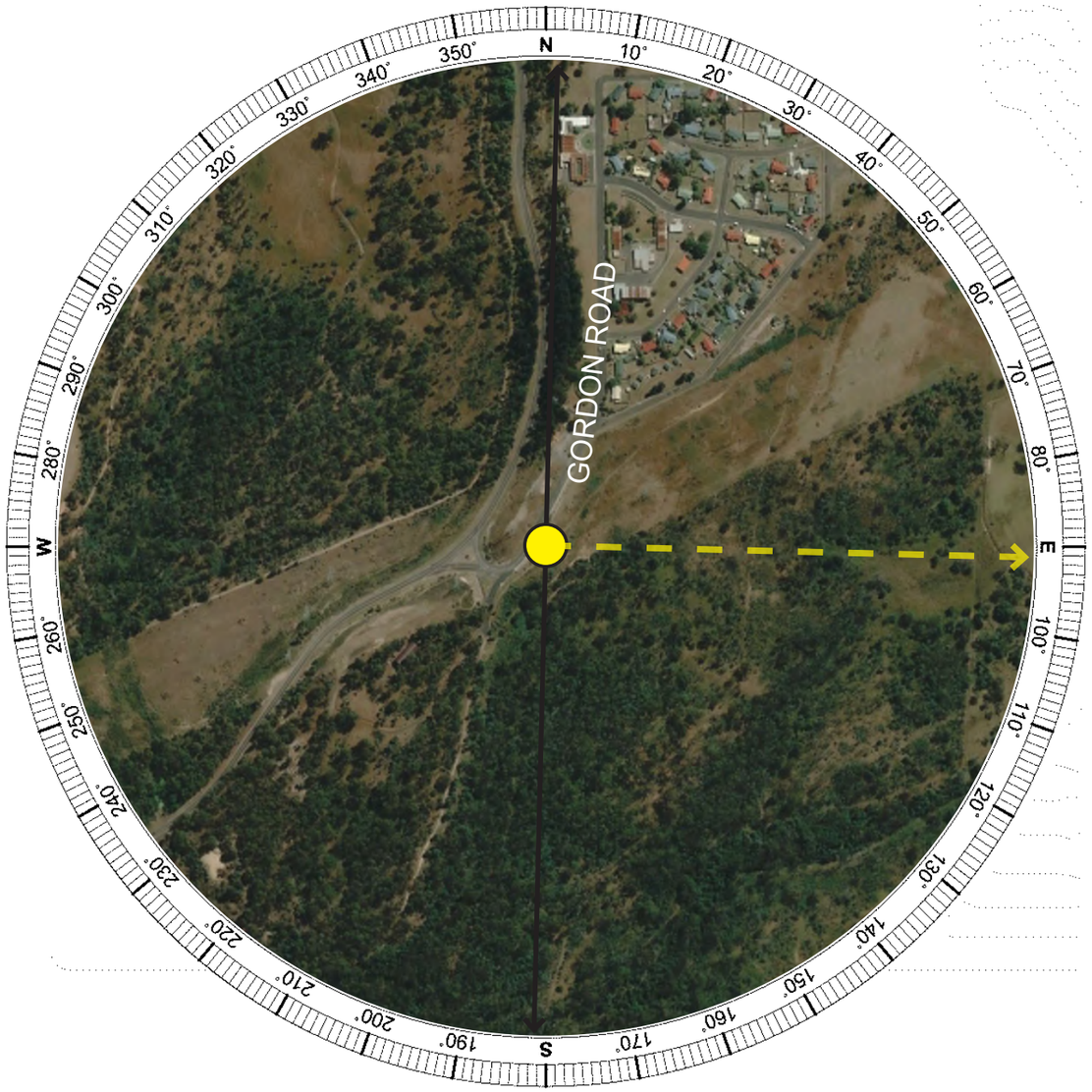
# **Photomontage 05** Viewpoint VP19




Aerial Image - Photomontage Location (Aerial Image Source: Google Earth 2021)

## Photomontage 05

**Location:**

Gordon Road, Poatina

**Photograph Date and Time:**

7th December 2022 2:08pm

**Coordinates:**

41°47'57.69"S 146°57'30.10"E

**Distance to Project:**

2.91 km (Transmission)

**Viewing Direction:**

East

**Elevation:**

312 m

**Representative Dwelling/s:**

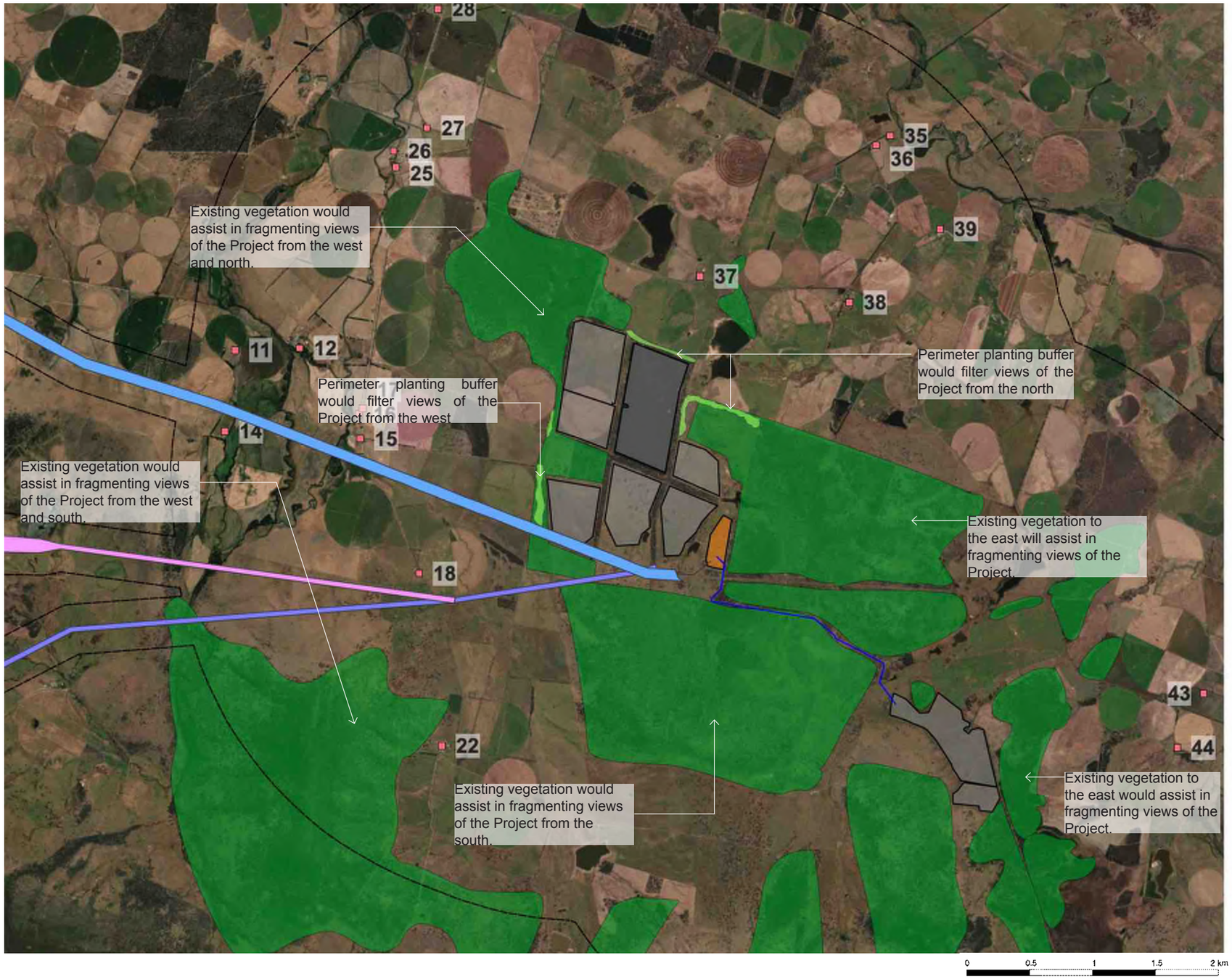
# **Photomontage 05** Viewpoint VP19


Existing View | 180º Baseline Panorama


Proposed View | 180º Photomontage

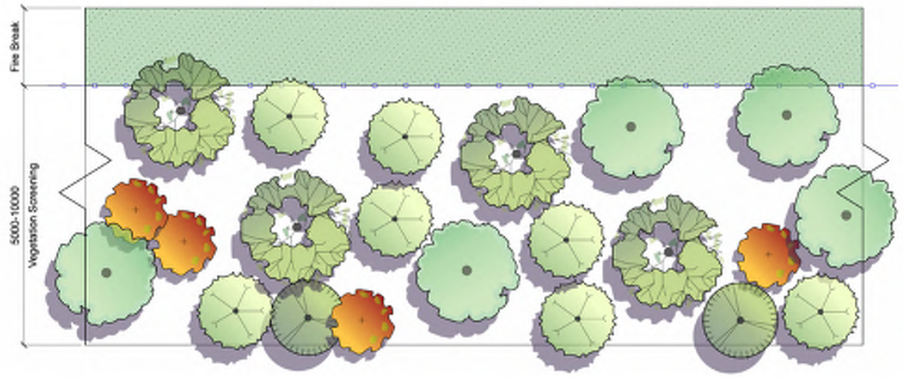
# APPENDIX D
# LANDSCAPE PLAN

# DRAFT LANDSCAPE PLAN




**LEGEND**

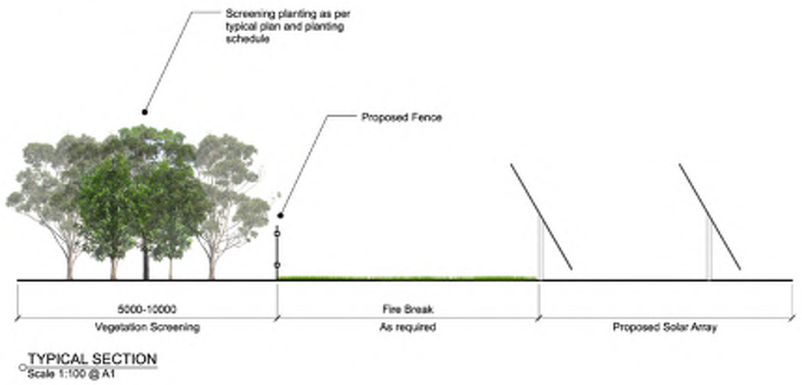
- Dwelling Location
- Solar Array Extent
- Infrastructure Extent
- Proposed 220kV Transmission Line Opt 1
- Proposed 220kV Transmission Line Opt 2.1
- Proposed 220kV Transmission Line Opt 2.2
- Proposed 33kV Transmission Line
- 5000m Extent Line (Study Area)
- Approximate Extent of Existing Vegetation
- Approximate Extent of Proposed Perimeter Planting




## Indicative Planting Schedule

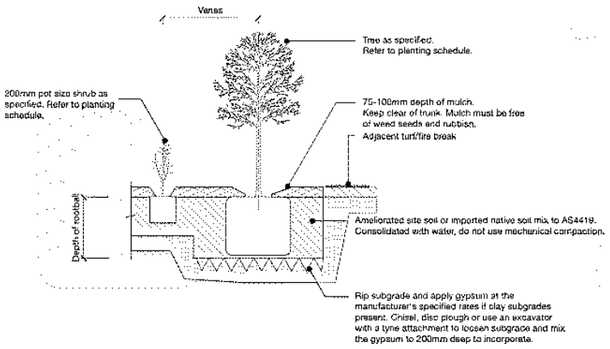
| Code | Botanical Name | Common Name | Pot Size | Mature Height | Mature Width |
|---|---|---|---|---|---|
| **Trees** | | | | | |
| ACA mel | *Acacia melanoxylon* | Blackwood | Tubestock | 12m | 5m |
| ALL ver | *Allocasuarina verticillata* | Drooping Sheoak | Tubestock | 9m | 5m |
| BUR spi | *Bursaria spinosa* | Prickly Box | Tubestock | 4m | 4m |
| **Shrubs** | | | | | |
| BAN mar | *Banksia marginata* | Silver Banksia | Tubestock | 5m | 4m |
| COR ref | *Correa reflexa* | Common Correa | Tubestock | 2m | 3m |
| DOD vis | *Dodonaea viscosa* | Broadleaf Hopbush | Tubestock | 3m | 2m |

1 Typical Perimeter Vegetation Screening
Scale: 1:100

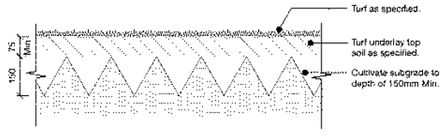



TYPICAL SECTION
Scale 1:100 @ A1

0 2 4 6 8 10m

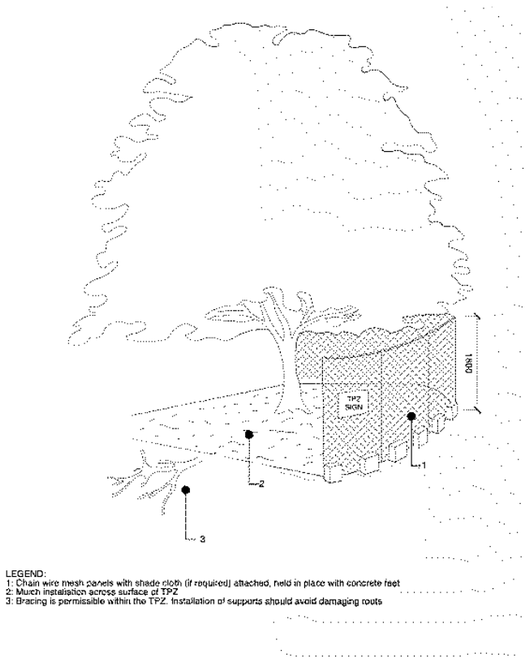



TYPICAL SCREENING PLANTING
Scale 1:20 @ A1



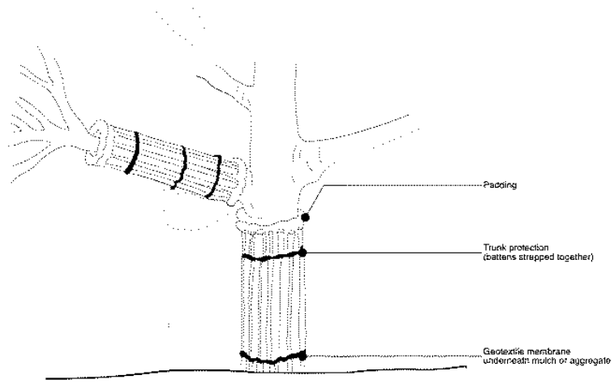

NOTES:
1. Finish crossfall to turf shall be 1:80 min. Finish flush with adjoining surfaces.
2. Soil as specified, provide a turf underlay that complies with AS4419.
3. Remove contaminated areas, deleterious material such as large rocks greater than 50mm, rubbish and large twigs.
4. Lay turf parallel to contour, close butted and lightly tamp.
5. Fill joints with top dressing soil.
6. Provide subsoil drainage to address any poorly draining areas.
7. Water in and maintain consistent deep watering for 14 weeks minimum. (Separate to the plant establishment period)
8. Consistently top dress depressions to provide an even surface.
9. Mow, top dress and control pests and disease consistently during the remainder of the planting establishment period.
10. All turf orders to be supplied free of plastic reinforcement mesh.

TYPICAL TURF DETAIL IN FIREBREAK AREAS
Scale 1:10 @ A1



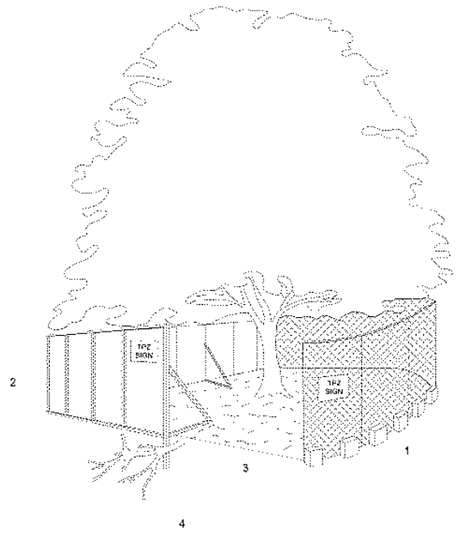

LEGEND:
1: Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet
2: Mulch installation across surface of TPZ
3: Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots

PROTECTIVE FENCING
Scale 1:50 @ A1




NOTE:
1. For trunk and branch protection use boards and padding that will prevent damage to bark. Boards are to be strapped to trees, not nailed or screwed.
2. Rumble boards should be of suitable thickness to prevent soil compaction and root damage.

