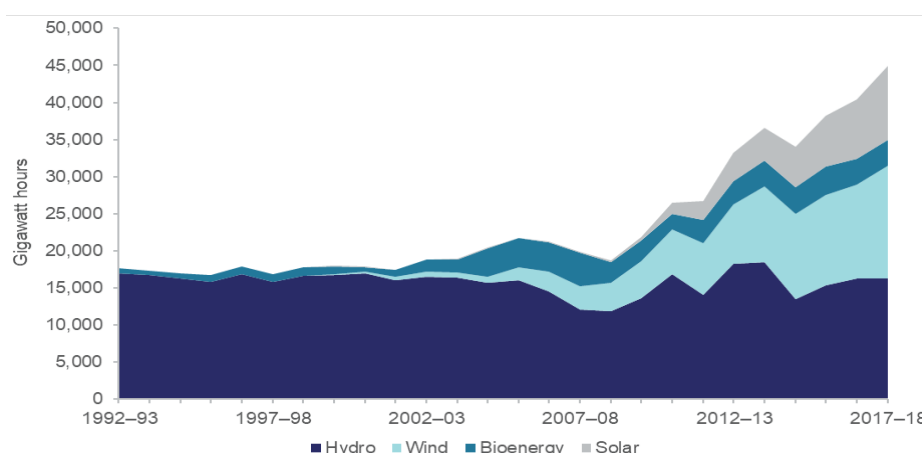


Figure 2.1 Energy Produced by Renewable Source

Source: Department of the Environment and Energy (2020) Australian Energy Statistics, Table O.

In NSW, the State Government's *2019 Electricity Strategy* announced three Renewable Energy Zones (REZ) in the Central-West Orana, New England, South West regions to encourage investment in projects that generate, store and transmit renewable energy. The REZs support the planned diversification of the energy sector as existing power stations near the end of their operational life. The zones will also support the coordination of new grid infrastructure to connect multiple generators (such as wind and solar farms) to the same location.

In November 2020, the NSW Government announced its plans to invest \$32 billion into renewable energy over the next decade as part of its *NSW Electricity Infrastructure Roadmap*. The Project Area is located within the Central West Orana REZ under the NSW Government's Electricity Strategy (Department of Planning, Industry and Environment, 2019). The Central-West Orana Renewable Energy Zone (REZ) is the State's first pilot REZ and is one of five REZs planned by the NSW Government, with the Central-West Orana REZ already attracting significant interest from renewable energy and storage developers (Energy NSW, 2020). As such, there are a large number of renewable energy projects within the REZ, at different stages of their development processes within 100 km of the Project Area (outlined in **Table 2.2**).

The NSW Government's Central-West and Orana Regional Plan (2017) notes in their vision for the region 'landmark solar, wind and bioenergy projects distinguish the region as a leader in renewable energy development.' The Plan outlines the role renewable energy will have in creating a sustainable future for the region, particularly by promoting local jobs, economic benefits for local landholders, and development opportunities for associated industries. **Figure 2.2** outlines the Central-West REZ and its proposed, approved, or already developed renewable energy projects.

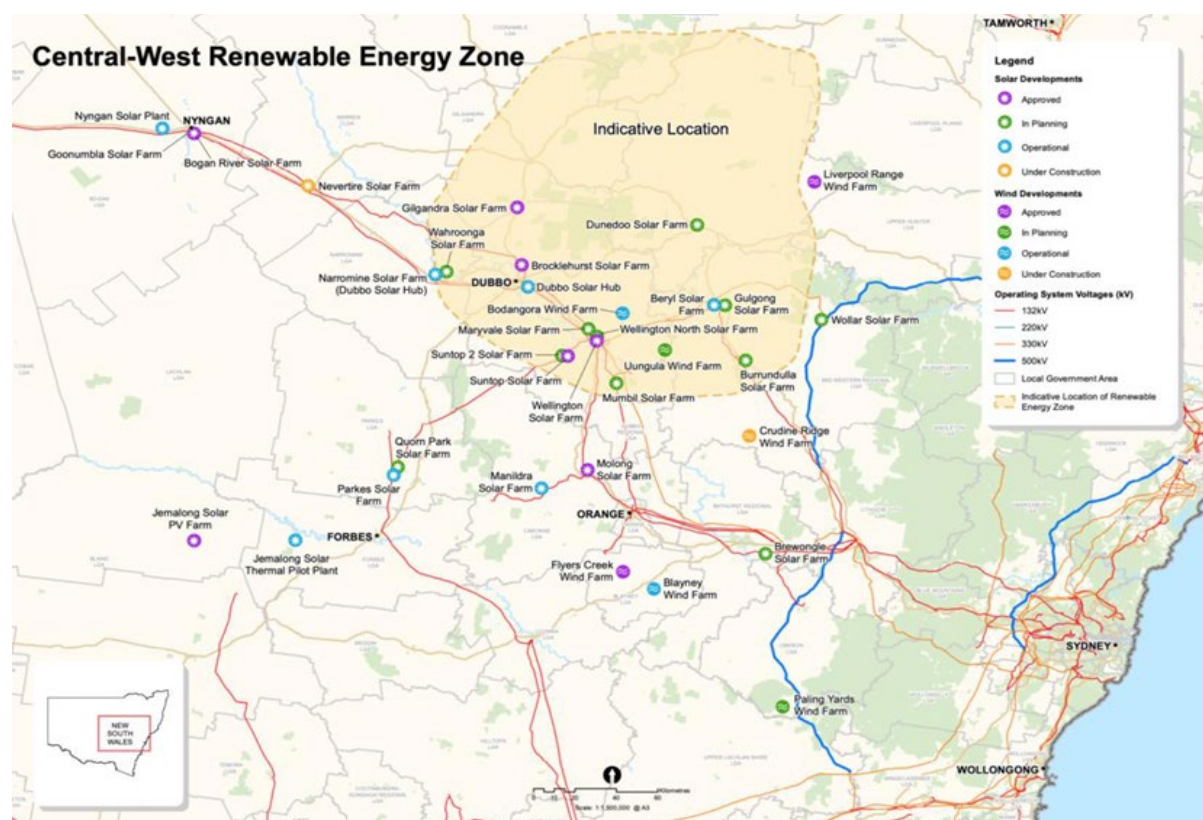


Figure 2.2 Central West Renewable Energy Zone

Source: (Energy NSW, 2020)

A review of literature to ascertain public attitudes and perceptions of renewable energy at the state, region and local level can inform the social baseline by placing community feedback within this broader development context. This summary draws on state-wide community consultation commissioned in 2014 by the Office of Environment and Heritage (now DPIE) to understand community awareness, knowledge and attitudes to renewable energy (OEH, 2015).

A recent community survey undertaken by Energy NSW indicates a high level of support for renewable energy projects, particularly for solar farms, and a high level of knowledge in particular relating to wind farm developments (refer to **Figure 2.3**). This suggests that there is a role for developers to play in education for local communities around solar farms, their technology and potential impacts.

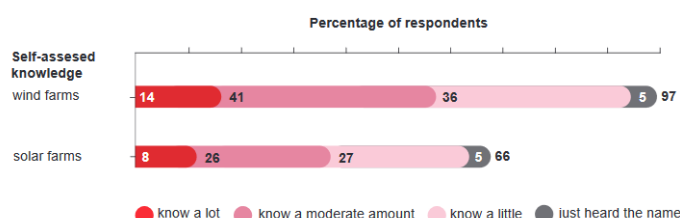
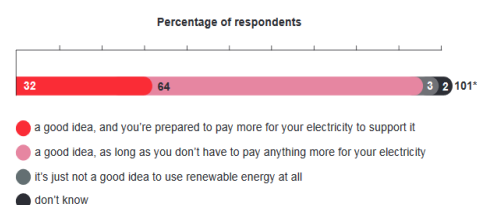


Figure 2.3: Awareness and self-assessed knowledge of wind farms and solar farms.



* numbers have been rounded up. Number of survey respondents = 2000.
Figure 2.8: Overall views about using renewable energy to produce electricity in NSW.

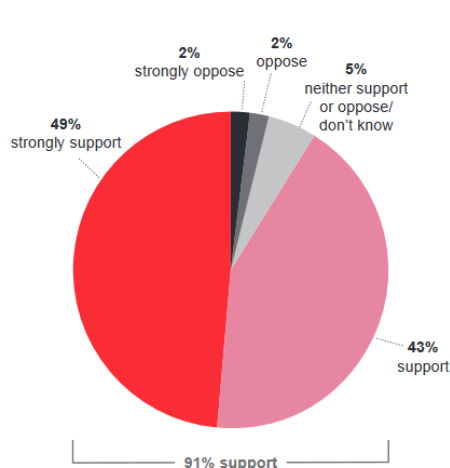


Figure 2.4: Overall support for generating electricity in NSW using renewable energy technologies.

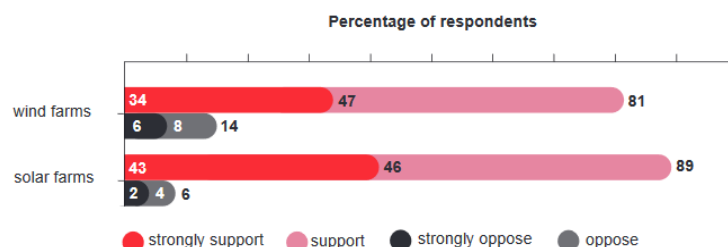


Figure 2.9: Support for building wind farms and solar farms in NSW.

Figure2.3 Community Sentiment Relating to Renewable Energy in NSW

Source: Energy NSW Community Survey

However, despite this support at a state level, the survey outcomes indicate lower levels of support locally, with the study outlining main concerns raised by proximal stakeholders (1-2 km from proposed developments) centred on property rights and access (including project compensation and values), and noise and visual impacts. As shown in **Figure 2.4** there appears to be more support from proximal residents for solar farms than wind farms.

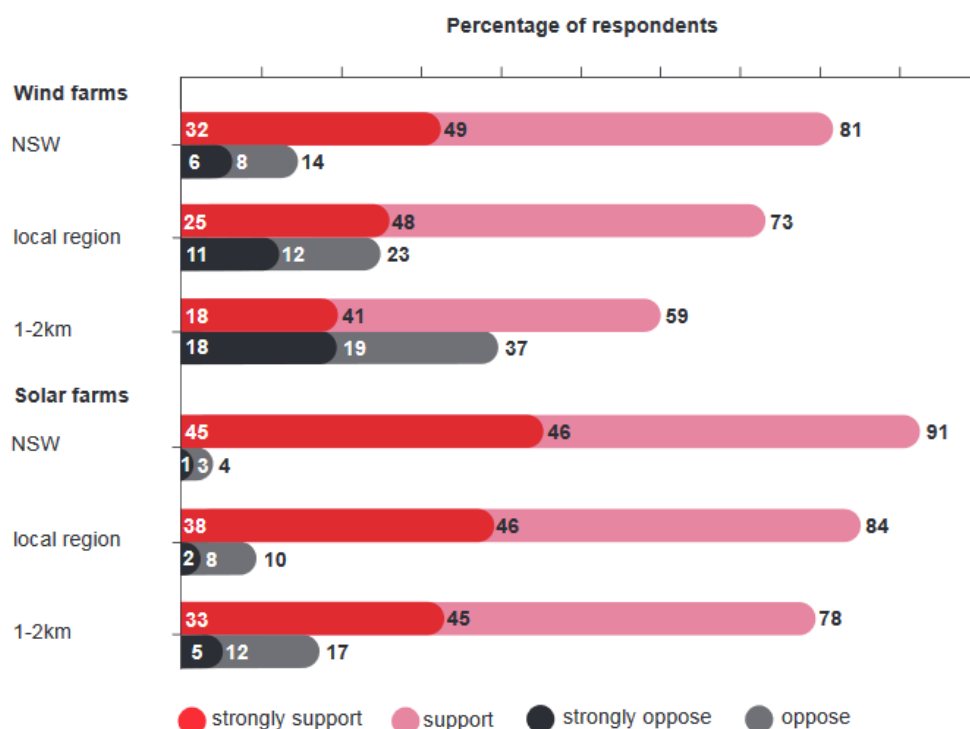


Figure 2.10: Support for and opposition to building a wind/solar farm in three proximities – in NSW, the local region, and within 1–2 kilometres of where they lived.

Figure 2.4 Levels of Support for Renewable Energy Projects

Source: Energy NSW Community Survey

Overwhelmingly, the main benefit reported for both wind and solar projects was the benefit to the environment of renewable energy production, followed by the potential decreased cost of electricity, then followed by local economic benefits (refer to **Figure 2.5**).

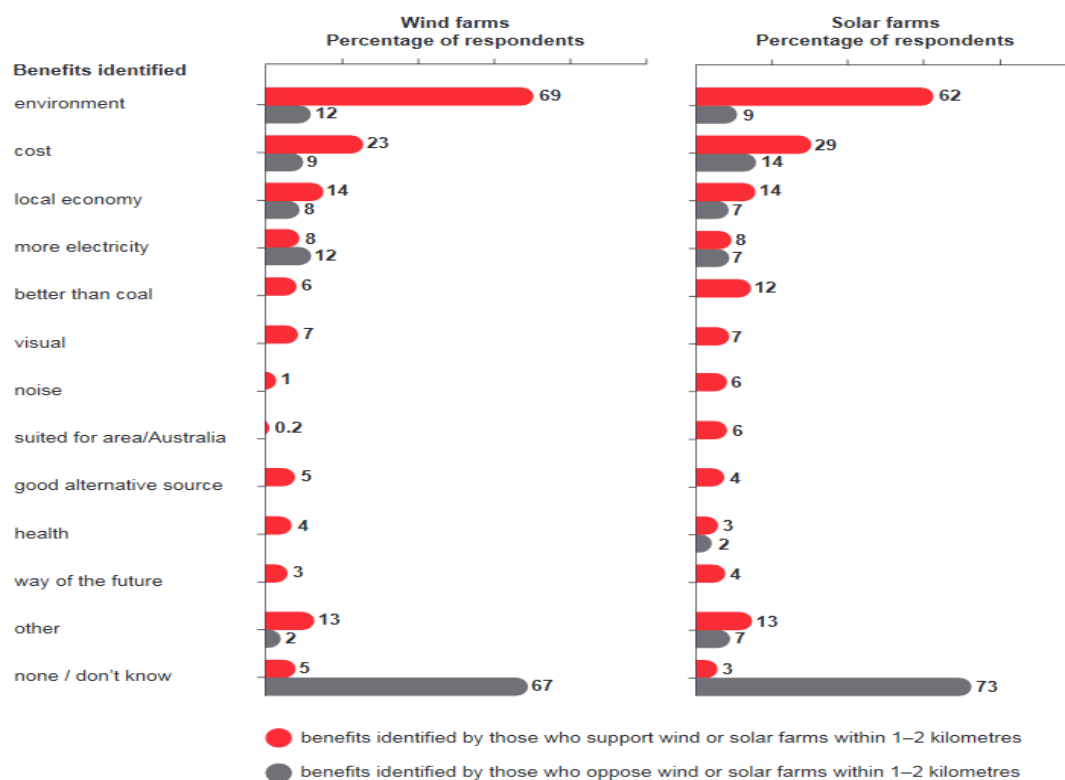


Figure 2.5 Proximal stakeholder identified benefits of Renewable Energy Projects in NSW

Source: Energy NSW Community Survey

The key issues proximal residents reported in relation to wind farms were noise and visual amenity, with noted concern regarding health and location of turbines in comparison to residences. Whereas concerns around solar farms primarily related to the location of solar modules, the land use, and their impact on the environment (refer to **Figure 2.6**).

There has also been community concern expressed regarding the loss of important agricultural land in the Central West, in particular, due to solar or wind farm development.

‘But now that there is so much money available to develop solar farms, if that money destroys rich farmland... isn't that missing the point? Perhaps we could find some of our other boundless plains (or roofs...) so that solar and agriculture can both contribute to Australia's prosperity?’ (Gulgong Residents for Responsible Renewables, 2019)

The NSW Energy and Environment Minister, however, has made the commitment to balance land-uses in the region to ensure renewable energy projects are not being built on prime agricultural land. Furthermore, in the Mid-Western Regional Council's State of the Environment Snapshot (2017-2018), the Council identify one of their priorities as protecting agricultural land from encroachment from development.

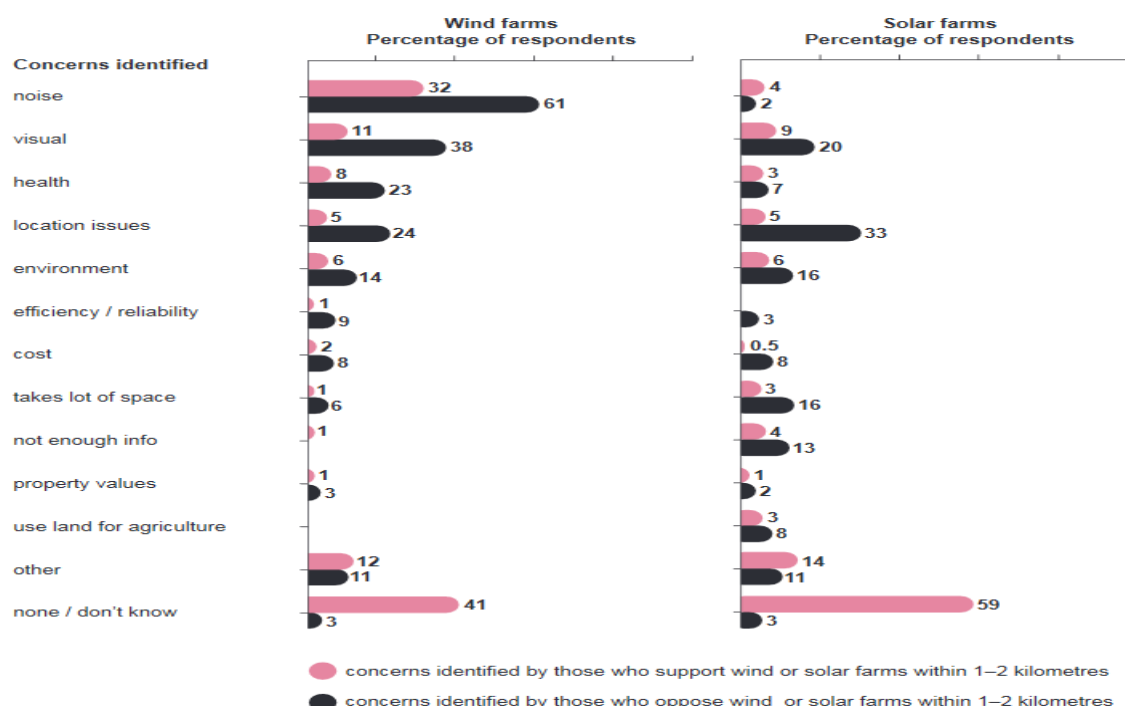


Figure 2.6 Proximal stakeholder identified concerns of Renewable Energy Projects in NSW

Source: Energy NSW Community Survey

Feedback obtained from interactions during community information sessions held in February 2022 reiterated these concerns in relation to the development of Renewable Energy Projects in the Central West Orana REZ, and its impact on the broader community. Attendees were uncertain as to why the region was identified as a REZ and described their frustration with perceived poor engagement with regional communities about the designated REZ, including the proposed transmission line pathway, leading to further confusion and uncertainty for communities. The impacts of the REZ on the visual amenity of the area were also raised as a concern with one stakeholder stating *“Perhaps those that came up with the idea of making this area a Renewable Energy Zone should think about how they would feel if their property became surrounded by large, ugly objects!”*. Specific concerns relating to the Project’s potential impact on visual amenity are explored in greater detail in **Section 3.1.1**.

During broader community consultations, stakeholders commented that the introduction of Projects within the REZ may not have the intended positive impacts on residential energy prices, with one attendee stating, *“It was promised that energy prices would go down, but they have gone up”*. Land use impacts were also raised as a cumulative impact of multiple Projects within the REZ and the subsequent impacts on agricultural activities.

2.2 Regional Development and Strategic Planning Context

This section contains an overview of local and regional strategic plans relevant to the area of social influence to provide an understanding of the Project’s development context, as well as strategic priorities and interests for the local and regional area as they relate to the Project, to capture any ongoing social change processes in the area of social influence, and to identify how local communities have responded to these changes over time.

The Project Area is located within the Central West-Orana Region in NSW, an economically diverse and productive region with strong connectivity to cities of Sydney, Canberra and Newcastle. The region's key major towns include Bathurst, Orange, and Dubbo, with increasingly visited centres of Lithgow, Mudgee, and Cowra.

Gulgong is the nearest township to the Project located approximately 8 km south-east of the site, with the larger population centre of Mudgee approximately 40 km south of the site. The small town of Dunedoo is approximately 45 km north-west. The Project Area is in proximity to the Castlereagh Highway and the Golden Highway giving the local area access to the Hunter region, the major metropolitan centre of Newcastle as well as inland links to south-east Queensland.

The population of the Central West-Orana Region is expected to reach 300,000 people by 2036, and as such, there has been a strong focus from the NSW Government to develop the region into *'the most diverse regional economy in NSW with a vibrant network of centres leveraging the opportunities of being at the heart of NSW'* (NSW Government, 2016).

Table 2.1 summarises the key findings from local and regional strategic plans relevant to the Project.

Table 2.1 Review of Local and Regional Strategic Plans

Strategy or Plan	Key Findings
Towards 2030, Mid-Western Regional Community Plan	The Council's 'Towards 2030 Community Plan' (2017) outlines the strategic direction for the LGA. This plan was developed in collaboration with the local community and identifies five areas of focus which are outlined in the document, including: • Looking after our community – activities and initiatives that produce vibrant, healthy and proud towns • Protecting our Natural Environment – conserving and promoting the natural beauty of the region • Building a Strong Local Economy – a focus on industry diversification, employment and economic growth • Connecting our Region – linking towns and villages and connection to the rest of NSW; and • Good Government – ensuring Council is representative of the community and effectively meeting community needs. Community consultation with over 2,500 residents to inform the 'Towards 2030 Community Plan' indicated that the community would allocate resources to the five focus areas as follows: • Looking After our community – 27% • Connecting our Region – 24% • Protecting our Natural Environment – 19% • Building a Strong Local Economy – 19% • Good Government – 11% Community engagement also identified the infrastructure assets that the community would like upgraded or built; top responses included Mudgee Hospital, recreational facilities such as an indoor aquatic centre/outdoor water park or entertainment centre and return passenger trains. Approximately 18% of respondents identified road upgrades outside urban areas as a priority infrastructure need; the sixth most frequent infrastructure need mentioned. Although Protecting Our Natural Environment is a key goal of the council's community plan, there is limited reference made to renewable energy use by the Council or in the LGA, in order to meet this goal. The Mid-Western Region Community Plan places the onus of reducing energy use and considering alternatives to fossil fuels on the council residents.

Strategy or Plan	Key Findings
Our Place 2040, Mid-Western Regional Strategic Planning Statement (2020)	The Council's 'Our Place 2040' (2020) guides land use planning for the LGA by identifying the regional values and characteristics, and priority actions for enhancing and conserving these values in line with the community's needs. The Local Strategic Planning Statement is based on the same five themes as the 'Towards 2030' Community Plan under which 12 planning priorities are organised. The planning priorities most relevant to the Project are: • Planning Priority 4: Provide infrastructure and services to cater for the current and future needs of our community • Planning Priority 7: Support the attraction and retention of a diverse range of businesses and industries • Planning Priority 8: Provide leadership on economic development initiatives and identify resources and infrastructure required to drive investment and economic growth in the Region • Planning Priority 9: Support the expansion of essential infrastructure and services to match business and industry development in the Region. The Project is consistent with the Council's planning strategies and actions providing activities do not limit agricultural production or adversely impact visual amenity. The emphasis of local planning is on enabling and preserving existing economic activities, namely agriculture. That said, Council: • makes provision for consideration of renewable energy developments that do not adversely impact agricultural production and scenic landscape • identifies the construction phase of solar and wind projects as offering short-term opportunities for local businesses • aspires to place sustainability at the centre Council activities and new developments • recognises the benefits provided by State Significant Developments.
Mid-Western Regional Local Environment Plan 2012 (2021)	Council operates under the Mid-Western Regional Local Environmental Plan 2012 (current version 1 February 2021) which details a number of key objectives with regard to land use, including management and conservation of natural resources and heritage items of significance, securing the agricultural future of the region, and increased availability of urban and community services and infrastructure. Specifically, the plan also identifies the protection of the settings of Mudgee, Gulgong, Kandos and Rylstone through management of the urban and rural interface, limiting land use conflict and conserving key visual elements that contribute to the character of the towns.
State of the Environment Snapshot 2017-18, Mid-Western Regional Council	The strategic centre of Mudgee has grown in recent years due to the mining boom. It services other towns including Rylstone, Kandos, Ilford, Bylong and the historic town of Gulgong. The Local Government Area is well known for its built heritage, food and wine tourism, and mining. The Castlereagh and Great Western highways connect Mudgee with Sydney, and the Golden Highway connects to Dubbo and Newcastle. These connections provide opportunities to move agricultural and mining products to domestic and export markets. Priorities: • Support appropriately located and serviced land for residential development. • Support the mining and resources sector and associated businesses. • Leverage opportunities from the Local Government Area's location and rural character to support the established food and tourism market. • Protect agricultural land from encroachment from residential development. • Support the provision and continued development of major regional sports, recreation and cultural facilities.

Strategy or Plan	Key Findings
Central West and Orana Regional Plan 2036, NSW DPIE (2017)	The key NSW State Government policy of relevance to Mid-Western Regional LGA, and the Project Area, is the 'Central West and Orana Regional Plan 2036' (2017) which outlines the goals and actions for the Central West and Orana Region to achieve a sustainable future. This plan applies to 19 local government areas that cover an area of 125,666 square kilometres, including the Mid-Western Regional LGA. The Project Area is in the Orana area and the plan recognises the distinct characteristics of the Central West and the Orana as two parts of the overall region. Dubbo is identified as the geographic, functional and economic centre of the Central West and Orana, and a central hub connecting rural communities, such as Mudgee. The plan sets out an aspiration for the Central West and Orana to be: <i>'The most diverse regional economy in NSW with a vibrant network of centres leveraging the opportunities of being at the heart of NSW'</i> The 'diverse regional economy' part of the vision includes 'Mining and Renewables' as one of its five key components. Renewable energy projects are important drivers of employment for smaller communities (such as Gulgong, Tallawang, Dunedoo) that can also support the development of other industries. The Orana is specifically identified as a priority area for solar energy generation. The vision for the Central West and Orana Region closely reflects the vision and priorities identified in the 'Towards 2030 Community Plan'. Four goals established by the Regional Plan are: • Goal 1 – The most diverse regional economy in NSW • Goal 2 – A stronger, healthier environment and diverse heritage • Goal 3 – Quality freight, transport and infrastructure networks • Goal 4 – Dynamic, vibrant and healthy communities. The Project is consistent with all four but is particularly relevant to the Goal 1, and specifically Direction 9 to 'Increase renewable energy generation'. The plan identifies the region's significant potential to support renewable energy projects, including large-scale solar, and states that co-generation (of electricity and heat) should be incorporated into project designs wherever possible. The Project Area is specifically highlighted as a potential solar project in the 'Mineral Resources and Renewable Energy' map. Proposed actions to address Direction 9 are: • 9.1 Identify locations with renewable energy generation potential and access to the electricity network. • 9.2 Facilitate small-scale renewable energy projects using bioenergy, solar, wind, small-scale hydro, geothermal or other innovative storage technologies through local environment plans. • 9.3 Promote best practice community engagement and maximise community benefits from all utility-scale renewable energy projects. • The Project is also relevant to Goal 3 and specifically Direction 21 to 'Coordinate utility infrastructure investment'. Direction 21 identifies off-grid renewable systems as a cost-effective alternative to system upgrades and extensions to provide reliable energy in remote communities. • The plan outlines the following key opportunities as relevant to the Project: • Importance of tourism in historical towns and villages such as Gulgong • Potential for coal seam gas extraction is concentrating mainly in the Orana region around Pilliga in the Warrumbungle Shire • Early and effective community engagement will be promoted on these projects. New renewable energy projects require a strategic approach and should, where possible, incorporate small-scale co-generation measures into their design • Action 9.3 Promote best practice community engagement and maximise community benefits from all utility-scale renewable energy projects. • Direction 12: Plan for greater land use compatibility – largely focusing on residential and rural residential development • Action 12.1 Conduct a pilot study with Central NSW Councils (CENTROC) to investigate practical on-ground mechanisms to help avoid land use conflict between intensive agricultural uses and other sensitive uses.

2.2.1 Comparable Solar Farm Developments

To build an understanding of potential community perceptions of the Tallawang Solar Farm, a select number of comparable projects in the area of social influence have been reviewed to identify how stakeholders and communities have responded to these proposed developments in recent years. Such projects include:

- The 5 MW Avisford Mini Sustainable Energy Park by ITP Renewables close to the Gulgong township was unanimously refused by the Western Regional Planning Panel. Received 445 public submissions; 439 of which were in opposition (Mid-Western Regional Council, 2020; Western Regional Planning Panel, 2020).
- The 200 MW Bellambi Heights Solar Project by Vena Energy is proposed directly to the south of the Project. It is understood that the project is still under consideration by the proponent, however at the time of reporting, a scoping report had not been submitted to DPIE. Vena Energy commenced public consultation regarding the project in February 2022, however no feedback has been made available at the time of reporting (change.org, 2019; solarquotes, 2020).
- The 10 MW Burrundulla Mini Sustainable Energy Park by ITP Renewables, located approximately 6 km to the southeast of Mudgee town centre, was unanimously refused by the Western Regional Planning Panel and received 377 submissions in opposition to the project (ITP Renewables, n.d.; Western Regional Planning Panel, 2020).
- The approved 110.9 MW Beryl Solar Farm is 15 km to the southeast of the Project and has been operational since 2019. Of the 31 public submissions received for the development, 29 were in objection, with the top issues being socio-economic and community impacts including disruption to noise and visual amenity.
- The 400 MW Stubbo Solar Farm, approximately 5 km away from the proposed Project, received 37 submissions (NSW Government, 2021) and was approved.
- The 55 MW Dunedoo Solar Farm, approximately 30 km away received 20 submissions. At the time of writing, the Department is awaiting more information from the proponent post the Response to Submissions phase before a determination is made (NSW Government, 2021).
- The 30 MW Wellington North Solar Farm, approximately 50 km away received 12 submissions and was approved by the Department in April 2021 (NSW Government, 2021).

A media review has highlighted that community sentiment towards nearby proposed solar farms includes:

- Support for renewable energy projects but the view that these should not be sited on productive agricultural land. Alternative suggestions include placement of solar farms on rehabilitated mining land.
- Concern over the impacts on visual amenity, with projects considered inconsistent with the heritage character of local towns and the local landscape's rural qualities.
- Concern over the cumulative impacts of multiple projects on rural property values and changes to people's sense of place.

These sentiments are consistent with feedback provided by members of the community consulted for this Project as well as concerns relating to the potential cumulative effects of multiple developments, with these findings discussed in subsequent sections of this Report.

2.2.2 Other Major Development Projects

There are several other large-scale projects which have been recently approved for development, or currently in a planning phase across the area of social influence. Such developments may further intensify impacts experienced by local communities across the region and/or could result in cumulative changes to the community when considered in conjunction with the Project as well as further intensifying impacts perceived or experienced by local communities across the region; particularly those with concurrent construction phases.

It is understood through a review of these projects that the rate of development in the region is proportionately high and that this may influence community capacity to cope with change.

Table 2.2 provides an overview of other large-scale projects that are proximal to the Project and at comparable stages of development with the cumulative assessment pertaining to these projects integrated throughout **Section 4.0**.

Table 2.2 Other Major Development Projects

Project	Sector	Description	Status	Proximity to Project	Social Considerations
Barneys Reef Wind Farm – RES	Renewable Energy	350 MW wind farm, up to 63 wind turbines. Employment generation would include approximately 340 people during the construction phase of 28 months and approximately 10 during the operational phase.	In Planning, targeting construction to commence in Q4 2023.	Adjacent; directly north	If construction periods overlap, cumulative social considerations may include: • Traffic and transport changes along the Castlereagh Highway • Social amenity impacts to residents proximal to both projects (noise, visual, air quality) • Impacts upon the local accommodation and housing sector during construction due to multiple incoming workforces • Consultation fatigue, confusion or changed perceptions with multiple projects consulting with the same community members.
Bellambi Heights Solar Farm – Vena Energy	Renewable Energy	200MW Solar (one stage), 200MW Battery (built in 2x 100MW stages), connecting to existing 330kV transmission line. Employment generation would include approximately 250-300 people for solar, 70-100 people for battery (per stage). Construction period expected to be over approx. 9-14 months.	In Planning, targeting a scoping report submission in 2022, with community consultation prior to submission.	Adjacent; directly south	
Stubbo Solar Farm – UPC\AC Renewables	Renewable Energy	400 MW solar farm with energy storage. Employment generation would include approximately 400 people during construction over 2 years.	Approved, construction to commence in early to mid-2022.	5 km east	
Central West Orana REZ Transmission Project – TransGrid	Renewable Energy/ Utilities	Study corridor runs north-west from Merriwa to Wellington, passing directly south of Dunedoo, with further refinement to the corridor to take place through 2022.	In Planning, considered a Critical State Significant Infrastructure Project, the EIS is planned to be submitted in 2022 with construction to commence 2023-2024.	11 km north	
Birrawa Solar Farm and Battery Project	Renewable Energy	600 MW solar farm with 1000MW BESS. Employment generation would include approximately 500 people during construction. This would increase to a maximum of 600 if the battery construction occurs at the same time. Operation of the project is anticipated to require approximately 15 workers.	In Planning, Scoping Report exhibited in Q4 2021.	15 km northeast	

Project	Sector	Description	Status	Proximity to Project	Social Considerations
Dunedoo Solar Farm – ib vogt	Renewable Energy	55 MW solar farm with energy storage	Approved, construction is planned to commence in late 2022.	29 km north-northwest	Development of renewable energy projects across the REZ and major projects in other sectors with overlapping construction timeframes may have the following cumulative social considerations: • Availability of local workforce to resource each project • Availability of housing and accommodation for incoming workers • Traffic and transport changes to major roads across the region • Access to local services and township facilities • Local economic boost to rural towns
Valley of the Winds Wind Farm – UPC\AC Renewables	Renewable Energy	800 MW wind farm, up to 175 wind turbines with up to 400 workers during peak construction.	In Planning, currently preparing the EIS, with construction to occur from Q1 2023 for 12 -24 months.	39 km north-northeast	
Wollar Solar Farm – Wollar Solar Development	Renewable Energy	290 MW solar farm with a construction workforce of up to 300 over a two-year period.	Approved in Q1 2020, construction not yet commenced, upgrades to local roads occurred in mid/late 2020.	45 km east	
Ungula Wind Farm – CWP Renewables	Renewable Energy	400 MW wind farm, up to 97 wind turbines. 250 direct and 400 indirect full time equivalent positions over the construction period. Once operational, there would be 12 direct and 35 indirect jobs.	Approved, with construction expected to commence in 2021.	48 km southwest	
Wellington North Solar Farm – Lightsource bp	Renewable Energy	400 MW solar farm, including approximately 250 construction roles over 24 months, and up to four jobs during operation.	Approved in 2021, construction to commence in 2022.	53 km west	
Maryvale Solar Farm – Photon Energy	Renewable Energy	196 MW solar farm with up to 150 construction workers.	Approved in 2019, construction is expected to commence in Q2 2022.	55 km	
Burrendong Wind Farm –Epuron	Renewable Energy	400MW wind farm with up to 69 turbines	In Planning, SEARs issued for the EIS in late 2020.	56 km south-southwest	
Mumbil Solar and Wind Farm – Epuron	Renewable Energy	150 MW solar farm	In Planning since 2020.	59 km	

Project	Sector	Description	Status	Proximity to Project	Social Considerations
Liverpool Range Wind Farm – Tilt Renewables	Renewable Energy	Up to 1,000 MW wind farm with up to 267 wind turbines with up to 800 construction workers and 47 roles during operations.	Approved 27/08/2018 Seeking modifications to the approval. Modification engagement appears to be on hold due to Covid. Mod 1 – Turbine Changes Status: Prepare Mod Report Construction timing unknown.	63 km northwest	Rate of change across region may alter community perceptions of the sector affecting acceptability of individual projects
Suntop Stage 2 Solar Farm – Photon Energy	Renewable Energy	165 MW solar farm with energy storage and synchronous condenser	In Planning	69 km	
Bowdens Silver – Bowdens Silver Pty Limited	Mining	New open cut silver mine with maximum annual ore extraction of approximately 2.07 Mt, located near town of Lue. Construction workforce up to 246 on-site workers and 74 off-site, and between 192 – 228 workers over 15 years of operations.	In Planning, EIS submitted with Response to Submissions Report being prepared in 2021.	85 km southeast	
Melbourne – Brisbane Inland Rail Project ARTC	Transport	Rail line for freight connecting Melbourne and Brisbane, with the closest section between Narramine and Narrabri comprises 306 km of new rail corridor and track.	Construction commenced in 2018 and is predicted to be completed in 2027.	Closest point is 110 km west	

2.3 Natural Capital

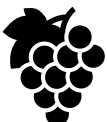
The following sections summarise key findings from the social baseline profile in line with the community capitals framework. The complete dataset is contained in **Appendix A**.

Natural capital refers to the natural assets and resources that contribute to community sustainability. Natural capital can include resources such as minerals, land, forests, and waterways, which provide benefit to the community, as well as environmental assets that provide social, cultural, or recreational value. A summary of the natural capital in the area of social influence is provided below.



Land within and surrounding the Project Area has been subject to extensive vegetation clearing associated with historic agricultural land uses and is predominately utilised for grazing activities at present. Agriculture is also the main land use across the LGA, with smaller areas of forestry, mining, and conservation. The primary agricultural industries in the Mid- Western Regional LGA are wool (worth \$28.4 million), cereal crops (worth \$27.4 million), and cattle and calves (worth \$16.3 million). The key agricultural pursuits are similar in the neighbouring Warrumbungle Shire LGA, with cattle and calves the largest industry (\$46.2 million) followed by cereal crops (\$23.5 million) and wool (\$16.9 million) (NSW Government, 2016).

The Project Area is zoned RU1 Primary Production under the *Mid-Western Regional Local Environmental Plan 2012* (Mid-Western Regional LEP (NSW Government, 2021)). Land in the Project Area is Class 3 (99 ha) and 5 under the NSW Land and Soil Capability (LSC) Assessment Scheme. Class 3 is considered high capability land able to sustain high-impact land uses such as cropping with cultivation and is also mapped as Biophysical Strategic Agricultural Land (BSAL) (DPIE, 2021) indicating that it has high quality soil and water resources, capable of sustaining high levels of productivity. Land Class 5 is considered moderate to low capability agricultural land with significant limitations for high-impact land uses. Twelve soil profile sites within the Project Area were assessed in reference to the Land and Soil Capability Assessment Scheme, with the review of laboratory results determining the LSC classes within the Project Area as Class 4 and 6. Class 4 classification indicates the land is moderate capability land with moderate to high limitations for high-impact land uses, while Class 6 is considered 'low capability land' with very high limitations for high-impact land uses.



Within the region, there is a strong history of viticulture, with winemaking dating back to the 1850s. Mudgee is a well-known food and wine destination amongst tourists and features an annual Food and Wine Festival.

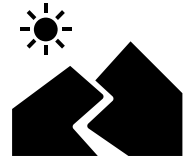
Approximately 1,145 ha of the Project Area is subject to mineral exploration licences (EL8160 and EL8405) held by Bowdens Silver (a Silver Mines Limited Company). The region is rich in minerals, with mining (predominantly coal mining) contributing \$270 million to the local economy. The State of the Environment Report (2017-18) suggests there has been no loss of primary agricultural land through rezoning in the period between 2014 -2018 and an increase in the area covered by mining and exploration titles.



The Goulburn River National Park east of Mudgee, and Warrumbungle National Park west of Coonabarabran are popular tourist destinations. The Warrumbungle National Park is home to the internationally significant Siding Spring Observatory which is a critical piece of national infrastructure that provides jobs and attracts tourists. The region provides habitat for approximately 200 threatened species.



Water supply deficiencies (of more than 50% by 2036) are forecast for the Mid-Western Region. New water security projects and water management initiatives, such as stormwater harvesting and innovative water management approaches, are currently being employed to improve water security (NSW Government, 2016). Above-average rainfall in March 2021 has eased long-term rainfall deficiencies and encouraged optimism in agricultural communities in the region. Extended drought conditions and large-scale bushfires have negatively affected agricultural communities in recent years (BOM, 2021). The rate of warming in the region has accelerated since 1960, and in the mid- to long-term, the BOM have projected decreases in winter rainfall and harsher fire weather with high confidence (Ekström, 2015).



Natural assets of importance to the community include the critically endangered Grassy Box Woodland⁶ ecological community (e.g., the Dunedoo Woodland Learning Centre), Travelling Stock Reserves (TSRs) (the LGA has 1,378 ha) which supports livestock operations as well as holding other biodiversity, Indigenous and European cultural, heritage and social values, and community-managed environmental reserves including those managed the Mudgee Local Aboriginal Land Council and the Adams Lead Reserve (3.3 ha) managed by the Mudgee District Environment Group. Flirtation Hill is also locally known as a vantage point with extensive views to the north of Gulgong.

2.4 Political Capital

Political capital refers to the governing and organisational structures of the population, including formal and informal systems, and the existing means for public participation in various aspects of civil life. The following sections outline the governance arrangements of relevance to the Project.

2.4.1 Traditional Owners and Aboriginal Governance

The Project Area is located within the traditional lands of the Wiradjuri nation with the traditional lands of the Wailwan and Kamilaroi nations to the north and northwest of the Project Area. Material found at archaeological sites shows evidence of this occupation dating back some 18,000 years (Landscape, 2020).

Wiradjuri means ‘the people of the three rivers’, with the nation’s traditional and modern-day connections to Country extend over a large area of NSW encompassing the Macquarie, Lachlan and Murrumbidgee Rivers, bounded by the Murray River in the south.

The NSW Aboriginal Land Council (NSWALC) is the State’s peak representative body in Aboriginal Affairs and is constituted by Part 7 of the *Aboriginal Land Rights Act 1983* No 42. The Project Area is situated within the NSW Aboriginal Land Council boundaries of the Central Region, specifically in the Mudgee Local Aboriginal Land Council area. Every four years, voting members of Local Aboriginal Land Councils (LALC) vote for a Councillor (Cr) to represent their region. The current Councillor of the Central Regional is Grace Toomey, a Wiradjuri woman from Dubbo, having previously been a board member of the Dubbo LALC for 10 years. Grace Toomey is also the Secretary of the Dubbo Aboriginal Community Working Party of the Three Rivers Regional Assembly.

⁶ White Box - Yellow Box - Blakely’s Red Gum Grassy Woodland and Derived Native Grassland

The Mid-Western Regional LGA falls within the Three Rivers Regional Assembly (TRRA) area (which extends from Lithgow in the east of NSW through to Nyngan in the west and represents the interests of Aboriginal people across the communities of Bathurst, Dubbo, Gilgandra, Mudgee, Narromine, Nyngan, Orange, Parkes, Peak Hill, Trangie, Warren and Wellington). The TRRA facilitates the involvement of Aboriginal communities in setting regional priorities and strengthening the capacity of leaders and community members.

2.4.2 Federal Government

The Mid-Western Regional LGA is represented by National Party MP Andrew Gee who holds the Federal seat of Calare. Andrew Gee is the Minister for Decentralisation and Regional Education and the Minister Assisting the Minister for Trade and Investment. The division of Calare stretches from Mudgee, Gulgong, Dubbo and Wellington in the north-west, to Orange, Bathurst, Lithgow and Oberon in the south-east.

