SOCIAL AND ECONOMIC IMPACT ASSESSMENT

Meadow Creek Solar Farm, at 1033 Oxley-Meadow Creek Road, Meadow Creek, Taungurung Country

URBIS

Prepared for

Meadow Creek Solar Farm Pty Ltd

15 July 2024

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

Director	Richard Gibbs
Associate Director	Alyce Noney
Senior Consultant	Declan Foley
Senior Consultant	Amanda Micallef
Senior Consultant	Alannah Burgess
Assistant Planner	Lara Ball
Project Code	P0050228
Report Number	Final V2

Urbis acknowledges the important contribution that Aboriginal and Torres Strait Islander people make in creating a strong and vibrant Australian society.

We acknowledge, in each of our offices, the Traditional Owners on whose land we stand.

urbis.com.au

CONTENTS

FIGURES

TABLES

CHARTS

EXECUTIVE SUMMARY

Urbis Ltd (Urbis) was engaged by Meadow Creek Solar Farm Pty Ltd (the proponent) to prepare a Social and Economic Impact Assessment (SEIA) for a proposed solar farm located at 1033 Oxley-Meadow Creek Road, Meadow Creek (the site). The SEIA is to inform a planning permit application to use and develop land for a solar installation (renewable energy facility) and utility installation (BESS) on the site.

REPORT PURPOSE AND SCOPE

A Social and Economic Impact Assessment (SEIA) is an independent and objective study which identifies and analyses the potential positive and negative social and economic impacts associated with a proposed development. The two components of a SEIA are a Social Impact Assessment (SIA) and an Economic Impact Assessment (EIA).

A **Social Impact Assessment (SIA)** involves a detailed study to scope potential positive and negative social impacts, identify appropriate mitigation and enhancement measures and provide recommendations aligned with professional standards and statutory obligations. It is the intention of that the SIA process will inform the proposal, not just reflect and report on impacts.

Social impacts can be understood as the consequences that people (individuals, households, groups, communities, or organisations) experience when a new project brings change. A SIA considers physical and intangible impacts, direct and indirect impacts, short term (construction) and long term (operational) impacts.

The NSW Department of Planning, Housing and Infrastructure's (DPHI) Social Impact Assessment Guideline (2023) states that a SIA should consider the likely changes to the following social elements of value to people: way of life, community, accessibility, culture, health and wellbeing, surroundings, livelihoods and decision-making systems.

An **Economic Impact Assessment (EIA)** is an independent study which assesses the potential economic impacts, and whether they are positive or negative, which are expected to arise from the proposed development at the site. The key components of an EIA include the assessment of impacts such as net employment benefits, net value added benefits, and any other identified potential positive or negative impacts.

METHODOLOGY

The following methodology was undertaken to prepare this SEIA.

Social Impact Assessment

In the absence of strict SIA guidelines in Victoria, this SIA methodology was informed by the guidance contained within the NSW SIA Guideline and Technical Supplement (DPHI 2023). The social characteristics of the local area and Wangaratta LGA have also been considered.

A detailed methodology, including the individual tasks associated with each stage, is included in Section 2. The methodology was informed by the guidance contained within the SIA Guideline and Technical Supplement (DPHI 2023).

The potential social impacts of the proposal are assessed by comparing the magnitude of impact (minimal to transformational) against the likelihood of the impact occurring (very unlikely to almost certain). This risk assessment methodology has been applied from the DPHI SIA Guideline: Technical Supplement (2023) and is outlined in Section 8 of this report.

Economic Impact Assessment

This EIA is an independent study which assesses the potential economic impacts, and whether they are positive or negative, which are expected to arise from the proposed development at the site.

Key components of this EIA include:

- Net employment benefits (construction and operational)
- Net value added benefits (construction and operational)
- Net impact on the Wangaratta LGA Agricultural Industry

- Other positive impacts – supporting the emerging renewable energy sector in Australia

EXISTING ENVIRONMENT

The site is located in the suburb of Meadow Creek, and is closely bordered by the suburbs of Docker, Bobinawarrah, and Milawa. These suburbs are small farming communities, which consist of extensive agricultural area, mainly grazing and cropping land. The nearest regional town is Moyhu, approximately a 9-minute drive from the site. The nearest rural city is Wangaratta, approximately a 20-minute drive from the site.

The site is located in the Wangaratta Local Government Area (LGA) and is situated compatibly with the proposed Ovens Murray Victorian Renewable Energy Zone (REZ).

POTENTIAL POSITIVE AND NEGATIVE SOCIAL IMPACTS

The potential positive and negative social impacts identified are listed below. The full assessment of each impact is provided in Section 7.

Impact category	Impact description	Mitigated assessment	Recommendations provided
Way of life	Demand on local housing and accommodation	**High negative** for residents and accommodation users in the broader social locality.	Yes, see Section 9.2
Community	Contribution to local community values, needs and aspirations through a Community Benefits Fund	**Very high positive** for communities across the immediate and broader social locality, including First Nations groups.	Yes, see Section 9.2
Accessibility	Pressure on the local road network	**Low negative** during the construction phase for residents and landowners using construction haulage and access routes.	Yes, see Section 9.2
Culture	Potential impacts to Aboriginal sites and culture	**Low negative** for communities within the broader social locality, including Local Aboriginal people and communities.	No
Health and wellbeing	Perception of increased fire risk	**Low negative** for workers of the solar farm and surrounding residents and landowners.	Yes, see Section 9.2
Surroundings	Contributing to the renewable energy transition	**High positive** for residents and businesses in the region and across the state of Victoria.	No
Surroundings	Potential change to sense of place and local character in agricultural and natural areas	**Medium negative** for residents and landowners located within the immediate vicinity of the proposed solar farm and transmission infrastructure. It is it is anticipated that this impact on the	Yes, see Section 9.2

		community will gradually decrease to **low negative** over time as the vegetative screening matures.	
Livelihoods	Increased local employment opportunities	**Low positive** for relevant skilled workers across the broader social locality during construction, and **medium positive** during operation.	Yes, see Section 9.2
Livelihoods	Perceived loss of productive agricultural land	**Low negative to neutral** for agricultural producers across the region.	Yes, see Section 9.2
Livelihoods	Perceived increased risk and liability to neighbouring properties due to incident or damage to the proposal	**Low positive** for landowners surrounding the site.	No
Decision-making systems	Opportunity for the local community to have a say on development in the area	**High positive** for residents and landowners in the broader social locality. However, it is acknowledged that this remains a negative impact for a small proportion of the community who is unsupportive of the proposal.	Yes, see Section 9.2
Cumulative social impacts	▪ Contribution to employment and training opportunities ▪ Demand on local housing and accommodation ▪ Contribution to the renewable energy transition ▪ Loss of productive agricultural land ▪ Cumulative amenity impacts		Yes, see Section 9.2

PROPOSED MITIGATION, ENHANCEMENT AND MANAGEMENT MEASURES FOR SOCIAL IMPACTS

A consolidated list of measures to enhance positive social impacts and mitigate negative social impacts identified throughout this report and summarised in the table above is provided in Section 9 of this report. Additional SIA recommendations to further enhance positive impacts and mitigate negative impacts are also provided in Section 9 of the report.

POTENTIAL POSITIVE AND NEGATIVE ECONOMIC IMPACTS

The proposed development will have a positive economic impact on the local and state by replacing the existing agriculture use with a solar farm. These positive impacts include:

- A direct capital investment of $858 million (including GST)
- 1,017 direct and indirect construction jobs over the two-year construction period
- $579 million Gross Value Added (GVA) to the VIC economy from construction, in net present value terms

- Generating 258 direct and indirect jobs on site and in the surrounding region on an ongoing basis during operation of the proposed development compared to the existing use of the site
- Net increase of $82.6 million of annual direct and indirect GVA contribution to the VIC economy on an ongoing basis, in net present value terms
- The potential to deliver an extra 332 MW of renewable energy to Australia. This influx of renewable energy will contribute to the national effort to transition from fossil fuels to clean energy, noting the renewable energy share of electricity generation in Australia increased from 7.5% in FY09 to 30.9% in FY22. This contribution will also contribute to the Victorian Energy Jobs Plan (2024), which targets a 95% reliance on renewable energy by 2035.

We have also assessed the economic impact of reducing the size of the grazing area of the site from 566 hectares to around 453 hectares along with switching from a beef cattle grazing use to a sheep grazing use (prime lamb) to be a negative impact of around $142,600 per annum. When comparing the impact to the agricultural production value for the Wangaratta LGA, the proposed development is expected to have an immaterial negative impact of 0.07%.

1. INTRODUCTION

Urbis Ltd (Urbis) was engaged by Meadow Creek Solar Farm Pty Ltd (the proponent) to prepare a Social and Economic Impact Assessment (SEIA) for a proposed solar farm located at 1033 Oxley-Meadow Creek Road, Meadow Creek (the site). The SEIA is to inform a planning permit application to use and develop land for a solar installation (renewable energy facility) and utility installation (BESS) on the site.

1.1. REPORT PURPOSE AND SCOPE

A SEIA is an independent and objective study which identifies and analyses the potential positive and negative social and economic impacts associated with a proposed development. The two components of a SEIA are a Social Impact Assessment (SIA) and an Economic Impact Assessment (EIA).

1.1.1. Social Impact Assessment

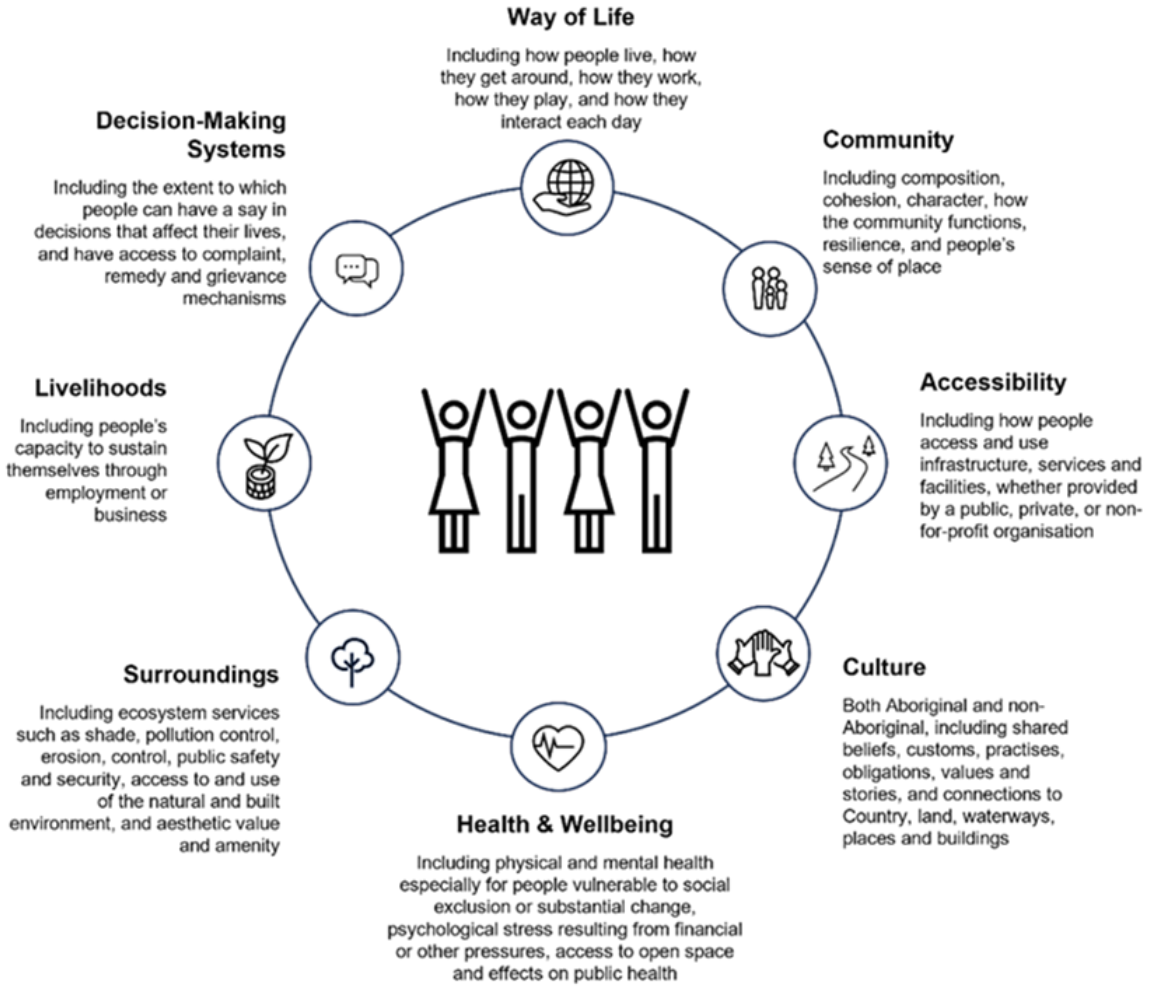
A SIA involves a detailed study to scope potential positive and negative social impacts, identify appropriate mitigation and enhancement measures and provide recommendations aligned with professional standards and statutory obligations. It is the intention that the SIA process will inform the proposal, not just reflect and report on impacts.

Social impacts can be understood as the consequences that people (individuals, households, groups, communities, or organisations) experience when a new project brings change. A SIA considers physical and intangible impacts, direct and indirect impacts, short term (construction) and long term (operational) impacts.

In the absence of a Victoria-endorsed state SIA guideline, and to follow best-practice, the NSW Department of Planning, Housing and Infrastructure (DPHI) Social Impact Assessment Guideline (2023) and Technical Supplement (2023) has been used to guide this assessment. The NSW Guidelines are used for state significant projects of a similar scale and impact to the proposal and are therefore considered appropriate for use in this report.

The DPHI Social Impact Assessment Guideline (2023) states that a SIA should consider the likely changes to the following social elements of value to people.

Figure 1 SIA categories



Source: SIA Guideline (DPHI 2023, p. 19)

1.1.2. Economic Impact Assessment

An EIA is an independent study which assesses the potential economic impacts, and whether they are positive or negative, which are expected to arise from the proposed development at the site. The key components of an EIA include the assessment of impacts such as net employment benefits, net value added benefits, and any other identified potential positive or negative impacts.

1.2. PROPOSAL OVERVIEW

An overview of key details of the proposal's site context and proposed details are provided in the sections below.

1.2.1. Site and surrounds context

Key details of the site are as follows:

Category	Description
Existing conditions	The site is primarily used for agricultural uses with no built form located on the site. The site is located 23 kilometres south-east of Wangaratta forming part of a broader space used for rural and lifestyle farming, characterised by large-sized

	pastoral holdings. The site is cleared and defined by a flat topography. It is understood that the site is primarily used for livestock other non-intensive agricultural practices.
Location	The site is located 23 kilometres south-east of Wangaratta and 28 kilometres east of Glenrowan.
Council	Rural City of Wangaratta
Area	Approximately 566 hectares
Frontages	The site is bordered by Docker-Carboor Road to the north, Allan's Lane to the east, and Oxley –Meadow Creek Road to the west. A neighbouring farming lot borders the property to the south.
Title	Refer to Appendix A of the Town Planning Report (Urbis, 2024) for full title details and encumbrances.
Vegetation	Areas of native vegetation located across the site, detailed in the vegetation section of this report.

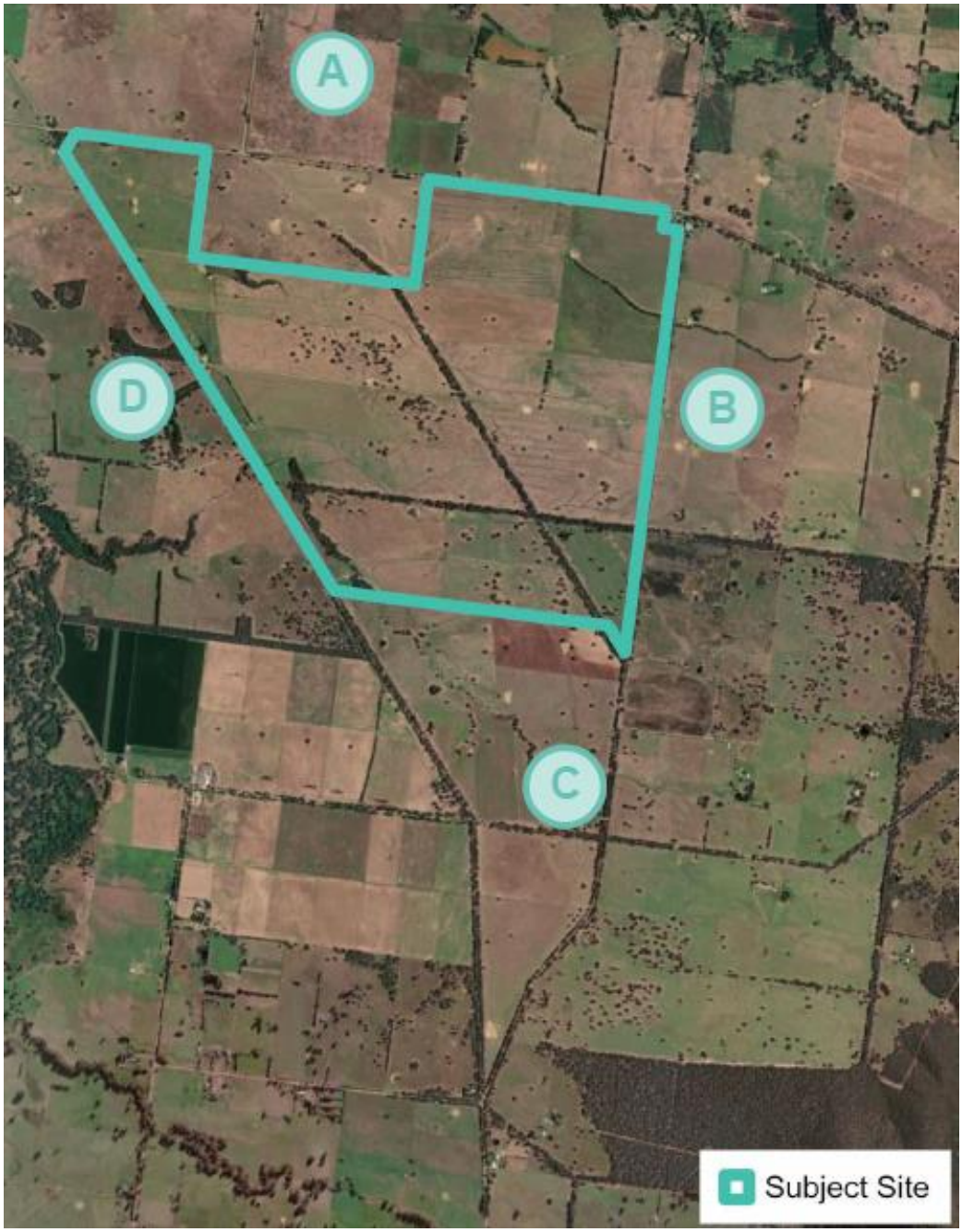
Immediately north of the site is site is bordered by Docker-Carboor Road, a declared highway providing a single lane of vehicle traffic in each direction (east-west). Beyond this thoroughfare is an extensive agricultural area, consisting primarily of grazing and cropping land, with several dwellings scattered throughout. Beyond this grazing land is Hurdle Creek, which offshoots from the King River in the west. See 'A' in Figure 2 below.