TREE PROTECTIVE MEASURES
Scale 1:50 @ A1




**LEGEND:**
1: Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet
2: Alternative plywood or wooden paling fence panels. The fencing material also prevents building materials or soil entering the TPZ
3: Mulch installation across surface of TPZ
4: Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots

PROTECTIVE FENCING
Scale 1:50 @ A1

# Northern Midlands Solar Farm

## Landscape and Visual Impact Assessment

moir
landscape architecture

# Northern Midlands Solar Farm

# Landscape and Visual Impact Assessment

**Prepared for**
Connorville Estates Pty Ltd c/o Robert Luxmoore Pty Ltd

**Issue**
REV C

**Date**
12.05.2023

**Project Number**
2248

| Revision | Date | Author | Checked | Comment |
|---|---|---|---|---|
| A | 03.02.23 | SW \| JR | SW | WIP |
| B | 06.04.2023 | SW | MED | Draft |
| C | 12.05.2023 | EB | DM | Final |

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# Contents

# 1.0 Introduction

## 1.1 Background

Moir Landscape Architecture have been commissioned by Connorville Estates Pty Ltd c/o Robert Luxmoore Pty Ltd to prepare a Landscape & Visual Impact Assessment (LVIA) for the proposed Northern Midlands Solar Farm (hereafter referred to as 'the Project'). The Project is located to the south of Launceston near the township of Cressy. The applicant proposes to develop the Project within the property at 394 Connorville Road, Cressy. The Project will include construction and operation of a 288MW DC / 370MWp AC Solar Farm and associated ancillary infrastructure including a Battery Energy Storage System (BESS) and Transmission Line. An existing Substation is located approximately 13km to the west of the Project, identified as Palmerston Substation, operated by TasNetworks. Figure 01 provides the Project context in relation to the township of Cressy.

The solar array footprint is 432.3 hectares, located solely on a single landholding. The Project is sited close to the existing transmission line running between Palmerston Substation to the west and Avoca Substation to the east. The 33kV internal transmission connecting Solar East to Solar West, is proposed to be connected to the Palmerston Substation by a new 220kV double circuit overhead transmission line.

This initial concept will be further refined during the detailed design stage. The Project is located within the Northern Midlands Council Area, and is zoned as Agricultural Zone under Clause 21.0 to the 2022 Northern Midlands Planning Scheme. There are no residential dwellings identified within the Project.

Survey work was undertaken during December 2022, using key viewpoints and locations with potential views towards the Project. This report details the results of fieldwork, documents the assessment of the existing landscape character and assesses potential visual impacts associated with the Project.

The report also provides an overview of the proposed treatments which may be considered to assist in the mitigation of potential visual impacts. This information is provided with the understanding of the likely impacts and how they may be managed to ensure that the character of the immediate area and surrounding visual landscape is not overly modified or diminished.

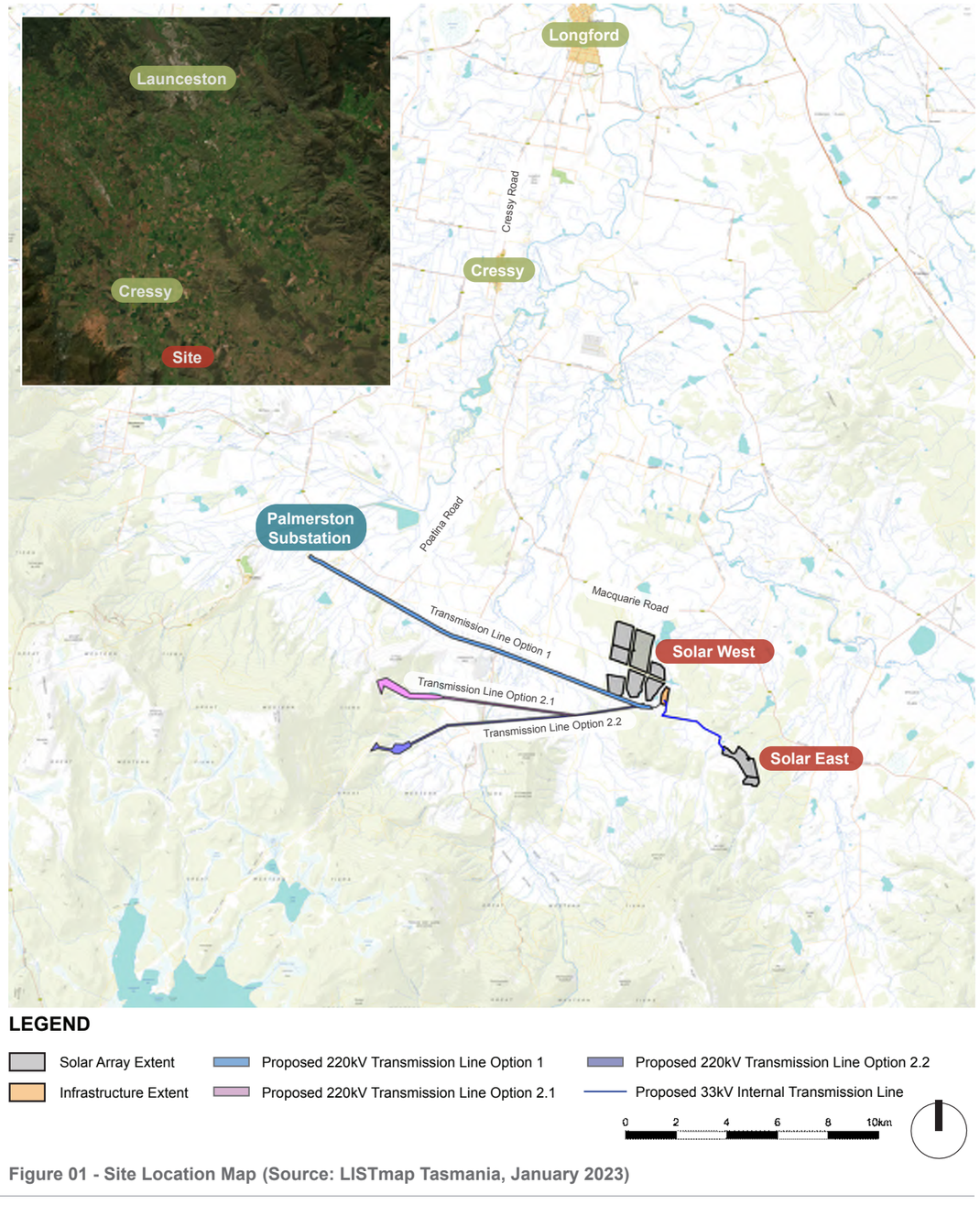



Figure 01 - Site Location Map (Source: LISTmap Tasmania, January 2023)

## 1.2 Report Structure

The following table provides an outline of the report structure and a summary of how these have been addressed in the LVIA. Detailed methodologies for each part of the assessment have been included in the relevant chapters of the report.

| Visual Impact Assessment Report Structure | |
|---|---|
| **Section 2.0: Study Method** | Overview of Study Method utilised for the LVIA |
| **Section 3.0: Project Overview** | Project Description and overview of the Project and all components to be assessed within the LVIA |
| **Section 4.0: Existing Landscape Character** | Establish the existing landscape and visual conditions prior to undertaking any visual assessment |
| **Section 5.0: Zone of Visual Influence** | Assessment to identify potential visual impact |
| **Section 6.0: Viewpoint Analysis** | Assessment of key viewpoints within the visual catchment. Refer to Appendix B |
| **Section 7.0: Photomontages** | Preparation of 5 x photomontages to illustrate the appearance of the Project. Refer to Appendix C |
| **Section 8.0: Visual Impact Assessment** | Overview of the visual impacts resulting from the project |
| **Section 9.0: Nightlighting** | Overview of potential night lighting sources |
| **Section 10.0: Cumulative Visual Impact** | Overview of Cumulative Visual Impact from adjacent Substation |
| **Section 11.0: Mitigation Recommendations** | An outline of proposed mitigation and management options and draft landscape plans. |
| **Section 12.0: Conclusion** | |

Table 01 - Report Structure

# 2.0 Study Method

## 2.1 Overview of the Study Method

The following provides an overview of the study method utilised for undertaking the Landscape and LVIA. This methodology is based on the relevant policies, frameworks and our experience in undertaking LVIAs for large infrastructure projects. The LVIA was undertaken in the stages as noted below:

| | |
|---|---|
| **PROJECT OVERVIEW**<br>Refer to Section 3.0 | • Detailed Project Description<br>• Visual Aspects of the Project |
| **LANDSCAPE CHARACTER ASSESSMENT & CHARACTER ZONES**<br>Refer to Section 4.0 | • Overview of the Existing Landscape Character and identification of key landscape features of the Site and surrounds.<br>• Determine Scenic Quality Ratings of Landscape Character Zones (LCZ) |
| **ASSESSMENT OF VISUAL IMPACTS**<br>Refer to Sections 5.0 - 10.0 | • Assessment of the Potential Visual Impacts with the aid of computer modeling, viewpoint analysis and photomontage development.<br>• Viewpoint Analysis (Section 6.0)<br>• Photomontages (Section 7.0) |
| **MITIGATION METHODS**<br>Refer to Sections 11.0 | • Overview of Mitigation Methods<br>• Preparation of recommendations for impact mitigation (where practical) to maintain the area's visual quality |

## 2.2 Landscape Character Assessment

Landscape Character refers to the distinct and recognisable pattern of elements that occur consistently in a particular landscape. The Landscape Character of an area is generally defined by the most dominant landscape element or unique combination of elements that occur within that landscape. It reflects how particular combinations of geology, landforms, soils, vegetation, land use and human settlements create a particular sense of place for different areas within the landscape (Landscape Institute, 2013). The Landscape Character of the Study Area has been assessed at a regional, local and site scale. This study will utilise existing topographic maps, site imagery and land use maps. For this Project, the 'Study Area' has been defined as the Landscape Character within five (5) kilometres (km) of the Project.

### 2.2.1 Landscape Character Zones and Scenic Quality

Once the Landscape Character has been assessed, Landscape Character Zones (LCZ) can be identified within the Study Area. Landscape Character Zones are described as zones with the interplay between the natural features combined with the effects of land use and built development making one area distinct from another.

The Scenic Quality 'Frame of Reference' has been formulated by Moir LA (refer to Table 02) utilising *'An Approach to Landscape Sensitivity Assessment'* by Natural England, to quantify the sensitivity of the LCZ. Each category of the 'Frame of Reference' has been quantified for each LCZ to determine a 'Scenic Quality' Rating of HIGH, MODERATE or LOW.

Each LCZ will be assigned a 'Scenic Quality' Rating. Visual Sensitivity of a select location can be derived through the combination of 'Receptor Sensitivity' and 'Scenic Quality.

| SCENIC QUALITY RATING | | |
|---|---|---|
| **DESCRIPTION** | **LOW** ⟷ **MODERATE** ⟷ **HIGH** | |
| **LANDFORMS** | • Flat Topography<br>• Absence of Landscape Features<br>• Open, broad extents of spaces | • Diversity in Topographical Range<br>• Unique Landscape Features<br>• Intimate spaces |
| **WATERFORM** | • Absence of Water | • Presence of Water<br>• Visually prominent lakes, reservoirs, rivers streams and swamps. |
| **VEGETATION** | • Absence of vegetation<br>• Lack of diversity<br>• Land cleared of endemic vegetation<br>• Low level of connection between vegetation and landscape / topography | • Abundant vegetation<br>• High diversity<br>• High retention of endemic vegetation.<br>• High level of connectivity between natural landscape and landforms. |
| **HUMAN INFLUENCE** | • High population<br>• High density in settlement<br>• High presence of Infrastructure<br>• High levels of landscape modification | • Low / dispersed population<br>• No settlement<br>• Absence of infrastructure<br>• Landscape in natural state |
| **ACTIVITY** | • High levels of traffic movement<br>• Presence of freight and passenger transport networks<br>• Presence of production or industry. | • Low traffic movement<br>• Absence of freight and passenger transport<br>• Absence of production or industry |
| **RARITY** | • Typical landscape within a local and regional context | • Unique combination of landscape features in a local and regional context |
| **RELATIONSHIP WITH ADJOINING LANDSCAPES** | • Low visible connection with adjoining landscapes<br>• Low variability between adjoining landscapes.<br>• Landscape features do not contribute to amenity from adjoining landscapes | • High visibility with adjoining landscapes.<br>• High variability and contrast with adjoining landscapes<br>• Landscape features contribute significantly to amenity of adjoining landscapes |

Table 02 - Scenic Quality Rating

### 2.2.2 Receptor Sensitivity Rating

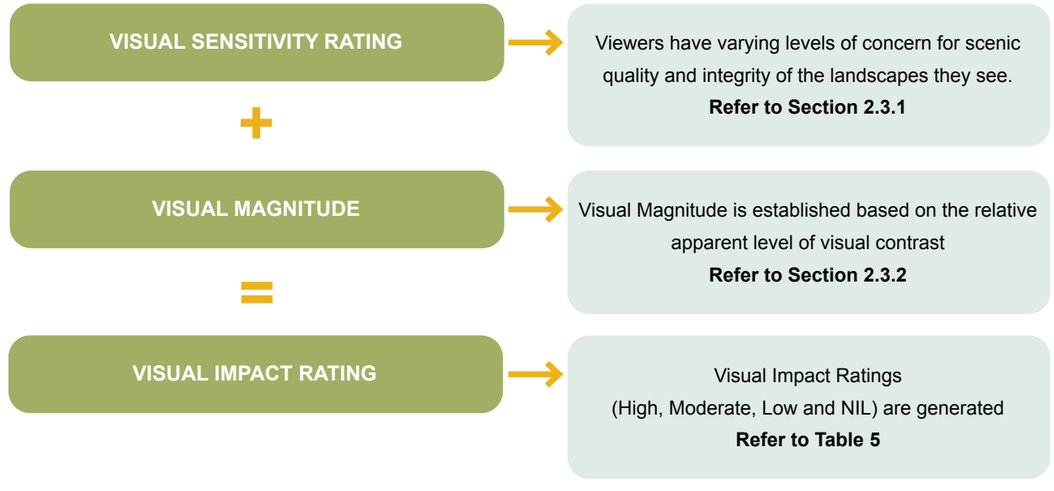
Receptor Sensitivity refers to the scenic concern of a select viewpoint based on the Land Use of that particular location (refer to Table 03). The intent is to classify the viewer sensitivity on the LCZ in which the Project is being viewed and assessed.

| RECEPTOR SENSITIVITY RATING | |
|---|---|
| **LOW** | • Interstate and state passenger rail lines with daily daylight services<br>• State Highways, freeways and classified main roads, classified tourist roads<br>• Land management roads with occasional recreation traffic<br>• Walking tracks of moderate local significance or infrequent recreation usage<br>• Other low use and low concern receptors and travel routes<br>• Navigable waterways |
| **MODERATE** | • Rural Dwelling<br>• Tourist and Visitor Accommodation<br>• Recreation, Cultural or Scenic Sites and Receptors of Regional Significance |
| **HIGH** | • Residential areas and rural villages<br>• Recreation, cultural or scenic sites and viewpoints of National or State Significance<br>• Any buildings, historic rural homesteads/residences on the State or local Government Heritage List |

Table 03 - Receptor Sensitivity Rating

## 2.3 Visual Impact Assessment

The potential visual impact of the Project is then assessed based on the relationship between the visual sensitivity (refer to Section 2.3.1) and visual magnitude (refer to Section 2.3.2).



### 2.3.1 Visual Sensitivity

Sensitivity refers to the qualities of an area, the number and type of receivers and how sensitive the existing character of the setting is to the proposed nature of change (as noted in Sections 2.2.1 and 2.2.2). For example a pristine natural environment is likely to be more sensitive to a change of the nature of a four lane motorway than a built up industrial area. The design quality of the proposed development does not make the area less sensitive to change but instead affects the magnitude of the impact as described.

For example, a significant change that is not frequently seen may result in a low visual sensitivity although its impact on a landscape may be high. Generally the following principles apply:

- Visual sensitivity decreases as the viewing time decreases;
- Visual sensitivity decreases as the number of potential viewers decreases; and
- Visual sensitivity can also be related to viewer activity (e.g. A person viewing an affected Site whilst engaged in recreational activities will be more strongly affected by change than someone passing a scene in a car travelling to a desired destination).

Visual Sensitivity ratings are defined as HIGH, MODERATE and LOW based on the Scenic Quality and Receptor Sensitivity.