2.4.3 State Government

The Project Area is within the State electoral district of Dubbo, but closely borders the districts of Barwon and Upper Hunter. The seats of Dubbo and Barwon are held by respectively by National Party MP Dugald Saunders, Shooters Fishers and Farmers MP Roy Butler. The Upper Hunter seat is currently held by David Layzell of The National Party.

2.4.4 Local Government

The Project Area is within the Mid-Western Regional LGA which is governed by the Mid-Western Regional Council (MWRC, the Council). The Project is also situated near the boundary of the Warrumbungle Shire LGA to the north, administered by the Warrumbungle Shire Council. Mudgee is the main town and strategic centre in the LGA, and provides the key public service, retail, tourism, and recreation facilities in the region. Approximately 15 villages and rural localities provide basic facilities across the LGA and form an important part of the region's rural character including the historic town of Gulgong of which is nearest the Project.

The Mid-Western Regional Council is composed of nine Councillors, including the Mayor and Deputy Mayor, elected proportionally as a single ward for a fixed four-year term of office.

2.5 Human Capital

The level of human capital within a community is assessed by considering population size, age distribution, education and skills, general population health and the prevalence of vulnerable groups within the community. The following provides a summary of the key characteristics of the study areas from a human capital perspective (refer to **Appendix A** for the complete dataset).

Table 2.3 outlines the key populations within the area of social influence.

Table 2.3 Key Populations (ABS, 2016)

Place-based communities	Population
Mid-Western Regional LGA	25,158
Town of Gulgong	2,521
Town of Mudgee	10,923
Warrumbungle Shire LGA	9,187
Town of Dunedoo	1,221

Both LGAs have a higher proportion of Aboriginal and Torres Strait Islander residents than the NSW average (Mid-Western Regional LGA 5%, Warrumbungle Shire LGA 10%, compared to 3% in NSW). The locality of Mebul has a significantly higher Aboriginal and Torres Strait Islander population (18%), whilst Tallawang and Merotherie recorded no Aboriginal-identifying residents within the population.



The population has increased in the Mid-Western Regional LGA since 2006 and is expected to rise until 2041, particularly in the age group of 75 years and over (refer to population trends in **Figure 2.7**). In contrast, the Warrumbungle Shire LGA population has decreased in the same timeframe and is expected to continue to decrease in the coming years with the only age groups projected to rise being those 75 years and over (refer to **Figure 2.8**).

This trend is reflected in the median age of communities within the area of social influence, with both Mid-Western Regional LGA and Warrumbungle Shire LGA having median ages over the NSW average (42 and 49 years respectively, compared to 38 years for NSW). The locality with the highest median age is Mebul which has a median age of 63 years.

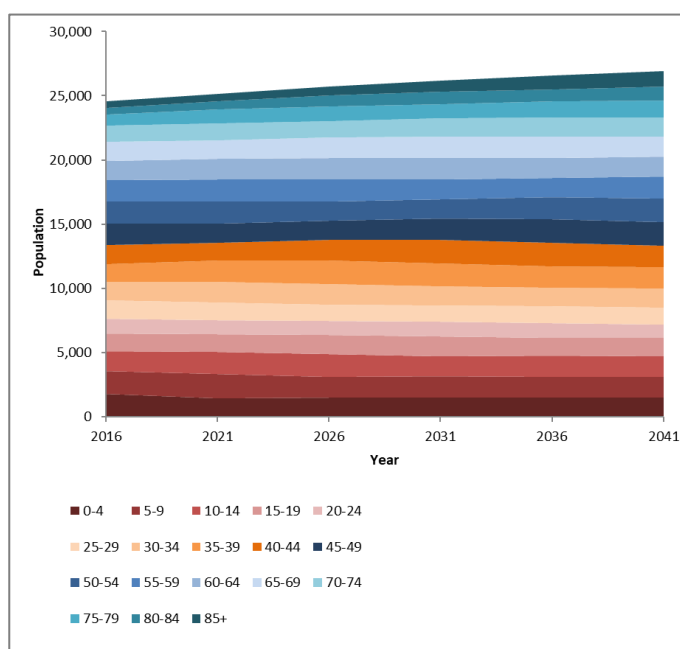


Figure 2.7 Mid-Western Regional LGA Population Projections

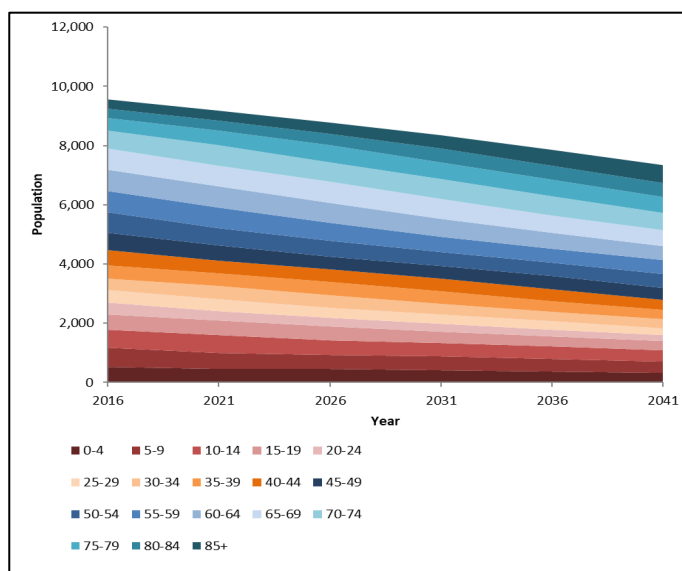


Figure 2.8 Warrumbungle Shire LGA Population Projections



The population has a low rate of Year 12 completion compared to the NSW average, with a higher percentage of certificate level qualifications rather than bachelor level qualifications in all communities within the area of social influence. Despite this, the proportion of the population completing Year 12 and tertiary education has increased in both LGAs since 2006.

By way of summary, **Figure 2.9** outlines the Socio-Economic Indexes for Areas (SEIFA), prepared by the ABS. A low score indicates a greater degree of disadvantage, with the lowest 10% of areas receiving a decile of one, and the highest, a ten. It should be noted that no comparison can be made between LGAs and state suburbs on ranking, as rankings are only comparative within each geographic classification.

The SEIFA Index of Education and Occupation (IEO) for each of the SSCs reflects the general level of education and occupation-related skills of people within an area, indicative of relative disadvantage compared to other areas in NSW. The highest IEO index across the communities is within the 5th decile, indicating that approximately half of the other SSCs and LGAs in NSW have a higher level of education and occupation-related skills in comparison. Specifically, Gulgong has the lowest level of education and occupation-related skills compared to the other communities within the area of social influence and is within the lowest 10% of NSW, with Warrumbungle Shire having a higher level than Mid-Western Regional LGA, though still relatively low within NSW broadly.

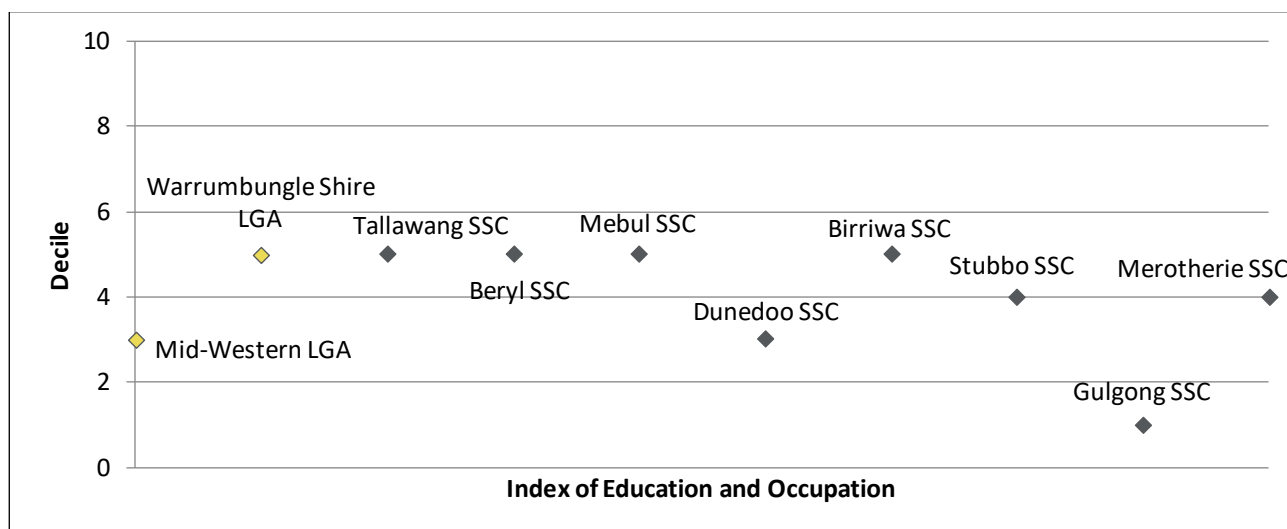


Figure 2.9 SEIFA Index of Education and Occupation

Source: (SEIFA, 2016)

Health indicators for the Mid-Western Region LGA are slightly higher than the NSW averages for various health indicators. These indicators include the estimated number of people with mental health and behavioural problems, people with heart, stroke, and vascular disease, as well as number of people aged 15 years and over with fair or poor self-assessed health. These indicators are relative between Warrumbungle Shire and the State of NSW.

The Warrumbungle Shire has a high rate of premature deaths (total deaths, 0-74) (320.6) compared to both Mid-Western Region LGA (282.0) and NSW (238.4). Obesity rates in both Mid-Western Region LGA and Warrumbungle Shire, 43.1 and 41.0 respectively, are higher than the State average (30.9).

The mortality rate in the broader Western NSW Health District is 20% higher than NSW with Chronic Obstructive Pulmonary Disease mortality rate in particular, 78% higher than the NSW average (Western NSW Local Health District, 2020). Potentially avoidable deaths and hospitalisation caused by chronic illnesses are understood to be a major health challenge for the region.

These challenges are heightened by the vulnerable communities who may need to travel for access to health care but may not have the funds or infrastructure to do so. Additionally, the projected future demand of health services is recognised as an ongoing challenge within the region with the current hospitalisation rate for the Western NSW Health District 43% higher than the State average (Western NSW Local Health District, 2020).

The *Western NSW Health District Strategic Plan 2020-2025* further recognises health challenges for the region. These include:

- The burden of potentially avoidable deaths and hospitalisations caused by chronic diseases such as cardiovascular disease, diabetes, chronic obstructive pulmonary disease and cancer
- High rates of developmental vulnerability among children
- Financial and workforce limitations to respond to the service demands of the community

- A population spread across a vast geographic area with uneven population growth
- Vulnerable communities who may sometimes need to travel to access health care but may not have the infrastructure or social or financial resources to easily do so
- Ageing population with complex health needs
- Projected future demand for health services
- Aboriginal life expectancy gap and high rate of chronic health conditions
- A changing environment and environmental disasters such as drought and bushfire.

The following population groups within the area of social influence have been identified as potentially having vulnerability to the social or economic changes that the Project, and the cumulative effects of other developments across the region, may bring:

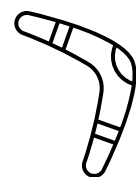
- Regular users of short-stay accommodation and tenants within the private rental market
- The elderly
- Young people
- Local job seekers
- Local Aboriginal and Torres Strait Islander residents
- Residents or property owners whose property access and livelihoods may be affected.

2.6 Cultural Capital

The Wiradjuri people were historically hunter-fisher-gatherers, living semi-permanently and living off a variety of native food sources, including fish, animals, insects and plant foods (Landscape, 2020). Initially peaceful early interactions between Europeans and Wiradjuri people led to violent conflict over land, settlement and resources over many decades (Landscape, 2020).

Over the years, the Wiradjuri people were increasingly displaced from their traditional lands and cultural practices. This and the introduction of European diseases caused significant reduction in the Wiradjuri population and led to many Wiradjuri settling close to pastoral homesteads and working as shepherds and labourers.

Land rights for Aboriginal and Torres Strait Islander peoples refers to the process to gain legal and moral recognition of ownership of lands and waters they called home, prior to colonisation of Australia in 1788. In NSW, there are two key mechanisms by which Aboriginal people can have their rights in land formally recognised – Native Title and Land Rights. The two systems operate under different laws and differ in the rights they can provide. Through these processes, Aboriginal communities are re-establishing their connection with land and Country.



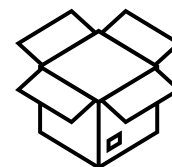
The Project Area is within the boundaries of a Native Title claim submitted in August 2018 by the Warrabinga-Wiradjuri (NC2018/002 - Warrabinga-Wiradjuri #7). This claim is over an area of 13,682 km² that covers 10 LGAs, including Dubbo Regional Council, Mid-Western Regional Council, and the Warrumbungle Shire Council.

To preserve the history and culture of the Wiradjuri people, five memorials are currently being established in the Mudgee area as part of the Wiradjuri Mudgee-Dabee Stories Project (Mudgee Guardian, 2015). Scattered through the community, these memorials are located at sites of cultural significance to the Wiradjuri people.

2.7 Social Capital

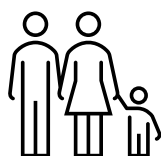
Social capital refers to community character, the state of wellbeing, social connections or networks, and levels of cohesion within a community. Various indicators can be used to examine and assess social capital, such as the level of community participation, population mobility, crime rates, and the demographic composition of the community. The following provides a summary of the key characteristics of the study areas from a social capital perspective, with the dataset available in **Appendix A**.

The proportion of the community with a different address one year ago, and five years ago, is consistent with or lower than the state average, meaning residents have less mobility. Furthermore, the level of mobility of Mid-Western Regional LGA residents has remained consistent since 2006, with mobility of Warrumbungle Shire LGA residents decreasing since 2006.



Across the broader Mid-Western Regional LGA (22%) and Warrumbungle LGA (28%), volunteerism is higher than the state average (18%) which is reflective of other regional areas in NSW; however, the rate of volunteerism has decreased in both LGAs since 2006. The rate of volunteerism in the suburbs of Tallawang, Stubbo and Merotherie is lower than the state average.

There are significantly less people born overseas in all the study community than the NSW average (30%). The most diverse locality is Stubbo with 9% of the population born overseas, in contrast, the suburbs of Mebul, Birriwa and Merotherie have 0% of their population born overseas.



Both LGAs have a higher number of single parent families than the State average, however, a number of communities within the area of social influence have no single parent families.

The majority of the population are family households, with very little presence of group households and less than a third of each community being lone person households. However, the number of lone person households is increasing whilst the number of family households is decreasing.

The prevalence of crime is higher in the Mid-Western Regional LGA than Warrumbungle Shire LGA, however, both LGAs are in the bottom third of LGAs in NSW for most prevalent crimes, suggesting low crime rates in comparison with the State.



Figure 2.10 provides the overall socio-economic status and level of disadvantage within each community, as determined by the Index of Relative Socio-economic Disadvantage (IRSD) - a SEIFA score prepared by the ABS which ranks areas in Australia according to relative socio-economic disadvantage. A low score indicates a greater degree of disadvantage, with the lowest 10% of areas receiving a decile of one, and the highest, 10. It should be noted that no comparison can be made between LGAs and state suburbs on ranking, as rankings are only comparative within each geographic classification.

When considering the relative socio-economic disadvantage of communities within the area of social influence, the localities of Dunedoo and Gulgong have the most disadvantage, with Mebul having the least. More broadly, the Mid-Western Regional LGA has a lower level of relative socio-economic disadvantage than Warrumbungle Shire LGA.

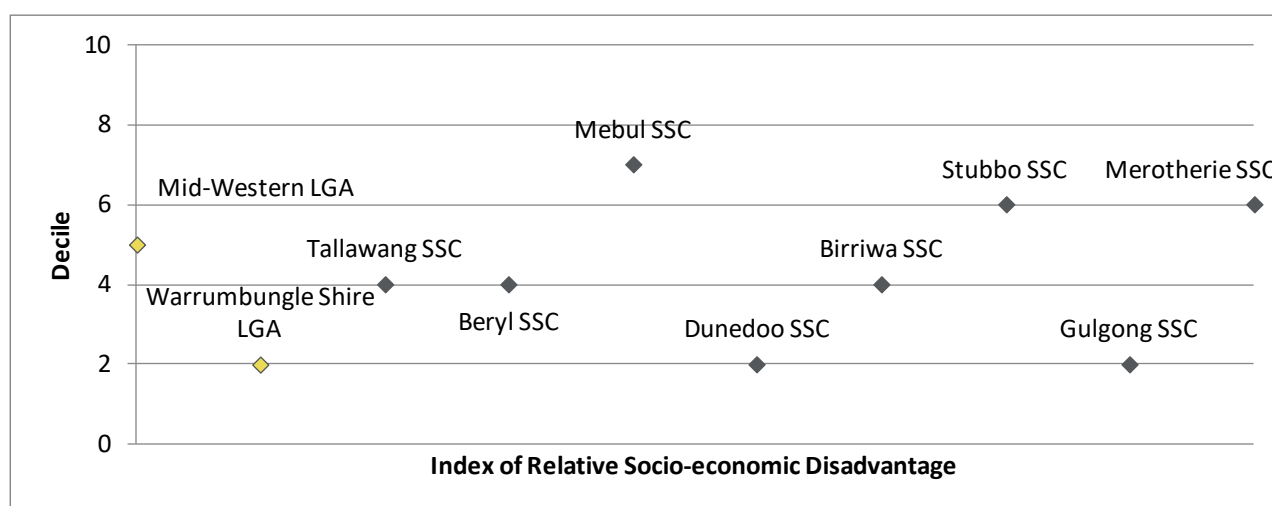


Figure 2.10 SEIFA Index of Relative Socio-economic Disadvantage

Source: (SEIFA, 2016)

2.8 Economic Capital

Examining a community's economic capital involves consideration of several indicators, including industry and employment, workforce participation and unemployment, income levels and cost of living pressures, such as weekly rent or mortgage repayments. The following provides a summary of the key characteristics of the communities within the area of social influence from an economic capital perspective, with the complete dataset in **Appendix A**).



The proportion of the labour force employed full-time in both Mid-Western Regional and Warrumbungle Shire LGAs has decreased since 2006, the unemployment rate in the LGAs has also decreased since 2006 however remains above the State average (6.5% and 7.9% respectively compared to 6.3% in NSW). In contrast the number of part-time workers has increased which is not an uncommon trend in an ageing population.

The unemployment rate is highest in the locality of Beryl (15.6%, compared to the NSW rate of 6.3%) and aligns with Beryl having the highest median age of communities within the area of social influence (63 years of age), whereas Stubbo has the highest rate of full-time employees (63.2%, compared to 59.2% in NSW).



As a result of these employment patterns, the median weekly household income is below the NSW average across both LGAs and all communities within the area of social influence except for Merotherie, which has a median of \$2,125. The suburb with the lowest median weekly household income is Stubbo (\$609 a week). Despite the lower-than-average income, median weekly household income has increased in both LGAs since 2006.

Communities within the area of social influence have a higher proportion of dwellings that are fully owned (without a mortgage) than the NSW average, which is common in rural communities in which properties are passed down through the generations, however, this trend is decreasing in line with rising mortgage prices.

The proportion of houses owned with a mortgage is rising except for in Birriwa and Merotherie, where there are no houses owned with a mortgage. Similarly, the proportion of rented dwellings is increasing, however, remains below the NSW proportion (31.8%) in all suburbs except for Mebul (35.7%).



In most cases, the cost of living in communities within the area of social influence is lower than the State, with the median monthly mortgage repayments in all localities except for Tallawang being lower than the NSW average. Similarly, mortgage prices have also been on the rise in both LGAs since 2006.



The same trend has been experienced in regard to rental prices, with the weekly median rent for a 3-bedroom house all below the state median and rental costs in the LGAs rising since 2006. Beryl has the highest median weekly rent at \$270 in comparison to the NSW median of \$380.



Whilst the proportion of households in mortgage stress in both the Mid-Western Regional LGA and Warrumbungle Shire LGA have decreased since 2006, the proportion remains similar to NSW (9.4% and 9.5% in 2016 respectively, compared to 9.6% in NSW), with the proportion of households experiencing rental stress increasing within the Mid-Western Regional LGA surpassing NSW (32.3% and 27.9% respectively in 2016). This is a sign of high demand in the rental market and can often result in increasing rental prices.



The low median household income in Mebul means that it has the highest cost of living, on par with NSW, with the median weekly rent equalling 26% of the median weekly household income. The suburb with the lowest cost of living is Stubbo at 16%. Cost of living has been rising across both LGAs since 2006, with the Mid-Western Regional LGA (24%) nearing the NSW figure (26%).

As at the 2016 ABS Census, approximately 9% of workers in the Mid-Western Regional LGA reported the census category of ‘agriculture, forestry and fishing’ as their industry of employment, compared with 2% across NSW more broadly. Whilst the agriculture industry has been perceived as a key industry of employment in the LGA, the top industry of employment in 2006, was retail trade (13.4%), with mining overtaking in both 2011 and 2016. Retail trade remained the second highest employer of residents in 2011 and 2016, with agricultural consistently being the third highest employer in both 2011 and 2016 census periods.



The agricultural industry is however the top employer in all rural localities within the area of social influence, except for Gulgong where mining is the top employer. The closure of several resource extraction Projects in surrounding communities has created key changes in these localities, specifically, the closure of the Sibelco Tallawang magnetite mine in 2016 led to a reduction in the availability of mining jobs in the Mid-Western Regional LGA. Prior to closure, all employees working at the mine were based in Mudgee (MiningLink, 2019).

In the Warrumbungle Shire LGA, agriculture, forestry and fishing has consistently been the top industry of employment since 2006, with approximately a third of the population employed in the industry (27.6% in 2016). Health care and social assistance is the industry that employs the second highest proportion of people (12.2% in 2016), followed by education and training (11.5% in 2016).



The Mid-Western Regional LGA attracts over 573,000 visitors each year through its viticulture, food, sport and cultural events (Mid-Western Regional Council, 2019). Deemed the gateway to the Central West and Far West regions of the State, and 3-4 hours’ drive from Sydney and Newcastle, Mudgee is also easily accessible from the surrounding regional centres. According to Tourism Research Australia, visitors to the Mid-Western Regional LGA spent on average three nights in the area, with a total annual spend of \$148 million dollars (Tourism Research Australia, 2017). According to the Mudgee Region Annual Report (2018), the tourism industry in the Mudgee tourism region generated \$924,083 in revenue for the year 2018. This was an increase of \$44,116 (5%) from 2017 (\$879,967 revenue).

The SEIFA Index of Economic Resources (IER) reflects the economic resources of households within an area and includes variables such as household income, housing expenditure (e.g., rent) and wealth (e.g., home ownership). A low score indicates a relative lack of access to economic resources in general, while a high score indicates greater access to economic resources.

When considering communities within the area of social influence, Dunedoo and Gulgong are again the most disadvantaged, whereas Mebul has the highest access to economic resources. Mid-Western LGA has a higher access to economic resources than Warrumbungle Shire LGA (refer to **Figure 2.11**).

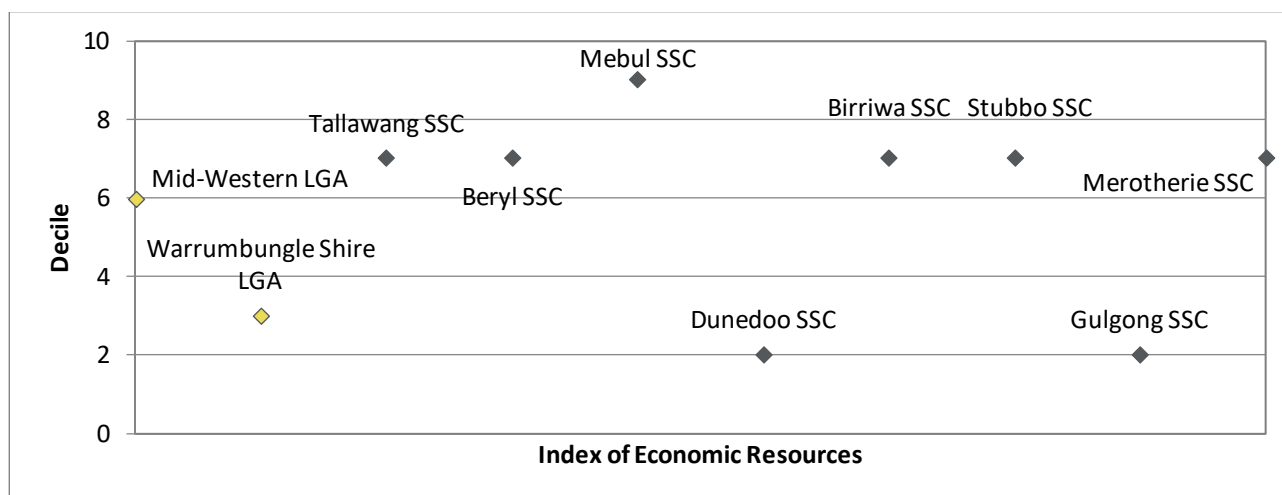


Figure 2.11 SEIFA Index of Economic Resources

Source: (SEIFA, 2016)

The Mid-Western and Warrumbungle Shire local government areas compare to others across the region as outlined in **Figure 2.12**.



Figure 2.12 Local economic profiles in the Central-West Orana Region

Source: (DPIE, 2016)

Visions for future development of the Central West-Orana Region (DPIE, 2016) include increasing the diversity of the economy, capitalising on the historic towns and heritage centres for tourism, improved freight, transport and infrastructure, and vibrant healthy communities. Significant industries of employment in the region include the extractives sector, agriculture, health and social care sectors, as well as emerging sectors such as renewable energy (DPIE, 2016). **Figure 2.13** summaries the priority key industry sectors for the region.

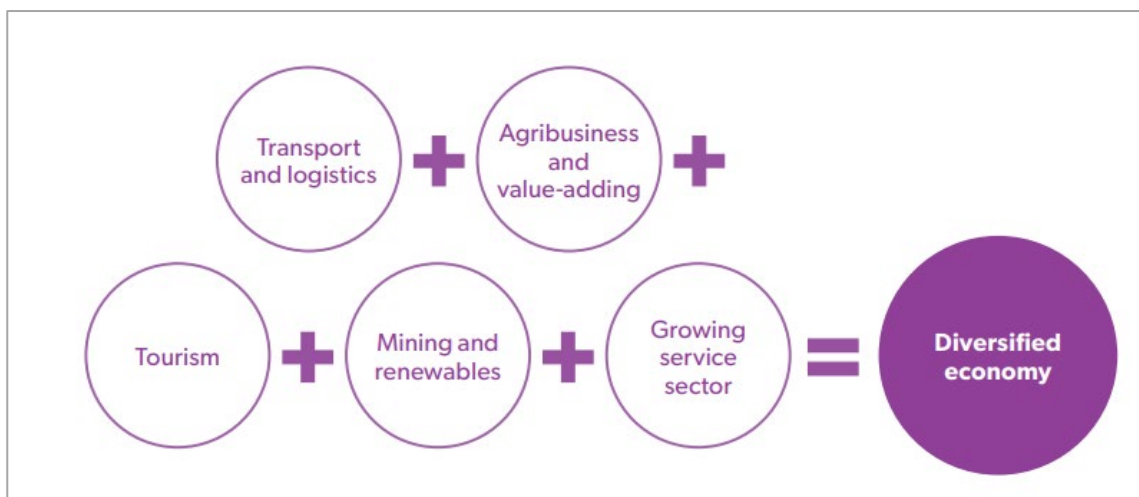


Figure 2.13 Economic Diversification Strategy for the Central-West Orana Region

Source: (DPIE, 2016)

2.9 Physical Capital

Physical or built capital includes provision of infrastructure and services to the community. Within this capital area, it is important to consider the type, quality, and degree of access to public, built and community infrastructure (including amenities, services, and utilities) as well as housing. The



Project's area of social influence can be characterised as having a wide range of community services (refer to **Appendix A** for the complete dataset).

Communities within the area of social influence have a higher proportion of dwellings that are fully owned (without a mortgage) than the NSW average, which is common in rural communities in which properties are passed down through the generations, however, this trend is decreasing in line with rising mortgage prices.

The proportion of houses owned with a mortgage is rising except for in Birriwa and Merotherie, where there are no houses owned with a mortgage. Similarly, the proportion of rented dwellings is increasing, however, remains below the NSW proportion (31.8%) in all suburbs except for Mebul (35.7%).



Whilst the proportion of households in mortgage stress in both the Mid-Western Regional LGA and Warrumbungle Shire LGA have decreased since 2006, the proportion remains similar to NSW (9.4% and 9.5% in 2016 respectively, compared to 9.6% in NSW), with the proportion of households experiencing rental stress increasing within the Mid-Western Regional LGA surpassing NSW (32.3% and 27.9% respectively in 2016). This is a sign of high demand in the rental market and can often result in increasing rental prices.

Most communities within the area of social influence have a lower proportion of dwellings with internet access when compared with NSW (85%), except for Merotherie which has a 100% of dwellings with internet access and Beryl which is on par with NSW.



Regarding the provision of social infrastructure, the under supply of health care in the region has been the most notable challenge. For instance, the town of Gulgong has been reliant on telehealth services since June 2020, when the contract for the towns one doctor was not renewed. Despite this, Gulgong has a Multi-Purpose Health Centre offering a hospital service and a Medical Centre. Mudgee Health Service (General Hospital) is the largest in the LGA, providing acute care and general medicine and underwent a \$70.7 million redevelopment in 2020, updating its facilities to include a range of emergency and specialist services. The hospital has a combination of permanent doctors and visiting specialists. There are a range of other allied health and nursing services available in Mudgee. Dunedoo has three main health care services, being the Dunedoo Memorial Health Service (Hospital), the Multi-purpose Community Health Service and the Family Medical Service.

Dunedoo has a total of three education facilities, one of which is a central school providing education from kindergarten to year 12. Gulgong has five education facilities. Mudgee hosts the only tertiary education facility in the three towns and has the highest rate of education facilities with a total of 14 schools, of which eight are early education facilities, all of which are outlined in **Table 2.4**.

Table 2.4 Education Facilities within the Area of Social Influence

	Early Education/ Primary School	High School	Tertiary
Dunedoo (Total)	3	1	-
Dunedoo Preschool	1	-	-
St Michael's Catholic Primary School	1	-	-
Dunedoo Central School	1	1	-
Gulgong (Total)	4	1	-
Happy Days – Gulgong Child Care Centre & Preschool	1	-	-
Red Hill Environmental Education Centre	1	-	-
All Hallows School	1	-	-
Gulgong Public School	1	-	-
Gulgong High School	-	1	-
Mudgee (Total)	11	2	1
Squeakers On Douro	1	-	-
Squeakers Long Day Care Centre	1	-	-
Puggles Child Care Centre	1	-	-
Mudgee Preschool	1	-	-
Imaginations Early Learning Centre	1	-	-
Family Day Care Scheme	1	-	-
Gowrie NSW Mudgee Early Education & Care	1	-	-
Kiddie Academy Mudgee	1	-	-
Cudgegong Valley Public School	1	-	-
Mudgee Public School	1	-	-
Mudgee High School	-	1	-
St Mathew's Primary & High School	1	1	-
TAFE Western Mudgee College	-	-	1

In terms of connectivity and transport networks, the Castlereagh Highway transverses the region and is a main route of travel for inland residents, connecting Lithgow in the south to south-east Queensland in the north. The highway is part of the Great Inland Way connecting Sydney and Cairns. The Castlereagh Highway meets the Golden Highway at Dunedoo which is a key route of travel from Dubbo to Newcastle, giving the region access to the Hunter region and the metropolitan centre of Newcastle. The Project Area sits in proximity to the Gwabegar freight line that runs between Wallerawang and Binnaway. There is an additional freight line, located approximately 50 kilometres to the north of the Project Area, that exists primarily for the agriculture sector.



As a result of the proximity to major national highways, the *Central West and Orana Regional Plan 2036* outlines a vision to capitalise on the location to grow the freight industry which may result in opportunities for new intermodal facilities and support rail infrastructure (NSW Government, 2016).

There is currently a NSW TrainLink Bus Service connecting Gulgong, Dunedoo and Mudgee to nearby regional hubs. Mudgee has a commuter airport with Fly Pelican currently operating three flights a week between Mudgee and Sydney, which is to be extended to six flights a week from February 2022.



Based on service capacity assessments undertaken in the region, there is an evident strain on services at present, due to the large influx of seasonal and itinerant workers for mining and agribusiness, particularly during harvest seasons (NSW Government, 2016). For instance, a range of accommodation options are needed to meet this demand, particularly in the context of growth in new sectors such as renewable energy. The NSW Government has outlined a number of actions to support the service capacity building of the region, including guidelines to help councils plan for and manage short-term workforce accommodation requirements for numerous sectors.

Table 2.5 outlines the available short-stay commercial accommodation in the area of social influence as documented within the Project's Economic Impact Assessment (Ethos Urban, 2021). Available accommodation is largely contained within the major towns of Mudgee and Dubbo, with towns nearest the Project containing smaller numbers of accommodation providers to potentially house incoming construction workers. The data also indicates that while short-stay accommodation occupancy rates have decreased substantially across NSW since 2020, due to the COVID-19 pandemic and related restrictions on movement and travel, in the Central West-Orana Region occupancy rates have increased.

Table 2.5 Accommodation Availability in the Area of Social Influence

COMMERCIAL ROOM ACCOMMODATION CAPACITY AND OCCUPANCY RATES, 2018/19 AND 2020/21



COMMERCIAL ACCOMMODATION IN THE STUDY AREA, 2020				
LOCALITY	ESTABLISHMENTS	ROOMS	CABINS	TOTAL
Dunedoo	5	33	3	36
Gulgong	8	114	12	126
Dubbo	39	1,040	80	1,120
Mudgee	23	362	115	477
Coolah	3	13	na	13
Mendooran	1	na	na	na
Wellington	10	116	40	156
Study Area Total	89	1,678	250	1,928

Source: Ethos Urban; Trip Advisor; Hotels.com; na: not available

Accommodation providers situated in Gulgong and Dunedoo surveyed for this SIA have provided insight on occupancy trends; in that seasonal demand from tourism across the area of social influence is usually high during the spring and summer months and holiday period, over long weekends, and also periodically due to community events such as the Mudgee Festival, the Gulgong Clay Festival in April, the Henry Lawson Festival in June, Mudgee field days in July, and other music festivals throughout the year.

It was also stated that tourist trade typically reduces in the months of January and February specifically due to the heat, and visitors to the area preferring to stay with relatives or in private accommodation over this period. Further outcomes of this survey are documented in subsequent sections of this report.

2.10 Challenges and Opportunities for Local Development

Table 2.6 identifies development challenges and opportunities currently being experienced across the area of social influence as gathered from the social baseline profile and through community consultation.

In summary, the key challenges faced by the Mid-Western Regional LGA include the need to provide for an ageing population with limited health services and addressing the existing strain on short-stay accommodation provision. The redevelopment of Mudgee Hospital is a response to address key health service provision. The abundant natural resources and strong tourism sector, combined with the growth in renewable energy projects, however, place the LGA in a good position to further diversify the local and regional economy.

The increasing number of transient workforces, due to the development of multiple major projects either proposed, or in construction, in the area of social influence, results in some flow-on challenges for the region in maintaining an existing strong sense of community and decreasing anti-social behaviour. However, the low mobility of the community is suggestive of a sustained sense of community, and the high rate of volunteerism indicates that the community is willing to participate in community initiatives. This coupled with Council's plans to increase housing provision, will likely result in positive social development for the community more broadly.

To further support regional development, issues such as traffic congestion and the emerging strain on local service provision need to be addressed, as well as upgrades needed to road infrastructure and the mobile and telecommunications network. Some of these identified constraints are already being considered by Council.

In terms of opportunities, it is understood that the Mid-Western Regional Council has a focus on looking after the community, protecting the natural environment, building a strong local economy, connecting the region and in good government practice, as outlined in their 'Towards 2030' Community Strategic Plan. The Plan contains the community's desire to reduce the consumption of energy and fossil fuels, and to consider alternative resources, as such, Council has committed to increasing the use of alternative energy sources across the LGA. These community aspirations are reflected in the uptake of small-scale renewable energy which have increased steadily since 2015 with the capacity of solar systems in the LGA tripling in the 5 years from 2014 – 2019. This rate of uptake is consistent with the trend across regional NSW, with a 64% increase in small-scale solar installations in 2017-18 compared to 2016-17 (Mid-Western Regional Council, 2013).

Table 2.6 Challenges and Opportunities for Local Development

Challenges	Capital	Opportunities
- Area is water insecure and drought prone - Impacts of mining and other industrial projects on natural environment requires management and regulation	Natural	- Area has quality farming land and a highly valued agricultural sector - Strong community values associated with the natural environment and rural landscape - Area has rich mining resources - Region hosts abundance of nature conservation areas
- Limited experience in large-scale renewable energy development across region - Shifting levels of community acceptance for new projects	Political	- Strong government support for growth in renewable energy sector - Strong and active representation of Aboriginal community
- Ageing population - Low levels of high school completion and tertiary education	Human	- Population increasing - Proportion of residents undertaking tertiary education is increasing
Self-determination of Wiradjuri people an ongoing effort	Cultural	- Level of organisation around Aboriginal cultural heritage protection and Aboriginal community services is strong - Thriving arts and cultural sectors
- Incoming transient populations already prevalent due to agriculture and mining sector - Increasing number of large-scale projects could cause division in community - Relatively high levels of socio-economic disadvantage, particularly in smaller rural towns	Social	- Tight-knit community with high levels of volunteerism - Low prevalence of crime - Low mobility of residents resulting in sustained sense of community
Potential for labour force competition due to mining activity and high number of other renewable energy projects	Economic	- Region has strong and diverse industries including mining, tourism, and agriculture - Council in support of development projects that create new local jobs and help to build a diverse and multi-skilled workforce

Challenges	Capital	Opportunities
- Increasing retirement-age population leading to decrease in skilled employee base - Low median weekly household income resulting in less spending in the local economy - Increasing rental housing prices		- Council facilitating the expansion of essential infrastructure and services to match business and industry needs - Strong business services sector - Low cost of living
- Limited health services and difficulty attracting and retaining doctors - Limited tertiary education options - Shortage of commercial accommodation and housing market constraints - Traffic congestion and road infrastructure requiring upgrades - Lack of public transport - Broadband and mobile coverages in need of upgrades - Potential strain on public infrastructure and services due to rate of change across sectors	Physical	- Continued investment in road upgrades - Recent major hospital expansion - Prioritised investment in housing and residential growth underway - Highly valued historic character of region - Investment into public recreational infrastructure targeting young people - Improvement of footpaths and shared cycleways in towns

Source: Compiled from the following: MWRC Community Plan Towards 2030 (Mid-Western Regional Council, 2017); MWRC Delivery Program 2017/18 – 2020/21 Operational Plan 2018/19 (Mid-Western Regional Council, 2017b); MWRC Workforce Strategy 2017/2021 (Mid-Western Regional Council, 2017a); MWRC Asset Management Strategy 2017/2021 (Mid-Western Regional Council, 2017c); MWRC Community Engagement Summary of Findings (Mid-Western Regional Council, 2017d)

3.0 Perceived Social Impacts

This section analyses and discusses the issues and impacts (positive and negative) in relation to the Project as gathered through stakeholder and community consultation. Analysis has been framed in accordance with the social impact categories outlined in the Guideline and standard SIA practice. Measures and/or strategies to respond to and address the perceived social impacts are also outlined as identified from the community.

In summary, community-identified impacts (**Figure 3.1**) associated with the Project were most frequently associated with the perceived changes to local surroundings that the Project may bring (n=152), particularly changes to the aesthetic and social values associated with the rural landscape.

Impacts on personal livelihoods (n=62) was the second most frequently raised social impact category identified by those consulted, with many stakeholders noting the potential positive impacts of employment generation and a boost to the local economy that the Project may provide.

Social matters relating to community engagement and decision-making systems (23) and accessibility (19; largely associated with workforce accommodation provision) were also raised.

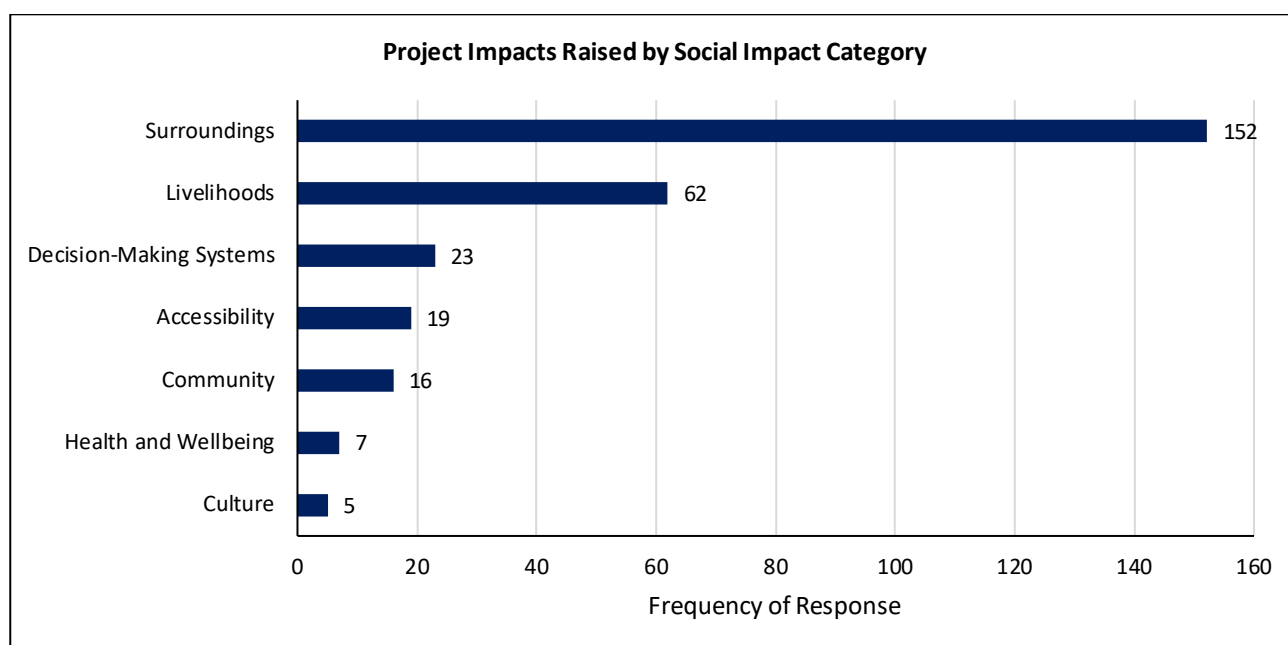


Figure 3.1 Project Impacts by Social Impact Category

Broader Community (n=202), Community Group (n=29), Neighbouring Landholder (n=21), Service Providers and Businesses (n=15); Local Government (n=2) Multiple responses allowed.

Source: Umwelt (2022)

Figure 3.2 presents each of the main social impact themes raised during consultation across all stakeholder groups consulted, with the economic sustainability of rural towns nearby the Project recorded as the most salient matter raised, having both positive and negative implications for rural communities hosting the Project. It is worth noting however, that whilst frequency of response represents the salience of an issue, it does not indicate the level of concern for each stakeholder group. An issue raised only once can be equally as concerning as an impact raised more frequently.