To the east of the site is Allan's Lane, a single lane running north-south. Adjoining the property to the north east of the site is a property at 686 Docker-Carboor Road, Bobinawarrah. See 'B' in Figure 2 below.

To the south is an agricultural area used for grazing, whereby Sheep Station Creek intersects the site. In the southeast of the site, on the intersection of Allans Lane and Melville Forest-Vasey Road, a dwelling is situated on an individual lot. See 'C' in Figure 2 below.

To the west is Oxley-Meadow Creek Road, a major thoroughfare running north-south connecting the Alpine National Park and Wangaratta more broadly. See 'D' in Figure 2 below.

Figure 2 Proposal surrounds



The proposed solar farm site is neighboured by 15 residential properties within 2 km of the site. Seven properties are located adjacent to the solar farm (within 50 metres).

1.2.2. Proposal details

The proposal incorporates a 332MW solar energy facility and a utility installation (1000MWh BESS facility). The solar energy facilities are to be located on the main site, with the BESS facility located within the north-west portion of the site.

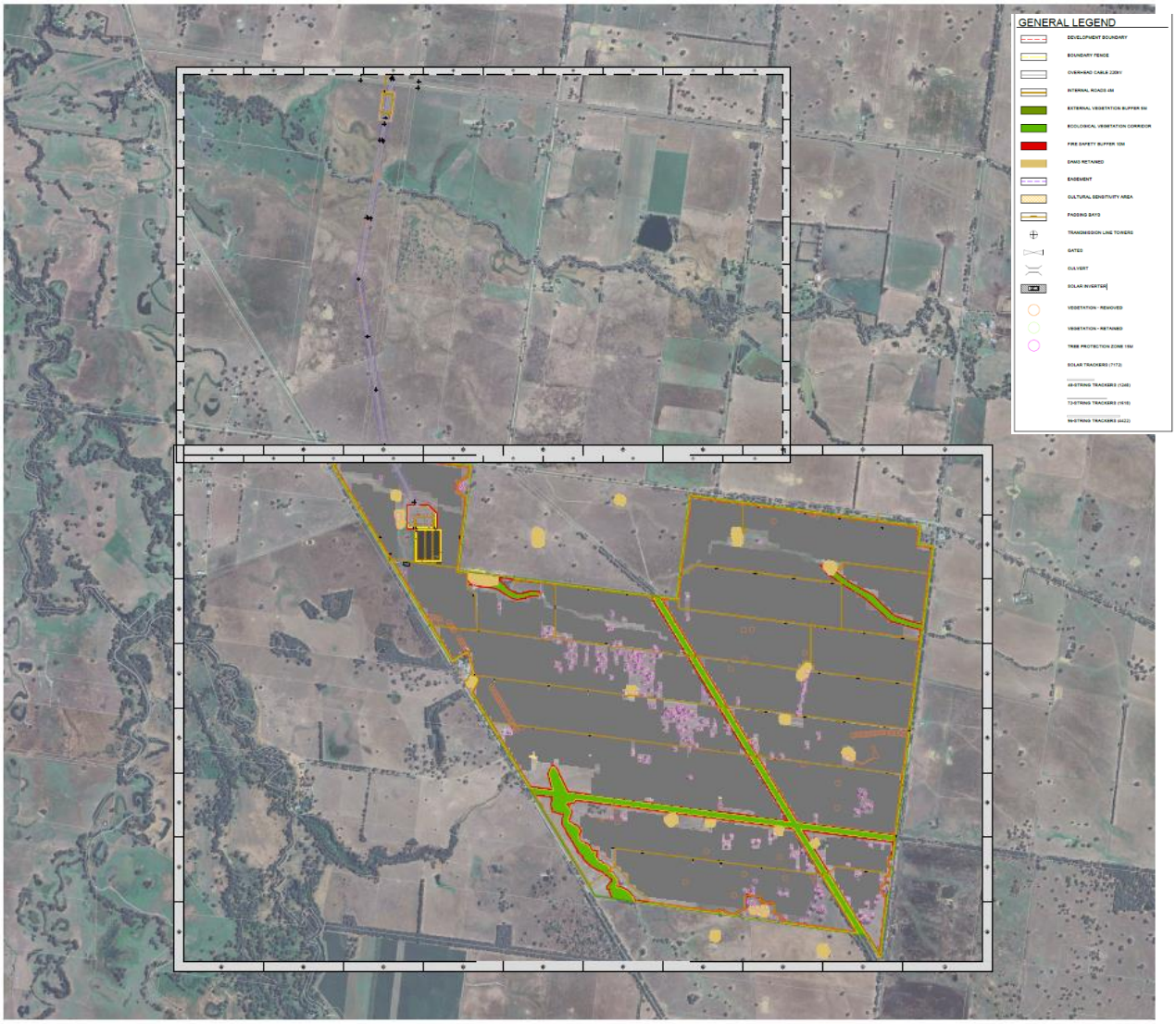
Key details of the proposal are summarised in Table 1.

Table 1 Details of the proposal

Element	Proposal
Generation capacity	Approx. 332MW
Grid connection	Connection to existing 250 MWac line traversing the site. Approximately 2 km of 220kV overhead transmission line connecting the project to the existing Dederang to Glenrowan transmission line.
Storage capacity	1000MWh BESS
Panel area	240 hectares (44.16% of site area)
Number of transformers	98
Number of inverters	98
Number of batteries	196

The site plan is provided in Figure 3 below.

Figure 3 Site plan



Source: Urbis, 2024

The solar energy facility has been designed to minimise impacts to native vegetation, waterways, aboriginal cultural heritage, and to avoid any construction within easements. This has resulted in panels located away from sensitive biodiversity rich locations, with large avenues within the site left undeveloped. Setbacks have also been provided to minimise impacts on the amenity of neighbours and the public realm.

1.3. AUTHORSHIP

The authorship and SIA Declarations for this report are provided in the following sections.

1.3.1. Authors

This report has been prepared by a suitably qualified and experienced lead author and reviewed and approved by a suitably qualified and experienced co-author, who hold appropriate qualifications and have relevant experience to carry out the SEIA for this Project. The following introduces each author for the SIA and EIA components:

SIA Component

Alyce Noney	Review and quality assurance
Position	Associate Director
Qualifications	Master of Urban Management and Planning, Western Sydney University
	Bachelor of Planning, Western Sydney University
Affiliations	Full Member, Planning Institute of Australia
Experience	Experience in writing SIA reports for renewable energy projects in the context of the SIA Guideline (DPHI 2023) and best practice social research, evaluation and impact assessment.

Amanda Micallef	Lead author and review
Position	Senior Consultant
Qualifications	Bachelor of Arts (International Development), University of Guelph
	Master of Development Practice, University of Queensland
Affiliations	Full Member, Planning Institute of Australia
Experience	Experience in writing SIA reports for renewable energy projects in the context of the SIA Guideline (DPHI 2023) and best practice social research, evaluation and impact assessment.

Alannah Burgess	Social impact assessment support
Position	Senior consultant
Qualifications	Doctor of Philosophy (Social Work), Monash University
	Bachelor of Social Work (Honors), Monash University
	Bachelor of Behavioral Science, La Trobe University
Experience	Experience in writing research and evaluation reports for academic and government stakeholders.

Lara Ball	Co-author
Position	Assistant Planner
Qualifications	Bachelor of Laws (LLB)/ Bachelor of City Planning (Honours), University of New South Wales (currently undertaking)
Experience	Experience in writing SIA reports for renewable energy projects in the context of the SIA Guideline (DPHI 2023) and best practice social research, evaluation and impact assessment.

EIA Component

Richard Gibbs	Review and quality assurance
Position	Director
Qualifications	Master of Business Administration, Macquarie University
	Bachelor of Economics (Hons), University of Sydney
Experience	Experience of reviewing and quality assurance of EIA reports across a variety of land uses including residential, retail, industrial, renewable energy and agriculture.

Declan Foley	Author and analytical lead
Position	Senior Consultant
Qualifications	Bachelor of Property Economics, University of Technology Sydney
Experience	Experience in preparing EIA reports across a variety of land uses including mixed use, residential, retail, industrial, childcare, health and fitness, renewable energy and agriculture.

1.4. STRUCTURE OF THIS REPORT

This SIA has nine chapters as summarised below:

- **Chapter 1** (this chapter) introduces the proposal, purpose and scope of this report.
- **Chapter 2** outlines the legislative requirements and methodology applied to complete this SEIA.
- **Chapter 3** provides a social baseline of the study area including the site's locality, social and demographic characteristics, and policy context.
- **Chapter 4** provides an overview of the field study undertaken to inform the SIA, including an overview of the key findings.
- **Chapter 5** provides a summary of the community identified values, strengths, and vulnerabilities which emerged through sections 3 and 4.
- **Chapter 6** assesses the potential economic impacts of the proposal (Economic Impact Assessment).
- **Chapter 7** identifies and provides details on the proposal's social locality.
- **Chapter 8** assesses the positive and negative social impacts of the proposal, including with and without mitigation and enhancement measures (Social Impact Assessment).
- **Chapter 9** outlines the mitigation, enhancement, and management measures of the assessed impacts.

2. METHODOLOGY

This section outlines the methodology to prepare this SEIA, with reference to the relevant legislative requirements and guidelines.

2.1. SOCIAL IMPACT ASSESSMENT

The methodology undertaken to prepare this SIA is outlined in Table 2. The methodology was informed by the guidance contained within the SIA Guideline and Technical Supplement (DPHI 2023).

Table 2 Methodology overview

Stage	Activities
Social baseline	▪ Desktop review of surrounding land uses and site. ▪ Review of relevant state and local policies and strategies to understand potential social implications. ▪ Analysis of relevant data sets to understand the existing community profile and community values, strengths and vulnerabilities. ▪ Identification of the project's social locality and likely impacted groups.
SIA field study	▪ Engagement with stakeholder representatives from Rural City of Wangaratta (Council). ▪ Review of engagement outcomes conducted with the local and surrounding community, including drop-in sessions, stakeholder meetings, community newsletter distribution and calls/enquiries. ▪ Analysis of field study data and identification of key themes.
Impact scoping	▪ Review of social baseline and SIA field study outcomes. ▪ Review of proposal plans, proposal documentation and relevant technical assessments. ▪ Identification of the proposal's social locality and likely impacted groups. ▪ Identification and scoping of potential social impacts (positive and negative), mitigation and enhancement measures. ▪ Identification of potential opportunities for additional measures to be incorporated into the proposal.
Assessment and reporting	▪ Assessment of social impacts (positive and negative) with and without mitigation and enhancement measures. ▪ Provision of recommendations to further reduce negative social impacts and enhance positive social impacts. ▪ Preparation of draft and final SEIA reports.

Defining the social locality

This SEIA addresses the social impacts of the proposal to the local area, the region, and to the State. It considers whether the proposal causes direct impacts on local communities and services, as well as whether

the proposal may increase the demand for regional community infrastructure and services, hence also contributing to indirect impacts across a broader area.

In the absence of strict SIA guidelines in Victoria, this SIA, including determination of the social locality, has been prepared in accordance with the NSW SIA Guideline (DPHI 2023). The social locality is described in Section 7.

In identifying the social locality, several factors pertaining to the scale and nature of the project, nearby built and/or natural features, relevant social trends in the local area, history and background of the project, and potentially affected communities were considered.

Approach to assessing social impacts

The assessment of social impacts can be approached in several ways. The Technical Supplement of the NSW SIA Guideline highlights a risk assessment methodology, whereby the significance of potential impacts is assessed by comparing the magnitude of an impact against the likelihood of the impact occurring.

The NSW DPHI's risk assessment methodology has been applied in this SIA and is outlined in Section 7.

2.2. ECONOMIC IMPACT ASSESSMENT

This EIA is an independent study which assesses the potential economic impacts, and whether they are positive or negative, which are expected to arise from the proposed development at the site.

Key components of this EIA include:

- Net employment benefits (construction and operational)
- Net value added benefits (construction and operational)
- Net impact on the Wangaratta LGA Agricultural Industry
- Other positive impacts – supporting the emerging renewable energy sector in Australia

3. SOCIAL BASELINE

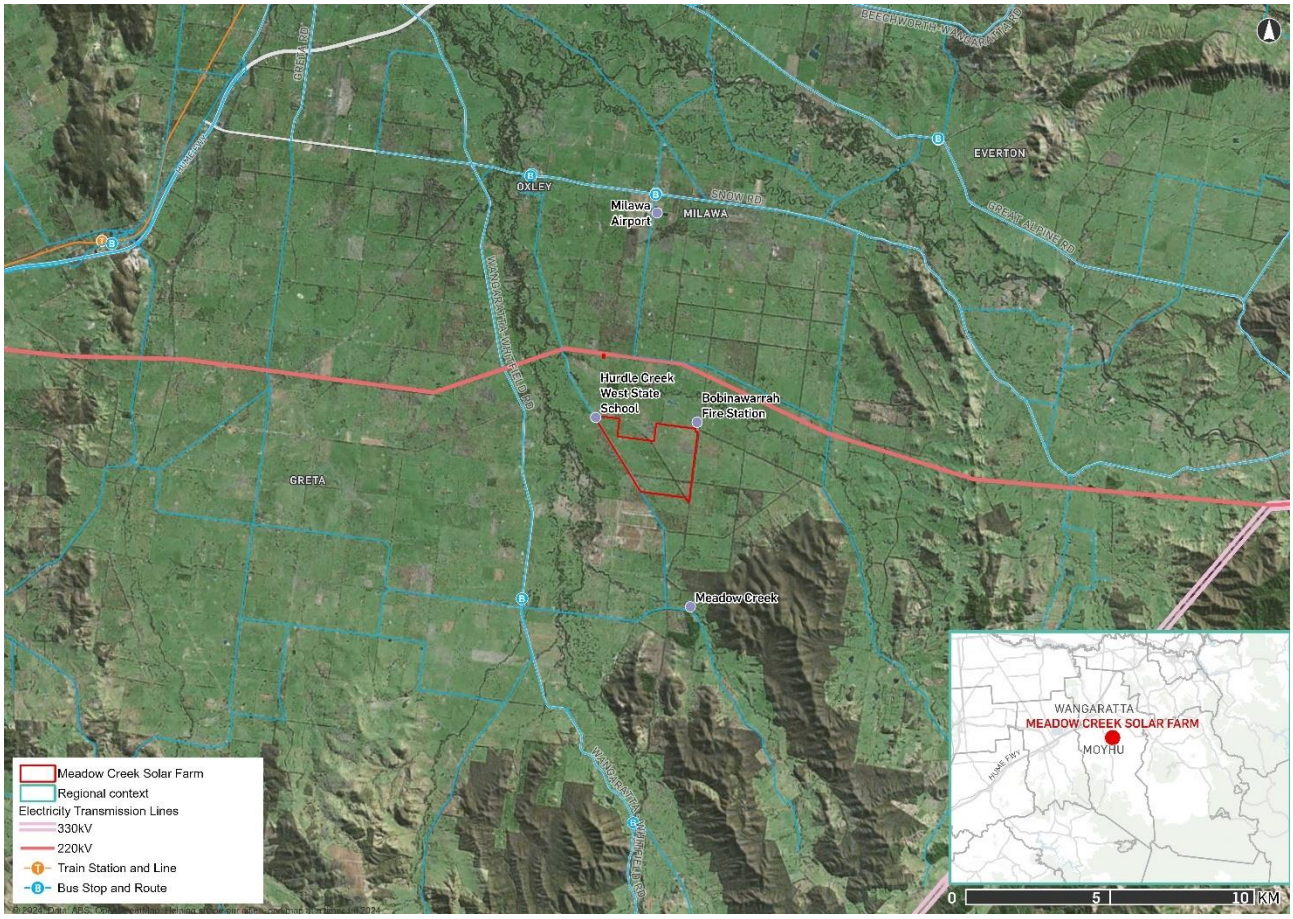
This chapter provides a social baseline of the study area including the site's location, policy context, demographic characteristics, and identified vulnerable groups.

3.1. SITE LOCATION

3.1.1. Local context

The site is located in the suburb of Meadow Creek, and is closely bordered by the suburbs of Docker, Bobinawarrah, and Milawa. These suburbs are small farming communities, which consist of extensive agricultural area, mainly grazing and cropping land. The nearest regional town is Moyhu, approximately a nine-minute drive from the site. The nearest rural city is Wangaratta, approximately a 20-minute drive from the site.

Figure 4 Site context map



Source: Urbis, 2024

3.1.2. Regional context

The site is located in the Wangaratta Local Government Area (LGA). It is situated 2kms away from the proposed Shepparton to Dederang via Glenrowan transmission line, located in the proposed V1 (Ovens Murray) Renewable Energy Zone (REZ).

