Social Impact Assessment

Orana Battery Energy Storage System

March 2023

Project Number: 22-277

NSW • ACT • QLD • VIC
W. www.nghconsulting.com.au

Document verification

Project Title:	Orana Battery Energy Storage System
Project Number:	22-277
Project File Name:	22-277 Orana BESS EIS_SIA_Final

Revision	Date	Prepared by	Reviewed by	Approved by
Final	27/02/2023	Lisa Hamilton Michele Ferguson	Sarah Warne	Sarah Warne
Draft	8/03/2023	Lisa Hamilton		
Final	13/03/2023	Tammy Vesely		
	[Enter the date]			

NGH Pty Ltd is committed to environmentally sustainable practices, including fostering a digital culture and minimising printing. Where printing is unavoidable, NGH prints on 100% recycled paper.

NSW • ACT • QLD • VIC
ABN 31 124 444 622 ACN 124 444 622
W. www.nghconsulting.com.au
E. ngh@nghconsulting.com.au

BEGA - ACT & SOUTH EAST NSW
Suite 11, 89-91 Auckland Street
(PO Box 470) Bega NSW 2550
T. (02) 6492 8333

BRISBANE
T3, Level 7, 348 Edward Street
Brisbane QLD 4000
T. (07) 3129 7633

CANBERRA - NSW SE & ACT
Unit 8, 27 Yallourn Street
(PO Box 62) Fyshwick ACT 2609
T. (02) 6280 5053

GOLD COAST
2B 34 Tallebudgera Creek Road
Burleigh Heads QLD 4220
(PO Box 424 West Burleigh QLD 4219)
T. (07) 3129 7633

MELBOURNE
Level 14, 10-16 Queen Street
Melbourne VIC 3000

NEWCASTLE - HUNTER & NORTH COAST
Level 1, 31-33 Beaumont Street
Hamilton NSW 2303
T. (02) 4929 2301

SYDNEY REGION
Unit 17, 21 Mary Street
Surry Hills NSW 2010
T. (02) 8202 8333

TOWNSVILLE
Level 4, 67-75 Denham Street
Townsville QLD 4810
T. (07) 4410 9000

WAGGA WAGGA - RIVERINA & WESTERN NSW
35 Kincaid Street (PO Box 5464)
Wagga Wagga NSW 2650
T. (02) 6971 9696

WODONGA
Unit 2, 83 Hume Street
(PO Box 506) Wodonga VIC 3690
T. (02) 6067 2533

Table of contents

Figures

Tables

Appendices

Acronyms and abbreviations

ABS	Australian Bureau of Statistics
ACHA	Aboriginal Cultural Heritage Assessment Report
AES	Accommodation and Employment Strategy
BESS	Battery Energy Storage System
BSAL	Biophysical Strategic Agricultural Land
CSEP	Community and Stakeholder Engagement Plan
CEMP	Construction Environmental Management Plan
CTMP	Construction Traffic Management Plan
CWO	Central West and Orana
DPE	Department of Planning and Environment (NSW)
DPIE	Department of Planning, Industry and Environment (NSW)
DPI	Department of Primary Industries (NSW)
DRC	Dubbo Regional Council
EIS	Environmental Impact Statement
EP&A	Environmental Planning and Assessment (Act)
FNPP	First Nations Participation Plan
FTE	Full-time equivalent
GRP	Gross Regional Product
IAIA	International Association for Impact Assessment
ICN	Industry Capability Network
IPP	Industry Participation Plan
IRSAD	Index of Relative Socio-economic Advantage and Disadvantage
km	kilometres
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan
LGA	Local Government Area
LPP	Local Procurement Policy
NVIA	Noise and Vibration Impact Assessment
m	metres
NSW	New South Wales
NSW RFS	Rural Fire Service (NSW)
PHA	Preliminary Hazard Analysis

RAP	Registered Aboriginal Party
RDA	Regional Development Australia
REZ	Renewable Energy Zone
SEARS	Secretary's Environmental Assessment Requirements
SEIFA	Socio-Economic Indexes for Areas
SF	Solar farm
SIA	Social Impact Assessment
SP2	Special Purpose (zone) 2
SSD	State Significant Development
TIA	Traffic Impact Assessment
VIA	Visual Impact Assessment
WF	Wind farm

Declaration

SIA prepared by: NGH Pty Ltd

This SIA has been prepared in accordance with the *Social Impact Assessment Guideline for State Significant Projects* (DPIE, 2021), to inform the EIS in accordance with Schedule 2 of the EP&A Regulation. It contains all available information relevant to the social impact assessment of the development, activity or infrastructure to which the SIA relates. The information contained in the SIA is neither false nor misleading.

Name:	**Lisa Hamilton**
Qualifications	Master of Applied Anthropology and Participatory Development Bachelor of Commerce/Bachelor of Science
Signature:	
Date:	13.03.2023

Executive summary

Akaysha Energy is proposing to develop the Orana Battery Energy Storage System (BESS) in the locality of Wuuluman, approximately 2km northeast of Wellington, NSW. The Project would be situated within the recently declared Central West Orana Renewable Energy Zone, and it would involve the design, construction, operation and decommissioning of a 400MW capacity BESS.

This Social Impact Assessment (SIA) is one of several technical reports that form part of the Environment Impact Statement (EIS) required as part of the Project approval process. It has been prepared to address relevant requirements of the Secretary's Environmental Assessment Requirements (SEARs) issued for the Project by the NSW Department of Planning and Environment.

Wellington is a small country town set within a highly valued agricultural area. The town is home to a small close-knit community, with a large First Nations population, and some within the community experience high levels of socio-economic disadvantage.

Stakeholder engagement for the EIS phase of the Project included the EIS engagement program, as well as targeted SIA stakeholder consultation. Findings from both, as well as previous engagement undertaken by the Proponent to inform the Scoping Report, have informed this SIA.

Engagement with near neighbours, businesses, local community, interest groups and others demonstrated that in general, there is a sense of neutrality towards the Project. People neither support nor oppose the Project.

Despite this, some localised concerns were raised by near neighbours. These primarily centred around visual, noise, way of life, property value and health impacts.

For the broader community, given the relatively small size of the Project amid much development activity, in the main, engagement revealed limited concerns about the Project. The concerns that were raised focused on the local development context more broadly, and on lessons that could be learned from recent experiences with renewable energy developments in and around the town of Wellington. Drawing from these recent experiences, concerns were principally raised about:

- Housing and rental market impacts
- Lack of workforce opportunities for local people that had eventuated from other local projects
- Visual impacts and changes to landscape

In addition, suggestions were made regarding:

- Future Project engagement
- Skills, training and local employment opportunities
- Community benefits.

This engagement, as well as a review of the relevant EIS technical studies, and comparative studies, informed the identification and evaluation of social impacts form this Project. As such, the social impacts and opportunities arising from the Project are summarised below.

Social impact categories	Identified social impacts
Livelihoods	• Employment and procurement opportunities (positive benefit) • Increase in economic activity (positive benefit) • Potential impacts on property values • Distributional fairness
Accessibility	• Pressure on housing markets and short-term accommodation • Pressure on social infrastructure, services and facilities • Road access and increased traffic
Way of life	• Noise
Surroundings	• Landscape character and visual amenity • Hazard risks • Change of land-use and loss of agricultural land
Community & culture	• Changes to community cohesion • Composition and character • Increased community investment (positive benefit) • Impacts to sites and places of Aboriginal cultural significance
Health and wellbeing	• Uncertainty and stress • Sleep disturbance
Decision-making systems	• Project engagement and decision-making

Responding to these impacts and benefits and aiming to minimise negative impacts and enhance positive benefits, Akaysha implemented several Project design changes throughout the EIS process. These principally related to minimising the visual impacts to the landscape.

In addition, a series of social impact management measures will be adopted. These measures include:

- **Community and Stakeholder Engagement Plan**. This plan will focus both on the short-term engagement needed in the exhibition and pre-construction periods, and on the longer-term engagement that will be undertaken over the life of the Project.
- **Industry Participation Plan.** This plan will encompass considerations regarding i) local employment and procurement (with a specific focus on First Nations participation), and ii) accommodation of the construction workforce. The plan will be developed in partnership with key local stakeholders once the development application is approved.
- **Community Benefit Sharing Program.** A Community Benefit Sharing package will be developed that maximises local benefits and has a positive impact for the local community throughout the life of the Project. The package will be tailored to the local context and will be strongly focused on ensuring that benefits are realised, and have meaning, for the town of Wellington.

  Development of this program has been informed by consultation with key stakeholders; however, there is still a need for further program development in partnership with the

community and key stakeholders. The program will consist of local jobs and procurement initiatives (outlined in the Industry Participation Plan), and a Community Enhancement Fund. Details regarding this Community Enhancement Fund are still under consideration, however one key concept that is currently being explored is to make a contribution to the development of a mountain bike facility at Mount Arthur Reserve, just outside Wellington.

Together these measures aim to minimise and manage the negative social impacts, and enhance the positive benefits, of the Project.

1. Introduction

NGH has been engaged by Akaysha Energy Pty Ltd (Akaysha, the Proponent) to complete a Social Impact Assessment (SIA) for the Orana Battery Energy Storage System (BESS) (the Project). This SIA has been prepared to form part of the Environmental Impact Statement (EIS) for the Project.

The Project was declared a State Significant Development as defined under Part 4 of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act). Akaysha is seeking approval under the EP&A Act and Schedule 2 of the NSW Environmental Planning and Assessment Regulation 2021 to construct and operate the Project.

The SIA responds directly to the Secretary's Environmental Assessment Requirements (SEARs) issued for this Project by the NSW Department of Planning, Infrastructure and Environment (DPIE) in July 2022, which state the following is required:

> *Social impact – including an assessment of the social impacts in accordance with 'Social Impact Assessment Guideline' (DPIE, Nov 2021).*

1.1 Project overview

The proposed Orana BESS would be located approximately 2km northeast of the town of Wellington, NSW in the Wuuluman locality. This is within the Dubbo Regional Council (DRC) local government area (LGA), in the Central-West Orana (CWO) region. The Project would involve the design, construction, operation and decommissioning of a 400MW capacity BESS. The BESS is intended to help even out the grid's demand and supply profiles as the network transitions to use of more renewable energy. It would provide up to 8 hours or 1600MWh of energy storage.

Akaysha brings together a diverse and market leading set of skills and experience for BESS development projects. Akaysha's team is made up of long-standing energy sector professionals, proven in the development and deployment of large-scale batteries in Australia. Akaysha is mindful of its footprint in the communities in which it operates and is committed to engaging with local stakeholders to ensure mutually beneficial and lasting legacies.

The 'development footprint' (i.e., the 'Project site') is defined as all areas of land that may be directly impacted by the Project through all project phases. It is a generous delineation that allows for flexibility during detailed design processes. It includes areas required for the BESS and ancillary structures, perimeter fence, access roads and upgrades, transmission line footprint and areas used to store construction materials and manage environmental impacts. The development footprint is approximately 13.3ha; however, the actual operational footprint of the proposed project would be less.

The Project's development footprint is predominantly zoned for infrastructural use (electricity supply) under the Dubbo Regional Local Environmental Plan (DRC, 2022a). It would be immediately adjacent to the existing Transgrid 330kV zone substation and in very close proximity to both the Wellington Solar Farm (SF) and the Wellington North SF (currently under construction). The proposed Wellington South BESS is 300m east of the Project site (EIS exhibited December 2022).

Located within one privately owned property, much of the land of the Project site consists of rolling hills, which have been extensively cleared and previously used for grazing.

The site would be accessed via Goolma Road and then an unsealed track along the site's western boundary. Road upgrades and electricity transmission connection works as ancillary activities would be required.

The proposed site was selected due to grid capacity, proximity to connection, suitable current land use, and environmental constraints. The site would be subdivided off from the remainder of the landholder's property, and purchased by Akaysha; however, the access road and network connection infrastructure would be subject to an easement for the Project life (40 years).

One associated residence (i.e., host landholder) and ten non-associated sensitive receivers (i.e., neighbouring properties not associated with the Project yet may be impacted) are located within 1.5km of the site. The closest non-associated sensitive receiver is 620m south.

The Project locality is shown in Figure 1 below.

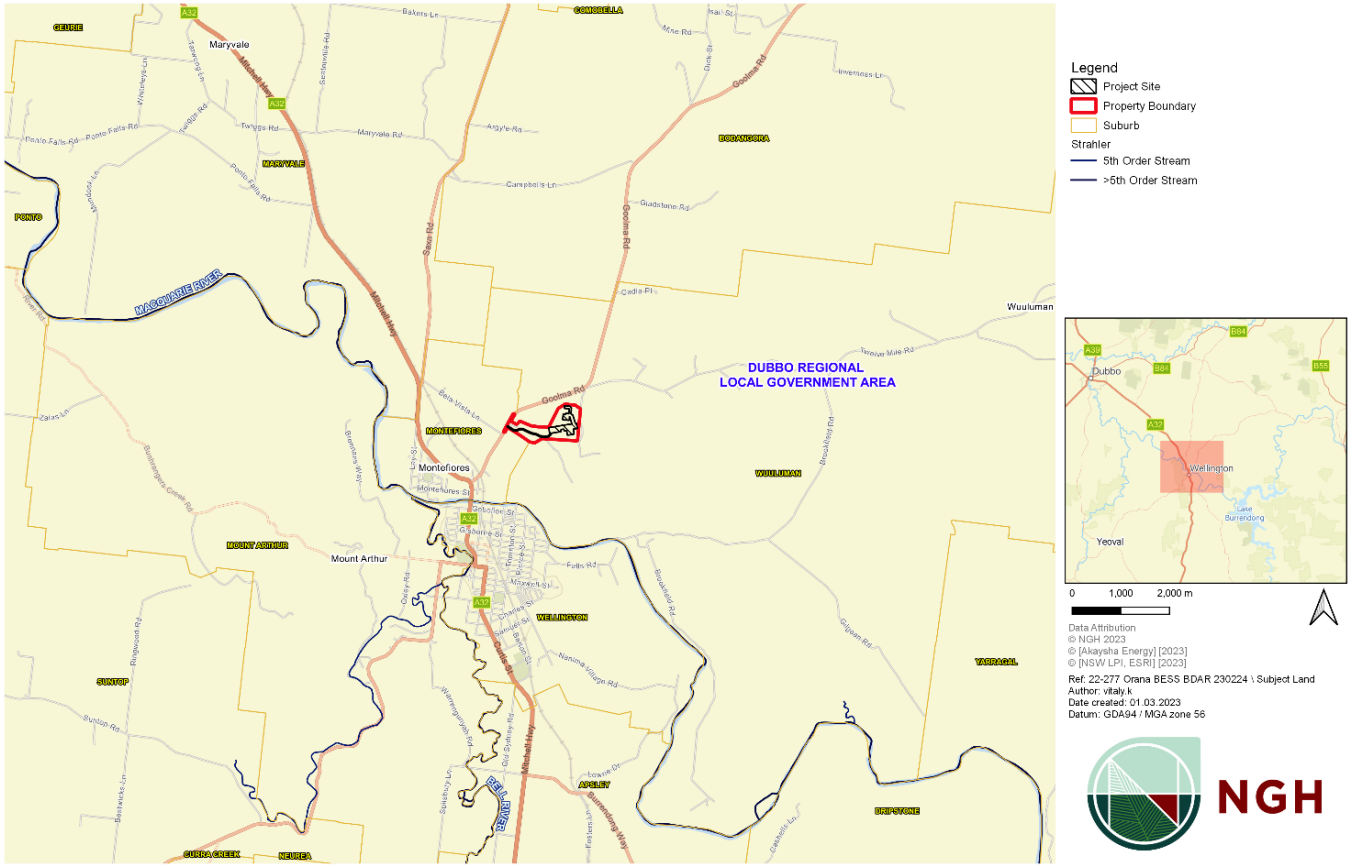

Figure 1 Project locality

Construction of the Project is expected to take approximately 6-9 months, with a 2-3 month construction peak. An additional 3 months may be required for additional BESS testing. A workforce of 100-150 FTE workers during the workforce peak and an operational workforce between 6 FTE workers would be required.

The expected operational life of the BESS is 40 years; although future infrastructure upgrades may extend the Project's lifespan beyond 40 years. During decommissioning, all infrastructure would be removed from the site with the exception of deep buried cabling. The site would then be rehabilitated.

Key components of the Project are summarised in

Table 1-1 below.