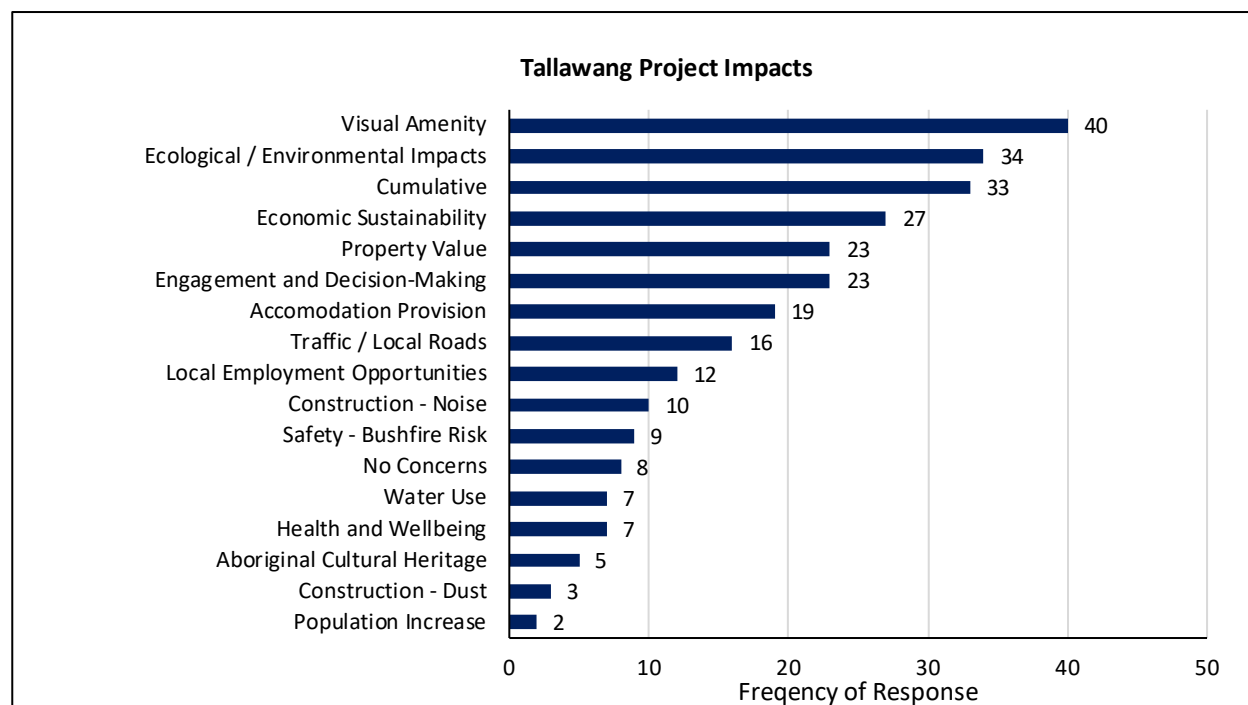


Figure 3.2 Perceived Project Impact Sub-Themes

Broader Community (n=202), Community Group (n=29), Neighbouring Landholder (n=21), Service Providers and Businesses (n=15); Local Government (n=2) Multiple responses allowed.

Source: Umwelt (2022)

The following sections document the range of social impacts that have emerged through the SIA consultation within each theme. Where relevant, similarities and/or differences across stakeholder groups have been identified indicating the breadth and depth of concern relating to each stakeholder group consulted, with the following observations noted:

- Concerns for visual amenity changes was raised most frequently by neighbouring landholders and service providers and businesses.
- Community groups frequently raised ecological or environmental impacts, the Project's community engagement and decision-making processes and concerns for the potential cumulative impacts of the Project.
- Service providers, businesses and community groups raised the local economic sustainability of their communities and towns most frequently, indicating a need to ensure that local communities realise benefit from the Project in ways that promote continued social and economic stability.
- Concerns regarding the potential effect of the Project on personal property values were raised predominantly by neighbouring landholders and community groups.

There were several stakeholders consulted (8) who did not have any concerns in relation to the Project, and instead welcomed the proposed Project as a positive contribution for the community, as illustrated in their responses below:

I think they are great, I don't have any concerns, no issues with the solar farm. – Dunedoo Community Group

We like renewable energy (and live off the grid already) and want to see it received positively in the community so we will support where we can. – Gulgong Community Group

Not at all worried about the Project, no major concerns. – Neighbouring Landholder

Very good move and good for the future of Gulgong. Very happy with the Projects coming. There are no negative effects, it's all positive. – Accommodation Service Provider

Community identified strategies to mitigate or respond to social issues and impacts, as well as opportunities for the Project and the proponent to positively contribute to the local community have been included throughout the relevant sections, as a basis to further consider and explore community benefit sharing opportunities. Project-led community development strategies often lead to improved social outcomes when an identification process of local needs and opportunities is undertaken in collaboration with local stakeholders. Local benefit sharing schemes and targeted support can over time generate improvements in a community's sense of place, social cohesion, and capacity of local organisations. Consequently, **Section 4.0** identifies preliminary project refinements and/or management measures aligned with identified and perceived social impacts.

3.1 Changes to Community Surroundings

The Project's perceived impact on people's surroundings was discussed in several forms by those consulted and included changes to the local landscape and environment, the visual amenity of the area affecting how people experience their surrounds, the cumulative impacts of other nearby developments, as well as predicted traffic changes on local roads.

Figure 3.3 indicates the perceived impacts on people's surroundings by stakeholder group consulted. Each of these themes are discussed in more detail in the following section.

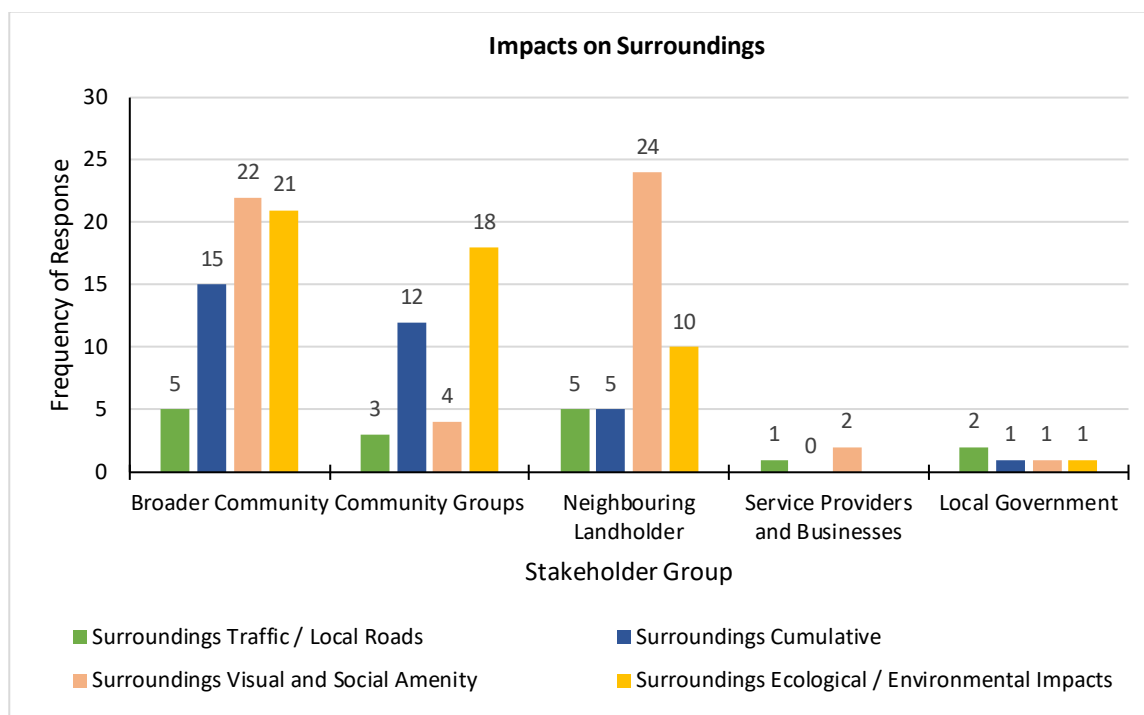


Figure 3.3 Perceived Impacts on People’s Surroundings by Stakeholder Group

Broader Community (n=202), Community Group (n=29), Neighbouring Landholder (n=21), Service Providers and Businesses (n=15); Local Government (n=2) Multiple responses allowed.

Source: Umwelt (2022).

In addition to impacts on traffic and local roads, amenity and cumulative concerns, several sub themes (both positive and negative) also emerged during consultation relating to the Project’s potential impacts on community values associated with the natural environment, including:

- Flora and fauna (ecological impacts)
- Conflicting land uses
- Recycling and reuse of materials at the end of the Project life
- Energy transition and reduction of carbon emissions
- Water access and use.

Each of these themes and sub-themes is further discussed below.

3.1.1 Changes to Social Amenity

A matter raised consistently has been that the Project may likely cause **industrialisation of the landscape** and **reduce the natural amenity and rural character of the area**, which is highly valued by local residents.

Our quality of life as well, we enjoy the quiet peaceful countryside, that's why we're here. – Neighbouring Landholder

Gulgong residents chose to live here. For many of us, it is the beauty of the extensive views of its hills, forests and open grasslands, filled with domestic and wildlife that we enjoy. It is our Sydney Harbour, or Pittwater or Bondi or Blue Mountains. For other residents it is the rich agricultural land that supports their rural lifestyle. – Gulgong Community Group

Flirtation Hill is known in the project area as a key vantage point with extensive views to the north near Gulgong and would think this would be a likely community concern, also if either project could be seen from the town of Gulgong itself people would be concerned about that. – Mudgee Community Group

Infrastructure projects in people's backyards in regional NSW is equivalent to building a shopping centre on top of your house in Sydney – people from the city think that all this open space and land is vacant and unused, people think there is no one here and its sparsely populated, when in fact the community is strong, widespread, and the land is our livelihood. – Mudgee Community Group

Recent experiences with other renewable energy developments in the area located close to main roads and townships, has resulted in increased concern in this regard, particularly for those community groups who advocated for the Project to be removed from public view as much as possible. One broader community member also commented that any visual screening implemented as a mitigation measure should be of a height that will reduce the visibility of infrastructure, incorporating large, native vegetation that could support biodiversity objectives such as habitat creation for threatened species.

We already have Beryl Solar Farm which I can see, Stubbo solar farm has been approved. If Tallawang goes ahead it will be another, and then there is Vena too. The planning process is supposed to put a hold on the projects for cumulative issues, but I don't think that's happening here. All these projects are within 12km of the town. – Neighbouring Landholder

The solar farm at Wellington is horrible and so close to the road. Why do they have to build them so close to a main road? I'm sure they can find many other properties that are viable and away from the roads. – Gulgong Community Group

Wind farms and solar farms are not attractive. Why do they put them so close to a town? It will always cause angst for the town. They should find somewhere else or build a grid somewhere else. – Gulgong Community Group

The Wellington Solar Farm had all the same studies done as you're describing, it got approved and built, and now everyone who passes by says 'who let this happen?'. I am worried that the same thing will happen to Gulgong. – Neighbouring Landholder

Neighbouring landholders held concerns for their immediate property, stating that solar panels may produce **glare**, potentially reducing the social amenity and rural character for residents overlooking their pastoral landscape (impacts on sense of place are further discussed in **Section 3.7**).

Generally, the sun tracks over the house as its sets to the west. I believe the proposed solar panels are single axis tracking the sun, in the afternoon the panels would face towards the house, gradually aiming more directly as the sun lowers to sunset. – Neighbouring Landholder

Glare of the panels is a concern, plus all the other equipment, even if they absorb the sun and don't reflect, they rotate each day and there is other infrastructure there too that could cause glare. – Neighbouring Landholder

Our best views from the house are from the south, so this project is highly concerning, we don't want to see the landscape change at all, this was a key reason for buying the property. – Neighbouring Landholder

Social amenity concerns were also raised by four neighbouring landholders relating to the potential for **noise and dust due to construction activities**. Disruptions to social amenity due to **operational noise** was frequently raised by broader community members (23) at community information sessions. One landholder also indicated heat irradiance from solar panels as a potential concern in the longer-term and another stakeholder stated having further transmission lines traverse their property as a concern. Several stakeholder groups recommend screening the Project Area with trees or alternative mechanisms to reduce the visual impacts on nearby residences.

3.1.2 Protection of Flora and Fauna

Concerns were raised by stakeholders in regard to the potential identification and displacement of locally important **flora and fauna** and intersecting of wildlife corridors. However, not all stakeholders noted negative impacts, instead highlighting the potential opportunities the Project may facilitate including protection of livestock via more secure fencing and development of other Project infrastructure, as well as the potential dual use of land – energy generation and agricultural production.

Over thirty different species of native fauna live on or have visited a 6-hectare Gulgong rural property in 2020 alone. Such wildlife coexists with grazing animals, such as sheep, horses, alpacas, and cattle. Welcome to country NSW and our biodiversity, this is valued by residents and visitors to our area. – Gulgong Community Group

Impact on Grassy Box Woodlands; there is not much remaining so attention needs to be given to preserve what is left. – Mudgee Community Group

The fencing of this land for solar and wind will destroy wildlife corridors, nesting and feeding habitats for decades and possibly destroy whole ecosystems. – Gulgong Community Group

Bad for native animals and birds, will change topography of land and may have ongoing effect due to the sheer amount of land being used for renewables. – Community Information Session Feedback

Strong and secure fencing around the solar farm provides protection [of livestock] from wild predators (foxes) and remaining grazing land/pasture underneath panels, as well as shelter by the panels would provide an ideal lamb nursery for sheep farmers. – Mudgee Community Group

With the Tallawang Solar Farm, are the panels able to be raised for sheep to graze under? - Dunedoo Community Group

The projects being in the average countryside is fine, providing the locals get a benefit, keeping them away from National Parks and places of rare ecological value. – Gulgong Service Provider

One broader community member also commented on the potential for vegetation screens to enhance the natural environment through the incorporation of native species to provide nesting hollows and food for wildlife.

3.1.3 Land Use Changes

Feedback from community groups, local councils, and members of the broader community at community information sessions also raised the issue of **conflicting land use** between land for agriculture and renewable energy generation, as described below:

Productive land is a shrinking resource due to infrastructure development across the state, power lines, energy projects, gas, and water pipelines etc. etc. in Australia arable land is already highly limited. – Mudgee Community Group

Land use changes - valuable farming land is being taken up by renewable energy, instead of placed in areas less viable for farming. – Community Information Session Feedback

Competing land use and displacement of agricultural production was highlighted as a key concern, given that multiple developments are being approved in the region, with community groups and local government citing the need for community benefits and opportunities to offset any potential negative impacts. Further, Local Government representatives reiterated these concerns, advocating that any new developments must promote a sustainable local economy (further discussed in **Section 3.1**), and stated the need for an EIS to include a more in-depth assessment of the agricultural impacts of renewable energy projects.

Agriculture, mining, and tourism are strong industries in the region, already quite a diverse local economy, people here value and respect these industries a lot. The question for us and for many in the community is how do the renewable energy projects fit in with this existing economic mix? – Local Government

The fact that farmland can't be used as it is today if it is to be developed for renewable energy – raises issues around the displacement of the agricultural industry. The industry and local people feel threatened by this. Because of this an agricultural impact assessment needs to be part of the SEARs for renewable energy projects, Council has issue that it is often not taken seriously, when really this is the core issue with these projects. – Local Government

There is a widespread concern of the number of solar farms in planning in the region, when they're all added together it is a lot of land that they are occupying and taking away from the agricultural and farming industry. – Local Government

Context is there are currently 14 SSDs within 100km of Mudgee in the pipeline, if [they] all came together and coordinated efforts to common issues, then issues would be more likely to be alleviated and opportunities realised. – Local Government

We get concerned about the environmental and social impacts of all these developments. We will still get the visual impact and the fact that all these projects are located in a cluster, we need to feel the positive effects/opportunities of them. – Dunedoo Community group

The NSW Government Guidelines for large scale solar farms specifically mention visibility and topography, residences, agricultural land use and cumulative impacts as key issues in site selection. The nearby Wellington Solar Farm was approved despite fronting a major arterial road, in close proximity to Wellington township, on rich red farming country and in an area with many existing/proposed solar farms. – Neighbouring Landholder

3.1.3.1 Community Identified Strategies

Several mitigation and enhancement measures were noted by consulted stakeholders to address the above matters and specifically to facilitate the Project's co-existence with agricultural land uses, including:

- RES to commission or undertake research into multipurpose land uses involving renewable energy generation, across other projects in Australia or using the Project as a case study or pilot project
- Exploration of feasible agri-solar opportunities i.e., RES to facilitate improved understanding and investigation on the co-location options with agriculture, "with the end goal of sustaining the livelihoods of farmers and their families"
- RES to consider and explore options for future land use in the event of decommissioning the solar farm to understand the likelihood of continued use of the land for agricultural purposes in the future
- Landholder agreements not to include any restrictions to neighbouring properties' farming practices
- Need for open and transparent engagement with RES in the development of the Project to bring about support for agricultural pursuits near the Project. It was suggested that through strong consultative processes, there would be a higher likelihood of the Project realising co-existence of both agriculture and renewable energy projects.

3.1.4 Decommissioning and Rehabilitation

Three community groups and three neighbouring landholders also raised the issue of **infrastructure disposal and environmental rehabilitation at the end of Project life**, with community groups particularly concerned that RES along with other renewable energy developers have not set aside resources or plans for future site rehabilitation.

When all the infrastructure is removed, what happens to it? – Dunedoo Community Group

So, what happens to them? They just become landfill? – Gulgong Community Group

Many countries and jurisdictions, including Victoria, have declared solar panels as e-waste. Lithium batteries and some components of wind turbines contain toxic substances...potentially risk contamination of our air, water and land. – Gulgong Community Group

Hard for land to go back to agriculture following a solar project coming to its end of life. – Mudgee Community Group

To show confidence in your ability to undertake the full restoration of our environment in 20 to 30 years' time will RES put an appropriate annual amount into a trust fund, held by a third party, for that purpose? – Gulgong Community Group

Developers give guarantees for decommissioning however this remains to be seen how good they are. If solar farm projects or their owners go bankrupt, who is responsible for the cleanup? Where is the money being put aside for this? – Neighbouring Landholder

Wind and solar farms have been approved on assurances that when they are decommissioned the site will be rehabilitated to its original condition. Yet no bond money has been set aside for this purpose. – Neighbouring Landholder

There has been no indication of how and where the solar panels will be disposed of, the assumption at the moment in the community is that they will be pushed into the ground further polluting the landscape and making the agricultural land unusable in the future. – Neighbouring Landholder

3.1.5 Energy Transition

A positive impact of the Project acknowledged by members of the community was the transitioning **away from traditional energy sources such as fossil fuels, reducing carbon emissions and the impact of greenhouse gas emissions on the surrounding environment**. However, one community group expressed concern that although renewable energy projects typically reduce global carbon emissions and temperature change, there is the possibility that emissions may be released during the Projects' construction phase, through the transportation of materials and over the course of the Project life.

Reducing greenhouse gas emissions is a means to limit the increase in global temperatures. Taking into account all the emissions created to mine, process, manufacture, transport and construct your Tallawang and Barneys Reef projects, what will be the embedded carbon dioxide equivalents in your projects at the time of commissioning? A major purpose of renewable energy generation projects is to reduce carbon dioxide emissions so as to limit/reduce global temperatures. By how much will your projects affect global temperatures during their lifetime? – Gulgong Community Group

The number of truck movements during the solar works is stated as 70 to 130 per day. Each return trip from the Port of Newcastle to Tallawang is over 600km. How much diesel fuel in total will be used just for these truck trips? – Gulgong Community Group

One broader community member preferred wind energy to solar, stating that wind projects are more efficient and less weather dependent than solar panels, who rely on sunshine.

A key problem I have with these Projects and the whole REZ is that they are dependent on weather conditions. Solar farms only generate during the day, and the cost of batteries just don't make sense. Whereas wind averages out through the day and still generates power at night, so don't need as much storage. This is why I feel differently about wind to solar as a practical energy source. – Broader Community Member

3.1.6 Water Access and Use

Lastly, two community groups expressed concern relating to the **amount of water used** for the Project during construction and operational phases, whilst another provided suggestions to improve water conservation within the community as a shared benefit amongst impacted landholders.

Water is a precious commodity for the survival of our population. How much water will your projects need for construction (e.g., dust control, concrete production, equipment cleaning) and when in operation (e.g., panel cleaning)? – Gulgong Community Group

Huge amounts of water are required to clean the panels to ensure they are producing energy at maximum capacity; how are those amounts of water planned to be supplied in an area that has other significant solar farms in the area when there are daily dust storms covering the panels and the community are struggling to have enough water available for consumption by livestock and the local population – Community Information Session Feedback

Water for livestock is always needed in this area, this is always a need of rural farmers/properties but is particularly apparent since the recent drought. Some properties/areas around Tallawang and Barneys Reef don't have groundwater access at all, or it is very low levels. This could be an idea that RES could consider, in thinking about ways to bring benefit to nearby landholders, to set up or fund a communal water source/access for the area. – Mudgee Community Group

One broader community member also queried how the construction of non-permeable surfaces will impact surface run off and another raised concerns about creek contamination.

What happens with drainage when you cover the landscape with non-permeable surfaces? – Broader Community Member

I don't have a clear idea of situation, concern for visible pollution, noise dust ground contamination as well as the worry of contamination of my creek – Broader community member

3.1.7 Traffic, Noise and Road Safety

The increase in traffic volumes on local roads and associated noise during construction was a concern for neighbouring landholders and nearby residents, with one landholder particularly concerned that the cumulative impact of road traffic would affect them most directly.

I use that road at least twice daily, as well as traffic coming past our place, as generally it is a quiet highway. Noise from the road during construction is a concern. – Neighbouring Landholder

The traffic impact in real terms is not just from RES project point of view. Although RES estimates 700 vehicle movements per day, if you assume Vena calculate the same traffic movement than the real impact is not 700 but actually 1400. – Neighbouring Landholder

How often would trucks use Pagoon Road? – Neighbouring Landholder

Will noise and traffic on the highway caused by the project activities be an issue that will in turn affect us? E.g., noise from construction, more traffic on local roads/highway. – Neighbouring Landholder

The Mudgee-Gulgong Road is a constant stream of cars during peak times each day, already highly utilised, Gulgong-Ulan Road has up to 2000 vehicles per day of people going to work at the mine - how will the project affect this and avoid making it worse? – Gulgong Community Group

One community group stated the Project could impact on the **condition of local roads**, with one landholder holding safety concerns relating to increased workforce and construction traffic. Several other community members raised concerns for the safety of local road users due to the Project's construction activities and the potential increase in heavy vehicles on public roads.

Road pinch points could be a safety concern. Lays Creek Road is scary to turn out of as it is due to the crest/hill, as there's only about 100m of sight. – Neighbouring Landholder

Council is interested and concerned about the effect on public roads that traverse through the Warrumbungle Shire – any damage or change in conditions to roads caused by construction needs to be discussed to better understand how to fund and manage any maintenance e.g., the Merotherie Road and Golden Highway intersection and where they come into Warrumbungle Shire.
– Local Government

Positive benefits of the Project identified by neighbouring landholders included **contributions to local Council to maintain and improve the road network** which in turn would benefit the community. Road improvements were perceived as a strong local enhancement of the Project.

Promote the district as making a positive contribution - better maintained roads. – Neighbouring Landholder

3.2 Local Livelihoods

When considering the impacts on people's livelihoods, or ability to sustain themselves through employment or business, several themes were raised by those consulted (**Figure 3.4**), including both positive and negative impacts associated with:

- The economic sustainability of rural towns hosting the Project, relating to the increased business and service provision capacity, as well as the prospect of ongoing tourism
- The potential changes to property values due to proximity of the Project
- Local employment, procurement, and training opportunities.

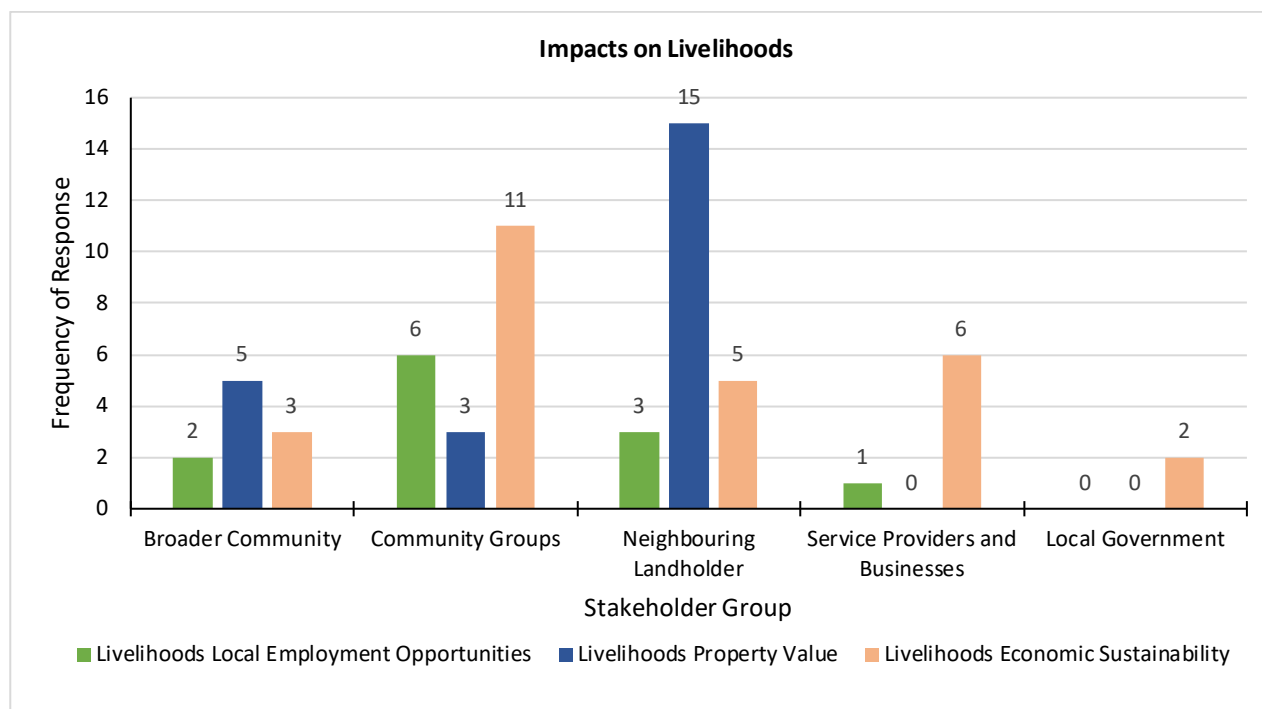


Figure 3.4 Perceived Impacts on People's Livelihoods by Stakeholder Group

Broader Community (n=202), Community Group (n=29), Neighbouring Landholder (n=21), Service Providers and Businesses (n=15); Local Government (n=2) Multiple responses allowed.

Source: Umwelt (2022)

3.2.1 Economic, Social and Township Sustainability

Some community groups and service providers expressed their support for the Project, reporting the positive benefits of **boosting the local economy through increased procurement, contracting and commercial activity**. One community group suggested the influx of the Project's workforce could encourage people and their families to stay in the area, **increasing the population and securing ongoing social and economic sustainability for small towns** such as Dunedoo, Coolah, and Gulgong.

We need more infrastructure projects. I would like to see them go ahead. We need all we can get, anything to help the district. – Dunedoo Community Group

If we can get a few more children in the school and more young families in the town it would be great. There are four school buses every day and they're only half full, we need more children to fill the buses and school. Need more families in the district. – Dunedoo Community Group

They [solar farms] don't do any harm, the local coffee shop makes a fortune out of them - he's been able to buy more property from the proceeds. – Accommodation Service Provider

There were noted benefits of the construction workforce bringing employment and **local trade to small businesses**.

Employment benefit to local Industry and small business. – Neighbouring Landholder

Current take-away and eat in food outlets would be impacted for the better...longer opening hours for some of these would be a good thing. – Service Provider

Very helpful for business owners as people will bring business for accommodation places and local restaurants, as some are shops are closing right now. Even after construction there will be maintenance technicians who will also come to the town. – Accommodation Service Provider

They would be good for the region and help to build the local economy. – Real Estate Provider

Whilst the Project is proposed within the Mid-Western Regional Council LGA, community groups also held strong concerns for the **economic sustainability of surrounding towns** in proximity to the Project within the neighbouring Warrumbungle Shire Council LGA, such as Dunedoo. Community groups would like to see equal benefit sharing across the LGAs to sustain the livelihoods of those in close proximity to the Project.

Our relationship with projects in the past for Projects outside our Council area has not been great, and we don't have confidence in our Council making sure that the benefits are coming our way, so how will this work for Dunedoo to receive benefits from the projects? – Community Group

Nearby and adjacent landholders will want to know what's in it for them, there are going to be winners and losers. – Mudgee Community Group

The Dunedoo community is also very reliant on Gulgong and Mudgee for services and recreation. Even though they are in another Shire, they are more connected with the Mid Western Regional towns. – Local Government

Whilst some near neighbours to the Project perceived potentially cheaper electricity prices as a positive impact of the Project, many consulted stakeholders were concerned that no tangible **decreases in energy prices** would occur because of the Project, with electricity generated to be supplied elsewhere across the State.

Potentially cheaper power. – Neighbouring Landholder

The public message that the power to be generated from the projects is a benefit to the consumer...there is a real distaste to hearing it's for the 'city' when it's actually this community who experience it and live with it. – Mudgee Community Group

There's no recompense, no money off our power bills. All we get is an eyesore. Equitable benefits? What will the community get out of it? – Gulgong Community Group

As Gulgong is a historic town, continued tourism was an important and valued aspect of the town's continued economic sustainability, but two neighbouring landholders held concerns that the industrialisation of the area would **decrease tourism opportunities**, particularly for Gulgong. A key feature of the Gulgong township is its historic heritage, and several stakeholders suggested the Projects' proximity to town would impede its historic value and attraction, as the historical nature of the town is greatly associated with residents' sense of place and social attachment to this area.

We want to keep tourists coming for the long-term, so projects need to make sure they don't push away visitors as they won't return, and this doesn't help our community long-term (as the project's workforce is only short term anyway). – Gulgong Community Group

Solar farms industrialise the area which affects tourism as a sector – the area will be losing its ambience and will not be considered as attractive for visitors even from along the highway. – Neighbouring Landholder

At a national level, one community group was concerned that the **infrastructure components required for the Project would be sourced overseas** and that the Australian economy would not benefit from the Project's development.

From which countries will all your major components (solar panels, turbines, inverters, steel, transformers, battery packs etc) be imported? What percentage of your combined projects' capital costs will be Australian content? – Gulgong Community Group

To ensure continued economic sustainability for small towns surrounding the Project, stakeholders suggested several measures that could be implemented by the Project. Suggestions included the encouragement of employees and contractors to spend locally, targeted procurement of local businesses and services, funding for local infrastructure and programs and sponsorship of community events and for RES to encourage the workforce to buy locally e.g., at restaurants, grocery shopping in Gulgong and Dunedoo, rather than Mudgee.

Persuade their workers to spend their money and time in the town. We have a hotel and a motel and half a dozen eating places to cater for them. The more the merrier. – Dunedoo Community Group

Developer to purchase locally, when possible. – Neighbouring Landholder

Capital investment to improve telecommunications, fund environmental programs, education, training and increased services of all kinds in rural areas. – Dunedoo Community Group

Supporting the local economy and especially major regional events. – Service Provider

If they provide support to things the local area is lacking. Real support. – Service Provider

Further suggestions included the establishment of an independent community committee to provide a forum to share community concerns and aspirations on a regular basis, advertise the Projects' community benefits, and for community members to be involved in developing community initiatives such as youth training programs and individual property compensation and infrastructure improvements.

We need an independent group, as I don't believe that our Council (Warrumbungle Shire) would have the capacity to run this properly. An independent community-run panel would give us a voice in the process and would help ensure local benefits are coming to the Dunedoo community. – Dunedoo Community Group

Some people might be hesitant; you could advertise all the beneficial impacts in the Gulgong Gossip. – Accommodation Service Provider

Sponsorship for the annually held and well community supported Art Unlimited event. – Accommodation Service Provider

Incentives for youth to stay in rural areas. – Dunedoo Community Group

3.2.1.1 Community Identified Strategies

Several opportunities to improve the physical and social infrastructure of local towns was suggested, including:

- Road and trail access route upgrades that can be used by local road users and walkers in the long-term
- Local schools, children's playgrounds, as well as road upgrades which would benefit school bus routes
- Improvement of sporting facilities, or junior sporting groups
- Capital investment for an aquatic centre to provide activity for children, tourism, injury rehabilitation and the elderly
- Water infrastructure for communal access to water for livestock
- Capital investment for a medical practitioner or facility that would attract medical personnel to Gulgong
- Capital investment for aged care service in Gulgong
- Capital investment in Gulgong social housing
- Upgrades to Adams Lead, including fencing and improved accessibility.

Furthermore, stakeholders surveyed suggested the implementation of a community benefit sharing scheme to provide opportunities for the local community to connect, with suggestions including:

- Neighbour benefit programs, such as through provision of a pool of money to be distributed amongst adjacent landholders to ensure broader benefits are experienced in the locality
- Capacity-building or resourcing support for local environmental restoration and protection groups and programs, including possum and bird boxes, weed control and restoration works for community-owned nature reserves
- Support for local Aboriginal businesses, targeted Aboriginal community programs and local social enterprises
- Heritage and Environmental walk from Flirtation Hill to Adams Lead with educational signage displayed at varying points to showcase key features and interpret Wiradjuri cultural areas.
- Sponsorship of local sporting teams
- Sponsorship of community projects, e.g., Gulgong Gossip Kid's Corner; treasure hunt throughout local reserves for families
- Facilitate or support decarbonisation efforts by residents and landholders.

3.2.2 Effect on Rural Property Values

During the scoping phase, 23 stakeholders stated concerns regarding the potential devaluation of property values for nearby properties and the associated inability for people to continue agricultural operations on their properties. These concerns were again expressed by nine neighbouring landholders, three community groups and two broader community members consulted during the second round of consultation.

Those who raised property values as a concern perceived the loss of visual and social amenity as the root cause of any potential property value decreases. Consequently, the potential for future saleability or ability to secure financial accessibility via bank loans, was perceived to be an impact of the Project. Throughout the consultation period, two neighbouring landholders indicated plans to sell their properties in the near future.

Risk of property devaluation as a result of the development detracting from view and recreational enjoyment of the property. The devaluation to property prices will be dramatic, especially as our property is for lifestyle, not agriculture. It's simple logic, who wants a solar farm across the road from their dream home, would you buy or find something else? – Neighbouring Landholder

If we go to sell in the future, who will want to buy it? – Neighbouring Landholder

I would think it would shoot property values in the foot. Changing property values and lifestyle but won't get the money you want for the land if they want to sell. – Gulgong Community Group

Ratio of equity to value of their land, if the value of land goes down then my equity in the land goes down, therefore won't have the same opportunity to get loans or financing for pasture or equipment improvements for the farm into the future. – Mudgee Community Group

Property devaluation was also a concern for broader community members who attended community information sessions, receiving the most negative sentiment amongst attendees, with perceived flow on impacts to sense of community if long-term residents leave the area

It's all well and good to say that there's no impact to property values, but by the time we'll know for certain it'll be too late. – Community Information Session Feedback

With families who have been in the area farming for generations moving away, the price of land will be significantly devalued making it cheaper to purchase and more available, no one wants to live in the area where they have to view the abominations that are planned for the projects so the local community will decrease in size and contribute to killing a small rural town. – Community information session feedback

3.2.3 Local Employment and Training

Several community groups and neighbouring landholders welcomed the potential **positive benefits of employment generation** that the Project would bring to the community during its construction period, however there were suggestions that these employment opportunities would significantly decrease once operations commence. Therefore, the long-term economic benefit of the Project for hosting communities and the rural towns was perceived to be significantly reduced post construction.

Being a small town, most people work in Mudgee, if these projects come near the town, there could be more employment for the local people, and they would not have to travel 30km out of town to go to Mudgee. – Accommodation Service Provider

Giving more jobs to the community would be good. When the farm is built, there will be jobs but after it's finished all the jobs will go. – Neighbouring Landholder

Your projects require very few full-time local personnel for operations. Do you agree that Gulgong receives very little, if any, employment benefits once the projects are operational? – Gulgong Community Group

Neither bring any long-term economic benefit to local communities because the labour requirement for their operation and maintenance is very low. – Neighbouring Landholder

Jobs offered in short term but not long-term, which isn't a good thing about these projects. Also, there is not huge unemployment in this area, we already have lots of jobs in agriculture or mining. There are more jobs than people to fill them, so projects will have to compete for workers or bring them in. – Neighbouring Landholder

Despite recognition of the proponents' commitment to employ locally, several stakeholders were sceptical that this would be achieved, given the **levels of unskilled labour within the region** and the experience of other developers in the region having to seek employees and contractors from further afield.

Most developers talk about employing people locally, but no one knows anyone who has actually got a job. – Local Government

Specialised skills are needed for these projects, that just won't exist in the area and therefore 'out of towners' are going to be a part of this project – even though some local people have been frustrated and even opposed to some other solar or wind projects in the area recently for bringing in labour

e.g., backpackers to construct the farms; local people for the most part just won't fit the bill in this way. – Mudgee Community Group

Local Government outlined the need for **clear Project information primarily associated with workforce and construction requirements** to better understand the local and regional benefits or constraints of the proposed Project.

Provision of detailed information from the developer to Council and other stakeholders on the workforce requirements of each project. If we had more info on the workforce profile, job types and breakdown, peaks and troughs etc/Council could be better part of the solution and support the bringing together of industry as well as local businesses and job seekers to get job ready. – Local Government

With the accommodation, if we knew how many people would be coming in from outside the region and what job grades, then we can work with our local providers to ensure they have adequate supply to meet the project's needs. – Local Government

Two community groups and one local government representative suggested the Proponent could consider **upskilling workers** to increase the employability of locals or consider the appointment of school leavers or those suited to unskilled roles, or through the provision of apprenticeships or training programs in partnership with local schools in the region.

Are there opportunities for upskilling of the community? – Local Government

Have you got something that unskilled workers could be provided e.g., the kids from local schools in years 10, 11 or 12 could get these jobs? Give the children looking for trades in specialised areas the skills required for these jobs. – Dunedoo Community Group

Would be great for RES to consider supporting local apprentices during the construction periods, even if just a handful of people, these construction periods are huge opportunities for young trainees to skill up and get experience and build the local skills base, they could even be employed in maintenance moving forward. – Mudgee Community Group

3.2.3.1 Community Identified Strategies

As such, proposed mechanisms to bolster employment opportunities in the local region, were suggested by stakeholder groups consulted, including:

- Implementation of school-based partnership programs
- Proactive support for the establishment of programs that encourage and incentivise skilled workers to remain in the region or to otherwise relocate to the region
- RES to provide structured opportunities for workers to specialise, re-skill or upskill
- Implementation of an employment strategy before construction commences.

3.3 Community Participation and Decision-Making Systems

A strong focus on public participation, **engagement and community-level decision-making abilities** was evident during consultation, particularly from community groups (refer **Figure 3.5**) who sought to ameliorate cumulative impacts of multiple renewable energy developments across the region and other major development e.g., mining operations.

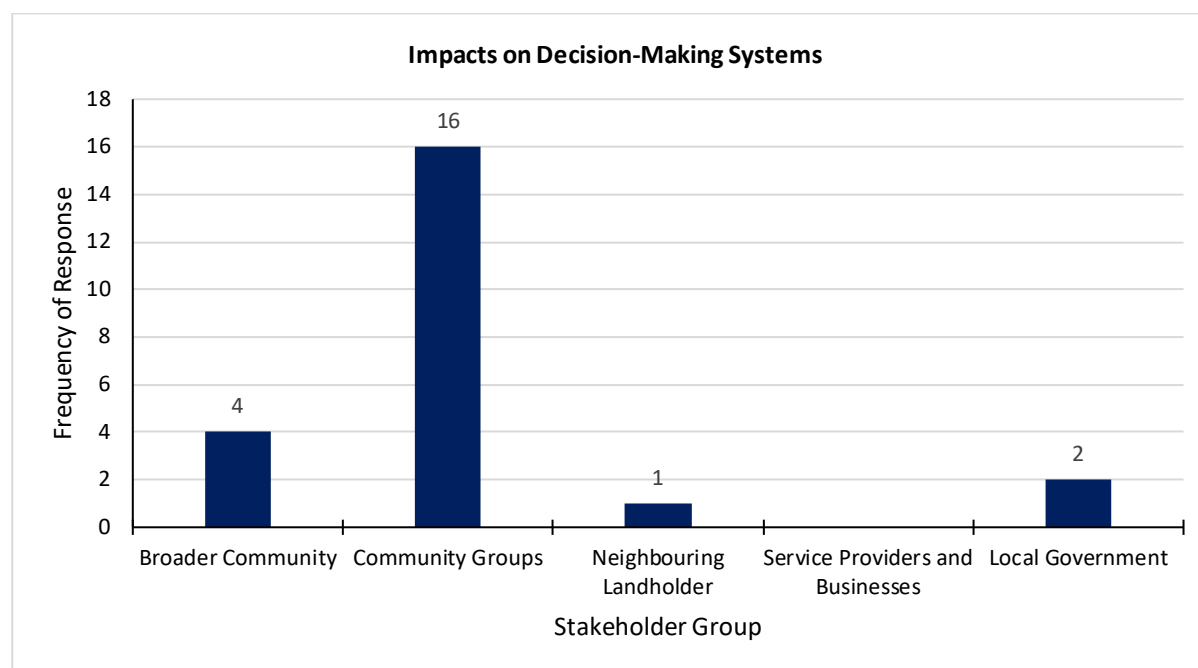


Figure 3.5 Perceived Impacts on Decision-Making Systems by Stakeholder Group

Broader Community (n=202), Community Group (n=29), Neighbouring Landholder (n=21), Service Providers and Businesses (n=15); Local Government (n=2) Multiple responses allowed.

Source: Umwelt (2021).

There was a concern that local stakeholders do not have **enough power in the decision-making process** and that the community must rely on the proponent to effectively disseminate information regarding the Project and to effectively engage with the community.

Concern that we need extra support to tell the community about the Projects. People here have no idea, and it can be quite over their heads. People need to be informed and we need this involvement. We don't have any paid community workers in the area to focus on leading the community on these types of situations. – Dunedoo Community group

We are all volunteers and stretched with our time to be able to go on more volunteer committees. We do want to have input, but reality is that we are already at stretch point. Dunedoo has a population of 800, 3/4 of whom are elderly or on some form social welfare. The people you want, and that our town needs on the committee are 'volunteered out'. Hopefully I'm wrong and another box isn't just ticked with 'community engagement sought'! – Dunedoo Community Group

Consultation on this project has been very poor, actually I had to contact the Developer after seeing the Scoping Report online on 2/9/2021. Consultation has now improved. – Neighbouring Landholder

I just feel it's unfair that the negatives always fall in the lap of people who have to put up with it. We never get a say. They just buy up the land and they don't give much consideration to people living around the land that have to stay there. – Gulgong Community Group

In regard to the VPA issue and Council having more control than the community – this is not unique to this Project but is happening across the Central West. What power do you have as a developer to ensure that decision making occurs largely by the community / community groups? Council do need a seat at the table, but can developers be stronger to push for more community voice? – Dunedoo Community Group

Community groups strongly advocated for RES to provide **open and honest feedback** to the community and to encourage regular **two-way communication** between the company and its Project stakeholders.

The most important thing for RES to focus on as the project planning proceeds is open and transparent information and consultation with feedback and responses looped back to the community after project milestones reached, people need a platform to be heard on projects like this, otherwise scepticism grows, and it can breed quickly. – Mudgee Community Group

Stakeholder identification was also raised as a key concern, suggesting that some groups are under-represented in the consultation process and that engagement programs for the Project need to consider and be cognisant of other events ongoing within the community. For instance, the community's recent experience of bushfires and drought has taken an emotional toll and as a result the community's resilience to the proposed Project and willingness to engage in the consultation process, may be reduced or depleted.

