bd infrastructure

# Preliminary Social Impact Assessment

Myrtle Creek Solar Farm

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# 1 Introduction

This preliminary social impact assessment (SIA) has been undertaken by bd infrastructure on behalf of Terrain Solar Pty Ltd for the Myrtle Creek Solar Farm (the Project).

## 1.1 Purpose of a social impact assessment

A SIA forms an integral part of the Scoping Report for the Project. The primary objective of this SIA is to systematically identify, predict, evaluate and manage the potential social impacts of the Project both during construction and operational phases. By assessing the Project from the perspective of the people it impacts, the Project is more likely to be developed in a manner that is socially sustainable and beneficial to the local community, while also addressing potential challenges and mitigating negative impacts.

Every State significant project is subject to a SIA and the assessment should be targeted and proportionate to the likely project impacts, and to the project's context.[1]

### 1.1.1 Objectives of a Preliminary Social Impact Assessment

This is a preliminary SIA to support the Project's scoping report. The aim is to identify likely social impacts before considering suitable refinements or other early responses. The findings in the scoping phase will inform the level of community engagement and SIA analysis required for the next phases of the planning approvals process, i.e. preparation of the Environmental Impact Statement (EIS).

Specifically, the purpose of this preliminary SIA is to:[2]

- identify the Project's social locality
- gain an initial understanding of the characteristics of communities within the Project's social locality (the social baseline)
- conduct an initial evaluation of the likely social impacts for the social locality and the level to which these impacts need to be assessed
- consider potential refinements or approaches in response to likely social impacts, and
- consider the remainder of the SIA tasks, including community and stakeholder engagement.

Further in-depth assessment will be undertaken as part of the SIA within the EIS phase.

### 1.1.2 Regulatory compliance and leading practice

This assessment is conducted in accordance with the relevant guidelines provided by the NSW Department of Planning and Environment (DPE) and seeks to align with international leading practice as delineated by the International Association for Impact Assessment (IAIA) outlined in Table 1-1.

[1] Social Impact Assessment Guideline for State Significant Projects (2023), Department of Planning and Environment, NSW Government, page 7.
[2] Ibid, page 14.

*Table 1-1: Relevant NSW and leading practice reference documents*

| Relevant NSW and leading practice | Reference document |
|---|---|
| NSW Government SIA guidelines relevant to SIA | • Social Impact Assessment Guidelines (2023)<br>• Technical Supplement – Social Impact Assessment Guidelines for State Significant Projects (2023)<br>• Undertaking Engagement Guidelines for State Significant Project (2022)<br>• Social Impact Assessment Practice Note: Engaging with Aboriginal Communities (2022)<br>• State significant development guidelines – preparing a scoping report (2022) |
| NSW Government industry specific guidelines | • Large-Scale Solar Energy Guideline (2022) |
| International leading practice from International Association for Impact Assessment | • International Principles for Social Impact Assessment<br>• Social Impact Assessment: Guidance for assessing and managing the social impacts of projects |

## 1.2 Overview of the project

Located around 25km south of Casino, the project site neighbours the TransGrid 132 kV Koolkhan to Lismore transmission line and sites within the Richmond Valley Local Government Area (LGA).

The project aims to store up to 100 megawatts (MW) of electricity, sufficient for powering approximately 34,000 homes. Covering an area of about 500 hectares, with an expected disturbance area of roughly 325 hectares. The Project will include:

- a 100MW photovoltaic (PV) generation facility with an integrated 100MW battery energy storage system (BESS)
- an overhead or underground powerline to connect the solar array to the network
- associated infrastructure, including a control room, site parking area, security, and an enclosed on-site electricity substation and grid connection to TransGrid's 330kV overhead power line
- access via Summerland Way and Main Camp Road, potentially utilising an arrangement from the north via Avenue Road.

The construction period is estimated to be approximately 12-18 months, with a peak of around 9 months. It is anticipated that the Project would be operational for a period of approximately 35 years, operating 24 hours a day, seven days a week. After 35 years the Project will may be extended or decommissioned, where it will be returned to an unhindered use for agricultural or other permissible purposes.

If approved, this project will have significant economic benefits, potentially providing employment for up to 200 individuals during peak construction and sustaining around 5 permanent jobs thereafter with around 50 casual staff for maintenance and subcontracting purposes.

The Project will produce sustainable, renewable energy, integrating it into the NSW electricity grid to meet local and broader energy demands.

## 1.3 Approach to Social Impact Assessment

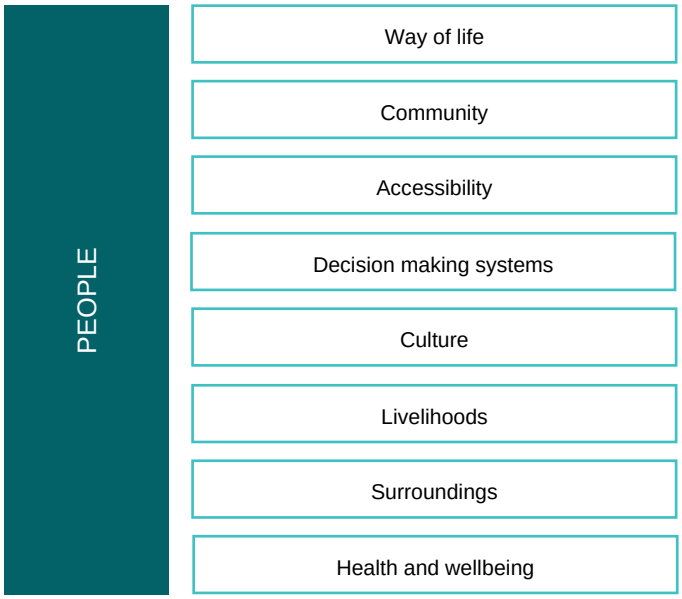
The methodology for the SIA of the Project is designed to be rigorous, evidence-based and impartial, ensuring that all potential social impacts are identified and assessed. The preliminary SIA establishes initial or proposed findings, to be further explored or built upon during the EIS preparation stage.