Table 1-1 Key components of the Project

Key components	Details
BESS	400MW Lithium-ion BESS Consist of multiple modular stack units arranged in rows. Each container is proposed to be 1.6m wide, 2.5m deep and 3.4m high with up to 18 stacks per row. Approximately 10ha.
Transmission line connections	A new transmission line would run from the Development footprint to the existing Wellington Substation.
Onsite substation and switchyard	Up to two 330kV/33kV power transformers connecting the BESS to the Transgrid site (about 8m high). The bulk of the power transformer structure would be 4-5m tall. Approximately 1-2ha.
Site access and tracks	Access via Goolma Road (would allow two B-Double vehicles to pass)
Operations and Maintenance (O&M) building, and storage shed	A permanent O&M facility with staff amenities and vehicle parking would be required. The O&M facility would include a maintenance area and on-site storage for spare parts. The facility wouldl be approximately 4m in height, subject to final design.
Security fencing, lighting	1.8m wire mesh fencing with 3 strand barbed wire (subject to impact assessment on local fauna) is proposed to house the BESS. The switchyard, 330kV substation and O&M facilities would be enclosed by a 2.3m high chain wire security fence with 3 strand barbed wire or a palisade fence of similar proportions. Night lighting around the buildings and in the high voltage substation would be installed to comply with relevant standards.
Operations details	The expected operational life of the Project is nominally 40 years. Expected workforce: 6 FTE
Construction timing	Approximately 9-12 months (peaking at 6 months). Standard construction hours: Monday to Friday 7am to 6pm, and Saturday 8am to 1pm. No work on Sundays and Public Holidays.
Construction	A 100 - 150 FTE workforce during peak construction is predicted. Construction would occur over a period of 6-9 months.
Temporary construction facilities	Approx. 10 transportable offices with associated amenities
Capital investment value	Estimated $800 million AUD

2. Methodology

This SIA has been prepared to comply with the Department of Planning and Environment's (DPE) *Social Impact Assessment Guideline for State Significant Projects* (DPIE, 2021a) (the SIA Guideline). The SIA Guideline applies to all State Significant projects.

A SIA 'is a process of analysing, monitoring and managing social consequences, both positives and negatives, of planned interventions (policy, plan, program, project) and any social change processes invoked by those interventions' (Vanclay, 2003).

This assessment aims to identify, predict and evaluate the likely social impacts and benefits arising from the proposed project, and to propose appropriate responses to mitigate and manage negative impacts and enhance positive benefits. Social impacts can be defined as consequences that people (i.e., individuals, households, groups, communities or organisations) experience with changes resulting from a new project or development. The impacts can be positive, such as the provision of employment and increased retail trade. They can also create unintended or adverse impacts, such as creating strains on local housing markets or existing infrastructure (e.g., emergency services, health services) during construction.

The SIA Guideline (DPIE, 2021a) groups likely social impacts into eight categories as shown in Figure 2-1.

Way of life	including how people live, how they get around, how they work, how they play, and how they interact each day
Community	including composition, cohesion, character, how the community functions, resilience, and people's sense of place
Accessibility	including how people access and use infrastructure, services and facilities, whether provided by a public, private, or not-for-profit organisation
Culture	both Aboriginal and non-Aboriginal, including shared beliefs, customs, practices, obligations, values and stories, and connections to Country, land, waterways, places and buildings
Health and wellbeing	including physical and mental health especially for people vulnerable to social exclusion or substantial change, psychological stress resulting from financial or other pressures, access to open space and effects on public health
Surroundings	including ecosystem services such as shade, pollution control, erosion control, public safety and security, access to and use of the natural and built environment, and aesthetic value and amenity
Livelihoods	including people's capacity to sustain themselves through employment or business
Decision-making systems	including the extent to which people can have a say in decisions that affect their lives (procedural fairness), can make informed decisions, and have access to complaint, remedy and grievance mechanisms

Figure 2-1 Social impact categories (DPIE, 2021a)

This SIA was undertaken in two phases. The Project Scoping Report (NGH, 2022) which involved an initial high-level identification and preliminary assessment of the Project's likely social impacts was completed in Phase 1. The Report provided a basis for further social impact assessment and evaluation work that was carried out within the EIS phase (Phase 2).

An overview of the key SIA stages is presented in Figure 2-2 below.

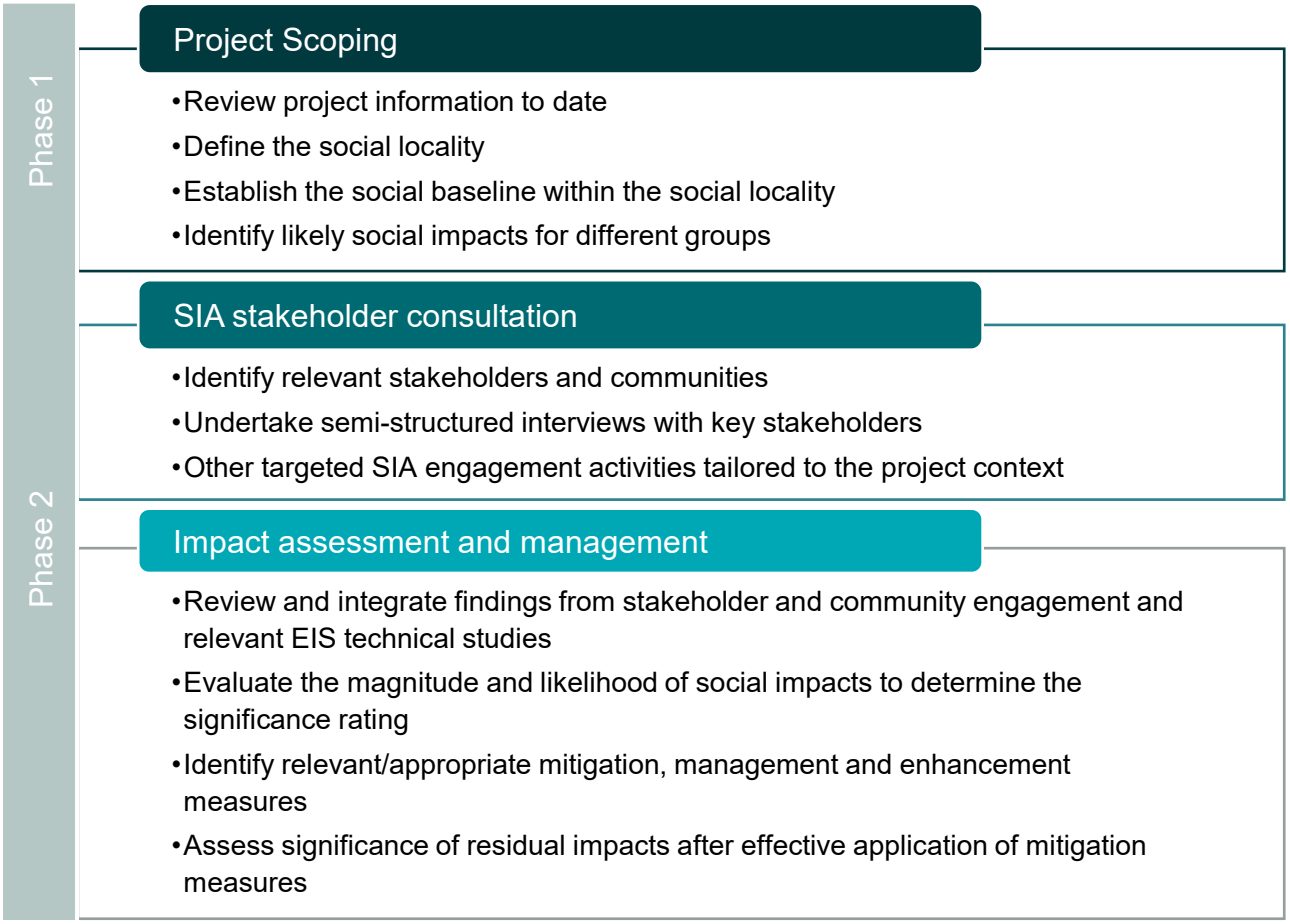

Figure 2-2 Overview of SIA methodology

The SIA approach has been informed by the principles of best practice as outlined in the SIA Guideline, and the International Association for Impact Assessment (IAIA) Guidance Note, *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects* (Vanclay, Esteves, Aucamp, & Franks, 2015). As such, the SIA is evidence-based, precautionary and responsive to the local context.

2.1 Defining the social locality

The social locality describes the social extent of a project and consists of the people who are potentially impacted by a project (DPIE, 2021a). Affected peoples can include both 'communities of place' and 'communities of interest'. The social locality is determined with consideration of the nature and scale of potential impacts arising from the development, and review of the characteristics of the affected communities. The social locality includes:

- Host and adjacent/near neighbour properties
- Localities likely to be impacted and/or benefit from a project

- Localities likely to experience construction-related workforce, procurement, and traffic impacts.

Given this, the social locality for this Project has been defined as the Dubbo Regional Council LGA, with particular focus on the town of Wellington. The specific geographical classifications for these areas are outlined in Table 2-1, and Figure 4 provides a representation of the regional setting of the Project.

Table 2-1 Areas of interest within the social locality

Area of interest	Geographic boundary
Host landholders/neighbours	Wuuluman (ABS Suburb and Locality)
Local community	Wellington (ABS Urban Centre and Locality)
Local Government Area	Dubbo Regional Council
Region	Central West and Orana (NSW DPE planning region)
State (for comparison of averages)	NSW

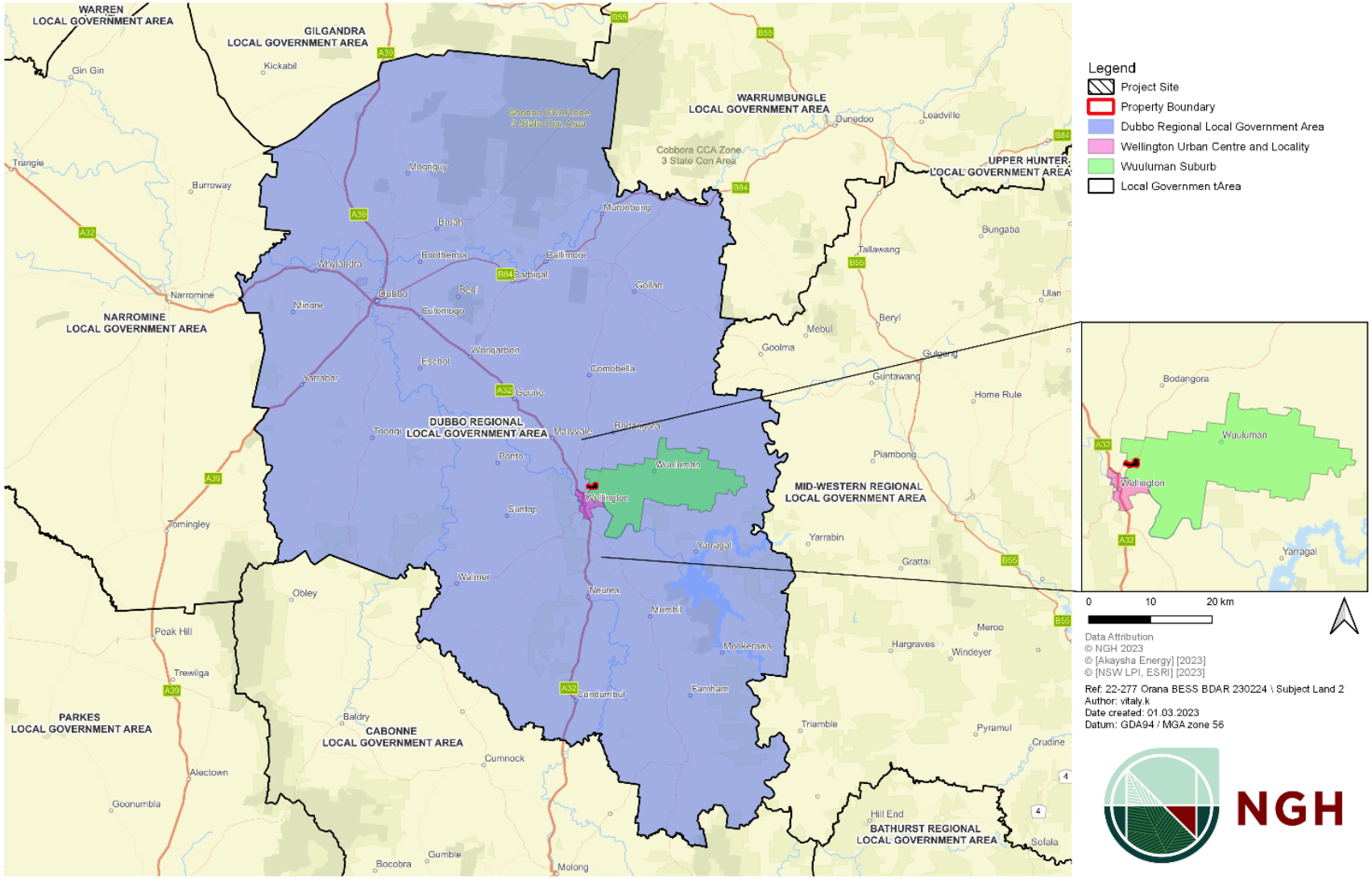

Figure 3 Overview of the Project's regional setting

2.2 Establishing the social baseline

The baseline provides a snapshot of existing social conditions within the social locality, establishing a base case against which potential impacts can be assessed. It is informed by both primary and secondary data sources, as shown in Table 2-2.

Table 2-2 Scoping activities and data sources

ACTIVITY	TASK/SOURCE
Desktop research and data collection	- Review of the Project Scoping Report (NGH, 2022) - Review of relevant government, community service, and local organisations' websites and social media (e.g., DRC, local Chamber of Commerce etc). - Social infrastructure and stakeholder mapping - Identification of relevant key projects/developments in the LGA and broader region
Data analysis	- Australian Bureau of Statistics (2021/2016 Census and other relevant socio-economic data), including: o Population and demographic indicators o Business, industry, employment, and income indicators o Housing and accommodation characteristics - DPE population forecasts - Infrastructure, service, transport, and community features
Literature and strategic planning review	- Review of publicly available research/SIAs on comparable infrastructure projects - Review of relevant public policies, plans, strategies, including: o *Central West and Orana Regional Plan 2041 (2022)* o *Towards 2040 Community Strategic Plan (2022)* o *Central Orana Regional Economic Development Strategy 2018-2022 (2018)* o *DRC Renewable Energy Benefit Framework (2022)*
Stakeholder and community engagement review	- Review of previous engagement findings undertaken by the Proponent

2.3 SIA stakeholder consultation

The SIA process included targeted consultation activities to inform and validate the social baseline and assessment of social impacts. This was undertaken by the NGH SIA Team and coordinated with the Project-wide EIS engagement program (undertaken by Akaysha). The methods used are described below, and a summary of the findings is presented in Section 3.2.

2.3.1 Stakeholder mapping

A stakeholder identification process was undertaken at the commencement of the EIS phase to identify stakeholders with an interest in the Project, as well as those directly or indirectly affected.

Identified stakeholders included groups/individuals that live near, use or value a resource associated with the Project site, and those that have an interest in the proposed action or change. Any special interest groups (e.g., such as local community and environmental groups) and potentially vulnerable and marginalised groups were also included.

Additional stakeholders were identified through snowball sampling as the SIA program progressed. A list of stakeholders identified as in scope for SIA consultation is available in Appendix B.

2.3.2 Semi-structured interviews

Twelve semi-structured phone or online interviews were conducted between September 2022 and January 2023 with near neighbours, representatives from local community and special interest groups, local and state government, and other support agencies. A breakdown of participants is shown in Table 2 3. Ssee Appendix B for further detail.

Purposive and snowball sampling techniques were used to identify possible participants. Not all stakeholders contacted agreed, or were available, to undertake an SIA interview. Draft findings informed ongoing SIA and EIS consultation.

Table 2-3 Semi-structured interviews – participants by stakeholder group

Stakeholder group	Frequency
Near neighbours	2
Wellington residents	2
Social locality businesses & business organisations	1
Employment, training & industry services/stakeholders	2
Local and state government agencies	4
Community & special interest organisations	2
Environmental organisations	1
First Nations stakeholders	1

Note: Three interviewees were categorised twice, as they represented multiple categories.