For an example of what not to do, look at the Inland Rail Project, all over regional NSW they only consulted with directly affected landholders and no one else, they only see the project as having impact on host landholders... and so because of this they have created a whole lot of distrust, perceived deal making with some people over others, perceptions of distrust can cause a lot of damage between people long term and cause obviously problems for the project too. – Mudgee Community Group

With all the environmental issues we have had recently (e.g., drought, fire etc.), the community is exhausted and may not be willing to provide as much input as they may have in the past. – Dunedoo Community Group

In contrast, one community group expressed their appreciation that RES had taken **a proactive approach to their engagement activities** and would like to see this continue as the Project progresses through its assessment process, including the involvement of multiple stakeholder – their views, experiences, values, and concerns. In addition, community groups felt that RES' proposed model, to operate the solar farm post construction was a positive way to continue engagement practices and positive relationships at the community level.

Refreshing to hear that RES has an open mind when it comes to understanding and consulting with the local community. RES is smart to say we aren't coming with solutions but is consulting to be able to listen and understand local issues. Attempting to or successfully contacting the neighbours from this early stage one on one is huge - really positive. – Mudgee Community Group

Each individual business and property in this part of the world are different and need to be understood for their particular cases. – Mudgee Community Group

Relief that RES start and finish the Project. – Dunedoo Community Group

As outlined in **Section 1.7**, RES have held various community information sessions to inform the broader community of Project updates. **Figure 3.6** below shows consultation occurring at the Dunedoo Show on February 12th between RES and local community members.



Figure 3.6 Community consultation occurring at Dunedoo Show on 12 February 2022

Source: RES (2022)

When proximal landholders were asked how they would like to be engaged, and remain informed of future Project updates, email (7) and phone calls (7) were the preferred options. Some landholders also liked to receive mail out newsletters (4) and the option to have on-on-one meetings (3).

3.3.1 Community Identified Strategies

When stakeholders were asked what management or enhancement strategies would increase the decision-making systems available to the community, several opportunities were offered, including the establishment of a community-led consultative committee, frequent consultation to encourage open, honest and transparent two-way communications with stakeholders, and provision of information relating to technical assessments provided to local repositories, such as libraries and museums.

Long-term sustainability of communities to include representatives from the Warrumbungle Council, Mid-Western Regional Council and the community. – Dunedoo Community Group

We would like RES to have open, transparent and sincere dealings with landholders and neighbours. We would like RES to encourage innovation and creativity when discussing community benefit funds. – Mudgee Community Group

It would be good if a copy of the historical heritage and Aboriginal Heritage Assessments were donated by RES to the Dunedoo Museum, to have on hand. – Dunedoo Community Group

We would like to see the project approach landholders and the broader community with a perspective of support and positive engagement with the region – that RES is ‘value-adding’ to our region. – Mudgee Community Group

Project messaging and sharing of plans was also considered important to stakeholders, in particular, how the Project would connect to the electricity grid, reasons for site selection, consideration of individual or case-by-case mitigation to neighbouring or proximal residents based on engagement outcomes, and the implementation of a Social Impact Management Plan, should the Project be approved.

Suggest that messaging on the project should emphasise access to the grid and the convenience of the sites' locations to the TransGrid new line to help create awareness in the community of how it all works. – Gulgong Community Group

Important to demonstrate reasons behind decisions for developments such as alignments and routes as well as site selection and understanding of strategic and important land from the developers' side is important for community and stakeholders to understand. – Mudjee Community Group

Mitigation needs to be to the individual property and their specific issues or needs - this approach will avoid major opposition to the project. – Mudjee Community Group

3.4 Changes to Community Cohesion and Character

It was identified during the scoping phase the potential of the Project to cause **distributive inequity between landholders** – those who receive financial gain from hosting project infrastructure, compared to neighbours who live on or own land adjacent, and do not personally obtain any benefit from the Project. These concerns, however, were not raised during further consultation with stakeholder groups, and instead, concerns centred around the loss of the areas' rural and historical character, as well as changes to the social fabric and values of small communities, being potentially compromised by an incoming Project construction workforce.

Stakeholder concerns raised have been associated with a potential **loss of the community's character and its cohesion between members**, as reflected in **Figure 3.7**, with one respondent expressing that the incoming workforce could increase the population and positively contribute to the social and economic stability of the community (as discussed in **Section 3.2.1**).

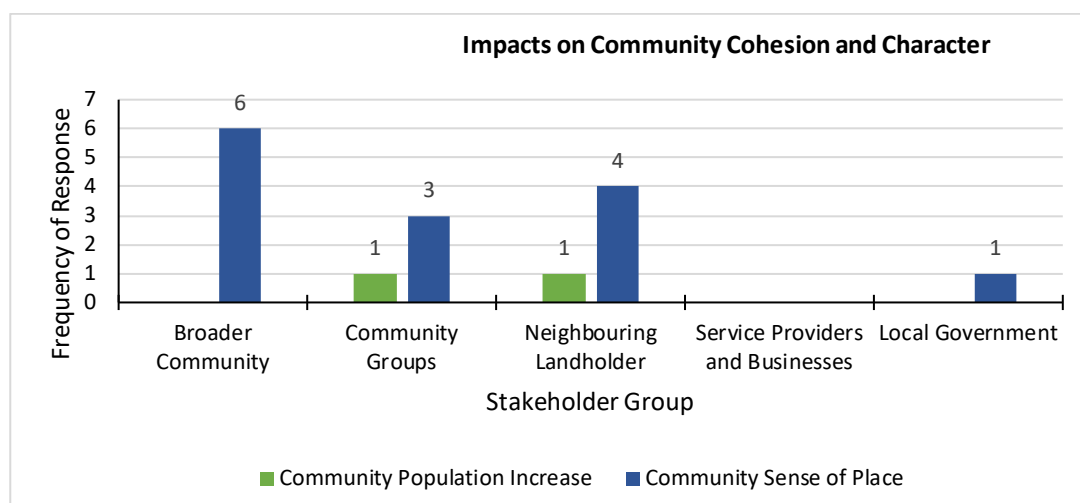


Figure 3.7 Perceived Impacts on Community Cohesion and Character

Broader Community (n=202), Community Group (n=29), Neighbouring Landholder (n=21), Service Providers and Businesses (n=15); Local Government (n=2) Multiple responses allowed.

Source: Umwelt (2021).

Some stakeholders suggested that encroaching and concurrent developments would change the social fabric of Gulgong, reducing its **historical value** and inhibiting opportunities for ongoing tourism to the area. One service provider, however, felt tourism may continue if construction workers brought their families to experience Gulgong and its historical elements, although this impact may be temporary. However, generally there was a desire for tourism values to be maintained and any impacts on the tourism industry managed effectively.

Some others I have spoken to in town are a little concerned for the town, due to the town being historical and it survives on bringing in tourism. There are a few museums here and they bring a lot of people through. – Gulgong Community Group

Both [projects are] within 7 to 12 kilometres of the historic heritage town of Gulgong NSW, would be massive industrial projects covering 89 square kilometres of our rural landscape. – Gulgong Community Group

Gulgong has many unique historical and natural attractions. Our landscapes are some of the most beautiful in the Central West. We attract many visitors, including from overseas, to our many festivals, events and surroundings. – Gulgong Community Group

We want to keep the tourists coming long-term, we realise the transient workforces are only short-term. – Local Government

Loss of tourism and damage to historical status of town. – Community information Session Feedback

It is a historical and quaint town and people come here for this reason. The town will lose a lot of its value, of driving into it past rolling hills and scenery. We rely on tourism a lot in this area. – Neighbouring Landholder

Brings tourism as workers may bring their families to see Gulgong. – Service Provider

Previous experience with other developments in the region was raised by a small number of stakeholders regarding the **incoming workforce**, with suggestions that Project employees would not **share the same values and respect for the area** as locals do and that anti-social behaviour could occur. However, there were aspirations to see local communities grow and prosper, by integrating the workforce for longer periods of time, not just through the construction period.

We expect social problems will be caused by the itinerant workforce – it being a FIFO type workforce, mainly male, who has to be accommodated somewhere locally, the situation is that young men want to go out and drink and party after work or on weekends, which can cause social problems for us and the towns. – Neighbouring Landholder

A few years back the mining sector wanted to build a worker's camp on the outskirts of Gulgong, the community rejected this due to the social problems it would cause us, and the situation now is that the mine workers are integrated in our community, they have bought houses, and live residentially, so how can renewables contribute to the community like the coal mines do? – Neighbouring Landholder

The thought of having more/new people out here, idea of having someone poking around our property when we're not home, things being stolen. – Neighbouring Landholder

There were big issues with backpackers and locals on the Beryl project during its construction, especially workers drinking after work in town, it became a big problem, locals vs. backpackers. – Neighbouring Landholder

There have been in recent years, serious police issues, violent and antisocial behaviour in the streets, drunk males at the pub after work starting brawls and damaging our public parks on the weekends. – Local Government

Council has worked closely with mining companies in the past, over more than a decade since the mining boom, on jointly addressing local issues associated with workforce behaviour and the strain on local towns/services. Council has an expectation that any new development would operate with the same good faith as the mining companies. – Local Government

Local Government reiterated these concerns and suggested that the proponent consider maintaining the social and rural amenity surrounding the Project by adopting the approach undertaken by mining workforces who actively attempt to integrate into the community; whilst service providers suggested that RES host Project open days to encourage interaction of the community and workforce and to improve tourism opportunities for Gulgong in particular. Proposed strategies to reduce impacts on sense of community were also noted as illustrated below, based on community experience with other industry sectors.

Wearing uniforms around town is common, high vis shirts and labels on cars connecting to the solar projects, contrast with mining workers who have a policy to remove uniforms and car badges before going out in public. There are a lot of lessons that could be drawn from this sector and how far they have come with historically a lot of the same issues – Local Government

Invite the families of workers to see their workplace (open days) so the whole family comes to stay in town and have lunch and spend locally - creates more money for town and might encourage future tourist activity from these families, or even encourage families to move to the area – Service Provider

Lastly, the cumulative impacts of **several proposed or recently developed renewable energy projects** together with the existing mining and agricultural sectors has been raised as causing a rapid rate of change across the region, primarily affecting local communities. This significant change and the associated cumulative changes caused by this activity was mentioned by several respondents (n=18), with this issue having a greater emphasis in the second round of consultation.

Cumulative effects perceived to be experienced by communities included examples of how major projects have previously caused **community division, reduced levels of social cohesion, and mistrust amongst residents**. There was also a view amongst some groups that the rate of development currently being experienced may cause an increased level of opposition to major projects and large-scale development in general across the region.

Cumulative effects of renewable developments in our area. There is another solar farm in Dunedoo and there are other wind farms in the pipeline near Coolah. – Dunedoo Community Group

Would be very concerned if multiple projects (not just the RES wind/solar farm) were developed at the same time or immediately after. – Neighbouring Landholder

As also indicated in the feedback received from the scoping phase, some stakeholders saw **individual benefits** of the Project, should the Project be hosted on their property directly and welcomed financial compensation for this involvement, to either improve their property or diversify their household incomes. Others however saw individual gain by some would likely be perceived as disadvantaging others and could potentially cause division within the community.

Personal financial gain - Improve our property; Improve our ability to look after local wildlife. – Community Information Session Feedback

Both create schisms in local communities in that the people who host these projects benefit financially, whereas their neighbours suffer both a loss of visual amenity and the consequent fall in property value. – Neighbouring Landholder

Several consulted neighbouring landholders highlighted their skepticism in **the government's approval process** to mitigate the cumulative effects of multiple developments being approved in the region. This distrust has developed from stakeholder's experiences with mining approvals in the past and associated impacts of acquisition and land use conflict, as well as the proposed developments of several other renewable energy projects currently undertaking planning approvals.

In relation to the rollout of REZs the community needs to have confidence that the planning decisions made are well researched and optimized for the benefit of all NSW citizens. This may be difficult in the Central West given previous planning outcomes. [In the case of] the Cobbora Coal Mine, despite testing that revealed poor coal quality and water supply issues, the State government compulsory acquired farmland (44,000 ha) at inflated prices for this project. Residents (80 families) were evicted, and their lives thrown into turmoil. An attempt was made to on sell the project to private enterprise, but this failed. Eventually and only quite recently it was decided that the land would be sold back to farmers. There is now a proposal to build a major transmission line through this area making it ideal for wind and solar farms. – Neighbouring Landholder

Cumulative impact may not be adequately regarded by state regulators assessing the projects. – Neighbouring Landholder

Community groups broadly highlighted the **ongoing negative effects of previous development approvals** in the region, adding to the level of concern for the approval of the proposed Project.

The town [Coolah and Dunedoo] has already been struggling for the last 20 years to survive, especially with our recent history with the Cobbora Mine project. – Dunedoo Community Group

A lot of people are in a bad place right now because of other projects especially around Wellington and Dubbo. – Mudgee Community Group.

3.5 Accessibility to Housing

Accessibility to housing/accommodation for construction workers was raised as an area of concern by various consulted stakeholders (n=16), (refer to **Figure 3.8**), identifying the Project's potential to cause strain on local accommodation and housing market (both affordability and availability) due to the potentially large number of incoming or transient workers.

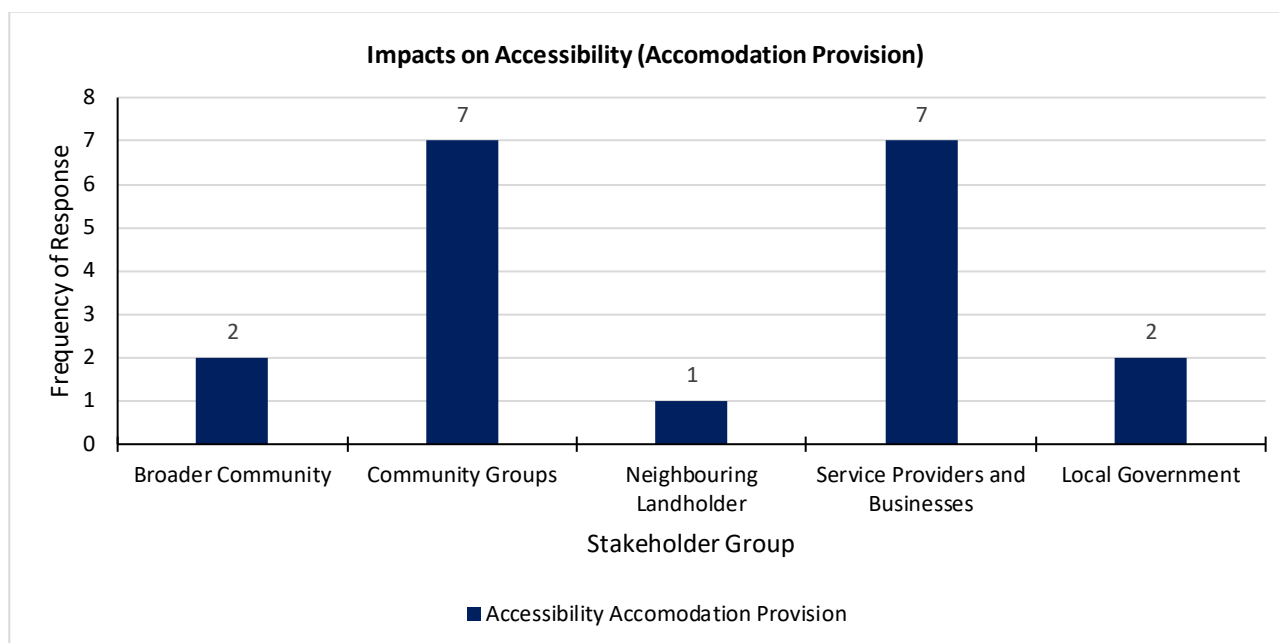


Figure 3.8 Perceived Impacts on Access to Accommodation by Stakeholder Group

Broader Community (n=202), Community Group (n=29), Neighbouring Landholder (n=21), Service Providers and Businesses (n=15); Local Government (n=2) Multiple responses allowed.

Source: Umwelt (2021).

Respondents noted that demand for accommodation in the area is already high from tourism and other industry e.g., mining, and that additional pressure on service provision could limit access for other users or may compete with the tourism sector.

In smaller rural communities such as Dunedoo, it was noted that local businesses would benefit from accommodation beds being utilised by the Project as much as possible, despite there being limited availability, particularly if the workforce were able to room-share.

Concerns were also centered on the ability of small townships to accommodate the workforce of multiple developments concurrently, and the potential for multiple projects being developed at the same time, impacting continued tourism to the area. This matter was raised by the Mid-West Regional Council as a priority, who sought for the Project to consider a comprehensive workforce accommodation strategy.

Accommodation occupancy is usually at full capacity in numerous towns. These businesses are doing well. We have seen a significant shift from what previously only weekend visitors was to now it is busy all week every week. – Local Government

People are putting their money in housing. Coolah and Dunedoo houses are sold to people in the cities sight-unseen, but all of that money is going out of the towns – it's having a big impact. A wind farm would increase this as more people start buying up cheap houses and providing cheap rent, but that money doesn't stay in town. – Dunedoo Community Group

Think you will find that there isn't a lot to rent in town. – Dunedoo Community group

We will have a housing and accommodation shortage within the region whilst the solar farms are being built. This was an issue whilst the Beryl Solar farm was being built and that was a significantly smaller project. – Real Estate Service Provider

Dunedoo accommodation became more expensive and in Coolah this will become a bigger issue with all these windfarms. It is already difficult to get workers on farms and it will become more difficult if people can't afford to live in the town. – Dunedoo Community Group

Mines don't provide housing for contracted workers, they have to source themselves, so often Ulan contractors sleep in Gulgong, in the caravan park, as it's closer than Mudgee, so both towns experience a mix of tourism and mine worker influx to the accommodation providers. Wellington Wind Farm used company-owned units to house works – Mudgee Community Group

Dunedoo is on the Central West Cycle trail. Pre covid we were getting 20-30 cyclist coming through a day looking for accommodation – Dunedoo Community Group

Will the projects risk pushing out other users? Beryl solar farm pushed out a regular biker group who bring in \$40k in their visit to Gulgong town, other community groups were unable to hold their events and big reunions as all accommodation in town was fully booked for the year, this really disappointed people. – Gulgong Community Group

Stakeholders consulted would like the Project to consider accommodating the construction workforce within the smaller communities nearest to the Project to ensure localised benefit, before extending service provision to the larger regional towns, such as Mudgee.

Dunedoo and Rylestone should be considered for workforce accommodation, Dunedoo could definitely do with some business for the hotels and pub, and they are so close. – Neighbouring Landholder

More workers accommodated in Gulgong before Mudgee. – Service Provider

There were concerns however, that smaller communities such as Dunedoo, did not have the adequate capacity to accommodate an incoming workforce, which could potentially increase the accommodation and rental prices, because of low capacity and high demand. One stakeholder suggested that the Project consider the development of a worker's village to accommodate its workforce; however, others believed that workers camps could cause reduced levels of community cohesion (see **Section 3.0**). In addition, accommodation providers described instances of accommodation misuse, with transient workers in the past leaving accommodations unkept or encouraging groups to congregate, producing anti-social behaviour and safety issues, which in turn has affected the wider community within the town.

If the demand for accommodation is high, this may push up the rental prices, which will please the landlords but not the tenants so much. – Accommodation Service Provider

Bringing in dongas may be an option at the showground as they have toilets and showers, but you would have to talk with the show committee. – Dunedoo Community Group

Sometimes those who are long term start to misuse the rooms e.g., they start to treat it like home and do not keep the rooms in a clean condition. They become complacent and leave the place in a condition that we need to shampoo carpets and increase cleaning and also start to disrespect the place as a whole, they can become territorial and disregard other guests. – Accommodation Service Provider

3.5.1 Community Identified Strategies

Potential mitigation strategies identified by consulted stakeholders regarding access to housing and accommodation included the provision of specific workers quarters, the implementation of a workforce code of conduct, outlining the roles and responsibilities of employees and contractors being accommodated locally, the implementation of an accommodation strategy in place before construction, and RES to consider property acquisition to appropriately house workers during the construction period.

*Could look at would be purchasing housing to help alleviate pressure on short-stay accommodation.
– Local Government*

Ulan Green Zone/Village Green is a nearby FIFO worker camp that was set up for the mine – maybe RES could look at using this as it helps take contractors out of town. – Gulgong Community Group

RES could provide cultural awareness training to staff regarding accommodation providers and rules of conduct when representing the company. – Accommodation Service Provider

3.6 Community Health and Wellbeing

Relating to people's health and wellbeing, the potential increase in **levels of anxiety and stress** that the Project may bring for nearby residents was raised across both rounds of consultation, largely due to the fear of the unknown, the uncertainty of impacts, and a feeling of losing control over the future and local surroundings.

Landowners and residents feel a lot of stress and anxiety due to projects like this, the uncertainty, loss of control over their futures and surroundings, the degree of unknowns etc. It causes loss of sleep at night and can cause tension within interpersonal relationships. Projects like this can tear people apart. – Mudgee Community Group

I am personally aware of increased stress and anxiety among local landholders in the area because of these projects, as result many see no other option other than giving up and walk away. – Neighbouring landholder

Already have been cause considerable stress and anxiety from lack of consultation, not knowing what to expect, fear of having the rest of my life ruined as this is my long-term home and I chose this lifestyle for a reason, which will now be negated. – Community Information Session Feedback

Are there any medical effects of this electric infrastructure? EMFs etc. – Neighbouring Landholder

Furthermore, some neighbouring landholders and broader community members were concerned for the **increased chance of fire** that could heighten the public safety risk for nearby residents because of the siting of solar panels and transmission infrastructure close to residential dwellings. Some residents raised concern that their proximity to the proposed Project may increase their personal **insurance premiums** due to increased bushfire risk.

Only worry is the potential fire hazard and the risk that would have on us, but understand there will be barriers in place, so not a real issue. – Neighbouring Landholder

Grass and bushfires are a frequent event in our region. The 2017 Leadville-Dunedoo fires showed how a small fire can result in extensive destruction and loss of life. Your proposed projects will cover 89km² of grassland and bushland. Recent experience shows that solar plants, wind turbines, batteries, and infrastructure (transmission lines, invertors, transformers, etc), cause fires despite efforts to mitigate these risks. – Gulgong Community group

Insurance premiums on properties might go up with a solar farm next door due to the fire risk associated with it on our house. – Neighbouring Landholder

3.6.1 Community Identified Strategies

Mitigation and enhancement measures were offered by consulted stakeholders to address the matters associated with fire, including:

- Bushfire reduction via weed management and inclusion of a 20-metre-wide buffer of mowed land before the roadside.
- Funding and partnerships with the local rural fire brigade and emergency services.

3.7 Aboriginal Cultural Values and Heritage

Local Aboriginal community groups and traditional owner organisations consulted shared their general interest and concern for:

- Land rights, land uses and land management
- Preservation of cultural sites and traditional practices
- Cultural connection to Country
- Community support programs and representation of Aboriginal people in the local area.

The need for traditional owner organisations and Aboriginal parties to be involved in any local road upgrades associated with the Project was raised as a matter of importance, in order to undertake Aboriginal cultural heritage monitoring and land surveys.

Preservation of cultural sites / places, awareness of cultural connection to Country and traditional land use practices. – Mudgee Community Group

It was also described that there is a high expectation of developers and operators of large-scale projects in the region to support or provide resourcing for the continued and improved delivery of **local community programs**, and that the level of social acceptance of projects are linked to the approach companies take to working with, and **sharing benefits** with, local communities.

During further consultation, three consulted community groups spoke enthusiastically about the protection of sites of Aboriginal cultural significance. One broader community member stated having local knowledge of several significant Aboriginal stories relating to historical events, specifically regarding the local Coxon and Bowman families and a historical event involving an Aboriginal man being shot at Barneys Reef.

There were also a number of bushrangers at this time with a history of violence toward the local Aboriginal community which was described to be still very vivid in people's memories today. For instance, Registered Aboriginal Parties (RAPs) involved in the Project's Aboriginal Cultural Heritage Assessment (ACHA) orally recounted the story of Sam Poo, a Chinese bushranger, who went on a rampage in the area after shooting a constable, John Ward, at a deserted goldfield nearby Barneys Reef. Station owner, James Plunkett, found Ward and he was taken to Birriwa station where he died and was buried. An Aboriginal tracker named Harry Hughes volunteered to help hunt for Poo, ending in a gunfight. It was described that this historical event is known amongst the community and contributes to Aboriginal people's connection to the locality.

4.0 Social Impact Evaluation

This section provides an evaluation of the social impacts identified in relation to the Project, with the aim of assessing the anticipated changes to the current social baseline, due to the Project proceeding.

Supplementary secondary insights have also been compiled to further contextualise, benchmark, and qualify the matters raised to inform the evaluation of each social impact.

As outlined in **Section 3.0**, a range of perceived social impacts have been identified in relation to the Project, that require prioritisation for assessment and appropriate management and/or enhancement. It should also be noted that social impacts are often not mutually exclusive, with higher order impacts such as population change, resulting in second order impacts such as impacts on sense of community and service provision.

As noted in the SIA Guideline, the definitions and scale assigned to each of the likelihood and magnitude categories need to be relevant to the impact that is being evaluated and justified in the SIA; and where possible the consequence scale should be based on established measures and standards. The evaluation of social impact significance has involved four main steps as outlined in **Figure 4.1**.



Figure 4.1 Social Impact Evaluation Process

© Umwelt, 2021

In line with the process defined above, the following sections assess the technical and perceived social concern/interest in relation to the positive and negative consequences that may be experienced by stakeholders due to anticipated impacts/changes associated with the Project and have been categorised in line with the social impact categories outlined in the SIA Guideline (DPIE, 2021).

4.1 Summary of Social Impact Evaluation

Table 4.1 presents a summary of the social impact evaluation with the justification and proposed management and enhancement strategies, further described in the following sub-sections. The colour blue has been used to represent positive impacts of the Project, with shades of orange and brown to indicate the negative impacts.

These have been discussed in more detail in **Sections 4.2 to 4.12**.

Table 4.1 Social Impact Assessment Summary

Social impact category	Project aspect	Social impact description	Duration	Extent/affected parties	Perceived significance ⁷	Significance rating ⁸			Mitigation or enhancement	Residual significance
						L	M	S		
Way of Life Surroundings Community	Project establishment	Project development to effect community environmental values causing change over time in how people experience their surrounds	Construction and operational phases	Neighbouring landholders and residents Aboriginal Stakeholders Special Interest Groups Community and Environmental Groups Broader Community	H	B	3	H	Explore options and formulate plans for future land use post-decommissioning Work with affected parties in development of Community Shared Benefit Strategy to ensure targeting of investment to local priorities Avoidance (as far as practicable) of higher value environmental areas within the Project Area. Adoption of mitigation measures, e.g. targeted vegetation screening and setbacks from public roads, to address potential impacts.	M
Way of Life Surroundings Community Livelihoods	Project establishment	Cumulative reduction in agricultural production due to multiple project developments could reduce levels of social acceptance of the Project and alter people's attachment to place and sense of belonging	Construction and operational phases	Neighbouring landholders and residents Aboriginal Stakeholders Special Interest Groups Community and Environmental Groups Broader Community Local Businesses and Service Providers	H	C	3	M	Formulate plans for agri-solar initiatives (dual land uses such as sheep grazing under the solar panels) ahead of Project operations in consultation with host and neighbouring landholders Collaboration and coordination with local stakeholders including other developers, local and state government, community groups and service providers in responding to community issues relating to REZ establishment Consultation with DPI Agriculture ongoing throughout Project establishment	L
Livelihoods	Project establishment and operations	Income generation received by host landholders may provide dual sources of income, bringing about improved outcomes for household income and resilience	Construction and operational phases	Host landholders	L	A	2	M	Community Shared Benefit Strategy to target initiatives to those most affected by the Project or living nearest to the Project	L
Livelihoods Accessibility	Construction of transmission line and switching station	Potential fragmentation of properties and/or restricted access to sections of properties could cause personal disadvantage	Construction and operational phases	Host and neighbouring landholders to transmission line infrastructure and switching station	L	D	1	L	Open and proactive engagement with nearby residents to ensure understanding of Project impacts on a case-by-case basis and target Neighbours Benefit Program accordingly.	L
Surroundings Way of Life	Project establishment	Project's role in the energy transition could contribute to improved social wellbeing outcomes over time for the wider population	Operational phase	Community and Environmental Groups Broader community Population of NSW	H	A	5	VH	Community Benefit Sharing Scheme to target community needs and priorities	VH
Surroundings Way of Life Community	Project construction and establishment of infrastructure	Visual changes to the rural landscape character may affect people's way of life and their sense of place	Construction and operational phases	Neighbouring landholders and residents	H	B	3	H	Targeted vegetation screening to be planned in collaboration with affected residents Project refinements and layout changes to be considered from perspective of those residential properties most sensitively affected by changes to the landscape such as layout buffers and setback from public roads	M

⁷ Level of concern or interest from the perspective of the affected party: L = Low; M = Medium; H = High; VH = Very High

⁸ L = Likelihood (A: Almost Certain, B: Likely, C: Possible, D: Unlikely, E: Very Unlikely); M = Magnitude (1: Minimal, 2: Minor, 3: Moderate, 4: Major, 5: Transformational); S = Significance rating (L: Low, M: Medium, H: High, VH: Very High) ; P: indicates Positive Impact.

Social impact category	Project aspect	Social impact description	Duration	Extent/affected parties	Perceived significance ⁷	Significance rating ⁸			Mitigation or enhancement	Residual significance
						L	M	S		
Surroundings Way of Life Health and Wellbeing	Production of noise and dust from construction activities	Increase in construction-generated noise and dust could cause disturbance and annoyance for nearby residents, affecting community or personal wellbeing	Construction Phase	Neighbouring landholders and residents	L	B	2	M	Construction management plan to embed standard work hours, as well as noise and dust suppressant measures where feasible Open and proactive communication with nearby residents to share information and generate awareness about construction activities and potential periods of disruption, including a responsive and easy-to-access community grievance mechanism Setback and buffers of Project infrastructure from public roads	L
Surroundings Way of Life Health and Wellbeing	Project construction	Construction-related traffic could cause an increase in personal disturbance caused by noise, a deterioration in road conditions, greater travel times, and heightened road safety risks, particularly when considered cumulatively with other major projects with overlapping construction activities	Construction phase	Neighbouring landholders and residents Broader Community	M	B	3	H	Traffic Management Plan to consider residents likely to experience direct effects, including vulnerable groups such as school children. Project to consider shuttle bus services to transport workforce to site each day in order to reduce number of vehicles on local roads. Coordination with Council, other nearby projects and other stakeholders to contribute to road improvement programs and jointly manage changes in road conditions caused by the Project such as through road improvements and upgrades to intersections at access points. Open and proactive communication with nearby residents to share information and generate awareness about construction activities and potential periods of disruption, including a responsive and easy-to-access community grievance mechanism.	M
Livelihoods Way of Life	Project construction	Project construction to contribute to increase in commercial activity for local communities and townships, increasing service capacity, economic, social and human capital for local communities	Construction phase	Special Interest Groups Broader Community Local Businesses and Service Providers Local Government	VH	B	3	H	Local Accommodation, Employment and Procurement Strategy to be developed prior to construction in consultation with local stakeholders and to target capacity-building and job-ready training	VH
Livelihoods Way of Life	Project establishment and operations	Community investment initiatives to improve social outcomes for beneficiaries and local communities	Operational phase	Neighbouring landholders and residents Aboriginal Stakeholders Special Interest Groups Community and Environmental Groups Broader Community Local Businesses and Service Providers Local Government	H	A	3	H	Ensure that Community Benefit Sharing Scheme is designed and developed in consultation with local stakeholders to target investment to local needs and priorities and cognisant of activities/efforts of adjacent projects and across the broader REZ	VH
Way of Life Community Accessibility	Construction workforce influx	Project construction will cause a temporary rise in the population which could cause an increase in pressure on local services and infrastructure and change the composition or character of the community	Construction Phase	Neighbouring landholders and residents Broader Community Local Businesses and Service Providers	H	B	3	H	Accommodation, Employment and Procurement Strategy to be in place pre-construction and to be developed in collaboration with local Council and stakeholders	M

Social impact category	Project aspect	Social impact description	Duration	Extent/affected parties	Perceived significance ⁷	Significance rating ⁸			Mitigation or enhancement	Residual significance
						L	M	S		
Livelihoods	Project establishment	Project establishment could affect rural property valuation trends and the ability for private property owners to buy or sell, particularly when considered cumulatively with adjacent proposed projects	Construction and Operational Phases	Neighbouring landholders and residents	M	C	3	M	Community Shared Benefit Strategy to target initiatives to those most affected by the Project or living nearest to the Project Open and proactive engagement with nearby residents to ensure understanding of Project impacts on a case-by-case basis and target Neighbours Benefit Program accordingly	L
Livelihoods	Project Construction	Employment generation through the Project's construction can improve personal livelihoods and broader community's human and economic capital over time	Construction Phase	Special Interest Groups Broader Community Local Businesses and Service Providers Local Government	VH	B	3	H	Accommodation, Employment and Procurement Strategy to include targeted and proactive initiatives to maximise local employment and sourcing from local communities such as through training, up-skilling and capacity building supports, in collaboration with local stakeholders and training providers, to improve job-readiness in the pre-construction phase of the Project	VH
Decision Making Systems	Project determination and establishment	Level of community acceptance of the Project could decrease if community consultation is reduced following Project determination	Construction and operational phases	Neighbouring landholders and residents Aboriginal Stakeholders Special Interest Groups Community and Environmental Groups Broader Community Local Businesses and Service Providers	H	C	2	M	Community Engagement Strategy to include consistent, transparent and proactive information provision and consultation with stakeholders throughout Project development	L
Accessibility	Construction workforce influx	Incoming Project construction workforce accommodated locally providing economic stimulus to service providers	Construction phase	Local Businesses and Service Providers	H	B	3	H	Accommodation, Employment and Procurement Strategy to be developed in consultation with local providers and other stakeholders ahead of the construction phase commencing Community Benefit Sharing Scheme to consider legacy initiatives targeting local housing provision	VH
Accessibility	Construction workforce influx	Incoming Project construction workforce may cause strain on accommodation and community services in local towns, affecting accessibility and affordability for other user groups and potentially effect usability for other industry sectors of tourism and mining Cumulative impact?	Construction phase	Neighbouring landholders and residents Aboriginal Stakeholders Special Interest Groups Community and Environmental Groups Broader Community Local Businesses and Service Providers Visitors / Tourists	H	B	3	H	Accommodation, Employment and Procurement Strategy to be developed in consultation with local providers and other stakeholders ahead of the construction phase commencing	M
Health and Wellbeing	Project establishment	Project development may increase stress and anxiety for proximal residents who feel uncertain about their futures and changes to their way of life	Construction and operational phase	Neighbouring landholders and residents	M	C	2	M	Community Engagement Strategy to include consistent, transparent and proactive information provision and consultation with stakeholders throughout Project development	L

Social impact category	Project aspect	Social impact description	Duration	Extent/affected parties	Perceived significance ⁷	Significance rating ⁸			Mitigation or enhancement	Residual significance
						L	M	S		
Health and Wellbeing Livelihoods Surroundings	Project construction and establishment	Physical health and safety effects on proximal residents due to the increased risk of fire and perceived health consequences of living near electrical infrastructure may contribute to people's stress and anxiety or reduce levels of community acceptance of the Project	Construction and operational phase	Neighbouring landholders and residents Aboriginal Stakeholders Special Interest Groups Community and Environmental Groups Broader Community Local Businesses and Service Providers	M	C	1	L	Emergency Management Plan to be communicated to proximal residents Community Engagement Strategy to include information provision and awareness creation on the actual impacts of electrical infrastructure on human health Inclusion of 10 Asset Protection Zone around the perimeter of the solar farm Consultation with Fire and Rescue NSW	L
Culture and Heritage	Project establishment and construction	Project construction and operation may disturb important Aboriginal artefacts and sites.	Construction and operation phase	Aboriginal Stakeholders	L	C	2	M	Protection of Aboriginal cultural values and heritage sites in line with the Aboriginal Cultural Heritage Assessment to ensure ongoing cultural awareness and connection to Country for Aboriginal people Community Benefit Sharing Scheme to proactively target interests and needs of local Aboriginal community	L
Culture and Heritage	Project establishment and construction	Disruption to buildings of local heritage significance, including a c.1900s weatherboard cottage and c.1870s hut	Construction and operation phase	Broader Community Heritage Associations and historians	L	C	2	M	Implementation of setbacks and exclusion zones around the heritage buildings, management of construction activities to ensure equipment with high vibration rating are not used within exclusion zones, implementation of an unexpected heritage finds protocol as part of environmental management policies for the Project.	L
Community Livelihoods	Project establishment and construction	Historical connection to Gulgong and surrounding localities could affect ongoing tourism trade and connection to place for residents	Construction and operational phases	Neighbouring landholders and residents Special Interest Groups Community and Environmental Groups Broader Community Local Businesses and Service Providers Visitors / Tourists	M	C	3	M	Community Shared Benefit Strategy to consider proactive partnerships with local tourism providers and development of tourism opportunities that the Project could generate or contribute to for the broader community Coordinated efforts with stakeholders across the REZ to support sustainable development of industry in co-existence with other key sectors	L
Community	Project establishment	Incoming construction workforce may decrease levels of community cohesion in townships and alter local relations, with multiple concurrent and nearby major projects potentially causing greater levels of community division	Construction and operational phases	Broader community Special interest groups Neighbouring landholders and residents	M	C	2	M	Accommodation, Employment and Procurement Strategy to consider targeted initiatives to appropriately manage workforce during construction period in collaboration with local stakeholders to manage social changes caused by the incoming population Multi-stakeholder liaison to ensure widespread integration and prioritisation of social acceptance across various projects and to jointly develop or contribute to local benefit scheme across planning and delivery of the REZ.	L

4.2 Population Change

Changes to population are fundamental impacts within SIA, given that the size, composition, and behaviours of a community are underpinned by its population and characteristics. Population change (influx and outflux) is usually described as a first order social impact which has the potential to create second order social impacts, such as impacts on community infrastructure and services, changes in sense of community, sense of place, social cohesion, and community networks etc.

An examination of the potential impacts of population change due to the Project's establishment has been undertaken, utilising established population change characteristics adapted from Burdge (2004). Burdge suggests that population change of greater than 5% in a local area is likely to result in a significant impact being experienced and as a result population change consequences are based on Burdge's threshold criteria.

Utilising workforce projections, existing ABS Census data relating to age, gender and household size, and assumptions in relation to source locations for the workforce, the following section provides estimates of potential population changes in the Mid-Western Regional LGA and Warrumbungle Shire LGA due to the Project. Population estimates are based on the assumptions that those migrating into the region for employment would be of working age and accordingly, population estimates relate to population statistics for those aged 64 years and under. For the operational workforce, the breakdown of expected migration assumes that workforce family demographics will conform to current population age distribution trends within the LGA.

In relation to population change, it has been determined that the Project could influence population change in a number of ways:

- As a result of an influx of the construction workforce (most likely temporary and non-resident) during the construction period only
- Cumulative temporary population increase when considering nearby projects with concurrent or overlapping construction programs
- As a result of an influx of a proportion of the operational workforce.

4.2.1 Construction Workforce

The construction phase of the Project is expected to last for a period of 34 months, with approximately 270 direct and 430 indirect FTE jobs generated over this period. At the Projects peak, which may last up to six months, it is estimated that approximately 580 jobs will be created. Construction workforces can typically result in specific social impacts to the communities in which they are housed, as construction work is often transient, and workers commonly do not bring their families. Given the nature of the work proposed and the timeframe of the construction phase, the following assumptions have been made:

- It is not expected that any proportion of the construction workforce coming in from outside the LGA will choose to permanently relocate to a community within the council boundary
- The workforce is likely to want to temporarily reside near the Project, as much as is practicably possible
- It is unlikely that families will accompany these workers in migrating to the area
- Construction workers that come from outside the region are expected to be housed in temporary commercial accommodation, or possibly rental properties (as required).

In considering the social impacts associated with the Project's construction workforce, **Table 4.2** summarises the population change estimates based on the three workforce scenarios, with the change representing the non-resident workforce.

A range of scenarios are presented to illustrate the extent of population change that may occur because of the Project, with Scenario 1 representing a worst-case scenario in terms of realising local employment and causing changes to the broader community, as outlined below:

- **Scenario 1** – assumes 80% of the workforce will migrate into the region
- **Scenario 2** – assumes 50% of the workforce will migrate into the region
- **Scenario 3** – assumes 20% of the workforce will migrate into the region.

Population change estimations are provided at a combined LGA level only, given there is insufficient data available to accurately model how the incoming workforce (both construction and operational) will be distributed within specific localities across in the LGA. However, available data on current townships of residence within the LGA and capacity of relevant housing/accommodation options (outlined in **Section 4.10**), has been considered to infer the communities where employees in the construction and operational phases could potentially be housed. Based on this data, comment is provided on the viability of each scenario given current availability of accommodation.

Table 4.2 Construction Workforce Population Change Estimates

Scenario	LGA Population Increase ⁹	Change (%)
80% Migration	464	1.35
50% Migration	290	0.84
20% Migration	116	0.34

At a combined LGA level, the predicted temporary population influx into the area of social influence has been assessed as a 1.35% population change (worst case Scenario 1) or less (Scenarios 2 and 3) and is consequently considered **a low social impact** (*likely but with a minimal magnitude*).

When considered in combination with the estimated peak construction workforce for the neighbouring Barneys Reef Wind Farm Project (of 245 workers), the predicted temporary population influx into the area of social influence would be a 2.4% population change (based on the 80% migration scenario), indicating that the cumulative effect of overlapping construction programs between nearby projects is likely to cause considerable social change to communities hosting the Projects during these years and is therefore ranked **a high social impact** (*likely to occur with moderate magnitude*).

Within the Mid-Western Regional LGA, a proportion of the current population are unemployed (approximately 6.3%) with a higher rate in the neighbouring Warrumbungle Shire LGA (7.9%) (ABS, 2016), which is higher when compared to the NSW average (6.5%). However, despite these figures, the size of the population centre of Mudgee (10, 923), which exhibits strong services and retail sectors, would likely be able to meet some needs of the Project. Engagement undertaken with service providers, businesses and local stakeholders has indicated that whilst tradespeople and construction workers from across the region would likely be interested in work on the Project, most locals requiring employment opportunities are unskilled and would need to be trained. The establishment of the REZ across the region in the coming years would likely generate an increased capacity and capability in local businesses, services and workers over

⁹ Considers both Mid-Western Regional LGA and Warrumbungle Shire LGA; a total current population of 34,345.

the coming years to meet some of the needs of the Project, consequently, it is likely that a small proportion of the proposed construction and operational workforces would be able to be sourced from within the area of social influence. Based on this, it is paramount that RES in consultation with local stakeholders and the construction contractor, consider proactive implementation of capacity-building initiatives in the pre-construction period to ensure that local workers and businesses have the opportunity and support to gain work on the Project.

4.2.2 Operational Workforce

During the operational phase of the Project, approximately 7 jobs are likely to be created; and it is expected that this workforce will permanently reside in the LGA. Given that the Project operational phase is expected to be up to 35 years, it is assumed that family members of workers who relocate from outside the LGA, would also move into the area. Given the low workforce numbers required to operate the Project, the social impact of operational workforce population change has been ranked as a **low social impact** (*likely to occur but with minimal consequence*) across all the specified scenarios.

Therefore, in considering population change associated with the Project, Scenario 2 (50% of the Project workforce may be sourced from within the locality, with 50% migrating into the area), is the most likely of the three operational scenarios assessed, assuming as noted above that a proportion of the existing population in the region may be likely to take up employment relating to the Project, based on the availability of suitable skill, qualification and experience. Scenario 3 is considered an aspirational scenario and will be dependent upon more focused strategies being put in place by RES to facilitate local employment and training.

Impacts and benefits relating to local employment and procurement is discussed further in **Section 4.8**, with impacts on access to community services or infrastructure are considered in **Section 4.10**. **Table 4.3** summarises proposed mitigation and enhancement strategies for the Project relating to population change.