**VISUAL SENSITIVITY**

| | | SCENIC QUALITY LANDSCAPE CHARACTER ZONE | | |
|---|---|---|---|---|
| | | **HIGH** | **MODERATE** | **LOW** |
| **RECEPTOR SENSITIVITY** | **HIGH** | HIGH | HIGH | MODERATE |
| | **MODERATE** | HIGH | MODERATE | MODERATE |
| | **LOW** | MODERATE | LOW | LOW |

**Table 04 - Visual Sensitivity Rating Table**

### 2.3.2 Visual Magnitude

Visual magnitude refers to the extent of change that will be experienced by receptors. Factors that are considered when assessing the magnitude of change include (AILA, 2018):

- the proportion of the view / landscape affected;
- extent of the area over which the change occurs;
- the size and scale of the change;
- the rate and duration of the change; and
- the level of contrast and compatibility.

### 2.3.3 Visual Impact

Visual impact refers to the change in appearance of the landscape as a result of development. (EPHC, 2010). Visual impact is the combined effect of visual sensitivity and visual magnitude. Various combinations of visual sensitivity and visual magnitude will result in HIGH, MODERATE, LOW and NIL overall visual impacts as suggested in Table 5 below

### 2.3.4 Visual Impact Analysis

This process involves a qualitative assessment of the conclusions of visual impact ratings for each viewpoint. The analysis takes into consideration other relevant influencing factors not easily addressed through the process of quantitative analysis.

**VISUAL IMPACT RATING**

| | | VISUAL MAGNITUDE | | | |
|---|---|---|---|---|---|
| | | **HIGH** | **MODERATE** | **LOW** | **NIL** |
| **VISUAL SENSITIVITY** | **HIGH** | HIGH | HIGH-MODERATE | MODERATE | NIL |
| | **MODERATE** | HIGH-MODERATE | MODERATE | MODERATE-LOW | NIL |
| | **LOW** | MODERATE | MODERATE-LOW | LOW | NIL |

**Table 05 - Visual Impact Rating Table**

## 2.4 Guidelines and Statutory Framework

The assessment will consider legislation, policies and standards relevant to LVIA, along with specific assessment criteria that have been derived for the purposes of this study. A broad review of the existing Commonwealth Legislation suggests that no policy is specifically applicable or relevant to this study. The Project is located within the Northern Midlands Council Area (LGA), and therefore, the Project should address relevant planning, landscape and visual performance objectives set out in the 2022 Northern Midlands Planning Scheme (NMPS 2022). The 'Land Use Planning and Approvals Act 1993' aims to provides a broad legal framework for preparing planning objectives, provisions and procedures in the Tasmanian Planning Scheme.

### 2.4.1 State Planning Provisions

The Project is zoned as Agriculture (Zone 21) under the State Planning Provisions.

The objectives of Agriculture (Zone 21) are as follows:

- *To provide for the use or development of land for agricultural use.*
- *To protect land for the use or development of agricultural use by minimising:*
  - *(a) conflict with or interference from non-agricultural uses;*
  - *(b) non-agricultural use or development that precludes the return of the land to agricultural use;*
  - *(c) use of land for non-agricultural use in irrigation districts.*
- *To provide for use or development that supports the use of the land for agricultural use.*

### 2.4.2 Scenic Protection Code: Northern Midlands Local Provision Schedule

Under the NMPS 2022, the Scenic Protection Code protects the Scenic Quality of nominated locations. The following Scenic Protections Areas are located in close proximity to the Project and need to be considered when defining the Scenic Quality and Visual Impact in Section 6.0 of this report: NOR-C8.1.5 (Great Western Tiers), NOR-C8.1.6 (O'Connor's and O'Connor's Sugarloaf), NOR-C8.1.7 (Pamook Hill) and NOR-C8.1.8 (Connorville). These areas will be nominated as having a high scenic quality. It is important to note that the Project is outside of these Scenic Protection Code areas, as is Transmission Line Option 1. However, Transmission route option 2.1 and 2.2 intersect with the NOR-C8.1.5 (Great Western Tiers) as illustrated in Figure 02.

The following Management Objectives apply to these Scenic Protection Areas:

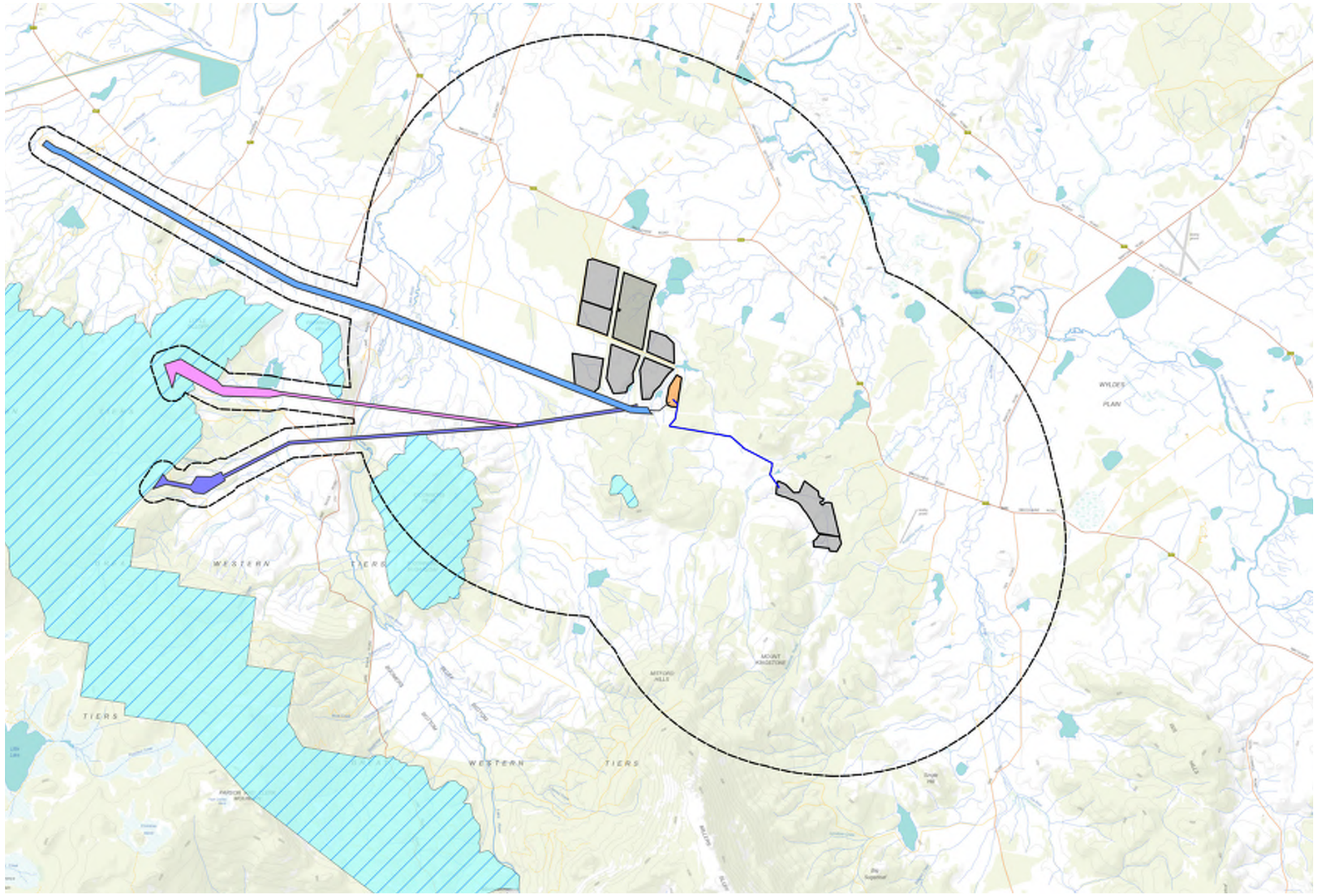
*Retention of natural tree cover on skylines and existing bushland cover on elevated slopes and of pastoral views across river flood plains;*
*Development of land does not:*
- *intrude onto skylines or river flood plains; or*
- *change the landscape character of elevated areas, pastoral scenes or*
- *river flood plain views;*

*as seen from tourist corridors or through roads.*

### 2.4.3 Renewable Energy Coordination Framework

The Tasmanian Government's vision is to increase the renewable energy sector within the state with this vision guided by the Renewable Energy Coordination Framework (RECF). This framework focuses on priority areas, also identified as 'pillars', including: integrated infrastructure, community, environmental and economic. These priorities area have associated actions that are addressed within the framework to achieve the Renewable Energy Target (RET) legislated by the Tasmanian Government. The target is to increase renewable energy output by 200% based on 2022 figures by 2040. Renewable Energy Zones (REZ) will assist in the siting of these Projects.

One of the actions within the 'Integrated Infrastructure' priority areas is the need to establish Renewable Energy Zones (REZs) as introduced by the Australian Energy Market Operator (AEMO). Currently there are three onshore REZs proposed for Tasmania including the: North West REZ, Central Highlands (Midlands) REZ and the North East REZ. Palmerston Substation will form an integral part of the proposed Central Highlands (Midlands) REZ with the Project located within this potential REZ and will connect into the grid through the Palmerston Substation.




## Scenic Protection Code Areas

**LEGEND**

- Solar Array Extent
- Infrastructure Extent
- Proposed 220kV Transmission Line Opt 1
- Proposed 220kV Transmission Line Opt 2.1
- Proposed 220kV Transmission Line Opt 2.2
- Proposed 33kV Transmission Line
- 5000m Extent Line (Study Area)
- Scenic Protection Area

Figure 02 - Scenic Protection Code Area (Source: Esri ArcGIS)

0 2 4 6 8km

# 3.0 Project Overview

## 3.1 Project Overview

The Project includes the construction, operation and eventual decommissioning of a Solar Farm and associated infrastructure including a BESS and Transmission Lines. During its life of 30 years, the Project will produce energy for the state, increasing renewable energy production which in turn will reduce the demand for the use of fossil fuels. The Project installation utilises approximately 543 ha. The Project Footprint includes all proposed elements, i.e. the entire area covered by the PV Arrays, access tracks, 220kV transmission line, main infrastructure area, construction areas/carparking, and the internal 33kV line. Of the total Project Footprint, Solar West comprises of approximately 369.2 ha and Solar East comprises of approximately 63.1 ha.

Key infrastructure and assets associated with the Project includes:

- Solar Photo Voltaic Modules
- Single Axis tracking in 2P Format
- Battery Energy Storage System
- Internal cabling and Transmission Network (33kV) between Solar East and Solar West
- Switchyards
- Internal lane ways for maintenance and for movement of livestock
- Internal access and maintenance roads and car parking
- Operation and Maintenance offices and shed located near the main substation
- Access roads into the Project
- Three (3) Transmission Line Options are being considered to connect the Project into the National Grid. The expected height of the proposed 220kV transmission line is 35-45m (almost double the height of the existing 110kVline)

During the construction phase, temporary facilities would include a laydown area with a secure compound for security, construction site offices and amenities and car and bus parking areas for construction staff. After decommissioning, most above ground infrastructure would be removed and the site returned to its existing land capability, for continued agricultural or alternative appropriate uses.

The Project will be connected to the Grid via the Palmerston Substation located west of the Project by a new transmission line. Currently, three (3) transmission line options have been explored, only one route will be selected and developed. Option 1 is considered to have the least landscape and visual impact of the three options. The layout of the Project can be seen in Figure 03.

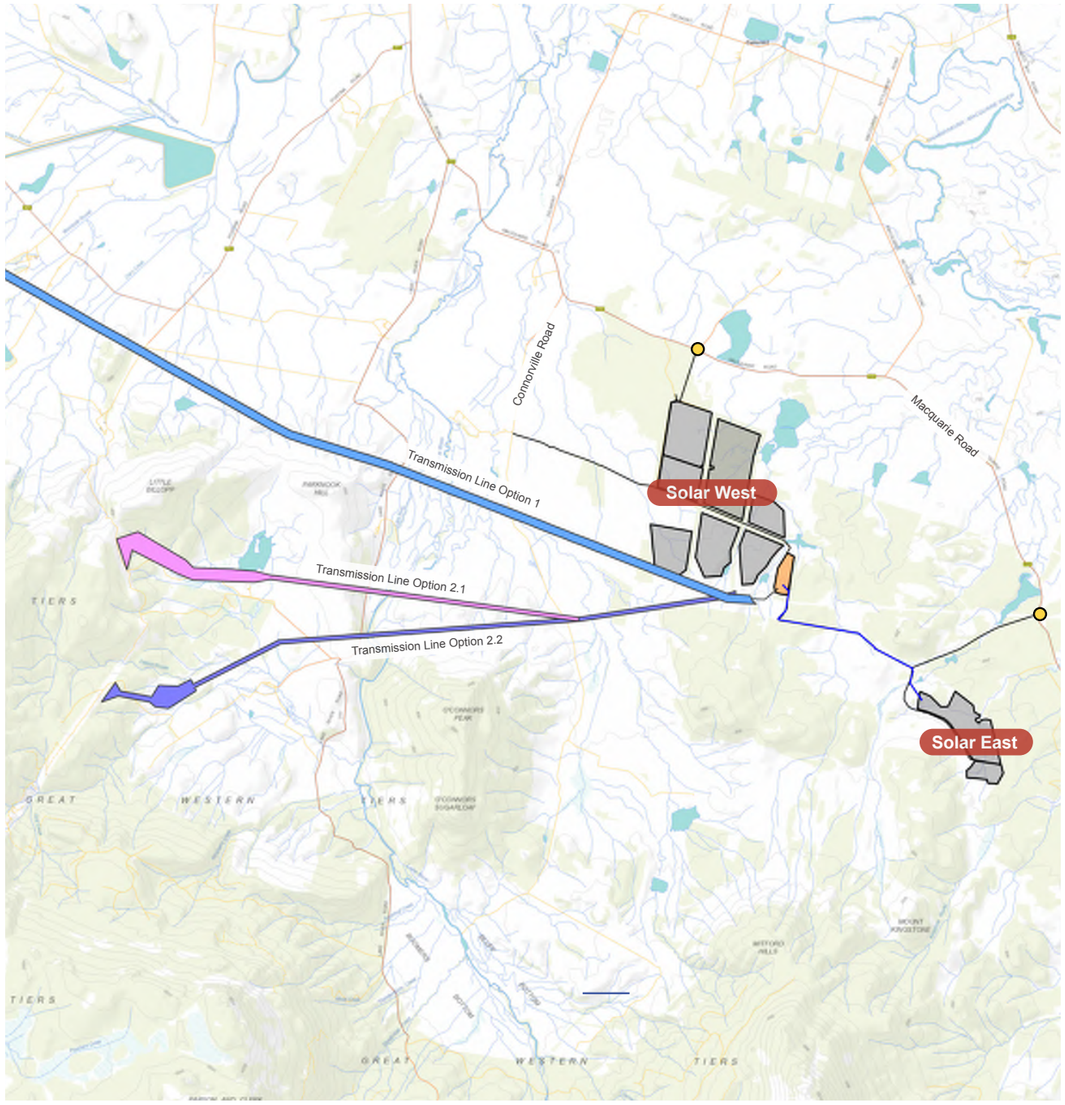



**Figure 03 - Project Layout (Source: LISTmap Tasmania, January 2023)**

# 4.0 Existing Landscape Character

## 4.1 Site Description

The Project is located off Macquarie Road, approximately 14 km southeast of Cressy in Tasmania. The Project is primarily zoned as Agriculture (Zone 21) under NMPS 2022 (refer to section 2.4). Currently is the Project Site is being used for agricultural practices outside the conservation protection areas which currently accessed by Connorville Road to the west of the Project (privately owned road) located off Macquarie Road running to the south.

Between the proposed solar array and infrastructure extent, the Project Site is heavily vegetated by local species protected by conservation measures under the NMPS 2022. Within the proposed extent, the land is relatively cleared with scattered vegetation visible, allowing for grazing and cropping. Observations during fieldwork confirms no residential dwellings are located within the Project Site. Lake River runs north to the south through the irrigated pastures to the west of Connorville Road. The terrain is relatively flat in this location with the land form undulating to the south and southwest. These undulations form part of the Great Western Tiers mountain range, including the O'Connors Peak (615 AHD) and Little Billopp.

An existing TasNetwork transmission line is running to the south of the Project connecting Palmerston Substation in the west to Avoca Substation to the east. Infrastructure associated with the substation such as overhead transmission lines and poles are viewed as part of the existing visual character.

For the purposes of this report, references made to the 'Study Area' is generally defined as the land up to five (5) km from the Project and also includes the proposed transmission line options as shown in Figure 04.