The assessment is informed by a variety of data sources, including:

- a review of existing social and administrative data from Australian Bureau of Statistics (ABS) geographic areas
- targeted stakeholder and community engagement
- field observations from a site visit
- initial technical assessments for the Project
- desktop analysis in the form of findings and experience from similar projects already in operation.

The potential social impacts are considered across the eight social impact categories identified by the DPE[3] and outlined in Figure 1-1. The social impact categories highlight the various ways in which people can be impacted by the Project. The depth and application of categories are tailored for the specific project context.

*Figure 1-1 Social impact categories provided by DPE*




Across these categories direct, indirect and cumulative social impacts have been considered, whether positive or negative. The significance of the social impact informs the level of assertion and assessment required during the EIS phase. This assessment is carried out in accordance with the DPE social impact tables and considers the likelihood and magnitude of social impacts before and after mitigation or enhancement strategies.[4]

The methodology proposed in this document is to be confirmed following the receipt of the Secretary's Environmental Assessment Requirements (SEARs), as well as feedback from DPE during the Scoping Report lodgement phase.

[3] Social Impact Assessment Guideline for State Significant Projects (2023), page 7
[4] Technical Supplement – Social Impact Assessment Guidelines for State Significant Projects (2023), page 12

# 2 Existing Environment

## 2.1 Social locality methodology

An SIA considers the potential effects of a State significant project from the point of view of the people who experience these effects. 'People' are classed as individuals, households, groups, communities, or organisations.[5]

The social locality refers to a variable geographic and social area defined by the nature and impacts of a specific project. It encompasses the people who experience the project's direct and indirect social consequences, with these impacts being neither confined to a fixed boundary nor uniformly experienced across different groups or areas.

The following factors were used to determine the social locality for this preliminary SIA. They provide information about the scope and depth of the impact area, including the varied impacts the Project may have on different segments of the social locality.

*Table 2-1: Factors that influence the social locality*

| Factor | Description |
|---|---|
| Scale and Nature of the Project | Size, type, associated activities, and direct and indirect impacts of the project. |
| Affected Populations and their Values | Identification of who may be affected, how, and their social, cultural, and demographic characteristics. Understanding interests, values, cultural diversity, and commonalities of the affected groups, including broader community interest. |
| Vulnerable or Marginalised Groups | Assessment of vulnerable or marginalised people potentially affected, considering their specific needs and circumstances. |
| Built or Natural Features and Associated Value | Consideration of built or natural features near the project and the values associated with them, like a sense of place, cultural significance, community cohesion, and use of natural resources. |
| Economic and Social Issues | Examination of relevant trends or recent changes that shape the social fabric in the project vicinity and broader region. Consideration of issues like rental affordability, employment, land use changes, demographics, and natural hazards. |
| Historical Context | Analysis of the project and area's history, prior changes, community reactions, and any ongoing traumas. |
| Cultural and Aboriginal History | Understanding of traditional Aboriginal use of the place, recent history, and ongoing traumas related to Aboriginal communities. |
| Time horizons | The area of impact may change over time as the project shifts from planning to construction to various stages of operation. |

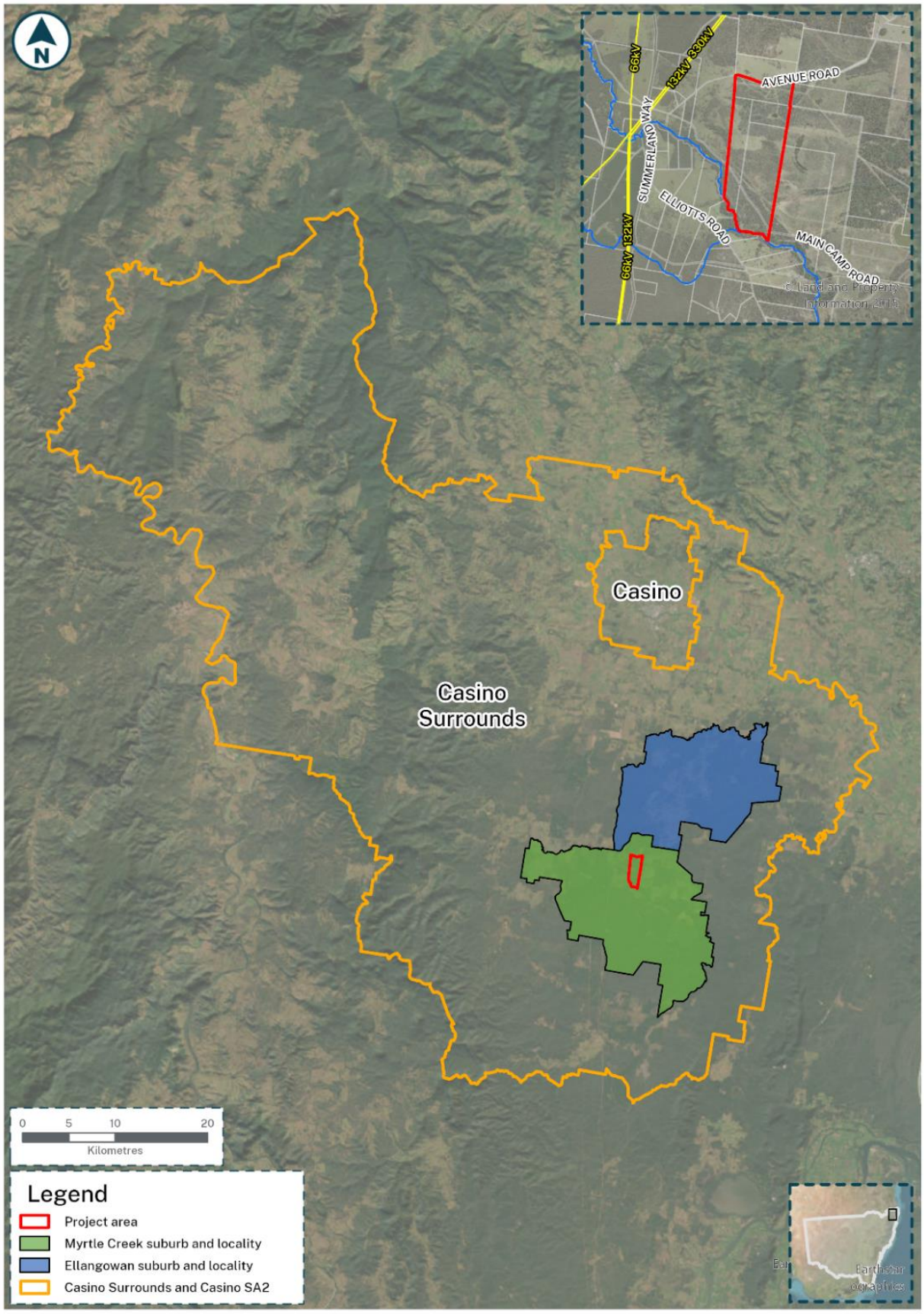
## 2.2 Determining the Project's social locality