Table 4.3 Summary of Mitigation and Enhancement Strategies – Population Change

Social Impact	Proposed Mitigation and Enhancement Measures
Project construction will cause a temporary rise in the population which could cause an increase in pressure on local services and infrastructure and change the composition or character of the community	Accommodation, Employment and Procurement Strategy to be in place pre-construction and to be developed in collaboration with local Council and stakeholders

4.3 Changes to Community Surroundings

Local community and special interest groups raised concern for the local ecological values potentially affected by the Project as well as environmental sustainability aspects of the Project, with particular concern for the **native flora and fauna** that may be displaced or unable to access wildlife corridors. Further, several stakeholders referred to the volume of land being used for numerous renewable energy projects and the subsequent cumulative disturbance to native flora and fauna (**Section 3.1.1**), with the removal of habitat and inaccessibility to wildlife corridors and breeding areas.

If all or most new greenfield developments across the REZ proceed to be developed over the decade, it is possible that major environmental change may occur, resulting in a high social impact for the region, as a result of the change in environmental conditions and landscape affecting local communities' sense of place and community values (as discussed in **Section 3.7**).

According to the Biodiversity Development Assessment Report for the Project (Umwelt, 2021), project design considerations have included the retainment of vegetation within the Project Area that provides connectivity to larger vegetation areas off site and the aerial foraging habitat of bird and bat species will remain. Therefore, the social impact significance for ecological communities in and around the Project itself is rated as **low** (possible likelihood with minimal magnitude).

Regarding **the perceived conflict in land uses**, stakeholders were concerned that agricultural productivity and the broader agricultural sector would be reduced due to the development of the Project, particularly when considered together with other projects recently constructed or proposed nearby.

The land of the Project Area today and surrounding land is predominantly used for livestock grazing and cropping, of which through consultation, almost all neighbouring landholders also confirmed active agricultural use of their properties at present. RES is currently considering options to continue sheep grazing beneath and around the solar infrastructure during Project operations, in coordination with the Project's host landholders. Land management practices during the life of the Project would also include pest and weed management to reduce Project-induced ecological and environmental impacts on the surrounds.

As documented in the Soil, Land and Agricultural Impact Assessment (Umwelt, 2021), the *Australian Guide to Agrisolar for Large-Scale Solar, for proponents and farmers* (Agrisolar Guide 2021) was prepared by the Clean Energy Council to guide the co-sharing of agriculture and solar farming in Australia, identifying a number of successfully trialled positive benefits including:

- Sheep would help control vegetation growth within the Project Area, reducing the need for mowing or spraying, which will reduce grass fire risks and costs associated with maintenance
- Animal welfare conditions are improved with the solar panels providing shade and protection from strong winds for sheep resulting in higher quality wool, and safety from predators through the installation of secure fencing.

As agricultural activities would be able to continue in some capacity throughout the life of the Project, with negligible impact of the Project on surrounding agricultural activities, the reduction of agricultural productivity of the Project itself has been rated as a **low social impact** (*unlikely likelihood with minor magnitude*). As noted in **Section 2.3**, soil tested from the Project Area identified the Land as Class 4 and 6, rather than Class 3 and 5 as assessed under the NSW Land and Soil Capability Assessment Scheme. This classification reduces the classification of the land from high capability (Class 3), to moderate capability (Class 4) and low capability (Class 6).

However, when considered cumulatively with the rapid rate of change currently being experienced across the region, understanding the high value placed on agriculture and food production for the region, and the numerous solar farms proposed or under development, the conflicting land use between agriculture and solar energy projects is considered a **medium social impact** (*possible with moderate magnitude*).

In addition, community groups and nearby residents were concerned regarding future land use at the end of the Project life, including the **disposal of infrastructure and environmental rehabilitation of the land**. It is understood that a Rehabilitation Management Plan developed in consultation with neighbouring landholders would ensure the land is remediated for agricultural production to resume upon decommissioning (Umwelt, 2021).

Water concerns were also raised by a small number of community groups, largely relating to the operational phase of the Project and its ongoing maintenance, with water understood to be used to clean the solar panels and for dust suppression at times of the year. Water insecurity and supply in the locality has been understood as an ongoing challenge for local farming operations and residents. During operations, approximately 3.4 ML per year would be required for ongoing maintenance activities such as washing of the PV solar panels, amenities and potable purposes by operational staff as well as for stock. Washing of the panels would not require any detergent or cleaning agents. Water would be sourced from commercial suppliers, treated wastewater if available, farm dams or licensed groundwater bores, or town water where appropriate. Water used for staff amenities and bushfire protection if required would be sourced from treated wastewater where available or from the town water supply. If such methods are adopted, the **social impact is rated low (likely with minimal impact)**, with sufficient water reserves still available to neighbouring landholders.

Given the large-scale of the proposed Project, the Project's contribution to the broader **energy transition** and reduction of carbon emissions is a positive impact of the Project that is rated as *almost certain with a major impact*, resulting in a **very high positive social impact**.

Table 4.4 summarises proposed mitigation and enhancement strategies for the Project relating to the Project surroundings and the community's environmental values.

Table 4.4 Summary of Mitigation and Enhancement Strategies for Community Environmental Values

Social Impact	Proposed Mitigation and Enhancement Measures
Project development to effect community environmental values causing change over time in how people experience their surrounds	Explore options and formulate plans for future land use post-decommissioning
Cumulative reduction in agricultural production due to Project development could cause reduced levels of social acceptance of the Project and alter people's attachment to place and sense of belonging	Formulate plans for agri-solar initiatives (dual land use) ahead of Project operations in consultation with host and neighbouring landholders, such as sheep grazing under the solar panels Collaboration and coordination with local stakeholders including other developers, local and state government, community groups and service providers in responding to community issues relating to REZ establishment
Project's role in the energy transition could contribute to improved social wellbeing outcomes over time for the wider population	Community Benefit Sharing Scheme to target local needs and priorities

4.4 Changes to Social Amenity

Given the aesthetic values associated with the rural surrounds of the Project, the visual changes to the landscape were raised as a key concern for near neighbours and community groups who have highlighted that the industrialisation of the landscape is a significant concern to people living nearby with other stakeholders concerned that the rural character of rolling hills, space and open pastures will be substantially reduced by the installation of extensive solar panel infrastructure.

Further, stakeholders near to the Project noted that their properties may experience glare from different vantage points throughout the day, as the solar panels track the sun. This was emphasised as likely to cause substantial change to people's experiences of their surroundings, their sense of place and their way of life, given the cumulative development of the Ballambi Heights Solar Project (commonly referred to by the community as 'the Vena Project') to the south and the proposed Barneys Reef Wind Farm Project to the immediate north.

The Project itself would be visible to residents along Puggoon Road, Whiston's Lane, Jacksons Lane, Castlereagh Highway, Lahey's Creek Road, Gingers Lane and from Flirtation Hill, affecting the visual amenity of approximately 27 residential dwellings (Envisage, 2021), as well as those using key roads between towns, therefore resulting in a social impact significance rating of **high** (*likely to occur with moderate magnitude*). Targeted visual screening such as through planting vegetation, and colour treating of specific infrastructure components with a dark colour will assist in reducing the Project's visibility (Envisage, 2021) and disturbance to the visual amenity of the rural landscape.

A small number of stakeholders also reported their concern for the potential increase in noise during the construction phase of the Project. This has been rated as *likely to occur with minor magnitude*, resulting in a **medium social impact** affecting nearby residents during the anticipated 34-month construction phase.

Dust emissions during construction are typically manageable through standard management measures, such as the application of water to minimise dust generation, particularly during adverse weather conditions. Therefore, dust emissions are *likely to occur with minor magnitude*, especially between winter and autumn months, resulting in a medium social impact.

Table 4.5 summarises proposed mitigation and enhancement strategies for the Project relating to social amenity.

Table 4.5 Summary of Mitigation and Enhancement Strategies – Changes to Social Amenity

Social Impact	Proposed Mitigation and Enhancement Measures
Visual changes to the rural landscape character can affect people's way of life and their sense of place	Targeted vegetation screening to be planned in collaboration with affected residents Project refinements and layout changes to be considered from perspective of those residential properties most sensitively affected by visual changes to the landscape such as layout buffers and setback from public roads
Increase in construction-generated noise and dust could cause disturbance and annoyance for nearby residents affecting wellbeing	Construction management plan to embed standard work hours, as well as noise and dust suppressant measures where feasible Open and proactive communication with nearby residents to share information and generate awareness about construction activities and potential periods of disruption, including a responsive and easy-to-access community grievance mechanism

4.5 Effect on Rural Property Values

As outlined in **Section 3.2.2**, the potential effect of the Project on personal property values was an identified issue of concern by neighbouring landholders and community groups, due to the predicted changes to the rural landscape and the proximity of the Project to private property and residential dwellings.

From a social perspective, the implications of perceived property devaluation has the potential to affect people's acceptance of the Project over time and their attitudes or views toward the Project. If actual property value reductions were to be experienced, this would cause potential reduction in people's livelihoods and financial stability, as well as affecting people's ability to plan and predict their futures, and possibly cause personal disadvantage amongst nearby residents to the Project.

The ABS Regional Internal Migration Estimates reported within the Economic Impact Assessment (Ethos Urban, 2021) suggests that regional areas across NSW, including the Mudgee locality, have been seen as popular “tree-change” opportunities for those leaving major cities during the COVID-19 pandemic. Migration patterns such as this may also contribute to property and rental price fluctuations due to low rates of housing availability (discussed in more detail in **Section 3.4**).

The NSW Valuer General *Report on NSW Land Values* (2020), states that in the 12 months prior to 1 July 2020, residential and rural land values for the Central Tablelands overall, including LGAs of Bathurst Regional, Blayney, Cabonne, Cowra, Lithgow, Mid-Western Regional, Oberon and Orange, saw an increase of 4.7% in residential land values and 4.9% in rural land values. Conversely, land identified for commercial land use saw a moderate decrease of 9.9% in Mid-Western Regional LGA (NSW Valuer General, 2020). A review of property data for localities surrounding the Project confirms that in recent years, property prices have been increasing. For instance, over a three-year period to 7 December 2021, the localities of Gulgong, Tallawang, and Beryl, saw a sharp increase of 15.4% in property and housing prices (SQM Research, 2021).

It is understood by the renewable energy industry nationwide that neighbouring landholders to projects have recurring concerns regarding the potential impact of project infrastructure on their property values (Office of the Australian Energy and Wind Farm Commissioner, 2020). While for the current Project it is too early to ascertain whether the social perception is consistent with the actual Project effect, it is understood that the effect of solar farm infrastructure establishment on property trends and the ability to buy or sell is possible, particularly when considered cumulatively with neighbouring projects proposed to be developed in the coming years. Therefore, impacts to rural property purchasing trends and values from the Project are considered *possible with moderate magnitude*, resulting in a **medium social impact**.

Conversely, income generation received by landholders hosting Project infrastructure may provide dual sources of income, bringing about improved personal outcomes for households relating to their income and resilience. This would likely be significant to these individual landholders and their families particularly during drought conditions, such as those experienced in 2017 – 2020 where agricultural production was minimal.

Table 4.6 summarises proposed mitigation and enhancement strategies for the Project relating to property values.

Table 4.6 Summary of Mitigation and Enhancement Strategies – Property Values

Social Impact	Proposed Mitigation and Enhancement Measures
Project establishment could affect rural property valuation trends and the ability for private property owners to buy or sell, particularly when considered cumulatively with adjacent proposed projects	Community Shared Benefit Strategy to target initiatives to those most affected by the Project or living nearest to the Project
Income generation received by host landholders may provide dual sources of income, bringing about improved outcomes for household income and resilience	Open and proactive engagement with nearby residents to ensure understanding of Project impacts on a case-by-case basis and target Neighbours Benefit Program accordingly

4.6 Traffic, Noise and Road Safety

Changes to local road use and conditions because of construction workforce traffic and the cumulative traffic increases likely from multiple developments in the locality was raised by participants during consultation. The expected change in traffic volumes were perceived as very high, with one stakeholder noting that 2,000 or more vehicles travel between Mudgee and Gulgong daily already, indicating that the key roads connecting towns in the area of social influence are already highly utilised. As documented in Samsa Consulting's Transport Impact Assessment (2021) undertaken for the Project, however, major road networks of the Golden and Castlereagh Highway were reported as between 780 and 1,540 vehicles, respectively, per day¹⁰. Volumes on local roads, Gingers Lane and Puggoon Road, are estimated to be less than 150 and 250 vehicles, respectively, per day¹¹.

It is expected that general heavy vehicle transport throughout the construction phase, will total up to 160 vehicle trips per day, with the potential to increase to 260 during peak construction periods (approximately 4 months out of the total 34-month construction period). An increase of 600 light vehicle trips per day (during peak construction) is estimated to be generated by the commuting construction workforce, assuming an average of two persons per car with the ability of employees to car-pool.

From a social perspective, the increase in traffic on local roads can cause changes to people's daily travel or commutes, such as an increase in trip duration, and a heightened risk of road incidents due to the greater number of vehicles, and in particular heavy vehicles, on local roads. Traffic-related noise can also be heightened for residential dwellings located within proximity to the road network, causing disturbance and/or irritation due to the personal change in one's social amenity. Further, an intermittent school bus service operates to and from Gulgong and transverses the primary site access location on the Castlereagh Highway for the Project. Traffic volumes are expected to be likely and have a moderate magnitude during school drop-off and pick-up times (8:00 am to 9:30 am and 2:30 pm to 4:00 pm), due to the possible cross-over with the start and end of the workdays. Reduced construction traffic movements during these times would be ideal to minimise conflict with these activities and to ensure the safety of vulnerable groups within the community. **Increased traffic volumes**, therefore, *are almost certain with a moderate magnitude*, resulting in a **high social impact**.

Should the neighbouring Barneys Reef Wind Farm Project be developed with concurrent construction timeframes, and/or the Ballambi Heights Solar Project to the south, **cumulative traffic volumes** relating to the construction traffic of each project require consideration and coordination. Therefore, the potential for **cumulative traffic changes** is also rated as a **high social impact** (*likely to occur with moderate magnitude*). A Traffic Management Plan will be developed prior to construction commencing to manage and minimise the Project's construction-related traffic impacts, as well as providing planning and consideration to the mitigation of cumulative impacts from other nearby projects.

¹⁰ Latest figures as at 2009.

¹¹ Latest figures as at 2009.

Road conditions were also a key concern raised by consulted stakeholders given the changes to traffic volumes caused by the construction of the Project, with road improvements considered a key enhancement measure that the Project is expected to be contributing to. It is recognised that road upgrades at the primary Project access point on the Castlereagh Highway would be required, in consultation with Transport for NSW and Council. In addition, upgrades to the rail crossing on Gingers Lane would be required to support heavy loads during the construction period and will require direct consultation with Australian Rail and Track Network (ARTC) to develop and finalise the works required. A pre and post dilapidation survey of road condition would ensure rehabilitation measures are effectively undertaken. As a result of rehabilitation works following construction, the road condition will result in a *likely and moderate*, **high positive improvement/impact**.

Table 4.7 summarises proposed mitigation and enhancement strategies for the Project as they relate to traffic, road noise and road safety.

Table 4.7 Summary of Mitigation and Enhancement Strategies – Traffic, Noise and Road Safety

Social Impact	Proposed Mitigation and Enhancement Measures
Construction-related traffic could cause an increase in personal disturbance caused by noise, a deterioration in road conditions, greater travel times, and heightened road safety risks.	Traffic Management Plan to consider residents who are likely to experience the most direct effects, including vulnerable groups such as school children, to be in place prior to construction activities commencing Project to consider shuttle bus services to transport workforce to site each day to reduce number of vehicles on local roads Coordination with Council, representatives of other nearby projects, and other stakeholders to contribute to road improvement programs and jointly manage changes in road conditions caused by the Project such as to include the intersection upgrades at Project access points to improve traffic flow onto the highway and road safety Open and proactive communication with nearby residents to share information and generate awareness about construction activities and potential periods of disruption, including a responsive and easy-to-access community grievance mechanism

4.7 Economic, Social and Township Sustainability

A positive benefit of the Project includes the potential for community investment, funding and sponsorships in order to contribute to the social and economic sustainability of the region, in particular for the smaller rural localities nearest to the Project, which was raised a strong concern for both local and regional stakeholders.

As outlined in the social baseline profile, the Mid-Western Regional LGA is predicted to experience weak population growth over the next two decades, particularly in the above 75-years age group, whereas the Warrumbungle Shire LGA is likely to experience population decline, both of which may potentially limit the economic stability of local communities within the area of social influence.

The Economic Impact Assessment (Ethos Urban, 2021) predicts that the Project will employ approximately 700 Full Time Equivalent (FTE) direct and indirect positions over the construction period and would invest approximately \$180 million to the region during the construction phase. It is expected that a proportion of construction workers would temporarily relocate to the area of social influence for the construction period with potential investment associated with this temporary workforce of approximately \$13.5 million through local spending and support for approximately 90 FTE flow-on jobs in the service sector. The Project would also provide procurement opportunities for local businesses and service providers during the construction phase.

Post construction, it is expected that local economic activity and flow-on social benefits would reduce with a small number of roles retained during the years of Project operations. The local economic activity that the Project would generate during construction bringing about improved service capacity and capabilities for nearby towns and communities, *is likely to occur with moderate consequence*, resulting in a **high positive social impact**.

The establishment of a Community Benefit Sharing Scheme would further ensure that the wider community realise social benefits from the Project throughout its lifecycle, with annual funding to be provided to local community organisations and programs (further discussed in **Section 5.2**). Should the project be developed, the local benefits expected through community investment initiatives delivered by the Project is considered *almost certain to occur with moderate magnitude*, resulting in a **high positive social impact**. This would be further increased through the cumulative benefit from other proposed renewable energy developments within the REZ and their associated community investment programs.

Table 4.8 summarises proposed mitigation and enhancement strategies for the Project relating to social, economic and township sustainability.

Table 4.8 Summary of Mitigation and Enhancement Strategies – Economic, Social and Township Sustainability

Social Impact	Proposed Mitigation and Enhancement Measures
Project construction to contribute to increase in commercial activity for local communities and townships, increasing service capacity, economic, social and human capital for local communities	Local Accommodation, Employment and Procurement Strategy to be developed prior to construction in consultation with local stakeholders and to target capacity-building and job-ready training
Community investment initiatives to improve social outcomes for beneficiaries and local communities	Community Benefit Sharing Scheme to be developed in consultation with local stakeholders with funding to be directed based on local priorities and needs

4.8 Local Employment and Training

Whilst employment opportunities were seen as a valuable contribution of the Project to the region, many stakeholders acknowledged that the availability of local workers may not be adequate to service the Project, particularly if other development projects were to commence construction activities simultaneously.

It is estimated that at the peak of construction, the Project would employ up to 580 workers, or as outlined in the Economic Impact Assessment (Ethos Urban, 2021), the Project would require a total workforce of up to 700 Full Time Equivalent (FTE) positions (270 direct and 430 indirect) and 7 FTE direct jobs required locally during Project operations.

Furthermore, the Economic Impact Assessment has determined that there are over 1,800 construction-related businesses and 12,050 construction-related workers across the area of social influence, as well as approximately 1,800 unemployed persons, indicating that there is a considerable labour pool to draw from for the Project and ample businesses and services to supply the Project through procurement. Competition for labour however is noted, with numerous infrastructure and construction projects in the region underway or in the planning stages of development (as per **Section 2.2.2**) as well as the strong mining, tourism, retail and services, and agricultural sectors already established across the region.

As outlined in **Section 3.2.3**, members of the community acknowledged that they would like to see RES formally implement local training and upskilling opportunities for school leavers and job seekers such as through apprenticeships or trainee programs.

Employment generation for local members of the community can bring about improved outcomes for personal livelihoods as well as more broadly over time can support the growth of human, social and economic capital for the broader community to provide lasting benefits to local communities even post the completion of Project works. In the context of the REZ, employment for residents on the Project's construction can contribute to improved skills diversification and personal capabilities, that can in turn support the development of the region in line with the growth in the sector over time. Employment and training opportunities offered through the Project's construction are therefore ranked as a **high positive social impact** (*likely to occur with moderate consequence*).

Table 4.9 summarises proposed mitigation and enhancement strategies for the Project relating to local employment and training.

Table 4.9 Summary of Mitigation and Enhancement Strategies – Local Employment and Training

Social Impact	Proposed Mitigation and Enhancement Measures
Employment generation through the Project's construction can improve personal livelihoods and broader community's human and economic capital over time	Employment and Procurement Strategy to include targeted and proactive initiatives to maximise local employment and sourcing from local communities such as through training, up-skilling and capacity building supports, in collaboration with local stakeholders and training providers, to improve job-readiness in the pre-construction phase of the Project

4.9 Community Participation and Decision-Making Systems

Social impacts relating to decision-making systems refer to whether people can participate in the planning process of a project or policy intervention and are able to make informed decisions about the changes that affect their lives. This includes whether people can meaningfully influence decisions, and their ability to access complaint, remedy, and grievance mechanisms. During consultation for the Project, members of the community raised several matters relating to the level of participation in decision-making systems, specifically:

- The perceived inability for community members to influence Project decisions and the inferred power imbalance between local communities, government, and developers/proponents
- Underrepresentation of some parts of the community within the consultation process or feelings of being 'missed' in the consultation process
- The level of willingness of community members to take part in the consultation process
- The level of clear Project messaging in relation to Project impacts and expected changes.

Several stakeholders also noted their distrust in the NSW Government's process of assessing the cumulative social and environmental impacts of multiple projects, as well as the broader change being experienced across the region. In this regard, there was a perception that the nature of assessment is subject to the individual merit of a project and that less emphasis is placed on the multifaceted and cumulative changes likely to be experienced by local communities.

Conversely, it was also suggested that the Project has so far demonstrated proactive and open engagement with a wide range of stakeholders, and that this should continue through the development process and into the construction phase. Where local communities and project-affected people are active participants of the change taking place around them, and where responses to community-level issues or interests can be directly observed and experienced, communities are more likely to hold greater levels of acceptance of a Project as it is developed and operated. Further, such a transparent and consultative approach to Project development can in turn lead to improved social outcomes where community voice is enabled and recognition of Project impacts upon people recognised and addressed. These factors when considered together are likely to bring about a more successful and sustainable project in the long-term.

Further, in response to local community and landholder feedback on land use changes to the immediate Project Area and its surrounds, numerous design and layout refinements have been made. These changes include the following:

- Siting of Project at a distance from Gulgong township, based on previous community responses to other solar farm projects in the local area not wanting large-scale projects to be visible from the town
- Transport and access routes to avoid passing through Gulgong township, to avoid heavy vehicle traffic from causing disruption within the town, based on previous community responses to other solar farm projects in the local area
- Site expansion to the south to include two additional properties, following initial consultation with neighbours who welcomed economic opportunities
- Site access direct from Castlereagh Highway rather than Pugoan Road, based on a request from regular users of Pugoan Road to minimise traffic impacts and avoid conflict with existing road users, including stock movements.
- Solar infrastructure setback of 500 metres including landscaping and vegetation buffering from the Castlereagh Highway, following a request from host landholders and residents opposite the proposed site access point to minimise the visibility of the Project from the road.
- Transmission line alignment has been shifted to the east to minimise the visual impact of the infrastructure for host landholders.
- Minimising the clearance of vegetation, whilst supporting ongoing agricultural land uses.
- Minimising work undertaken in watercourses
- Amendments to the Neighbour benefits scheme, based on feedback from the general community surrounding the idea that benefits should be realised by a greater number of individuals

Considering the above, impacts relating to the level of community acceptance of the Project due to the perceived ability that people have and maintain to participate in the Project's decision-making systems, is considered *possible to occur with a minor magnitude*, resulting in a **medium social impact**.

Table 4.10 summarises proposed management strategies for the Project relating to community participation and decision-making systems.

Table 4.10 Summary of Mitigation and Enhancement Strategies – Community Participation and Decision-Making Systems

Social Impact	Proposed Mitigation and Enhancement Measures
Level of community acceptance of the Project could decrease if community consultation is reduced following Project determination	Community Engagement Strategy to include consistent, transparent and proactive information provision and consultation with stakeholders throughout Project development

4.10 Changes to Community Character and Cohesion

A Project may also result in changes to community composition, cohesion, character, how the community functions, resilience, and people's sense of place. Impacts in this regard largely relate to potential effects on levels of social cohesion and changes to the community's character as a result of the incoming workforce, and due to the perceived over industrialisation of the local area, affecting people's sense of place and belonging in connection as a result of variation to the area's rural character.

The historical value of Gulgong in particular, was a key concern raised through consultation, with the community identifying tourism as a strong element of the local area's sustained economy, dependent on preserving and celebrating the historic character of the town amongst its rural surrounds.

Concerns relating to social cohesion related to potential conflict between the ideals or behaviour of the construction workforce and that of the existing community, which could also bring about changes to the fabric of the community during the Project's construction phase and potentially increase levels of anti-social behaviour and changes in local relations. This issue appeared to be emphasised as a result of stakeholder experiences of other solar farm projects, with large male-dominated workforces perceived by some to be incompatible with, or disrespectful of, local rural communities and towns.

However, it was also considered that the broader Mudgee and Gulgong communities have considerable experience accommodating and welcoming incoming transient workforces as well as visitors to the towns due to the prevalent mining and tourism industries.

It is also important to note that when considering the likelihood of multiple projects occurring concurrently, that such an issue could be further heightened, with local communities hosting a larger number of incoming workers at once.

Considering the above, the social impact significance is considered *possible to occur with moderate magnitude*, resulting in a **medium social impact**.

Table 4.11 summarises proposed mitigation and management strategies for the Project as they relate to changes in levels of community cohesion and character of the community.

Table 4.11 Summary of Mitigation and Enhancement Strategies – Community Character and Cohesion

Social Impact	Proposed Mitigation and Enhancement Measures
Historical value and connection of the Gulgong locality could be reduced by the Project's establishment, affecting ongoing tourism visitation and the local community's connection to place	Community Shared Benefit Strategy to consider proactive partnerships with local tourism providers and development of tourism opportunities that the Project could generate or contribute to the broader community (e.g., renewable energy tourism and educational programs for visitors to the area, or artwork on Project infrastructure) Coordinated efforts with stakeholders across the REZ to support sustainable development of industry in co-existence with other key sectors
Incoming construction workforce may decrease levels of community cohesion in townships and alter local relations, particularly in consideration of multiple concurrent development projects each with temporary populations residing in local towns	Accommodation, Employment and Procurement Strategy to consider targeted initiatives to appropriately manage workforce during construction period in collaboration with local stakeholders to manage social changes caused by the incoming population Multi-stakeholder liaison to ensure widespread integration and prioritisation of social acceptance across various projects and to jointly develop or contribute to local benefit scheme across planning and delivery of the REZ

4.11 Access to Housing and Community Services

Primary data was collected as part of this SIA relating to the current service capacity within the local commercial accommodation sector to gain an understanding of the current and future capacity constraints to support the housing needs of the construction workforce. In **Section 4.6**, it was assessed that a maximum of 290 construction workers (50% of the peak construction workforce) would require local accommodation to be able to access their place of work on the Project, or 412 people when considered in combination with the adjacent Barneys Reef Wind Farm Project.

Overall, all accommodation providers surveyed were comfortable accepting the Project's construction workforce, with many advocating for the Project to secure long-stay arrangements for the duration of construction phase with accommodation providers to ensure stability in supply and realisation of benefits locally. Real estate and accommodation providers surveyed also acknowledged the existing shortage of accommodation in Gulgong, Dunedoo, and other nearby towns, with all Dunedoo accommodation providers in agreement that the town has very limited accommodation available. Five accommodation respondents from Gulgong provided an estimate of the number of people who access their services per year (see **Figure 4.2**), with variability ranging between 1,000 to 10,000 guests annually. It is understood from the accommodation audit provided in **Section 2.9** of the social baseline profile, that there are approximately eight commercial accommodation providers in the town of Gulgong.

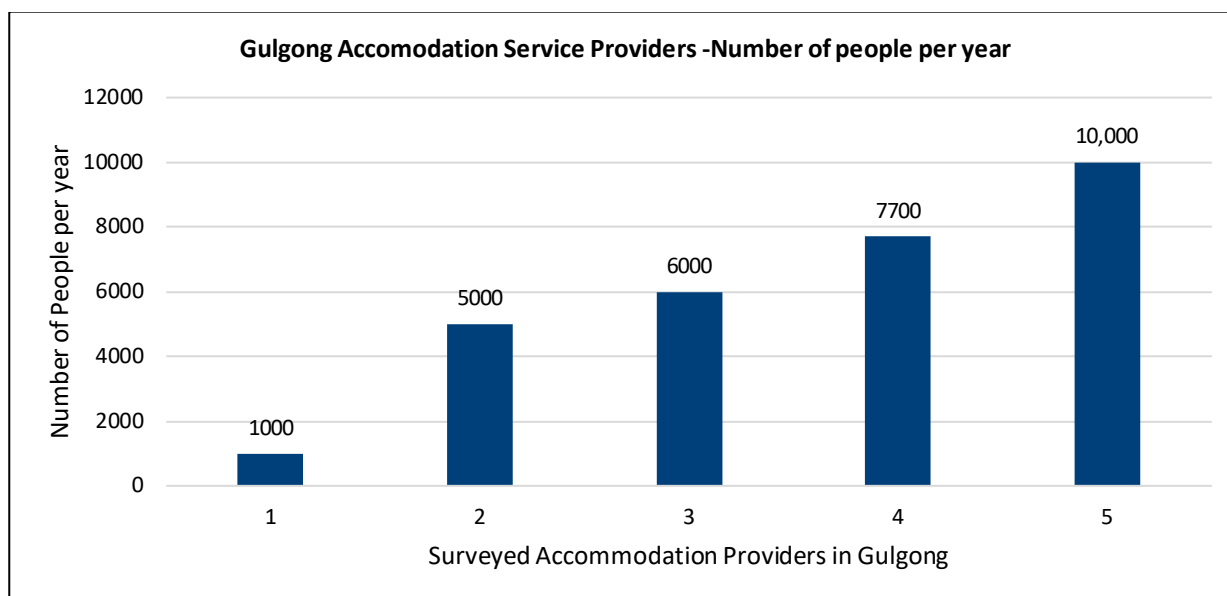


Figure 4.2 Gulgong Yearly Accommodation Provision

Further, it is understood that four commercial accommodation providers who were surveyed in Gulgong have the potential to house up to 170 long-term workers in total per night (refer **Figure 4.3**) however this capacity does not take into account existing demand from other sectors such as tourism and mining related visitation (refer to **Figure 4.4** for a user profile in Gulgong as gathered through the survey).

Two accommodation providers in Dunedoo were open to supporting the construction workforce, whilst others stated they were unwilling to service the Project due to their existing low capacity and the need to be available for continued tourism opportunities which are considered a more sustainable customer base.

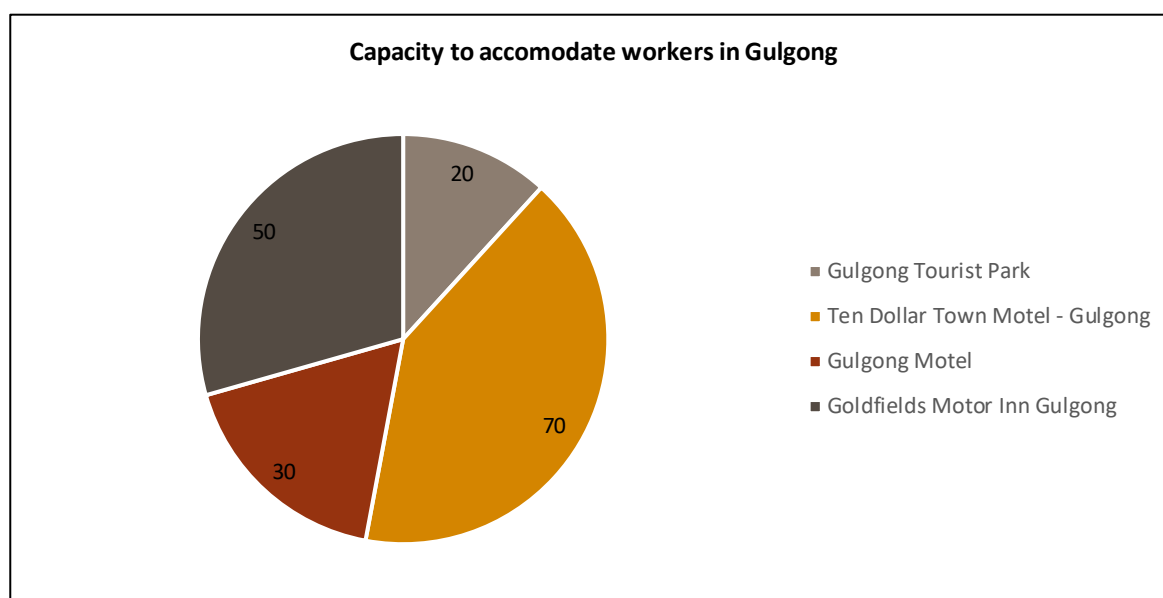


Figure 4.3 Estimated Commercial Accommodation Capacity in Gulgong (number of people)

PROFILE OF ACCOMMODATION USERS IN GULGONG TOWN, NSW

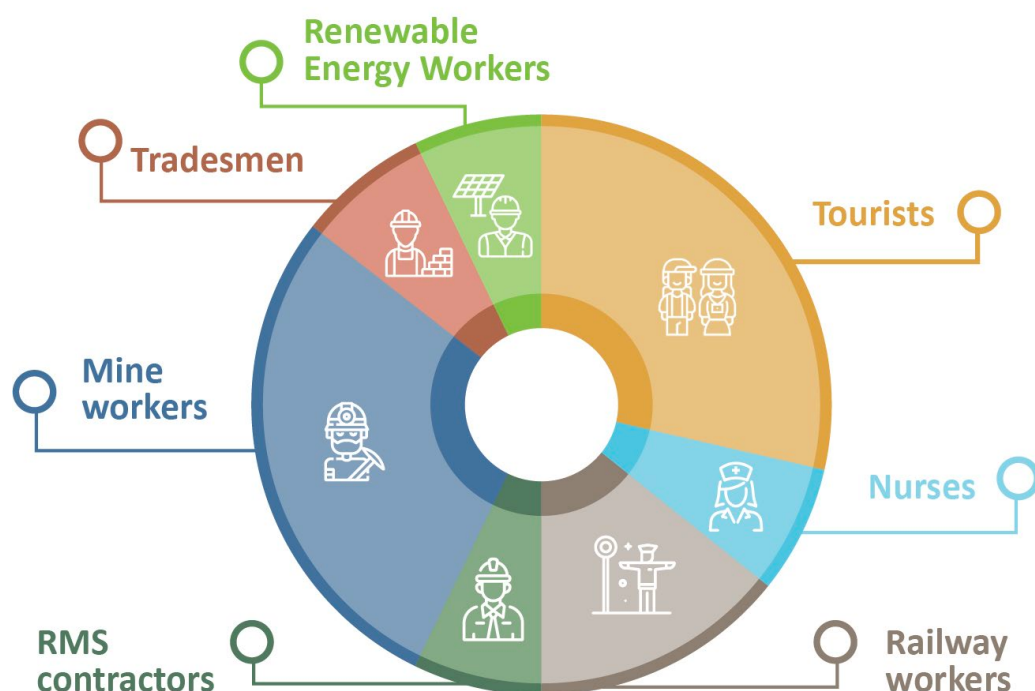


Figure 4.4 Gulgong Accommodation User Profile

In contrast to Gulgong and Dunedoo, Mudgee is understood as having a greater variety of commercial accommodation types available to service the Project, however the preference from those surveyed is to accommodate employees as locally as possible, in order to contribute to the economic and social sustainability of the smaller townships closest to the Project as discussed in **Section 4.4**.

Of the 15 local business and service providers surveyed, all but two accommodation providers stated that the effects of the COVID-19 pandemic had limited their tourist trade during restrictions on travel since early 2020, with one provider estimating a 30% decrease in clientele during periods of restricted movement and another stating that ‘Covid has reduced our service capacity to zero’. However, many providers were still able to accommodate transient workers within the medical, construction and mining sectors during this period and this would likely continue as a stable source of income. Four of seven service providers and local businesses in Gulgong stated that continued business would be possible following the lifting of restrictions, as there is currently limited competition between providers¹².

Outside of the restricted periods of travel in NSW due to the pandemic, stakeholders also described that domestic tourism was a key source of economic stimulus over the past two years, contributing to the sustainability of the Gulgong township and Mudgee. Through consultation it was raised that the accommodation sector in Mudgee has flourished and was operating at almost full capacity in early 2021 due to the surge in domestic tourism.

Tourism is growing rapidly in our region due to COVID and people across NSW not being able to travel internationally/interstate. Numbers of visitation are the highest they’ve ever been, and we’d

¹² The service provider survey was undertaken during a period of state-wide restricted movement under the NSW Government’s response to COVID-19 in 2021.

like to keep them high. Accommodation occupancy is usually at full capacity in numerous towns. These businesses are doing well. We have seen a significant shift from what was previously only weekend visitors to now it being busy all week every week. – Local Government

Surveyed stakeholders described that the historical value of Gulgong and the viticulture industry around Mudgee have been the main attractions for the tourist economy, expressing a strong desire to maintain this customer base and business stream across towns. The potential for competition to accommodate both mining and construction workforces was also highlighted as a potential challenge associated with the Project in this context.

Both towns experience a mix of tourism and mine worker influx to the accommodation providers – Mudgee Community Group

The positive benefits of increased service provision enabled through the Project's construction is therefore considered a **high positive social impact**, that is *likely to occur with moderate magnitude* for service providers, businesses and the broader community. However, whilst service providers and community groups were interested to realise the benefits of accommodating the workforce, accessibility issues for other user groups may negatively affect affordability and availability for other sectors such as tourism and mining. This would be particularly the case when considering the cumulative effect of population influx between multiple projects with concurrent development programs, namely the proposed Barneys Reef Wind Farm, the Ballambi Heights Solar Farm Project, and the Birriwa Solar Project. When considered cumulatively, the potential strain on local accommodation and other township services could result in a **high social impact** (*likely to occur with major magnitude*).

Whilst the construction workforce would likely not reside permanently in the region and would be unlikely to utilise services such as childcare or schools, this population group is still likely to access a range of community facilities and services other than accommodation, including health, hospitality, and recreation services within towns; therefore, having the potential to impact on service capacity across the broader township.

To mitigate any pressures on the local accommodation market and local services caused by the Project, it is suggested that RES consider using multiple accommodation service providers to house the construction workforce across multiple towns to alleviate pressure on any one locality or community, as well as planning and sourcing accommodation as early as possible to ensure the appropriate management of the construction workforce influx. Further engagement with service providers will be required in the development of a comprehensive employment, procurement and accommodation strategy.

Table 4.12 summarises proposed mitigation and enhancement strategies for the Project relating to accommodation provision.

Table 4.12 Summary of Mitigation and Enhancement Strategies – Access to Accommodation and Community Services

Social Impact	Proposed Mitigation and Enhancement Measures
Incoming Project construction workforce may cause strain on accommodation and community services in local towns, affecting accessibility and affordability for other user groups and potentially effect usability for other industry sectors of tourism and mining	Accommodation, Employment and Procurement Strategy to be developed in consultation with local providers and other stakeholders ahead of the construction phase commencing Community Benefit Sharing Scheme to consider legacy initiatives targeting local housing provision

4.12 Community Health and Wellbeing

When considering Project impacts on community health and wellbeing, mental health issues in relation to anxiety and worry were raised as a result of the uncertainty of people's future way of life, particularly for those living nearby the Project. Whilst anxiety and stress alone does not constitute mental illness, increased levels can affect quality of life, and for individuals with an existing vulnerability to mental health issues, can become an additional stressor. The mental health of one person can also have flow on effects to their partners, family, and social dynamics within their community. Research confirms that the impacts of major projects on people most affected can include increased stress levels, a sense of things happening beyond one's control and distress induced by environmental change connected to their home environment (Albrecht, 2009).

Impact upon the personal stress, anxiety, and levels of uncertainty of people living near the Project is therefore considered *possible to occur with minor magnitude*, resulting in a **medium social impact**. Continued and regular consultation and information provision (discussed in **Section 3.3**) is an effective method to reduce uncertainty and allow stakeholders to achieve a sense of control over their future and decisions that may affect them.

Physical health concerns raised by stakeholders were largely raised in relation to the increased risk of fire that could cause a safety hazard to proximal residents, and the perceived human health consequences that may occur by living within proximity to large-scale electrical infrastructure. Due to the Project Area having low levels of vegetated areas and the inclusion of an 'asset protection zone' (as stated in the EIS), the risk of bushfire and the distance from Project infrastructure to neighbouring residences is *possible to occur but minimal in magnitude*, resulting in a **low social impact** for both these social matters.

Table 4.13 summarises proposed mitigation and enhancement strategies for the Project in relation to community health and wellbeing.

Table 4.13 Summary of Mitigation and Enhancement Strategies – Health and Wellbeing

Social Impact	Proposed Mitigation and Enhancement Measures
Project development may increase stress and anxiety for proximal residents who feel uncertain about their futures and changes to their way of life	Community Engagement Strategy to include consistent, transparent and proactive information provision and consultation with stakeholders throughout Project development
Physical health and safety effects on proximal residents due to the increased risk of fire and perceived health consequences of living near to electrical infrastructure may contribute to people's stress and anxiety or reduce levels of community acceptance of the Project	Bushfire Management Plan/Emergency Management Plan to be communicated to proximal residents Community Engagement Strategy to include information provision and awareness creation on the actual impacts of electrical infrastructure on human health

4.13 Aboriginal Cultural Values and Heritage

Impacts to Aboriginal cultural values or heritage items was raised by a small number of community groups and members of the broader community as a concern. Emphasis was placed on the importance of protecting significant cultural places or sites in or around the Project Area, and to consult openly with the Aboriginal community regarding appropriate and effective surveying and monitoring for the Project's development, planning and construction processes.

An Aboriginal Cultural Heritage Assessment (ACHA) was undertaken in consultation with the relevant Aboriginal stakeholders for the Project as part of the EIS and involved the identification of any required management strategies to avoid harm to Aboriginal cultural sites and artefacts. The ACHA assessed the majority of the Project Area as having low archaeological potential, based on limited access to perennial water and limited depth of topsoil in the Project Area. The ACHA identified nine Potential Archaeological Deposits (PADs) that ranged from low to moderate archaeological potential to moderate to high archaeological potential. Impacts to all areas of PAD (PADS1-9) can be avoided, with no ground disturbance works occurring within the mapped extent of these areas of PAD and appropriate fencing or site demarcation prior to construction.

In addition to the nine PAD's, the ACHA identified twelve artefact scatters (AS) and ten isolated finds (IF). All sites are in areas with little or no potential for additional subsurface deposits and have been assessed as being low or low to moderate archaeological significance. One IF and one AS will be subject to complete impact as a result of the Project with an additional nine AS's subject to partial impact as a result of the Project or agriculture occurring concurrently with the Project. The remaining nine IF's and two AS's will not be subject to impact as a result of the Project, however, will be subject to impact as a result of ongoing agricultural uses in the Project Area. The ACHA found that impacts to all sites can be mitigated by the collection of surface artefacts.

It is understood that RES is currently exploring partnerships with local Aboriginal organisations as well as sponsorship opportunities as part of the community benefit sharing scheme currently in preliminary planning for the Project. Suggestions gathered from Aboriginal groups to date to facilitate benefits to the local Aboriginal community include:

- Support to local schools and Aboriginal students
- Support to the Mudgee Local Aboriginal Land Council's existing environmental programs
- Support the development of Mudgee Local Aboriginal Land Council owned land for community programs
- Inclusion of RAP native title claimants and Mudgee Local Aboriginal Land Council in proposed Neighbour Benefit Program to provide ongoing financial support

In relation to European heritage, no stakeholders identified this as an issue and according to the Australian National Heritage List (Department of Agriculture, Water and the Environment, 2022), there are no listed heritage items within the vicinity of the Project Area. However, two buildings of potential heritage significance were identified during site visits, including a c.1900s weatherboard cottage and a c.1870s hut. The c.1900s weatherboard cottage is of heritage and aesthetic significance and the c.1870s hut is of heritage and aesthetic significance and is valuable due to its rarity and research potential.