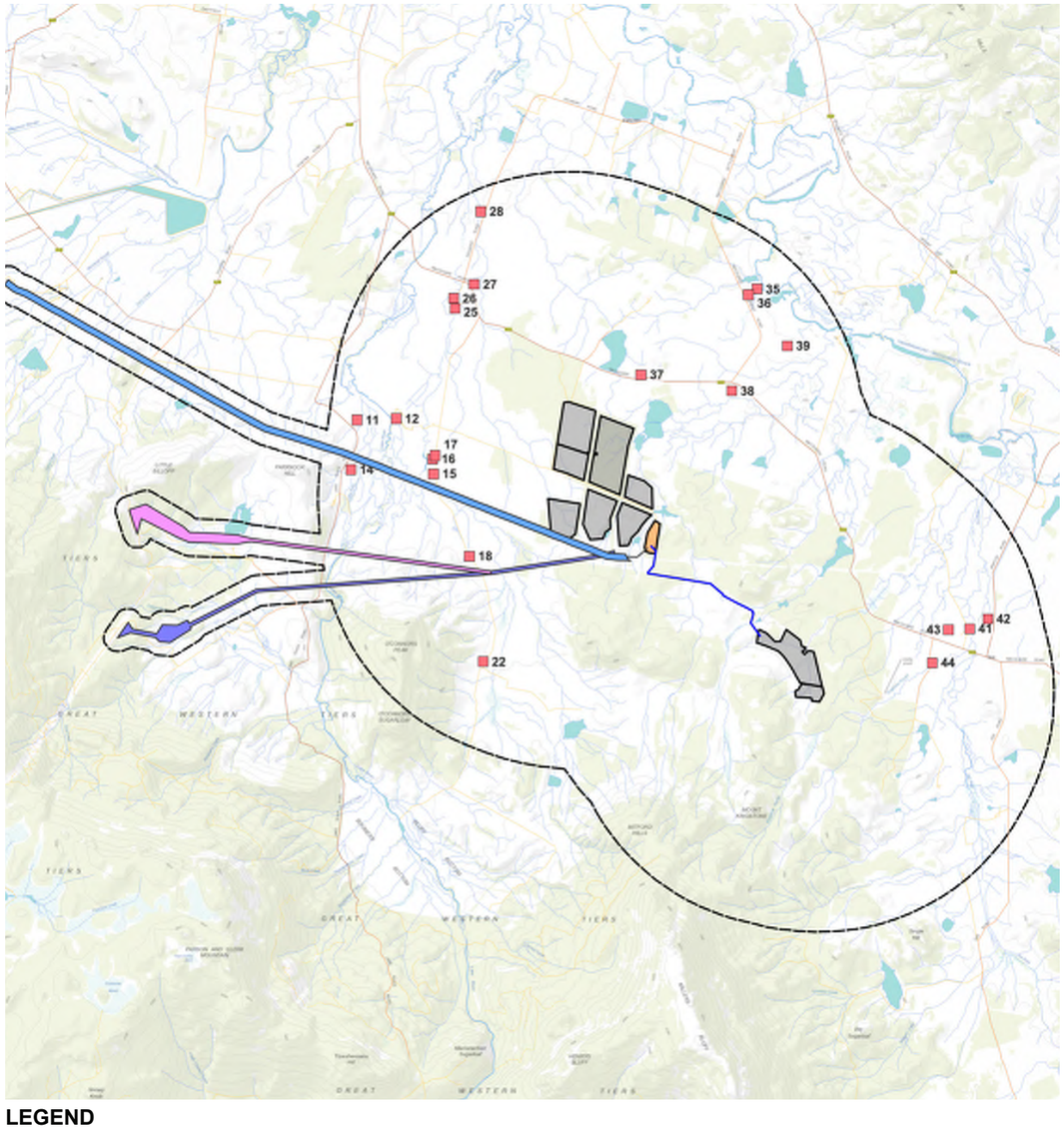



Figure 04 - Site Context (Source: LISTmap Tasmania, January 2023)

## 4.2 Existing Landscape Character

The surrounding character is dominated by rural properties which are generally cleared (outside the conservation protection areas) to support farming activities including irrigated pastures, grazing and cropping. The Great Western Tiers Mountain Range (GWT) is a key landscape feature of the area and is situated to the south of the Project (refer to Image 01) and is densly vegetated.

### 4.2.1 Topography & Hydrological Character

The Project lies within the Macquarie River Catchment. Lake River (refer to Image 02) is located approx. 3km west of the Project, and starts near Paradise Hill within the GWT, at an elevation of approx. 750m AHD, where it runs downhill to connect with the Macquarie River south of Cressy. There are no creek channels identified within the Project Area. The terrain is relatively flat to gently undulating within the agricultural areas surrounding the Project, with the topographic condition changing to the south, forming a part of the GWT. O'Connor Peak (615 AHD), which is part of the GWT is located at the northern boundary of the Tasmanian Wilderness World Conservation Area. These sites have been identified under the Scenic Protection Code (see Figure 02) as outlined in Section 2.4.2, and have been determined to enhance scenic quality.

### 4.2.2 Vegetation

Vegetation vcommunities, including grasslands and dry eucalyptus forests located along the GWT, are visible within the heavily vegetated nature reserves surrounding the Project (refer to Image 04). Dense vegetation is visible along Lake River corridor. Scattered trees are dotted throughout the adjoining pastures. The Project Area is generally cleared with scattered vegetation similar to those of the adjoining pastures. Established vegetation outside the extent of the conservation areas is generally associated with rural properties  and riapratin corridors.

### 4.2.3 Infrastructure & Facilities

With the exception of rural dwellings dotted through the Study Area, there are existing energy infrastrucure elements visible within the landscape, which include transmission lines (refer to Image 06) running approx. 60 km between Palmerston Substation and Avoca Substation. This infrastructure forms part of the visual landscape character. St Marks Anglican Church (NOR-C6.1.109) to the northwest of the Project (refer to Image 03) is located within the Study Area and is listed under the NMC LPS as being of local significance.

**Image 01 -** Great Western Tiers Mountain Range and O'Connor Peak

**Image 02 -** Lake River Crossing

**Image 03 -** St Marks Anglican Church

### 4.2.4 Roads

Seven (7) roads were identified within the Study Area, these are; Macquarie Road, Connorville Road, Lake River Road, Barton Road, Rothbury Road, Quarry Road and Delmont Road. The majority of the roads are low use roads providing access to rural properties in the area. Primary access to the Project is currently via Connorville Road (privately owned). Macquarie Road is a major road connecting rural roads to the township of Cressy. The Midland Highway is located to the northeast, with Barton Road connecting Macquarie Road to the highway, a major route between Launceston and Hobart. Palmerston Substation is located off Poatina Road, providing a route to the township of Poatina and the Poatina Power Station with nearby lookout.

### 4.2.5 Towns

The Project is located approximately 13km southeast of Cressy. Other nearby townships located in proximity include Poatina and Campbell Town. 21 dwellings have been identified within the Study Area. Surrounding dwellings are typical rural dwellings with surrounding vegetation utilised as buffers and screening.

## 4.3 Key Landscape Features

Primarily, the terrain within the Study Area is relatively flat to gently undulating, supporting agricultural practices including cropping, grazing and irrigated pastures (refer to Image 05). A number of nature reserves are located near the Project, consisting of dense vegetation, specifically dry eucalyptus varieties. Infrastructure associated with farming practices and transmission lines are visible within the landscape. The GWT and nature reserves is a key landscape feature of the region, a backdrop to the township of Cressy and the Project. The relatively flat terrain in the area allows for expansive views of the GWT.

**Image 04 -** Typical Conservation Area within the Study Area off Lake River Road

**Image 05 -** Typical Irrigated Pastures within Study Area

**Image 06 -** Transmission Line adjoining Macquarie Road

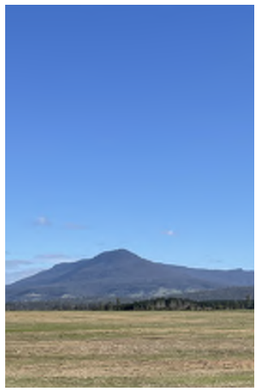
## 4.0 Existing Landscape Character


**Image 07 -** Landscape Character (Project Area Note: for visual purposes only - refer to Figure 2 'Project Layout')

## 4.4 Landscape Character Zones

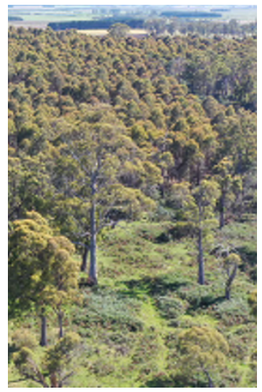
As assessment of existing land use and landscape features suggests the Study Area and surrounds consist of infrastructure associated with energy production, agricultural activities and pockets of dense vegetation. A number of Landscape Character Zones (LCZs) exist within the Study Area as shown in Figure 05, with four (4) key landscape typologies being identified.

Table 06 provides an overview of each LCZ and Scenic Quality Ratings that have been applied using the 'Frame of Reference'. These ratings have been developed to form part of the assessment in determining the Visual Sensitivity as described in (Section 2.0).



LCZ01

LCZ02



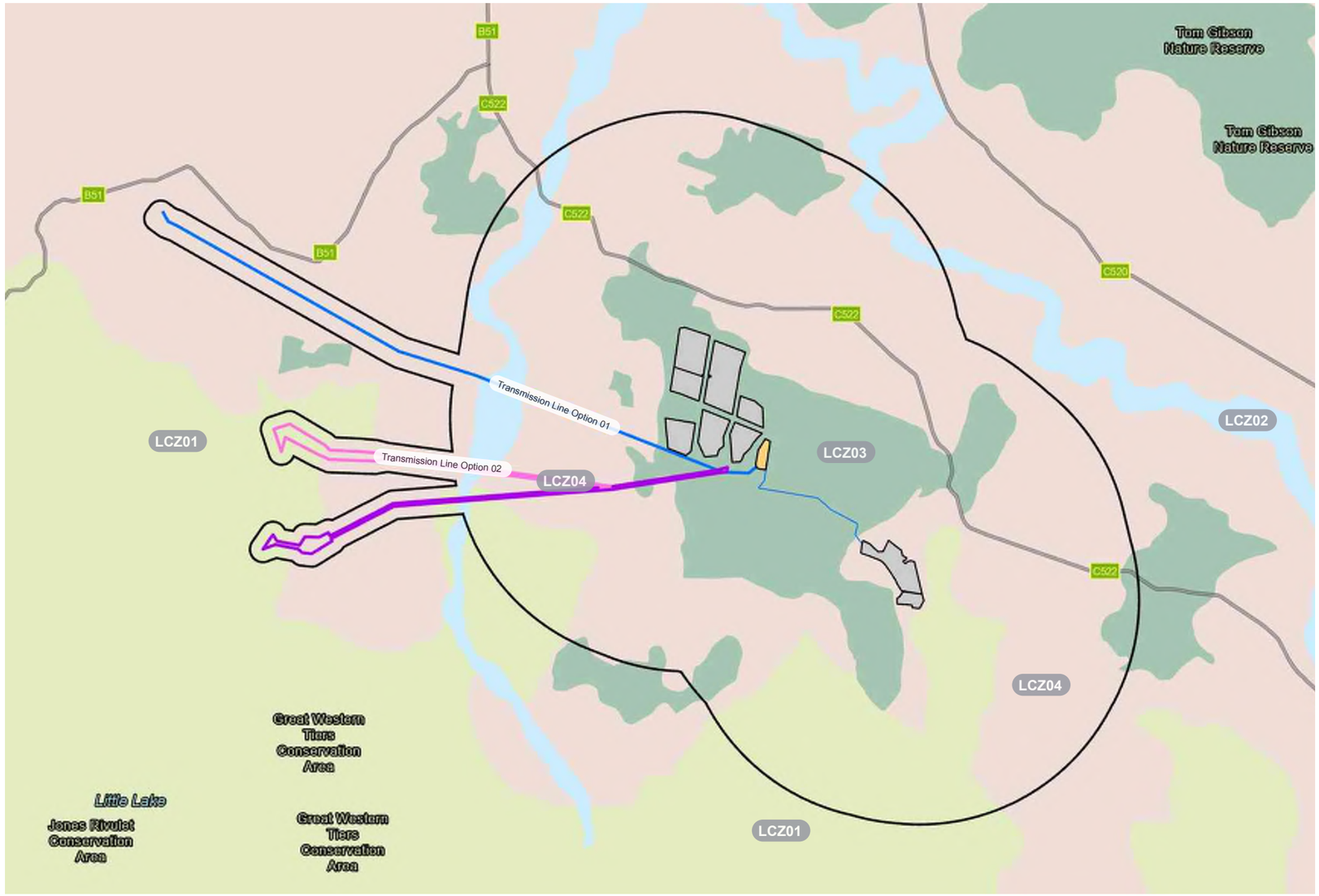
LCZ03

LCZ04

**LANDSCAPE CHARACTER ZONES**

| LCZ | NAME | GENERAL CHARACTER | | Application of Scenic Quality Rating Frame of Reference | | | | | | | SCENIC QUALITY RATING |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Landform | Waterforms | Vegetation | Human Influence | Activity | Rarity | Relationship with Adjoining Landscapes | |
| LCZ01 | Great Western Tiers & Undulations | Key landscape feature of the area. The Great Western Tiers mountain range, the northern part of the Tasmanian Wilderness Conservation Area, is a backdrop to the valley and to the township. Terrain is undulating throughout this area, with dense vegetation consisting of dry eucalyptus varieties along the undulations. | H | ● | | | ● | ● | ● | ● | HIGH |
| | | | M | | ● | ● | | | | | |
| | | | L | | | | | | | | |
| LCZ02 | Rivers | Lake River, apart of the Macquarie River Catchment runs downhill from the Great Western Tiers mountain range to the Macquarie River to the south of Cressy. Grasslands and scattered vegetation running along the river banks. | H | | ● | | | | ● | | MODERATE |
| | | | M | | | ● | ● | ● | | ● | |
| | | | L | ● | | | | | | | |
| LCZ03 | Conservation Areas & Dense Vegetation | Typically consists of vegetation conservation areas/reserves with similar established vegetation seen in LCZ01 along the undulations. Relatively flat terrain throughout, with dense vegetation visible. Typically adjoining pastures and farming areas. | H | | | ● | | | | | MODERATE |
| | | | M | ● | | | ● | ● | ● | ● | |
| | | | L | | ● | | | | | | |
| LCZ04 | Farming & Pastures | Relatively flat and land clear of vegetation being used for agricultural practices including grazing and cropping. Minimal vegetation visible in this location. | H | | | | | | | | LOW |
| | | | M | | ● | | ● | | | | |
| | | | L | ● | | ● | | ● | ● | ● | |

Table 06 - Landscape Character Zones & Scenic Quality Rating




# Landscape Character Zones

**LEGEND**

- LCZ01 - Great Western Tiers and Undulations
- LCZ02 - Rivers
- LCZ03 - Nature Reserves and Dense Vegetation
- LCZ04 - Farming and Pastures
- 5000m Extent Line (Study Area)
- Proposed 220kV Transmission Line
- Proposed 33kV Transmission Line

Figure 05 - Landscape Character Zones (Source: Esri ArcGIS)

# 5.0 Zone of Visual Influence

## 5.1 Overview of Zone of Visual Influence

An initial visibility assessment was undertaken utilising Zone of Visual Influence mapping (refer to Figure 06). This tool assists in defining the theoretical areas from which the Project would have potential visibility and create the 'Visual Catchment'.

The Zone of Visual Influence (ZVI) represents the area over which a development can theoretically be seen, and is based on a Digital Terrain Model (DTM). The ZVI is a desktop tool intended to make the fieldwork more efficient by clearly excluding areas that are screened by topography. Considerable field assessment is then undertaken predominantly within the areas where potential for impact exists.

The ZVI usually presents a bare ground scenario - i.e. a landscape without screening, structures or vegetation, and is usually presented on a base map. It is also referred to as a zone of theoretical visibility (The Landscape Institute and the institute of Environmental Management and Assessment, 2013). As accurate information on the height and coverage of vegetation and buildings is unavailable, it is important to note the ZVI is based solely on topographic information. Therefore, this form of mapping should be acknowledged as representing the worst case scenario.

## 5.2 Summary of Zone of Visual Influence

The Zone of Visual Influence (ZVI) was prepared based on the Project at a maximum assumed height of 3.8 metres to represent the worst case scenario. The ZVI indicates the potential to view the Project (higher than 25% potentially visibility) to the immediate north, west and southwest of the Project. It is crucial to note that the ZVI is based solely on topographical information and represents a bare ground scenario - i.e. a landscape without screening, vegetation or structures.