2.4 Social impact assessment and evaluation

The social impact assessment and evaluation built on the initial social impact scoping work completed as part of the Project's Scoping Report. During this phase, social impacts and opportunities were identified across eight social impact categories (see Figure 2-1). Direct, indirect, and cumulative impacts were considered as part of this assessment.

A further review of project inputs was considered in the analysis, including up-to-date Project information, Project Scoping Report, relevant EIS technical reports, EIS and SIA engagement findings, social impact and engagement findings from nearby projects, and comparative studies.

Following this analysis, an assessment allowed the likely significance of each potential impact, based on its predicted magnitude and likelihood as defined in the SIA Guideline (see Table 2-4 below) to be completed. Any additional potential social impacts that were not previously captured in the Scoping Report phase were also considered, as were Project refinements.

Table 2-4 Social impact significance matrix (DPIE, 2021b)

		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

2.5 Identification of management, mitigation, and enhancement options

Measures to avoid, minimise or mitigate potential negative impacts and enhance positive benefits were identified and developed. A brief assessment of residual impacts post-application of mitigation measures followed, using the social impact significance matrix above.

2.6 Assumptions and limitations

This SIA was completed based on several assumptions and limitations, including:

- The SIA was undertaken with information that is known about the Project and the social context at the time of writing. Social impacts have been predicted based on this information.
- NGH was involved in SIA consultation activities from October 2022 – January 2023. . Targeted interviews for the SIA were undertaken either online or via telephone.

  The Proponent led the Project-wide EIS engagement program, including consultation with host and neighbouring landholders, the broader community and other key stakeholders. Findings were provided to the SIA team by Akaysha as an SIA input. Akaysha reported that attempts to engage the broader community through information days had been met with low community attendance.
- While the views expressed in the SIA interviews and limited broader engagement align with the findings of other SSD projects in the immediate vicinity, they should not be regarded as wholly representative of community sentiment.
- Some stakeholders may have been engaged multiple times through multiple engagement mechanisms, so their views may have been expressed more than once.
- Every effort has been made to access the most recent data available to inform the social baseline, using a range of sources. The ABS Census is the most comprehensive community profiling data source, however there are some limitations related to the current availability of the 2021 Census data. Most 2021 Census topics were released in June and October 2022, while more complex topics including the Social-Economic Indexes for Areas

(SEIFA) data are not scheduled for release until 2023. Where 2021 Census data are not available, 2016 Census data have been used but should be interpreted with caution.

- Effective consideration of cumulative social impacts was limited due to restricted information publicly available about the extent of other projects, and specific details about the other projects.

3. Stakeholder and community engagement

Stakeholder and community engagement for the Project's EIS phase included both the EIS engagement program and SIA stakeholder consultation, which were undertaken in a coordinated way. Findings from both, as well as previous engagement undertaken for the Scoping Report, have informed this SIA.

Key findings are reported below, while more detailed results relating to the existing social context, impacts, mitigations and enhancements are integrated throughout the baseline, impacts and mitigations sections.

3.1 EIS engagement program

The EIS engagement program was undertaken by Akaysha and was guided by the Project's Community and Stakeholder Engagement Strategy (CSES) (see EIS Section 5). Engagement program activities ran from March 2022 to February 2023, and included:

- Face to face meetings and presentations
- Direct communications (emails, texts, telephone calls)
- Project website
- Dedicated email address
- Community information sessions/drop-in sessions at local venues
    - Thursday, 17 March 2022 at the Wellington Civic Centre
    - Monday, 19 September 2022 at the Wellington Civic Centre
    - Saturday, 25 February 2023 at the Wellington Rotary Markets
- Specific stakeholder group meetings and discussion sessions.

These activities revealed a general level of support for the Project, with some localised concerns from near neighbours. While expressing support for renewable energy in general, the strong concerns expressed by some near neighbours were primarily focused on the following topics:

- The visual change a BESS would bring to the landscape character.
- Noise impacts from inverters and associated cooling systems, particularly in the evening.
- Emissions ratings of the BESS, particularly the inverters.
- EMF/radio interference.
- Fire risks.
- Devaluation of property value.

Broader community feedback suggests general satisfaction that an investment of this magnitude would occur in Wellington and a desire to see maximum benefits to the local community. Topics of interest included:

- Maximising local employment, skills and training opportunities.
- Community benefit sharing opportunities.

Common concerns centred on the potential negative impacts of the construction workforce on the local rental housing market and availability of short-term accommodation for tourism in Wellington. These concerns were related to past experiences with renewable energy developments in the region.

3.2 Summary of SIA consultation findings

The SIA interviews reiterated the findings from the EIS engagement program. A sense of neutrality towards the Project due to people neither supporting nor opposing was observed. Consultation also revealed that a commonly held perception held by many of the SIA interviewees was that many local people wouldn't yet know about the Project.

Given the relatively small size of the Project amid much development activity, most of what was discussed related to experiences with previous projects (i.e., Wellington SF, Suntop SF, Bodangora SF) and to the REZ more broadly. Very little SIA feedback related to specific concerns about this Project. Despite this, suggestions were received about future engagement that Akaysha could undertake relating to this Project, skills & training, local employment and community benefits.

The following key themes emerged from the interviews:

- There are so many projects in and around Wellington at the moment.
- The region is experiencing severe housing and rental market pressures, as well as skills shortages.
- The Wellington Solar Farm negatively impacted on the local landscape.
- The influx of non-resident workers from past projects into Wellington dramatically impacted housing and rental markets.
- The construction of Wellington Solar Farm didn't create local workforce opportunities and this impeded social acceptance.
- There is a strong need to have a highly visible and locally relevant community benefit scheme for this Project.
- There is a strong need to ensure that local employment and business opportunities are secured for this Project, including for the local Aboriginal community.

4. Social baseline

This section provides an overview of the existing socio-economic conditions within the social locality.

4.1 Local and regional setting

The Project is situated along Goolma Rd in the locality of Wuuluman, just outside the town of Wellington in NSW. Wuuluman is predominantly a rural district with scattered dwellings, set within a farming landscape of rolling hills. However, the locality has experienced development over recent years, and is becoming more industrialised. Two adjacent correctional centres are sited there, as is a rural-residential housing estate, and the lands proximal to the Project site are home to a solar farm and a Transgrid substation.

The small country town of Wellington is located 362km northwest of Sydney and 50km southeast of Dubbo. The town sits in the foothills of the Mount Arthur Reserve where the Bell and Wambuul Macquarie Rivers meet. Consultation confirmed that it's a very scenic area.

Wellington is within the traditional lands of the Wiradjuri people, and the town has a complex history. It is the second oldest European settlement west of the Blue Mountains; it was first a convict, and later a missionary, settlement. Today, Wellington has a strong Aboriginal presence partly due to the early missionary settlements, other Aboriginal campsites, and an Aboriginal Reserve (OEH, 2010). In 2007, a group of Wiradjuri people won a Native Title claim over the area known as Wellington Common, on the Macquarie River (Gibson, 2007).

Wellington has a very strong farming community, as it's surrounded by rich agricultural land. Given its location on the Mitchell Highway and the Main Western Railway, it acts as a transport hub and commercial centre for the surrounding districts.

The Dubbo Regional LGA covers a total land area of 7,536km^2 in the Orana region on the central western plains of NSW. The LGA is bounded by the shires of Gilgandra (to the north), Warrumbungle and Mid-Western (east), Cabonne (south), and Narromine (west). Located at the intersection of the Newell, Mitchell, and Golden highways, Dubbo is the LGA's regional centre, and has the largest population in the region. It is a major service and agricultural centre for the broader region, including for much of western NSW. Dubbo, along with Bathurst and Orange, is viewed as a key regional city within the Central West and Orana (CWO) region and a focus for regional growth (DPE, 2022a).

The CWO region is the geographic heart of NSW, encompassing stunning landscapes, vibrant inland cities and centres, historic towns and villages. The region's diverse and productive agricultural land, distinct landscapes, and natural environment are key regional assets. Close connections and ease of access to Sydney, Canberra, and Newcastle are also highly valued (DPE, 2022a).

Traditionally the CWO's economy has been anchored in agriculture, manufacturing and mining (DPE, 2022a). However, the economy is changing with large catalyst projects such as Parkes Special Activation Precinct, Inland Rail and the CWO Renewable Energy Zone (REZ), that are and will continue to, drive employment and opportunity within the region.

For the people of the CWO broadly, the past two years has seen challenges related to the ongoing recovery from drought and bushfire, mice plagues and the pandemic (DPE, 2022a). Consultation

also revealed that, in a general sense, for some, the scope and intensity of renewable energy developments is presenting emerging challenges.

4.2 Development context

4.2.1 Socio-economic planning

Land-use planning at the regional level is guided by the state government-coordinated *Central West and Orana Regional Plan 2041* (the Regional Plan) (DPE, 2022a). The Plan is strongly focused on the transition of the regional economy, driven by the Activation Precinct, Inland Rail and the REZ, and the opportunities and challenges that these development contexts pose for the region.

The region's role in supporting NSW's transition to net zero carbon emissions by 2050 is acknowledged, and renewable energy is squarely seen as the future of energy production.

> *…the region's vast open spaces and higher altitude tablelands make it well suited for increased wind power generation, large-scale solar energy, bioenergy generation and pumped hydro.*

The Regional Plan also states that:

> *All levels of government, the community, businesses, and industry must work together to enable the transition to a low-carbon future and build resilience to climate change.*

DRC's priorities are:

- Dubbo as a regional city and as a centre of excellence for health care, social assistance, and community services
- Dubbo as a mining services centre for Western NSW
- Dubbo at the centre of the emerging critical minerals sector
- ensuring the strategic and sustainable growth of the CWO REZ
- further recognition of the importance of the economic growth of Wellington and its role in the success of the region
- ensuring the availability of affordable housing and a variety of housing types and formats, including housing for seniors and people with a disability

At the local level, socio-economic strategic planning is guided by the *Towards 2040 Community Strategic Plan* (DRC, 2022b). This plan supports the Regional Plan's position regarding renewable energy development, stating:

> *Investment in renewable energy opportunities is encouraged and supported.*

Housing is also recognised as a key social issue; key objectives are outlined that address both housing affordability and availability. There is also a focus on ensuring local realisation of economic opportunities from the development boom.

4.2.2 Renewable energy policy and setting

The NSW Government recently declared CWO as NSW's first REZ. REZs are defined geographic zones that allow for a grouping together of new renewable energy generation, so that energy can

be efficiently stored and transmitted across NSW. REZs are the equivalent of modern-day power stations in that they combine:

- new renewable energy infrastructure, including generators (such as solar and wind farms)
- storage (such as batteries and pumped hydro)
- high-voltage transmission infrastructure.

The CWO REZ is expected to attract $5.2 billion in private investment to the CWO region by 2030 and support around 3,900 construction jobs at its peak, and 500 ongoing jobs (DPE, 2022a). The CWO REZ is shown in Figure 4-1. As can be seen, the towns of Dubbo, Wellington, Dunedoo, Gilgandra and Mudgee are encompassed within the REZ, and Wellington is at a key intersection of the existing transmission network.

Renewable energy is a rapidly emerging sector within CWO, including within Wellington itself. This Project is proposed amid a growing number of renewable energy proposals and other major development projects within the region broadly, and at the very local level.

The REZ declaration will likely further concentrate renewable energy development in CWO. Several solar and wind developments have recently been constructed in the Dubbo/Wellington area including Dubbo Solar Hub, Wellington Solar, Suntop Solar, Bodangora Wind and Burrundulla Solar. Many other renewable energy projects are either in construction, approved, or in the planning phase (OECC, 2022a). Beyond the REZ, wind and solar farms extend as far as Nyngan, Forbes, Blayney and Gunnedah (Briggs, et al., 2022a).

The town of Wellington is currently experiencing significant scale and intensity of renewable energy development activity. In the immediate vicinity of the Project site, centred around the substation, there is Wellington SF, Wellington North SF is due to commence construction shortly, and there is a cluster of BESSs in the planning phase (including this one).

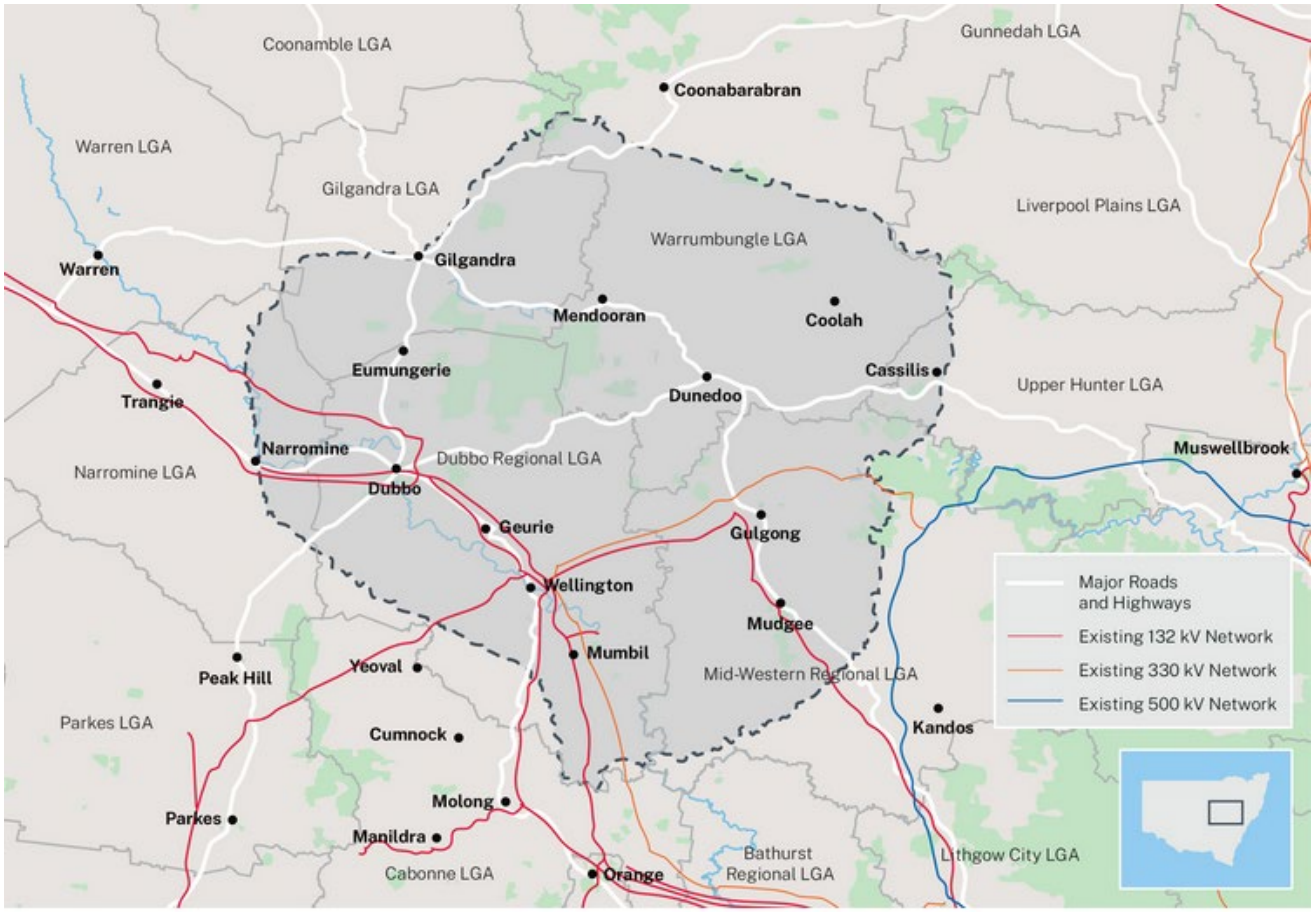

Figure 4-1 Central-West Orana REZ

(Source: EnergyCo: https://www.energyco.nsw.gov.au/cwo-rez)

Within the immediate locality and broader region, there are several renewable projects that are either in the construction process or in the development pipeline, are outlined in Table 4-1.