Considering the above, Project impacts to Aboriginal cultural values and heritage, are considered *possible to occur with minor magnitude* and is therefore ranked as a medium social impact. The Project impacts to European heritage are considered *possible to occur with minor magnitude* and is therefore ranked as a medium social impact

Table 4.14 summarises proposed mitigation and enhancement strategies for the Project as they relate to Aboriginal cultural values and heritage.

Table 4.14 Summary of Mitigation and Enhancement Strategies – Aboriginal Cultural Values and Heritage

Social Impact	Proposed Mitigation and Enhancement Measures
Disruption of Potential Archaeological Deposits in the Project Area.	Establish appropriate fencing/site demarcation prior to the commencement of construction and ensure ongoing protection during construction and operation
Disruption to Artefact Scatters and Isolated Finds in the Project Area	Collection of surface artefacts allowing for the collection and interpretation of representative sample which may inform some understanding of how Aboriginal people accessed resources, manufactured stone artefacts and travelled through the area.
Opportunity to develop partnerships and provide support to local Aboriginal organisations.	Contribute to sponsorship or support for Aboriginal organisations through a Community Benefit Sharing Scheme that supports existing environmental, social or school programs.
Disruption to buildings of local heritage significance, including a c.1900s weatherboard cottage and c.1870s hut	Implementation of setbacks and exclusion zones around the heritage buildings, management of construction activities to ensure equipment with high vibration rating are not used within exclusion zones, implementation of an unexpected heritage finds protocol as part of environmental management policies for the project.

5.0 Social Impact Management Plan

This section provides further detail on the proposed strategies to be implemented in response to the predicted social impacts associated with the Project and relates to those impacts (both positive and negative) that have been evaluated as significant. Social impact management planning is a key consideration of SIA and ensures that the impacts identified via the SIA process and through community consultation activities, are managed effectively across the life cycle of the development (Franks & Vanclay, 2013).

The strategies proposed have been developed from the mitigations and enhancement measures raised by the community as well as through industry benchmarking, consideration of the mitigation and management measures from other technical studies undertaken for this Project, and through the application of sound social performance practice.

SIA guidance (NSW DPIE 2021) outlines that mitigation measures to respond to project impacts may be:

- **Performance-based** – identify performance criteria that must be complied with to achieve an appropriate outcome, but do not specify how the outcome is to be achieved, demonstrating why the performance criteria are appropriate.
- **Prescriptive** – that outlines actions that need to be taken or things that must be done, with justification as to why this approach is appropriate by providing scientific evidence or referencing relevant guidelines or case studies.
- **Management-based** - where potential impacts can be satisfactorily avoided or mitigated by implementing known management approaches.

A framework for social impact management is presented in **Figure 5.1**. Guiding principles and key components of these strategies are outlined further below.



Figure 5.1 Framework for Social Impact Management

5.1 Community Engagement Strategy

Consistent and consultative engagement with communities throughout the Project's planning, pre-construction, construction, and operations is critical in ensuring social acceptance, strong local partnerships and overall, more successful, and sustainable Project outcomes. Fairness in the Project development process requires the establishment and management of processes to ensure that people have meaningful opportunities to influence the design, plans, and outcomes of a development as well as in realising the benefits of the Project.

In the case of the Project, proactive consultation, and the formation of strong working partnerships throughout the Project lifecycle with the following stakeholder groups is critical:

- Host and neighbouring residents (including those relevant to the transmission line)
- Locally active community and environmental groups
- Local Government
- The local Wiradjuri community
- Local businesses and service providers
- The broader community.

It is recommended that in the remaining development phase of the Project, and throughout the pre-construction and construction phases, RES prioritise the implementation of a Community Engagement Strategy, to be led by a dedicated resource and comprising project-specific stakeholder analysis, mechanisms or methods to be utilised, periodic action plans, targets, responsibilities for implementation, as well as the development of a monitoring and evaluation framework for the Strategy throughout the life of the Project.

The approach for community engagement and public participation should be guided by the following industry and government standards and frameworks:

- The International Association for Public Participation (IAP2)'s Spectrum of Public Participation (2018)
- Clean Energy Council's Enhancing Positive Social Outcomes from Wind Farm Development: Evaluating community engagement and benefit sharing in Australia (2018)
- NSW Government's Undertaking Engagement Guidelines for State Significant Projects (2021).

Objectives of the Community Engagement Strategy should at a minimum include:

- To ensure that those potentially affected by a project understand the project and how it will affect them
- To understand stakeholder interests and how impacts may be experienced (from their perspective)
- To consider the representative views of people in a meaningful way and to use these insights to inform project planning and design

- To provide opportunities for people to collaborate on project design matters and input to preferred solutions to address impacts
- To ensure people know how their input has been considered, and what strategies will be put in place to address their concerns
- To inform the development and implementation of impact management strategies
- To share regular and transparent information on the Project.

5.2 Community Shared Benefit Strategy

Community benefit sharing in the context of the renewable energy sector in Australia relates to the establishment of an integrated model within projects to share the rewards of the development proactively and purposefully with local communities (Clean Energy Council 2019). Outcomes of such a model are seen to contribute positively to the development and sustainability of a region.

Further, as part of the NSW Electricity Infrastructure Roadmap set by the NSW Government (2021), project developers must demonstrate tangible benefits to local communities who host renewable energy projects, beyond the national or regional value of delivering renewable energy and reducing carbon emissions.

The Clean Energy Council of Australia's outlines the key components to be considered in developing a Benefit Sharing Scheme for renewable energy projects as follows:

- Establishment of benefit sharing objectives in partnership and consultation with community representatives
- Research and understanding of community need, interests, and ideas from the community
- Define 'benefit' for the Project
- Plan community engagement process to support the development of the strategy
- Determine preliminary criteria and 'negotiables'
- Commence community consultation with an aim of building local networks and relationships
- Assess, refine, and decide on key components, parameters, criteria, and governance arrangements
- Establish the strategy and implementation
- Governance and administration in collaboration with key stakeholders and members of the community
- Monitoring, evaluation, and continual improvement.

Consequently, RES has developed a Community Shared Benefit Strategy for the Project to formally support the realisation of these principles. Based on the existing social conditions and context, and through the assessment of predicted social impacts of the Project, as detailed within this Report, the Project's Benefit Sharing Strategy will include two main elements:

- A Neighbour's Benefit Program, focussed on delivering benefits to the Project's closest neighbours and those most directly affected by Project activities.

- A dedicated Community Enhancement Program, focussed on support and funding of broader community initiatives or programs at the local and regional level, that considers:
 - The establishment of the REZ and other renewable energy developments active in the area, by coordinating community investment initiatives for greater strategic outcomes where feasible, in particular, coordination with the activities of the Barneys Reef Wind Farm Project.
 - How the Project can make a positive contribution to Wiradjuri efforts toward self-determination and local Aboriginal interests more broadly, in consultation and partnership with local Aboriginal representatives, groups and organisations.

5.2.1 Community Enhancement Program

Figure 5.2 outlines the NSW Government’s priorities for renewable energy developments to ensure community engagement and benefit sharing occur within the Central West Orana REZ, providing ongoing benefit to the host and surrounding communities within the region (NSW Government, 2021).



Figure 5.2 Focus Areas for Community Engagement and Benefit Sharing in Central West Orana REZ

Source: (NSW Government, 2021)

It is understood that RES is in the preliminary stages of developing a community fund for the Project to support educational, environmental, and community-based projects, through an annual provision of funding for the operational life of the Project. Current plans indicate that the fund would be made active once the operational phase of the Project commences, and that independent management arrangements would be established for the sole purpose of fund administration.

It is recommended that the governance structure of the Program and associated administration processes are developed and designed in collaboration with the local community, through for instance, the nomination of community representatives to lead the establishment and implementation of the program and/or the establishment of an independent community-led management committee.

Additionally, it is recommended that the Program is designed and developed in consultation with local stakeholders, including Council, community representatives and groups, to ensure that it is participatory in nature and delivers effective social outcomes for the local context. Further, consideration must be given to the context of the broader REZ establishment and other community investment initiatives underway with government and other developers, to ensure that such project-level programs are coordinated and where feasible, funding is also directed to strategic initiatives that support the successful development of the renewable energy sector across the region. In the case of the Project, it is also critical to ensure coordination with any community-level support or funding as part of the adjacent Barney's Reef Wind Farm Project.

Through consultation undertaken for the SIA, local community groups shared mixed views of how such a program could best deliver benefit to the local community.

Other companies think that sponsoring a skate park in a town 100km away is sufficient local benefit creation – this is a huge misunderstanding of the key social issues that the Project creates. People who live on and use the properties that look at the infrastructure or host it are the ones affected and need to be the focus of both consultation processes and benefit sharing. – Mudgee Community Group

Ensuring that those that experience the most significant impacts, also receive greater benefits of the Project, has been highlighted as a key factor in facilitating an effective social licence for a project (Moffat, K. et al. 2016).

Community-identified opportunities for the targeting of the Program include the following compilation of suggestions:

- Road and trail access route upgrades to improve road/trail conditions for local road users and walkers
- Support for local schools, children's playgrounds, as well as road upgrades which would benefit school bus routes
- Improvement of sporting facilities, or sponsorship of local junior sporting groups or teams
- Capital investment for an aquatic centre to provide activity for children, tourism, injury rehabilitation and the elderly
- Funding to the rural fire service or other emergency services
- Development of water infrastructure to afford communal access for farmers, e.g., water resource sharing for neighbouring or nearby properties who struggle to source water for irrigation and livestock (an example exists in the Forbes area of local farmers that established such an arrangement bringing equitable benefit to a large group of farmers)
- Contribution to supplying a medical practitioner or facility to attract medical personnel to Gulgong
- Investment into aged care services in Gulgong
- Capital investment in Gulgong social housing, such as through partnerships with local housing providers to supply needs of the Project's construction workforce and to ensure adaptability to local housing needs following construction

- Upgrades to Adams Lead, including fencing and improved accessibility
- Sponsor the local community magazine (the *Gulgong Gossip*), to advertise a “kids’ corner” curated by the students at the local high school and in coordination with the Gulgong Chamber of Commerce
- Neighbourly benefit programs, such as through provision of a dedicated sum of money to be distributed amongst adjacent landholders
- Capacity-building or resourcing support for local environmental restoration and protection groups and programs, including provision of possum and bird boxes, weed control and restoration works for community-owned nature reserves
- Support for local Aboriginal businesses, targeted Aboriginal community programs and local social enterprises
- Heritage and Environmental walk from Flirtation Hill to Adams Lead with educational signage displayed at varying points to showcase key features and interpret Wiradjuri cultural areas
- Treasure hunt activity throughout local reserves targeting young people and families
- Facilitate decarbonisation efforts by residents and landholders, and local community groups to enable and enhance emissions reductions initiatives and environmental protection, such as proactiveness in multi-stakeholder or regional collaboration initiatives to support local organisations to reach their own decarbonisation targets
- Support research or further industry investigation into the merits of small-scale, household participation in the transition to renewable energy: *“It would be nice to see companies like RES...come up with creative ways to develop projects whereby people can contribute to energy generation too”*
- Collaboration and involvement of community in ecological studies and environmental management aspects of the Project to share knowledge about the local environment and areas of conversation importance
- Land management projects within local reserves to reduce pests and weeds and promote new growth through planting of saplings and seedlings
- Partnership with Mudgee Local Aboriginal Land Council’s Bee Keeping Project - Indigenous food initiatives such as native grass cropping or native beekeeping under the solar panels, or native seed purchasing to plant experimental crops on community-owned conservation reserves, or the facilitation of a lamb nursery within the fencing of the solar farm, Indigenous grasslands (e.g., a Kangaroo Grass crop underneath the solar panels)
- Community design of educational, environmental and heritage signage along local walking trails
- RES to commission or undertake research into multipurpose land uses involving renewable energy generation, across other projects in Australia or using the Project as a pilot case study
- Partnerships with local tourism providers, education and arts or cultural groups to explore ideas for renewable energy tourism through the Project, to see the Project add value to the already prevalent tourism sector in the locality.

5.2.2 Neighbours Benefit Program

The renewable energy industry is increasingly recognising the need to ensure realisation of the benefits to local communities and, often those most affected by projects, prior to and as a result of any disruption or impact caused through the construction and operations project phases.

Establishing a Neighbours Benefit Program within a broader shared benefit strategy for a project can ensure consistency in the approach to community investment and benefit sharing across various stakeholder groups. Other renewable energy projects recently developed within the Australian context have committed to ensuring that community grant funding and neighbours compensation payments are allocated and received prior to project construction where often the most personal disruption is caused to neighbouring residents (Clean Energy Council 2019).

More broadly, neighbours benefit programs and associated agreements can take the form of direct annual or one-off payments to property owners in proximity to a project and can include in-kind contributions to a property owner, such as tree planting to screen the view of infrastructure, or include other mechanisms such as periodic monetary compensation, neighbour investment, or a gift of equity (RE-Alliance 2021).

A Neighbour Benefit Program is currently being developed for the Project which includes:

- Design in response to impacts and priorities as identified through consultation with the neighbouring families/property owners and to ensure understanding of personal issues and interests
- Participation and input from neighbours to the project in identifying what is important and of value to them
- Criteria-setting in agreement with neighbours, including consideration of 'out of the ordinary' cases
- Ensure construction impacts are considered in program design.

Should the Project be approved, RES has committed to the implementation of a Neighbour Shared Benefit Scheme to provide direct payments to neighbours to the Project to be provided to eligible property owners over the life of the Project. Eligibility for neighbours to participate in the Scheme is based on proximity of their property to the Project Area and the presence of a house/residential dwelling. Tiers of payment are three-fold and based on the proximity of the property to the boundary of the Project Area.

5.3 Accommodation, Employment and Procurement Strategy

To directly address and respond to the social impacts and opportunities of the Project as they relate to construction workforce matters, it is recommended that RES develop, and then implement, an Accommodation, Employment and Procurement Strategy in the pre-construction phase of the Project.

Regarding workforce accommodation, it is understood through the SIA that the construction workforce would be partially sourced from within the social locality, and partially as an incoming and temporary population to the area for the purposes of working on the Project. Consequently, the Strategy should consider efforts to maximise benefits to the local economy and business community and management of the potential cumulative impacts on the local housing/accommodation market that the Project could contribute to, associated with other users, sectors/industries or other development projects in the area of social influence.

5.3.1 Construction Workforce Accommodation

The Strategy, as it relates to workforce accommodation, should:

- Identify measures to ensure there is sufficient accommodation for the required workforce
- Be developed during the pre-construction period, in response to regional demands at that time and to ensure preparation ahead of any influx of workers into the local area
- Be developed in consultation with local stakeholders such as Council and service providers in particular
- Focus on measures to ensure there is sufficient accommodation for the workforce associated with the construction phase of the Project, such as through considering whether it is appropriate to disperse workers across multiple locations/towns and across numerous accommodation providers, or by sourcing long-term accommodation as early as possible in the lead up to construction
- Include a program to monitor, review and evaluate the effectiveness of the measures during construction.

A critical first step in the development of this Strategy involves detailing the workforce requirements and job profile for the construction phase, to ascertain the planned proportion of locally sourced versus incoming workers. The development of the Strategy is dependent on the number of incoming workers and their staging, in that the more people employed from within the social locality, the less need for accommodation for additional workers. It is therefore understood that there would be a considerable amount of coordination required during the planning of workforce accommodation requirements and the Project's local employment plans for the construction period.

5.3.2 Local Employment, Training and Procurement

Relating to local participation planning (employment, training, and procurement), the Strategy should contain initiatives to proactively enable the maximisation of local employment and sourcing for the Project's construction and operational needs, and could include the following:

- Investigate options for prioritising the employment of local workers
- Supplier and servicing opportunities for local businesses
- Understanding existing capabilities within the area of social influence and the potential for the Project to contribute to build capacity in new areas i.e., up-skilling, re-skilling, and training opportunities for local people
- Jobs, supplier, and servicing opportunities that target partnerships with local and active social enterprises
- Mechanisms for local businesses, job seekers and services to register their capabilities and interest in working with the Project to be formalised and widely shared within the area of social influence.

Actionable targets with associated responsibilities should be contained within the Strategy, including mechanisms to involve local stakeholders in its development and implementation. Key stakeholder groups should include Council, industry associations or business groups, employment and training service providers, community committees or representative bodies and regional development organisations.

Information provision relating to the Project's construction requirements in the pre-construction phase (post development approval) is also critical in embedding a planned and proactive approach to local participation and should therefore also comprise a component of this Strategy in coordination with the Community Engagement Strategy as outlined above.

6.0 Conclusion

This Social Impact Assessment has documented the social baseline, social impacts and social impact management and enhancement measures associated with the Tallawang Solar Farm and forms part of the EIS for the Project.

This social assessment has included the compilation of a social baseline profile for the Project, consolidation of community consultation outcomes to inform the assessment of and evaluation of Project-related social impacts and opportunities, and preliminary social impact management planning. The impact evaluation has been undertaken to inform and support the refinement of Project design and plans to reduce negative project impacts and achieve greater positive project benefits and social outcomes.

The assessment concludes that identified negative social impacts of the Project can be reasonably mitigated or managed to reduce their significance, with positive impacts increasing in significance if appropriate enhancement measures are put in place. However, it should be noted that a number of the social impacts identified are cumulative in nature and will rely on collaboration and coordination with other key stakeholders including other developers, local and state government, community groups and service providers.

A social impact management planning framework has been outlined and includes the following key components for the successful development of the Project:

- A Community Engagement Strategy
- A Community Shared Benefit Strategy including a Neighbours Benefit Program and a Community Enhancement Program
- An Accommodation, Employment and Procurement Strategy.

7.0 References

- ABS. (2016). Community Profiles. *Census Data 2016*. Canberra: Australian Bureau of Statistics. Retrieved from <https://www.abs.gov.au/websitedbs/D3310114.nsf/Home/2016%20Census%20Community%20Profiles>
- ABS. (2016). *QuickStats*. Retrieved from Australian Bureau of Statistics: <https://www.abs.gov.au/websitedbs/D3310114.nsf/Home/2016%20QuickStats>
- ABS. (2018). *Regional Statistics by LGA 2019, 2011-2019*. ABS.Stat.
- ABS. (2018, March 27). Socio-Economic Indexes for Areas (SEIFA) 2016. *Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2016*. Canberra: Australian Bureau of Statistics. Retrieved from [https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2033.0.55.001~2016~Main%20Features~SOCIO-ECONOMIC%20INDEXES%20FOR%20AREAS%20\(SEIFA\)%202016~1](https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2033.0.55.001~2016~Main%20Features~SOCIO-ECONOMIC%20INDEXES%20FOR%20AREAS%20(SEIFA)%202016~1)
- Albrecht, G. S. (2009). Solastalgia: the distress caused by environmental change. *Australasian Psychiatry*, 595-598.
- Australian Energy Infrastructure Commissioner. (2021, October). *Considerations for Landholders before entering into Commercial Agreements - Version 1.2*. Retrieved from https://www.aeic.gov.au/sites/default/files/landowners_agreement_matters_to_consider_-_australian_energy_infrastructure_commissioner.pdf?v=1635288508
- BOM. (2019). *New South Wales*. BOM.
- BOM. (2021). *Special Climate Statements*. (Commonwealth of Australia, Bureau of Meteorology) Retrieved April 19, 2021, from Bureau of Meteorology: <http://www.bom.gov.au/climate/current/special-statements.shtml>
- Burdge, R. (2004). The Concepts, Process and Methods of Social Impact Assessment.
- change.org. (2019). Australia has boundless plains - why put solar panels on productive farms?
- CSIRO and Bureau of Meteorology. (2018, April 17). *Climate Analogues. Analogues Explorer*. Retrieved October 29, 2019, from Climate Change in Australia: <https://www.climatechangeinaustralia.gov.au/en/climate-projections/climate-analogues/analogues-explorer/>
- Department of Planning, Industry and Environment. (2019). *NSW Electricity Strategy: Our plan for a reliable, affordable and sustainable electricity system*. NSW Government.
- DPIE. (2019, December 12). *NSW 2019 Population Projections*. Department of Planning, Industry and Environment on behalf of the NSW Government.
- DPIE. (2019, December 12). *Population Projection Scenarios by LGA (ASGS 2019). Projections*. Retrieved from NSW Department of Planning, Industry and Environment: <https://www.planning.nsw.gov.au/Research-and-Demography/Population-projections/Projections>

- DPIE. (2020). *NSW Landuse 2017 v1.2*. State Government of NSW and Department of Planning, Industry and Environment. Retrieved from <https://datasets.seed.nsw.gov.au/dataset/nsw-landuse-2017-v1p2-f0ed>
- DPIE. (2021, February 18). *NSW BioNet Atlas Threatened Species Search*. (Department of Planning, Industry and Environment) Retrieved January 11, 2021, from New South Wales BioNet: https://www.environment.nsw.gov.au/atlaspublicapp/UI_Modules/ATLAS_/AtlasSearch.aspx
- Ekström, M. (2015). *Central Slopes Cluster Report, Climate Change in Australia Projections for Australia's Natural Resource Management Regions: Cluster Reports*. CSIRO and Bureau of Meteorology, Australia.
- Electoral Commission NSW. (2020, September 14). *Past Election Results. State election results*. Retrieved from NSW Electoral Commission: <https://elections.nsw.gov.au/Elections/past-results/State-election-results>
- Energy NSW. (2020). *Renewable Energy Zones*. Retrieved April 19, 2021, from Energy NSW: <https://energy.nsw.gov.au/renewables/renewable-energy-zones>
- Energy NSW. (2021). *Renewable Energy Zones*. Retrieved from Energy NSW: <https://www.energy.nsw.gov.au/renewables/renewable-energy-zones>
- Energy.gov.au. (2020, May 26). *Australian Energy Statistics, Table O Electricity generation by fuel type 2018-19 and 2019*. Retrieved from Energy.gov.au: <https://www.energy.gov.au/publications/australian-energy-statistics-table-o-electricity-generation-fuel-type-2018-19-and-2019>
- Envisage. (2021). *Proposed Tallawang Solar Farm Visual Impact Assessment*.
- Ethos Urban. (2021). *Economic Impact Assessment*.
- Franks, D. M. (2013). Social Impact Management Plans: Innovation in Corporate and Public Policy. *Environmental Impact Assessment Review*, 40-48.
- Gulgong Residents for Responsible Renewables. (2019). Australia has boundless plains - why put solar panels on productive farms? Change.org.
- Hall, N. L. (2017). Evaluating Community Engagement and Benefit-Sharing Practices in Australian Wind Farm Developmen. *Case studies in the Environment*, 1-6.
- International Finance Corporation. (2019). *Local Benefit Sharing in Large-Scale Wind and Solar Projects*.
- ITP Renewables. (n.d.). *Burrundulla MSEP - Home*. Retrieved from Burrundulla MSEP.
- Lithgow Mercury. (2020). The Castlereagh Highway near Capertee is about to undergo a major facelift. *Lithgow Mercury*.
- Mid-Western Regional Council. (2013). *Annual Report 2018/19*.
- Mid-Western Regional Council. (2017). *Mid-Western Region Community Plan. Towards 2030*. Mid-Western Regional Council.
- Mid-Western Regional Council. (2017a). *Mid-Western Workforce Strategy*. Mid-West Regional Council.

Mid-Western Regional Council. (2017b). *Delivery Program 2017/18–2020/21 | Operational Plan 2020/21*. Mid-Western Regional Council.

Mid-Western Regional Council. (2017c). *Asset Management Strategy*. Mudgee: Mid-Western Regional Council.

Mid-Western Regional Council. (2017d). *Community Engagement Summary of Findings*. Mudgee: Mid-Western Regional Council.

Mid-Western Regional Council. (2020). Council Assessment Report - Avisford Mini Sustainable Energy Park.

Moharram, K. A.-E.-S. (2013). Influence of cleaning using water and surfactants on the performance of photovoltaic panels. *Energy Conversion and Management*, 266-272.

Mudgee Guardian. (2015). A monumental effort to tell Aboriginal history. *Mudgee Guardian*.

NSW Bureau of Crime. (2021). *NSW Local Government Area excel crime tables*. NSW Bureau of Crime Statistics and Research.

NSW Department of Planning, Industry and Environment. (2018). Large-Scale Solar Energy Guideline for State Significant Development.

NSW Department of Planning, Industry, and Environment. (2020). Draft Technical Supplement.

NSW Government. (2016). *Central West and Orana Regional Plan 2036*. NSW Government.

NSW Government. (2021, September). *Central-West Orana Renewable Energy Zone Landholder Workshops*. Retrieved from <https://documentcloud.adobe.com/spodintegration/index.html?r=1&locale=en-us>

NSW Government. (2021, 05 27). *Dunedoo Solar Farm*. Retrieved from Major Projects Planning Portal: <https://www.planningportal.nsw.gov.au/major-projects/project/10021>

NSW Government. (2021, February 1). Mid-Western Regional Local Environmental Plan 2012. New South Wales: New South Wales Government. Retrieved from <https://legislation.nsw.gov.au/view/html/inforce/current/epi-2012-0374#statusinformation>

NSW Government. (2021, 05 27). *Stubbo Solar Farm*. Retrieved from Major Projects Planning Portal: <https://www.planningportal.nsw.gov.au/major-projects/project/31031>

NSW Government. (2021, 05 27). *Wellington North Solar Farm*. Retrieved from Major Projects Planning Portal: <https://www.planningportal.nsw.gov.au/major-projects/project/9746>

NSW Health. (2021, 04 16). *Mudgee Hospital Redevelopment*. Retrieved from Western NSW Local Health District: <https://wnswlhd.health.nsw.gov.au/our-organisation/our-initiatives/building-projects/mudgee-hospital-redevelopment>

NSW Valuer General. (2020). *Report on NSW Land Values at 1 July 2020*.

OEH. (2015). *Community Attitudes to Renewable Energy in NSW*. Sydney: Office of Environment and Heritage.

Office of the Australian Energy and Wind Farm Commissioner. (2020).

Parliament of New South Wales. (n.d.). *Mr Philip DONATO, MP*. Retrieved July 2021, from Parliament of New South Wales: <https://www.parliament.nsw.gov.au/members/Pages/member-details.aspx?pk=2226>

PHIDU. (2021, June). New South Wales & Australian Capital Territory. Data by Local Government Area. *Social Health Atlas of Australia*. Public Health Information Development Unit. Retrieved July 2021

REINSW. (2021, June). *Vacancy Rate Survey Results June 2021*. Retrieved from Real Estate Institute NSW: https://www.reinsw.com.au/REINSW_Docs/Vacancy%20Rates/2021/REINSW-Vacancy-Rate-Result-June-2021.pdf

Samasa Consulting Pty Ltd. (2021). *Tallawang Solar Farm Project Transport Impact Assessment*.

SEIFA. (2016). SSC Indexes.

solarquotes. (2020). Gulgong Solar Farm Application Denied.

SQM Research. (2021, December 09). *Weekly Asking Property Prices postcode 2852*. Retrieved from <https://sqmresearch.com.au/asking-property-prices.php?postcode=2852&t=1>

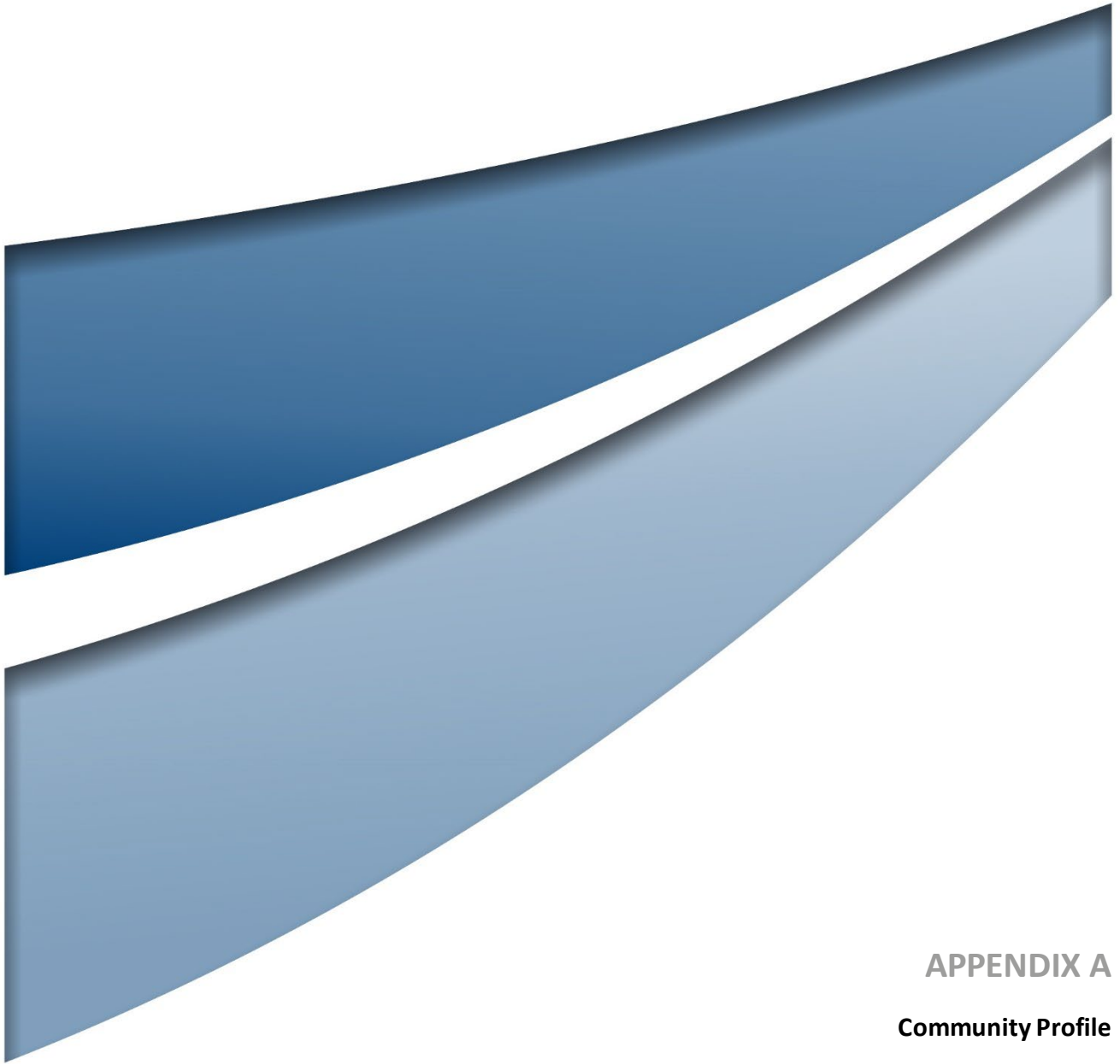
Umwelt. (2021). *Biodiversity Development Assessment Report for Tallawang Solar Farm*.

Umwelt. (2021). *Soil. Land and Agricultural Assessment*.

Urban, E. (2021). *Economic Impact Assessment*.

Western Regional Planning Panel. (2020). Determination and Statement of Reasons - Avisford.

Western Regional Planning Panel. (2020). Determination and Statement of Reasons - Burrundulla.



APPENDIX A

Community Profile

Community Profile

Indicators	Tallawang SSC	Beryl SSC	Mebul SSC	Dunedoo SSC	Birriwa SSC	Stubbo SSC	Gulgong SSC	Merotherie SSC	Warrumbungle LGA				Mid-Western LGA				NSW
Year	2016	2016	2016	2016	2016	2016	2016	2016	2006	2011	2016	Change	2006	2011	2016	Change	2016
Human Capital																	
Population Size	168	132	40	1,221	49	232	2,521	24	9,810	9,588	9,384	↘	21,085	22,318	24,076	↗	7,480,228
Proportion Indigenous Population (%)	0%	2%	18%	8%	6%	2%	8%	0%	8%	9%	10%	↗	3%	4%	5%	↗	3%
Median Age	45	44	63	49	54	46	41	47	43	45	49	↗	41	41	42	↗	38
Year 10 highest year of schooling (%)	45%	41%	44%	34%	49%	47%	38%	50%	37%	37%	37%	—	39%	38%	36%	↘	23%
Year 12 highest year of schooling (%)	37%	38%	28%	36%	23%	34%	33%	50%	29%	32%	35%	↗	30%	35%	39%	↗	59%
Bachelor degree (%)	7%	12%	15%	6%	0%	9%	5%	0%	6%	6%	7%	↗	6%	8%	8%	↗	16%
Certificate (%)	16%	29%	21%	17%	18%	30%	25%	14%	17%	19%	20%	↗	21%	23%	25%	↗	18%
Social Capital																	
Proportion of population with a different address 1 year ago (%)	6%	5%	9%	8%	6%	8%	13%	0%	14%	12%	10%	↘	14%	16%	14%	—	14%
Proportion of population with a different address 5 year ago (%)	23%	29%	27%	25%	18%	29%	34%	0%	36%	29%	28%	↘	40%	37%	37%	↘	39%

Indicators	Tallawang SSC	Beryl SSC	Mebul SSC	Dunedoo SSC	Birriwa SSC	Stubbo SSC	Gulgong SSC	Merotherie SSC	Warrumbungle LGA				Mid-Western LGA				NSW
Proportion of population aged 15+ who volunteer (%)	13%	23%	27%	29%	33%	16%	21%	14%	30%	29%	28%	✓	24%	21%	22%	✓	18%
Proportion of population born overseas (%)	4%	6%	0%	6%	0%	9%	7%	0%	-	6%	7%	✓	-	9%	8%	✓	30%
Proportion of single parent families (%)	0%	0%	0%	10%	0%	8%	12%	0%	15%	10%	10%	✓	15%	9%	9%	✓	8%
Proportion of family households (%)	70%	80%	79%	68%	69%	70%	66%	100%	69%	68%	67%	✓	71%	70%	69%	✓	72%
Proportion of group households (%)	0%	0%	0%	2%	0%	0%	2%	0%	-	2%	2%	—	-	3%	3%	—	4%
Proportion of lone person households (%)	25%	8%	29%	31%	25%	29%	31%	0%	-	30%	31%	✓	-	27%	29%	✓	24%
Top 3 Crime Rankings	-	-	-	-	-	-	-	-	-	-	Sexual offences (1/119), Drug offences – cannabis (17/119), Malicious damage to property (29/119)	-	-	-	Drug offences (26/119) – Cannabis, Assault - Non-Domestic violence (32/119), Steal from a Dwelling (33/119)	-	-
Economic Capital																	
Proportion of the labour force employed full-time (%)	57.1%	62.2%	56.5%	55.4%	38.1%	63.2%	53.6%	60.0%	57.6%	57.5%	55.7%	✓	57.1%	58.0%	56.4%	✓	59.2%

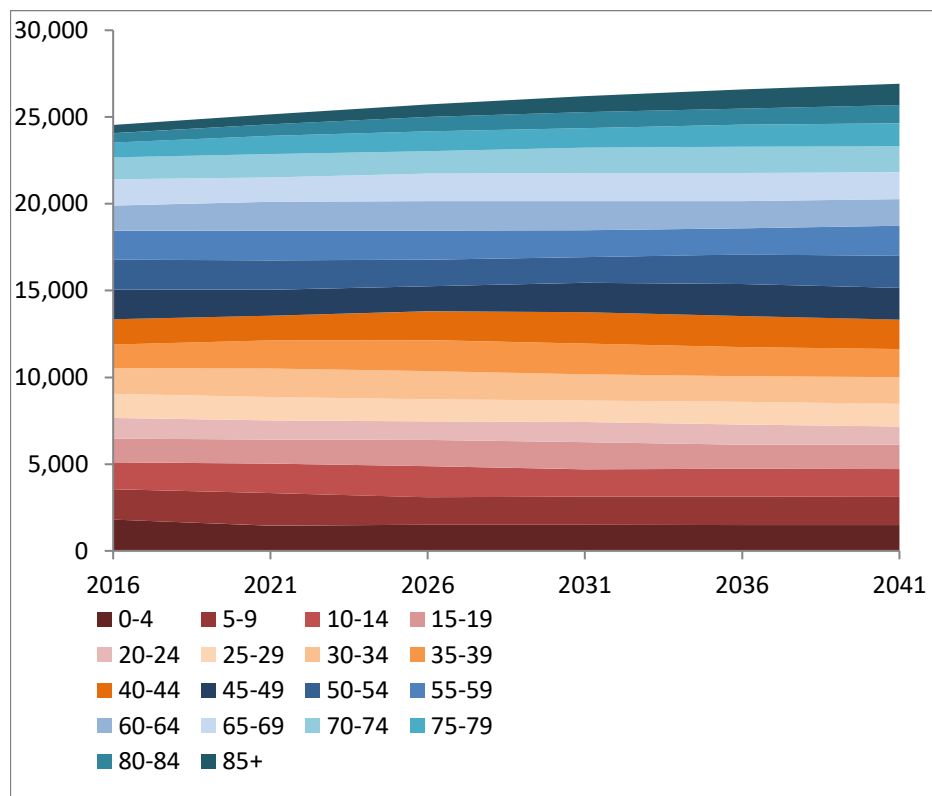
Indicators	Tallawang SSC	Beryl SSC	Mebul SSC	Dunedoo SSC	Birriwa SSC	Stubbo SSC	Gulgong SSC	Merotherie SSC	Warrumbungle LGA				Mid-Western LGA				NSW
Proportion of the labour force employed part-time (%)	36.5%	26.7%	39.1%	28.8%	38.1%	26.3%	32.4%	0.0%	27.5%	29.1%	30.6%	↗	29.8%	30.4%	31.6%	↗	29.7%
Proportion of the labour force who are unemployed (%)	0.0%	15.6%	0.0%	8.6%	14.3%	3.2%	8.6%	0.0%	8.3%	7.1%	7.9%	↘	7.3%	5.7%	6.5%	↘	6.3%
Median household income (\$/week)	1,145	1,312	769	871	1,062	1,109	1,086	2,125	609	689	878	↗	700	929	1,131	↗	1,486
Median mortgage repayment (\$/month)	2037	1200	0	967	0	1690	1517	0	693	870	923	↗	1083	1551	1690	↗	1986
Median rent for a 3-bed house (\$/week)	250	270	200	175	0	180	250	0	100	120	160	↗	145	200	270	↗	380
Median rent as a proportion of median household income (weekly)	22%	21%	26%	20%	-	16%	23%	-	16%	17%	18%	↗	21%	22%	24%	↗	26%
Physical Capital																	
Proportion of occupied private dwellings that are fully owned (%)	37.7%	37.5%	50.0%	49.2%	56.3%	44.6%	37.3%	37.5%	48.8%	47.7%	46.4%	↘	42.8%	40.5%	38.0%	↘	32.2%
Proportion of occupied private dwellings that are being purchased/ owned by a mortgage (%)	35.8%	22.5%	35.7%	21.2%	0.0%	39.8%	30.5%	0.0%	21.9%	22.6%	23.0%	↗	27.9%	29.3%	30.6%	↗	32.3%
Proportion of occupied private dwellings that are being rented (%)	18.9%	25.0%	35.7%	28.7%	18.8%	13.3%	28.2%	0.0%	24.4%	24.9%	25.8%	↗	25.5%	26.5%	27.4%	↗	31.8%

Indicators	Tallawang SSC	Beryl SSC	Mebul SSC	Dunedoo SSC	Birriwa SSC	Stubbo SSC	Gulgong SSC	Merotherie SSC	Warrumbungle LGA				Mid-Western LGA				NSW
Proportion of dwellings with internet access (%)	80%	85%	80%	66%	58%	81%	75%	100%	47%	65%	69%	↗	51%	72%	77%	↗	85%
Proportion of households in mortgage stress (%)	-	-	-	-	-	-	-	-	11.4	14.2	9.5	↘	12.9	11.1	9.4	↘	9.6
Proportion of households in rental stress (%)	-	-	-	-	-	-	-	-	20.2	19.2	24.2	↗	29.3	27.4	32.3	↗	27.9

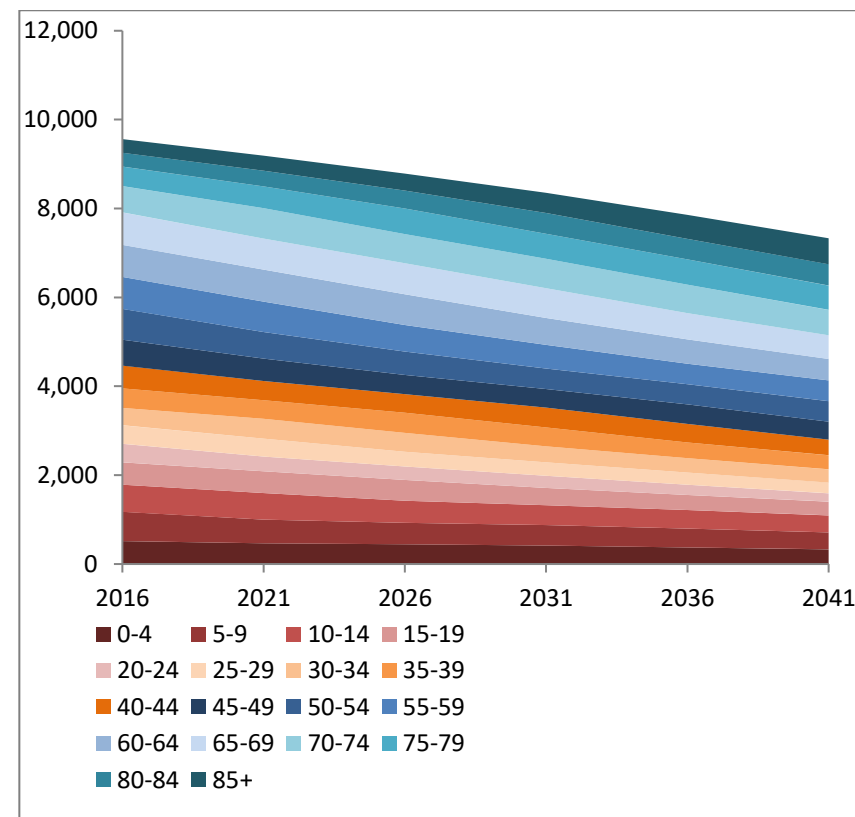
Health Status

Category	Health Indicator	Source	Measure	Mid-Western Region LGA	Warrumbungle Shire	NSW
Chronic diseases	Estimated number of people with mental and behavioural problems (modelled estimates)	PHIDU 2017–18	ASR per 100	23.9	21.8	18.8
	'Estimated number of people with heart, stroke and vascular disease	PHIDU 2017–18	ASR per 100	5.3	4.9	4.9
	Estimated number of people aged 15 years and over with fair or poor self-assessed health	PHIDU 2017–18	ASR per 100	16.8	15.5	14.1
Risk factors	Estimated number of males aged 18 years and over with high or very high psychological distress, based on the Kessler 10 Scale (K10)	PHIDU 2017–18	ASR per 100	12.6	12.4	12.4
	Estimated number of people aged 18 years and over who had high blood pressure	PHIDU 2017–18	ASR per 100	23.4	22.2	23.1
	Estimated number of people aged 18 years and over who were obese	PHIDU 2017–18	ASR per 100	41.0	43.1	30.9
	Estimated number of people aged 18 years and over who were current smokers	PHIDU 2017–18	ASR per 100	21.0	22.0	14.4
Premature death	Total deaths, 0 to 74 years	PHIDU 2017–18	ASR per 100	282.0	320.6	238.4

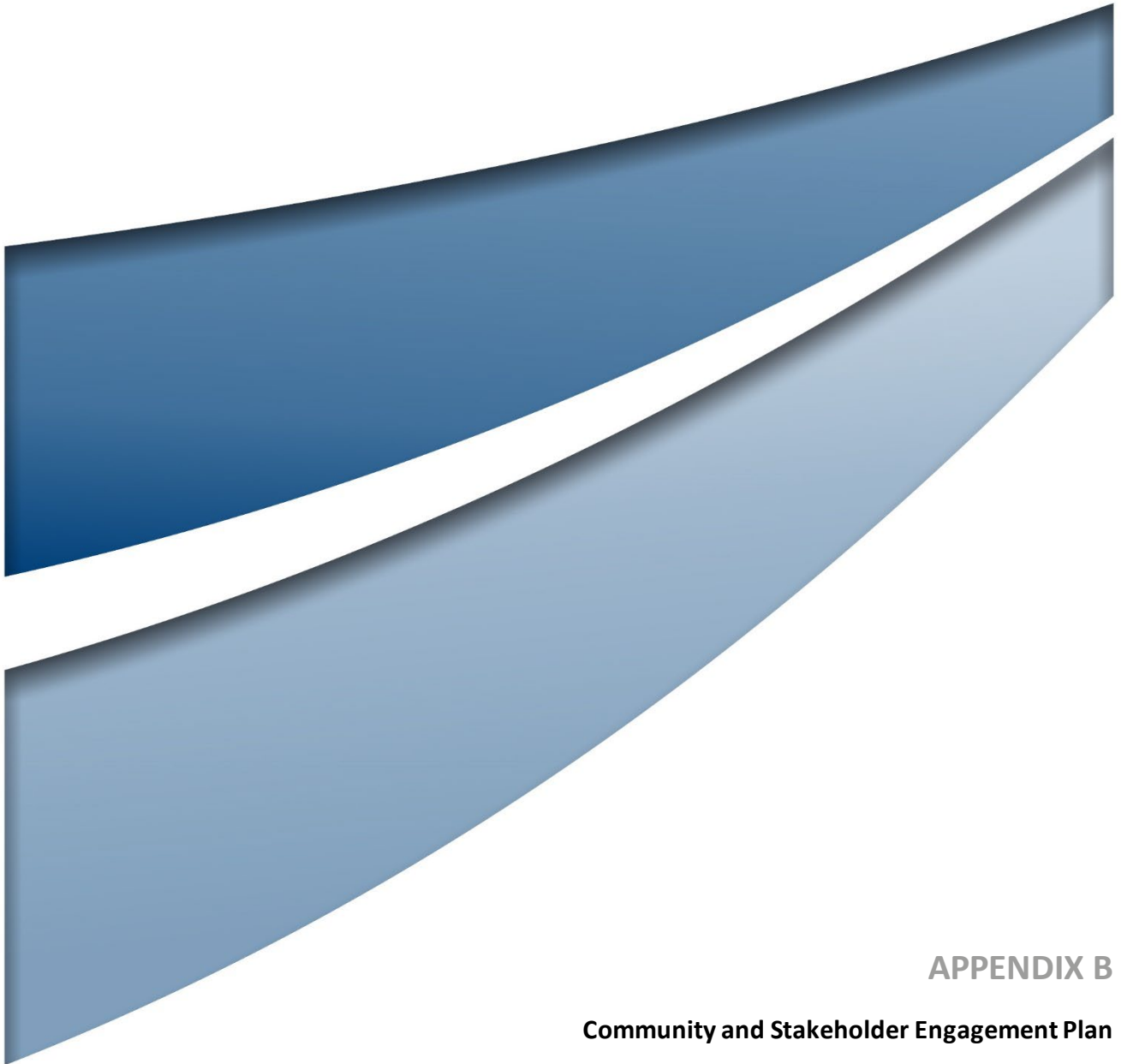
Population Projections



Mid-Western Regional LGA



Warrumbungle LGA



APPENDIX B

Community and Stakeholder Engagement Plan



Community & Stakeholder Engagement Plan

Tallawang Solar Farm and Barneys Reef Wind Farm

Contents

1	Introduction	4
1.1	Purpose and objectives	4
1.2	Approach	5
1.3	Process	7
1.4	Key Project milestones	7
2	Project overview	8
2.1	Project background	8
2.1.1	Tallawang Solar Farm	8
2.1.2	Barneys Reef Wind Farm	9
2.2	Governance	9
2.3	Policy setting	9
2.4	Community profile	10
2.5	Known stakeholder issues and social risks to the Projects	13
3	Engagement strategy	14
3.1	Principles of engagement	14
3.2	Stakeholder identification	14
3.3	Engagement mechanisms	16
3.4	Instrument Toolkit development	18
3.5	Discussion topics for engagement	18
3.5.1	Round 1 (Scoping Phase)	19
3.5.2	Round 2 (EIS preparation)	19
3.6	Record-keeping and stakeholder database management	19
3.7	Complaints handling and issue tracking	20
4	Key Messages	21
4.1	Overview	21
4.2	Who is the proponent - Renewable Energy Systems (RES)?	21
4.3	What are the Projects - Tallawang Solar Farm and Barneys Reef Wind Farm?	22
4.3.1	Reasons for site selection	23
4.3.2	The Central-West Orana Renewable Energy Zone (REZ)	23
4.4	What is the approvals process?	23
4.5	What are the impacts and opportunities?	24
5	Implementation Plan	26
5.1	Scoping Phase	27
5.2	EIS Preparation Phase	31

Table of Tables

Table 1	Key milestones	7
---------	----------------------	---

Table 2 Project Stakeholders	16
Table 3 Engagement Mechanisms	17
Table 4 Mechanism Matrix	17
Table 5 Scoping Phase (Round 1 Engagement)	27
Table 6 EIS Preparation Phase (Round 2 Engagement)	31

Table of Figures

Figure 1 IAP2 Public Participation Spectrum	6
Figure 2 Integrated approach	6
Figure 3 Community demographics	10
Figure 4 Social indicators	11
Figure 5 Tallawang Solar Farm and Barneys Reef Wind Farm Area of Social Influence	12

1 Introduction

The proposed Tallawang Solar Farm and Barneys Reef Wind Farm (the Project) by RES Australia Pty Ltd (RES) (the proponent), comprises the construction and development of a large-scale solar farm and an adjacent large-scale wind farm with associated battery storage in the Central West Region of New South Wales (NSW), Australia.