As the figure illustrates, no dwellings having potential views of over 50% based on topography alone. Topography will screen views four (4) dwellings within the Study Area. Five (5) dwellings were identified as having 26-50% of potential visibility, and 12 dwellings were identified as having 1-25% of potential visibility of the Project. The ZVI has been used to identify areas of potentially high visibility which informed the viewpoint analysis (refer to Section 6.0) and identify dwellings requiring detailed assessment.

As discussed previously, the proposed transmission options are keeping in with existing character visible on within the Study Area. Therefore, the potential visual impact is likely to be low.

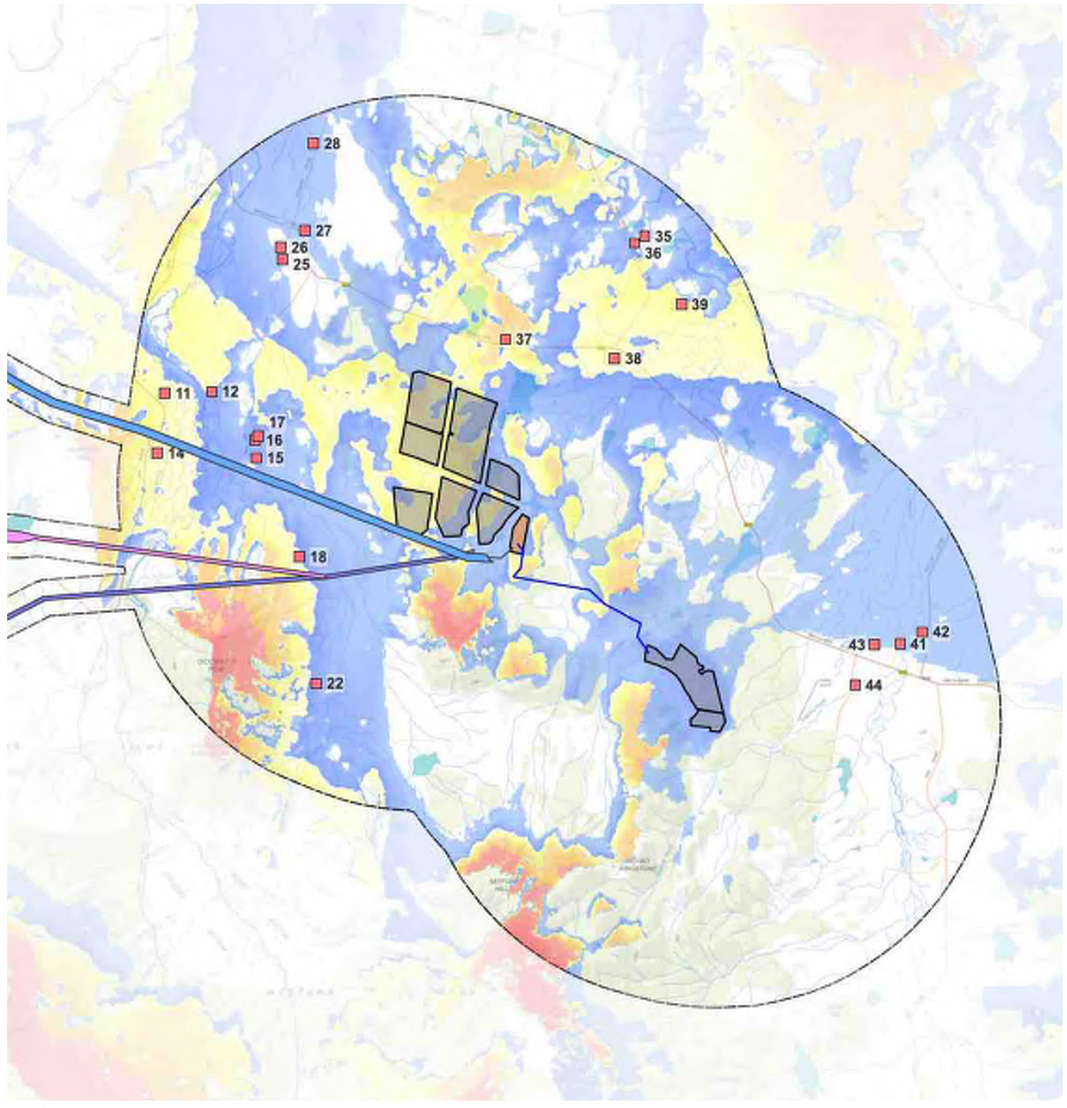



Figure 06 - Zone of Visual Influence (ZVI) (Source: LISTmap Tasmania, January 2023)

# 6.0 Viewpoint Analysis

## 6.1 Viewpoint Analysis Methodology

The viewpoint analysis considers the likely impact of the Project on the existing landscape character and visual amenity by selecting prominent sites, otherwise referred to as viewpoints.

Once the viewpoints were selected, panoramic photographs were taken on a level tripod at a height of 150cm (to represent eye level). Photographs were taken with a Canon EOS 5D Mark IV Full Frame digital SLR through a 50mm fixed focal lens which closely represents the central field of vision of the human eye.

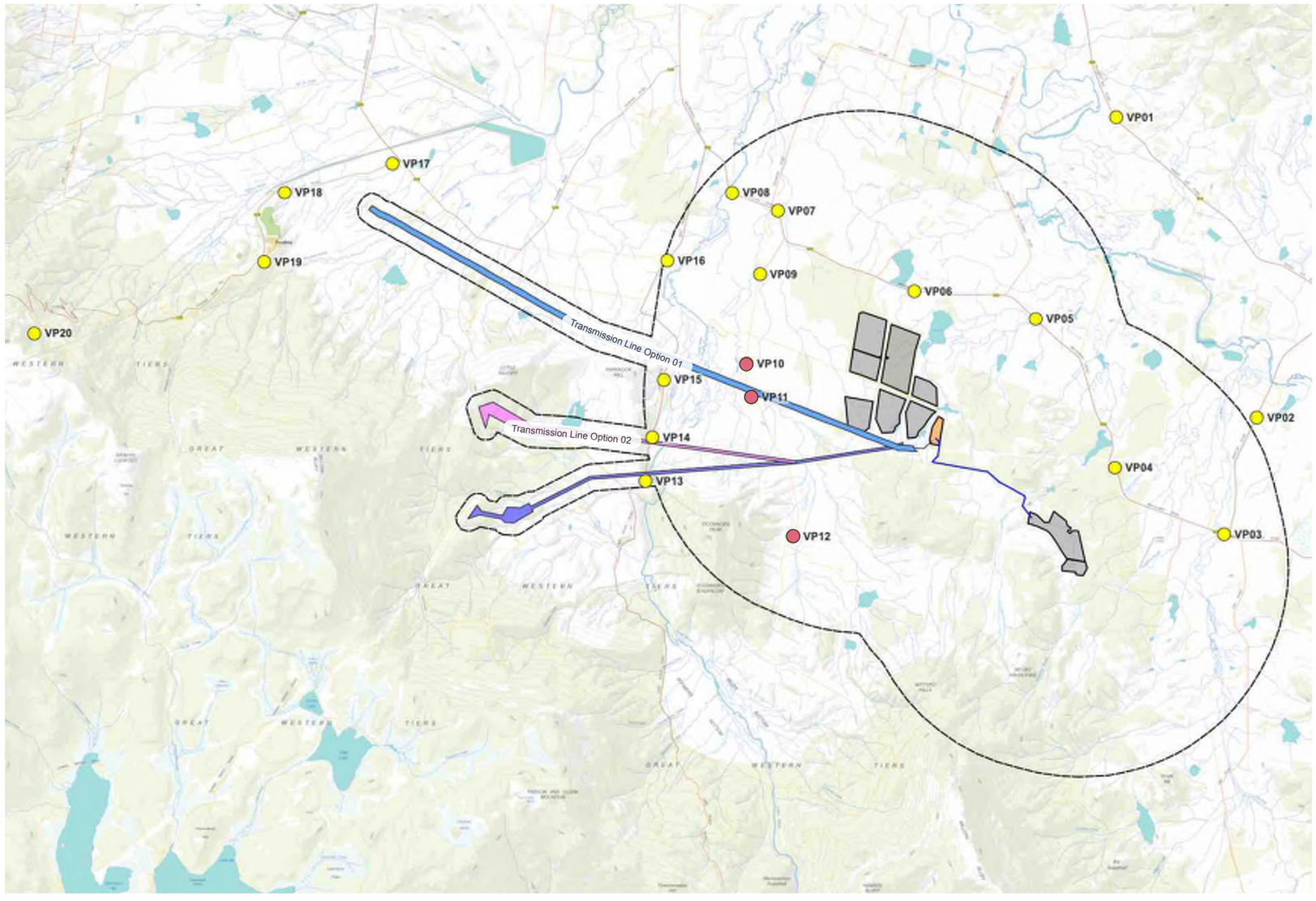
The visual impact of the viewpoint was then assessed both on site and with the topographic and aerial information to ensure accuracy. For each viewpoint, the potential visual impact was analysed through the use of a combination of the 3D terrain modelling, topographic maps and on site analysis. Viewpoint photographs and analysis is included in the following pages. The findings of the viewpoint analysis have been quantified and are summarised in Table 07.

## 6.2 Viewpoint Selection Process

The locations of the viewpoints have been identified in Figure 07. A total of 20 viewpoints, 17 from publicly accessible land and three (3) from private property, have been carefully selected to be representative of the range of views within the study area. The selection of viewpoints is informed by topographical maps, fieldwork observations and other relevant influences such as access, landscape character and the popularity of vantage points.

Viewpoints are selected to illustrate a combination of the following:

- Areas of high landscape or scenic value
- Visual composition (e.g. focused or panoramic views, simple or complex landscape pattern)
- Range of distances
- Varying aspects
- Various elevations
- Various extent of development visibility (full and partial visibility)
- Views from major routes




# Viewpoint Locations

**LEGEND**

- Public Viewpoint Locations
- Private Viewpoint Locations
- 5000m Extent Line (Study Area)
- Proposed 220kV Transmission Line Opt 1
- Proposed 220kV Transmission Line Opt 2.1
- Proposed 220kV Transmission Line Opt 2.2
- Proposed 33kV Transmission Line
- Solar Array Extent
- Infrastructure Extent

0 2 4 6 8km

Figure 07 - Viewpoint Locations (Source: LISTmap Tasmania, January 2023)

## 6.3 Overview of Viewpoint Analysis

As discussed in the rationale for the viewpoint selection process, these viewpoints are representative of the worst case scenario. For each viewpoint, the potential visual impact was analysed through a combination of topographic maps and on site analysis.

The visual sensitivity and visual magnitude of each viewpoint have been assessed which, when combined, results in an overall visual impact for the viewpoint (refer to Table 07).

Of the 20 viewpoints assessed as part of this LVIA, 14 viewpoints were determined to have a visual impact rating of ‘nil’, two (2) were rated as ‘low’ and four (4) were rated as ‘moderate’ as the scenic quality of the region was generally high due to the ‘Scenic Protection Areas’ to the south of the Project.

It is noted that visual impacts associated with the Project are likely to be higher during the construction phases and ultimately achieve a low or negligible visual impact level when the Project is constructed. The incorporated mitigation measures outlined in Section 11 of this report seek to avoid, reduce and where possible remedy adverse visual magnitudes arising from the proposed development.

Generally, the viewpoints rated as having a ‘moderate’ visual impact were taken in close proximity of the Project viewing onto ‘Scenic Protection Areas’ that are of high scenic quality. The viewpoints that were rated as ‘low’ impact contained limited views to the Project, adequate screening or roadside vegetation which obscures most views.

For a detailed viewpoint assessment refer to **Appendix B**

| VIEWPOINT | LOCATION | SCENIC QUALITY RATING | RECEPTOR RATING | **OVERALL VISUAL SENSITIVITY** | **VISUAL MAGNITUDE** | **POTENTIAL VISUAL IMPACT** (WITHOUT MITIGATION) | RECOMMENDED MITIGATION | **POTENTIAL VISUAL IMPACT** (WITH MITIGATION) |
|---|---|---|---|---|---|---|---|---|
| **VP01** | Mount Joy Road, Cressy | HIGH | HIGH | **HIGH** | **LOW** | **MODERATE** | Project is in excess of 5 km from this location. Mitigation measures along the northern perimeter will limit views of the Project | **Low** |
| **VP02** | Barton Road, Campbell Town | HIGH | HIGH | **HIGH** | **NIL** | **NIL** | Not Required | **NIL** |
| **VP03** | Macquarie Road, Campbell Town | HIGH | LOW | **MODERATE** | **NIL** | **NIL** | Not Required | **NIL** |
| **VP04** | Macquarie Road, Campbell Town | HIGH | HIGH | **HIGH** | **NIL** | **NIL** | Not Required | **NIL** |
| **VP05** | Macquarie Road, Cressy | MODERATE | MODERATE | **MODERATE** | **NIL** | **NIL** | Not Required | **NIL** |
| **VP06** | Macquarie Road, Cressy | HIGH | HIGH | **HIGH** | **NIL** | **NIL** | Not Required | **NIL** |
| **VP07** | Macquarie Road, Cressy | HIGH | HIGH | **HIGH** | **NIL** | **NIL** | Not Required | **NIL** |
| **VP08** | Macquarie Road, Cressy | HIGH | HIGH | **HIGH** | **NIL** | **NIL** | Not Required | **NIL** |
| **VP09** | Connorville Road, Cressy | HIGH | HIGH | **HIGH** | **NIL** | **NIL** | Not Required | **NIL** |
| **VP10** | Connorville Road, Cressy | MODERATE | LOW | **LOW** | **LOW** | **LOW** | Not Required. | **NIL** |
| **VP11** | Connorville Road, Cressy | LOW | LOW | **LOW** | **LOW** | **LOW** | Not Required. Views from Private Road associated with the Project | **NIL** |
| **VP12** | Connorville Road, Cressy | LOW | LOW | **LOW** | **NIL** | **NIL** | Not Required. Views from Private Road associated with the Project | **NIL** |
| **VP13** | Lake River Road, Cressy | HIGH | HIGH | **HIGH** | **NIL** | **NIL** | Not Required. Views from Private Road associated with the Project | **NIL** |
| **VP14** | Lake River Road, Cressy | HIGH | HIGH | **HIGH** | **NIL** | **NIL** | Not Required | **NIL** |
| **VP15** | Lake River Road, Cressy | HIGH | HIGH | **HIGH** | **LOW** | **MODERATE** | Not Required | **NIL** |
| **VP16** | Lake River Road, Cressy | HIGH | HIGH | **HIGH** | **LOW** | **MODERATE** | Not Required | **NIL** |
| **VP17** | Poatina Road, Cressy | HIGH | HIGH | **HIGH** | **LOW** | **MODERATE** | Not Required | **NIL** |
| **VP18** | Poatina Road, Poatina | HIGH | HIGH | **LOW** | **NIL** | **NIL** | Not Required | **NIL** |
| **VP19** | Gordon Road, Poatina | MODERATE | MODERATE | **MODERATE** | **NIL** | **NIL** | Not Required | **NIL** |
| **VP20** | Poatina Road Lookout, Poatina | HIGH | HIGH | **HIGH** | **NIL** | **NIL** | Not Required | **NIL** |

*Please note the Viewpoint Visibility Assessment Summary is based on the visibility assessment criteria outlined in Section 2.1 of this report.

**Table 07 - Viewpoint Visual Impact Summary**

# 7.0 Photomontages

## 7.1 Photomontage Development

A photomontage is a visualisation based on the superimposition of an image (i.e. building, road, landscape addition etc.) onto a photograph for the purpose of creating a realistic representation of proposed or potential changes to a view. (Horner and Maclennan et al, 2006). Photomontages have been utilised in this LVIA to assist in the impact assessment of the Project.

### 7.1.1 Photomontage Development Process

Photomontages are representations of the Project that are superimposed onto a viewpoint taken while on fieldwork to represent the visual impact of the Project on that select viewpoint location. The process for generating these images involves computer generation of a wire frame perspective view of the Project. This process includes:

- Capturing a viewpoint with a Canon EOS 5D Mark IIII digital SLR through a 50mm fixed focal lens which closely represents the central field of vision of the human eye.
- Build wireframe model of the Project.
- Match wireframe model to viewpoint location using Windpro to superimpose onto viewpoint image.
- Render model into a viewpoint image to create a realistic level illustrating the scale and position of the Project in relation to the reception from that viewpoint location.

The photo simulations based on photography from typical sensitive viewpoints are included within the following analysis section.