The proposed Project site is located in the suburb of Myrtle Creek, 25km south of the Casino Township and within the Richmond Valley LGA. Given the location and with consideration of the factors outlined in ***Error! Reference source not found.***, two study areas have been derived:

[5] Social Impact Assessment Guideline for State Significant Projects (2023), page 7.

- **Primary social locality (the Social Locality) –** the host and adjacent suburbs of the Project where residents, landowners, the environment, and businesses will directly experience tangible and intangible impacts of the entire project lifecycle, and includes:
  - **Myrtle Creek, NSW**: Suburb and locality – SAL12890
  - **Ellangowan, NSW**: Suburb and locality – SAL11403.
- **Regional study area (the Region)** – a broader regional area that will play a critical role in providing essential labour, amenities, accommodation, and materials for the construction of the Project. This area also hosts the Richmond Valley Council, the local government area for the Project, and includes:
  - **Casino Surrounds, NSW**: Statistical Area 2 – 112021245
  - **Casino, NSW**: Statistical Area 2 – 112021244.

*Figure 2-1: Social Locality and Region*



## 2.3 Social baseline

The social baseline describes the context of the social locality before the introduction of the Project. This study serves as a benchmark against which the direct, indirect, and cumulative impacts of the Project can be predicted and analysed. The baseline identifies relevant indicators for understanding the existing state of the locality, data sources include the ABS data from 2021, local and State Government plans and strategies.

The Project is situated in Myrtle Creek, bordering the neighbouring suburb of Ellangowan (together the Social Locality). The Project's site is located approximately 25km south of the township of Casino within the Richmond Valley LGA. The Social Locality benefits from the comprehensive services and social infrastructure available in township of Casino and Casino Surrounds, which encompasses vital amenities like an airport, hospital, residential areas, agriculture, educational institutions, hotels, and a range of businesses.

The Social Locality hosts a collective population of 410 individuals, exhibiting a notable skew towards an older demographic, with median ages ranging between 47 and 60 years, approximately a decade above the NSW state average (39). Over a 20-year period, Casino Surrounds are anticipated to experience a slight population decline (-0.49%), while positive growth is projected for the Casino township (+0.48%). This is still under the estimated growth for NSW (+0.95%). While non-English language usage is limited in households, Myrtle Creek reports a higher than the Region and NSW average representation of individuals identifying as Aboriginal and/or Torres Strait Islander (9.3% compared to the State average of 3.4%).

The Social Locality's leading occupations include labourers, technicians, and trade workers engaged in Manufacturing, Meat Processing, Beef Cattle Farming, Public Administration and Safety, Local Government Administration, and Road Freight Transport industries. These industries are intertwined with the agricultural operations and essential services within in the wider Region. Regarding employment, the Social Locality's unemployment rate (4.7% and 4.2%) aligns closely with the NSW state average (4.9%) but is marginally higher than the Region (2.3% and 2.4%).

The Social Locality, as determined by its position in the bottom decile of the Index of Relative Socio-economic Advantage and Disadvantage (IRSAD), ranks among the lowest 10% of areas in Australia in terms of socio-economic challenges when compared to other regions across Australia. Communities ranked in the bottom decile are likely to face more pronounced socio-economic disadvantages, including limited access to employment opportunities and lower income levels, and find it more challenging to access socio-economic advantages such as quality education, well-paying jobs and advanced healthcare.

The ABS data confirms this position, where both the Social Locality and the Region have lower secondary school graduation, tertiary attendance, median weekly income, mortgage repayments and rent than the State averages. Specifically, Myrtle Creek reflects a significantly lower median weekly income ($850) compared to the region ($1,093-$1,147) and notably lower than NSW ($1,829); and rent in the Social Locality ($290) is higher than in the Region ($250-$280). In terms of health, Myrtle Creek within the Social Locality indicates a slightly higher need for day-to-day assistance (12%) compared to Ellangowan, the Region, and NSW (6.8%-8.9%).

Housing availability reveals that the Social Locality, especially Myrtle Creek, reports either no (0%) or significantly fewer unoccupied dwellings (Ellangowan 2.9%) compared to the Region (6.4%-10.4%) and NSW (9.4%). This indicates a limited availability of accommodation and housing options within the Social Locality, while a broader offering is accessible in the Region.

The Social Locality demonstrates familiarity with the early planning and design of renewable energy infrastructure, notably with two proposed solar farms in the vicinity. Initial engagement activities revealed a positive attitude toward contributing to the shift to renewable energy, alongside an interest in reaping local benefits from a more stable energy grid, emphasising the appreciation for the area's agricultural identity. Additionally, there's an expressed need within the Social Locality for well-considered and quality engagement practices to reduce consultation fatigue and mitigate associated risks.

Table 2-2 provides statistics for the Social Locality and the Region in comparison NSW.