1.1 Purpose and objectives

This Community and Stakeholder Engagement Plan (CSEP) outlines the approach, strategy, and implementation program to inform the Request for Secretary's Environmental Assessment Requirements (SEARs) and the Environmental Impact Statement (EIS) for the State Significant Development Application (SSDA) of each project, to be lodged with the NSW Department of Planning, Industry and Environment (DPIE).

The purpose of this document is to outline the approach and strategy for community and stakeholder engagement across the Project's planning and approvals phase, to inform the preparation of relevant Scoping Reports (as part of the Request for SEARs) and completion of the Project's technical studies (as part of the EIS).

As noted in the NSW DPIE draft SIA Guideline (2020), respectful, inclusive, and meaningful engagement is a fundamental part of project planning and development. Engagement with affected communities and stakeholders provides first-hand insight into what people value and how they expect a project to affect them. Community and stakeholder engagement is a key component of the EIS processes, with the DPIE draft SIA Guideline (2020) outlining the following objectives to guide engagement:

- To ensure those potentially affected by a project understand the project and how it will affect them.
- To collect relevant data, evidence, and insights for scoping the SIA to maximise diversity and ensure representativeness of views.
- To understand the interests that people have and how impacts may be experienced (from their perspective).
- To consider the views of people in a meaningful way and use these insights to inform project planning and design.
- To provide opportunities for people to collaborate on project design matters and input to preferred solutions to address impacts.
- To confirm data, assumptions, findings, and recommendations.
- To ensure people know how their input has been considered, and what strategies will be put in place to address their concerns.
- To help understand how other specialist studies prepared for the EIS assist in addressing social impacts.
- To respect people's privacy, allowing them to communicate their views anonymously if requested.

The specific objectives of this CSEP are to:

- Support the building of strong relationships with local stakeholders to establish a socially sustainable project.
- Guide and support a strategic and coordinated approach to engagement, including specific mechanisms, timeframes and responsibilities during the planning and assessment phase of the Project.
- Facilitate transparent and meaningful information exchange on the Project.

- Identify key stakeholders and communities relevant to the development of the project.
- Support the Project's understanding of its local context, identification of stakeholders, including vulnerable community groups, stakeholder expectations and project alignment with local aspirations.
- Facilitate the genuine involvement of stakeholders in the planning and approvals process as well as in developing responses to impacts.
- Ensure that community and stakeholder inputs are effectively integrated into the technical assessments within the EIS and inform refinements to project design and plans.
- Meet regulatory requirements for public, stakeholder and community consultation.
- Collaborate with local stakeholders on local benefit sharing strategies to ensure they are co-designed, targeted, and appropriate to the Project's operating context.

Furthermore, RES is committed to:

- Facilitating the early engagement of local stakeholders to understand potential social impacts and opportunities that may arise from the Project.
- Keeping the community informed throughout the development phase of the Project, in turn allowing the views of local stakeholders to inform project planning and design.
- Providing access to up-to-date information on project progress and demonstrate where applicable, how the design of the Project has been adapted to take account of community participation and the findings of feasibility studies.
- Listening and responding to any concerns raised.
- Giving stakeholders clear and timely information on how and when they can participate in decision making.

1.2 Approach

The NSW Government's draft SIA Guideline (2020) proposes to make SIA applicable to all SSDs in NSW, with proponents required to commission standalone Social Impact Scoping Reports as part of the Request for SEARs. These studies are informed by, and rely on, the outcomes of early, and ongoing community and stakeholder engagement through the assessment phase. The approach to stakeholder engagement for the Project will also be informed by the NSW Government's draft SIA Guideline (2020), the Large-Scale Solar Energy Guideline for State Significant Development (2018) and the Wind Energy Guideline (2016). Furthermore, best practice engagement design and delivery will also be guided by the International Association of Public Participation (IAP2) Public Participation Spectrum as per Figure 1.

INCREASING IMPACT ON THE DECISION					
	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

© IAP2 International Federation 2018. All rights reserved. 20181112_v1

© IAP2 International Federation 2018. All rights reserved. 20181112_v1

Figure 1 IAP2 Public Participation Spectrum

Further, this CSEP recognises the unique development context of the Tallawang Solar Farm and Barneys Reef Wind Farm, being situated adjacent to each other within the Central-West Orana Renewable Energy Zone (REZ), undergoing planning and approvals process simultaneously, and by the same proponent. As a result, the CSEP embeds the following integrated approach to streamline engagement and scoping for the two side-by-side projects to deliver separate reports as required by DPIE, as outlined in Figure 2.

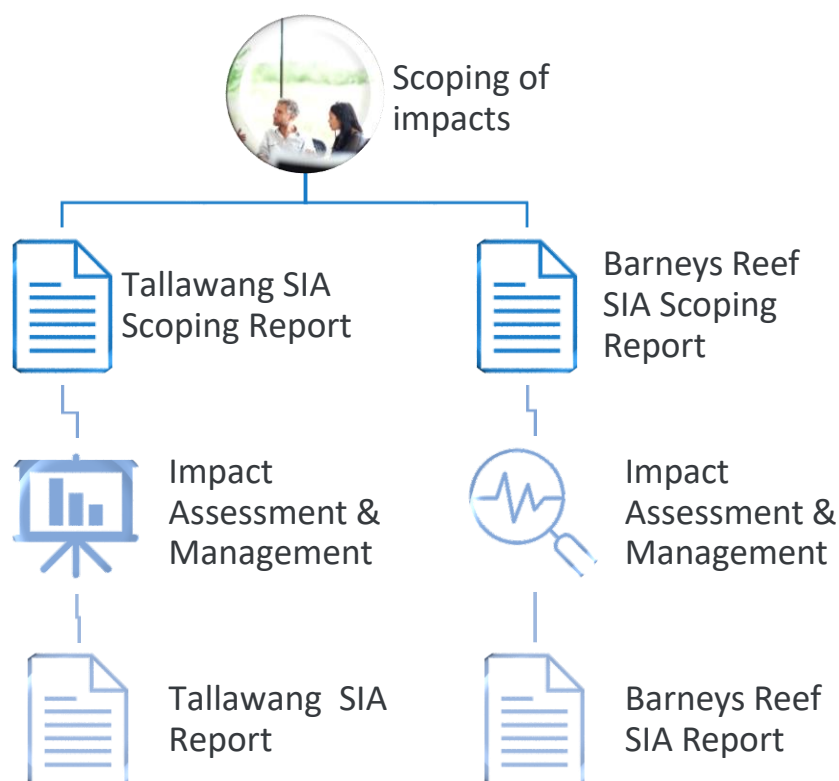


Figure 2 Integrated approach

1.3 Process

This CSEP has been developed as a key output of the Community and Stakeholder Engagement Strategy Workshop held between RES and Umwelt Environmental & Social Consultants on 17 March 2021. The workshop covered the following items in developing this CSEP:

- confirm objectives of the CSEP
- share key outcomes of community profiling activities to inform and refine engagement plans and mechanisms
- identify key social issues or risks
- validate key stakeholders to be involved and engaged
- co-develop Project messaging
- discuss recommended mechanisms for engagement
- assign responsibilities per activity
- Implementation Plan - confirm actions, timing and staging.

The CSEP will be revised following RES review for the Request for SEARs phase. It will remain an iterative document throughout the Project planning and approvals phase and will be updated post the EIS preparation period.

1.4 Key Project milestones

Table 1 outlines the key Project milestone dates throughout the two EIS programs.

Table 1 Key milestones

Phase	Indicative timing
Preparatory planning	February 2021
Landholder consultation and agreements	February 2021
CSEP development and workshop	Mid-March 2021
Round 1 engagement	March 2021
Scoping Report (Tallawang)	April - May 2021
Scoping Report (Barneys Reef)	April - May 2021
Hold point - SEARs (June 2021)	
Detailed environmental investigations commence	June - July 2021
Round 2 engagement	July - August 2021
Reporting (Tallawang)	September 2021

EIS lodgment (Tallawang)	October 2021
Round 3 engagement (Barneys Reef - TBC)	October - November 2021
Public exhibition period (Tallawang)	November 2021
Response to submissions (Tallawang)	December 2021 - January 2022
Reporting (Barneys Reef)	December 2021
EIS lodgment (Barneys Reef)	January 2022
Public exhibition period (Barneys Reef)	February 2022
Response to submissions (Barneys Reef)	March - May 2022
Project updates, impact management and monitoring	Ongoing

2 Project overview

2.1 Project background

The proposed Tallawang Solar Farm and Barneys Reef Wind Farm comprises the construction and development of a large-scale solar farm and an adjacent large-scale wind farm in the Central West Region of New South Wales (NSW), Australia. The Project is in the vicinity of a number of other active and planned RES Projects in the Central West Orana REZ.

Landholder agreements have been executed for both Projects and a number of environmental and social studies have been commenced in line with the requirements in the EP&A Act (1979).

2.1.1 Tallawang Solar Farm

The proposed Tallawang Solar Farm comprises a solar farm and battery infrastructure located 8 kilometers northwest of Gulgong, New South Wales (NSW), in the locality of Tallawang in the Mid-Western Regional Local Government Area (LGA).

The Tallawang Solar Farm involves the construction, operation, and maintenance of a 390MW solar farm on a 920-hectare site. It involves approximately 1,144,600 solar photovoltaic (PV) modules with a maximum height of 5m located across the Project site. The site would also include a system of inverters and voltage step-up transformers that would be positioned throughout the PV modules to allow for the transfer of electricity to an onsite Battery Storage Facility (BSF). The BSF would comprise 72 battery units positioned throughout the solar farm. In addition, there would be an onsite switchyard, a 132kV substation and an overhead 132kV line connecting the solar farm to a proposed 330kV transmission line which would cross the Wallerawang Gwabegar Railway.

In regard to supporting infrastructure, the site will contain temporary construction site offices, construction vehicle parking areas, and material laydown areas for the construction phase; site office, and operations and maintenance building with parking for the operations team; and a storage shed.

The site will be accessed from Puggoon Road that connects to Castlereagh Highway that travels to Gulgong in the south and joins the Golden Highway in the north.

Exclusivity agreements are in place with two host landholders to develop the Project.

2.1.2 Barneys Reef Wind Farm

The proposed Barneys Reef Wind Farm site is located approximately 15km north of Gulgong in the Mid-Western Regional LGA in the suburb of Barneys Reef.

The Barneys Reef Wind Farm Project would have a capacity of 340MW and will include the construction and operation of approximately 60 wind turbines that are approximately 220m tall.

To allow for the transfer of energy, electrical connections between the proposed wind turbines consisting of a combination of underground cables and overhead powerlines would be developed that would connect to the shared onsite substations and subsequently the 330kV transmission line network.

Agreements are in place with 13 host landholders within Barneys Reef to develop the Project.

2.2 Governance

Both Project sites are located within the Mid-Western Regional Council area of the Central West Region in NSW. Within the broader LGA, there is an apparent community desire to reduce the consumption of energy and fossil fuels, and to consider alternative resources (Council Community Survey, 2013) and as such, there has been a commitment from Council to increasing the use of alternative energy sources in the LGA (Council Community Plan, 2013). However, there is reported concern regarding use of prime agricultural land for renewable energy projects and lack of community involvement in recent projects. Therefore, some level of support is anticipated from the community in response to the benefit of clean energy, with a potential level of opposition as a result of potential land-use conflicts.

The key industries in the Central West have historically been agriculture, transport and logistics, with community and tourism value stemming from the historical towns and villages in the area such as Gulgong; with a particular economic contribution from mining in the Mid-Western Regional LGA. In recent years there has been a redirected focus on renewable energy, including the approval of the large-scale Liverpool Range Wind Farm in the neighbouring Warrumbungle Shire Council area.

2.3 Policy setting

The NSW Government's current energy security policy and approach to a clean energy transition is being delivered through the strategic development of the renewable energy sector, as outlined through the NSW Government's *Renewable Energy Action Plan* (2013), *Electricity Strategy* (2019) and the *Electricity Infrastructure Roadmap* (2020). This policy context is relevant to inform the public positioning and key messaging for the planning and development of the Projects.

The Central West Region has been determined a pilot for the NSW Government's Renewable Energy Zones (REZ) announced in the *2019 Electricity Strategy*. This Strategy also includes the New England REZ and South West REZ. The Projects' sites being located within the Central-West and Orana REZ will be a consideration for cumulative effects on the community, due to other renewable projects being planned and developed nearby.

2.4 Community profile

The community¹ can be characterised by the following observations, shown in Figure 3 and Figure 4Error! Reference source not found.:

- An older population than the NSW average, particularly in the suburbs proximal to the Projects (NSW median age is 35)
- A higher Aboriginal and Torres Strait Islander population than the NSW average (3.4%)
- A slightly higher unemployment rate in the Mid-Western Regional LGA in comparison to NSW (6.3% in NSW)
- High motor vehicle usage, particularly in the host suburb of Tallawang, from which we can assume a high level of road use
- A low level of property occupation in the suburb of Tallawang however, a high number of people per household
- A low level of internet access across the LGA with one third of residents unable to access the internet from their homes
- A low level of residents born outside Australia; therefore the community is not expected to be culturally and linguistically diverse.

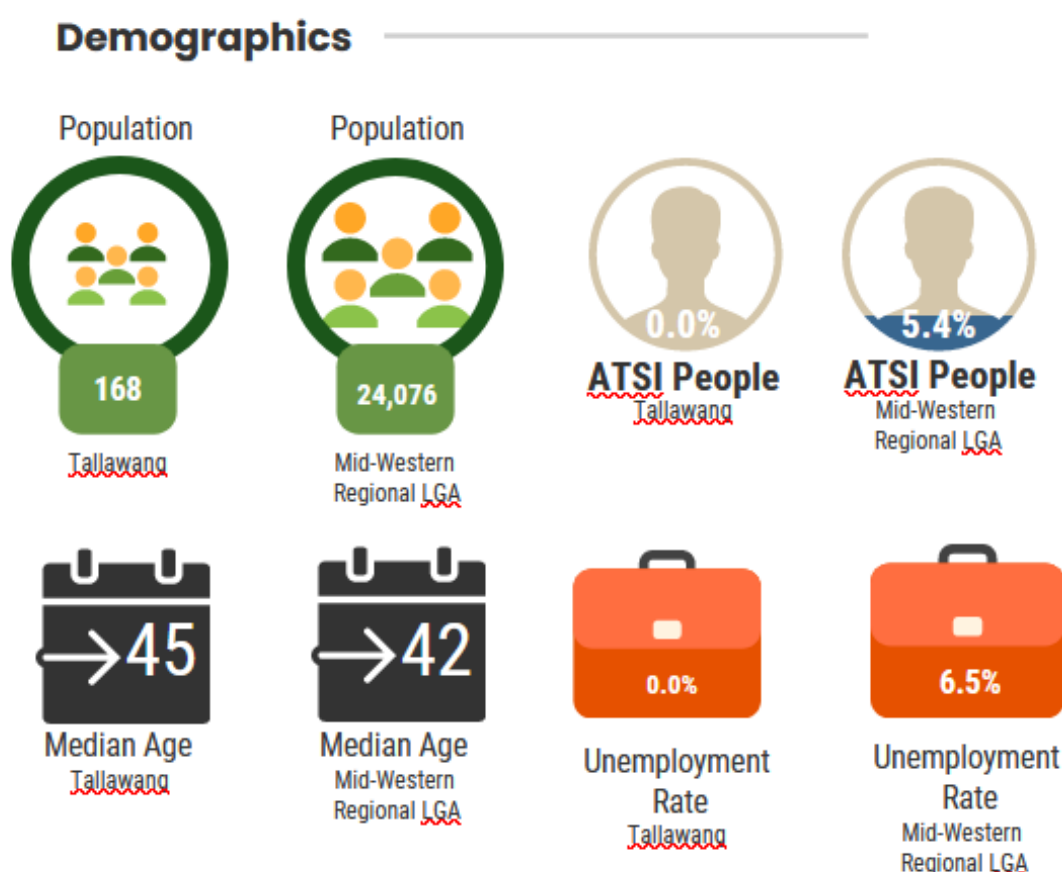


Figure 3 Community demographics

¹ No data available for Barney's Reef State Suburb due to small population size

Internet not Accessed from Dwelling

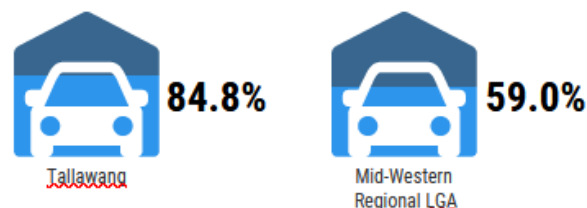


Number of People per Dwelling



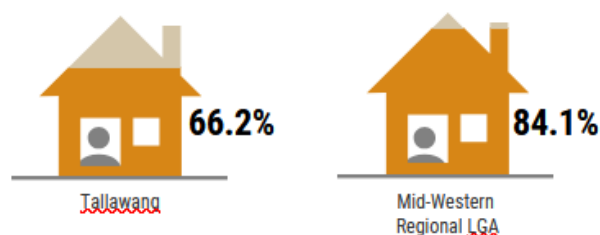
Motor Vehicles

Proportion of dwellings that have 2 or more motor vehicles



Occupied Private Dwellings

Proportion of dwellings that are occupied



Country of Birth Outside Australia

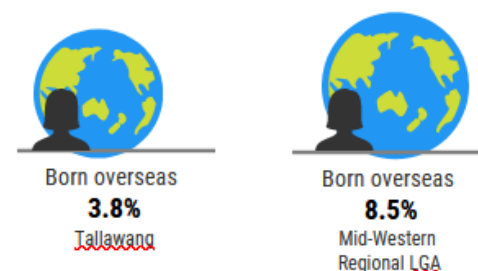


Figure 4 Social indicators

Figure 5 outlines the Area of Social Influence for the Projects. The Social Impact Scoping Report will further detail the social baseline for the Projects, including the community values, natural and built characteristics and key socio-demographic conditions.

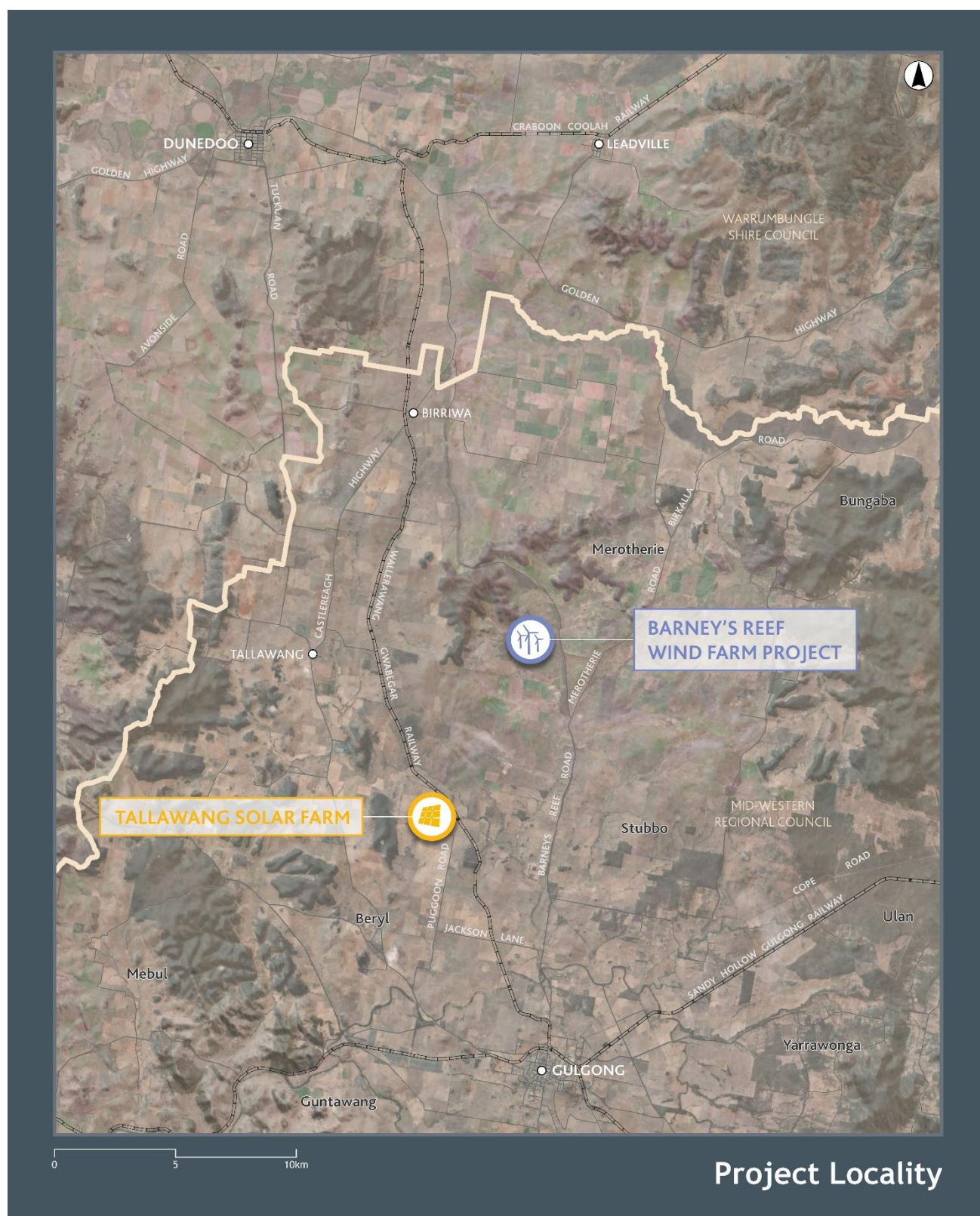


Figure 5 Tallawang Solar Farm and Barneys Reef Wind Farm Area of Social Influence

2.5 Known stakeholder issues and social risks to the Projects

This section provides an overview of identified local concerns, issues, and interests in the form of social risks as relevant to the Project. This information is important in focusing the assessment process on matters of concern and interest to relevant stakeholder groups, for further consideration in Project planning and development.

In recent years, proposed renewable energy projects across NSW have had diverse responses from local communities on their perceived impacts. Following an initial review of Project information and plans, as well as submissions received on comparable or nearby projects, local media, and other publicly available documentation, we have understood the following issues to be of relevance for consideration in planning and developing the Project.

Firstly, matters relating to the level of information sharing and community participation in project development, including the opportunity for stakeholders to be involved in decision-making processes that affect them:

- Lack of community representation in project planning and development
- Confusion regarding two projects in one locality
- Lack of knowledge or experience of renewables, resulting in mistrust or scepticism.
- Community division / polarisation
- Recent experiences with other projects, resulting in misinformation.
- Consultation fatigue due to multiple concurrent projects

Secondly, matters relating to broader community effects:

- Strain on local infrastructure, facilities, and services
- Cumulative effect on cohesion in townships caused by the presence of multiple concurrent projects
- Lack of local long-term benefit
- Detraction from historic and tourist attraction of Gulgong
- Climate change adaptation and intergenerational equity
- Unequal distribution of project benefits

And thirdly, matters relating to the Project footprint:

- Social amenity factors such as levels of noise, visual impact, and other amenity impacts
- Changes to local road conditions, increased traffic, and concern for public safety due to the construction workforce
- Land use conflict with renewables development in food production and other agricultural areas
- Perceived property devaluation
- Disruption to farming operations and livelihoods
- Health and wellbeing of workers.

The cumulative nature of renewable energy projects must also be considered in the case of this project given the NSW Government's NSW Electricity Infrastructure Roadmap and other proximal development projects.

From a social perspective, matters as described above are often inter-related and may be perceived both positively and negatively by different stakeholder groups.

3 Engagement strategy

3.1 Principles of engagement

RES believes that community engagement creates mutual benefits for both the developer and the communities in which they operate. RES is committed to clear, honest, and transparent community engagement through all stages of a project lifecycle from initial site selection through to planning, construction and operations. The company's approach to engagement is heavily influenced and consistent with, the Clean Energy Council's (CEC) Best Practice Charter for Renewable Energy Development 2018. RES is a founding signatory of this Charter.

The principles underpinning community engagement adopted by RES align with the '*Community Engagement Guidelines for the Australian Wind Industry*' developed by the Clean Energy Council (CEC, 2012). In adopting the principles of the Guideline, RES commits to the following with respect to the development of the Project:

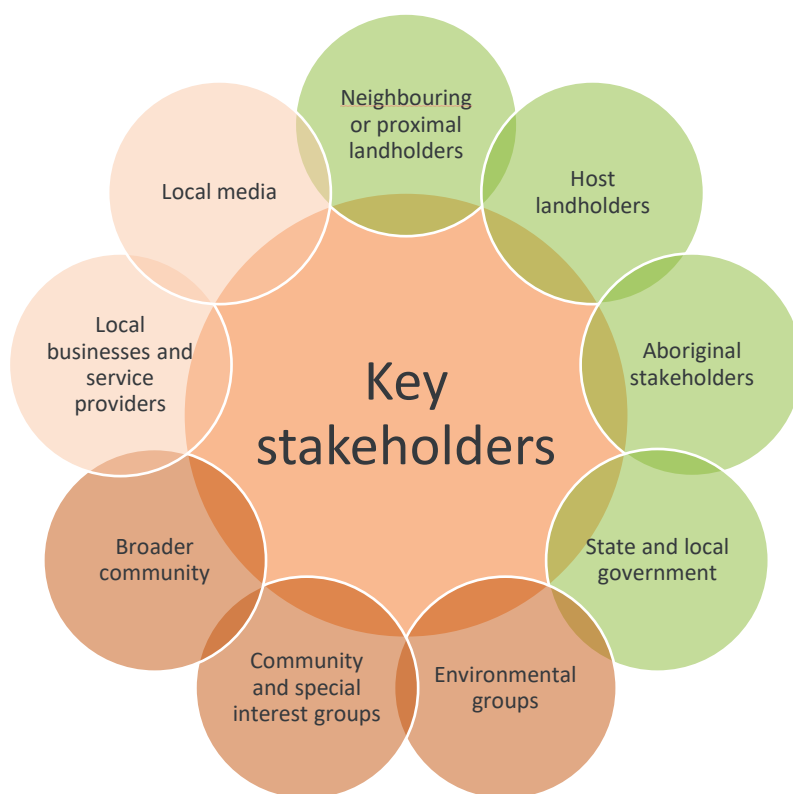
- **Openness.** Relevant information will be shared with the community in a format that is clear, accurate, timely and honest.
- **Inclusiveness.** RES will work with project stakeholders to ensure their perspectives are considered.
- **Responsiveness.** All community concerns will be listened and responded to.
- **Accountability.** The project will continue to monitor, evaluate and disclose information about project activities and the identified positive and negative impacts of the project.

RES has a dedicated and experienced team which can draw on its learnings from other projects in Australia to establish respectful relationships with local communities. In this way, RES aims to foster social licence to plan, construct and operate projects, striving for best practice, and early engagement with communities to develop an understanding of the community and the project's stakeholders. We understand that no two communities are the same and our investment in early engagement allows us to tailor our communications approach to the community we are working in. In turn, this supports the ability for communities and local stakeholders to participate in and inform project planning and development. RES acknowledges that a robust community and stakeholder engagement process can further inform the assessment process and project technical studies to bring about positive project and community outcomes.

3.2 Stakeholder identification

A stakeholder identification process has been undertaken to further define relevant stakeholders for the project within each of these stakeholder groupings:

- **Group 1:** high priority - stakeholders who require proactive and collaborative engagement.
- **Group 2:** moderate priority - stakeholders who will require information provision and/or may be interested in the project.
- **Group 3:** low priority - stakeholders who will be given the opportunity to participate but will not necessarily be engaged directly.



A breakdown of Group 1 stakeholders is presented in Table 2 with further definition of stakeholders and their respective groupings outlined in the Projects' [Stakeholder Database](#).

Table 2 Project Stakeholders

Stakeholder group	Priority	Level of engagement (IAP2)	Potential interest or concern
Host Landholders	1	Collaborate	Accessibility, social amenity, land acquisition, livelihoods, and personal advantage/ disadvantage
Proximal Landholders	1	Involve	Accessibility, land use conflict, social amenity, personal advantage/ disadvantage
Traditional Owners	1	Involve	Aboriginal rights and interests, native title, cultural heritage, and land access, development opportunities
State and Local Government	1	Involve	Cumulative impacts, land use/ intergenerational equity, community or public perceptions, opportunities for collaboration, economic benefits, local infrastructure, and services
Environmental Groups	1	Consult	Cumulative impacts, land use/ intergenerational equity, climate change adaptation, ecological/ environmental impacts
Community & Special Interest Groups	1	Consult	Cumulative impacts, land use/ intergenerational equity, local benefit, impact on heritage or tourism, climate change adaptation, community and economic changes
Local Businesses & Service Providers - Accommodation, Education, Emergency Services, Employment & Training, Health	1 2	Consult	Cumulative impacts, demand and capacity, opportunities for collaboration, economic benefits, community and economic changes, local infrastructure, and services
Broader Community	2	Inform	Cumulative impacts, potential change to sense of community / community cohesion, climate change adaptation, local benefit, local infrastructure, and services
Local Media	2	Inform	Cumulative impacts, opportunities for collaboration, community or public perceptions, local benefits, community and economic changes

3.3 Engagement mechanisms

The engagement of stakeholders and community groups will include a combination of:

- **Consultation and engagement:** to facilitate stakeholder involvement in the identification of issues/impacts, areas of interest/concern and strategies to address the issues raised.
- **Information provision:** to improve knowledge and awareness of the company, its activities, the project, and key issues/impacts as they arise.

Various methods will be used to engage with the different stakeholder groups based on the type of information being conveyed, level of feedback required, understanding of stakeholder needs regarding engagement, and identified stakeholder engagement preferences identified in Table 3Error! Reference

source not found. below. This will include existing or previous mechanisms utilised by RES as well as additional mechanisms.

Table 3 Engagement Mechanisms

Mechanism	Description
Website/hotline/email	Platforms and tools to provide opportunity for the wider community or public to engage with the Projects (information provision and feedback submission) outside of dedicated consultation periods
Media release	Holding statement outlining key messages in local media
Project Information Sheet	No. 1 - Project overview No. 2 - Project update and outcomes of scoping phase No. 3 - Project update and outcomes of technical studies
Project briefing	Formal briefings to key stakeholders and government agencies, with Project Information Sheet and/or slide deck to formally introduce the Projects
Personal meeting / interview*	Introductions to the Projects and team, semi-structured discussion to listen to individual concerns, interests, issues and gather preliminary feedback, scope potential impacts and opportunities, including sensitivities, to inform mitigation / enhancement strategies, understand future engagement preferences
Community information and feedback sessions	Informal 'drop in' sessions to provide information (interactive), to provide a 'face' of the project, opportunity for members of the public to pose questions, project team to visually share results of technical studies, and collect community feedback (Round 2 only)

*Personal meetings can also be undertaken in small groups, noting that the focus of these meetings is to understand and scope local concerns, interests, issues, and priorities, not only to provide information on the Projects.

Table 4 outlines the mechanisms that are planned be used to engage each stakeholder group for the Projects.

Table 4 Mechanism Matrix

Stakeholder group	Information provision			Engagement mechanism		
	Website/hotline/email	Media release	Project Information Sheet	Project briefing	Personal meetings/interview	Community information and feedback session
State Government			✓	✓		
Local Government		✓	✓	✓		
Traditional Owners	✓	✓	✓	✓	✓	✓
Host landholders	✓	✓	✓		✓	✓

Stakeholder group	Information provision			Engagement mechanism		
	Website/ hotline/ email	Media release	Project Information Sheet	Project briefing	Personal meetings/ interview	Community information and feedback session
Neighbouring / proximal landholders	✓	✓	✓		✓	✓
Community groups	✓	✓	✓	✓	✓	✓
Wider community	✓	✓	✓			✓
Local businesses and service providers	✓	✓	✓	✓	✓	✓
Local media	✓	✓	✓			

3.4 Instrument Toolkit development

Umwelt will draft and prepare instruments, materials, and tools to be used to support engagement in accordance with this CSEP. These will be prepared following RES's confirmation of the Implementation Plan (Section 5). Instruments to support engagement activities will include the following:

- **Run sheets and/or agendas** - for formal project briefings for RES to hold with government agencies, and for key stakeholder meetings that the Umwelt team may facilitate in the local or regional area.
- **Interview discussion guides** - a suite of discussion guides including a standard discussion template/survey question set, as well as targeted guides for specific stakeholder or community groups/specific activities such as talking points and questions for community information sessions. Each guide will likely include up to 5 open ended questions.
- **Project information sheets** - to communicate key information visually and concisely on the project to the wider community, to be distributed in multiple means such as a resident mail drop, online format, and in hard-copy at community information/drop-in sessions
- **Record-keeping templates** - including interview note taking templates and meeting minutes templates
- **Stakeholder engagement database** - set up of template in an Excel spreadsheet.

3.5 Discussion topics for engagement

The NSW Government's *Large-Scale Solar Energy Guideline* (2018) requires that proponents address the following components of their stakeholder engagement program through the appropriate project planning and development phases:

- To engage with host and proximal landholders about the proposed project area, the likely infrastructure layout, access routes and potential location of ancillary infrastructure
- To listen to the community's concerns and suggestions
- To discuss potential noise impacts, the potential visual impacts and landscape changes, the proposed siting, and potential alternatives

- To discuss issues for landholder agreement if the project is approved, including siting, access, compensation, responsibility for decommissioning and rehabilitation.

3.5.1 Round 1 (Scoping Phase)

It is expected by DPIE under the draft SIA Guideline (2020) that the scoping phase will include community engagement activities to understand likely stakeholder issues and concerns to inform the SIA.

Engagement in Phase 1 provides an opportunity to gauge and understand stakeholder issues/concerns/interests in relation to the project; to identify possible strategies/solutions to address topics raised; and to then use this information gathered to proactively inform project design and planning.

In this regard, the SIA process calls for likely social impacts to be appropriately scoped and identified through consultation with potentially affected people and mitigation and enhancement options preliminarily explored.

To satisfy the SIA requirements, proposed engagement activities to be undertaken in this phase need to be targeted at identifying perceived issues of concern and/or positive impacts in relation to the proposed project, to be further considered in the subsequent EIS/SIA phase.

Questions to include in the interview discussion guides appropriate to this phase will include topics relating to:

- Awareness and attitudes towards solar and wind farm development (and other industry development in the local or regional area)
- Awareness and public perceptions of RES
- Potential issues, concerns or interests related to the proposed Projects
- Community values, identity, local needs, and aspirations
- Areas of value and use within and near the Projects
- Sense of community in the area
- Potential sensitive receivers and/or vulnerable community groups
- Preferred engagement mechanisms, frequency, and content.

The information gathered in the scoping phase will be used to inform EIS preparation, by focusing the assessment on key social and environmental issues/impacts of importance to key stakeholder groups; and by identifying project design refinements that may seek to avoid or minimise negative impacts and/or enhance positive impacts. This is an important process in the project development process and records of changes made will be kept and discussed in the EIS.

3.5.2 Round 2 (EIS preparation)

Proposed engagement activities undertaken during Round 2 will be focused on responding to questions, concerns or issues that arose during the scoping phase with environmental issues resolved and project refinements to be integrated where possible as a result. Further, this round of engagement is an opportunity to further explore and validate the social issues, interests, and impacts, that were identified during the scoping phase. The EIS program and preliminary insights or findings gathered through the various technical studies will also be further communicated during this phase, to assist in gathering feedback from key stakeholders and the wider community, on predicted project impacts (positive and negative).

Therefore, engagement in this phase, to inform the EIS and SIA will focus on:

- Assessment of perceived issues, impacts and opportunities associated with the project
- Existing capacity of local service provision and projected future demand
- Responding to, addressing, and integrating environmental and project design matters raised during the scoping phase
- Potential strategies to address and respond to issues, impacts and opportunities
- Enhancement measures to improve collaboration between RES and community or stakeholders, including potential community investment and benefit-sharing opportunities.

3.6 Record-keeping and stakeholder database management

A dedicated Stakeholder Database will be established in Microsoft Excel format to track stakeholders and related information throughout the Project's planning and approvals phase. This will include an Engagement Register, whereby team members will record the contact details of stakeholders, summaries of each consultation or contact with the stakeholder, and any actions that may arise from these meetings. This database will be established by Umwelt on an interactive and accessible platform (such as SharePoint) and maintained through the life of the Project by RES, as required.

Outcomes and records of each engagement activity will be documented by the team member(s) in attendance. The Engagement Register will be maintained throughout the delivery of the Implementation Plan to ensure consistent tracking and recording of all community or stakeholder engagement activities and outcomes. Information to be recorded includes:

- Activity details (including stakeholder engaged, attendees, time and place, mechanism used)
- Discussion points
- Summary of key outcomes, including any actions
- Stakeholder contact details
- Preferences for future engagement.

Following completion of engagement for each phase, outcomes and data obtained will be collated and analysed to identify key impact themes and impact prioritisation. Identified issues or impacts may also be mapped to identify any spatial patterns.

Outcomes of the engagement undertaken will then be summarised in the Scoping Report, the Social Impact Scoping Report and Social Impact Assessment Report respectively. Relevant EIS technical studies will also receive consultation outcomes as relevant to inform their respective study outcomes. Furthermore, the EIS will consider project design refinements based on stakeholder and community consultation outcomes.

3.7 Complaints handling and issue tracking

RES will maintain a Project complaint register throughout each phase of the Projects. This will be informed through activities and outcomes of this CSEP in addition to future engagement activities related to the Projects.