### 7.1.2 Photomontage Selection Process

Five (5) photomontages of the Project within the existing context were selected as key views and represent general visibility of the Project. Photomontages have been prepared for Viewpoint VP01, VP10, VP15, VP17 and VP19 (refer to Figure 08). When undertaking a LVIA, viewpoints selected for the preparation of photomontages are generally those viewpoints determined to have a higher visual impact rating (refer to Section 06). These viewpoints generally had a low visual magnitude due to the elevated position or in close proximity to the Project and/or associated infrastructure. A combination of topography and intervening vegetation results in the Project being indiscernible from other viewpoint locations assessed as having a negligible to nil impact. For photomontages refer to Appendix C.

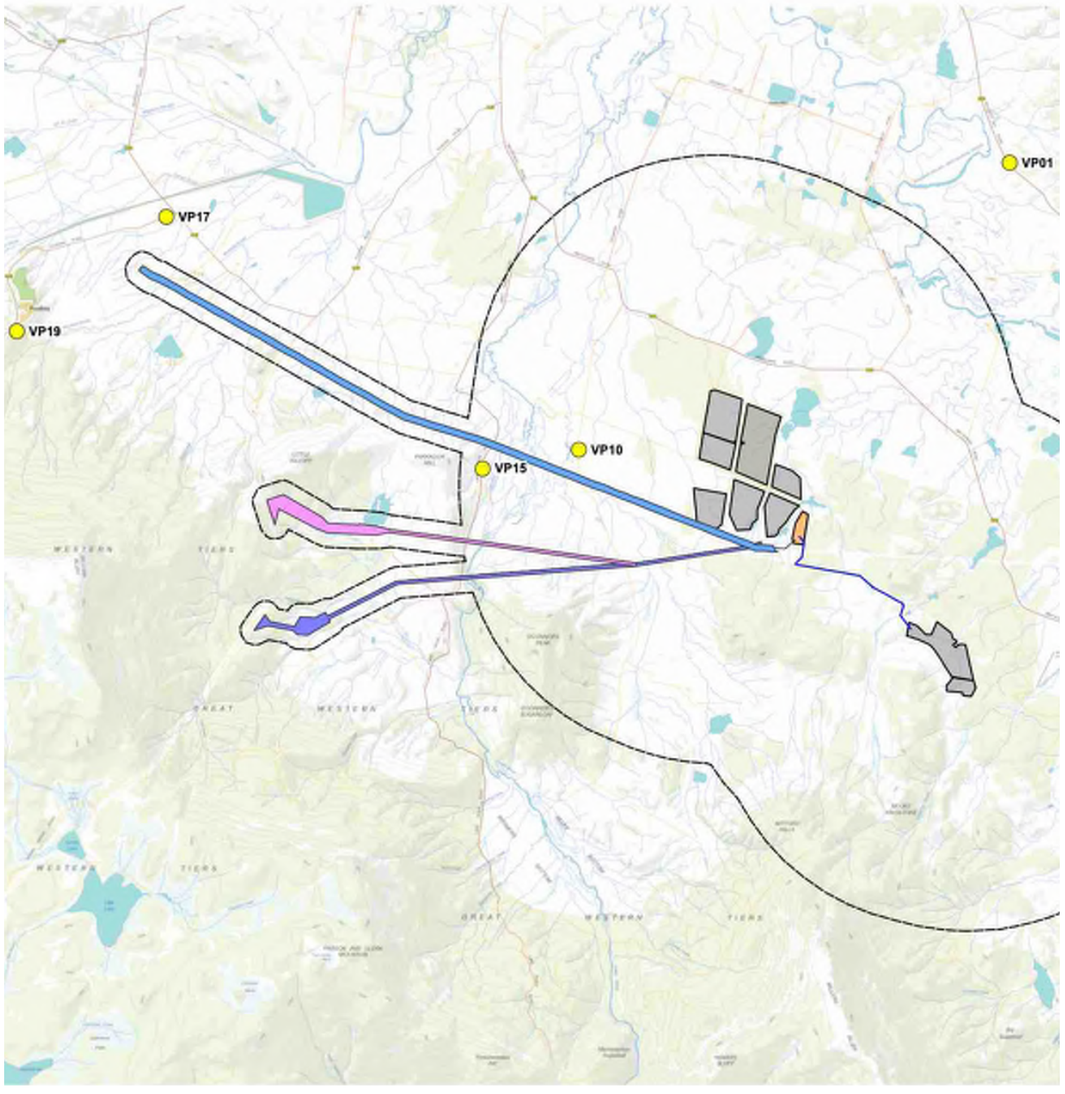



**Figure 08 - Photomontage Locations (Source: LISTmap Tasmania, January 2023)**

# 8.0 Visual Impact Assessment

## 8.1 Overview of Visual Impacts

In addition to the photographic viewpoint assessment, the following section provides an overview of the potential visibility from areas surrounding the Site and how the requirements of various regulatory frameworks are being met. This is by no means an exhaustive description of the visibility from every locality, it is intended to provide an overall assessment of the potential visual impact on areas potentially affected by the Project.

## 8.2 Overview of Visual Impact on Public Land

The Project overall will result in a 'Low to Moderate' modification to the existing visual landscape character. The Project is in compatibility with the existing energy production infrastructure present within the landscape. There are very limited opportunities to view the Project from publicly accessible land and roads, including the majority of Macquarie Road, Connorville Road and Lake River Road.

Photomontages representing key viewpoints where the receptor is located at a higher elevation or close to the Project are likely to view the Project or a part of the Project have been prepared. Scenic Protection Areas located south of the Project identified a higher viewer sensitivity associated with these receptors. However, as the Project is unlikely to alter the existing visual landscape, it therefore presents a 'Low' visual magnitude rating (refer to Section 2.4.2).

The proposed associated infrastructure, specifically transmission line option 1 connecting the Project to Palmerston Substation, will have a low visual change to the landscape as it aligns with the existing transmission line which already forms part of the existing visual landscape. Options 2.1 and 2.2 are located at a further distance from existing transmission lines, with option 2.1 also encroaching into the Scenic Protection Area, therefore option 1 is preferred. There are minimal opportunities for nearby dwellings or public receptors to view the Solar Farm due to the terrain and dense vegetation surrounding the solar array extent. Overall the Project achieves the objectives outlined in the 'Scenic Protection Area' as it does not affect views of the ridgeline or alter the pastoral and river views within the landscape.

## 8.3 Visual Impact Rating Methodology for Residences

Moir LA have developed a framework for defining and rating the level of visual effect from each dwelling.

The framework in Table 04 has been prepared with regards to the third edition of the Guidelines for Landscape and Visual Impact Assessment (GLVIA3), Residential Visual Amenity Assessment (RVAA) and Moir LA's extensive professional experience in undertaking LVIA's. Published in 2013, the GLVIA3 is well established as providing 'best practice guidance' when undertaking an LVIA. RVAA is a stage beyond LVIA and focuses exclusively on private views and private visual amenity. Considerations outlined in the RVVA provide a framework for describing and evaluating the predicted magnitude of visual change and related visual amenity effects, which includes:

- *Distance of property from the proposed development having regard to its size / scale and location relative to the property (e.g. on higher or lower ground);*
- *Type and nature of the available views (e.g. panoramic, open, framed, enclosed, focused etc.) and how they may be affected, having regard to seasonal and diurnal variations;*
- *Direction of view / aspect of property affected, having regard to both the main / primary and peripheral / secondary views from the property;*
- *Extent to which development / landscape changes would be visible from the property (or parts of) having regard to views from principal rooms, the domestic curtilage (i.e. garden) and the private access route, taking into account seasonal and diurnal variations;*
- *Scale of change in views having regard to such factors as the loss or addition of features and compositional changes including the proportion of view occupied by the development, taking account of seasonal and diurnal variations;*
- *Degree of contrast or integration of new features or changes in the landscape compared to the existing situation in terms of form, scale and mass, line, height, colour and texture, having regard to seasonal and diurnal variations;*
- *Duration and nature of the changes, whether temporary or permanent, intermittent or continuous, reversible or irreversible etc. and*
- *Mitigation opportunities – consider implications of both embedded and potential further mitigation.*

(Source: RVVA, 2019)

## 8.4 Overview of Dwellings

**Dwellings within 2 km:**

The assessment identified a total of 21 dwellings located within two (2) km of the Project. For the purpose of this LVIA, all dwellings have been assigned an ID (refer to Figure 06) and an assessment from each has been outlined in Appendix A.

Of the 21 dwellings, 15 dwellings have been identified as having a 'nil' visual impact as the Project will not be visible due to a combination of intervening topography or existing vegetation. The remaining six (6) dwellings have been identified as having a 'low' visual impact as these dwellings are located at a higher elevation and/or have reduced vegetation screening between the dwelling and the Project. It is important to note that the visual impact assessed at these dwellings is due to the proposed transmission line and thus will have minimal alteration to their visual landscape, as vegetation surrounding their dwelling will filter majority of views to the Project.

Refer to Appendix A - Dwelling Assessment Table for each dwelling's visual impact rating within two (2) km as per the criteria highlighted in Table 08.

| DWELLING VISUAL IMPACT RATING | | | | |
|---|---|---|---|---|
| | NIL | LOW | MODERATE | HIGH |
| **Distance** | The project will not be visible. | The Project may be visible in distance or very partially visible in the foreground. | The Project maybe visible in the middle ground or a small extent may be visible in the near ground. | The Project will be highly visible in the foreground. |
| **Type of views** | | Views from the dwelling are not focused on the Project. | Views from the dwelling are not focused entirely on the Project. | Views are focused directly towards the Project. |
| **Direction of view** | | The Project may be visible in peripheral views or form a very minor element in primary views. | The Project may be visible from, yet will not dominate primary views. | The Project will be highly visible and has the potential to be a dominant element in primary views from the property. |
| **Extent of visibility** | | The Project may be partially visible or fragmented. | The Project may be visible from the dwelling yet will not significantly alter the existing visual character. | The Project has the potential to significantly alter the existing visual character when viewed from the dwelling. |
| **Scale of change** | | The Project may be visible yet will not change to the existing visual character. | The Project has the potential to become a noticeable element in the view, yet will not overly diminish the existing visual character. | The Project has the potential to alter the existing visual character. |
| **Degree of contrast** | | The Project will have a low level of contrast with the existing landscape. | The Project will result in a moderate level of contrast with the existing landscape. | The scale of the Project will result in a high level of contrast with the existing landscape. |
| **Duration of change** | | Changes are temporary. | Changes to the landscape have the potential to be reduced over time (with the employment of mitigation methods). | Changes to the landscape are continuous and / or irreversible. |
| **Mitigation Options** | | Existing screening factors contribute to reducing the potential visibility. | Some existing screening factors may contribute to fragmenting the Project or there is opportunity to screen the Project. | Limited opportunities to screen the Project. |

**Table 08 - Dwelling Visual Impact Rating**

# 9.0 Nightlighting

## 9.1 Overview of Potential Night Lighting Sources

Due to the location of the Project, very little existing sources of lighting are present in the night time landscape of the Study Area. Existing lighting associated with homesteads and motor vehicles is dispersed around the Study Area. Isolated receptors within the Study Area experience a dark night sky with minimal light sources. The impact of night lighting is unlikely to be experienced from inside of a dwelling as internal lights reflect on windows and limit views to the exterior at night time.

The requirements for night lighting on Ancillary Infrastructure is generally limited to security lighting to the Substation and within the operations and maintenance facility. The light sources are limited to low-level lighting for security, night time maintenance and emergency purposes. There will be no permanently illuminated lighting installed. The proposed ancillary infrastructure has been carefully sited to minimise visibility from existing residences and publicly accessible viewpoints. It is unlikely the proposed night lighting associated with the ancillary infrastructure would create a noticeable impact on the existing night time landscape.

## 9.2 Design Principles

The following recommendations have been developed with consideration of the principles outlined in relevant best practice guidelines for lighting design. The Dark Sky Planning Guidelines have been developed by the Department of Planning and Environment (June 2016) provide guidelines for lighting practices that support the maintenance of a dark sky and improve lighting practice. The guidelines are related to projects within 200 km of the Siding Spring Observatory, however they provide relevant guidance to reduce potential light pollution can be applied to lighting design for the Ancillary Infrastructure for the Project. *The Australian Government Department of the Environment and Energy, National Light Pollution Guidelines for Wildlife: Including marina turtles, seabirds and migratory shorebirds, January 2020 Version 1.0* may also be considered during the detailed design phase. It is likely there will be limited or no visual impacts resulting from night lighting of Ancillary Structures.

**1. Control the Level of Lighting**

- Only use lighting for areas that require lighting i.e.. paths, building entry points.
- Reduce the duration of lighting:
- Switch off lighting when not required
- Consider the use of sensors to activate lighting and timers to switch off lighting

**2. Lighting Design**

- Use the lowest intensity required for the job
- Use energy efficient bulbs and warm colours
- Direct light downwards to eliminate
- Ensure lights are not directed at reflective surfaces
- Use non-reflective dark coloured surfaces to reduce reflection of lighting (Figure 09)
- Keep lights close to the ground and / or directed downwards (Figure 10)
- Use light shield fittings to avoid light spill (refer to Figure 11).

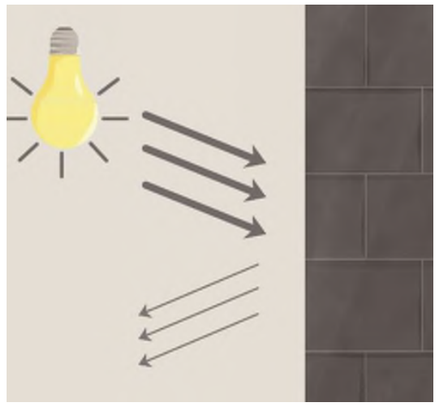


Figure 09 - Surface Reflectivity
(Source: Department of Environment and Energy National Light Pollution Guidelines for Wildlife 2020)

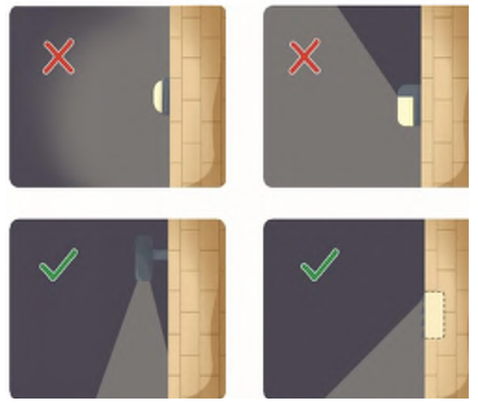


Figure 10 - Downward
(Source: Department of Environment and Energy National Light Pollution Guidelines for Wildlife 2020)

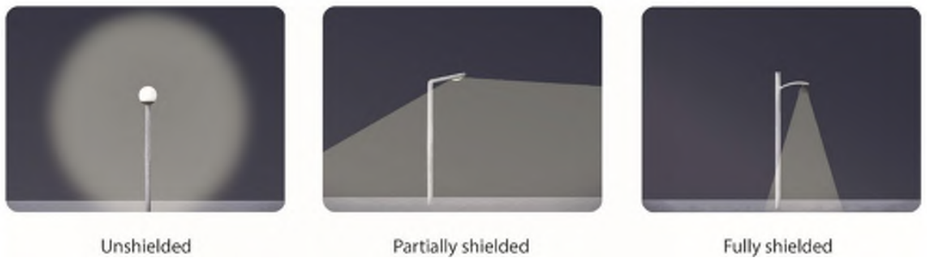



Figure 11 - Light Shielding
(Source: Department of Environment and Energy National Light Pollution Guidelines for Wildlife 2020)

# 10.0 Cumulative Visual Impacts

## 10.1 Assessment of Cumulative Visual Impact

Cumulative landscape and visual effects result from additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other developments (associated with or separate to it) or actions that occurred in the past, present or are likely to occur in the foreseeable future (Landscape Institute et al, 2013). Cumulative effects may also affect the way a landscape is experienced and can be positive or negative. Where they comprise benefits, they may be considered to form part of the mitigation measures.

A cumulative impact assessment has several dimensions:

- The impact of the proposed development when added to the combined impacts of all other existing developments and environmental characteristics of the area.
- The impact of this development in the context of the potential for other infrastructure developments in the local, regional and national context.
- The impact of developments which are ancillary to or otherwise associated with the proposed Facility eg. the development of substations and associated infrastructure.

The potential cumulative visual impact must also be assessed in relation to the potential visual impact when viewed sequentially. If the Project is viewed in succession as a traveller moves through the landscape (eg. motorist travel routes) this may result in a change in the overall perception of the landscape character. The viewer may only see one development at a time, but if each successive stretch of the road is dominated by views of a development, then that can be argued to be a cumulative visual impact (EPHC, 2010).