Table 4-1 Other proximal renewable energy projects

Project	LGA	Development type	Proximity to the Project	Stage of delivery
Maryvale Solar Farm	Dubbo	Solar	15km north-west	Pre-construction
Wellington North Solar Farm	Dubbo	Solar	Immediate vicinity	Pre-construction
Mumbil Solar Farm	Dubbo	Solar	15km south	Pre-construction
Wellington South BESS	Dubbo	BESS	Immediate vicinity	Planning and approvals
Wellington BESS	Dubbo	BESS	Immediate vicinity	Planning and approvals

Project	LGA	Development type	Proximity to the Project	Stage of delivery
Uungula Wind Farm	Dubbo	Wind	14km east	Planning and approvals
Burrendong Wind Farm	Dubbo & Mid-Western	Wind	25km southeast	Planning and approvals

4.2.3 Local institutional responses to the REZ and related developments

These large-scale renewable energy developments in the region are bringing enormous investment and opportunity. However, they are also creating challenges for councils and communities. These challenges principally relate to:

- Emerging community concerns around land use conflicts.
- Impacts on rural landscape and visual catchment values.
- Impacts on existing housing affordability and availability issues.
- Ensuring that meaningful local employment outcomes are achieved.
- Ensuring that local community benefits are realised.

In the wake of the REZ declaration and the associated scale of development activity, local councils (and communities) are playing catch-up. DRC has expressed support for renewable energy development in the region. This has been through both planning instruments and submissions to EISs for recent renewable projects (e.g., see Wellington SF Submissions Report (NGH, 2018)). This support has been based upon the potential for the local economic growth opportunities.

However, DRC is working in a complex environment; the projects are coming 'thick and fast'. Council is negotiating with a stream of proponents about multiple development projects. At the same time, they are dealing with the on-the-ground, practical realities of trying to realise positive benefits and minimise negative impacts for local communities. Consultation revealed a growing recognition within Council that the local community needs to realise greater benefits from these projects.

The Regional Plan, responding to the REZ, outlines a suite of measures that allow for coordinated planning and action at local levels, targeted issues ranging from housing and accommodation, to capturing economic and other local benefits. One such measure is the Central-West Orana *First Nations Guidelines – Increasing income and employment opportunities from electricity infrastructure projects* (OECC, 2022a), which provide clear guidance on how to engage with the local First Nations communities. Council has also recently developed a Renewable Energy Benefit Framework (DRC, 2022d); the role of this is to guide negotiations between Council and developers of solar and wind energy regarding planning agreements and benefit sharing frameworks. The framework states that:

> *Proponents of Solar Energy Farms and Wind Energy Farms will be required to enter into a Planning Agreement with Council with funding requirements to be equivalent to 1.5% of the Capital Investment Value of the project as a total value* (DRC, 2022d).

EnergyCo is also undertaking studies into workforce accommodation requirements and challenges in the REZs (OECC, 2022b); although findings are not yet available. RE-Alliance, an NGO focused

on ensuring that the energy transition delivers long-term benefits to regional Australia, is also supporting local communities in the region with coordinated planning in this space.

Despite these and similar actions, in some ways, coordinated planning at the practical and localised level appears to be trailing behind proponents' actions at present.

4.2.4 Wellington community's past experiences with renewable energy projects

The Wellington community has recent experiences with renewable energy developments in their area, and these projects have not always left favourable impressions on the community. Consultation highlighted that in particular, the community 'lost heart' with the Wellington SF, due to a range of factors including:

- Relationships - perceptions that the proponent didn't treat the community with respect
- Local employment – there was very limited local employment in the construction phase
- Engagement – 'people were not kept in the loop'
- Visual impact – the solar farm is highly visible, with some respondents stating:

  …it looks atrocious

  …you can see the solar farm from everywhere – all you see are the panels
- Housing and accommodation – there were large increases in rents during the construction phase
- Agricultural land – perception that the project was situated on what was good farming country, and that much damage was done to the landscape in its construction (i.e., the land was heavily graded and much imported material was brought in).

Including regard for other recent renewable energy projects, the influxes of construction workers into Wellington have caused noticeable impacts – both positive and negative - for the community. When construction workers moved into Wellington for several months at a time for the construction phases of various projects, these were boom times for some local businesses. Consultation indicated that pubs, clubs, motels, and hotels 'did a roaring trade', as did some landlords, who increased rental prices during these periods.

However, negative impacts for the community included:

- Increases in rents for community members (which contributed to community discontent).
- Temporary accommodation was rented out to capacity and become overcrowded with construction workers.
- Community discontent – e.g., during COVID lockdowns, construction workers were allowed to travel between their homes and Wellington, yet residents couldn't travel. This upset the community.
- Disruption to people's way of life – residents sometimes felt 'put out' by the change to their way of life, e.g., it become hard to book a table at a dining venue.
- Change in community feel of the town.

Consultation strongly indicated that the community highly values the community benefit schemes and participatory processes of some of the other local projects (e.g., the Uungula and Bodangora WF).

From these experiences, there is sense that- in the main, the Wellington community accepts these developments as the march of 'progress', and that 'you have to take the good with the bad'. However, there is growing perception that the community is not getting enough benefits from these projects.

4.3 Community profile

All population and demographic data presented here is from the ABS 2021 or 2016 Census, unless otherwise stated. A detailed demographic and industry dataset relating to the social locality is presented at Appendix A.

4.3.1 Population and demography

The population of Dubbo LGA in 2021 was estimated to be 54,992 people (ABS, 2021). At that time, Wellington had an estimated population of 4,581 people. Over the 20 years 2021-2041, Dubbo LGA's population is expected to grow by 0.8% (low compared to NSW's projection of 21%); most of this growth will be in the older and younger age groups (DPE, 2022c). The Wellington and Montefiores areas are predicted to have little to no growth over this time (Remplan, 2023a).

Wellington has a slighter older population profile (median age 41 years) than does Dubbo (median age 36 years).

In terms of cultural diversity, the town of Wellington has a large Aboriginal and Torres Strait Islander population. There are 1,253 First Nations people living in Wellington, who together make up 27% of the population (compared to 17% for Dubbo and 3% for NSW). Both Wellington (79%) and Dubbo LGA (82%) have higher proportions of Australian-born residents than does NSW (65%), and low proportions of non-English languages being spoken at home.

There are many people who live alone in Wellington (36% of all households) as compared to Dubbo (27%) and NSW (25%). As such, Wellington has a lower proportion of family households (62%) than does Dubbo (70%) and NSW (71%). Of those family households, there is a higher proportion of single parent families and lower proportion of couple families with children in Wellington than in Dubbo or NSW.

4.3.2 Housing and accommodation

Most of the housing stock in Wellington and Dubbo is separate houses (90% and 83% of total dwellings). Thirty-six percent of homes in Wellington are owned outright (higher than Dubbo 30% and NSW 32%). Twenty-six percent of homes are mortgaged (slightly less than Dubbo 34% and NSW 33%).

Housing is relatively cheaper in Wellington; median mortgage repayments are significantly less than Dubbo and NSW medians, as are median rents. Rates of households in mortgage stress are significantly lower in Wellington and Dubbo than in NSW. Dubbo has a lower rate of households in rental stress (26%) than both Wellington (33%) and NSW (36%).

Rental vacancy rates in Dubbo (postcode 2830) have rarely risen above 2.5% over the past decade. A vacancy rate of 2.6%-3.5% is considered a healthy balance between supply and demand in a balanced market. The rental vacancy rate in Dubbo dropped to 1% in June 2020 and remained below 1% until November 2022, sitting at 1.3% in January 2023 (SQM Research, 2023a). While Wellington (postcode 2820) has maintained a comparatively higher average

vacancy rate, it has a smaller rental market, and the January 2023 rate of 2.4% represents 19 properties (SQM, 2023b).

Like many areas in NSW, housing affordability and availability are key issues in Wellington and the Dubbo region. In the LGA broadly, increased development activity coupled with increased migration resulting from the COVID-19 pandemic has strongly lifted local housing demand (DRC, 2022b).

In Wellington in particular, previous influxes of construction workers hugely affected the housing market. Increased demand, exacerbated by the ability of contractors to pay higher prices to house their staff, pushed up rental prices. One stakeholder noted that these conditions 'more than doubled the rental price market', as rents 'went from $300 per week to $700-$900 per week' during construction'. Some locals became 'priced out' in the changed rental market, which led to difficulties for some local people, including families.

Since 2016, within the Central West broadly, there has been a rapid growth in short-term rental accommodation in the region, catering primarily to tourists and providing accommodation for seasonal or temporary workers. Within Wellington, consultation highlighted that at times of workforce influxes, hotels and motels were rented out to capacity. In a general sense within the region, this is known to impact on the visitor economy as tourists seek accommodation outside the region (DPE, 2022a).

In terms of short-term accommodation, there are many hotels, motels and caravan parks in Wellington and Dubbo and surrounding areas.

As well as impacting on the local community's cost of living, limited housing and accommodation can also be a critical barrier to delivering the REZs on time and within budget (OECC, 2022b).

These issues are well recognised by local and state government. In particular, the Regional Plan has a strong focus on the current context of housing and accommodation shortages. There is also a Regional Housing Taskforce which is coordinating regional housing policy and action. There is common understanding of the need to ensure adequate accommodation is available to residents and non-resident workers, while also supporting the tourism industry (DPE, 2022a).

DRC is currently preparing a Housing Roadmap which aims to deliver an appropriate mix and supply of housing for the community (DRC, 2022c). The council is also currently drafting a short-term accommodation plan, which focuses on providing guidance to developers regarding temporary workers accommodation (DRC, 2022c). At the time of writing, little information about this is publicly available.

4.3.3 Income, employment and industry

The CWO's economy is strong and diverse. In particular, the region has solid agribusiness, mining and construction sectors and a fast-growing renewable energy sector (DPE, 2022a).

Consultation highlighted that the Dubbo area is experiencing much growth in housing and population, amid much development activity. Wellington was noted as a town that has experienced less prosperity. Some stakeholders noted that Wellington 'is a bit of a ghost town' and that the 'main street is really struggling'.

Median weekly incomes in the Dubbo region ($1,597) were below the NSW average ($1,829), and considerably lower in Wellington ($1,060). Wellington also had a significantly higher unemployment rate (8% as compared to 4% for Dubbo and 5% for NSW). Socio-economic indexes of advantage and disadvantage (SEIFA) developed from the 2016 Census showed that the Wellington area was relatively disadvantaged compared to the broader region. On a decile scale where 1 indicates

greater relative disadvantage and 10 indicates greater relative advantage, Wellington had a SEIFA decile of 1, compared to 5 for the Dubbo LGA (ABS, 2018).

Consultation confirmed that there is a concentration of intergenerational disadvantage and related to this, people who have been long-term unemployed, in Wellington. Despite this, it was noted that with all the development activity in recent years, some long term unemployed have been taking up some work opportunities.

The Dubbo LGA supports 26,650 jobs and has Gross Regional Product (GRP) of $3.983 billion, which represents 0.6% of NSW's Gross State Product (Remplan, 2023b). Important industry sectors are agriculture, agribusiness, transport and logistics, tourism, manufacturing, mining, healthcare, and technology and education (DPE, 2022a).

The Wellington area has a significantly lower proportion of people (9%) who have attained University level higher education than NSW (28%). In terms of those with Certificate or Diploma level qualifications, Wellington is on par with the NSW average (24%), and slightly less than Dubbo LGA (27%).

The main industries in the LGA are health, retail, and education and training. Other key industries include government services, tourism, manufacturing, construction, agriculture, business services and transport (Remplan, 2023b). In 2021, the largest industry of employment in both the LGA and Wellington was health care and social assistance (19% and 16% respectively). Construction, retail trade, accommodation and food services, education and training, and public administration and safety were other key drivers of jobs growth (ABS, 2021). The LGA is also home to several large-scale renewable energy projects and is seeing greater investment in this area (DPE, 2022a).

As with many, the region is experiencing key skills shortages which pose a real challenge for the renewable energy developments in the area (OECC, 2022b). Existing regional workforce shortages are expected to be exacerbated by the construction of major development projects over the coming years (e.g., the Inland Rail near Narromine, water infrastructure projects and the New Dubbo Bridge) (OECC, 2022b). This was a key point raised during SIA consultation; there is a very tight labour market in the area and very low unemployment in the Dubbo region.

4.3.4 Land tenure, use and local agricultural values

Agriculture has been a mainstay, along with mining and manufacturing, of the CWO's economy (DPE, 2022a). Agricultural production in the CWO is diverse and includes irrigated cotton, lucerne, winter cereals, horticulture as well as extensive areas of dryland cropping, livestock grazing (beef, sheep and wool), and timber production (DPE, 2022a). Agriculture, farming and fishing contributed $2,113m to the regional economy in 2016, and agriculture supports an extensive local value chain (DPE, 2022a).

Consultation indicated that the country surrounding Wellington is very good farming land. Wellington is renowned for its agricultural land, and it supports some highly profitable agricultural practice.

The area surrounding the Project site has seen much change in recent years, changing from farmland to more industrial use. The Project site itself is zoned for infrastructure (electricity supply). The site is immediately adjacent to the existing Transgrid substation and is proximal to a number of other renewable energy developments. The site was previously intended as the site for a gas-fired power station; however these plans were withdrawn with the rise of renewable energy. The Uungula WF, Wellington SF and the correctional centres are also co-located on Goolma Rd.

The site is comprised of privately owned farmland; of rolling hills that have been extensively cleared and highly modified. Consultation indicated that the land has not been used for farming recently.

In a general sense within the region, some renewable energy developments have engendered community concerns around the selection of sites containing valuable agricultural lands and the cumulative impacts of renewable energy projects on agricultural production. There are also concerns about projects impacting on the rural landscape (DPE, 2022a). Consultation indicated this was the case for Wellington SF.

4.3.5 Health and wellbeing

Levels of individual and community health and wellbeing are closely related to the social environment and circumstances. Factors such as conditions of employment, housing, social services and support, and socioeconomic position are known as the social determinants of health, and are shaped by political, social, and economic forces (AIHW, 2020). These factors have a strong bearing on health and wellbeing in Wellington.

Much health data is only available for high-level regional areas, in this case, the NSW Far West region, which encompasses all western NSW. A recent health needs assessment (FWNSWPHN, 2022) shows a region dealing with the health impacts of disadvantage and remoteness. Key health characteristics of the region included:

- Low levels of health literacy in vulnerable groups
- Low rate of self-reported good health
- High rates of acute and chronic potentially preventable hospitalisations
- High rate of pregnancy in young mothers
- Alcohol and drug abuse are important concerns for the community
- Mental health is the single most important health concern for the community

In terms of service delivery, the region experiences serious challenges due to its regional and remote nature and its complex social and cultural contexts (WNSWPHN, 2022).

More locally, some health data is available. This data suggests that Wellington has a slightly higher rate of mental health conditions (11%) than does Dubbo (10%) and NSW (8%), and a higher proportion of people with long-term health conditions.

Consultation confirmed that there is entrenched intergenerational disadvantage present within the Wellington community. Related to this, the town has struggled with social issues over recent years; drug use and high crime rates have characterised the town at times (Harvey & Owens, 2015; Sutton, 2017). It was reported that some families move to Wellington to be near relatives who are incarcerated in the correctional centres.

4.3.6 Social infrastructure and services

Social infrastructure encompasses the key services and resources that sustain the liveability of communities, and strongly influences perceived and real quality of life (Australian Urban Observatory, 2021). These extend from health, education and essential services to community support and development resources, and leisure and recreational opportunities.

Regional areas often experience social infrastructure gaps, compounded by distance and cost of service provision. A lack of social infrastructure such as housing, schools, hospitals and internet

connectivity may act as a barrier to attracting and retaining workers and supporting increased economic activity in a region. This has been identified as a constraint for renewable energy development in the CWO REZ (OECC, 2022b).

General health facilities in Wellington include Wellington Hospital, Wellington Health Service, and GP and allied health services. Consultation feedback reported that there is pressure on local health services, and that it was difficult to obtain an appointment to see a GP. There have been ongoing issues with a doctor shortage and staffing at the Wellington Hospital that were exacerbated by state border lockdowns during the Covid-19 pandemic (Drinkwater, 2020) and the soaring costs of using FIFO doctors (Woodburn, 2022).

Higher order health services and facilities are available in Dubbo, including Dubbo Base Hospital.

Local schools in Wellington include Wellington Public School, Wellington High School and St Mary's Catholic School. At the tertiary level, Wellington TAFE offers Certificate courses while Dubbo TAFE offers Advanced Diplomas and Diplomas, and Charles Sturt University's Dubbo campus offers a range of higher education courses.