4 Key Messages

4.1 Overview

As the project evolves RES will develop and adapt key messages for communication to targeted stakeholders and communities. Key messages will be developed in line with the principles and commitments outlined within **Section 1** of this document and will be developed to share information related to the Project and its current activities, as well as to respond to stakeholder issues, concerns and interests as identified throughout development of the Project.

Key messages will be developed to address the following key objectives:

- Provide clear and consistent information relating to the two projects
- Afford meaningful participation and avoid misinformation and confusion
- Clearly articulate aspects of the project.

For the EIS process, key messages (for external purposes) have been developed and refined, around four message categories. These will be used to inform the engagement strategy and associated material development.

1. **The proponent** - who is RES?
2. **The Project** - what is Tallawang and Barneys Reef? Including details on the site and plans, ‘quick facts’ and profiles of the proposed Projects
3. **The process** - the development planning and EIS process, including community consultation and key milestones
4. **Impacts and opportunities** - key issues in relation to the Project i.e., social and environmental effects, stakeholder concerns, opportunities and benefits, engagement preferences and information requirements.

Notably, the unique positioning of the two ‘sibling’ projects should be carefully considered (i.e. Tallawang and Barneys Reef are adjacent projects, however with two differing technologies). A streamlined planning and development process between the Projects can lead to maximised community benefit, parallel community and stakeholder engagement programs and a coordinated approach to planning with local stakeholders.

4.2 Who is the proponent - Renewable Energy Systems (RES)?

- RES is the world’s largest independent renewable energy company active in both onshore and offshore wind, solar, energy storage and transmission and distribution. RES has delivered over 20GW of renewable energy projects across the globe and supports an operational asset portfolio of 7GW worldwide.
- RES is a family-run business, committed to the principles of openness and transparency across its projects and their operations.
- RES is committed to understanding each project’s local setting and ensuring that this knowledge informs the development of its projects. Further, RES understands that each and every project is different and that integrating local considerations is essential in developing successful projects for both the community and RES.

- RES has stood at the forefront of renewable energy for nearly 40 years and was established in Australia in 2004 with a proud history. This includes the successful development of the Taralga Wind Farm (NSW), Ararat Wind Farm (VIC), Murra Warra Wind Farm (VIC) and Emerald Solar Farm (QLD).
- Currently the construction and asset management portfolio under management by RES in Australia is over 1.1GW.
- RES has a pipeline of wind farm and solar projects across Australia and has recently gained approval for a number of renewable assets; solar projects include Springdale (NSW) and Avonlie (NSW), and wind projects include Dulacca (QLD) and Twin Creek (SA).
- Our specialist wind, solar and storage teams both in Australia and globally includes highly experienced professionals in development, technical, engineering, construction, network / grid connection and commercial areas of development and construction.
- RES offers development and construction of wind and solar projects, as well as ongoing asset management for both RES and third-party assets.

4.3 What are the Projects - Tallawang Solar Farm and Barneys Reef Wind Farm?

- The proposed Tallawang Solar Farm comprises a solar farm and battery storage infrastructure located in the locality of Tallawang, NSW, approximately 8 kilometres northwest of Gulgong.
- RES has identified the two potential sites within the Central-West Orana REZ as having the potential to host both a solar farm and a wind farm, each with associated battery storage facilities.
- If developed, the Tallawang Solar Farm would involve the construction, operation, and maintenance of a 390MW solar farm. The solar farm's energy storage infrastructure would have a capacity of up to 780 MWh. The potential site for the Tallawang Solar Farm is 920-hectares and would generate enough electricity to supply approximately 250,000 NSW homes. This site is located approximately 8km north-west of Gulgong town and is hosted by two properties.
- The potential site of the Barneys Reef Wind Farm would generate enough electricity to supply approximately 265,000 NSW homes. This site is located approximately 15km north of Gulgong and is in the Mid-Western Regional Council LGA. The site is approximately 18km from Dunedoo town which is in the neighbouring Warrumbungle Shire Council area. The Barneys Reef Wind Farm will have a capacity of approximately 340MW and at this early stage of planning would likely include around 60 wind turbines. The proposed site extends over 13 free-hold properties of which RES has recently formed agreements with the host landholders. Infrastructure on the site may include two substations and transmission connections, which will enable connection of the proposed turbines to the Central-West Orana REZ Transmission Corridor. This is expected to traverse the northern end of the Project Area.
- The Projects would contribute to Australia's domestic and international commitments of renewable energy development, including NSW's target of 50% renewable energy by 2030.
- To enable the transfer of energy, other relevant infrastructure will be positioned across the site, such as inverters, transformers, and battery units, as well as a number of temporary construction and permanent operational and maintenance buildings.
- Access to the two sites for construction would likely be from either the Golden Highway or Castlereagh Highway and associated local roads. The access plans will be developed throughout the EIS technical assessments.

4.3.1 Reasons for site selection

RES has selected the two sites for the following reasons:

- The Central-West Orana REZ has been identified by the NSW Government as a priority area to target for renewable energy development due to its natural resources that suit solar and wind farm development
- The collaboration from host landholders
- Through the REZ, the sites would be proximate to future grid connection and associated electricity infrastructure
- The sites are deliberately located in areas at a distance from towns to minimise impact on local populations
- The locality has strong road transportation links, including connectivity to the Port of Newcastle
- The sites are understood to require relatively minimal earthworks and vegetation clearance as well as for Tallawang, an area that is not visible on approaches to town.

4.3.2 The Central-West Orana Renewable Energy Zone (REZ)

- The Projects are located adjacent to each other, within the Mid-West Regional Council area and area also both located within the Central West-Orana Renewable Energy Zone (REZ).
- The NSW Government has identified five Renewable Energy Zones (REZ) within the State. This REZ is one such, that are anticipated to play a vital role in delivering affordable, reliable energy generation to help replace the State's existing power stations as they come to their scheduled end of life. Other zones are located in the New England, South-West, Hunter-Central Coast and Illawarra regions.
- A REZ can be understood as a modern-day power station. They intend to combine renewable energy generation such as wind, solar and battery storage solutions. By connecting multiple generators in the same location, REZs can better support the delivery of cheap, reliable, clean electricity to homes and businesses in NSW.
- The Central-West Orana REZ in particular, is anticipated to open up a significant pipeline of large-scale renewable energy projects that will support private investment and provide flow on economic benefits to communities in these regions.

4.4 What is the approvals process?

- RES is currently assessing the feasibility of both the Tallawang Solar Farm Project and the Barneys Reef Wind Farm Project. As part of this, RES is undertaking preliminary environmental and social assessments to understand both the impacts and opportunities the Projects presents to local communities and the environment. Through this, RES is wanting to seek feedback on the Projects from key stakeholders and local community members. This information, along with impacts identified through community and stakeholder consultation will feed into the Scoping Report in quarter 2 (Q2) of 2021 and thereafter into the Environmental Impact Statement which accompanies the planning application for the Projects.
- The Projects will each require development consent under the NSW Environmental Planning and Assessment Act 1979 (EP&A Act).
- Two separate development applications accompanied by two detailed Environmental Impact Statements (EIS) would be prepared and submitted to the NSW Department of Planning, Industry and Environment

(DPIE). Two separate EISs are required under the EP&A Act, as well as RES wanting to allow a better evaluation of risks and opportunities for the two different technologies.

- The EIS would include a Social Impact Assessment, in addition to several specialist studies including assessments on effects to visual changes, noise, biodiversity, heritage, water, traffic, hazard and risk, aircraft risk, soils and land use.
- Comprehensive assessments will be completed to identify the potential impacts of both Projects, including the cumulative impacts that they may have collectively, and how best to manage these impacts.
- The detailed design of each Project will be informed by these studies to ensure that impacts are mitigated as far as reasonably and feasibly possible.
- The two SIAs will include a community engagement program and be prepared considering the NSW DPIE's draft SIA Guideline (2020). This engagement program will be conducted concurrently for both projects and will include consultation with interested parties, affected communities and local representative groups. The outcomes of the engagement program will inform the development of both EISs.
- The first round of community engagement will be in March - April 2021. The second round is expected in mid-2021. People can also learn about the Projects through the two project websites. Further, people can raise queries, receive feedback, and generally express an interest in being informed via the dedicated hotline and email.

4.5 What are the impacts and opportunities?

- RES is committed to building strong local relationships with key stakeholders and communities as part of their early planning and understands the importance of ensuring local participation and community input, to achieve positive local and regional community benefits.
- RES is committed to working with the community and key stakeholders to identify environmental and social impacts associated with their proposed projects and to explore relevant strategies to mitigate negative impacts and enhance positive impacts. RES will work to ensure that through the EIS, SIA and associated community engagement process, that community issues are well understood and are addressed, where possible, in project design and planning.
- RES recognises that the siting of the projects may result in community and landscape impacts (both positive and negative) and that impacts may be experienced differently across stakeholder groups.
- RES is committed to the development of community benefit sharing programs (e.g. neighbourhood benefit programs, the development of community grant funds and community co-investment/co-ownership programs) in line with the Clean Energy Guidelines for Benefit Sharing (2019), in the areas where their projects are located.
- Across the global portfolio, RES is committed to supporting community schemes that demonstrate lasting impact and legacy.
- For the Tallawang Solar Farm and Barneys Reef Wind Farm, RES plans to work with the local community to explore benefit sharing options and target areas for contribution and support through an integrated approach bringing together the two projects. This would support the maximising of local benefits through the potential combining of funds across the two projects, which could bring about greater positive social outcomes. This approach would be informed by community engagement undertaken for the two projects, and would focus on meeting local community needs and aspirations.
- Across the global portfolio, RES is committed to supporting community schemes that demonstrate lasting impact and legacy.

- RES is committed to local employment and procurement, where possible, and would work to ensure this commitment is reflected in the policies of the nominated Engineering, Procurement and Construction (EPC) contractor.
- Where possible, construction workers for the two projects would be accommodated in towns within 1-hour of the site. The findings of the SIA will support RES in further assessing potential accommodation options to reduce related project impacts.
- For the Tallawang Solar Farm and Barneys Reef Wind Farm, RES hopes to work with local property owners to allow for the ongoing use of the land for grazing or other existing agricultural activities. In this way, RES is interested to explore and promote new partnerships and models for complementary solar and wind energy with food production and agriculture, working with local farmers to support the co-existence of land uses.

5 Implementation Plan

An overview of planned engagement activities and associated staging across the planning and approvals phase for both the Tallawang Solar Farm and Barneys Reef Wind Farm is outlined in **Table 5** and **Table 6**Error! Reference source not found..

5.1 Scoping Phase

Table 5 Scoping Phase (Round 1 Engagement)

Item	Detail	Responsibility		Attendees	Timing
		Umwelt	RES		
Preparation					
Community and Stakeholder Engagement Plan		Prepare	Review and approve	N/A	REV 01: 19/03/2021 REV 02: 24/03/2021
Project description		Review and integrate	Prepare	N/A	19/03/2021
Key messages and set up script		Prepare	Review and approve	N/A	Draft 19/03/2021 Final 24/03/2021
Project Information Sheet (1)	To be distributed via mail drop around 2 x Projects	Prepare, design, and distribute	Provide critical inputs, e.g., contact details to include, review and approve	N/A	Draft 22/03/2021 Final 26/03/2021 Print w/c 29/03/2021 Distribute via Aus Post April 2021 - TBC
Instrument Toolkit (Round 1)		Prepare and design	Review, approve and distribute	N/A	Draft 24/03/2021 Final 26/03/2021
Meetings schedules and set up	Including compilation of landholder (host and proximal) contact sheet	Organise	Approve	N/A	By 26/03/2021
Webpage/hotline/email address development and set up	Separate URL for Tallawang to Barneys Reef	Provide input into content development	Prepare, set up and manage	N/A	26/03/2021
Delivery					

Item	Detail	Responsibility		Attendees	Timing
		Umwelt	RES		
Project briefing: DPIE, Tallawang Solar Farm	Online (MS Teams/Zoom)	Organise and attend	Confirm timing, prepare presentation/material, conduct and attend	RES Umwelt	TBC - April or May 2021
Project briefing: DPIE, Barneys Reef Wind Farm	Online (MS Teams/Zoom)	Organise and attend	Confirm timing, prepare presentation/material, conduct and attend	RES Umwelt	TBC - April or May 2021
Website launch			Prepare, set up and manage	RES	End March 2021
Aboriginal consultation advertisement	Regulation to advertise notice for Aboriginal cultural heritage study in local newspaper	Prepare and organise with local paper	Review and approve		End March 2021
Project briefing: Mid-Western Regional Council	F2F in Mudgee, with General Manager and/or Mayor	Organise, receive meeting minutes/outcomes	Prepare presentation/material, conduct, and attend	RES	End March 2021
Project briefing: Warrumbungle Shire Council	F2F in Coonabarabran, with General Manager and/or Mayor and/or Councillors *Note this is the neighbouring council	Organise, receive meeting minutes/outcomes	Prepare presentation/material, conduct, and attend	RES	End March 2021
Host landholder SIA meetings (2 x Tallawang; 13 x Barneys Reef)	Email out questions and invite for phone meeting	Co-facilitate or receive/record outcomes	Organise and facilitate responses	RES Umwelt	April 2021
Proximal landholder meetings	F2F; requirement of visual assessment for BR to consult with residents	Identify landholders, supply contact sheet, provide	Organise, conduct and attend	RES	End March 2021

Item	Detail	Responsibility		Attendees	Timing
		Umwelt	RES		
	within a 4.5km radius of the Project footprint; can suggest neighbour group meetings, can follow up with phone meeting; acknowledge cropping season may affect people's availability	questions/discussion guide, receive outcomes			
Media statement		Provide input	Provide input, review, and approve, contact local media		TBC - April 2021
Agency Project briefings	TfNSW; LLS; SES; RFS; BCD; Heritage; mix of F2F and online	Supply agency list and contact details, provide input into presentation, attend as required, receive and review outcomes,	Prepare presentation, conduct and attend, record outcomes	RES Umwelt	April 2021
Mudgee Local Aboriginal Land Council	F2F or phone; timing to align with Aboriginal cultural heritage notification	Organise, attend, record outcomes	Conduct and attend	RES Umwelt	April 2021
Chamber of Commerce (Mudgee and Gulgong)	F2F	Organise, attend, conduct, record outcomes	Receive and review outcomes	Umwelt	April 2021
NSW Farmers Association - Mudgee Branch	F2F	Supply run sheet, organise, receive outcomes	Conduct and attend	RES	April 2021

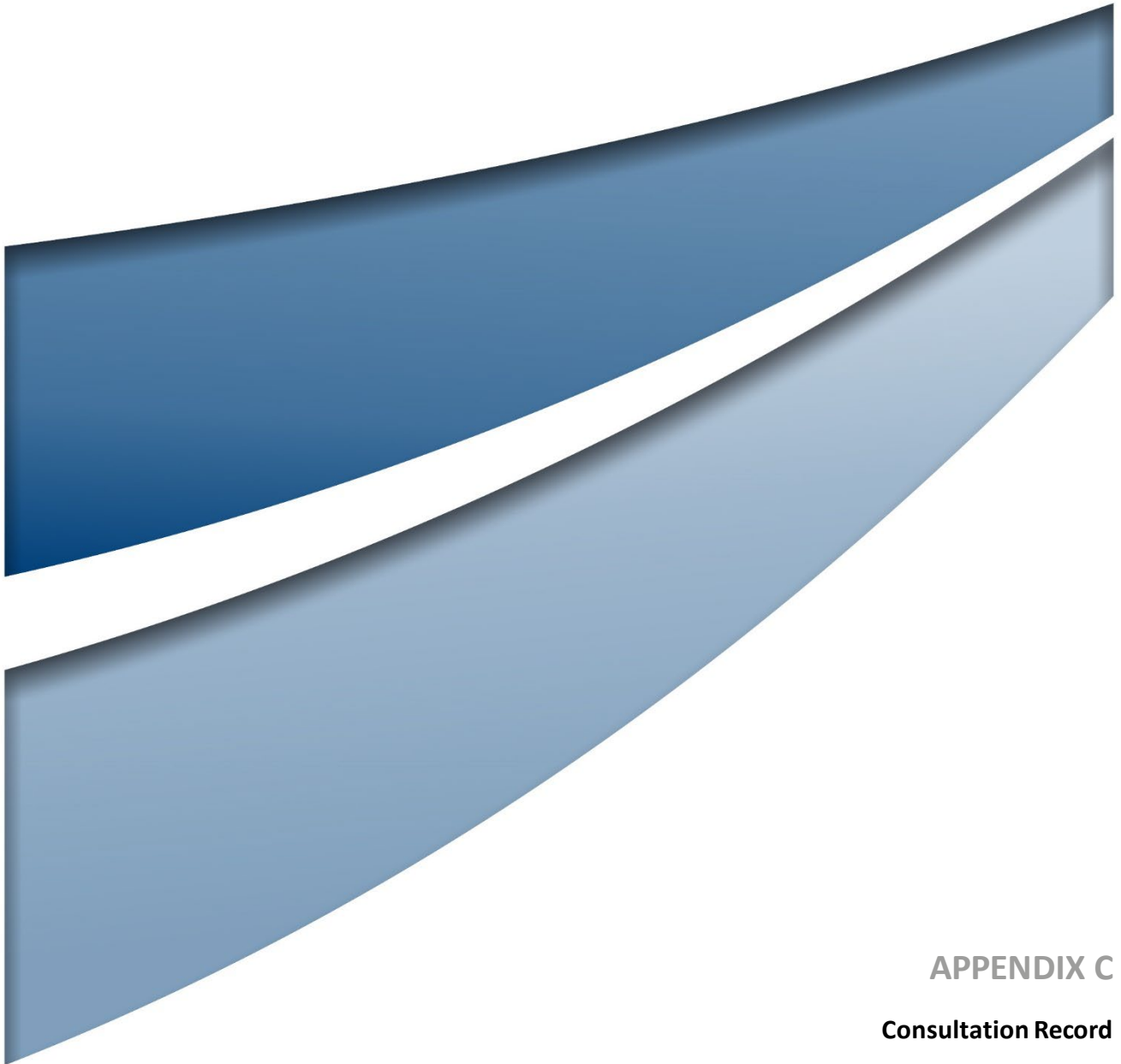
Item	Detail	Responsibility		Attendees	Timing
		Umwelt	RES		
Community groups	F2F	Organise, facilitate, record outcomes	Attend as required	Umwelt	April 2021
Local environmental groups	F2F	Organise, facilitate, record outcomes	Attend as required	Umwelt	April 2021
Local accommodation providers	F2F or phone	Organise, conduct, attend, record outcomes	Review outcomes	Umwelt	April 2021
Community Information and Feedback Session (1)		Review outcomes and integrate into SIA and EIS	Prepare posters, storyboards and run sheet, book venue, advertise and organise, conduct, attend, record outcomes		TBC
Outcomes					
Stakeholder Database and Engagement Register	Document all Round 1 engagement activities and outcomes	Compile records and undertake outcomes analysis and summaries	Review		Ongoing - April 2021

5.2 EIS Preparation Phase

The detailed Implementation Plan for Round 2 Engagement will be developed following the completion of Round 1 and in alignment with the issuance of SEARs. The table below is for template purposes only.

Table 6 EIS Preparation Phase (Round 2 Engagement)

Item	Detail	Responsibility		Attendees	Timing
		Umwelt	RES		
Community and Stakeholder Engagement Plan					TBC
Project Information Sheet (2)					TBC
Community Information and Feedback Session (2)					TBC
Community Information and Feedback Session (3)					TBC
Project Information Sheet (3)					TBC



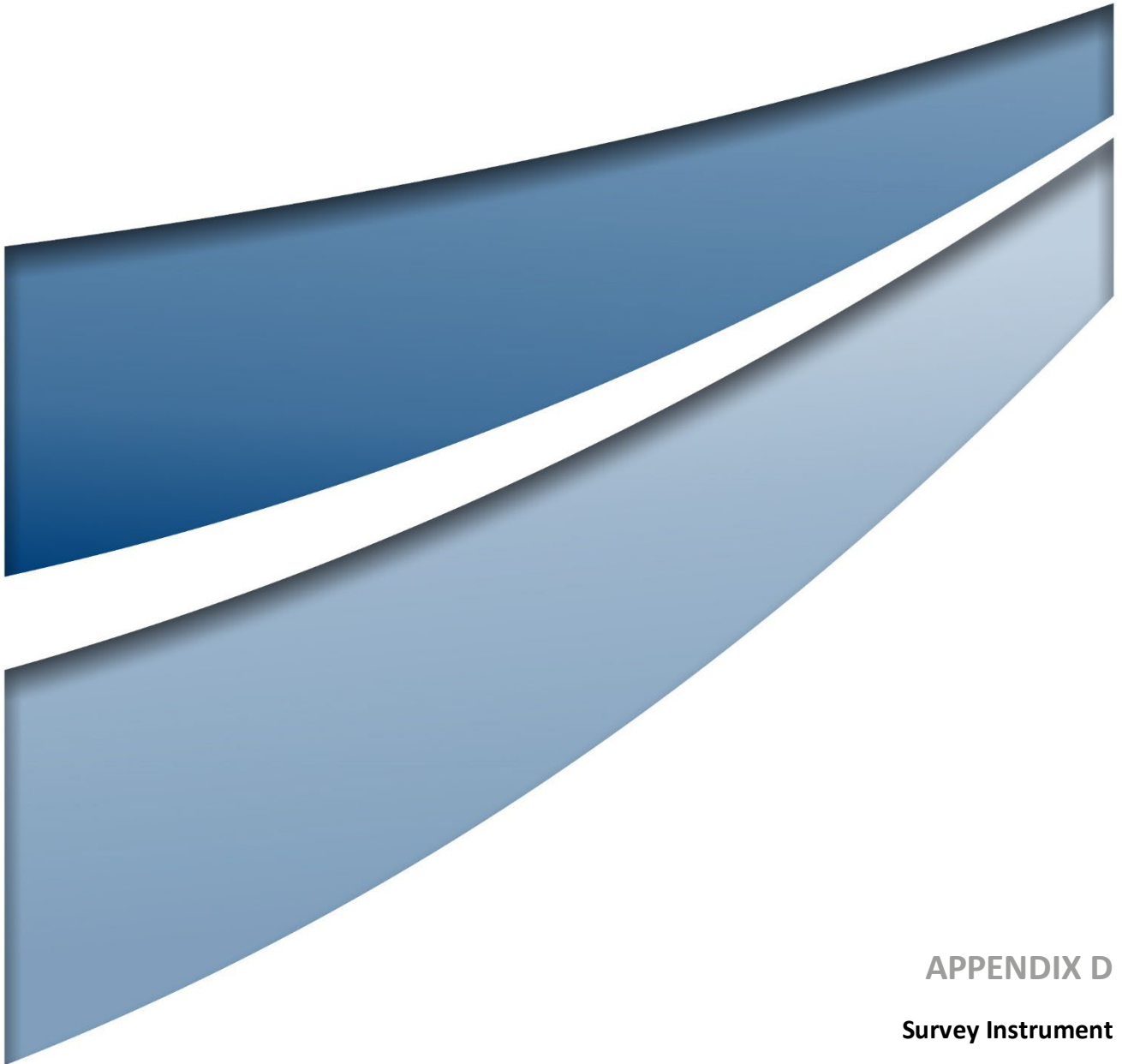
APPENDIX C

Consultation Record

Stakeholder Category	Location	Stakeholder	Description
Service Provider - Accommodation	Gulgong	Goldfields Motor Inn Gulgong	Current owner in operation for 35 years Accommodation for 60 guests Four new units being built (Additional 20 guests)
		Gulgong Motel	Current owner in operation for 4.5 years Provision of breakfast Swimming Pool
		Gulgong Tourist Park	Current owner in operation for 3 years Recently refurbished amenities block, BBQ area, new cabins, camp kitchen
		Ten Dollar Town Motel	Current owner in operation for 10 years Refurbished old pub into hotel 36 rooms available (combinations for 2 to 4 people per room) Provision of breakfast, lunch dinner and room service Open 7 days per week
	Dunedoo	Bolinda Vale	AirBnB and Stayz short term accommodation provider One accommodation available with 2-bedroom, 1 bathroom, kitchen. Located 10 kilometres south of Dunedoo
		Caddy Shack	Current owner is operation for 7 years Self-contained cabin for up to 2 guests
		Cobbora Station	Current owner in operations for 2 years AirBnB short term accommodation provider
		Dunedoo Caravan Park	In operations for 50 years 3 Self-Contained cabins with kitchens recently refurbished 12 ensuite rooms with King Single bed, bathroom, reverse cycle air conditioning, TV, bar fridge, microwave, kettle, toaster and line supplied) 14 powered van sites Camp Kitchen available Housekeeping once per week

Stakeholder Category	Location	Stakeholder	Description
	Leadville	Gundooee Organics	Current owner in operations for 5 years Short farm-stay Cottage for up to 2 guests
	Mudgee	Cudgegong Valley Motel Mudgee	Current owner in operation for 3.5 years 16 rooms available accommodating 28 beds No meal provision onsite BBQs available Swimming Pool 1.8 kilometres from CBD Charge back for Court House Hotel and Kelly's Irish Pub Generally, trade at 60% occupancy
Service provider – Real Estate Agency	Gulgong	McGregor Real Estate	Current owner in operation for 7 years Real estate sales Property management
		Troy McKellar Real Estate	Current owner in operations for 6 years Real estate services
	Coolah	Piper Real Estate Coolah	Current owner in operation for 11 years Real Estate Sales Property Management Management of two short-stay accommodation apartments for workforces
Local Business	Gulgong	Mid-West Valves and Controls	Current owner in operation for 10 years Sole trader with one employee Provision of pumps (commercial and household), fittings, specialised instruments, temperature sensors for bearing and industrial valves Local and national sales
	Mudgee	Strait Up Cranes and Rigging	Current owner in operation for 13 years Crane and Rigging supplier Maintenance and lifting services Experienced provision of services for regional renewable projects
	Dubbo	Regional Development Australia (RDA) – Orana Branch	-

Stakeholder Category	Location	Stakeholder	Description
Community Group	Dunedoo	Dunedoo and District Development Group	-
		Dunedoo Coolah Landcare	Operational for 20 years Support environmental and sustainable agriculture initiatives Support community activities to enhance social and environmental resilience, growth and wellbeing Minimal funding for paid staff – majority voluntary contributions
		Dunedoo Lions Club	-
	Dunedoo / Leadville	Leadville-Dunedoo RSL Sub-branch	-
	Gulgong	Country Women's Association	-
		Gulgong Aero Park	-
		Gulgong Chamber of Commerce	-
		Save Our Surroundings (SOS)	-
	Mudgee	Mudgee Chamber of Commerce	-
		Mudgee District Environment Group (MDEG)	-
		Mudgee Local Aboriginal Land Council (MLALC)	-
		NSW Farmers Association – Mudgee Branch	-
	Mudgee / Dubbo	NSW Farmers Association - Central West and Dubbo	-
Local Government	Dunedoo	Warrumbungle Shire Council	-
	Mudgee	Mid-Western Regional Council	-
	Muswellbrook	Muswellbrook Shire Council	-



APPENDIX D

Survey Instrument

Landholder/Neighbours Consultation Discussion Guide 2021

RES is proposing to develop the Tallawang Solar Farm and Barneys Reef Wind Farm, in the Central West-Orana Renewable Energy Zone (REZ), on neighbouring sites north of Gulgong. Both projects are subject to an Environmental Impact Statement in line with the NSW planning process and, Umwelt are developing the Environmental Impact Statement and the Social Impact Assessment for the Projects. Recent Engagement Activities We recently (9th and 10th September) held two online community information sessions on both projects, where we shared a general Project overview and update, as well as key findings of the preliminary environmental and social assessments so far. Near Neighbour Feedback We are continuing our consultation process with the community, focusing on meeting with nearby residents such as yourself to better understand your views and feedback on the proposed Project/s, and to hear your ideas or suggestions on how to alleviate or respond to any issues that you may have. The Development Application and EISs' for both projects are planned to be lodged with NSW DPIE late this year. We hope to incorporate your feedback in these Project plans and assessments. Ongoing Engagement Opportunities We are planning to also hold a second round of community information and feedback sessions later in the year once the environmental and social assessments are further progressed. There will be a Public Exhibition Period for the project's once DPIE has received our application where anyone is able to view the application and make comment. Social Impact Assessment The Social Impact Assessment relies on your input to capture the views, interests and concerns of all those potentially affected by the Project/s and to understand the level of impact on you or others around you. This will be assessed by NSW DPIE when evaluating the Project/s. Your responses will help us to understand and develop appropriate management measures tailored to your concerns or experience. Confidentiality Your responses will be deidentified and considered in aggregate form within our assessment, meaning that your personal information is not included in any reporting.

Full Name

Phone

Mobile

Email Address

Address

Postal Address (if different from above)

Which Project are do you live closest to?

1. Tallawang Solar Farm Project
2. Barneys Reef Wind Farm Project
3. In between the two Projects

To get to know you and your property a little more, how many dwellings are on the property?

And how many people live on the property?

What do you see to be the top issues or impacts of the Project on you? e.g., Visual effects, changes to your local community, concerns for your property etc. Please explain why this issue is of concern to you. Can you suggest any measures that would best address / mitigate your concerns?

Project issues/Impacts	Issue and why it is of concern to me	Mitigation Strategy
Issue 1		
Issue 2		
Issue 3		
Issue 4		
Issue 5		

What do you see as the possible positive impacts or benefits of the Project/s to the local community? (e.g. employment, procurement, greater renewable energy). RES would like any shared benefit scheme or community funding to be meeting the needs and aspirations of the community. Can you have any ideas or suggestions as to how the Project could create these local benefits and opportunities?

Positive Project Impacts / Benefits	Positive Impact / Benefit and what it means for me/the community	Enhancement Strategy
Positive Impact / Benefit 1		
Positive Impact / Benefit 2		
Positive Impact / Benefit 3		
Positive Impact / Benefit 4		
Positive Impact / Benefit 5		

Through the SIA, we're looking for feedback on how people living near the projects would like to realise benefits. RES would like any shared benefit scheme or community funding to be meeting the needs and aspirations of the community. Related to this, do you have ideas or suggestions as to how the Project could create these local benefits and opportunities?

Would you say that your view on the RES Project/s is similar to how you feel about other renewable energy projects in the region? Please Detail.

As part of the EIS undertaken for the Projects, Umwelt will conduct a Land Use Conflict Risk Assessment (LUCRA) to understand the level of land use change caused by the Project/s and the potential for land use conflict between neighbouring land uses and the Project/s. It assesses the compatibility of the Project/s with existing land uses, during construction, operation and after decommissioning. The following questions seek to: Understand you as a property owner/landholder have any concerns or views regarding the change in land use. Understand the current land uses of the land surrounding the Project. Understand the history of the land use surrounding the Project. The Tallawang Solar Farm would change the existing land use from primarily agricultural purposes to dual use, energy infrastructure and agriculture. The Barneys Reef Wind Farm is a compatible land use with agriculture. The Project would result in land use changes also to dual usage, agriculture and energy. The land hosting the wind farm infrastructure can continue to be used for agriculture without impacting on neighbouring properties.

What is the current use of your land?

Do you think this project may impact on the current use of your land? / Do you have any concerns of the proposed development on impacting upon your land or operation?

Do you have any information on other previous uses of the property that are different to current uses?

If applicable, what is your general crop rotation? (Leave blank if not relevant to you)

Please explain any stock routes to move livestock within your property or across other properties. This could include grazing of livestock in the road reserve.

How frequent are these stock movements? (Including any seasonal variability e.g., more movements in summer or winter).

Is any land on your property leased to others? If so, do lessees require access to this property that could potentially be restricted or affected by the Projects' construction?

Please provide your typical work hours (including during harvest or lambing seasons)?

And number of employees (if relevant)?

What equipment is operated on the land? (Select all that apply and provide any other machinery if not listed here).

1. Tractors
2. Trucks
3. Quad Bikes
4. Four wheeled Drives
5. Motorbikes
6. Arial Spraying
7. Other (Please Specify) _____

If applicable, please outline what method you use for spraying your property (e.g., via tractor and boom sprayer, or aircraft)

And how often do you spray (i.e., frequency and/or seasonal trends)

Do you cross or access your property/ies via the following locations. If yes, please explain how and why you access these areas (e.g., tractors using road to travel to property owned or leased on the other side of road).

1. Castlereagh Highway
2. Gingers Lane
3. Merotherie Road
4. Barneys Reef Road
5. I do not cross any of these locations

The final Questions seek to understand how you would like to receive information about the Project/s and be engaged in the future.

How would you like to hear updates on the Project/s and for RES to be engaging with you into the future? (Select all that apply)

1. Phone Call
2. Face to Face Meetings
3. Public Information Sessions
4. Mail-out Newsletters
5. Email Updates
6. Group Neighbours Meetings
7. Local Media Releases
8. Other (Please specify) _____

Is there anyone else you think we should speak to about these matters or someone else you think would be interested in providing feedback?

Lastly, is there anything else you would like to add?

--



Community Group – SIA Discussion Guide – August 2021

Interview Details:

Date/Time:	
Location:	
Interviewer:	
Name of respondent:	
Telephone contact:	
Email contact:	
Organisation/Company:	
Position/Role:	

Intro:

RES is proposing to develop the Tallawang Solar Farm and Barneys Reef Wind Farm in the Central West-Orana Renewable Energy Zone (REZ) on neighbouring sites north of Gulgong. Both projects are subject to an Environmental Impact Statement in line with NSW planning policy, Umwelt are developing the EIS and the Social Impact Assessment for the projects. As part of the SIA we are talking to local community, environment and special interest groups to understand what you understand the social impacts of the project may be on the community and the region.

Project info:

Currently both projects have had their scoping reports submitted to the Department of Planning, Industry and Environment and now we are developing the EIS for the projects which involves a number of technical environmental studies, such as a traffic assessment, visual assessment, noise assessment etc. and also the SIA.

The proposed Tallawang Solar Farm comprises a solar farm, battery storage, transmission line structure and substation in the locality of Tallawang, NSW, approximately 8 km northwest of Gulgong. If developed, the Tallawang Solar Farm would involve the construction, operation, and maintenance of a solar farm with energy storage infrastructure capacity of up to 1000 Mwh. The construction phase is expected to employ over 975 workers across 34 months from mid-2023.



The proposed Barneys Reef Wind Farm includes an estimated 63 wind turbines in the locality of Barneys Reef, NSW, approximately 12 km north of Gulgong and 18 km south of Dunedoo.

If developed, the Barneys Reef Wind Farm would include the construction and operations of the wind turbines, as well as battery storage, two substations, access roads and transmission line

infrastructure. The construction phase is likely to employ 450 workers over 24 months from the end of 2023.

The construction periods of the two projects are likely to overlap for approximately two years and employ over 1,500 in total. At present, it is unknown how many of these workers will come from the local area or region, or elsewhere across NSW or Australia. These interviews and the responses provided will support RES in planning the detail of the construction of these two projects.

Discussion question	Response
1. Based on the info we have shared with you today about the project, what are your views of the project? Do you feel that these views would be consistent with members of the community that your organization represents?	
2. Your organisation has a particular focus on X (environment, community development, etc.), with that focus in mind, what do you or your group see to be the top issues or impacts of the Project on the community?	
3. How do you see these matters being best addressed or responded to by the projects themselves?	
4. Do you see key differences between the solar and the wind farm in terms of community concerns or interest? If so, what exactly?	
5. Do you think the projects align with the value or aspirations of the community for the area? / What do you value most about your local area?	
6. How do you see that the community and your members feel about the rate of redevelopment in the local/regional area? Do you think this is likely to affect how people perceive these two projects?	
7. What do you see as the key needs or priorities of the local community?	

8. Do you have ideas or suggestions as to how the Project could bring about greater local benefit?	
9. Is there anyone else you think we should speak to about these matters?	
10. Would you like to be kept up to date with project updates? / Is there any particular aspect of the projects you would like to be kept up to date on?	
11. Is there anything else you would like to add?	

Tallawang Solar Farm and Barneys Reef Wind Farm Community Information Session Feedback Form 9th & 10th September 2021
Thank you for attending today's Community Information Session. Your feedback will assist us in better understanding your views, concerns and interests associated with the projects and will support us to improve our communications and Project planning in the future.

We seek your feedback on the following areas:

- Community Information Sessions
- The Project(s)
- Community consultation processes

Full Name

Organisation (if relevant)

Phone

Email Address

Address

I am most interested in the Community Information Session for: (tick all that apply)

1. Tallawang Solar Farm Project
2. Barneys Reef Wind Farm Project
3. Both Projects

Overall, how helpful did you find the Community Information Session in providing information about the Tallawang Solar Farm Project, where 1 is "not at all helpful" and 10 is "very helpful".

Tallawang Solar Farm Project	1	2	3	4	5	6	7	8	9	10
------------------------------	---	---	---	---	---	---	---	---	---	----

Overall, how helpful did you find the Community Information Session in providing information about the Barneys Reef Wind Farm Project, where 1 is "not at all helpful" and 10 is "very helpful".

Barneys Reef Wind Project	1	2	3	4	5	6	7	8	9	10
---------------------------	---	---	---	---	---	---	---	---	---	----

Based on the information you have on the Projects, please answer the following questions to help us better understand your views.

What are your key issues or concerns relating to either project and how could RES address these negative impacts? Examples could include impacts to:

- personal property
- individual livelihood
- community character and cohesion
- noise
- visual amenity
- land use changes
- workforce management
- health and wellbeing
- rate of change
- number of projects in the region

Issue of Concern	Project (Tallawang Solar Farm / Barneys Reef Wind Farm / Both)	Issues / Concern	What will this mean for you and your community?	Mitigation Ideas

Tallawang Solar Farm and Barneys Reef Wind Farm Community Information Session Feedback Form 9th & 10th September 2021

Key Issues / Concern 1				
Key Issues / Concern 2				
Key Issues / Concern 3				
Key Issues / Concern 4				
Key Issues / Concern 5				
Key Issues / Concern 6				
Key Issues / Concern 7				

What do you see as the benefits and opportunities of the Projects? Are there any ideas or strategies that RES could consider to enhance these positive impacts? Examples could include impacts to:

- jobs and procurement
- regional growth and diversification
- community investments
- tourism
- personal financial gain
- clean energy

Key Benefit / Opportunity	Project (Tallawang Solar Farm / Barneys Reef Wind Farm / Both)	Benefit / Opportunity	What will this mean for you and your community?	Enhancement Ideas
Key benefit / Opportunity 1				
Key benefit / Opportunity 2				
Key benefit / Opportunity 3				
Key benefit / Opportunity 4				
Key benefit / Opportunity 5				
Key benefit / Opportunity 6				
Key benefit / Opportunity 7				

On a scale of one (1) to ten (10) how would you rate your level of support for renewable energy in general, where one (1) is a Low level of support and ten (10) is a High level of support.

Renewable Energy in General	1	2	3	4	5	6	7	8	9	10
-----------------------------	---	---	---	---	---	---	---	---	---	----

On a scale of one (1) to ten (10) how would you rate your level of support for the growth in renewable energy developments in the region, where one (1) is a low level of support and ten (10) is a high level of support.

Renewable Energy in General

Growth in Renewable Energy Developments in the Region	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

On a scale of one (1) to ten (10) how would you rate your level of support for the Tallawang Solar Farm Project, where one (1) is a Low level of support and ten (10) is a High level of support.

Tallawang Solar Farm Project	1	2	3	4	5	6	7	8	9	10
------------------------------	---	---	---	---	---	---	---	---	---	----

On a scale of one (1) to ten (10) how would you rate your level of support for the Barneys Reef Wind Farm, where one (1) is a Low level of support and ten (10) is a High level of support.

Barneys Reef Wind Farm Project	1	2	3	4	5	6	7	8	9	10
--------------------------------	---	---	---	---	---	---	---	---	---	----

Would you like to be kept up to date with information about the Project in the future?

1. Yes
2. No

What information would you like to receive about the projects?

--

How would you prefer to be engaged on the Projects in the future? (Select all that apply)

1. Project Information Sheet in the mail
2. Phone calls
3. Email
4. Meetings
5. Community events and information sessions
6. Local media publications
7. Other (Please specify) _____

How did you hear about the Community Information Session? (Select all that apply)

1. Project Information Sheet in the mail
2. Word of mouth
3. Facebook
4. Personal invitation
5. Mudgee Guardian
6. Dunedoo Diary
7. Gulgong Gossip
8. Other (Please specify) _____

Is there anything you would like to add?

--

Social Infrastructure Service Providers (Accommodation, Training, Economic Development, Employment, Health) – SIA Discussion Guide - August 2021

Interview Details:

Date/Time:	
Location:	
Interviewer:	

Name of respondent:	
Telephone contact:	
Email contact:	

Organisation/Company:	
Position/Role:	

Intro:

RES is proposing to develop the Tallawang Solar Farm and Barneys Reef Wind Farm in the Central West-Orana Renewable Energy Zone (REZ) on neighbouring sites north of Gulgong. Both projects are subject to an Environmental Impact Statement in line with NSW planning policy, Umwelt are developing the EIS and the Social Impact Assessment for the projects. As part of the SIA we are talking to local service providers and business groups, amongst a range of other community members, to understand what the impact might be on the provision of services within the region as a result of the projects' proposed incoming construction workforce.

Project info:

Currently both projects have had their scoping reports submitted to the Department of Planning, Industry and Environment and now we are developing the EIS for the projects which involves a number of technical environmental studies, such as a traffic assessment, visual assessment, noise assessment etc. and also the SIA.

The proposed Tallawang Solar Farm comprises a solar farm, battery storage, transmission line structure and substation in the locality of Tallawang, NSW, approximately 8 km northwest of Gulgong. If developed, the Tallawang Solar Farm would involve the construction, operation, and maintenance of a solar farm with energy storage infrastructure capacity of up to 1000 Mwh. The construction phase is expected to employ over 975 workers across 34 months from mid-2023.

The proposed Barneys Reef Wind Farm includes an estimated 63 wind turbines in the locality of Barneys Reef, NSW, approximately 12 km north of Gulgong and 18 km south of Dunedoo. If developed, the Barneys Reef Wind Farm would include the construction and operations of the wind turbines, as well as battery storage, two substations, access roads and transmission

line infrastructure. The construction phase is likely to employ 450 workers over 24 months from the end of 2023.

The construction periods of the two projects are likely to overlap for approximately two years and employ over 1,500 in total. At present, it is unknown how many of these workers will come from the local area or region, or elsewhere across NSW or Australia. These interviews and the responses provided will support RES in planning the detail of the construction of these two projects.

Question / Topic	Response
1. Please provide an overview of the services you provide and a little on your history. What type of service do you provide? How long has the service been operating in the area?	
2. Describe your current capacity to provide the service? Do you have a waiting list for this service? Do customers currently experience difficulty in accessing the service across the region?	
3. Is there a specific geographic area or catchment that you primarily service? And a particular cohort of the community or demographic?	
4. Would you say there many others in the region that provide the same services?	
5. Approximately how many people access your service in a normal year? Would you say that was stable pre-COVID-19? Describe any annual or seasonal trends.	
6. What impact has COVID-19 had on the ability to offer your service and the demand? Has there been impacts on the broader industry within the region?	
7. What challenges do you experience in providing services? What would you say are the highest needs or priorities in providing an improved service?	
8. What is your capacity to provide the service to more people? How many more people do you think you could provide the service too? Would the number of people you could service change if it was only short-term (i.e., construction timeframe)?	
9. What do you see are the top issues or impacts to be expected from either or both the Tallawang Solar Farm/Barneys Reef Wind Farm, on the local community? Do you have suggestions on how these impacts could be best addressed or responded to?	

10. What do you see are the top opportunities of the two projects for the local community? What project benefits do you think people, and local services/businesses such as yourself, would like to see from the projects?	
11. And what are your thoughts on the number of renewable energy projects in planning/development in the region and how this over time could affect (positively or negatively) the level of service provision for the local community?	
12. Is there anything else you would like to add?	