## 10.2 Assessment of Associated Infrastructure

In addition to the proposed PV arrays, the associated infrastructure (as described in Section 3.0 of this report) has the potential to contrast with the existing visual landscape. Due to a relatively low scale and siting of the Project, access roads, transmission lines and other ancillary structures are unlikely to alter the existing visual landscape. An overview of the potential visual impact resulting from associated infrastructure and Project components is provided below.

A summary of the proposed infrastructure associated with the development can be found in Section 3.0. Section

### 10.2.1 Main Solar Farm Substation and Eastern Solar Farm switchyard

The Collector Substation to the northwestern corner of the Solar Farm East block will take up an area 2,500 m2 once built and the main substation to the southeastern corner of the Solar Farm that will connect to the Palmertson station will be 12,500 m2. If deemed necessary during the detailed design phase, mitigation methods such as screen planting could be employed to reduce any potential visual impacts. Due to its isolated location of the switchyard, within the Project Site, the potential visual impact has been rated as negligible. Colour scheme and materiality used in the construction of the Substation are in keeping in with the general character of the area.

The proposed switchyard Area at Solar West is 100m x 125m. At Solar East it is 50m x 50m. Colour scheme and materiality used in the construction of the switching station are in keeping in with the general character of the area.

### 10.2.2 Transmission Lines

Transmission lines and poles feature in the existing landscape and form part of the existing landscape character of the area. A 220 kV double circuit overhead transmission line to Palmerston Substation is being considered. Currently, three (3) route options have been explored for the transmission line connection. A 33kV transmission line is being considered to connect the Solar East and Solar West.

The proposed transmission lines and poles will form part of the existing visual character thus having a negligible visual impact from the associated infrastructure. The resulting visual impact would be rated as low.

Work and Laydown areas will be kept to a minimum ensuring little environmental damage.

### 10.2.3 Site Access and Facilities

Site access is proposed off Macquarie Road using existing tracks and roads. The proposed access routes are proposed to utilise existing farm roads within the study area and are not additional visual elements.

Facilities for the operation of the Project include an operations and maintenance facility including staff office, meeting facilities and amenities, storage facilities, workshops and car parking facilities. The appearance of these facilities are in keeping with existing farms structures within the landscape.

Recommendations to minimise any potential visual impacts of these facilities have been included in Section 11.0

## 10.3 Cumulative Impact on Broader Landscape Character

The development of large-scale renewable energy projects within a region has the potential to alter the perception of the overall landscape character irrespective of being viewed in a single viewshed. It is important to determine whether the effect of multiple renewable projects within the region would combine to become the dominant visual element, altering the perception of the general landscape character.

At the time of lodgement no other renewable energy projects were identified within the general Study Area of the Project.

# 11.0 Mitigation Recommendations

## 11.1 Recommended Mitigation Methods

Opportunities to view the Project are limited from within the Study Area. As a result, there are no areas likely to experience unacceptable visual impacts

### 11.1.1 Design Considerations

Good design principles employed through the Project design phase can significantly reduce the visual impact. These include the siting principles, access, layout and other aspects of the design which directly influence the appearance of the proposed development. The following outlines the design considerations that have been applied to the site:

- The design will retain the existing roadside planting where possible along the eastern and southern boundary of the site to reduce the overall visual impact.
- Consideration will be given to the colours of the battery facility, O&M buildings and storage shed to ensure minimal contrast and to help blend into the surrounding landscape to the extent practicable (see Image 08).
- Existing vegetation generally present around the Site will be retained and protected to maintain the existing level of screening.
- Consideration should be given to controlling the type and height of the battery facility and storage shed to ensure the development does not contrast significantly with surrounding landscape.
- The proposed transmission line options are keeping in with the existing landscape character and does not take away from the existing visual character. Therefore mitigation recommendations have not been proposed.

**Image 08.**Example of a building colour palette sympathetic to the surroundings

### 11.1.2 Landscape Principles

To ensure that the screen planting integrates into the existing landscape character, the bands should be planted with fast growing small trees and bushes, and low lying vegetation to ensure a naturalistic effect. Plant species are to be selected in keeping with existing plant communities generally present at the site. Additional screen planting in the form of scattered groups could be considered along the northern boundary to further reduce impact of the proposed development.

The existing character of the landscape allows for a variety of methods of landscaping and visual screening which will remain in keeping with the landscape character. General guidelines to adhere to when planning for landscaping and visual screening include:

- Planting is recommended post construction in consultation with the landowner.
- Planting should remain in keeping with existing landscape character.
- Species selection is to be typical of the area.
- Planting layout should avoid screening views of the broader landscape.
- Avoid the clearing of existing vegetation. Where appropriate reinstate any lost vegetation.
- Allow natural vegetation to regrow over any areas of disturbance.

Locally native plant species are preferred, as they help to preserve the landscape character and scenic quality of the area as well as building habitat for local fauna. Native species are also well-suited to local conditions (ie. soil, climate, etc.) and will build on the existing vegetation assemblages in the area.

**Refer to Appendix D for a Landscape Plan.**

# 12.0 Conclusion

## 12.1 Conclusion

With all visual impact assessments the objective is not to determine whether the proposal is visible or not, it is to determine how the proposal will impact on existing visual amenity, landscape character and scenic quality. If there is a potential for a negative impact on these factors it must then be investigated and determined how this impact can be mitigated to the extent that the impact is reduced to an acceptable level.

The Project is located south of Launceston near the town of Cressy. The Project is located entirely on a single landholding title. Three (3) 220kV transmission line route options have been explored for this Project, with the preferred being Option 1 which runs alongside the existing transmission line that connects the site to Palmerston Substation and has the least visual impact. The Project area is zoned as Agricultural within Zone Number 21 under the State Planning Scheme.

As identified in the ZVI study topographical changes within the study area will likely fragment views towards the Project. Potential views of the Project are visible to the north,west and southwest areas of the Project. No dwellings were identified as having more than 50% of potential visibility towards the Project. Five (5) dwellings were identified as having 26-50% of potential visibility, and 12 dwellings were identified as having 1-25% of potential visibility of the Project. It is crucial to note that the ZVI is based solely on topographical information and represents a bare ground scenario - i.e. a landscape without screening, vegetation or structures. The transmission line route option runs along the existing transmission line and is keeping in with the existing landscape character of the area.

Visual impact ratings for four (4) locations were rated as ‘Moderate’ as the scenic quality of the region was generally high due to the ‘Scenic Protection Areas’ to the south of the Project. Generally, the viewpoints rated as having a ‘Moderate’ visual impact were taken in close proximity or had a higher elevation than the Project viewing onto ‘Scenic Protection Areas’ which are deemed as having a high scenic quality. The viewpoints that were rated as ‘Low’ impact contained limited views to the Project, adequate screening or roadside vegetation which obscures most views.

There are limited opportunities to view the Project from publicly accessible land and roads. Overall the Project will result in a ‘Low to Moderate’ modification to the existing visual landscape character. Mitigation strategies through retaining existing vegetation will assist in reducing the visual impact experienced at certain locations.

With the implementation of the recommended mitigation measures as discussed in Section 11 of this report, the Project could be undertaken whilst maintaining the core landscape character of the area, and have a minimal visual impact on the surrounding visual landscape.

The landscape has the capacity to absorb low scale visual changes associated with the Project if the recommended mitigation strategies are adopted and managed effectively. Although alteration to the existing visual landscape is possible during the construction stage, over time the Project have minimal visual impact on the existing landscape character.

# References


Australian Government Department of the Environment and Energy, National Light Pollution Guidelines for Wildlife: Including marina turtles, seabirds and migratory shorebirds, January 2020 Version 1.0

Australian Institute of Landscape Architects (AILA) Guidance Note for Landscape and Visual Impact Assessment, June 2018

Colleran, JR. & Gearing D. (1980) A Visual Assessment Method for Botany Bay, Landscape Australia, 3 August.

Department of Planning and Environment, The Dark Sky Planning Guideline: Protecting the observing conditions at Siding Spring, June 2016

Department of State Growth 2020, TASMANIAN RENEWABLE ENERGY ACTION PLAN.

Department of State Growth 2021, Renewables Tasmania - Draft Renewable Energy Coordination Framework.

DOP (1988) Rural Land Evaluation, Government Printer, Department of Planning.

EDAW (Australia) Pty Ltd (2000) 'Section 12 – Visual Assessment', The Mount Arthur North Coal Project: Environmental Impact Statement, URS Australia Pty Ltd, Prepared for Coal Operations Limited.

Federal Aviation Administration, Technical Guidance for Evaluating Selected Solar Technologies on Airports, April 2018, Washington, DC

Horner + Maclennan & Envision (2006) Visual Representation of Windfarms - Good Practice Guidelines. Scottish Natural Heritage, Inverness, Scotland.

Northern Midlands Council 2021, 'Tasmanian Planning Scheme - Scenic Protection Code: Northern Midlands Local Provisions Schedule', Tasmanian Planning Scheme - Scenic Protection Code

Renewables, Climate and Future Industries Tasmania 2021, RENEWABLE ENERGY COORDINATION FRAMEWORK.

State Planning Provisions 2022, Tasmanian Planning Scheme, 20 July.

Tasmanian Government n.d., Tasmanian Planning Policies.

The Landscape Institute with the Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Assessment Third Edition, Newport, Lincoln.

Transport for NSW, Guideline for landscape and visual impact assessment: Environmental Impact Assessment Note EIA-NO4, August 2020

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# NORTHERN MIDLANDS SOLAR FARM

## SOCIOECONOMIC IMPACT ASSESSMENT (SEIA)

CONNORVILLE ESTATES PTY LTD | APRIL 2023

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## GLOSSARY OF TERMS

| | |
|---|---|
| **Direct Impacts** | Direct output or value of development or construction activity. |
| **Employment** | Employment data represents the number of people employed by businesses/organisations in each of the industry sectors in a defined region. Employment data presented in this report is destination of work data. That is, no inference is made as to where people in a defined region reside. This employment represents full-time equivalent jobs, based on a 38-hour work week. |
| **Indirect Impacts** | Supply-Chain effects – The increased output generated by servicing industry sectors in response to the direct change in output and demand; and<br>Consumption effects – As output increases, so too does employment and wages and salaries paid to local employees. Part of this additional income to households is used for consumption in the local economy which leads to further increases in demand and output region |
| **Output** | Represents the gross revenue generated by businesses / organisations in each of the industry sectors in a defined region. Gross revenue is also referred to as total sales or total income. |
| **Gross Regional Product** | The total value of final goods and services produced in the region over the period of one year. |
| **Regional Exports** | Represents the value of goods and services exported outside of the defined region that have been generated by businesses / organisations in each of the industry sectors within the region. |

# EXECUTIVE SUMMARY

Connorville Estates Pty Ltd engaged Urban Enterprise to prepare a socioeconomic impact assessment (SEIA) for a proposed large-scale solar farm in Northern Midlands in north east Tasmania. The purpose of this report is to identify and assess the suite of socioeconomic impacts (positive and negative) that could be created by the project.

## PROJECT OVERVIEW

The proposed Northern Midlands Solar Farm (NMSF) project includes the following key features:

- Energy generation capacity of 288MW DC/370MWp AC;
- Battery storage facility and ancillary infrastructure including a new 220kV transmission line; and
- Agricultural livestock grazing alongside the proposed solar farm (i.e. agrisolar).

The project is proposed to be constructed on a 543ha development area at 394 Connorville Road in Cressy, approximately 55km south of Launceston.

## STRATEGIC & POLICY CONTEXT

- Federal and State Government policy is accelerating the transition to renewables, including more ambitious targets for renewable energy generation and greenhouse gas emissions reduction.
- Having achieved 100 per cent renewable energy generation in 2020, Tasmania is now aiming for 200 per cent renewable energy by 2040, as well as net zero greenhouse gas emissions by 2030.
- The Tasmanian Government has identified renewable energy investment as an economic driver for the future and has several policy objectives to increase renewable energy generation, with an overarching target to becoming a renewable energy powerhouse.
- Renewable Energy Zones (REZ) were introduced by the Australian Energy Market Operator (AEMO) to help identify regions that are highly suited to renewable energy development. NMSF is situated within one of Tasmania's REZ, providing a key point of justification for the proposed location of the project.
- Large-scale solar farms are yet to form part of Tasmania's renewable energy mix, but is considered critical to the state's energy transition and future energy needs. The project will support further growth in Tasmania's renewable energy industry, and diversify the state's new energy mix, which is primarily wind and hydro power.
- Local policy supports investment and economic development in the municipality, particularly development opportunities enabled by the natural environment.

## SOCIOECONOMIC PROFILE & CAPABILITIES

- The NMSF will draw on a regional, state and national supply chain for the development, construction and operational phases of the project.
- Solar panel manufacturing and specialised capabilities (design, engineering, technicians) are expected to be sourced from outside of Tasmania.
- The regional business and employment mix is relatively well-matched to some of the general construction, manufacturing and transport activities required to deliver and maintain renewable energy projects.
- The Western Junction industrial precinct in Northern Midlands (co-located with Launceston Airport) and the Bell Bay Industrial Precinct in George Town include several businesses that have served other renewable energy projects in Tasmania. These businesses are well-positioned to partly support the delivery and operation of NMSF.
- There is a higher level of unemployment within the regional catchment compared with Tasmania. This indicates a level of capacity within the labour market to support the project, particularly during the construction phase – which has a higher level of peak labour demand.

## SOCIOECONOMIC IMPACT SUMMARY

| No. | Impact | Economic Impact | Main stakeholders/ and industries affected |
|---|---|---|---|
| SHORT TERM | | | |
| 1 |  **Economic stimulus construction phase** | The estimated construction investment of $478 million is estimated to generate $1.09 billion in total economic output and support 986 (FTE) jobs during the construction phase, including 370 direct jobs. | Regional and state construction industry: civil trades, labourers, machinery operators, technicians. |
| 2 |  **Amenity disruptions from construction activities** | Amenity impacts such as noise and traffic may arise from associated construction activities. However, technical studies prepared as part of the development application suggest these impacts will be minimal, and will be appropriately managed through construction and environmental management plans. | Local residents (proximate), passing travellers. |
| 3 |  **Competition for labour force** | There are a small number of renewable energy projects planned in proximity to the development area, and a diverse range of other renewable energy projects across the State.<br>Some of the jobs and skills required to deliver these projects, and anticipated timing of construction may overlap with NMSF. The overlap has the potential to increase competition for local labour, and could lead to tensions and delays across projects. | Major projects planned in-region. |
| 4 |  **Cumulative demand for housing and accommodation** | Some of the 370 construction workers will be imported from outside of the region, and will require a mix of rental housing and commercial accommodation.<br>Greater Launceston has adequate rental property and commercial room capacity to meet accommodation demand generated by the project's construction phase.<br>However, if all renewable projects are delivered across Tasmania (as planned), servicing the cumulative housing needs could place temporary upward pressure on rents and commercial room rates. | Local businesses and local residents (housing only) |
| LONG TERM & ONGOING | | | |
| 1 |  **Ongoing economic impacts Operational phase** | The ongoing operation of the solar farm is estimated to generate $36 million in total economic output and support 27 (FTE) jobs per annum, which includes 11 direct jobs (FTE). | Local and regional economy |
| 2 |  **Agricultural value of grazing** | The development area is primarily used for cattle and sheep grazing, with some crop production.<br>Under the Agrisolar proposal for NMSF, sheep grazing will replace cropping and cattle grazing on the development area. The potential reduction in agricultural value would be negligible, and would have low impact on the property's agricultural amenity. All other agricultural activities currently in use across the balance of Connorville Station will remain.<br>There will be no perceived detrimental impact on the continued agricultural use of surrounding properties for grazing, cropping and irrigation as a consequence of the proposed project. | Local and regional agriculture industry |
| 3 |  **Renewable energy generation close to transmission** | The project benefits from proximity to Palmerston Substation, and the proposed new transmission line route has been selected as it follows an existing line and utilises some of the existing easement; thereby minimising impacts to community and environment where possible. | Local, regional and state energy consumers. |

| | | | | |
|---|---|---|---|---|
| 4 |  | **Assist in state and national energy transition** | 288MW DC / 370MWp AC of renewable energy capacity will assist Tasmania's transition to new energy, delivering more affordable, reliable and secure electricity to consumers and export markets. | State and national economy. |
| 5 |  | **Municipal revenue** | Council will receive an uplift in revenue in the form of additional rates and charges due to a change in land use on-site. The estimated revenue uplift delivered to Council in year 1 is in the order of $36k per annum. Ongoing rate revenue will be redirected into the Northern Midlands community for wider benefit. | Northern Midlands Council.<br>Local economy and community. |
| 6 |  | **Amenity impacts** | Once built and operational, the physical infrastructure of the solar farm could create long term amenity impacts such as visual, noise and traffic. Technical studies prepared as part of the development application indicate that there are unlikely to be any substantial amenity impacts during the operational phase of the project. The proposed location of components in the development area have had regard to environmental and amenity impact minimisation. | Local residents (proximate), passing travellers. |

Source: Urban Enterprise, 2022

## IMPACT EVALUATION

The significance of impacts are evaluated by considering the expected magnitude (low, moderate and high) and the likelihood of the impact occurring during the lifecycle of the project.