However, recent research in the CWO REZ noted stakeholder feedback suggesting that the courses currently offered by local educational facilities do not align with the opportunities presented by the REZ in terms of direct skills (Briggs, et al., 2022a; OECC, 2022b). VERTO is a Registered Training Organisation (RTO) that provides services in both Wellington and Dubbo. Joblink Plus provides intensive, pre-employment support for youth ages 15-21 years.

The Wellington Information and Neighbourhood Centre provides a hub for the community, offering a range of services, information and resources that are available at different times. A range of child and family, youth community, and housing and homelessness services are available in Wellington and Dubbo. Youth services are also available through Dubbo Regional Council.

There are several community organisations, businesses and government agencies that provide direct employment, training and social support and services to local Aboriginal people and communities in Wellington and Dubbo, including the Wellington Aboriginal Corporation Health Service, Wellington Local Aboriginal Land Council (LALC), and the Wiradjuri Wellington Aboriginal Town Common Aboriginal Corporation.

Public transport in Wellington includes a local bus network, and a regional train and coach network to Sydney, Dubbo, Nyngan and Lithgow, while air transport can be accessed from Dubbo City Regional Airport. Consultation feedback identified that transport is a huge issue for people in the Wellington area in terms of their ability to take up work opportunities, particularly for unemployed people.

Wellington has numerous parks and reserves, and recreational facilities include the Wellington Aquatic Leisure Centre, and PCYC Wellington. There are opportunities for bushwalking and mountain biking in the Mount Arthur Reserve and water sports at the nearby Lake Burrendong Sport and Recreation Centre.

The Wellington Civic Centre and Wellington Arts Centre Inc. offer a range of cultural and entertainment events and activities, while Dubbo hosts the Wiradjuri Cultural Tourism Centre, theatres, galleries, a museum and Taronga Western Plains Zoo.

4.3.7 Community culture, values, and governance

The Community Strategic Plan, which is grounded in community consultation, outlines a vision for an innovative, resilient, and sustainable region that provides a high quality of life and opportunities to grow. People in the region value affordable housing, lifestyle, good urban infrastructure,

environment and sustainability, a thriving economy, culture and heritage, collaboration, and transparency from their council.

Wellington is known for its rich history and natural beauty (Visit Wellington, 2022). Key recreational and tourist assets include Lake Burrendong, the Burrendong Botanic Garden and Arboretum, Mount Arthur Reserve, and the Wellington Caves.

Consultation inducted that Wellington is a small tight-knit community where everyone knows each other and looks out for each other.

DRC is the principal decision-making authority at the local government level. The council was established in 2016 through the amalgamation of Wellington LGA and Dubbo LGA, and consultation indicated that there is still cultural divide between the two towns.

Aboriginal communities in the region retain a strong link with country (OECC, 2022a), and there remains a strong Aboriginal community in Wellington. The Wellington Local Aboriginal Land Council (LALC) as well as other local support and health services (i.e., the Wiradjuri Wellington Aboriginal Town Common Aboriginal Corporation and Wellington Aboriginal Corporation Health Services) provide places of support and coordination for the local Aboriginal community.

Responding to the REZ, the Central West Orana Working Group is a newly formed active group of government and non-government agencies and local people who are focused on leveraging opportunities and benefits for local Aboriginal people.

Community attitudes towards renewable energy

Broadly, it can be said that the development of the renewable energy sector enjoys community support. However, support differs regionally, and lowers with proximity to projects. NSW government research showed while people in regional NSW were found to be amenable to solar farms (91%), support retracted slightly when located within their local region (84%), and further when within 1-2km of people's homes (78%) (OEH, 2015). Also, as projects accumulate in suitable regions, concern over local character loss and local agricultural impacts can emerge (Ipsos, 2015).

More recently, a national survey conducted by CSIRO in late 2020 showed that Australian attitudes towards living near a large-scale solar farm (within 10km) were mostly positive (Walton, et al., 2021).

Furthermore, experimental scenarios in the study showed that there was no effect on social acceptance, social licence factors, nor supportive and oppositional behaviours based on differences in size and configuration of solar farms. However, adding information about indirect jobs and opportunities for future industries to a baseline scenario about direct jobs during construction increased the likelihood of supportive behaviours towards the project, and increased perceptions of distributional fairness and trust in the operator (Walton, et al., 2021).

Despite all this development activity, a recent report found that general community awareness of, and understanding about, the CWO REZ is low (OECC, 2022b). This was substantiated by SIA consultation findings.

In terms of obvious support for renewables within the region, the Dubbo Environment Group (a group focused on care and appreciation of the natural environment, with a small membership base) was considered to be very pro-renewables. Other than this, there are no other overt groups that are seen to openly demonstrate active support for renewables. Alongside this, there are also no overt opposition movements to renewable energy developments in Wellington or the Dubbo region.

Consultation indicated that there were opposition groups when renewable energy projects were first developed in the area, but these dissipated groups once the community saw local people reaping the benefits and didn't begrudge them for this. One interviewee noted that, in general, farmers don't want transmission lines through their properties, and another indicated that 'people don't like wind or solar farms'.

There is however a sense that there are a lot of projects in the region, with one interviewee noting that they are all 'on top of each other'. Despite this, the general sentiment seems to be that, given the balance of positive verses negative community impacts, local people are accepting of renewable energy developments in the area at the moment. These views were expressed by some stakeholders in the following ways:

> *it is sad, but that's progress*
>
> *we'll put up with it.*
>
> *There is a catch 22…you have to take the good with the bad*

5. Impact assessment

Potential impacts were identified through stakeholder and community engagement and from comparative studies. The significance of these impacts were assessed using the risk matrix outlined in Table 2-4 taking into consideration the likelihood and magnitude of impacts.

5.1 Livelihoods

5.1.1 Employment, training and procurement opportunities

Ensuring the realisation of employment opportunities for local people and businesses – particularly during the construction phase, which was predicted to take 6-9 months and engage between 100-150 FTE construction personnel – was identified as a key potential benefit of the Project. The number of construction personnel was estimated based on several project assumptions including the size of the Project and hours and days of work. The workforce strategy was expected to use local contractors to deliver most work, where available.

Significant further employment through services such as accommodation, entertainment, food and other day to day living expenses through an influx of workers can also be predicted during construction through the employment multiplier effect. This influx would not extend beyond this period as no permanent on-site staff would be required during the operational phase, due to the BESS being operated remotely. Maintenance staff may also access the site on occasion during the 20-year operational life (equivalent of 1 FTE job). All Project stages may offer specific employment opportunities for residents of Wellington and surrounding areas including Aboriginal people, youth, apprentices, and trainees.

However, several constraining factors to local employment exist for this Project. The first includes widespread skills shortages. Wellington and the broader Dubbo region have strong capacity for construction works, however, there was an existing demand for these services. The Electric Infrastructure Jobs Advocate recently reported that across NSW (and particularly in the REZs where the Jobs Advocate had consulted - including the CWO REZ), where acute shortages of workers existed (OECC, 2022b).

Labour and skills shortages were also likely to become a significant factor for the build-out of renewable generation and transmission infrastructure, especially in regions with tight labour markets, and high competition across infrastructure sectors (Briggs, et al., 2021). The renewable energy sector currently faces high demand and skills shortages, particularly in technical and specialised roles such as engineers and electricians (CEC, 2022). The characteristics of renewable energy development (i.e., industry volatility and boom-bust cycles) and training capacity limitations, create challenges for local workforce development, exacerbated by very high competition for labour between renewable energy, mining and infrastructure sectors (Briggs, et al., 2022b).

The second constraint is the extent to which local people, and local and regional businesses may be able to capture economic opportunities (such as construction contracts, servicing and supplies) arising from the proposed projects. This will depend upon several factors; the first of which is how ‘job ready’ or ‘project ready’ they are. Local people and small businesses require the necessary capabilities and compliance measures to be able to work or sub-contract within larger construction contexts.

Consultation confirmed the difficulties that this and other projects would face in securing a workforce (local or non-resident) amid a competitive local and regional labour market. Despite this,

SIA interviewees felt very strongly about the need to see locals get jobs on this Project, with one stating:

> *'Wellington community is very vocal, they want the jobs from these projects'.*

Stakeholders identified a key need for an active and supportive approach by the proponent to benefit local people through employment opportunities presented by the proposed Project. For example, there is a need for pre-employment programs to give people not just training but experience. Stakeholders also pointed to other recent projects in the region that were successful at drawing in a local workforce and highlighted that these efforts built a social licence and local support for these projects.

- *The best legacy that they could leave would be upskilling people, as they would have work for the next 10 years*
- *The Inland Rail project was good at securing local participation. They had really good outcomes for Aboriginal employment and local employment. They spent a lot of time briefing people, travelled to many little towns to let people know about the opportunities, people got behind it (particularly in Moree)*
- *Suntop had a bus that took people from Dubbo and Wellington…People appreciated this effort by the company.*
- *Good to consider having low skill, entry level positions, traineeships.*
- *With Fletchers, to encourage women participation, they adopted flexible working hours e.g., school hours.*
- *Encourage companies to re-think their stance on criminal convictions – some convictions are very old and it can limit people getting second chances in life.*

Many local agencies and organisations were focused on developing the capabilities of local people and businesses and connecting local people and businesses to development projects. For example, Service NSW were collaborating with the Industry Capability Network (ICN) to support small-medium businesses. Transport NSW had facilitated a tender writing course for small business; VERTO supported women in construction with 'Tiddas in Trade' and other broader support initiatives; TAFE (Wellington) delivered a variety of short courses as needed.

This Project could benefit some people within more vulnerable locally based populations, including the long term unemployed, and people facing barriers to employment, by taking active steps to work with local employment, training and support agencies.

This impact, without mitigation, was assessed as being of **medium** social significance (i.e., possible, and of minor magnitude).

5.1.2 Increase in economic activity

An increase in economic activity within the local and regional areas was expected. The Project would directly and indirectly, enhance local supply chains, through an increasing demand for goods and services such as accommodation, food, construction materials, freight, and local labour. It was likely that local businesses in Wellington and Dubbo, and to a lesser extent the broader Orana region, may supply some of these services. Increased income and spending by construction workers and others during the project provided the potential to increase supply chains and stimulate local economies in both Wellington and the broader Dubbo and Orana region more broadly.

Although the total economic value of potential direct and indirect economic demands was unknown, consultation with local agencies and business representatives highlighted the importance that local people placed on seeing tangible outcomes for local business, even over the short term.

Some business and government stakeholders noted several constraints to maximising local economic benefits, including skills and supply shortages, and supply chain issues.

Given the importance that the Proponent, key stakeholders and the community placed on the potential positive impact for the local and regional area's businesses and economies, economic activity was assessed as of high stakeholder significance. However, without active enhancement measures, the benefit was evaluated as **medium** social significance (i.e., possible, and of minor magnitude).

5.1.3 Concern about potential impacts to property values

The potential impact on surrounding land values of renewable energy developments remains a common source of potential conflict between proponents and residents. For this Project, some near neighbours expressed a high level of concern about potential negative impacts to property values.

Changes in land and property values are complex and are subject to a range of interacting influences, which made it difficult to articulate individual causal factors. To date, no definitive research that clarifies whether the presence of large-scale renewable energy projects negatively impacts upon nearby property values that could reliably inform an assessment of impact was available. Adding to this limitation was the limited availability of research about the impacts of battery energy storage systems on nearby property values that could reliably inform an assessment of impact.

A key Australian study examining the impacts of wind farms on property prices found there to be insufficient sales data to make definitive conclusions (Urbis, 2016) and no Australian research examining the impacts of solar farms is available. An earlier Australian study conducted by CSIRO which examined community acceptance of rural wind farms found that property prices had not been found to increase or decrease, although the potential market for buyers may be decreased (Hall, Ashworth, & Shaw, 2012). However, a Dutch study examining the impacts of wind and solar farms on houses prices using Dutch data concluded that within that context, there may be small decreases in house prices (2-3%) for houses located within 1km of solar farms (Dröes & Koster, 2021).

In the absence of definitive and directly relatable research about the impacts of solar farms or battery energy storage systems on nearby property values, it was not possible to make an evidence-based assessment about the impact of this Project on the property values of the surrounding properties.

Given there was a strong sentiment about potential negative impacts to property values among residents coupled with the paucity of supporting evidence, this impact was assessed as being of **medium** significance (i.e., possible, and of minor magnitude).

5.1.4 Distributional fairness

A recent Australian study of attitudes towards large-scale solar highlighted the importance of distributional fairness in shaping positive attitudes, social acceptance, and supportive behaviours (Walton, et al., 2021). Conversely, the perception of unfairly distributed impacts and benefits can

negatively affect social acceptance and increase the likelihood of oppositional behaviours. For this Project, it remains likely that some issues may arise relating to distributional fairness.

It was noted in the baseline that people within Wellington didn't begrudge local businesses that reaped benefits of increased trade from the non-resident worker influxes. However, some other potential impacts of the Project provided the potential to cause uneven flows of benefits and impacts for local people.

Consultation indicated that with respect to local renewable energy projects generally, there was a perception that host landholders were benefitting while everyone else were not. This sentiment was also causing some division within the community.

For example, near neighbours identified they felt compromised by the Project, due to the change in visual landscape, increased noise, and their proximity to an industrial land-use. One near neighbour suggested that to mitigate these impacts, near neighbours should be financially compensated.

Also, if the non-resident workforce for this Project is not accommodated properly, housing market impacts are likely to occur. Landlords are likely to experience positive financial impacts, but for other more vulnerable residents with limited income and who are not homeowners, they are likely to face rising rental pressures due to the limited availability of housing and/or other forms of homelessness.

Potential negative impacts related to distributional fairness were assessed of **medium significance**.

5.2 Accessibility

5.2.1 Housing and accommodation

The Proponent has committed to hiring locally (where possible) to reduce accommodation and service burdens. However, even with the development of an Industry Participation Plan, some specialist construction workers may not be sourced from the local area due to the limited availability of skills within the area, particularly in high income generating positions. Subsequently, non-resident workers utilising both short-term accommodation and rental housing close to the Project site would limit the availability of local housing and accommodation during the construction stage.

These circumstances have the potential to generate positive economic benefits for accommodation and rental housing providers (particularly short-term accommodation providers) in Wellington, Dubbo and surrounds. However, as described in the baseline, Wellington and broader Dubbo area are experiencing severe housing pressures and the workforce influx may further constrain the availability of accommodation options for both residents and tourists. This becomes a particular concern when considering cumulative impacts.

Stakeholders suggested that any additional impacts from the construction workforce would add to housing pressures. These impacts would be felt most by vulnerable population groups, who are already being impacted by housing costs. One stakeholder noted that:

> *…There needs to be some sensitivity with respect to accommodation and rentals.*

Another stakeholder noted that there can be issues with contractors head-leasing rental properties, as properties were not properly taken care of by contractors.

Other renewable projects in the region were confronting similar dilemmas for their non-resident workforces. Aside from intending to utilise short-term accommodation, some mitigations put forward by other proponents included a combination of:

- Head leasing rental properties
- Establishing workforce accommodation camps near Wellington or Dubbo
- Supporting Council to deliver affordable housing (CWO REZ Transmission Project, Wellington North SF AES)

This Project would require a moderately sized construction workforce engaged over a relatively short duration. However, given previous experiences, potential for cumulative impacts, the acute nature of housing affordability and availability issues, and the vulnerability of the potentially affected population groups, this potential negative impact was assessed as being of **high** significance (i.e., almost certain likelihood and moderate magnitude).

5.2.2 Social infrastructure

Major development projects can result in demographic changes due to non-resident workers coming into areas during construction. This may place pressure on local social infrastructure and community services.

As noted in the baseline, there is existing pressure on local health services. However, for this Project, the construction phase is considered to be of moderate scale and duration, and the workforce strategy targets local resident labour. The proposed Project would require access to emergency and health services, however the potential for additional pressure on the area's social infrastructure was not raised by stakeholders as a concern.

Adverse impacts may be minimal during operation and decommissioning. During operation, maintenance staff and associated activities would be consistent but limited, and use of Wellington's services and facilities is not likely to be noticeable. Where possible, maintenance staff would be sourced from the local area.

Given these factors, this potential negative impact was evaluated as being of **medium** significance (i.e., possible and moderate magnitude).

5.2.3 Road access

Consultation highlighted a small number of concerns about the current state of local roads, traffic volumes, and the impacts of previous projects. The few concerns centred on the potential cumulative impacts of the Project on Goolma Road in combination with Uungula Wind Farm construction and existing traffic flows.