*Table 2-2: Social baseline for the Social Locality, Region and Comparative Areas*

| Class | Indicator | Data source | **Social Locality:** Myrtle Creek | **Social Locality:** Ellangowan | **Region:** Casino | **Region:** Casino Surrounds | **Comparative Area:** New South Wales State |
|---|---|---|---|---|---|---|---|
| Population | Number of permanent residents | ABS Census Data 2021 | 92 | 318 | 7,381 | 12,298 | 8,072,163 |
| | Annual change in population (%) over a 20 year projected period | Department of Plannings Projections Explorer for populations | N/A | N/A | + 0.48% | - 0.49% | + 0.95% |
| Age | Median age<br>Variation in age groups from the NSW average of 39 | ABS Census Data 2021 | 60 | 47 | 48 | 43 | 39 |
| Cultural Diversity | Households where a non-English language is used as portion of population (%) | ABS Census Data 2021 | 0% | 8.3% | 4.1% | 4.3% | 29.5% |
| First Nations | Aboriginal and/or Torres Strait Islander people as portion of population (%) | ABS Census Data 2021 | 9.3% | 4.3% | 4.10% | 4.10% | 3.4% |
| Employment | Unemployment rate as portion of population (%) | ABS Census Data 2021 | 4.7% | 4.2% | 2.3% | 2.4% | 2.6% |

| Class | Indicator | Data source | **Social Locality:** Myrtle Creek | **Social Locality:** Ellangowan | **Region:** Casino | **Region:** Casino Surrounds | **Comparative Area:** New South Wales State |
|---|---|---|---|---|---|---|---|
| | Top four occupations as portion of population (%) | ABS Census Data 2021 | 1. Labourers 28.0%<br>2. Technicians and trades workers 16.0%<br>3. Managers 12.0%<br>4. Clerical and administrative workers 12.0% | 1. Labourers 16.3%<br>1. Technicians and Trades Workers 14.8%<br>2. Machinery Operators and Drivers 14.8%<br>3. Community and Personal Service Workers 13.3% | 1. Labourers 22.5%<br>2. Community and Personal Service Workers 14.7%<br>3. Technicians and Trades Workers 13.0%<br>4. Clerical and administrative workers 11.0% | 1. Managers 19.6%<br>2. Labourers 16.8%<br>3. Technicians and Trades Workers 12.1%<br>4. Community and Personal Service Workers 12.1% | 1. Professional 25.8%<br>2. Managers 14.6%<br>3. Clerical and Administrative Workers 13.0%<br>4. Technicians and Trades Workers 11.9% |
| | Top three industries of employment as portion of population (%) | ABS Census Data 2021 | 1. Manufacturing 36%<br>2. Education and Training 20%<br>3. Public Administration and Safety / other services 16% | 1. Meat Processing 10.4%<br>2. Beef Cattle Farming (Specialised) / Road Freight Transport / Local Government Administration 6.7%<br>3. N/A | 1. Meat Processing 9.3%<br>2. Aged Care Residential Services4.7%<br>3. Supermarket and Grocery Stores 3.3% | 1. Beef Cattle Farming (Specialised) 10.2%<br>2. Hospitals (except Psychiatric Hospitals) 4.1%<br>3. Aged Care Residential Services 3.8% | 1. Hospitals (except Psychiatric Hospitals) 4.2%<br>2. Supermarket and Grocery Stores 2.5%<br>3. Other Social Assistance Services 2.4% |
| Education | People attending Tertiary education total as portion of population (%) | ABS Census Data 2021 | 0% | 10.3% | 14.0% | 9.0% | 23.8% |
| Income | Median weekly household income | ABS Census Data 2021 | $ 850 | $ 1,375 | $ 1,093 | $ 1,147 | $ 1,829 |
| Housing | Median weekly rent and mortgage repayments | ABS Census Data 2021 | • Mortgage: $ 600<br>• Rent: $ 290 | • Mortgage: $ 1,286<br>• Rent: $ 243 | • Mortgage: $ 1,300<br>• Rent: $ 280 | • Mortgage: $ 1,304<br>• Rent: $ 250 | • Mortgage: $ 2,167<br>• Rent: $ 420 |

| Class | Indicator | Data source | **Social Locality:** Myrtle Creek | **Social Locality:** Ellangowan | **Region:** Casino | **Region:** Casino Surrounds | **Comparative Area:** New South Wales State |
|---|---|---|---|---|---|---|---|
| | Unoccupied dwellings as a portion of total dwellings (%) | ABS Census Data 2021 | 0% | 2.9% | 6.4% | 10.4% | 9.4% |
| Health and need for assistance | Requires need for assistance | ABS Census Data 2021 | 12.0% | 6.3% | 7.3% | 8.9% | 6.8% |
| Level of social economic advantage of disadvantage | Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) | Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2021 | IRSAD Decile: 1 | IRSAD Decile: 1 | IRSAD Decile: 1 | IRSAD Decile: 2 | N/A |
| Experience with renewable energy | Renewable energy projects in planning or operation in the area | NSW Government, Department of Planning Major Projects site. | • Summerville Solar Farm<br>• Richmond Valley Solar Farm | • Summerville Solar Farm<br>• Richmond Valley Solar Farm | Multiple renewable energy projects | Multiple renewable energy projects | Multiple renewable energy projects |

## 2.4 Comparable projects

Comparable projects have been used to inform the assessment of social impact for this Project. Comparable projects contribute to the assessment by identifying how the Social Locality or regulators have responded to similar developments, to inform the Project planning process with any successful mitigation strategies and to consider any cumulative impact.

Table 2-3 outlines comparable projects used to understand potential impacts and benefits for the Project.

*Table 2-3: Comparable projects*

| Name | Key project details | Status |
|---|---|---|
| Richmond Valley Solar Farm | • Solar Generation – renewable<br>• Myrte Creek, NSW < 1km from project site<br>• 500 MW solar farm<br>• 880 Hectare development footprint<br>• 500 MW BESS | Preparing EIS |
| Summerville Solar Farm | • Solar Generation – renewable<br>• Rappville, NSW < 5 km from project site<br>• 90 MW solar farm<br>• 170 Hectare development footprint<br>• 90 MW BESS | Public Exhibition |
| Dinawan Solar Farm | • Solar Generation – renewable<br>• Murrumbidgee LGA, NSW > 900km from project site<br>• 800 MW<br>• 2,499 Hectare development footprint<br>• 600MV BESS | Public Exhibition |
| Tallawang Solar Farm | • Solar Generation – renewable<br>• Gulgong, NSW > 500km from project site<br>• 500 MW solar farm<br>• 866 hectare development footprint<br>• 200 MW BESS | Response to submissions |

## 2.5 Community and stakeholder engagement

As the SIA is to be conducted from the perspective of the people impacted by the Project, direct community and stakeholder engagement is integral to a comprehensive and rigorous assessment. If those impacted are not directly engaged and provided a voice, then incorrect assumptions may be made from purely objective statistics, and not from lived experience.