The REZs have been identified by the State of Victoria Department of Energy, Environment and Climate Action as areas of abundant renewable energy resources, the full development of which can ensure the timely and cost-effective delivery of secure and clean energy for the state of Victoria.

3.2. POLICY CONTEXT

A review of relevant state and local policies was undertaken to understand the strategic context of the proposed development and any potential impacts (positive and negative). This included:

State

- Renewable Energy (Jobs and Investment) Act (2017)
- Solar Energy Facilities Design and Development Guideline (2022)
- Victoria's Climate Change Strategy (2021)
- SEC Strategic Plan (2023)
- Victorian Renewable Energy Zones Development Plan (2021)
- Clean Economy Workforce Development Strategy 2023-2033 (2023)

Local

- Hume Regional Climate Change Adaptation Strategy (2021)
- Hume Region Renewable Energy Roadmap (2019)
- Economic Development Strategy 2018-2023 (2018)
- Environmental Sustainability Strategy 2021-2026 (2020)
- 2030 Community Vision (2021)
- Wangaratta Planning Scheme (2024)

The key social themes from the policy review are summarised in Table 3 below.

Table 3 Key social themes from policy review

Theme	Summary of findings
'Clean Energy' workforce	The Renewable Energy (Jobs and Investment) Act 2017 (Vic) supports the development of projects which encourage 'investment, employment and technology development in Victoria in relation to renewable energy generation' and notes that a reduction of greenhouse gas emissions associated with use of renewable energy has 'associated environmental and social benefits'. The SEC Strategic Plan 2023-2025 states the importance of building a renewable energy workforce as required to make the transition into clean energy. There is a diversity of new jobs needed to support the transition, including engineering, scientific, technical, operational, and auditing roles. The SEC will establish the SEC Centre of Training Excellence and will partner with schools, TAFEs, universities, government, and Traditional Owners in order to build the workforce necessary to meet renewable energy targets. The transition toward renewable energy is expected to create significant employment opportunities, for example Victoria's Climate Change Strategy (2021) will support 24,000 jobs as part of its transition to 50 per cent renewable electricity. Furthermore, the Clean Economy Workforce Development Strategy (2023) estimates that around 10,000 jobs will be created per year due to the renewable energy transition. The SEC Plan is expected to create more than 59,000 jobs, 6,000 apprenticeships and transform more than 500,000 existing jobs through new skills training. Wangaratta's Environmental Sustainability Strategy 2021-2026 notes Greenhouse Gas Emission and Energy Reduction as

Theme	Summary of findings
	a priority area, and states that the Council has signed a Cities Power Partnership statement committing to economic recovery solutions which create jobs while tackling climate change.
Local agricultural industry	The Wangaratta Planning Scheme notes there are strong economic and community ties to agriculture and identifies preservation of productive farmland to support the state's agricultural base as an objective. Additionally, the scheme requests that development considers the desirability and impacts of removing the land from agricultural production, as well as the compatibility between the proposed development and the existing use of surrounding land. The scheme also encourages sustainable agricultural land use and supports the adaptation of the agricultural sector to respond to the potential risks arising from climate change. The Hume Regional Climate Change Adaptation Strategy 2021 supports the significance of agriculture to the region, and acknowledges the significance of integrating renewable energy into agricultural systems. The strategy also notes that the Hume region will experience harsh adverse effects from climate change which must be mitigated.
Support for new and emerging industry	The Wangaratta Planning Scheme acknowledges the need for climate change adaptation with consideration of changing technology, which includes climate change adaptation and mitigation. It notes a need to strengthen and diversify the economy through facilitating growth in a range of employment sectors. This includes renewable energy development in appropriate locations. The Hume Regional Climate Change Adaptation Strategy 2021 declares 'embracing renewable energy' as one of its major themes, with a particular focus on energy which comes from 'local and renewable sources'. The strategy highlights the integration of renewable energy into agricultural systems, with a focus on ensuring the transition has a net positive benefit for local businesses, the economy and biodiversity, as priority goals.
Investment in renewable energy zones	The site is located about 2kms away from the proposed Shepparton to Dederang via Glenrowan transmission line, located in the proposed V1 (Ovens Murray) REZ as proposed in the Victorian Renewable Energy Development Plan. The zones are created with the purposes of allowing projects to be connected efficiently and reducing risk premiums for investors, ensuring energy is affordable and reliable for customers. As part of the 2020-21 State Budget, $540 million has been made available for the Victorian Government to invest in REZs to assist the state in reaching a target of 40% renewable energy by 2025 and 50% by 2030. Additionally, the Hume Region Renewable Energy Roadmap identifies a significant opportunity to invest in large scale solar development corridors across the region, which are anticipated to provide positive local social and economic outcomes.
Economic development in the region	The Solar Energy Facilities Design and Development Guideline states that solar energy will remain affordable as more consumers and communities gain greater control over the energy they use, generate and store. It further explains that the

Theme	Summary of findings
	renewable energy sector creates jobs, attracts investment, and grows the economy. The Wangaratta Economic Development Strategy 2018-2023 notes that Wangaratta acts as a hub for surrounding regional activity, and that surrounding towns have a growing population at Wangaratta's expense. The strategy also notes that the region underutilises its natural resources. The Wangaratta 2030 Community Vision outlines 'economy' and 'growth' as focus areas, with an interest in supporting employment through business growth, development, recovery and sustainable infrastructure.
Combatting climate change	The Wangaratta 2030 Community Vision identifies 'environment' as a key theme and focus area for local residents, with a particular focus on actively combatting the causes and impacts of climate change. The vision identifies an increase in renewable energy uptake and reduction in greenhouse gas emissions as ways to measure local progress and suggests there should be a focus on increasing the capacity of the community to mitigate and adapt to climate change. Wangaratta's Environmental Sustainability Strategy 2021-2026 identifies Greenhouse Gas Emission & Energy Reduction as a priority area. The strategy acknowledges that the municipality is vulnerable to the impact of climate change and faces significant challenges to maintain sustainability.

3.3. DEMOGRAPHIC PROFILE

A demographic profile identifies the demographic and social characteristics of a proposal's likely social locality. This is an important tool in understanding how a community currently lives and that community's potential capacity to adapt to changes arising from a proposal.

A demographic profile has been developed for the local area, comprised of the suburbs of Meadow Creek, Bobinawarrah, Milawa, Moyhu, and Docker, based on demographic data from the Australian Bureau of Statistics (2021) Census of Population and Housing and the Department of Transport and Planning's Demographic Projections to 2051 (2023). The demographic characteristics of Wangaratta LGA and Regional Victoria have been used, where relevant, to provide a comparison.

Table 4 Overview of baseline study area

Study area	Geographic area	ABS data category	Referred to in report as:
Local area	Meadow Creek, Bobinawarrah, Moyhu, Milawa, and Docker	Suburb	Local area
Regional area	Wangaratta	LGA	Wangaratta LGA
Regional Victoria	Rest of Victoria	GCCSA	Regional Victoria
State of Victoria	State of Victoria	State/Territory	Victoria

3.3.1. Population and age

In 2021, there were 1,353 people living in the local area, representing 4.7% of Wangaratta LGA. There were 112 people in Meadow Creek, 97 in Bobinawarrah, 584 in Milawa, 453 in Moyhu, and 107 in Docker.

The young workforce (people aged 25 to 34 years) was among the smallest proportion of people in the local area (6.6%) compared with Wangaratta LGA (10.5%) and Regional Victoria (11.7%).

The dominant age group (16.4%) in the local area were older workers and people approaching retirement (people aged 55 to 64 years) which is slightly higher compared with Wangaratta LGA (14.3%) and Regional Victoria (13.7%).

The median age for the suburbs in the local area were generally higher than that of Wangaratta LGA (45) and Regional Victoria (43), with the highest being Bobinawarrah (51), followed by Docker (50), Moyhu (48), Milawa (47), and Meadow Creek (43). This indicates an aging population compared to Regional Victoria.

The population of Wangaratta LGA is expected to increase to 2036, with the future population projected at 32,265, representing an increase of 2,457 people (8%).

3.3.2. Culture and diversity

The local area is less culturally and linguistically diverse compared to Wangaratta LGA and Regional Victoria.

There were 6 people in Milawa (1%) and 8 people in Moyhu (1.8%) who identified as Aboriginal and/or Torres Strait Islander. The proportion in Moyhu is similar to that of Wangaratta LGA (1.9%) and Regional Victoria (2%), and the proportion in Milawa is slightly lower. There were no recorded people in Meadow Creek, Bobinawarrah, or Docker who identified as Aboriginal and/or Torres Strait Islander.

Of the local area, 2.7% (24 people) spoke a language other than English at home. This is similar to Regional Victoria, where 3.6% of the population speak a language other than English at home, but lower than Wangaratta LGA (7%). This demonstrates less linguistic diversity in the local area.

3.3.3. Education and qualifications

The local area has attained a higher-than-average attainment of school education, but a lower level of tertiary education.

The amount of people whose highest educational attainment was Year 12 or above is more than a quarter of the population (26.7%), considerably higher than Wangaratta LGA (11%) and Regional Victoria (12.5%).

There are fewer people in the local area (5.9%) whose highest educational attainment is Year 9 or below, compared to 10.3% of Wangaratta LGA and 10.3% of Regional Victoria.

There are fewer people in the local area who have attained a bachelor's degree or above (13.5%) than Wangaratta LGA (17.4%) or Regional Victoria (18.6%).

There is a high percentage of people with a Certificate I-IV in the local area (18.4%), similar to Wangaratta LGA (20.9%) and Regional Victoria (20.2%).

3.3.4. Workforce and employment

Employment in the local area is high and is dominated by the agriculture, forestry and fishing industry.

There is a slightly lower unemployment rate in the local area (2%) compared to Wangaratta LGA (3.1%) and Regional Victoria (4.4%).

The industry which employed the greatest proportion of people in the local area (18.2%) were agriculture, forestry and fishing. This is considerably higher compared to Wangaratta LGA (7.4%) and Regional Victoria (7.2%).

The industry which employed the second greatest proportion of people (14.6%) in the local area were health care and social assistance. This is similar compared to Wangaratta LGA (18.9%) and Regional Victoria (16.2%).

The industry which employed the third greatest proportion of people (12.9%) in the local area was manufacturing, compared to 9.3% of Wangaratta LGA and 7.4% of Regional Victoria.

This demonstrates the significance of the agricultural industry in local employment, but also indicates a diversity of employment sectors outside of agriculture.

The top reported occupation in the local area was managers (40%), which is more than twice as prevalent in the local area as Wangaratta (15%) or Regional Victoria (14.8%).

The next highest was professionals (20%), compared to Wangaratta LGA (18.6%) and Regional Victoria (19.1%).

There are fewer Technicians and Trades workers in the local area (10%), compared with Wangaratta LGA (14.2%) and Regional Victoria (14.7%), and fewer community and personal service workers in the local area (4%) compared with Wangaratta (13.4%) and Regional Victoria (13%).

There are no machinery operators and drivers in the local area compared to 6.7% of Wangaratta and 6.5% of Regional Victoria.

3.3.5. Housing and income

The local area is generally high earning and has high rates of home ownership.

The median household income in all the suburbs comprising the local area were higher than that of Wangaratta LGA and Regional Victoria, with the exception of Moyhu which sat in between.
The median household income in the local area comprises Meadow Creek ($1,437), Bobinawarrah ($1,416), Milawa ($1,674), Moyhu ($1,359), and Docker ($2,150).
The median household income in Wangaratta LGA was $1,326 and $1,386 in Regional Victoria.

ABS data demonstrates great diversity in median weekly rent between suburbs within the local area, comprising: Meadow Creek ($40), Bobinawarrah ($300), Milawa ($304), Moyhu ($200), and Docker ($250). The median weekly rent in Wangaratta LGA was $260 and $285 in Regional Victoria.

Most houses in the local area (98%) are separate houses, with this housing also the dominant household type across Wangaratta LGA (89.9%) and Regional Victoria (90.1%).

	A higher proportion of people in the local area owned their houses outright (46%), compared to Wangaratta LGA (41.1%) and Regional Victoria (39.3%). Fewer people in the local area rented their home (12.9%), compared to Wangaratta LGA (22.2%) and 23.6% of Regional Victoria (23.6%). This could be indicative of several factors, including an older population who are more likely to own their homes, fewer rental options in the area, and people owning homes on the land they work on due to the predominance of the agricultural industry in the area.
	Within the local area, the proportion of households with rent payments above 30% of household income is generally lower compared to Wangaratta LGA and Regional Victoria. This includes 19% of renters in Milawa and 11.5% of renters in Moyhu. No data was available for Meadow Creek, Bobinawarrah, and Docker.
	Within the local area, the proportion of households with mortgage payments above 30% of household income is generally higher compared to Wangaratta LGA (11%) and Regional Victoria (11.2%). This includes 12.2% of households in Milawa, 10% of households in Moyhu, and 23.1% of households in Docker.
	Industry standards note that a property vacancy rate of under 2.5% is tight and shows a low availability of rental properties that are empty and available for lease. A review of demographic data from SQM Research (2024) indicates that there are considerably low vacancy rates in the area, with rates ranging from 0% to 0.6% across Meadow Creek, Bobinawarrah, Milawa, Docker and Wangaratta. Vacancy rates in Wangaratta, the closest regional centre, is 0.1% and has been decreasing below 2.5% from 2009.

3.3.6. Health and wellbeing

	**In the local area, 60% of people reported no long-term health conditions, compared to 56.4% in Wangaratta LGA and 57.6% in Regional Victoria.**
	The most commonly reported long-term health conditions in Wangaratta LGA are: ▪ Arthritis: 12.1% (compared to 11.2% of Regional Victoria). ▪ Asthma: 11.1% (compared to 9.9% of Regional Victoria). ▪ Mental health condition (including depression or anxiety): 10.7% (compared to 10.9% of Regional Victoria). ▪ Heart disease: 5.4% (compared to 5% of Regional Victoria). ▪ Diabetes (excluding gestational diabetes): 5.1% (compared to 5.3% of Regional Victoria). The data for the local area was limited, and therefore only LGA data was considered here.

3.3.7. Crime and safety

As part of the demographic profile, data from the Victorian Crime Statistics Agency was also analysed to understand the crime and safety context around the site. This data is accurate as of 12 April 2024. There were a total of 1,938 criminal incidents in Wangaratta LGA in 2023, with a rate of 6,446.3 per 100,000 people. This is compared to 385,782 criminal incidents in Victoria at a rate of 6,672.7 per 100,000 people.

Crime data indicates that Wangaratta LGA generally experiences lower rates of crime than the Victoria average. However, there were some crime types where Wangaratta had higher rates of crime per 100,000 people than the Victoria averages, including:

- Dangerous and negligent acts endangering people: 123.3 (compared to 59.3 in Victoria).
- Stalking, harassment and threatening behaviour: 143.3 (compared to 115.9 in Victoria).

- Assault and related offences: 726.6 (compared to 625 in Victoria).
- Property damage: 793.3 (compared to 509 in Victoria).
- Arson: 76.7 (compared to 34.6 in Victoria).
- Drug use and possession: 270 (compared to 143.5 in Victoria).
- Disorderly and offensive conduct: 190 (compared to 76.3 in Victoria).
- Justice procedures: 200 (compared to 117.1 in Victoria).

There were some crime types where Wangaratta had notably lower rates of crime per 100,000 people than the Victoria averages, including:

- Robbery: 6.7 (compared to 38.1 in Victoria).
- Theft: 1519.9 (compared to 2013 in Victoria).
- Burglary: 483.3 (compared to 526.8).

As such, this crime profile indicates that the LGA may be more susceptible to crimes which threaten other people, including acts of endangering people, stalking, harassment and threatening behaviour, and assault. There may also be an increased risk of damage to property and arson.

3.3.8. Vulnerable groups

There are numerous vulnerable groups within the study area community including socio-economically disadvantaged groups, persons with a disability (need for assistance), and persons experiencing homelessness. The following sections provide further detail on key vulnerable groups.

3.3.8.1. SEIFA

According to the 2021 Socio-Economic Indexes for Areas (SEIFA) data, there are some variation in terms of socio-economic advantage and disadvantage between communities within the local area and regional area.

- Wangaratta is in the top 30% of LGAs within Victoria in the Index of Education and Occupation, suggesting higher levels of qualifications or work in skilled occupations. Wangaratta is in the top 40% of LGAs in Victoria in the Index of Relative Socio-economic Advantage and Disadvantage, the Index of Relative Socio-economic Disadvantage, and the Index of Economic Resources.
- The local area is generally ranked highly in the Index of Relative Socio-economic Advantage and Disadvantage (Meadow Creek, Docker, and Milawa in the top 30%, and Bobinawarrah in the top 20%), with the exception of Moyhu which was ranked in the lowest 30%. This suggests that the local area is generally quite advantaged.
- Moyhu was the most disadvantaged of all the suburbs in the local area. It ranked in the lowest 30% of suburbs in Victoria in the Index of Socio-economic Advantage and Disadvantage and the Index of Socio-economic Disadvantage.
- Bobinawarrah was the most advantaged of the suburbs in the local area. It ranked in the top 10% in the Index of Socio-economic Disadvantage, and the top 20% in the Index of Socio-economic Advantage and Disadvantage, the Index of Economic Resources, and the Index of Education and Occupation. This suggests that Bobinawarrah is home to a high number of households who have high income levels, higher levels of qualifications, or work in skilled occupations.