> *There is lots of traffic along the road (Goolma road) because of the correctional centre.*
>
> *For Uungula Wind Farm – huge trucks are needed to take components, so there will be road closures along Twelve Mile Rd*
>
> *Local roads – Bela Vista Road was not upgraded for the correction centre and is full of potholes*
>
> *Suntop had a bus that took people from Dubbo and Wellington, and it also addressed the traffic movements.*
>
> *There's already 100 B-doubles on that road every day. It's not really going to add to it.*

Consultation revealed that stakeholders perceived that local roads were already in poor condition and recently affected by flooding.

Impacts from the Project on local traffic may result in damage to the road assets, if existing infrastructure was not sufficient to support the projected loads, and delays or increased risks to users of Goolma Road, due to increased traffic. Cumulative impacts are likely.

Traffic accessing the site will do so via the existing site access to Goolma Road. Staff would primarily be located in in Wellington and Dubbo and the nearby regional centres, with all plant expected to be delivered from Port of Newcastle. The following provides a breakdown of the anticipated access distribution for each of the vehicle classifications:

- Light Vehicles and Shuttle Buses: It is anticipated that 95% of staff were likely to access the site from the south and 5% from the north.
- Heavy Vehicles: It is anticipated that 90% of heavy vehicles would access the site from the south and 10% from the north associated with the delivery and collection of equipment and materials.

During the morning peak all vehicle movements would be towards the site and in the evening peak all vehicle movements away from the site. Heavy vehicle movements would be distributed throughout the day and split evenly between inbound and outbound movements.

The peak hour for construction would occur at the start and end of the day when staff are transported to/from the site. The majority of staff may typically arrive on-site between 6:00am and 7:00am. However, staff generally have staggered finish times which results in the evening peak hour being less pronounced. Carpooling and bus services would reduce the volume of project-related traffic.

Given the importance of Goolma Road for daily traffic between Wellington and Gulgong, construction traffic has the potential to have adverse effects on road users in the area. A Traffic Impact Assessment has been undertaken (see EIS Section 6.3) which found that even during the peak hours of the BESS construction, Goolma Road and the existing road network can readily accommodate the increase in traffic caused by the Project. This is even so when cumulative impacts were considered.

Considering the medium level of concern expressed by local residents in relation to potential road access and safety issues this impact was assessed as being of **high** significance (likely and moderate magnitude).

5.3 Way of life

During construction, there may be adverse social amenity impacts associated with traffic, noise, and air quality for neighbours near the Project site and/or along the proposed haulage route. These may impact on nearby residents' way of life - including on their commuting or travelling time, their experience of travel, and on their privacy, peace, and quiet enjoyment.

Drawing from past experiences of noise impacts due to construction traffic and development activity for the Wellington SF, some near neighbours expressed concern about noise. Particularly, they are concerned about noise from traffic, the inverters, and the BESS operation and cooling systems (including concern about night-time noise). They are concerned that these impacts may also have secondary health impacts (see Section 5.6.2).

Cumulative impacts (including from construction of the adjacent Wellington BESS (if approved) and roadworks required for Uungula WF) are likely to further contribute to potential noise and dust/air quality issues.

Other than one near neighbour stating concern about potential interference with their amateur radio signals, no substantive concerns were expressed about EMF, and no concerns about potential vibration impacts were raised during consultation.

A Noise and Vibration Assessment (NVA) for the Project was undertaken (see EIS Section 6.6) which found that noise exceedances during construction for one sensitive receiver are possible yet would not occur typically (i.e., they are predicted to occur over a period of two to three days). Management measures include limiting work hours and consultation with those directly impacted. Regarding operational noise, the NVA found that the Project would comply with nominated noise criteria.

Despite this, some near neighbours feel that noise impacts (including during construction and operation, and from traffic) may be audible to them and may impact on their sense of quiet enjoyment and way of life. This is likely to be the case for some nearby residents who are already impacted by noise from construction activities from other projects and would be sensitive to additional construction traffic noise from this Project. This remains a concern for near neighbours that they don't want to be discounted.

Air quality and dust were not raised during consultation in relation to social amenity concerns.

Near neighbours also expressed concern about night lighting. A Visual Impact Assessment (VIA) was undertaken, and found that under normal circumstances, there would be no night lighting located on site. External lighting would be provided around the buildings and in the high voltage substation, but they would only be used on rare occasions when staff are working on site in the dark. There may be some security lighting at critical locations around the perimeter of the site, but these would only be activated when the automatic security system senses an unauthorised site entry.

Given the possibility of cumulative impacts and the high level of concern expressed by near neighbours, particular around noise impacts, these impacts are rated as being of **high** significance (almost certain and moderate magnitude).

5.4 Surroundings

5.4.1 Visual amenity and landscape

The area surrounding the Project site has experienced change in recent years, moving from farmland to an industrialised landscape, in less than a decade.

Regarding this Project, there is little widespread concern about the change of landscape. However, more broadly, there was concern about the impact of the many developments in the locality that have changed, and will further change, the landscape. It was reported that some people find it difficult to see this change in the landscape. Some near neighbours expressed concerns that the proposed Project may set a precedence to justify more developments.

In addition, the sentiment that 'if people can't see it, then they won't care' was strongly conveyed; and with this Project, most Wellington people can't see it as part of their day-to-day lives.

The nearest neighbours who would overlook the site were consulted early in the planning phase to discuss visual amenity impact on their property. Within the Project planning phase, consideration

was given to siting the facility to take advantage of local terrain and vegetation and thereby minimise views to the south and south-west. Consideration was also given to ensuring that the colours of the buildings within the site blend into the landscape as much as possible.

Further to this, visual amenity and landscape character was assessed through a Visual Impact Assessment (VIA) (see EIS Section 6.5). This found that overall, the Project would have a very low visual impact on the surrounding landscape character. There would be limited opportunities to view the Project from publicly accessible land and roads, thus the Project would affect a low to very low visual impact on public land. A very low visual impact to all non-associated sensitive receivers except for one, which would likely experience a low visual impact, due to a higher elevation and breaks in vegetation. The VIA recommended vegetation screening.

Consultation also revealed that with the Wellington SF, screening trees and screening of the shared fence were not delivered as agreed in the Development Application, and plantings had failed.

Despite these measures, given the high degree of concern expressed by near neighbours, landscape character and visual amenity impacts for some near neighbours was assessed as having **high** significance (almost certain and moderate magnitude). For the broader community, this impact was assessed as of **low** significance (i.e., possible, yet minimal magnitude).

5.4.2 Hazards

Public safety and hazard risk concerns were raised by some stakeholders during consultation. These concerns were primarily related to grassfire risk, as well as risks related to fire from the BESS.

The site is not identified as bushfire prone land. The Development footprint proposed within the Study Area is predominantly on low slope land in a low (Grassland) to moderate (woody vegetation) fuel environment.

An assessment of bushfire risks and fire risks associated with the BESS was undertaken (see EIS Section 6.4). This identified BESS fire to be a very low risk, with no significant predicted off-site impacts given the large separation distance to the nearest dwelling.

This impact was deemed of **low** social significance (unlikely and of minor magnitude).

5.4.3 Change of land use and loss of agricultural land

Agriculture remains prevalent in the Wellington and Dubbo region, however the soil capability at the site is also limited and has high limitations for high-impact land uses (see EIS Section 6.8). As noted in the baseline, this site was previously approved for a gas-fired power station and is zoned SP2 Industrial (Electricity Supply).

Consultation indicated a low level of concern about loss of agricultural land with this Project, as the land was not considered to be good quality agricultural land, nor recently used for farming. Stakeholders noted however that the Wellington SF was developed on good farming land.

There was concern about decommissioning, in that, local people were concerned about who would regenerate the site and remove all infrastructure if companies ran out of money, and left the site. People wanted more information and some certainty about the decommissioning process.

Stakeholders noted that the wind farm, solar farm, jail, and this Project were all located on the same road, so the proposed Project would not change the nature of the area.

This Project would have a low impact upon agricultural production on the property and the region over the life of the Project. Given these factors, the overall potential negative social impact has been evaluated as **low** significance (unlikely and of minor magnitude).

5.5 Community and culture

5.5.1 Community cohesion

In some cases, proposed development projects can be grounds for contestation within local communities and this can sometimes negatively impact on community cohesion. Conversely, development projects can also bring together groups with a shared identity.

SIA consultation revealed a range of attitudes towards the Project within Wellington. Importantly, it was identified that many local people wouldn't know about the Project, and in the main, amongst those that do, there is a sense that people feel neither for, nor against, this Project. This is no indication that this Project is causing local community division.

However, relating to renewable energy projects more broadly, one stakeholder noted emerging divisions between the 'haves' and the 'have nots', i.e., between host landholders and others within the community who are bearing the negative impacts, yet not reaping the financial benefits from these projects, as discussed in Section 5.1.4.

It was also noted that, in a general sense within the region, neighbourhood agreements can impact on cohesion. Neighbourhood friendships have been based on trust in the past, and when neighbourhood agreements come into play, and people are not allowed to disclose details of their agreements, this can bring about distrust between neighbours.

Given these factors, this impact has been evaluated as **low** significance (unlikely and of minor magnitude).

5.5.2 Community composition and character

Drawing from the community's past experiences of non-resident workforce influxes, stakeholders expressed concern about the potential for worker influxes to disrupt the community feel of Wellington. As noted in the baseline, past worker influxes have changed the dynamics of the town, and this is a potential impact for this Project. People in town can feel overrun with construction workers, and there can be cultural clash between townspeople and construction workers. One stakeholder noted that sometimes it can leave a sour taste when there is another influx, as people find it 'disruptive in their own daily workings'.

When worker influxes come into town, local people still want to retain the local community feel of their town. Local people want to be treated with respect by both proponents and the construction contractors of the renewable energy developments in and around their town.

Given these factors, this impact has been evaluated as **medium** significance (possible, yet of minor magnitude).

5.5.3 Community investment opportunity

The Project represents an opportunity for increased community investment in localised initiatives through the proposed Community Enhancement Fund (CEF).

During SIA consultation and broader EIS engagement, stakeholders were invited to share their thoughts about potential community investment initiatives. Consultation revealed that local stakeholders highly value benefit sharing schemes, and that this is seen by many as a key potential project benefit. However, alongside this, there is a growing recognition that the community is not getting enough benefits from these projects.

This concurs with other recent localised research findings which showed that stakeholders want to ensure that hosting REZ infrastructure will lead to a net regional benefit. This research added further that so far, community benefit funds from renewable energy projects have been highly variable in application and size. Stakeholders expressed a desire for these funds to be consistently applied across all project types and with money pooled to enable larger, more strategic investments (OECC, 2022b).

During SIA consultation, many noted the visible community benefit schemes of other major projects in the area, and the positive impact that this has had on community acceptance of those projects. One stakeholder noted that:

- *…would alleviate some of the perceptions of the energy companies in the community'.*
- *…Bodangora do grants program really well, its really positive.*

Suggestions for support from SIA consultation, and also project engagement for another proximal project included support for:

- the local community with solar infrastructure
- anything that supports Aboriginal development
- mountain bike track
- local grants programs, in line with some of the other local projects

Stakeholders also noted the need for transparency relating to any community scheme, and also the need to spread the beneficiaries of any grants scheme across the community, so that the same organisations are not repeatedly receiving grants.

Unmitigated, this impact was evaluated to be of **medium** significance (likely, yet of minor magnitude).

5.5.4 Culture

The potential for intangible harm to Aboriginal cultural heritage through cultural or spiritual loss is a key social consideration, specifically regarding the potential loss or diminution of traditional attachment to the land or connection to Country and associated cultural obligations.

A specialist Aboriginal Cultural Heritage Assessment (ACHA) was undertaken to assess the cultural and scientific significance of any Aboriginal heritage sites (see EIS Section 6.2). The ACHA found no Aboriginal sites within the site and low archaeological potential due to the lack of permanent fresh water or other key resources (e.g., outcrops of stone material). While Aboriginal people would have utilised the whole landscape of the Wellington region, the use of the site would likely have been limited to transitory rather than long term occupational use.

This impact was assessed as **low** significance (likely, yet of minimal magnitude).

5.6 Health and wellbeing

5.6.1 Uncertainty and stress

Development projects and contexts of conflict surrounding them can create psychological stress, uncertainty, and anxiety in people who oppose the project and/or are directly impacted (Prenzel & Vanclay, 2014). This can result from fears about health impacts associated with construction noise, dust, lighting, and/or toxic materials, as well as potential safety hazards during operation.

Stress can also result from fears about the future, including potential changes to individuals' home environment and surrounding landscape. The concept of 'solastalgia' describes the distress produced by environmental change that individuals experience while they are directly connected to their home environment. This distress is exacerbated by a sense of powerlessness or lack of control over the unfolding change process (Albrecht, et al., 2007).

In the case of renewable energy projects, the time between planning and development approval and then actual development can be years, increasing uncertainty and stress for some affected individuals. Psychological stress can in turn adversely affect physical health and wellbeing. These stresses can be seen as being typical of this stage of the Project, and in many cases, this stress may subside once decisions are made regarding the Project's next steps and uncertainty is reduced.

Evidence from consultation indicates that these types of stresses and fears have arisen for a small number of near neighbours. Two stakeholders raised concerns about potential health impacts from EMF exposure, with one expressing distrust of the scientific research on the subject.

Given that these impacts have been reported by several near neighbours and residents, and with the acknowledgement that there may be others experiencing similar impacts, and the potential for cumulative impacts, the potential for this impact was assessed to be of **medium** significance (likely, yet of minor magnitude).

5.6.2 Sleep disturbance

Some near neighbours highlighted concerns about health impacts related to sleep disturbance resulting from noise and night-lighting during construction and operation of the BESS. These neighbours experienced both noise and security lighting impacts during the construction of the Wellington SF, and experience ongoing security lighting impacts from the nearby correctional centre.

Their concerns centred on the inverters and the potential for night-time noise from BESS operation and cooling systems. They described household members as highly sensitive to ongoing noise, including construction traffic and activities, and the impact of noise during the night leading to sleep deprivation. Without appropriate mitigations, these neighbours are likely to experience cumulative impacts from this Project and the adjacent Wellington South BESS (if approved) during operation. There are currently no sound barriers (foliage or constructed) that would prevent noise carrying at night.

As outlined in Section 5.4.1, the VIA found negligible impacts from night lighting. Also, the NVA found that night-time noise from the BESS would be well below nominated sleep disturbance criteria (see EIS Section 6.6).

Despite this, given the ongoing high degree of concerns expressed by some near neighbours, this impact was assessed to be of **high** significance (almost certain likelihood, and moderate magnitude).

5.7 Project engagement and decision-making

Procedural fairness relates to people's ability to participate and have a say in decisions that affect their lives. This includes the effectiveness of engagement mechanisms to enable all groups to participate in the assessment process and opportunities for people to have a say in the project's community investment decisions. Meaningful and inclusive community engagement is integral to this process.

Regarding the engagement process, some participants noted that the community more broadly would have little awareness of this Project. Difficulties with engaging the broader Wellington community have been reported for similar local projects, including Wellington South BESS and Apsley BESS, and was highlighted by several SIA interviewees.

> *…no-one will turn up to their community hall session if they have any…people are over it because there are so many projects.*
>
> *Suggested to do engagement at the markets or some place where people are, it is a good soft entry, and people are already there*

These issues are compounded by the fact that there are a number of BESS projects being proposed in this vicinity, and it is unlikely that people either know about them or could differentiate between them. There was a sense that local people won't engage with these renewable energy projects because there are so many of them.

Regarding renewables projects in general in the area, consultation highlighted that the community hasn't seen that much engagement with these projects. Lack of community engagement was seen as a key factor that limited social acceptance of the Wellington SF, and this lack of engagement can become exacerbated when the project gets to EPC. One stakeholder also highlighted that when there are good project outcomes, there is also a need for these good news stories to be communicated to local people.

Additionally, near neighbours expressed a lack of trust or scepticism with the assessment process.

> *No matter what we say, once they have got approval – for these projects it's out of local government hands – they can do what they like.*

This impact was evaluated as of **high** significance (i.e., likely and of moderate magnitude).

5.8 Cumulative impacts

Cumulative impacts are a result of incremental, sustained and combined effects of human action and natural variations over time and can be both positive and negative. They can be caused by the compounding effects of a single project or multiple projects in an area, and by the accumulation of effects from past, current and future activities as they arise.