The community and stakeholder engagement undertaken as part of the SIA and broader project requirements are outlined in Section 5 of the Project Scoping Report. For the scoping phase, the engagement activities have focused on those in the Social Locality i.e. those predicted to experience the most significant and direct benefits and impacts as a result of the Project. All engagement has been conducted according to NSW Guidelines, in an ethical, collaborative and culturally safe manner with the aim of building trusted relationships with communities. The outcomes of the engagement activities, as outlined in the Scoping Report have informed the SIA in terms of the predicted impacts and response to mitigating, enhancing or managing social impact.

Community and stakeholder engagement will continue throughout the EIS preparation phase to further inform key elements of the SIA including the social baseline, identification and assessment of potential impacts and benefits and how these can be effectively enhanced, mitigated and managed.

# 3 Assessment of impact

## 3.1 Predicted impacts

A preliminary assessment of the likely social impacts for the Social Locality has been conducted at this scoping stage. The assessment was conducted using the NSW DPE's required Social Impact Scoping Worksheet (Appendix A). The assessment was informed by early community and stakeholder engagement, secondary research, comparisons with similar projects and project specific preliminary technical assessments.

Key potential benefits include:

- contributing towards the renewable energy transition
- greenhouse gas emissions reduction
- peak shaving and load management for electricity grid
- a more stabilised and reliable electricity network
- lower electricity prices
- local procurement and economic opportunities during construction of the Project including workforce, short-term accommodation, construction materials and amenities
- investments in community facilities through a developer's contribution to local Council.

Key potential impacts include:

- Noise, vibration, dust and visual impacts for close neighbours both during construction and operation reducing enjoyment of land and health and wellbeing of residents
- Delays to daily travel due to congested traffic and reduced quality of roads impacted by construction vehicles
- Impacts to community character due to a change in land use from agriculture to solar farm, visual changes to the natural and rural landscape and potential impacts to local flora and fauna, and subsequent potential impacts to property values
- Perceived impacts to water quality and the health and wellbeing of the community
- Potential increase in risk of fire, floods or other hazards causing safety concerns for residents.

A summary of the preliminary assessment is in Table 3-1 below. As is the nature of a preliminary assessment, the majority of predicted impacts require further research and refinement during the EIS phase of the project in response to design development, detailed environmental assessment, engagement outcomes, and to align with the requirements of the SEARs. In addition, as the Project develops, and more research is conducted new benefits or impacts may arise and form part of the complete SIA in the EIS phase.

*Table 3-1: Summary of predicted impacts and SIA level of assessment*

| Phase of activity | Potential social impact | Category of social impact | Level of assessment for EIS | Rationale |
|---|---|---|---|---|
| Project lifecycle | Potential Impacts to community character through change in land use from agricultural land to solar farming. | Unknown | Standard | Further assessment to be conducted before mitigation strategies, including: a detailed agricultural impact assessment, Land Use Conflict Risk Assessment and further negotiations with stakeholders regarding Agri-solar opportunities. |

| Phase of activity | Potential social impact | Category of social impact | Level of assessment for EIS | Rationale |
|---|---|---|---|---|
| Project lifecycle | Perceived or real concerns from direct neighbours that the solar farm in the area could potentially negatively impact property values. | Negative | Minor | Any perceived economic impacts to property prices of residents as a consequence of air, visual, noise and vibration, hazard, land use, social or water impacts will be minimised through measures such as the implementation of a construction management plan, landscaped buffers and adequate buffers to associated and non-associated dwellings. |
| Planning and design | Potential real or perceived limitations on ability to influence Project decisions. | Negative | Standard | Practicalities of the Project development makes it likely there is a real limitation on the level of influence people can have on the project design. EIS stage community and stakeholder engagement to mitigate impact |
| Construction | Potential traffic congestion on local roads and current state of local roads requiring upgrades ahead of construction. | Negative | Standard | Issues not likely to cause significant impacts. Required mitigation and management strategies to be put in place after a Traffic Impact Assessment in the EIS. Flow on social impacts to also be reconsidered with further information from the TIA. |
| Construction | Pressures on short-term accommodation and rental housing during peak construction. | Negative | Minor | While housing within the local suburbs is limited, there does appear to be occupancy in the wider regional area and the area is experienced with accommodating for the construction of renewable developments which will likely reduce the significance of the impact. |
| Construction | Procurement opportunities for local businesses and workforce. | Positive | Minor | Further refinement of opportunities and economic impact to be developed during EIS to maximise the benefit for the local community and explore any potential impact where labour supply falls short. |
| Construction | Potential health and wellbeing impacts due to air quality. | Negative | Standard | No significant or cumulative impacts predicted and mild to moderate impacts during construction only. Air Quality Impact Assessment to be provided as part of the EIS and managed in accordance with a Construction Management Plan. |
| Construction and operation | Potential for disturbance or impact to unknown non-aboriginal and/or historical heritage items or values. | Negative | Standard | Existing Aboriginal sites in surrounding areas are unlikely to be impacted by the project and no Native Title Determination Areas will be impacted. However, an Aboriginal Cultural Heritage Assessment will be prepared to support the EIS, identifying potential impacts and necessary management and mitigation measures. |