3.3.8.2. Disability

- There were 2,215 people in Wangaratta LGA (7.4%) and 108,935 people in Regional Victoria (6.9%) who identified a core need for assistance. In the local area there were 9 people in Meadow Creek (8%), 3 people in Bobinawarrah (3%), 24 people in Milawa (4%), 23 people in Moyhu (5.2%), and 3 people in Docker (2.8%) who identified a core need for assistance. This demonstrates that the number of people who required assistance was generally lower in the local area than in Wangaratta LGA or Regional Victoria.
- There were 3,756 people in Wangaratta LGA (15.3%) and 182,678 people in Regional Victoria (14.1%) who provided unpaid assistance to a person with a disability, a health condition or old age. There were

17 people in Meadow Creek (15%), 10 people in Bobinawarrah (10%), 80 people in Milawa (17.2%), 62 people in Moyhu (16.9%), and 11 people in Docker (9.3%) who provided unpaid assistance to a person with a disability health condition or old age. This demonstrates that the number of people in the local area providing unpaid assistance to a person with a need for assistance is approximately the same as Wangaratta LGA and Regional Victoria, although the rate is slightly higher in Milawa and Moyhu.

3.3.8.3. Homelessness

Data on the estimated levels of homelessness according to the ABS 2021 Estimating Homelessness: Census is only available at a regional level and has been gathered for Wangaratta LGA. There were 125 homeless persons in Wangaratta in 2021, with a rate of 43.2 per 10,000 persons, compared to a total of 30,660 homeless persons in Victoria, with a rate of 47.1 per 10,000 persons. This demonstrates that Wangaratta experiences similar rates of homelessness to Victoria.

- In 2021, there were 14 people in Wangaratta LGA living in improvised dwellings, tents, or sleeping out, with a rate of 4.8 per 10,000 persons, compared to a total of 1,023 in Victoria with a rate of 1.6 per 10,000 persons. This demonstrates that Wangaratta experiences a similar rate of people living in improvised dwellings, tents or sleeping out to the rest of Victoria.
- There were 67 people residing in supported accommodation for the homeless, with a rate of 23.2 per 10,000 persons, compared to 7,831 in Victoria with a rate of 12 per 10,000 persons, indicating that supported accommodation for the homeless is nearly twice as common in Wangaratta as in Victoria. In Wangaratta, there were 17 people temporarily residing in another household, with a similar rate of 5.9 per 10,000 persons, compared to 2,549 in Victoria, with a rate of 3.9 per 10,000 persons.
- Further, there were 30 people living in crowded dwellings, with a rate of 10.4 per 10,000 persons, compared to 19,334 in Victoria with a rate of 29.7 per 10,000 persons. In Wangaratta there were 14 people living in ‘severely’ crowded dwellings, with a rate of 4.8 per 10,000 persons, compared to Victoria with 47,895 persons and a rate of 18.8 per 10,000 persons. This demonstrates a substantially lower proportion of people in Wangaratta living in crowded dwellings, and a significantly lower proportion of people living in ‘severely’ crowded dwellings.

4. SIA FIELD STUDY AND ENGAGEMENT

As specified in the NSW DPHI Guideline, SIAs require community and stakeholder engagement to be undertaken to develop an understanding of impacts on communities and people resulting from a project. Community and stakeholder engagement also provides the opportunity for potentially impacted people and groups to provide feedback and input into a project.

To achieve this, Urbis' Social Planning team conducted an in-depth interview with representatives of Rural City of Wangaratta. The SIA also leverages engagement conducted by the initial engagement consultancy, Nation Partners. The SIA field study and Engagement program were conducted in line with the Community Engagement and Benefit Sharing in Renewable Energy Development in Victoria Guide (DEECA, 2021).

The methods of engagement and consultation with community and key stakeholders and details of participation are provided in Table 5. Further details on Engagement activities conducted by Nation Partners is available in the Engagement Outcomes report.

Table 5 Summary of community and stakeholder engagement activities

Method	Administered	Timeframes	Invited	Participated
SIA field study (conducted by Urbis Social Planning and Urbis Planning)				
In-depth interview	Videoconference	3 May 2024	Representatives of Rural City of Wangaratta.	Representatives of Rural City of Wangaratta.
Engagement activities (conducted by Nation Partners)				
Near neighbour engagement	Meetings and phone calls	28 October 2022 and 2 March 2023	30 dwellings within approximately 10km of the project site.	Nearby neighbours.
Drop-in sessions	Face to face	23 March 2023 (12pm – 2pm and 5pm – 7pm)	Promoted in Wangaratta Chronicle on 17 and 22 March, through email subscriber list, on the website and sent to community groups.	Approximately 100 people with 115 feedback forms recorded.
Stakeholder briefings and meetings	Face to face and videoconference	August 2022 to October 2023	Key project stakeholders including representatives of agencies, landowners and users, services and community organisations.	Rural City of Wangaratta Taungurang Land and Waters Council (TLaWC) Members for Parliament Department of Transport and Planning (DTP) – Hume Region Fire Rescue Victoria (FRV) Country Fire Authority (CFA)

Method	Administered	Timeframes	Invited	Participated
				North East Catchment Management Authority (NECMA) Meadow Creek Agricultural Action Group Carboor- Bobinawarrah Landcare Group
Community newsletter distribution	Mail and email distribution	February 2023	Mailed to homes and businesses located in surrounding postcodes including Bobinawarrah, Milawa, Moyhu, Meadow Creek, Docker. Emailed to project email subscriber list and included on project website.	
Project website and fact sheets	Online	Made live September 2022	Promoted through community newsletter.	NA
Information email	Online	Established September 2022	Promoted through public communication materials, newsletters and project website.	Over 70 emails received.

4.1. IN-DEPTH INTERVIEWS SUMMARY OF FINDINGS

Consultation with Rural City of Wangaratta

A videoconference with representatives from Rural City of Wangaratta (Council) was undertaken to understand the characteristics of the local community and any potential social impacts or benefits associated with the proposed development. The videoconference took place on 3 May 2024.

Table 6 Feedback from interview with Council's planning representatives

Theme	Summary of feedback received
Community identity	▪ The community nearby the proposed site is a farming community. There are some small townships near the site, but none are particularly significant, and the local area is sparsely populated. ▪ The community has found shared identity in their opposition for the proposed solar farm and other solar farms in the area. Prior to uniting behind this cause, they were large farming families with a considerable land in between them. ▪ Like other farming communities, there is a focus on their connection and history with land. Some of this community have lived for potentially five or six generations on the same plot, which has encouraged a sense of ownership over the land.

Theme	Summary of feedback received
	▪ The biggest industries in the area are farming and tourism. The solar farm is not a project that locals would envision as occurring in the area.
Community perception of the proposal	▪ There are simple, fundamental things that the community does not understand about the project which need to be addressed. The likelihood of fire and how fire would be managed at the site have not been communicated effectively. Additionally, the community is not aware of the effectiveness of vegetation screening which may improve their outlook on the project. The community benefits scheme is secondary to these concerns. ▪ There cannot be an assumption that the community accepts the reasons that the solar farms are being constructed. The starting point is not the same for everybody and at this stage the community is not onside. ▪ The proposal is a change to what people envisaged for themselves in the future. If more land becomes used for solar farms, people will think this fate is coming for their land. ▪ The sentiment in the community is that this project is to benefit people in Melbourne and Sydney, not the local community.
Decision making-systems	▪ There is a feeling in the community that engagement is not being taken seriously, especially after VCAT has removed the ability to appeal planning disputes. ▪ The community sharing scheme would give the community a say in the management of profit. It could operate as a panel or board featuring community representatives. The money could be allocated to CFA, training, new equipment or other fire-fighting purposes.
Way of life	▪ There are concerns as to how the solar farm will affect people's personal interests. Locals live on farms which are also their businesses. There is curiosity as to how the solar farm could benefit people's personal interests.
Amenities	▪ There is very limited access to services in the local area. Wangaratta is the nearest regional city, the urban population of which comprises about 20,000 of the 30,000 people who live in Wangaratta LGA. The site is relatively close to Wangaratta and has decent road access. ▪ All local townships have primary schools and childcare but offer limited other services. ▪ There is a housing challenge occurring in Wangaratta, particularly for key workers. It could be challenging to house construction and operational workers for the solar farm, especially if it was being constructed at the same time as other significant projects in the area. Any excess housing in Wangaratta is currently being occupied by miners. ▪ Most workers at the proposed site would be local or understand that they must travel a distance for work. ▪ Council is eager to assist with social and affordable housing and have proposed selling land in order to build tiny houses to support key workers.

Theme	Summary of feedback received
	▪ Council would like to see Allans lane sealed from a long-term strategic point of view, as it already carries significant traffic which will increase due to the project.
Benefits	▪ Council appreciated the agri-solar approach, acknowledging there was often an increase in yield and productivity as livestock are subjected to less heat stress during the day, and the soil is less subjected to heat and drying periods. ▪ Renewable energy will have a generally positive impact on the environment.

4.2. ENGAGEMENT PROGRAM SUMMARY OF FINDINGS

Table 7 below provides a summary of relevant engagement outcomes as recorded by Nation Partners across all Engagement activities. Further details on Engagement activities conducted by Nation Partners is available in the Engagement Outcomes report.

Table 7 Summary of community engagement findings

Theme	Summary of feedback received
Character and experience of nature	▪ The community expressed concerns that the solar farm was an inappropriate use of productive agricultural land. The appropriateness of a solar farm in a high rain fall region was also questioned by the community. ▪ There were concerns around the potential impact of the solar farm on the environment, particularly the loss of habitat and vegetation corridors within the site, and the loss of mature trees. The poor environmental record of nearby solar farms was noted as having contributed to these concerns. There was concern expressed as to the possible impact of the solar farm on EPBS listed species and other local species. Additionally, the potential impacts to natural watercourses through the site were questioned.
Cultural heritage	▪ The community questioned how potential impacts to cultural heritage will be maintained at the site, as it is noted as an area of cultural heritage sensitivity in planning overlays.
Accessibility and amenity	▪ There were concerns as to possible visual impacts to nearby neighbours of the proposed solar farm, including the location of the Battery Energy Storage System on the site boundary. It was suggested that an approach to vegetation screening should be considered. ▪ Additionally, there were concerns as to increased traffic and use of roads during the construction and operation of the solar farm. The community expressed concern about the use of existing unsealed roads which they perceived as unsuitable for frequent use by large vehicles, which could cause increased dust and therefore reduce amenity for residents and businesses in the area. How these roads would be funded and managed was also questioned. ▪ There was also concern as to site access during flood periods.
Livelihood	▪ The community expressed concern about agricultural production in the region due to loss of site operations, particularly as the site is considered as a high

Theme	Summary of feedback received
	value terrestrial and environmental area in planning overlays. There were concerns raised as to the possible impact the solar farm would have on neighbouring property values, due in part to the insurance arrangement and liabilities for neighbours of the project, in the event of incident or accidental damage caused to the site.
Health and wellbeing	▪ A concern was expressed as to the potential leeching of solar panels into waterways and environments.
Public safety and security	▪ There were several concerns raised as to the possibility of fire at the site, due to the location of the facility in a Bushfire Prone Area overlay. There were questions as to the management and safety arrangements to reduce fire risks, access arrangements for CFA staff if a fire was to occur, the existing water storage tanks at the site, and how the site would be cleaned and managed if there were bushfire events. Concern was also raised that the presence of the Battery Energy Storage System within the site may increase the risk of fire. ▪ There were also some concerns as to the likelihood of flooding at the site due to its location in Wangaratta's water catchment and supply area and flood prone area. There was a specific concern as to how run off from the site would be managed.

Source: Nation Partners (2024)

4.3. SUMMARY OF SIA FIELD STUDY AND ENGAGEMENT FINDINGS

This section outlines the key social impacts identified by participants throughout the SIA field study and previous engagement. All consultation sought to understand how participants viewed their community, and to identify how the proposal may impact their community.

Participants identified both positive and negative impacts, as well as opportunities to mitigate or enhance these potential impacts, shown in Table 8.

Table 8 Community identified potential positive impacts, negative impacts, and opportunities

Positive impacts	Negative impacts	Opportunities
▪ Increased local employment opportunities ▪ Renewable energy will positively impact the environment	▪ Impacts to livelihoods of existing community ▪ Loss of agricultural site operations ▪ Sentiment in the community that they are not valued during the decision-making process ▪ Sentiment that the solar farm will pose an increased fire risk to the area	▪ Opportunity to demonstrate the effectiveness of vegetation screening to the community ▪ The community sharing scheme would prove the community with an opportunity to manage profit ▪ There is curiosity about how the solar farm could benefit people's personal interests ▪ There is an opportunity to collaborate with Council to

Positive impacts	Negative impacts	Opportunities
	▪ Potential loss of habitation and vegetation corridors at the site ▪ Visual impact	provide housing to support additional workers

5. SUMMARY OF VALUES, STRENGTHS AND VULNERABILITIES

The following chapter outlines the values, strengths, and vulnerabilities experienced in the local and regional areas, as identified by Sections 3 and 4.

Table 9 Community identified values, strengths, and vulnerabilities

Values	Strengths	Vulnerabilities
▪ Rural area with prominent agricultural uses ▪ Active community participation (e.g. committees, volunteering for Country Fire Authority) ▪ Heritage and history of the area	▪ High socio-economic status ▪ Low prevalence of long-term health conditions ▪ The population of Wangaratta LGA is expected to increase substantially ▪ A high educational attainment of year 12 or above ▪ Low unemployment ▪ High rate of home ownership ▪ Low proportion of residents under rental stress, low number of residents under mortgage stress ▪ Proximity to Wangaratta City	▪ Mental health vulnerabilities ▪ The dominant age group (55-64) is nearing retirement. The young workforce (aged 25-34) is the smallest proportion of the population. ▪ Strong community opposition to the proposal ▪ Limited amenities and facilities offered in local towns ▪ Low attainment of a bachelor's degree or above ▪ Small population ▪ High rates of dangerous and negligent crimes, and stalking harassment, and threatening behaviour ▪ High rates of property damage and arson

6. ECONOMIC IMPACT ASSESSMENT

Property development and infrastructure projects provide economic benefits to a local economy and wider region during both the construction / development phase, and during the ongoing operation or working life of the project. Direct economic benefits during the development phase are identified in the form of expenditure, economic growth and employment benefits. These direct benefits in turn generate flow on (multiplier or indirect) benefits which also benefit the regional and state economies.

In this assessment, we have used REMPLAN software to model and quantify the potential economic benefits associated with the proposed development. REMPLAN is an Input Output model that captures inter-industry relationships within an economy. It can assess the area specific direct and flow on implications across industry sectors in terms of employment, wages and salaries, output and value added (Gross State Product).

The potential economic benefits of the proposed development have been quantified in terms of value-added expenditure generation and employment generation:

- Expenditure Generation – Estimation of the direct and indirect expenditure impacts resulting from the proposed development. This estimates value added expenditure impacts to the regional and state economies during both the development and operational phases.
- Employment Creation – Estimation of the direct and indirect employment impacts resulting from the proposed developments. Direct employment of existing and proposed development has been provided by the Proponent.

Key points regarding the workings and terminology of the model are as follows:

- REMPLAN uses the value of investment or employment generation as the primary inputs. For this analysis, we have used both the value of total upfront investment and the future employment (as provided by the Proponent) at the proposed development to assess the benefits of the construction phase and the ongoing economic benefits of the operational phase.
- Outputs from the model include direct and indirect employment and value added (i.e. economic growth) generated through the project
- Employment generated includes all full-time and part-time jobs created over the life of the construction phase; or in terms of the ongoing operations, total ongoing jobs generated
- Both the direct and indirect benefits are modelled for employment and value added
- Direct refers to the effect felt within the industry where the investment is being made. For example, during the construction phase, new direct jobs are created within the construction industry
- Indirect effects are 1) those felt within industries that supply goods to the industries directly affected (industry effects) and 2) to industries that benefit from the wages that are earned and spent by those employed within the industries directly affected (consumption-induced effects). For the purposes of this analysis, consumption-induced effects have been excluded. Consumption-induced effects are prone to overstate the benefits of a particular investment as they overestimate the impact of wage and salary increases in the local economy. This is accepted industry practice.

The following sub-sections present a summary of benefits for the different scenarios for these two phases.

6.1. DEVELOPMENT PHASE

Direct economic benefits during the construction / development phase of the proposed development are identified in the form of employment and value-added benefits. These direct benefits, in turn, generate flow on (multiplier or indirect) benefits which also benefit the regional and state economies.

6.1.1. Project Expenditure

Total expenditure estimates for the proposed development have been provided by the Proponent. The total estimated capital investment value of the entire development is $780 million (excluding GST). However, for the purposes of assessing economic impacts, GST must be included. As such, the development is estimated to generate approximately $858 million of direct expenditure (Economic Output) including GST for the local region and state over a two-year development period.

6.1.2. Employment Benefits

New jobs will be supported during the two-year development phase by the direct expenditure on the proposed development. To calculate direct jobs, we applied benchmarks provided by the Australian Renewable Energy Agency (ARENA) to the proposed development metrics as shown in Table 10 below. Indirect jobs were then calculated using the indirect multiplier from REMPLAN.

Table 10 Development Phase Direct (Construction) Jobs

	Solar Farm	BESS	Total
Proposed Scale (MW)	332	250	**-**
Construction Period (years)	2	2	**2**
Average Annual Scale (MW)	166	125	**-**
Direct Construction Job Ratio (Annual jobs per MW)	2.30	0.25	**-**
Direct Jobs (No.)	382	31	**413**

Source: ARENA; Meadow Creek Solar Farm Pty Ltd; Urbis

Direct and indirect employment benefits according to our ARENA and REMPLAN analysis are shown below:

- Direct Jobs = 413 jobs over two years
- Indirect Jobs = 604 over two years
- Total Jobs = 1,017 over two years.

6.1.3. Value Added Benefits (Constant $2024)

Value added benefits (Gross State Product) will be generated from the direct expenditure incurred on the proposed development. Value added essentially represents economic growth for the region and state (i.e. Net Economic Output: this is total economic output minus output which is an input for other sectors). The direct and indirect value-added benefits are shown below:

- Direct Value Added = $235.4 million
- Indirect Value Added = $343.6 million
- Total Value Added = $579.0 million.