Other current or reasonably foreseeable projects relevant to the assessment of cumulative impacts for the Project have been identified in Section 4.2.2.

In general within the CWO REZ, consultation highlighted that people are worried about cumulative impacts.

A cumulative impact assessment (CIA) has been undertaken (see EIS Section 7.3), and the following key regional and local cumulative impacts were identified:

- Biodiversity impacts
- Visual and landscape character impacts
- Noise impacts
- Traffic impacts
- Pressure on local facilities, goods and services

In addition to these, from a social perspective, key areas of potential cumulative social impacts and benefits include:

- Pressure on the housing market, short-term accommodation, and local services (construction phases)
- Changes to the community feel of the town (construction phases)
- Increased economic activity, and employment, training and procurement opportunities (construction phases)
- Way of life impacts for near neighbours

When considering social impacts throughout this SIA, the cumulative effects from these multiple projects have been taken into consideration.

5.9 Social impact summary

Error! Reference source not found. presents a summary of potential social impacts and response measures.

The stakeholder significance rating has been determined by the perceived importance of the issue to the affected stakeholder group, their sensitivity to the impact, and the frequency that the issue was raised by the group during the consultation and engagement processes. The significance rating (unmitigated) further considers the issue in light of additional information drawn from the technical assessments and comparative studies. The residual impact significance rating represents the likely significance of an issue once the proposed mitigation/enhancement measure/s have been successfully implemented.

These impacts are presented by Project phase, with construction impacts listed first.

Social impact category	Project phase	Potential impact (unmitigated)	Affected stakeholder group	Stakeholder significance (perceived)	Significance rating (unmitigated)	Overview of mitigations / enhancement measures	Residual impact significance	Positive / negative
Access	Cons	Pressure on rental housing (Wellington, Dubbo, and region) due to non-resident construction workforce demand, affecting availability and affordability	Residents Local businesses	Very high	High (A3)	Community engagement as per the **CSES**. Develop **AES** (working closely with DRC and key stakeholders in Wellington and Dubbo). Consult with accommodation providers to utilise short-term accommodation where possible, to minimise negative impacts on tourists and other users, and reduce pressure on the rental market. Consider alternative accommodation options (such as temporary worker accommodation) in collaboration with other projects in the region.	Medium (C3)	Negative
		Pressure on short-term accommodation (Wellington, Dubbo, and region) due to non-resident construction workforce demand, affecting availability	Tourists, visitors Vulnerable populations in short-term accommodation	High	High (A3)		Medium (C3)	Negative
Livelihoods	Cons	Local employment, training and upskilling opportunities Commercial benefit through procurement opportunities for local business and service providers	Job seekers Local/regional employment and training providers Local/regional businesses, contractors, suppliers Local govt Broader community	High	Medium (C2)	Develop **AES** and **Local Procurement Policy (LPP)** as part of **IPP** in consultation with local stakeholders. Utilise existing networks (e.g., Wellington TAFE, ICN, RDA, VERTO) to establish training and employment processes and pathways ahead of construction. First Nations Participation Plan (FNPP) co-developed with Aboriginal stakeholders. **CSES** - Open, transparent, timely and accessible communication of Project information, including mechanisms for local industry and community to learn	High (B2)	Positive

Social impact category	Project phase	Potential impact (unmitigated)	Affected stakeholder group	Stakeholder significance (perceived)	Significance rating (unmitigated)	Overview of mitigations / enhancement measures	Residual impact significance	Positive / negative
						more about the Project and register interest		
Livelihoods	Cons	Increase in economic activity resulting from increased demand for goods and services, and increased income and spending of construction workers	Local/regional businesses, contractors, suppliers Local accommodation providers Local govt Broader community	High	Medium (C2)	Develop **AES** and **LPP** as part of **IPP** in consultation with local stakeholders. Communicate strategies clearly to community as per **CSES.**	Medium (B2)	Positive
Access	Cons	Pressure on social infrastructure due to an influx of non-resident workers	Broader community Local government Service providers	Medium	Medium (C2)	Community engagement as per the **CSES.** Development of an **AES**, working closely with DRC and key stakeholders in Wellington and Dubbo.	Low (C1)	Negative
Way of life Community	Cons	Disruption to the local community (way they live) from influx of construction workers	Broader community	Low	Medium (C2)	**AES**, including workforce management component.	Low (C1)	Negative
Way of life Access Livelihoods	Cons	Way of life, social amenity, road access and safety impacts due to increased traffic during construction	Near neighbours Local residents Agricultural producers Local businesses Residents along	High	High (B3)	**Construction Traffic Management Plan (CTMP)** to minimise safety risks, road damage, and disruption. Limiting hours for heavy vehicle movements and Driver Code of Conduct as part of this.	Medium (B2)	Negative

Social impact category	Project phase	Potential impact (unmitigated)	Affected stakeholder group	Stakeholder significance (perceived)	Significance rating (unmitigated)	Overview of mitigations / enhancement measures	Residual impact significance	Positive / negative
			the haulage route Road users Tourists and visitors			**Noise Management Plan (NMP)** measures as part of **Construction Environmental Management Plan (CEMP)** **CSES** to highlight open, transparent, timely and accessible communication of Project information. Throughout construction, regular consultation with sensitive receivers. Develop accessible, adequate and responsive grievance and remedy mechanisms.		
Way of life	Cons	Noise and air quality impacts, impacts on quiet enjoyment during construction	Near neighbours	High	High (A3)	**NMP** measures as part of **CEMP** **CSES** to highlight open, transparent, timely and accessible communication of Project information. Throughout construction, regular consultation with sensitive receivers. Develop accessible, adequate and responsive grievance and remedy mechanisms.	Medium (A2)	Negative
Surroundings	Cons Op	Changes to the landscape affecting people's visual amenity, the rural character, and aesthetic values	Some near neighbours	Medium	High (A3)	Screening vegetation around the perimeter of the site as outlined within **VIA** Ongoing consultation with individual neighbouring landholders re specific mitigation options, as per **CSES**	Medium (B2)	Negative
			Broader community	Low	Low (C1)		Low (C1)	Negative
Surroundings	Cons Op	Public safety and hazard risks, i.e., grass fires, BESS fire	Host & some neighbours Local community	Medium	Low (D2)	**Bushfire Emergency Management** and **Operations Plan** in consultation with the RFS Communicate strategies clearly to	Low (D1)	Negative

Social impact category	Project phase	Potential impact (unmitigated)	Affected stakeholder group	Stakeholder significance (perceived)	Significance rating (unmitigated)	Overview of mitigations / enhancement measures	Residual impact significance	Positive / negative
			Emergency services Environmental/ community groups Broader community			community as per **CSES**		
Livelihoods	Cons Op	Disruption to agricultural practices and changes to land use	Host landholders Near neighbours Broader community	Low	Low (D2)	**CSES** - open, transparent, timely and accessible communication of Project information, with the aim of minimising uncertainty and to address concerns	Low (D2)	Negative
Livelihoods	Cons Op	Decrease in property values and pool of potential buyers due to proximity to Project and associated visual impacts	Near neighbours	High	Medium (C2)	**CSES** - Open, transparent, timely and accessible communication of Project information, with the aim of minimising uncertainty and to address concerns	Low (D2)	Negative
Culture	Cons Op	Impacts on Aboriginal cultural heritage	Aboriginal community	Low	Low (B1)	Mitigation measures outlined in **Aboriginal Cultural Heritage Assessment (ACHA)**.	Low (B1)	Negative
Communities	Op	Increased community investment	Broader community Some community and /or environmental groups	Very high	Medium (B2)	Development and implementation of the **Community Enhancement Fund (CEF**) with DRC in consultation with a broad range of stakeholders. Provide ongoing opportunities for people to be involved in decision-making processes.	High (B3)	Positive

Social impact category	Project phase	Potential impact (unmitigated)	Affected stakeholder group	Stakeholder significance (perceived)	Significance rating (unmitigated)	Overview of mitigations / enhancement measures	Residual impact significance	Positive / negative
Health and wellbeing	Op	Impacts to physical health as the result of Project impacts, e.g., sleep disturbance caused by night-time BESS operation and security lighting	Some near neighbours	Very high	High (A3)	Measures outlined within the **VIA** and **NVA** **CSES** - open, transparent, timely and accessible communication of Project information, with the aim of minimising uncertainty	Low (D1)	Negative
Community	All stages	Impacts on community cohesion at the local level	Near neighbours Local community	Medium	Low (D2)	Robust community engagement as per the **CSES**	Low (D2)	Negative
Health and wellbeing	All stages	Psychological stress due to anxiety/uncertainty related to the Project and changes to people's surroundings; associated fears about property values and financial implications	Some near neighbours	High	Medium (B2)	Robust community engagement as per **CSES**. Open, transparent, timely and accessible communication of Project information, with the aim of minimising uncertainty	Low (D2)	Negative
Decision-making systems	All stages	Impacts on people's ability to participate and have a say in decisions that affect their lives	Near neighbours Broader community	Low	High (B3)	**CSES** - Open, transparent, timely and accessible communication of Project information. Understand the ways in which local communities prefer to access information in the local area (e.g., media, social media, internet, bulletin boards, community associations and newsletters) and utilise these to advertise Project information and engagement opportunities. Provide multiple Project contact options and feedback mechanisms for the community and	Low (D2)	Negative

Social impact category	Project phase	Potential impact (unmitigated)	Affected stakeholder group	Stakeholder significance (perceived)	Significance rating (unmitigated)	Overview of mitigations / enhancement measures	Residual impact significance	Positive / negative
						stakeholders		

6. Social Impact Management Framework

This section provides a preliminary framework for managing social impacts. The enhancement and mitigation measures outlined below directly respond to the potential positive and negative social impacts associated with the Project. These measures have been identified through consideration of Project impacts, along with stakeholder and community consultation.

Key elements of the social impact management framework include:

1. Community and Stakeholder Engagement Strategy
2. Industry Participation Plan
3. Community Benefit Sharing Program.

Given the significant scale of development activity in the Wellington area at the moment, it would be highly beneficial for the Wellington community if proponents of local projects could work together (at least to some extent) to have some degree of coordination (or even integration) between their various social impact management intentions. This would likely need to be facilitated by an external government or similar agency (e.g., DRC, EnergyCo, or RE-Alliance etc), and may need to be funded as a discrete project.

Some social impacts from this Project will be managed primarily through the various environmental management strategies identified in the EIS. These include the Construction Traffic Management Plan, Visual Impact Management Plan, Noise Management Plan, Landscape Management Plan, Bush Fire Management Plan, Emergency Response Plan, and the Construction Environmental Management Plan. The CSES will be the platform that ensures adequate linkage between these management plans and community concerns relating to these matters.

6.1 Community and Stakeholder Engagement Strategy

It is recommended to update and extend the existing Community and Stakeholder Engagement Strategy (CSES).

The CSES should be developed and implemented in line with DPIE's *Undertaking engagement guidelines for State Significant Projects* (DPIE, 2021c), and be guided by the SIA Guidelines and relevant frameworks (e.g. the International Association for Public Participation (IAP2) *Spectrum of Public Participation* (IAP2, 2018)).

During the exhibition and pre-construction periods, the CSES should:

- Have a focus on increasing general community awareness about the Project.
- Providing clear updates on Project progress and next steps to reduce uncertainty about the Project.
- Seek wider community feedback about and input into the Industry Participation Plan and Community Benefit Sharing Program.
- Increase community awareness about work opportunities related to the Project (as per IPP)
- Deliver targeted engagement activity to address the ongoing concerns expressed by some stakeholders within this SIA. This would include addressing near neighbour concerns about noise, way of life, visual and traffic impacts, and property value concerns.
- Continue to engage with Council to discuss and adaptively respond to any emerging community and business concerns.

- Participate in any coordinated planning efforts that may be undertaken in the region that bring proponents (or similar) together to collectively manage cumulative impacts and optimise community benefits.

More broadly, over the longer term, the objectives of the CSES should be to:

- Ensure proactive, transparent, and meaningful engagement, using effective, appropriate, and inclusive techniques. In particular, during construction, maintain regular consultation with sensitive receivers.
- Build trust and relationships with those who are directly impacted, other key stakeholders and the community.
- Keep the community and stakeholders informed about the Project through the provision of accurate and factual Project information.
- Identify effective methods to inform the community about the Project through building an understanding of community preferences for accessing and receiving information.
- Provide accessible and understandable content, delivered in a range of easy-to-digest multimedia and multi-device forms.
- Provide opportunities for people to collaborate on relevant Project design matters and provide input into preferred solutions.
- Ensure people know how their input and views have been considered, and what strategies will be put in place to address their concerns.
- Identify and address community and stakeholder concerns and maintain transparency in Project design, implementation, and ongoing operations.
- Adaptively respond to emerging community concerns and changes in the social environment.
- Ensure provision of accessible, adequate, and responsive grievance and remedy mechanisms in the event of complaints. This will be particularly important during construction.
- Actively promotion of the positive benefits of the Project.

See EIS Section 5 for further details.

6.2 Industry Participation Plan

The Proponent has agreed to prioritise local jobs and businesses wherever possible. Given widespread skills shortages and a disadvantaged local population, a very active approach is needed to achieve positive local employment and business outcomes for this Project. The IPP will articulate the measures that Akaysha will put in place to achieve these goals.

The IPP will:

- Encompass considerations regarding i) local employment and procurement (with a specific focus on First Nations participation), and ii) the accommodation of the construction workforce.
- Be targeted towards the people and businesses within Wellington and surrounds, the Dubbo Regional LGA, and the wider regional area.
- Be developed in partnership with key local and regional stakeholders, such as:
    - Dubbo Regional Council

  - Dubbo and Wellington Business Chambers
  - Economic development and industry support agencies (e.g., Regional Development Australia, Industry Capability Network)
  - Training and employment support agencies (e.g., TAFE NSW, Verto, Joblink Plus)
  - First Nations stakeholders (including the Central West Orana Working Group)
  - Other local social service or support agencies, and accommodation providers.
- Outline mechanisms that will be used to ensure that local people and businesses are given full, fair, and reasonable opportunity to participate in the Project. Consider specific opportunities for Aboriginal people and businesses, women, and young people.

Specifically, the Plan will include two key components that interrelate. These are:

- A **Local Procurement Policy** (LPP). This will outline Akaysha's commitment to providing local and regional businesses the opportunity to supply goods and services to meet Project needs during all Project phases. It will include specific focus on First Nations businesses.
- An **Accommodation and Employment Strategy** (AES). As it is likely that a proportion of the construction workforce will be non-resident, the strategy will outline measures that respond to potential social impacts and opportunities relating to the Project's non-resident construction workforce.

  It will include measures to minimise potential negative impacts on the local rental market, short-term accommodation (i.e., avoiding negative impacts on tourism opportunities and any vulnerable populations who are utilising short-term accommodation), and local services and social infrastructure. The AES will also consider alternative accommodation options (such as temporary worker accommodation) in collaboration with other projects in the region.

  The strategy will include engagement with DRC and other key stakeholders in Wellington and Dubbo (including accommodation providers). It will also outline workforce management details, including measures to manage positive social integration with the existing community.

  The strategy will outline measures to maximise local employment. The Proponent will actively look for the right skills amongst residents and businesses. This will include an employment forum (or similar) to ensure that the community (including the local Aboriginal community) fully understands the opportunities available, and residents, businesses and services are able to register their interest. There will be a jobs register on the Project website. The AES will detail how the Proponent will link in at the local level with government and other support agencies (e.g., employment and training organisations and industry support networks such as Industry Capability Network) that assist people and businesses improve their capacity and capability. The Proponent will work with the ICN Gateway in conjunction with the EPC contractor.

  As part of the AES, specific focus should be on ensuring First Nations participation within the Project. This can be articulated through a **First Nations Participation Plan** (FNPP), which would specifically outline training, employment and support mechanisms to maximise First Nations employment. This is in alignment with the *CWO REZ First Nations Guidelines* (OECC, 2022a).

6.3 Community Benefit Sharing Program

Community benefit sharing programs are increasingly common in the Australian renewable energy industry. The *Large-Scale Solar Energy Guideline* (DPE, 2022b) notes that sharing the benefits of a project can assist in delivering positive, tangible, and long-term social and economic outcomes for local and regional host communities impacted by large-scale solar development.