| Phase of activity | Potential social impact | Category of social impact | Level of assessment for EIS | Rationale |
|---|---|---|---|---|
| Construction and operation | Potential impact on the quality of local water sources leading to impacts on health and wellbeing and enjoyment of surrounding. | Negative | Standard | While technical assessments will still be conducted for the EIS, initial assessments indicate that water contamination or flooding is not likely to be an issue with this development. |
| Construction and operation | Impact on the community values of flora, fauna, and the natural landscape. | Negative | Standard | Tailored community and stakeholder engagement to share findings from the technical reports and the available mitigation and management strategies. |
| Construction and operation | Health and wellbeing impacts due to potential noise from the Project. | Negative | Standard | Noise impacts are likely to only impact nearby neighbours during construction, with standard mitigation strategies available. Tailored mitigation strategies to be developed after a Noise and Vibration Impact Assessment to be provided as part of the EIS. |
| Operation | Potential real or perceived impact to safety due to increased fire risk or other hazards. | Negative | Standard | Early desktop assessments show that the proposed BESS has the potential to generate radiant heat and may have the potential to result in impacts to bushfire threat levels however standard mitigation strategies are a likely measure to reduce these risks to acceptable levels. Mitigation strategies to be proposed as part of a bushfire assessment and a Preliminary Hazard Analysis (PHA) provided as part of the EIS. |
| Operation | Impact on enjoyment of nearby resident's properties and homes due to a change in the visual landscape and potential solar glint and glare from solar panels. | Negative | Standard | Preliminary assessment indicates minimal visual impact to residences with only 5 out of 39 requiring detailed assessment. However, a full Visual Impact Assessment in the EIS will outline necessary mitigation and management strategies. A landscaping strategy may also need to be considered alongside broad community engagement with affected neighbours. |
| Operation | Impact on the community values of flora, fauna, and the natural landscape. | Negative | Standard | Tailored community and stakeholder engagement to share findings from the technical reports and the available mitigation and management strategies. |
| Operation | Investment into community facilities through developer contribution to the local Council. | Positive | Standard | Discussions with Council to determine a contribution in line with DPE Large Scale Solar Guidelines (2022). Council to distribute funds as the representative of community needs. |

| Phase of activity | Potential social impact | Category of social impact | Level of assessment for EIS | Rationale |
|---|---|---|---|---|
| Operation | Contribution to renewable energy transition and a more stable energy network. | Positive | Minor | The community, local businesses and local Council all show enthusiasm to support the transition and to experience local benefits to the energy supply. |
| Construction and decommissioning | Impact on sustainable recycling practices during construction and in decommissioning the Project. | Negative | Minor | Recycling strategies will be in place to avoid filling local landfill, however solutions for long-term decommissioning recycling procedures will be developed in future once BESS projects reach a significant and viable scale. |

# Appendix 1 – Social Impact Scoping Worksheet

Embedded link to the Myrtle Creek Solar Farm Social Impact Scoping Worksheet.