Table 11 Economic Benefits of the Proposed Development During the Development Phase

	Direct	Indirect	Total
Project Expenditure ($M)	$858.3	-	**$858.3**
Avg Employment Per Annum (Total Jobs)	431 jobs over 2 years	604 over 2 years	**1,017 jobs over 2 years**
Value Added ($M)	$235.4	$343.6	**$579.0**

Source: ARENA; REMPLAN Economy; Meadow Creek Solar Farm Pty Ltd; Urbis

6.2. OPERATIONAL PHASE

In addition to economic benefits that are generated during the development phase of the project, there will be ongoing economic benefits created through the operation of the new facilities on the site. These benefits include growth in employment and value added (Gross State Product).

6.2.1. Employment Benefits

The ongoing operation of the development will directly and indirectly support new jobs in the local region and state. The direct (based on information provided by the Proponent and the ARENA benchmarks) and indirect employment benefits are shown below:

- Direct Jobs = 63 jobs per annum
- Indirect Jobs = 195 jobs per annum
- Total Jobs = 258 per annum.

Table 12 Operational Phase Direct Jobs

Land Use	Scale	Employment Benchmark	Ongoing Jobs
Solar Farm	332MW	0.11 jobs per MW	**37**
BESS	250MW	0.11 jobs per MW	**25**
Sheep Grazing	453 Ha	-	**1**
Total Ongoing Jobs			**63**

Note: indicates employment provided by the Proponent for the Sheep Grazing, expected to occur beneath the solar panels and remaining site area (80% of existing site area)
Source: ARENA; REMPLAN Economy; Meadow Creek Solar Farm Pty Ltd; Urbis

6.2.2. Value Added Benefits (Constant $2024)

Once complete, the proposed development will generate ongoing additional value added via annual contributions to Gross State Product (GSP). This represents economic activity which would otherwise not have occurred.

- Direct Value Added = $27.6 million per annum
- Indirect Value Added = $55.0 million per annum
- Total Value Added = $82.6 million per annum.

Table 13 Operational Phase Benefits of the Proposed Development

	Direct	Indirect	Total
Avg Employment Per Annum (Total Jobs)	63	195	**258**
Avg Value Added Per Annum ($M)	$27.6	$55.0	**$82.6**

Source: ARENA; REMPLAN Economy; Meadow Creek Solar Farm Pty Ltd; Urbis

6.2.3. Economic Impact on the Wangaratta LGA Agricultural Industry

According to the ABS, the Wangaratta LGA Agricultural Industry had a local agricultural production value of $168.2 million in 2021, which when indexed to 2024 figures equates to $192.8 million.

As shown in Table 14 below, the economic impact of reducing the size of the grazing area of the site from 566 hectares to around 453 hectares along with switching from a beef cattle grazing use to a sheep grazing use (prime lamb) is around $142,600. This impact has been calculated by applying the North Victorian Region gross income per hectare benchmarks for beef and prime lamb from the Agriculture Victoria Livestock Farm Monitor Project 2023 to the area of the existing and proposed agricultural uses, respectively.

Table 14 Gross Income of Existing Agricultural Use vs Proposed Agricultural Use

	Existing Cattle Grazing Use	**Proposed Sheep Farming Use**	**Impact**
Area of Agricultural Use	566	453*	-113
Gross Income Per Hectare Benchmark	$1,037	$981	-$56
Gross Income	$587,107	$444,531	-$142,576

Note: 80% of existing agricultural area to account for area lost to BESS and Solar Farm (noting grazing can still occur under mounted solar panels)
Source: Victorian Government (Agriculture Victoria); ABS; Meadow Creek Solar Farm Pty Ltd; Urbis

When comparing the impact of ~$142,600 to the agricultural production value for the Wangaratta LGA, the proposed development is expected to have an immaterial negative impact of 0.07%.

Table 15 Economic Impact of Proposed Development on the Wangaratta LGA Agricultural Industry

	Economic Impact
Wangaratta Agriculture Production Value	$192,793,765
Impact of Proposed Development ($)	-$142,576
Impact of Proposed Development (%)	-0.07%

Source: Victorian Government (Agriculture Victoria); ABS; Meadow Creek Solar Farm Pty Ltd; Urbis

6.2.4. Supporting the Emerging Renewable Energy Sector in Australia

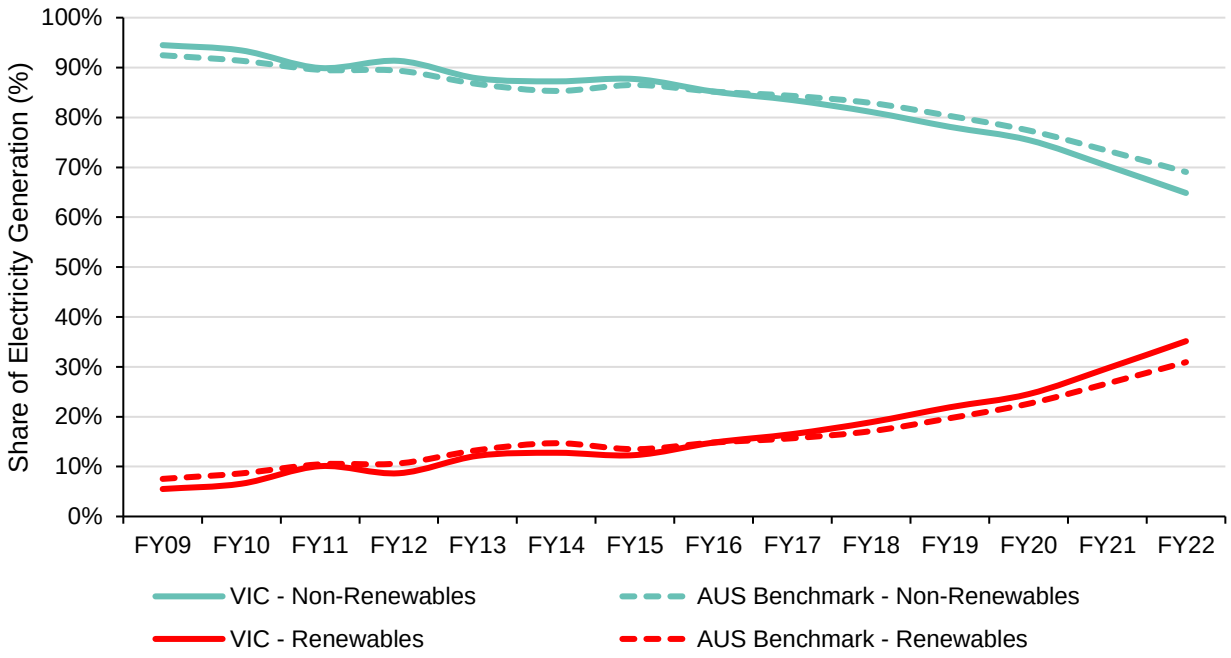
Once the proposed development is complete and operational, it has the potential to deliver an extra 332 MW of renewable energy to Australia. This influx of renewable energy will contribute to the national effort to transition from fossil fuels to clean energy, noting the achievement of a “100% renewables” electricity system is ideal (Grattan Institute, 2021).

As reflected in the chart below, Australia has experienced a shift towards more renewable energy sources, which have increased their share of total electricity generation from 7.5% in FY09 to 30.9% in FY22. This increased reliance on renewables is likely to substantially improve domestic energy security in the longer term as non-renewables such as coal is a finite resource. The shift has also resulted in Australia being the world’s sixth largest producer of solar energy, noting Australia has the second highest potential for solar

power. Victoria has experienced a similar shift towards a reliance on renewable energy, with renewable reliance at 35.1% in FY22, which is above the national benchmark.

The proposed development will also contribute to the Victorian Energy Jobs Plan (2024), which targets a 95% reliance on renewable energy by 2035 and continue to drive investor confidence in renewable energy in Victoria.

Chart 1 – Victoria vs Australia Energy Generation by Source



Source: DISR; Urbis

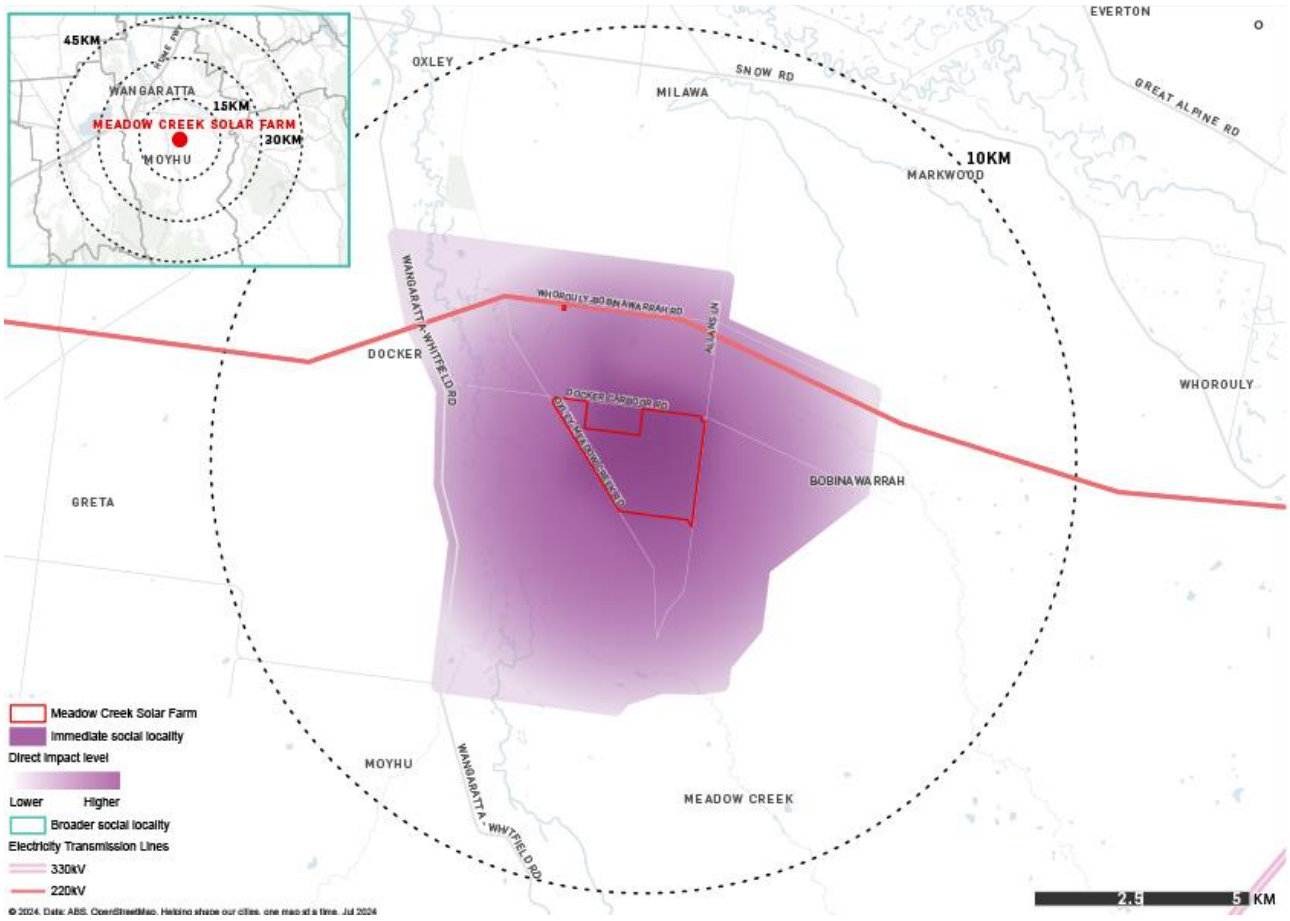
7. SOCIAL LOCALITY

A social locality helps to identify the scale and nature of the proposal's likely social impacts, as well as the likely impacted groups.

This proposal's likely social locality (shown in Figure 5) was determined based on a review of the proposal documentation, surrounding context and consultation outcomes. The social locality considers two key areas and likely impacted groups. These include:

- **Immediate social locality:** This area includes communities that may be directly impacted by the proposal, including nearby residents and landholders, services and businesses surrounding the site. This includes nearby neighbours and landowners within approximately 10km of the site, located across the suburbs of Meadow Creek, Bobinawarrah, Milawa, Docker and Moyhu, as well as nearby services including the Bobinawarrah Fire Station and Hurdle Creek West State School. These communities may experience localised impacts such as visual, noise, dust and changes to the traffic network.
- **Broader social locality:** This area includes communities that may be either directly or indirectly impacted by the proposal. The broader locality captures travel patterns and associated access impacts felt more broadly related to the anticipated construction workforce catchment for the proposal, haulage routes, and businesses which could supply the proposal. The broader social locality would also include potential beneficiaries of electricity generation, as well as regional agricultural operators. This area includes residents, businesses, workers and services that operate across this area.

Figure 5 Social locality



Source: Urbis, 2024

8. SOCIAL IMPACT ASSESSMENT

This chapter provides a ranking of the identified social impacts of the Project. It is structured by the social impact categories outlined in the SIA Guideline (DPHI 2023).

Each impact is assessed in accordance with the risk assessment methodology applied in the SIA Guideline Technical Supplement, whereby the significance of potential social impact is assessed by comparing the magnitude of the impact against the likelihood of the impact occurring. This methodology is outlined below.

Table 16 Significance matrix

		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

Source: DPHI, 2023, SIA Guideline: Technical Supplement, p. 13

Table 17 Likelihood levels

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

Source: SIA Guideline: Technical Supplement (DPHI 2023, p. 12)

Table 18 Magnitude levels

Magnitude level	**Meaning**
Transformational	Substantial change experienced in community wellbeing, livelihood, infrastructure, services, health, and/or heritage values; permanent displacement or addition of at least 20% of a community.
Major	Substantial deterioration/improvement to something that people value highly, either lasting for an indefinite time, or affecting many people in a widespread area.

Magnitude level	Meaning
Moderate	Noticeable deterioration/improvement to something that people value highly, either lasting for an extensive time, or affecting a group of people.
Minor	Mild deterioration/improvement, for a reasonably short time, for a small number of people who are generally adaptable and not vulnerable.
Minimal	Little noticeable change experienced by people in the locality.

Source: SIA Guideline: Technical Supplement (DPHI 2023, p. 13)

Table 19 Dimensions of social impact magnitude

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

Source: SIA Guideline: Technical Supplement (DPHI 2023, p. 12)

Mitigation and enhancement measures

Social impacts are assessed before and after the implementation of mitigation measures (for negative social impacts) and enhancement measures (for positive social impacts). These measures can take different forms and may be incorporated in the design, planning, construction, or operational stage of the proposed development.

8.1. WAY OF LIFE

This section provides a detailed assessment, unmitigated and mitigated and unenhanced and enhanced, of the matters that significantly impact the way of life of a community as a consequence of the proposal.

8.1.1. Demand on local housing and accommodation – Unmitigated

Affected stakeholders: Broader social locality (including residents and accommodation users)	**Duration:** Construction and operation

Given the anticipated 1,017 construction and 258 operational jobs which are expected to be generated by the proposal, there is a potential for the incoming workforce to place additional stress on housing and accommodation in the surrounding area.

During the SIA consultation, representatives of Rural City of Wangaratta (Council) outlined an existing lack of housing and accommodation supply, availability and diversity in the local area. Council also noted that accommodating the housing needs of construction workforces is an ongoing challenge that is being encountered more frequently, particularly with a range of other large projects (such as the ARTC Inland Rail) proposed for the area. However, they also anticipated that most of the workforce for this proposal could be sourced locally from Wangaratta or from the wider regional area, which is easy to travel throughout.

Industry standards note that a property vacancy rate of under 2.5% is tight and shows a low availability of rental properties that are empty and available for lease. A review of demographic data from SQM Research (2024) indicates that there are considerably low vacancy rates in the area, with rates ranging from 0% to 0.6% across Meadow Creek, Bobinawarrah, Milawa, Docker and Wangaratta. Vacancy rates in Wangaratta, the closest regional centre, is 0.1% and has been decreasing below 2.5% from 2009.

Data from Regional Development Victoria (Regional City of Wangaratta – 2024) also reports that due to Wangaratta's location, its tourism sector is growing with increased visitation rates. However, the Rural City of Wangaratta Visitor Services Strategy (Rural City of Wangaratta, 2021) also identifies that there is a low supply of visitor accommodation available within this area (Rural City of Wangaratta, 2021).

Concurrent projects occurring within the area which also require workforce accommodation (refer to Cumulative Impacts, Section 8.9), could also further exacerbate the demand on local housing and accommodation in this area.

Based on the above, the local rental and accommodation market may not have the capacity to house the required workforce. This situation will need to be re-evaluated during workforce preparation for the construction and operation phases. If the project-related workforce overwhelms the local rental market, it could lead to a further shortage of rental housing and a decrease in rental affordability. This could pose significant challenges for housing stability in the local and regional areas, particularly for residents who may struggle with increased rent payments. This issue is especially concerning for vulnerable groups who, due to low or unstable incomes, health and mental health issues, and unstable employment, may find it difficult to secure alternative housing.

Given the workforce required to service the proposal, the existing lack of appropriate accommodation, and potential cumulative impacts associated with concurrent projects in the area, the proposal's workforce may place additional pressure local housing and accommodation. As such, the unmitigated impact is assessed as **high negative**, given a likely likelihood and major magnitude.

8.1.2. Demand on local housing and accommodation – Mitigated

To address potential impacts related to demand on local housing and accommodation, MCSF will liaise with the Rural City of Wangaratta to communicate proposed accommodation needs prior to construction so that local accommodation businesses can be notified in advance for capacity building.

Assuming the adoption of the above mitigation measure, the likelihood of impact is reduced to possible, however the magnitude of impact remains major. As such, the mitigated impact remains **high negative**.

However, MCSF will also explore the below recommendations following the assessment phase and as the proposal progresses, in collaboration with the proposal contractor and operator, to further mitigate potential impacts.