Community benefit sharing involves initiatives that benefit the community as a whole. Community benefit sharing might include:

- Providing funding (e.g., grants, sponsorships, or scholarships)
- Establishing partnerships with important local groups or projects
- Providing in-kind support or developing education and tourism initiatives
- Local jobs, training and procurement
- Innovative options for financing (e.g., community co-investment) or innovative products (e.g., energy retailing options)
- Compensation for impacted residents that is allocated in a structured manner (Lane & Hicks, 2019).

In recognition of this, Akaysha has developed a community benefit sharing program that is tailored to the local context, to maximise local benefits and designed to have a positive and lasting impact for the local community. The program has been informed by consultation with the community and key stakeholders. The program consists of the following elements:

- Local jobs and procurement (outlined above in the IPP)
- The Community Enhancement Fund (described below).

Visible positive benefits for both these elements are integral to garnering long-term community acceptance and support for this Project.

6.3.1 Community Enhancement Fund

The intention of the Community Enhancement Fund (CEF) is to support very localised and meaningful community and environmental initiatives that have strong resident and broader community support, throughout the life of the Project.

Development of this fund has been informed by consultation with key stakeholders; however, there is still a need for further program development in partnership with the community and key stakeholders. Details regarding the Community Enhancement Fund are still under consideration, however one key concept that is currently being explored is to make a contribution to the development of a mountain bike facility at Mount Arthur Reserve, just outside Wellington.

This concept has been discussed with Council and further discussion will be required to determine the governance arrangements applied to this. The concept needs to be further tested with the local community, to garner their input as part of the CSES during the exhibition and pre-construction phases.

It is recommended that the governance structure of the CEF, and the associated administration processes, are developed and designed through a participatory approach with residents and the broader community. The CEF should provide ongoing opportunities for people to be involved in its decision-making processes.

7. References

ABS. (2018). *2033.0.55.001 - Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2016*. Retrieved from Australian Bureau of Statistics: https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/2033.0.55.0012016?OpenDocument

ABS. (2021). *2021 Census All persons QuickStats*. Retrieved from Australian Bureau of Statistics: https://www.abs.gov.au/census/find-census-data/search-by-area

AIHW. (2020). *Social determinants of health*. Retrieved June 15, 2022, from https://www.aihw.gov.au/reports/australias-health/social-determinants-of-health

Albrecht, G., Sartore, G.-M., Connor, L., Higginbotham, N., Freeman, S., Kelly, B., . . . Pollard, G. (2007). Solastalgia: the distress caused by environmental change. *Australasian Psychiatry*, s95-99. doi:10.1080/10398560701701288

Australian Urban Observatory. (2021). *Social Infrastructure*. Retrieved from Australian Urban Observatory: https://auo.org.au/

Briggs, C., Atherton, A., Gill, J., Langdon, R., Rutovitz, J., & Nagrath, K. (2022b). Building a 'Fair and Fast' energy transition? Renewable energy employment, skill shortages and social licence in regional areas. *Renewable and sustainable energy transition*(1000039), 1-15. doi:https://doi.org/10.1016/j.rset.2022.100039

Briggs, C., Gill, J., Atherton, A., Langdon, R., Jazbec, M., Walker, T., . . . Nagrath, K. (2022a). *Employment, skills and supply chains: Renewable energy in NSW - Final report.* Sydney: University of Technology Sydney and SGS Economics and Planning. Retrieved from https://www.energy.nsw.gov.au/sites/default/files/2022-09/employment-skills-and-supply-chains-renewable-energy-in-nsw-final-report.pdf

Briggs, C., Rutovitz, J., Jazbec, M., Langdon, R., Nagrath, K., University of Techology Sydney, & Infrastructure Australia. (2021). *Market Capacity for electricity generation and transmission projects.* Market Capacity Program. Sydney: Infrastructure Australia. Retrieved from https://www.infrastructureaustralia.gov.au/sites/default/files/2021-10/Market%20Capacity%20for%20Electricity%20Infrastructure%20211013.pdf

CEC. (2022). *Skilling the energy transition.* Melbourne: Clean Energy Council. Retrieved from https://assets.cleanenergycouncil.org.au/documents/CEC_Skilling-the-Energy-Transition-2022.pdf

DPE. (2022a). *Central-West and Orana Regional Plan 2041.* Parramatta: Department of Planning and Environment.

DPE. (2022b). *Large-scale Solar Energy Guideline.* Parramatta: Department of Planning and Environment.

DPE. (2022c). *Population projections*. Retrieved from Department of Planning and Environment: https://www.planning.nsw.gov.au/Research-and-Demography/Population-projections

DPIE. (2021a). *Social Impact Assessment Guideline for State Significant Projects.* Parramatta: Department of Planning, Industry and Environment.

DPIE. (2021b). *Technical supplement: Social Impact Assessment Guideline for State Significant Projects.* Parramatta: Department of Planning, Industry and Environment.

DPIE. (2021c). *Undertaking engagement guidelines for State Significant projects.* Parramatta: Department of Planning, Industry and Environment.

DRC. (2022a). *Dubbo Regional Local Environmental Plan 2022.* Dubbo: Dubbo Regional Council. Retrieved from https://www.dubbo.nsw.gov.au/ArticleDocuments/355/Dubbo%20Regional%20Local%20Environmental%20Plan%202022.pdf.aspx?Embed=Y

DRC. (2022b). *Towards 2040 Community Strategic Plan.* Dubbo: Dubbo Regional Council.

DRC. (2022c, April). *Report: Housing in the Dubbo Regional Local Government Area.* Retrieved from Dubbo Regional Council: https://www.dubbo.nsw.gov.au/ArticleDocuments/278/Business%20Paper%20-%20Ordinary%20Council%20Meeting%20-%2028%20APril%202022.pdf.aspx?Embed=Y

DRC. (2022d). *Renewable Energy Benefit Framework.* Dubbo: Dubbo Regional Council.

Drinkwater, D. (2020, November 19). *Doctor shortage at Wellington Hospital forces residents to ramp up the pressure*. Retrieved February 23, 2023, from ABC News: https://www.abc.net.au/news/2020-11-19/wellington-ramps-up-pressure-to-address-doctor-shortage/12900460

Dröes, M. I., & Koster, H. R. (2021). Wind turbines, solar farms, and house prices. *Energy Policy, 155*, 112327. doi:https://doi.org/10.1016/j.enpol.2021.112327

Gibson, J. (2007, November 15). *Traditional owners win 13-year fight for native title*. Retrieved from The Sydney Morning Herald: https://www.smh.com.au/national/traditional-owners-win-13-year-fight-for-native-title-20071115-gdrlny.html

Hall, N., Ashworth, P., & Shaw, H. (2012). *Acceptance of rural wind farms in Australia: a snapshot. Summary*. Canberra: CSIRO.

Harvey, A., & Owens, D. (2015, July 23). *Wellington, in central NSW, nicknamed 'South Pole' for alarming ice habit*. Retrieved from ABC News: https://www.abc.net.au/news/2015-07-23/nsw-town-nicknamed-south-pole-for-ice-habit/6643292

IAP2. (2018). *Spectrum of public participation*. Retrieved from International Association for Public Participation: https://iap2.org.au/resources/spectrum/

Ipsos. (2015). *Establishing the social licence to operate large scale solar facilities in Australia: insights from social research for industry.* Australian Renewable Energy Agency. Retrieved from https://arena.gov.au/projects/utility-scale-solar-installations-social-license-to-operate-in-australia/

Lane, T., & Hicks, J. (2019). *A guide to benefit sharing options for renewable energy projects.* Melbourne: Clean Energy Council.

NGH. (2018). *Submissions Report Wellington Solar Farm.*

NGH. (2022). *Scoping Report Orana Battery Energy Storage System.* Retrieved from https://pp.planningportal.nsw.gov.au/major-projects/projects/orana-battery-energy-storage-system

OECC. (2022a). *First Nations Guidelines: Increasing Central-West Orana income and employment opportunities from electricity infrastructure projects.* Sydney: NSW Office of Energy and Climate Change. Retrieved from https://www.energy.nsw.gov.au/sites/default/files/2022-08/first-nations-guidelines-increasing-central-west-orana-income-and-employment-opportunities-from-electricity-infrastructure-projects_0.pdf

OECC. (2022b). *Electricity Infrastructure Jobs Advocate's first report to the Minister for Energy.* Sydney: NSW Office of Energy and Climate Change, NSW Treasury. Retrieved from https://www.energy.nsw.gov.au/sites/default/files/2022-11/electricity-infrastructure-jobs-advocates-first-report-to-minister-for-energy-for-publication.pdf

OEH. (2010, February 2). *Blacks Camp*. Retrieved from New South Wales State Heritage Register. H01865: https://apps.environment.nsw.gov.au/dpcheritageapp/ViewHeritageItemDetails.aspx?ID=5056670

OEH. (2015). *Community Attitudes to Renewable Energy in NSW.* Parramatta: Office of Environment and Heritage. Retrieved from www.environment.nsw.gov.au/communities/community-attitudes.htm

Prenzel, P. V., & Vanclay, F. (2014). How social impact assessment can contribute to conflict management. *Environmental Impact Assessment Review, 45*, 30-37. doi:http://dx.doi.org/10.1016/j.eiar.2013.11.003

Remplan. (2023a). *Dubbo Regional Council - Population, households and dwellings forecasts to 2041*. Retrieved from Remplan: https://app.remplan.com.au/dubboregionalcouncil/forecast/population?state=dxdVswavbTmGYxXsM9vbkIPCRInqgiXgR2svsAj21acXIVb0

Remplan. (2023b). *Dubbo Regional Council Economy Jobs and Business Insights*. Retrieved from Remplan: https://app.remplan.com.au/dubboregionalcouncil/economy/industries/gross-regional-product?state=7w29Ul!wDOjURYZbhronJLfPGoLbtGFOHOpQi4HmH5UxHxB1

SQM. (2023b). *Residential vacancy rates: Postcode 2820*. Retrieved February 23, 2023, from SQM Research: https://sqmresearch.com.au/graph_vacancy.php?postcode=2820&t=1

SQM Research. (2023a). *Residential vacancy rates - Postcode 2830*. Retrieved from https://sqmresearch.com.au/graph_vacancy.php?postcode=dubbo&t=1

Sutton, C. (2017, February 15). *Taylor, the angelic boy who made his mother hand in $5 notes who became a thieving ice addict*. Retrieved from News.com.au: https://www.news.com.au/national/crime/taylor-the-angelic-boy-who-made-his-mother-hand-in-5-notes-who-became-a-thieving-ice-addict/news-story/5f9bcbbb2838869bb09e194f6a13d359

Urbis. (2016). *Review of the Impact of Wind Farms on Property Values.* Retrieved from https://www.environment.nsw.gov.au/resources/communities/wind-farm-value-impacts-report.pdf

Vanclay, F., Esteves, A., Aucamp, I., & Franks, D. M. (2015). *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects.* Fargo ND: International Association for Impact Assessment.

Visit Wellington. (2022). *Visit Wellington*. Retrieved from http://visitwellington.com.au/

Walton, A., McCrea, R., Poruschi, L., Measham, T., Gillespie, M., & O'Sullivan, D. (2021). *Australian attitudes and perceptions of large-scale solar: Social licence and the role of solar in the energy transition.* Brisbane: CSIRO. doi:10.25919/fqbk-0y13

WNSWPHN. (2022). *Primary Health Network Program Needs Assessment: Western NSW Primary Health Network.* Australian Government. Retrieved from https://www.wnswphn.org.au/uploads/documents/corporate%20documents/WNSWPHN%2

0Health%20Needs%20Assessment_%202022-23%20to%202024-25_FINAL%20approved%20-%20online.pdf

Woodburn, J. (2022, April 29). *Cost of FIFO doctors explodes in regional New South Wales*. Retrieved February 23, 2023, from ABC 7.30: https://www.abc.net.au/news/2022-04-29/australia-rural-doctors-shortage-impacting-most-vulnerable/101012540

APPENDIX A Community profile dataset

Social indicators for the social locality and NSW (ABS, 2021)

Indicator ABS 2021 Census	Wellington UCL	Dubbo Regional LGA	NSW
Demographics			
Population (n)	4,581	54,922	8,072,163
Aboriginal & Torres Strait Islander population (n (%))	1,258 (27.4)	9,101 (16.6)	278,043 (3.4)
Age			
Median age (years)	41	36	39
0-14 years (%)	20.4	21.0	18.2
65+ years (%)	22.7	17.3	17.7
Cultural diversity			
Country of birth (Australia) (%)	78.6	81.5	65.4
English only used at home (%)	82.1	82.3	67.6
Households - non-English language is used (%)	6.1	9.2	29.5
Health			
Mental health condition (incl. depression or anxiety	11.4	9.7	8.0
No long-term health condition(s) (%)	45.5	53.0	61.0
Highest level of educational attainment			
Year 12 or equivalent (%)	11.2	11.5	14.5
Certificate 3-4/Diploma (%)	24.3	27.5	24.3
Bachelor degree and above (%)	8.9	17.0	27.8
Households			
Family households (%)	60.7	69.4	71.2
Single person households (%)	35.8	27.3	25.0
Couple family with children (%)	28.5	40.2	44.7
Sole parent family (%)	28.4	18.7	15.8
Median household income ($/week)	1,060	1,597	1,829
Housing			
Separate house (%)	89.6	85.3	65.6
Owned outright (%)	36.4	30.3	31.5
Owned with a mortgage (%)	26.1	33.9	32.5
Rented (%)	33.4	31.5	32.6
Median mortgage repayment ($/month)	1,010	1,517	2,167

Indicator ABS 2021 Census	Wellington UCL	Dubbo Regional LGA	NSW
Mortgage households in housing stress (%)	11.1	9.5	17.3
Median rent ($/week)	240	300	420
Renter households in housing stress (%)	32.8	26.2	35.5
Employment			
Employment status			
Employed full-time (%)	54.6	62.1	55.2
Employed part-time (%)	31.4	28.3	29.7
Unemployed (%)	7.7	3.6	4.9
Did voluntary work in last 12 months (%)	12.1	14.2	13.0
Occupation			
Professionals	12.3	18.3	25.8
Managers	8.0	12.3	14.6
Clerical & administrative workers	10.4	12.4	13.0
Technicians & trades workers	12.9	14.0	11.9
Labourers	16.3	10.6	8.2
Community & personal services workers	20.2	15.1	10.6
Sales workers	9.1	9.1	8.0
Machinery operators & drivers	8.5	6.2	6.0
Industry of employment (top five SAL/UCL)			
Correctional and detention services	6.6		0.3
Aged care residential services	5.7	3.0	2.2
Takeaway food services	4.7		1.9
Supermarket and grocery stores	4.5		2.5
Primary education	3.9	2.8	2.1
Hospitals (except psychiatric hospitals)		5.4	4.2
Other social assistance services		3.8	2.4
State government administration		2.4	

Table A-1 SEIFA index for social locality

Indicator ABS 2016 Census	Wellington UCL	Western Plains Regional LGA	NSW
SEIFA – IRSAD decile*	1	5	N/A

*IRSAD: Index of Relative Socio-economic Advantage and Disadvantage, decile 1 (lowest) to 10 (highest)

Appendix B SIA Stakeholder consultation

Stakeholders consulted for the SIA

Stakeholder group	Targeted stakeholders identified as in scope for SIA engagement	No. interviewed for the SIA
Near neighbours	• Landholders and neighbours within 1.5km of Project site • Wellington Correctional Centre *Names omitted to maintain confidentiality*	2
Wellington residents	*Names omitted to maintain confidentiality*	2
Social locality businesses & business organisations	• Wellington Business Chamber • Real estate agents	1
Social locality community service providers	• Wellington Information & Neighbourhood Services • Wellington Community Health Centre • Wellington Aboriginal Corporation Health Service • PCYC Wellington	0
Employment, training & industry services/ stakeholders	• Regional Development Australia • Industry Capability Network • NSW TAFE (Wellington & Dubbo) • VERTO • EnergyCo	2
Dubbo Regional Council	• Economic Development • Strategic Planning • Community Services	3
Community & special interest organisations	• Wellington Community Progress and Action Group • Rotary • Re-Alliance	1
Environmental organisations	• Dubbo Environmental Group • Dubbo Field Naturalists • Mid Macquarie Landcare	2
Agricultural sector	• NSW Dept of Primary Industries • NSW Farmers' Association	2
First Nations stakeholders	• NSW Aboriginal Land Council • Wellington Local Aboriginal Land Council	1
RFS/ Urban fire/ emergency services	• Rural Fire Service • Wellington Police	0