## Social Impact Assessment (SIA) Worksheet

Project name: Myrtle Creek Solar Farm

Date: 12-Dec-23

| CATEGORIES OF SOCIAL IMPACTS | POTENTIAL IMPACTS ON PEOPLE | | PREVIOUS INVESTIGATION OF IMPACT | | CUMULATIVE IMPACTS | | ELEMENTS OF IMPACTS - Based on preliminary investigation | | | | | ASSESSMENT LEVEL FOR EACH IMPACT | | | | PROJECT REFINEMENT | MITIGATION / ENHANCEMENT MEASURES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| what **social impact categories** could be affected by the project activities | What impacts are likely, and what concerns/aspirations have people expressed about the impact? Summarise how each relevant stakeholder group might experience the impact. | Is the impact expected to be **positive or negative** | Has this impact previously been investigated (on this or other project/s)? | If "yes - this project," briefly describe the previous investigation. If "yes - other project," identify the other project and investigation | Will this impact combine with others from this project (think about when and where), and/or with impacts from other projects (cumulative)? | If yes, identify which other impacts and/or projects | Will the project activity (without mitigation or enhancement) cause a material social impact in terms of its: You can also consider the various magnitudes of these characteristics | | | | | Level of assessment for each social impact | What methods and data sources will be used to investigate this impact? | | | **Has the project been refined in response to preliminary impact evaluation or stakeholder feedback?** | What **mitigation / enhancement measures** are being considered? |
| | | | | | | | **extent** i.e. number of people potentially affected? | **duration** of expected impacts? **(i.e. construction vs operational phase)** | **intensity** of expected impacts i.e. scale or degree of change? | **sensitivity** or **vulnerability** of people potentially affected? | **level of concern/interest** of people potentially affected? | | Secondary data | Primary Data - Consultation | Primary Data - Research | | |
| community | Potential Impacts to community character through change in land use from agricultural land to solar farming. A small impact on health and wellbeing due to concern that the project site will not be properly restored to agricultural land at the end of the project. | Unknown | Yes - this project | Early engagement activities and assessments has indicated potential mitigation strategies such as colocation of agricultural land uses. Early engagement activities found that the local community are concerned about the complete restoration of the land to its original state at decommissioning | Yes | The potential development of both the nearby Richmond Valley and Summerville solar farms could result in cumulative equivalent impacts. | No | Yes | Yes | Yes | Unknown | Standard | Required | Broad consultation | Targeted research | No | Further assessment to be conducted before mitigation strategies, including: a detailed agricultural impact assessment, Land Use Conflict Risk Assessment and further negotiations with stakeholders regarding agri-solar opportunities. |
| livelihoods | Perceived or real concerns from direct neighbours that the solar farm in the area could potentially negatively impact property values. | Negative | Yes - other project | Tallawang Solar Farm<br>Summerville Solar Farm | No | Not required | No | No | Unknown | Unknown | Yes | Minor | Required | Broad consultation | Targeted research | No | Whilst impacts to land values are not a material planning consideration, any perceived economic impacts to property prices of local residents as a consequence of air, visual, noise and vibration, hazard, land use, social or water impacts will be mitigated through mitigation measures such as the implementation of a construction management plan, landscaped buffers and adequate buffers to associated and non-associated dwellings. |
| decision-making systems | Community and stakeholders feeling empowered and respected due targeted engagement strategy and activities early in the development and a consistent effort to keep the community up to date as plans change. | Positive | Yes - other project | Summerville Solar Farm<br>Richmond Solar Farm<br>Dinawan Solar Farm<br>Tallawang Solar Farm | No | Not required | No | No | Yes | No | Unknown | Minor | Required | Targeted consultation | Potentially targeted research | No | Clear, transparent and genuine opportunities to engage with community presented early in the planning process. This has begun and will continue to evolve throughout the project. Community sentiment requires monitoring throughout the EIS and operational stages. |
| decision-making systems | Community and stakeholders may experience either real or perceived inability to influence the planning and design phase of the project. This lack of influence can result in reduced trust in the rigour and impartiality of the assessment process and a disengagement from future consultation activities. This impact was felt during early stage consultation as a result of cumulative impacts from other projects in the area. | Negative | Yes - other project | Summerville Solar Farm<br>Richmond Solar Farm<br>Dinawan Solar Farm<br>Tallawang Solar Farm | Yes | The potential development of both the nearby Richmond Valley and Summerville solar farms could result in cumulative equivalent impacts. | No | No | Yes | No | Unknown | Minor | Required | Targeted consultation | Potentially targeted research | No | As above |
| access | An increased traffic congestion on local roads could potentially cause disruption to daily routines for the local road users and could lead to road deterioration. | Negative | Yes - other project | Summerville Solar Farm<br>Richmond Solar Farm<br>Dinawan Solar Farm<br>Tallawang Solar Farm | Unknown | The potential development of both the nearby Richmond Valley and Summerville solar farms could result in cumulative equivalent impacts. | No | Unknown | No | Unknown | Yes | Standard | Required | Broad consultation | Targeted research | No | Anticipated vehicular movements generated during the installation phase and subsequent operation phase of the proposed BESS and the capacity of the surrounding road network to accommodate those movements are to be addressed in the Traffic Impact Assessment to be provided as part of the EIS. |
| access | An increase in workforce during the construction phase in the local area may put pressure on accommodation and rental stock through an increase in demand, as well as potentially leading to an increase in rental housing and accommodation prices. While housing within the local suburbs is limited, there does appear to be occupancy in the wider regional area which may reduce the significance of the impact. | Negative | Yes - other project | Summerville Solar Farm<br>Richmond Solar Farm<br>Dinawan Solar Farm<br>Tallawang Solar Farm | Unknown | The potential development of both the nearby Richmond Valley and Summerville solar farms could result in cumulative equivalent impacts. | No | No | No | Unknown | Yes | Minor | Required | Broad consultation | Targeted research | No | Additional research is required into the short-term housing and rental accommodation in the local area. |
| livelihoods | Contribution to local and regional economy through the construction phase. Construction creates the need for goods and services, either directly or through the supply chain. These services include accommodation, food and amenities, construction materials and labour. | Positive | Yes - other project | Summerville Solar Farm<br>Richmond Solar Farm<br>Dinawan Solar Farm<br>Tallawang Solar Farm | Yes | The potential development of both the nearby Richmond Valley and Summerville solar farms could result in cumulative equivalent impacts. | No | No | No | Unknown | Yes | Minor | Required | Targeted consultation | Potentially targeted research | No | Opportunities will be investigated through local procurement to engage local people and engage with local businesses throughout the construction phase. This will be detailed in the project economic assessment in the EIS. This assessment should include a review of the local or regional businesses to meet project needs to set realistic expectations. |
| health and wellbeing | Potential impacts to air quality due to dust generation and vehicle emissions during construction, reducing health and wellbeing of nearby residents. | Negative | Yes - other project | Summerville Solar Farm<br>Richmond Solar Farm<br>Dinawan Solar Farm<br>Tallawang Solar Farm | Unknown | Given the separation distance from surrounding projects air quality impacts are expected to be limited and only likely to occur, if at all, during the construction phase. | No | No | No | Unknown | Yes | Standard | Required | Targeted consultation | Potentially targeted research | No | Air quality impacts arising from dust generation and vehicle emissions during construction are to be assessed as part of the Air Quality Impact Assessment to be provided as part of the EIS and managed in accordance with a Construction Management Plan. |
| culture | Potential for disturbance or impact to unknown non-aboriginal and/or historical heritage items or values during construction and operation, including the potential for intangible harm through a loss of connection to Country. | Negative | Yes - this project | Initial assessment found 2 recorded sites within a 5km radius of the site. Neither are considered likely to be impacted by the project. A review of Native Title Vision mapping from the National Native Title Tribunal identifies that there are no Native Title Determination Areas impacting the project site. | No | Not required | Yes | Yes | No | Yes | Yes | Standard | Required | Broad consultation | Targeted research | No | An Aboriginal Cultural Heritage Assessment will be prepared to support the EIS, identifying potential impacts and necessary management and mitigation measures. |
| access | Perceived or potential impact on the quality of local water sources during the operation and construction phases of the project. This impact could lead to a reduction in enjoyment of water and heatlh and wellbeing of community members. | Negative | Yes - this project | Desktop assessment shows the Project is unlikely to impact groundwater, the area is not flood prone but does have several small waterbodies and number of streams to further assess. | No | Not required | No | Yes | Unknown | No | Unknown | Standard | Required | Broad consultation | Targeted research | No | The suitability of the ground conditions for the proposed development and any potential for contamination associated are to be addressed in thorough analysis of past land uses and activities. These will be investigated through discussions with landowners as part of the level 2 soil assessment. Management of soil and water impacts during construction would be addressed in a Construction Management Plan. A hydraulic analysis will be completed in the EIS to ensure that impacts to exiting watercourses are manageable and to confirm any potential for flood inundation over the land. Methods by which stormwater would be managed would be outlined as part of the EIS. |
| surroundings | The local community and stakeholders place a high value on the biodiversity of the region, including the flora and fauna. The community are likely to experience anxiety and anger over the potential impact on biodiversity due to the project. | Negative | Yes - this project | Desktop analysis and site visit to identify and map vegetation condition zones and assess potential threatened species habitat. While some threatened species were identified on or around the project site, further assessment is recommended before determining the significance of impact. | Yes | The potential development of both the nearby Richmond Valley and Summerville solar farms could result in cumulative equivalent impacts. | Yes | Yes | Unknown | Unknown | Unknown | Standard | Required | Broad consultation | Targeted research | No | Further field work and technical assessment is required to inform the BDAR, significance of impact and any mitigation strategies. Community then require tailored engagement to discuss fundings. |
| health and wellbeing | Potential for noise to impact nearby residents and neighbours, as well as along proposed vehicle access routes during construction. | Negative | Yes - this project | Desktop analysis concludes potential noise and vibration impacts are anticipated to be limited by the developments distance to residential receivers, surrounding vegetation and topography, and only minimally impactful during construction. | No | Not required | No | Yes | Unknown | Unknown | Yes | Standard | Required | Broad consultation | Targeted research | No | Mitigation strategies to be developed after a Noise and Vibration Impact Assessment to be provided as part of the EIS. |