SIA recommendations

- Develop and implement a workforce accommodation strategy prior to construction that assesses the housing and accommodation environment, identifies potential accommodation and rental market pressures in the local and regional area, and details plans to effectively accommodate the proposal workforce.
- Establish a local employment policy for both construction and operation which specifies a preferential hiring approach to prioritise employing workers with relevant skills from the local area, then the regional area, followed by hiring outside of these areas (where feasible and practical).
- In partnership with Rural City of Wangaratta, consider exploring the opportunity to utilise existing Council-owned land in the local area to construct housing to accommodate the proposal's construction workforce if additional workforce accommodation is required beyond the capacity of local rentals and visitor accommodation. This may include options such as provision of high-quality modular housing to accommodate the workforce during construction, or leveraging available housing funding (e.g. the Regional Housing Fund and the Housing Australia Future Fund) to provide housing which can then be retained for social, affordable housing or key worker housing for the community.
- Consider liaising with other significant concurrent projects in the area to understand their peak workforce requirements, and consider programming construction works for the proposal to align with reductions in workforce requirements for concurrent projects. For example, the ARTC Inland Rail works, which currently has a significant workforce in Wangaratta.

8.2. COMMUNITY

This section provides a detailed assessment, unmitigated and mitigated and unenhanced and enhanced, of the matters that significantly impact the community as a consequence of the proposal.

8.2.1. Contribution to local community values, needs and aspirations through a Community Benefits Fund – Unenhanced

Affected stakeholders: Communities across the immediate and broader social locality	**Duration:** Operation

As detailed in the Community Engagement and Benefit Sharing in Renewable Energy Development in Victoria Guide (DEECA, 2021) and the Guide to Benefit Sharing Options for Renewable Energy Projects (Clean Energy Council, 2019), community benefit sharing aims to integrate a development in the local community by contributing to the future vitality and success of the region. It is based on a desire to establish and maintain positive long-term connections to the area and to be a good neighbour. Community benefit sharing involves sharing the benefits of renewable energy development to enhance social and economic outcomes for the local community. Community benefit sharing can take several forms, including sponsorship and community benefits funds.

Meadow Creek Solar Farm has committed $100,000 annually through a Community Benefits Fund to financially support initiatives that contribute to local community values, needs and aspirations. The fund would be sourced from the revenue of the solar farm and would be available to the community once the project is built and operational. DEECA (2021) explains that community benefits funds can provide direct and legacy benefits and are often popular within local communities.

The Department of Environment, Energy and Climate Action (DEECA) (2021) and the Clean Energy Council (2019) outline that the most effective way to set up a community benefit fund is to involve local community members in its management and governance through a purpose-made organisation. It is proposed that the Meadow Creek Solar Farm Community Benefit Fund would be independently governed by the local community through the establishment of a board comprised of local community representatives, working in partnership with Meadow Creek Solar Farm. The board would guide the most effective and meaningful way

to determine how funding is allocated to local community programming and projects to address community needs. It is also proposed that Rural City of Wangaratta act in a formal faciliatory and advisory role (as a non-board member) to provide input into the feasibility and requirements of proposed initiatives, and address potential disconnects between strategic alignment of Rural City of Wangaratta and what the community is proposing.

Further consultation with the community and Council will inform the geographic area to which the benefit can apply, and the specific framework, governance and administration of the Community Benefit Fund.

Given the above, the unenhanced impact is assessed as **high positive**, given a likely likelihood and major magnitude.

8.2.2. Contribution to local community values, needs and aspirations through a Community Benefits Fund – Enhanced

To further enhance the social and economic benefits across different cohorts of the community, Meadow Creek Solar Farm has proposed that a proportion of the Community Benefits Fund would be specifically allocated to support initiatives led-by and delivered for First Nations groups. This recognises that the values, needs and aspirations of local First Nations groups may differ and be unique compared to other cohorts across the wider community.

The specific allocation will be determined through further consultation with the community, including with Registered Aboriginal Parties and Council. Further consultation with the community and Council will inform the geographic area to which the benefit for First Nations group will apply, and the specific framework, governance and administration of this allocated proportion for First Nations groups from the Community Benefit Fund.

Assuming the implementation of the above enhancement measure, the enhanced impact is assessed as **very high positive**, given an almost certain likelihood and major magnitude.

MCSF will also explore the below recommendations following the assessment phase and as the proposal progresses, in collaboration with the proposal contractor and operator, to further enhance potential impacts.

SIA recommendation/s

- Following further consultation with the community, including First Nations Groups and Council, develop a memorandum of understanding (MOU) between relevant parties to detail the terms of agreement of the Community Benefits Fund.

8.3. ACCESSIBILITY

This section provides a detailed assessment, unmitigated and mitigated and unenhanced and enhanced, of the matters that significantly impact the accessibility as a consequence of the proposal.

8.3.1. Pressure on the local road network – Unmitigated

Affected stakeholders: Immediate social locality (including residents and landowners using construction haulage and access routes)	**Duration:** Construction

During construction of the proposal, there is potential for the local road network to experience additional pressure from the increased volume and/or type of vehicles travelling to and from the site. This additional pressure will be felt most directly by local residents and the surrounding community. The proposed access to the site is from the north via Oxley-Meadow Creek Road, and departure is proposed to the west via Docker-Carboor Road. During construction of the transmission line, Oxley-Meadow Creek Road will be the only point of access to the site.

Representatives of Rural City of Wangaratta identified that there was reasonable road access to the site, and anticipated that the proposal workforce would largely be accommodated locally or would be travelling by car from the surrounding region. They also identified concerns about the capacity of local roads regarding weight

limits and construction volumes. These concerns were reflected by the local community, who commented that existing roads are unsuitable for frequent use by large vehicles. The community also raised questions about the number of trucks on local roads during the construction and operation of the proposal.

The Transport Assessment Report (TAR), prepared by consultancy Salt[3], assesses the potential impact the construction and operation of the proposal will have on the capacity and quality of the road network. The TAR found that the amount of construction traffic is low and will have minimal impact on the surrounding road network. It found there would be up to 100 truck movements per day (average of nine per hour) during peak construction activities, which can be accommodated by the surrounding road network. Although this impact is considered minimal in the TAR, local residents may be unfamiliar with the amount of traffic, and thus will experience an impact. However, the TAR notes that operational impacts will be negligible.

In regard to road quality, the TAR notes that any increase in heavy vehicles will likely result in some pavement degradation and some dust impacts on properties abutting Oxley-Meadow Creek Road and Docker-Carboor Road.

As such, the unmitigated impact during construction is assessed as **medium negative**, given a likely likelihood and minor magnitude.

8.3.2. Pressure on the local road network – Mitigated

The TAR identifies measures to mitigate the potential impact related to the pressure on the local road network and potential impacts to road quality. This includes:

- Intersection upgrades to improve vehicular access, including at Oxley-Meadow Creek Road and Docker-Carboor Road, and at Wangaratta-Whitfield Road and Docker-Carboor Road.
- Establishment of strategic haulage routes site to minimise large trucks from needing to pass on narrower unsealed roads and bridges, and to avoid acute angle turns.
- Undertaking regular road condition inspections on the haulage route roads, which should be repaired as necessary.
- The use of a ‘DustMag’ or similar treatment in order to reduce dust impacts on properties abutting Oxley-Meadow Creek Road and Docker-Carboor Road.

As detailed in the Environmental Management Plan Frameworks (EMPF), prepared by Urbis (2024), a Traffic Management Plan (TMP) will be prepared as a condition of consent. The TMP will be prepared in consultation with Rural City of Wangaratta, VicRoads, and other relevant stakeholders to avoid damage to existing road infrastructure, reduce potential increase in traffic, and to maintain a safe road network. This will include building internal site access roads per Country Fire Authority (CFA) requirements, maintaining vehicles by EPC contractors, road and infrastructure maintenance programs, and installing noise controls where required. The TMP will also detail consultation strategies with the local community, including mechanisms to capture, monitor and address complaints as required. The Environmental Management Plan Framework (EMPF) supported the recommendations of the TMP, stating that the strategies outlined should aim to maintain the surrounding road network, avoid damage to existing infrastructure, and to reduce impacts of potential traffic increases and maintain a safe road network.

Assuming the mitigation measures proposed in the TAR, TMP and EMPF are followed, the mitigated impact is assessed **low negative**, given an unlikely likelihood and minimal magnitude.

SIA recommendations

- No further recommendation is proposed at this time.

8.4. CULTURE

This section provides a detailed assessment, unmitigated and mitigated and unenhanced and enhanced, of the matters that significantly impact the culture as a consequence of the proposal.

8.4.1. Potential impact to Aboriginal sites and culture – Unmitigated

Affected stakeholders: Broader social locality (including Local Aboriginal people and communities)	**Duration:** Construction and operation

The construction of any development should consider impacts on Aboriginal objects, the landscape or the spiritual connection Aboriginal people have with Country.

Desktop, Standard and Complex Assessments were conducted by Biosis (2024) in preparation of a Mandatory Cultural Heritage Management Plan (CHMP). The CHMP was conducted in collaboration with the Taungurung Land and Waters Council (TLaWC).

As detailed in the CHMP, the Desktop Assessment revealed that the site area is low-lying with numerous water sources and susceptible to occasional flooding. It also suggested that farming practices likely caused disturbances. The assessment anticipated the presence of artefact scatters and scarred trees within the Activity Area, particularly near Hurdle Creek, Sheep Station Creek, and their tributaries. The Standard Assessment did not find any Aboriginal material culture, but identified seven areas with moderate archaeological potential, including a notable 1.7-kilometre ridgeline running east to west, starting north of a bend in Sheep Station Creek. The Complex Assessment, which included 69 testing locations, found 100 Aboriginal lithic artefacts in 15 test trenches, with 86 of these artefacts found on the ridgeline north of Sheep Station Creek, indicating its historical use. Five Aboriginal places were registered as part of the CHMP.

As outlined in the CHMP and EMPF, several strategies and controls are proposed (as required) to appropriately manage unexpected heritage items and to protect historical significance. These include but are not limited to:

- Cultural Heritage Induction for all site contractors and sub-contractors.
- Notification of TLaWC prior to any works and after completion of works.
- Heritage inspections undertaken throughout the duration of works.
- No works within Updated Areas of Potential and Registered Aboriginal Places should be undertaken as outlined in the CHMP.
- Contingency Plans for unexpected finds of Aboriginal Cultural Heritage.

Meadow Creek Solar Farm will continue to collaborate with the TLaWC as the proposal is refined, and during construction and operation.

With consideration of the CHMP findings, and assuming implementation of the above strategies and controls, the unmitigated impact is assessed as a **low negative**, given the unlikely likelihood and minor magnitude.

8.4.2. Potential impact to Aboriginal sites and culture – Mitigated

No further mitigation measures are proposed at this time. The mitigated impact remains **low negative**.

SIA recommendations

- No further recommendation is proposed at this time.

8.5. HEALTH AND WELLBEING

This section provides a detailed assessment, unmitigated and mitigated and unenhanced and enhanced, of the matters that significantly impact the health and wellbeing as a consequence of the proposal.

8.5.1. Perception of increased fire risk – Unmitigated

Affected stakeholders: Immediate social locality (including workers of the solar farm and surrounding residents and landowners)	**Duration:** Construction and operation

The location of a solar farm in a Bushfire Prone Area can lead to the community perception that there is an increased fire risk, particularly due to the presence of a Battery Energy Storage System (BESS) on site. During the Engagement activities conducted by Nation Partners, stakeholders raised several concerns related to bushfire risk, including that another local solar farm has had three fires since it opened in 2018. Representatives of Rural City of Wangaratta also explained that rural communities face ongoing challenges related to disaster, including bushfires, which significantly impact their resilience and wellbeing.

All renewable energy projects in Victoria are developed in line with strict guidelines set by the Country Fire Authority (CFA), called the Design Guidelines and Model Requirements Renewable Energy Facilities v4 (2023). These guidelines provide considerations and measures for fire safety, risk and emergency management. Such measures include providing fire breaks between infrastructure, water tanks and opportunities for egress. In line with these guidelines, the Environmental Management Plan Framework (EMPF) prepared by Urbis (2024) identified the following measures will be used at this site:

- Construction will be adjusted to weather conditions, including the bushfire season.
- Providing eleven vehicle accesses points located around the property, all of which are designed to accommodate a CFA fire fighting vehicle.
- Providing fire breaks, with a 10-metre-wide fire break for the collector substation and conservation areas. An additional 10-metre-wide fire break will be provided on the boundary area, except a small portion of the south-western corner, where no panels will be installed. This fire break also incorporates a four metre-wide perimeter road.
- Providing water tanks, including six 45,000 litre water tanks at site access points and one 288,000 litre water tank at the main site entrance.

The Bushfire Risk Assessment Report prepared by Ecology and Heritage Partners (2024) identified that the site poses a low bushfire risk. This is due to the wider landscape of the property as generally flat agricultural paddocks, with sparsely scattered rural dwellings. While there is the potential for grassfires to ignite (depending on wind direction), landscape factors such as crops being routinely harvested and farm animals (such as sheep) grazing in the paddocks likely reduce as the amount of fuel available, and make it difficult for a fire to build momentum to the severity considered to be a significant threat.

Given the property has a low bushfire risk and the proposal is required to comply with the CFA Guidelines (2023), this impact is assessed as **low negative**, given an unlikely likelihood and minor magnitude.

8.5.2. Perception of increased fire risk – Mitigated

Meadow Creek Solar Farm is currently liaising with Council and the CFA during the preliminary stages of the proposal regarding vegetation management, water and access requirements and how best to implement mitigation measures into the design. This dialogue will continue to ensure that emergency management agencies are aware of the proposal's progress and are able to discuss certain design aspects and provide guidance where necessary. In acknowledgement of the bushfire risk, a Bushfire Emergency Management Plan will be prepared in consultation with the CFA before construction commences.

MCSF will also communicate the Bushfire Emergency Management Plan and mitigation measures integrated into the proposal design during ongoing engagement with the local community to contribute to alleviating bushfire concerns.

Considering this, the mitigated impact remains **low negative**.

SIA recommendations

- No further recommendations are provided at this time.

8.6. SURROUNDINGS

This section provides a detailed assessment, unmitigated and mitigated and unenhanced and enhanced, of the matters that significantly impact the surroundings as a consequence of the proposal.

8.6.1. Contributing to the renewable energy transition – Unenhanced

Affected stakeholders: Residents and businesses in the broader social locality and across the State of Victoria	**Duration:** Operation

Community consultation raised a concern about the appropriateness of solar production due to the high rainfall experienced in the region. MCSF engineers completed computer modelling of electricity generation from the solar farm using historical weather data and recognised industry standards. The results showed that the area is highly productive for solar electricity generation as solar farms can still produce electricity in low-light conditions and overcast weather.

The proposed development will therefore contribute towards achieving both state and local level renewable energy targets and supporting the transition towards renewable energy like solar. For example, the Victorian Government's (2020) Victorian Climate Change Strategy has set a reduced emissions target of 28 – 33% by 2025, 45 – 50% by 2030 and net-zero emissions by 2050. Further, the Victorian government has established the Victoria Renewable Energy Target (VRET) target of 95% renewable energy generation by 2035, and energy storage targets of 2.6GW by 2030. Council's Environmental Sustainability Strategy 2021 – 2026 (Rural City of Wangaratta, 2020), also has target of 50% emission reduction from its electricity, fuel and gas usage by 2025.

The EIA (see Section 6) found that once the proposal is complete and operational, it has the potential to deliver an extra 332 MW of renewable energy to Australia. This represents 13% of the Victorian 2030 energy storage target of 2.6GW and up to 5% of the 2035 state target of 6.3GW. The proposal will also contribute up to ca. 0.35% operational emissions reduction and up to ca. 1% operational emissions reduction from electricity as an energy source.

As such, the proposal represents a significant contribution towards achieving the VRET, energy storage targets and emissions reductions targets for Victoria. This influx of renewable energy will contribute to the national effort to transition from fossil fuels to clean energy, noting the achievement of a "100% renewables" electricity system is ideal (Grattan Institute, 2021).

In addition to contributing to reduced emissions and climate change, the proposal will contribute to the delivery of affordable, reliable and secure electricity, including a reduction in stress on the electricity grid by up to 265,000MWh.

Given the provision of renewable energy and its potential contribution to achieving both state and local level renewable energy targets, this impact is assessed as **high positive**, given a likely likelihood and moderate magnitude.

8.6.2. Contributing to the renewable energy transition – Enhanced

There are no further enhancement measures recommended for this surroundings impact. It therefore remains as **high positive**.

SIA recommendations

- No further recommendation is proposed at this time.

8.6.3. Potential change to sense of place and local character in agricultural and natural areas – Unmitigated

Affected stakeholders: Immediate social locality (including residents and landowners located within the immediate vicinity of the proposed solar farm and transmission infrastructure)	**Duration:** Construction and operation

The visual environment and landscape are important components of people's surroundings. Changes to the visual environment or landscape can impact on the amenity within a place, influence a person's sense of place, and impact local character.

During the SIA field study, representatives of Rural City of Wangaratta explained that the local community has a strong connection to the history and character of the local area. Council noted that there are longstanding generational farms operating in the area, and they hold significant values for the surrounding agricultural landscape. During the Engagement activities, nearby neighbours also raised concerns about potential changes to the visual amenity of neighbouring properties. This included concerns related to the visual impact of the main solar farm and the location of the Battery Energy Storage System on the site boundary. Stakeholders also expressed the presence of significant natural values for this area, and raised concerns about the potential loss of habitat, vegetation corridors and mature trees as a result of the proposal.

The Landscape Visual Impact Assessment (LVIA) prepared by Horizon Studio (2024) indicates that the proposed solar farm's impact on the landscape character is limited, and will primarily affect the Agricultural Plains surrounding the site due to the flat terrain and scattered trees. The LVIA also considers that the new transmission towers and substation on Whorouly-Bobinawarrah Road will also only affect local character within the immediate vicinity.