| CATEGORIES OF SOCIAL IMPACTS | POTENTIAL IMPACTS ON PEOPLE | | PREVIOUS INVESTIGATION OF IMPACT | | CUMULATIVE IMPACTS | | ELEMENTS OF IMPACTS - Based on preliminary investigation | | | | | ASSESSMENT LEVEL FOR EACH IMPACT | | | | PROJECT REFINEMENT | MITIGATION / ENHANCEMENT MEASURES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| what **social impact categories** could be affected by the project activities | What impacts are likely, and what concerns/aspirations have people expressed about the impact? Summarise how each relevant stakeholder group might experience the impact. | Is the impact expected to be **positive or negative** | Has this impact previously been investigated (on this or other project/s)? | If "yes - this project," briefly describe the previous investigation. If "yes - other project," identify the other project and investigation | Will this impact combine with others from this project (think about when and where), and/or with impacts from other projects (cumulative)? | If yes, identify which other impacts and/or projects | Will the project activity (without mitigation or enhancement) cause a material social impact in terms of its: You can also consider the various magnitudes of these characteristics | | | | | Level of assessment for each social impact | What methods and data sources will be used to investigate this impact? | | | **Has the project been refined in response to preliminary impact evaluation or stakeholder feedback?** | What **mitigation / enhancement measures** are being considered? |
| | | | | | | | **extent** i.e. number of people potentially affected? | **duration** of expected impacts? **(i.e. construction vs operational phase)** | **intensity** of expected impacts i.e. scale or degree of change? | **sensitivity** or vulnerability of people potentially affected? | **level of concern/interest** of people potentially affected? | | Secondary data | Primary Data - Consultation | Primary Data - Research | | |
| health and wellbeing | Real or perceived decline in safety due to the high potential of risks associated with bushfires, floods and other health related impacts (EMF, dust, etc.). Direct neighbours have experienced severe flooding and fires in the area before and are nervous about any increased risk. | Negative | Yes - this project | Early desktop assessments show that the proposed BESS has the potential to generate radiant heat and may have the potential to result in impacts to bushfire threat levels. The land is mapped as being prone to bushfire, however this has not been reviewed after recent clearing of land. | Yes | The potential development of both the nearby Richmond Valley and Summerville solar farms could result in cumulative equivalent impacts. | Yes | Yes | Unknown | Unknown | Unknown | Standard | Required | Broad consultation | Targeted research | No | Mitigation strategies to be proposed as part of a bushfire assessment and a Preliminary Hazard Analysis (PHA) provided as part of the EIS. |
| surroundings | Potential impacts to the visual amenity of close neighbours, including a change to the existing rural views and solar glint and glare from the solar panels. | Negative | Yes - this project | Preliminary visual assessment undertaken in accordance with requirements from the DPE Technical Supplement. Identified only 5 out of 39 residences that require detailed assessment. | No | Not required | No | Yes | Unknown | Unknown | Yes | Standard | Required | Broad consultation | Targeted research | No | Mitigation strategies to be developed after a Visual Impact Assessment within the EIS stage. As a result of the preliminary visual assessment, it is identified that 5 of 39 dwellings within 4 km require detailed assessment.. The VIA will identify potential impacts, and necessary management and mitigation measures. A landscaping strategy would also be considered where analysis identifies the need for further visibility reductions. |
| community | Impacts to community character. The local community and stakeholders place a high value on the natural landscape within the region. The community may experience anxiety and anger over the potential impact on the natural landscape due to the Project. | Negative | Yes - other project | Summerville Solar Farm<br>Dinawan Solar Farm<br>Tallawang Solar Farm | Yes | The potential development of both the nearby Richmond Valley and Summerville solar farms could result in cumulative equivalent impacts. | No | Yes | Yes | Yes | Yes | Standard | Required | Broad consultation | Targeted research | No | As above, with tailored communications to share findings and mitigation strategies. |
| surroundings | Community benefits to local social infrastructure and amenities through a developers contribution via local Council. | Positive | Yes - other project | A community benefit sharing program influenced by consultation outcomes during the EIS is currently being developed by Richmond Solar Farm. | Yes | The potential development of both the nearby Richmond Valley and Summerville solar farms could result in cumulative equivalent impacts. | Yes | Yes | No | Unknown | Yes | Standard | Required | Broad consultation | Targeted research | No | Opportunities for community benefit sharing will be investigated in line with the recommendations of the DPE Large Scale Solar Guidelines (2022). |
| access | The stabilisation of the electricity grid and improving the reliability of energy supply, which supports the transition to clean energy. Benefits are realised at both local and state level. | Positive | Yes - other project | Summerville Solar Farm<br>Richmond Solar Farm<br>Dinawan Solar Farm<br>Tallawang Solar Farm | Yes | The potential development of both the nearby Richmond Valley and Summerville solar farms could result in cumulative equivalent impacts. | Yes | Yes | No | Unknown | Yes | Minor | Required | Broad consultation | Targeted research | No | Further understand community values around contributing the renewable energy transition. Respond with relevant and targeted communications depending on the outcome. |
| surroundings | Issues were raised regarding the sustainability of the project, particularly focusing on the recycling and disposal of materials and waste during construction and upon decommission. Stakeholders want assurance that project materials will not end up in local landfill, and community members want peace of mind that the materials will be recycled. | Negative | Unknown | N/A | No | Not required | Yes | Unknown | No | Unknown | Unknown | Minor | Required | Broad consultation | Targeted research | No | Waste Generation would be assessed as part of a Waste Management Plan and managed via a Construction Management Plan. Waste management principles, including the need for avoidance and recycling where possible, would be outlined in the project EIS. |