The LVIA considers that the visual impact of the proposal will be mostly localised, affecting neighbouring properties and adjacent roads. The most significant impact, rated as moderate, will be on neighbouring residences and sections of Docker-Carboor Road and Oxley-Meadow Creek Road with little to no vegetation. The transmission infrastructure will also moderately impact the view along Oxley-Meadow Creek Road, causing a noticeable change in the broader agricultural landscape.

Drivers using the Docker-Carboor Road may also potentially be impacted by glare at times in the early evening during spring through summer, however as there is substantial existing vegetation in and around the proposed PV array site, the results of the analysis are conservative and the actual glare impacts would likely be less than indicated in the results. The design of the solar farm, including fragmented PV arrays and the preservation of significant tree stands as well as vegetation, helps to reduce its visual impact. The infrastructure, except for the transmission towers, will be below the tree canopy height, maintaining the landscape's open sky character.

Although there will be a limited impact to the landscape character, it is anticipated that the proposed solar farm and transmission infrastructure potential will change the existing visual amenity from the immediate roads and neighbouring properties. As such, the impact is assessed as **high negative**, given a likely likelihood and moderate magnitude.

8.6.4. Potential change to sense of place and local character in agricultural and natural areas – Mitigated

The Landscape Strategy (Urbis, 2024) details several mitigation measures to address changes to the landscape, taking into consideration the outcomes of the Engagement activities and the recommendations of the LVIA. These include:

- A five-metre corridor around the perimeter for planting screening vegetation to mitigate potential visual impacts. This buffer will consist of a mix of medium to large native shrubs and small to large native trees. The proponent has discussed this buffer with the CFA and it is agreed to comply with the requirements of the fire buffer.

- A temporary screen structure along a section of the Docker-Carboor Road to mitigate the potential impacts from glint and glare until the vegetation reaches an effective screening height, estimated to be three to five years from planting.
- A vegetative screen along the eastern property boundary of the substation using a mix of medium to large shrubs with a some medium to large trees reflecting the existing landscape character including scattered trees and wide open sky views, as well as vegetative screens along the north and west property boundaries which reflect the existing landscape character and views.

The proposed design also makes use of existing high voltage powerlines traversing the site to facilitate transmission to the local area and beyond, thereby reducing the impact of the site on the existing environment by reducing the need for extensive new transmission infrastructure. The proposed overhead transmission line has also been strategically selected to avoid key landscapes. The design of the proposal also integrates wildlife corridors and avoids vegetation removal where possible, including retention of existing scattered trees and wind breaks along some fence lines to retain natural landscape features.

MCSF will also communicate the outcomes of the LVIA and Landscape Strategy to the community during ongoing engagement and provide likely viewpoints to residents to demonstrate the anticipated visual impact and mitigation measures.

Assuming the implementation of the above mitigation measures, the mitigated impact is assessed as **medium negative**, given a possible likelihood and minor magnitude. However, this impact will be confined to residents and landowners on Docker-Carboor Road and Oxley-Meadow Creek Road and drivers on Oxley-Meadow Creek Road. Furthermore, it is anticipated that this impact on the community will gradually decrease to **low negative** over time as the vegetative screening matures.

SIA recommendations

- No further recommendations are provided at this time.

8.7. LIVELIHOODS

This section provides a detailed assessment, unmitigated and mitigated and unenhanced and enhanced, of the matters that significantly impact the livelihoods as a consequence of the proposal.

8.7.1. Increased local employment opportunities – Unenhanced

Affected stakeholders: Relevant skilled workers across the broader social locality.	**Duration:** Construction and operation

The proposal will require a significant number of skilled jobs to support the construction and operation phases and will provide several employment opportunities for workers in the local and regional areas.

The Rural City of Wangaratta Community Vision 2023 outlines two priorities that relate to this proposal. These include to build environmentally sustainable communities and to support employment through business growth, development and recovery.

The Social Baseline (Section 3) indicated that the top occupations in the region were in agriculture, forestry, and fishing (18.2%), health care and social assistance (14.6%) and manufacturing (12.9%). These occupations are unlikely to align to the range of jobs provided by the proposal during operation, particularly as the dominant age group for the region is older workers and people approaching retirement age (16.4%). There may be a need to attract a younger workforce into the area. However, there is a similar proportion of Technicians and Trades workers in Wangaratta LGA compared to Regional Victoria, who are anticipated to have skills which align with the construction jobs required for the proposal (see Section 3).

The Economic Impact Assessment (Section 6 of this report) finds that during the construction phase, the proposal will generate approximately 413 direct jobs and 604 indirect jobs over two years. The majority of these will be on-site construction jobs. During operation, the proposed solar farm is expected to support approximately 63 direct jobs per annum and 195 indirect jobs per annum.

During the SIA field study, representatives of Rural City of Wangaratta explained that there is generally a good supply of trades workers with skills that would align with the workforce requirements of the proposal during the construction phase. However, there is currently a significant demand for trades workers in the Wangaratta area, and they may not have adequate capacity to service the proposal. As such, this may require employment of non-local workers. Furthermore, the prevalence of concurrent projects in the area may further exacerbate the reduced availability of local workforce (refer to Cumulative Impacts, Section 8.9).

With consideration of the above, the following assessment has been determined:

- The unenhanced impacted related to increased local employment opportunities during construction is assessed as **low positive**, given a possible likelihood and minimal magnitude. This impact is limited, due to the potential constraints in securing a local employment workforce.
- The unenhanced impact related to increased local employment opportunities during operation is assessed as **medium positive**, given a possible likelihood and minor magnitude.

8.7.2. Increased local employment opportunities – Enhanced

While there is currently no existing Employment Plan being prepared for the proposal, the Wangaratta's Community Vision 2023 outlines a clear agenda to prioritise local employment. As such, the enhanced impact remains **low positive** during construction and **medium positive** during operation.

However, MCSF will explore the below recommendations following the assessment phase and as the proposal progresses, in collaboration with the proposal contractor and operator, to further enhance potential positive impacts.

SIA recommendations

- Consider developing a workforce strategy for construction and operation which includes measures to prioritise local employment, establish ongoing partnerships with local training and education institutions to connect local apprentices, trainees and workers with placement during construction and operation, and upskilling pathways for employees.
- Consider developing a local procurement plan during construction which includes measures to encourage the procurement of local construction companies.
- Explore programming constructions works to align with reductions in workforce requirements for concurrent projects to enhance potential availability of local workers which can support the proposal.

8.7.3. Perceived loss of productive agricultural land – Unmitigated

Affected stakeholders: Broader social locality (including agricultural producers across the region)	**Duration:** Construction and operation

Due to the changed land use of the proposed development from agricultural uses to a solar farm, there is potential for this to be perceived as a loss of productive agricultural land for both the broader economy and surrounding farmers. Community engagement identified this as a concern for locals, who observed that the site is considered as a high value terrestrial and environmental area in planning overlays. The interview with representatives of Rural City of Wangaratta (Council) revealed that locals have a sense of ownership and connection to their land. Council perceived anticipation from locals, who fear that if one solar farm is constructed, their land will eventually become used for a solar farm too. Council also identified a concern among locals as to how the project will affect their personal interests.

The region's strong agricultural industry and dominant land use are identified as economically important throughout the demographic profile. Over 18% of people in the local area are employed in agriculture, forestry and fishing, and 12.9% of the population are employed in manufacturing, which is dominated by agribusiness. The Economic Impact Assessment (EIA) (Section 6) recognised that the operation of the proposal would maintain one agricultural job for livestock grazing, while creating an additional 62 direct jobs and 195 indirect jobs.

The significance of the agricultural industry, and nature as a dominant land use in Wangaratta LGA, is clearly identified throughout the policy review (Section 3.2). This was further reflected in the desktop review of the

site, which identified that land uses surrounding the site were dominated by grazing and cropping agricultural land uses.

Given this significance identified by the community, a number of studies were undertaken to assess the productive and economic agricultural value of the site. The Agricultural Assessment (AA), completed by RMCG (2024), considered the site to have low agricultural capability. The current Wangaratta Agricultural Production Value is significant to the local economy, valued at $192,793,765 (Table 15). The EIA (Section 6) found that removing this farm would cause an immaterial negative impact of 0.07%. The AA corroborated this, describing the current economic output of the farm as insignificant at a regional and state level.

Recognising the EIA's assessment of a minor loss of agricultural land, while appreciating the local perception that the lost agricultural land may impact the livelihoods of local residents, this impact to livelihood is assessed as **medium negative**, given a likely likelihood and minor magnitude.

8.7.4. Perceived loss of productive agricultural land – Mitigated

In addition to the EIA's conclusion that the proposal will contribute to a minimal decrease in economic agricultural production by 0.07%, the EIA also noted that the site will not entirely lose its agricultural capacity, as livestock (sheep) grazing will still occur under solar panels. This finding is consistent with the AA, which noted that an agri-solar approach will minimise the loss of agricultural production from the site, and maintains its role in contributing to regional and state agricultural production.

Research from the Australian Clean Energy Council (2021; 2023) also reports that an agri-solar approach can actually contribute to more efficient land use and maximisation of operating costs for all parties. This includes solar panels improving livestock's welfare by providing protection from environmental elements and predators due to secure fencing, creating favourable conditions for plants (including creating cooler conditions during the day and warmer conditions at night), reduction in operation and maintenance costs such as access to free or low-cost agistment (i.e., the taking in and feeding of livestock), strong vegetation management regimes. Additionally, preliminary analysis undertaken in NSW indicates positive wool quality outcomes associated with agri-solar practices (Clean Energy Council, 2021). Furthermore, the proposal's design uses ground-mounted panels, whereby poles are driven into the ground directly, rather than mounted on a concrete foundation. This results in a minimal impact to the ground and soil, including after decommissioning.

MCSF will also communicate the findings of the EIA and AA and mitigation measures integrated into the proposal's design during ongoing engagement with the local community to provide information related to the small loss of productive agricultural land in relation to land improvements and long-term viability. MCSF will also review additional engagement activities occurring post-lodgement to inform any additional mitigation measures as needed.

As such, the mitigated impact is assessed as **low negative to neutral**, given an unlikely likelihood, and minimal magnitude.

However, MCSF will explore the below recommendations following the assessment phase and as the proposal progresses, in collaboration with the proposal contractor and operator, to further mitigate potential negative impacts.

SIA recommendation/s

- Consider development of a land management plan to facilitate land and agricultural benefits during operation through to post-decommissioning. It is recommended that this be developed collaboration with landowners and local agricultural producers to investigate and implement sustainable land practices. This could include sustainable weed management protocols, agricultural stewardship and improved land management practices, and regenerative practices for native grass and soil.

8.7.5. Perceived increased risk and liability to neighbouring properties due to incident or damage to the proposal – Unmitigated

Affected stakeholders: Immediate social locality (including landowners surrounding the site)	**Duration:** Construction and operation

During the Engagement activities, some local stakeholders raised concerns that the presence of the proposal would contribute to increase liabilities and risk for immediate landholders in the event of incident or accidental damage caused to the solar site as a result of adjacent land uses. Specifically, stakeholders raised concerns that this increased risk would result in higher insurance premiums and resultant difficulties or inability to maintain their insurance arrangements to the increased cost.

While base rates for insurance premiums are rising across the board, advice provided to Meadow Creek Solar Farm by insurance experts indicates that there is no evidence of these premiums being raised for people living near solar farms.

Furthermore, risk associated with incident or accidental damage will be the responsibility of Meadow Creek Solar Farm and the proposal will have a range of insurance policies in place to cover the site in the event of damage or fire.

As such, the unmitigated impact is assessed as **neutral**.

8.7.6. Perceived increased risk and liability to neighbouring properties due to incident or damage to the proposal – Enhanced

To further support this concern, Meadow Creek Solar Farm's insurance broker has proposed a tailored approach to ensure additional security for neighbours. Neighbours will be able to apply for this option.

Meadow Creek Solar Farm will continue to communicate with stakeholders during ongoing engagement post-lodgement to provide additional information about how this arrangement will be delivered.

The above protocols will contribute to enhanced benefits for stakeholders. As such, the enhanced impact related to perceived increased risk and liability to neighbouring properties due to incident or damage to the proposal is assessed as **low positive**, given a likely likelihood and minimal magnitude.

SIA recommendations

- No additional recommendations are proposed at this stage.

8.8. DECISION-MAKING SYSTEMS

This section provides a detailed assessment, unmitigated and mitigated and unenhanced and enhanced, of the matters that significantly impact the decision-making systems as a consequence of the proposal.

8.8.1. Opportunity for the local community to have a say on development in the area – Unmitigated

Affected stakeholders: Local residents and landowners in the immediate and broader social locality	**Duration:** Assessment, construction and operation

Outcomes from the SIA field study and Engagement activities found that there is opposition for the proposal amongst some members of the community, as well as negative perceptions of decision-making systems. Despite the delivery of the robust Engagement program with proposal stakeholders in line with DTP's Solar Energy Facilities, Design and Development Guidelines during the assessment process (see Section 4), some stakeholders expressed that they still feel as though they are not heard and their concerns have not been addressed. This was also expressed in the context of the changes to the VCAT regarding appeal of planning disputes.

With consideration of the existing sentiments of the community, the unmitigated impact is assessed as **medium negative** given its moderate magnitude and possible likelihood.

8.8.2. Opportunity for the local community to have a say on development in the area – Enhanced

With appreciation for the expressed concerns of the local community, Meadow Creek Solar Farm has considered and incorporated feedback received throughout the engagement program alongside requirements of several guideline requirements and best practice into several components of the proposal's design and operation. This includes:

- Continuation of farming practices through an agri-solar arrangement.
- Implementation of vegetation screening to reduce visual impacts.
- General location of components to reduce noise impacts to neighbours (e.g., location of inverters and BESS).
- Avoiding all creek-filled waterways.
- Avoiding ecological values and incorporating wildlife corridors.
- Development of a proposed tailored insurance approach for neighbours to ensure additional security.

Meadow Creek Solar Farm has advised that they will continue to undertake appropriate, effective and transparent communication and consultation with the local community and stakeholders during and following assessment and the decision-making processes for the proposal.

MCSF will also review outcomes of the additional engagement activities occurring post-lodgement to inform any additional recommendations as needed.

With recognition that Meadow Creek has provided a range of communication channels for the community to have their voices heard, have integrated community feedback into the proposal, and have committed to ongoing engagement with the community, the potential negative impact related to the opportunity for the local community to have a say on development in the area is enhanced to a **high positive**, given a likely likelihood and moderate magnitude. While these mechanisms demonstrate a positive impact, it is acknowledged that there will still be a small proportion of the community who is opposed to the proposal and is unlikely to change their views. For this group, there will still likely be a negative impact.

SIA recommendation/s

- No further recommendations are proposed at this time.

8.9. CUMULATIVE IMPACTS

Cumulative impacts are the result of incremental, sustained and combined effects of human action and natural variations over time, and can be both positive and negative (DPHI 2022, p.4). They can be caused by 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 (ibid, p.4).

There are several state significant and local projects operating or intending to operate in and around the site which may contribute to cumulative impacts to the project, particularly given the location of the proposal with respect to Victoria REZs and the ARTC Inland Rail project.

Potential cumulative social impacts during construction and operation are discussed below.

Contribution to employment and training opportunities

The proposal will contribute to 1017 direct and indirect jobs during construction and 258 direct and indirect jobs annually during operation. The SEC Strategic Plan 2023-2025 emphasises the need to develop a renewable energy workforce to facilitate the transition to clean energy. This will involve a variety of roles, including engineering, scientific, technical, operational, and auditing. The SEC will establish a Training Excellence Centre and collaborate with educational institutions, government, and Traditional Owners to build the necessary workforce.

The shift to renewable energy is projected to create substantial employment opportunities, with Victoria's Climate Change Strategy (2021) expected to support 24,000 jobs and the Clean Economy Workforce Development Strategy (2023) estimating 10,000 jobs created annually. The SEC Plan aims to create over 59,000 jobs, 6,000 apprenticeships and transform 500,000 existing jobs through new skills training.

Wangaratta's Environmental Sustainability Strategy 2021-2026 identifies Greenhouse Gas Emission and Energy Reduction as a priority and commits to job-creating economic recovery solutions that address climate change. As such, the proposal represents a component of this employment and training opportunity, contributing to local workers' capacity to service future projects in the renewables industry.

Demand on local housing and accommodation

As discussed above, renewable energy projects across Victoria are expected to support thousands of jobs. As the site is located nearby a REZ, as proposed in the Victorian Renewable Energy Development Plan, as well as other significant projects such as the ARTC Inland Rail, it is anticipated that there will be a significant demand for workforce accommodation in this area, particularly during the construction phase of projects. This demand for workforce accommodation and housing could generate cumulative social impacts within the broader social locality related to reduced housing availability and affordability. MCSF will liaise with Rural City of Wangaratta to communicate proposal accommodation needs prior to construction so that local accommodation businesses can be notified in advance to allow capacity building.

Contribution to the renewable energy transition

A key cumulative positive impact of the proposal is its contribution to the shift towards renewable energy sources. As discussed in Section 3.2, the Victorian Government has set state targets to reach 40% renewable energy by 2025 and 50% by 2030. As discussed in Section 8.6.1, the proposal will contribute to achieving these targets to support promotion of intergenerational access to affordable and available electricity for current and future communities, as well as contribution to reduced climate impacts.

Loss of productive agricultural land

During the SIA field study and Engagement program, one of the key concerns raised by stakeholders was the potential loss in agricultural land. Due to the establishment of Victoria REZs and anticipated development of several renewable energy facilities across this region, there is a potential cumulative impact associated with loss of productive agricultural land. However, the Clean Energy Council (2023) reports that the cumulative risk caused by large-scale solar development to Australian agricultural land and productivity is very low. For example, research conducted in NSW by the Australian Energy Market Operator estimates that NSW will need approximately 20,000 MW of large-scale solar generation to replace coal-fired power stations by 2050. This would require approximately 40,000 ha of land or only 0.06 per cent of rural land in NSW. Even in the highly unlikely scenario that all of this solar generation was located on important agricultural land (which covers 13.8 per cent of the state) only 0.4 per cent of this important agricultural land would be required (DPHI, 2022). Furthermore, agri-solar practices to enable grazing within solar farms and ground-mounted solar PVs maximise the productive use of rural land and reduce operating costs for all parties (Clean Energy Council 2023).

Cumulative amenity impacts

There is also a potential for construction and/or operational activities to overlap and cause cumulative amenity impacts. This may include changes to sense of place and local character (see Section 8.6.3), as well as access impacts from the potential additional stress on roads (see Section 8.3.1).

To further mitigate these potential cumulative negative impacts and to enhance any cumulative positive impacts, the following SIA recommendations are provided:

SIA recommendation/s

- Develop a Construction Management Plan and/or Plan of Management which considers concurrent renewable and major projects, particularly in relation to cumulative traffic impacts, and aligning any workforce accommodation plans or employment strategies.
- Develop and implement a workforce accommodation strategy prior to construction that assesses the housing and accommodation environment, identifies potential accommodation and rental market pressures in the local and regional area, and details plans to effectively accommodate the proposal workforce.
- In partnership with Rural City of Wangaratta, consider exploring the opportunity to utilise existing Council-owned land in the local area to construct housing to accommodate the proposal construction workforce. This may include options such as providing high-quality modular housing to easily accommodate the workforce during construction, or leveraging available housing funding (e.g. the Regional Housing Fund and the Housing Australia Future Fund) to provide housing which can be retained for social, affordable or key worker housing for the community.

- Programming constructions works to align with reductions in workforce requirements for concurrent projects.
- Establish a local employment policy for both construction and operation which specifies a preferential hiring approach to prioritise employing workers with relevant skills from the local area, then the regional area, followed by hiring outside of these areas (where feasible and practical).
- Consider developing a workforce strategy for construction and operation which includes measures to prioritise local employment, establish ongoing partnerships with local training and education institutions to connect local apprentices, trainees and workers with placement during construction and operation, and upskilling pathways for employees.
- Review outcomes of the additional engagement activities occurring post-lodgement to inform any additional recommendations as needed.

9. MITIGATION, ENHANCEMENT AND MANAGEMENT

This section provides a summary of:

- Identified positive and negative social impacts,
- Corresponding unmitigated and mitigated risk rankings, and
- Proposed mitigation, enhancement and management measures.

To inform the implementation of the proposed mitigation and enhancement strategies, key potential stakeholder and/or partners have been identified. The involvement and participation of these key stakeholders and/or partners in the monitoring and management of social impacts and social benefits will improve the outcomes of the proposed mitigation and management strategies.

Not all potential impacts will be the responsibility of the proponent to mitigate or manage. In some cases, their role may be to cooperate or inform the mitigation, provide data and information to future tenants. In other cases, they may have direct responsibility for mitigation and management of the identified potential social impacts and the opportunity for partnerships.

A summary of the identified social impacts and benefits, risk ratings and proposed mitigation, enhancement and management strategies is provided in Table 20.

9.1. SUMMARY OF PROPOSED MITIGATION, ENHANCEMENT AND MANAGEMENT OF SOCIAL IMPACTS

A summary of the identified social impacts and benefits, risk ratings and proposed mitigation, enhancement, and management strategies is provided below in Table 20.

Table 20 Summary of proposed mitigation, enhancement and management of social impacts

Theme	Matter	Unmitigated /Unenhanced	Mitigated /Enhanced	Proposed mitigation, enhancement and management	Responsibility	Potential partners
Way of life	Demand on local housing and accommodation	High negative	High negative	▪ MCSF will liaise with the Rural City of Wangaratta to communicate proposed accommodation needs prior to construction so that local accommodation businesses can be notified in advance for capacity building.	Construction Contractor Meadow Creek Solar Farm	Rural City of Wangaratta State and Federal Government (funding)
Community	Contribution to local community values, needs and aspirations through a Community Benefits Fund	High positive	Very high positive	▪ Meadow Creek Solar Farm has proposed that a proportion of the Community Benefits Fund would be specifically allocated to support initiatives led by and delivered for First Nations groups. The specific allocation and relevant geographical area will be determined through consultation with the community and Council.	Meadow Creek Solar Farm	Rural City of Wangaratta Local community representatives Local First Nations groups
Accessibility	Pressure on the local road network	Medium negative	Low negative	▪ A TMP will be prepared as a condition of consent. It will be prepared in consultation with Rural City of Wangaratta Council, VicRoads, and other relevant stakeholders to avoid damage to existing road infrastructure, reduce potential increase in traffic and to maintain a safe road network. This will include building internal site access roads per CFA requirements, maintaining vehicles by EPC contractors, road and infrastructure maintenance programs, and installing noise controls where required. ▪ Intersection upgrades, road condition inspection and 'DustMag' dust treatments as detailed in the TAR. ▪ Establishment of strategic haulage routes site to minimise large trucks from needing to pass on narrower unsealed roads and bridges, and to avoid acute angle turns. ▪ The TMP will also detail consultation strategies with the local community, including mechanisms to capture, monitor and address complaints as required.	Construction Contractor Meadow Creek Solar Farm	Transport consultant Rural City of Wangaratta
Culture	Potential impact to Aboriginal sites and culture	Low negative	Low negative	▪ Meadow Creek Solar Farm will continue to collaborate with the TLaWC as the proposal is refined. There are several strategies in place to appropriately manage unexpected heritage items and to protect historical significance. No further mitigations are proposed.	Construction Contractor Meadow Creek Solar Farm	Taungurung Land and Waters Council Aboriginal Heritage consultant
Health and wellbeing	Perception of increased fire risk	Low negative	Low negative	▪ Meadow Creek Solar Farm is liaising with Council and CFA regarding vegetation management, water and access requirements and how to best implement mitigation measures into the design. This dialogue will ensure that emergency management agencies are able to discuss certain design aspects and provide guidance where necessary.	Meadow Creek Solar Farm	Country Fire Authority Bushfire risk consultant
Surroundings	Contributing to the renewable energy transition	High positive	High positive	▪ The project will support the transition towards renewable energy in Victoria and Australia. No further enhancement measures are proposed.	Meadow Creek Solar Farm.	Not identified.

Theme	Matter	Unmitigated /Unenhanced	Mitigated /Enhanced	Proposed mitigation, enhancement and management	Responsibility	Potential partners
Surroundings	Potential change to sense of place and local character in agricultural and natural areas	High negative	Medium negative (short-term), low negative (long-term)	▪ The Landscape Strategy details several mitigation measures to address changes to the landscape. These measures include: - A five-metre corridor around the perimeter for planting screening vegetation to mitigate potential visual impacts. - A temporary screen structure along a section of Docker-Carboor Road to mitigate the potential impacts from glint and glare until the vegetation reaches an effective screening height. - A vegetation screen along the eastern property boundary of the substation reflecting the existing landscape character including scattered trees and wide open sky view, as well as vegetation screens along the north and west property boundaries which reflect the existing landscape character and views. ▪ The design of the proposal also diminishes the visual impact of powerlines, and maintains vegetation corridors throughout the site.	Meadow Creek Solar Farm	Visual consultant Landscape architect and project engineers
Livelihoods	Increased local employment opportunities	Low positive (construction), medium positive (operation)	Low positive (construction), medium positive (operation)	▪ No enhancement measures currently in place. Recommendations have been made in this SIA to address this.	Meadow Creek Solar Farm Construction Contractor	Local and regional education and training providers
Livelihoods	Perceived loss of productive agricultural land	Medium negative	Low negative to neutral	▪ The adoption of an agri-solar approach will minimise the loss of agricultural production from the site, and may contribute to more efficient land use.	Meadow Creek Solar Farm	Landscape architect and project engineers
Livelihoods	Perceived increased risk and liability to neighbouring properties due to incident or damage to the proposal	Neutral	Low positive	▪ Meadow Creek Solar Farm's insurance broker has proposed a tailored approach to ensure additional security for neighbours. ▪ Meadow Creek Solar Farm will continue to communicate with stakeholders during ongoing engagement post-lodgement to provide additional information about how the insurance arrangement will be delivered.	Meadow Creek Solar Farm	Not identified.
Decision-making systems	Opportunity for the local community to have a say on development in the area	Medium negative	High positive	▪ Meadow Creek Solar Farm considered and incorporated community feedback into the proposal's design and operation. This includes: - Continuation of farming practices through agri-solar arrangement. - Implementation of vegetation screening to reduce visual impacts. - General location of components to reduce noise impacts to neighbours. - Avoiding all creek-filled waterways. - Avoiding ecological values and incorporating wildlife corridors. - Development of a proposed tailored insurance approach for neighbours to ensure additional security. ▪ Meadow Creek Solar Farm will continue to undertake consultation and communication with the local community and stakeholders.	Meadow Creek Solar Farm	Engagement consultant
Cumulative impacts	▪ The proposal is anticipated to contribute to potential positive cumulative social impacts related to employment and training opportunities, and contribution to the renewable energy transition. No further enhancements are proposed at this time.					

Theme	Matter	Unmitigated /Unenhanced	Mitigated /Enhanced	Proposed mitigation, enhancement and management	Responsibility	Potential partners
	▪ The proposal may contribute to potential negative cumulative social impacts related to demand on local housing and accommodation, loss of productive agricultural land, and cumulative amenity impacts. The proposal will incorporate several mitigation measures relating to these potential impacts which are discussed in Sections 8.1.2, 8.7.4, and 8.3.2 and 8.6.4, respectively.					

9.2. SIA RECOMMENDATIONS

MCSF will explore the below recommendations following the assessment phase and as the proposal progresses, in collaboration with the proposal contractor and operator, to further enhance potential positive impacts and mitigate potential negative impacts.

Construction management

- Develop and implement a construction workforce accommodation strategy prior to construction that assesses the housing and accommodation environment, identifies potential accommodation and rental market pressures in the local and regional area, and details plans to effectively accommodate the proposal workforce.
- Establish a local employment policy for construction which specifies a preferential hiring approach to prioritise employing workers with relevant skills from the local area, then the regional area, followed by hiring outside of these areas (where feasible and practical).
- In partnership with Rural City of Wangaratta, consider exploring the opportunity to utilise existing Council-owned land in the local area to construct housing to accommodate the proposal's construction workforce if additional workforce accommodation is required beyond the capacity of local rentals and visitor accommodation. This may include options such as provision of high-quality modular housing to accommodate the workforce during construction, or leveraging available housing funding (e.g. the Regional Housing Fund and the Housing Australia Future Fund) to provide housing which can then be retained for social, affordable housing or key worker housing for the community.
- Consider liaising with other significant concurrent projects in the area to understand their peak workforce requirements, and consider programming construction works for the proposal to align with reductions in workforce requirements for concurrent projects. For example, the ARTC Inland Rail works, which currently has a significant workforce in Wangaratta.
- Consider developing a local procurement plan during construction which includes measures to encourage the procurement of local construction companies.
- Explore programming constructions works to align with reductions in workforce requirements for concurrent projects to enhance potential availability of local workers which can support the proposal.
- Develop a detailed Construction Management Plan which considers concurrent renewable and major projects, particularly in relation to cumulative traffic impacts, and aligning any workforce accommodation plans or employment strategies.

Operation management

- Develop and implement an operational workforce accommodation strategy prior to construction that assesses the housing and accommodation environment, identifies potential accommodation and rental market pressures in the local and regional area, and details plans to effectively accommodate the proposal workforce.
- Establish a local employment policy for operation which specifies a preferential hiring approach to prioritise employing workers with relevant skills from the local area, then the regional area, followed by hiring outside of these areas (where feasible and practical).
- Following further consultation with the community, including First Nations Groups and Council, develop a memorandum of understanding (MOU) between relevant parties to detail the terms of agreement of the Community Benefits Fund.
- Consider development of a land management plan to facilitate land and agricultural benefits during operation through to post-decommissioning. It is recommended that this be developed collaboration with landowners and local agricultural producers to investigate and implement sustainable land practices. This could include sustainable weed management protocols, agricultural stewardship and improved land management practices, and regenerative practices for native grass and soil.

ACRONYMS

Acronym	Term
ABS	Australian Bureau of Statistics
ARENA	Australian Renewable Energy Agency
ATSI	Aboriginal and Torres Strait Islander People
BESS	Battery Energy Storage Systems
BOCSAR	NSW Bureau of Crime Statistics and Research
CFA	Country Fire Authority
CHMP	Cultural Heritage Management Plan
DA	Development Application
DEECA	Department of Environment, Energy and Climate Action
DPHI	NSW Department of Planning, Housing and Infrastructure
DTP	Department of Transport and Planning
EPBS	Environmental Protection and Biodiversity Conservation Act
EIA	Economic Impact Assessment
EIS	Environmental Impact Assessment
EMPF	Emergency Management Plan Framework
FRV	Fire Rescue Victoria
FY	Financial Year
GCSSA	Greater Capital City Statistical Area
GSP	Gross State Product
GST	Goods and Services Tax
LGA	Local Government Area
LVIA	Landscape Visual Impact Assessment
MOU	Memorandum of Understanding
MP	Member of Parliament

MW	Mega Watts
NECMA	North East Catchment Management Authority
REZ	Renewable Energy Zones
SEIA	Social and Economic Impact Assessment
SEIFA	Socio-Economic Indexes for Areas
SIA	Social Impact Assessment
SSC	State Suburbs
TAR	Transport Assessment Report
TMP	Transport Management Plan
TLaWC	Taungurang Land and Waters Council
VCAT	Victorian Civil and Administrative Tribunal
VRET	Victoria Renewable Energy Target

REFERENCES

This SIA has been informed by a range of data sources, information and technical studies. The following data sources have been used:

Demographic, crime and health data

Australian Bureau of Statistics, Census of Population and Housing, 2021, Rest of Vic. (GCCSA), Wangaratta LGA (SA3) and Meadow Creek, Milawa, Moyhu, Bobinawarrah, and Docker (SALs) data.

Australian Bureau of Statistics, 2023, Estimating Homelessness: Census, Wangaratta LGA.

Australian Bureau of Statistics, 2023, Socio-Economic Indexes for Areas (SEIFA), Wangaratta LGA (SA3) and Meadow Creek, Milawa, Moyhu, Bobinawarrah, and Docker (SALs) data.

Department of Transport and Planning, 2024, Victoria in Future 2023.

Victorian Crime Statistics Agency, Wangaratta LGA.

SQM Research, 2024, Vacancy Rates for postcodes 3677, 3732, and 3678.

Policy documents

Clean Energy Council, 2019, Guide to Benefit Sharing Options for Renewable Energy Projects.

DEECA, 2021, Community Engagement and Benefit Sharing in Renewable Energy Development in Victoria Guide.

NSW Department of Planning, Housing and Infrastructure, 2021, Social Impact Assessment Guideline for State Significant Projects.

Renewable Energy (Jobs and Investment) Act 2017 (Vic).

State Electricity Commission, 2023, Strategic Plan 2023-2025.

State of Victoria Department of Jobs, Skills, Industry and Regions, 2023, Clean Economy Workforce Development Strategy 2023-2033.

The State of Victoria Department of Environment, Land, Water and Planning, 2022, Solar Energy Facilities: Design and Development Guidelines.

The State of Victoria Department of Environment, Land, Water and Planning, 2021, Victoria's Climate Change Strategy.

The State of Victoria Department of Environment, Land, Water and Planning, 2021, Victorian Renewable Energy Zones Development Plan: Directions Paper.

The State of Victoria Department of Environment, Land, Water and Planning, 2021, Hume Regional Climate Change Adaptation Strategy.

The State of Victoria Department of Environment, Land, Water and Planning, 2019, Hume Region Renewable Energy Roadmap.

Wangaratta Council, 2018, Economic Development Strategy 2018-2023.

Wangaratta Council, 2021, Environmental Sustainability Strategy 2021-2026.

Wangaratta Council, 2021, 2030 Community Vision.

Wangaratta Council, 2021, Rural City of Wangaratta Visitor Services Strategy.

Wangaratta Council, 2024, Wangaratta Planning Scheme.

Technical studies prepared for this proposal

Biosis, 2024, Cultural Heritage Management Plan.

Ecology and Heritage Partners, 2024, Bushfire Risk Assessment Report.

Horizon Studio, 2024, Landscape Visual Impact Assessment.

Nation Partners, 2024, Engagement Outcomes Report.

RMCG, 2024, Agricultural Assessment.

Salt[3], 2024, Transport Assessment Report.

Urbis, 2024, Environmental Management Plan Framework.

Urbis, 2024, Landscape Strategy.

Academic sources

Clean Energy Council, 2021, Australian Guide to Agrisolar for Large-Scale Solar.

Clean Energy Council, 2023, Solar and Agriculture could be a Perfect Match, https://www.cleanenergycouncil.org.au/news/agrisolar

DHPI, 2022, Large-Scale Solar Energy Guideline.

Other

NSW Department of Planning, Housing and Infrastructure, 2023, Social Impact Assessment Guideline and Technical Supplement.

NSW Department of Planning, Housing and Infrastructure, 2022, Cumulative Impact Assessment Guidelines for State Significant Projects.

Regional Development Victoria, 2024, Regional City of Wangaratta, https://www.rdv.vic.gov.au/victorias-regions/wangaratta

DISCLAIMER

This report is dated 15 July 2024 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Ltd **(Urbis)** opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Meadow Creek Solar Farm Pty Ltd **(Instructing Party)** for the purpose of template **(Purpose)** and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

In preparing this report, Urbis may rely on or refer to documents in a language other than English, which Urbis may arrange to be translated. Urbis is not responsible for the accuracy or completeness of such translations and disclaims any liability for any statement or opinion made in this report being inaccurate or incomplete arising from such translations.

Whilst Urbis has made all reasonable inquiries it believes necessary in preparing this report, it is not responsible for determining the completeness or accuracy of information provided to it. Urbis (including its officers and personnel) is not liable for any errors or omissions, including in information provided by the Instructing Party or another person or upon which Urbis relies, provided that such errors or omissions are not made by Urbis recklessly or in bad faith.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.