Planned and recommended management measures have been included (where relevant) to optimise benefits and minimise negative impacts.

### Construction Phase Impact Evaluation & Management Measures

| No. | Impact | Magnitude of Impact | Likelihood | Management measure(s) | Recommendations |
|---|---|---|---|---|---|
| 1 | **Economic stimulus construction phase** | Moderate | Likely | None identified. | Advocate for use of local suppliers (where possible).<br><br>Liaise with regional education and training providers to notify of job and skill requirements for NMSF. |
| 2 | **Amenity disruptions from construction activities** | Low | Unlikely | Providing regular updates and notifications about the project and potential disruptions to nearby landowners.<br><br>Public community consultation sessions held in-region. | Construction and environmental management plans will be prepared as part of a condition on the planning permit. |
| 3 | **Competition for labour force** | Moderate | Possible | None Identified. | Liaise with other renewable energy project proponents to discuss synergies with jobs and skills and potential for resource sharing (if required and possible). |
| 4 | **Cumulative demand for housing and accommodation** | Low | Possible | None identified. | Engage with Northern Midlands Council, Greater Launceston Council and relevant Chamber of Commerce/Business Associations to notify of impending accommodation requirements during the construction period. |

Source: Urban Enterprise/Cogency, 2023

### Operational Phase Impact Evaluation & Management Measures

| No. | Impact | Magnitude of Impact | Likelihood | Planned management measure(s) | Recommendations |
|---|---|---|---|---|---|
| 1 | **Ongoing economic impacts Operational phase** | Low | Highly likely | None identified. | Advocate for use of local suppliers (where possible) using platforms such as the Industry Capability Network.<br><br>Liaise with regional education and training providers to notify of job and skill requirements for NMSF |
| 2 | **Loss of agricultural production value** | Low | Highly likely | The project proposes to reduce the productivity of some land currently used for cropping and grazing. | The land with the lowest agricultural and environmental value has been selected (and the development appropriately sited) to minimise disruptions to agricultural activities. |
| 3 | **Renewable energy generation close to transmission** | High | Highly likely | None identified. | None. |
| 4 | **Assist in state and national energy transition** | Low - Moderate | Highly likely | None identified. | None. |
| 5 | **Municipal revenue** | Low | Highly Likely | None identified. | None. |
| 6 | **Amenity impacts** | Low | Unlikely | Technical studies prepared to assess potential amenity impacts and recommend management measures.<br><br>Public community consultation sessions held in-region. | Refer to other technical studies for planned and recommended management measures relating to ongoing amenity impacts. |

Source: Urban Enterprise/Cogency, 2023

# 1. BACKGROUND

## 1.1. INTRODUCTION

The Northern Midlands Solar Farm project is a proposed agrisolar farm, situated on a 543 hectare development area in Cressy, north-east Tasmania, within Northern Midlands Council. The project is estimated to generate 288MW DC / 370MWp AC of electricity and will include battery storage. The project will also allow large areas of agricultural uses on the site to continue.

## 1.2. ENGAGEMENT & SCOPE

Connorville Estates Pty Ltd engaged Urban Enterprise to prepare a socioeconomic impact assessment (SEIA) for the proposal. The purpose of this report is to identify and assess the suite of socioeconomic impacts that could be generated by the project.

Economic impacts relate to the direct and indirect economic activities that are generated through the construction and operational phase of the project.

Social impacts relate to changes (both positive and negative) that may occur to the way people live and the environment during the project's lifecycle.

The scope of this analysis includes the following:

- Provide an overview of the proposal, including location, description of key elements, construction investment and development timeline;
- Assess the existing economic, strategic and policy context that is relevant to the proposal to determine the extent of alignment;
- Complete a literature review, case study analysis and review other relevant technical studies to identify potential socioeconomic impacts generated by solar farm (and Agrisolar) projects;
- Prepare an impact framework that identifies and describes the expected socioeconomic impacts that may arise during the construction and operational phase of the project;
- Estimate the economic impact of benefits (where possible) using the input-output (I-O) method of analysis;
- Assess the magnitude and likelihood of impacts, and identify planned management measures (where relevant) to optimise benefits and minimise negative impacts.

## 1.3. INFORMATION SOURCES

The following sources of information have been used to inform this assessment:

- Census of Population & Housing and Place of Work, ABS, 2021
- Census of Place of Work, ABS, 2021
- Unemployment rate, National Skills Commission, 2022
- NMSF Agricultural Assessment, Ag-Challenge Consulting, 2023
- NMSF Flora and Fauna Assessment, Nature Advisory, 2023
- NMSF Traffic Impact Assessment, pitt & sherry, 2023
- NMSF Noise Impact Assessment, SLR, 2023
- NMSF Bushfire Impact Statement, Ground Proof Mapping, 2023
- NMSF Landscape and Visual Impact Assessment, Moir Landscape Architecture, 2023
- NMSF Aboriginal Heritage Assessment, Cultural Heritage Management Australia, 2023

- NMSF Historic Heritage Assessment, Cultural Heritage Management Australia, 2023

## 1.4. PROJECT PROPOSAL

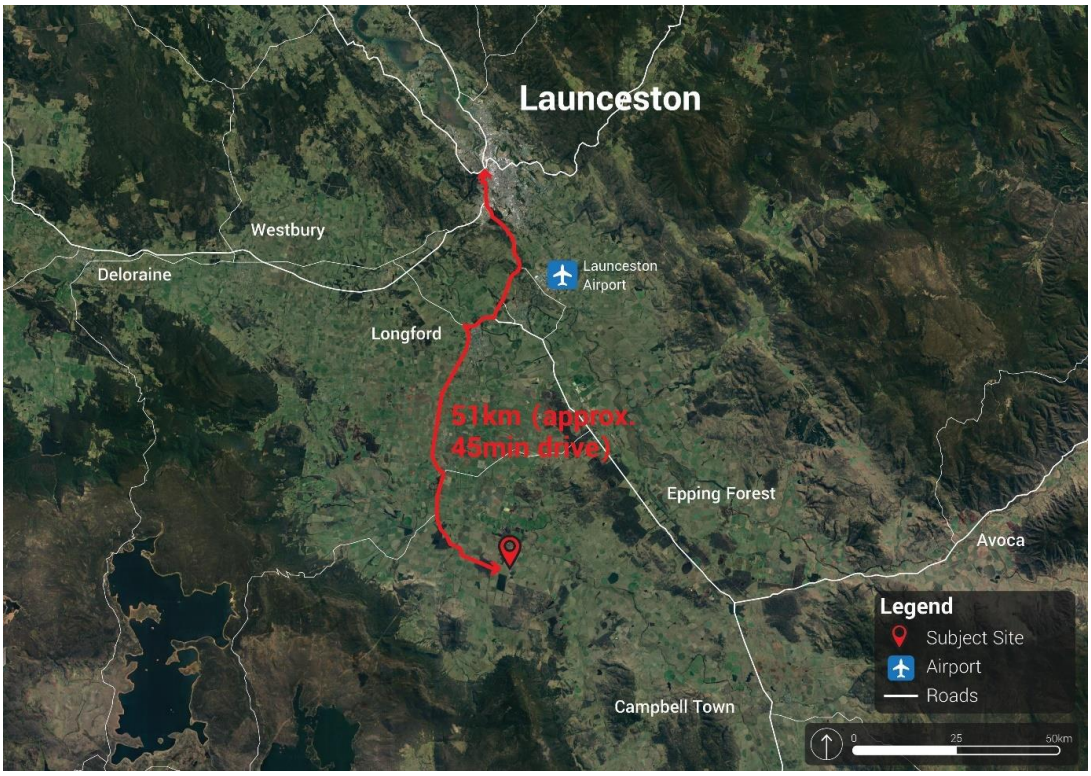
The proposed Solar Farm project includes the following key features:

- Energy generation capacity of 288MW DC / 370MWp AC;
- Battery storage facility and ancillary infrastructure including a new 220kV transmission line; and
- Agricultural livestock grazing alongside the proposed solar farm (i.e. agrisolar).

The project is proposed to be constructed on a 543ha site at 394 Connorville Road in Cressy. The site is approximately 45 minutes' drive from Launceston; the major population and employment centre in north east Tasmania.

Launceston Airport is the main gateway to the region from mainland Australia. The Airport is located in Western Junction in Northern Midlands municipality, which is less than 30min drive from the development area.

F1. SUBJECT AREA




Source: Urban Enterprise, 2023

# 2. STRATEGIC & POLICY CONTEXT

## 2.1. INTRODUCTION

This section summarises the strategic and policy context for the project.

## 2.2. STRATEGIC ALIGNMENT

Government policy is accelerating the transition to renewables, including more ambitious targets for renewable energy generation and greenhouse gas emissions reduction.

Having achieved 100 per cent renewable energy generation in 2020, Tasmania is now aiming to achieve a target of 200 per cent renewable energy by 2040, as well as net zero greenhouse gas emissions by 2030. The Tasmanian Government has identified renewable energy investment as a key economic driver for the future and has several policy objectives to increase renewable energy generation, with an overarching target to becoming a renewable energy powerhouse.

Renewable Energy Zones (REZ) were introduced by the Australian Energy Market Operator (AEMO) to help identify regions that are highly suited to renewable energy development. The development of REZ seek to maximise benefits from existing energy resources and established grid infrastructure to unlock new energy at lower cost. NMSF is situated within one of Tasmania's REZ, demonstrating justification for the location of the project.

Table 1 outlines the state, regional and local policies and strategies that support the proposal, including alignment with environmental, economic, social and community objectives:

- The project aligns and satisfies key environmental, economic and social objectives at a local, regional and state level.
- Federal and state policy is accelerating the need to transition to renewables, including more ambitious targets for renewable energy generation and reduction in greenhouse emissions.
- Renewable energy targets, incentives and investments are driving major shifts in the way energy is produced, stored and transported throughout Tasmania. New sources of energy and forms of production are planned to complement or replace traditional equivalents. Solar energy, while not a current strength in Tasmania, is considered a critical part of the energy transition and is recognised as a key growth area to support future energy needs.
- The project will support further growth in Tasmania's renewable energy industry, and diversify the state's new energy mix, which is primarily wind and hydro power.
- At the regional level, there is strong support for ongoing development of the renewable energy industry, focused on growing regional exports and investing in a resilient economy.

  > *"Climate change and related global and national energy targets are generating a need for diversification in the source of energy supply. The Northern Tasmania Region provides a prime location for investment in renewable energy production."*[1]

- Local policy also identifies a desire to encourage investment and economic development in the municipality, particularly development opportunities enabled by the natural environment.

[1] Northern Tasmanian Region Economic Development Strategy, 2019

T1. STRATEGIC & POLICY SUMMARY & ALIGNMENT

| | Relevant Objectives & Actions | Project alignment |
|---|---|---|
| **State** | | |
| Tasmania's Climate Change Act (2008)* | • Aim to achieve net zero greenhouse gas emissions by 2030 and support measures to help Tasmania adapt to climate change | • The project will assist the state in achieving its emissions target through the generation and storage of additional renewable energy |
| Tasmanian Renewable Energy Action Plan (2020) | • Transforming Tasmania into a global renewable energy powerhouse<br>• Growing the economy and providing jobs | • The project will assist in further developing the state's renewable industry. The project will also provide substantial economic benefits to the state during the construction and ongoing phases. |
| Renewable Energy Coordination Framework (2022) | • Stimulate job creation and business growth through renewable energy investment to build a skilled workforce.<br>• Engage communities to ensure benefits are tangible and valued and make positive contributions to shaping their future | • The project will generate substantial direct and indirect economic benefits for the Tasmanian economy.<br>• The project will involve community engagement. |
| Tasmanian Trade Strategy 2019-2025 | • Build trade in key sectors, including renewable energy | • The project will provide additional renewable energy capacity in Tasmania that has the potential to be exported |
| **Regional** | | |
| Northern Tasmania Regional Land Use Strategy (2018) | • Enable and support opportunities for renewable energy production | • The project will assist in the development of renewable energy generation in the region |
| Northern Tasmanian Region Economic Development Strategy (2019) | • Grow regional exports including emerging industries such as renewable energy.<br>• Increase public and private investment | • The project will generate substantial investment in the region that has the potential to grow energy exports |
| **Local** | | |
| Northern Midlands Economic Development Framework (2019) | • Actively support economic development opportunities<br>• Encourage increase in private investment and development opportunities enabled by the natural environment | • The project will generate substantial investment in the region leveraging the natural environment |
| Northern Midlands Council Strategic Plan 2021 | • Infrastructure growth builds capacity and economic sustainability.<br>• Support diverse, innovative, independent business and industry. | • The project represents an economically sustainable investment for the local economy |

Source: Urban Enterprise, 2022 *Note this act was amended in 2022

# 3. SOCIOECONOMIC PROFILE

## 3.1. INTRODUCTION

This section provides an overview of the local socioeconomic characteristics and employment capabilities to understand the potential for local supply-chain integration, and determine the extent to which the local economy can support and benefit from the renewable energy investment.

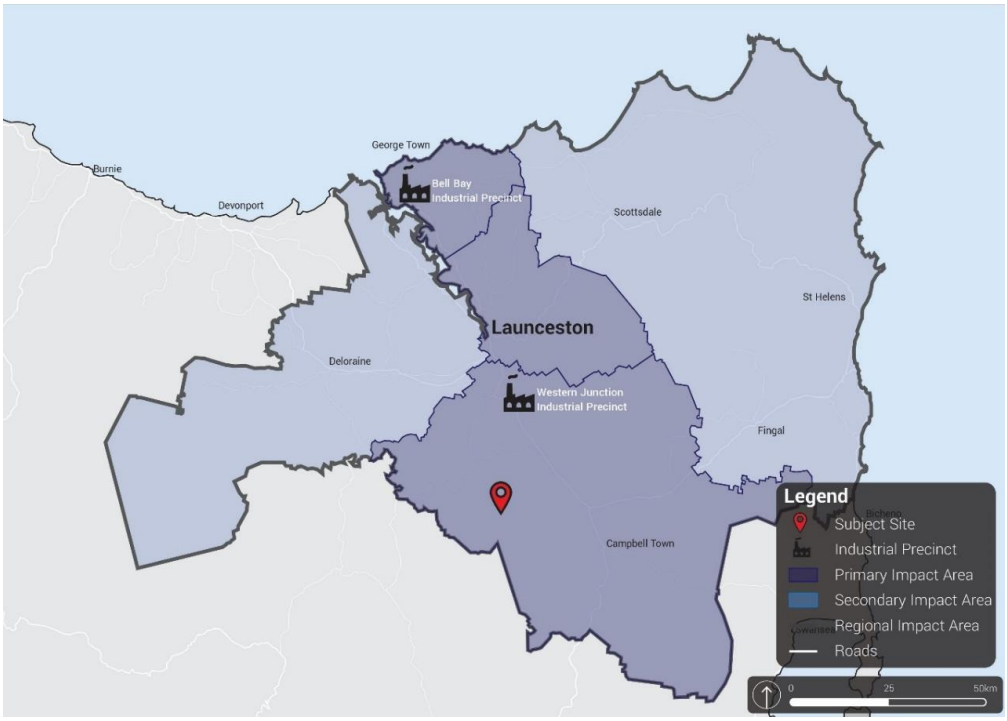
## 3.2. IMPACT AREAS

A regional impact area has been defined to understand the socioeconomic capability and capacity within the region, and the extent to which supply-chain participation and integration is possible. The impact area also provides a regional catchment in which impacts are likely to flow.

The regional impact area aligns to the Northern Tasmania region, which comprises seven local government areas; and has been further refined into a primary (Northern Midlands, Launceston and George Town municipalities) and secondary catchment. The impact areas have regard to the proximity to the project, location attributes, the population and employment base, and economic capabilities.

The project is located in proximity to key industrial precincts that have the potential to support the development of a new renewable energy project, shown in Figure 2. The Western Junction industrial precinct is approximately 35 minutes' drive from the development area, and the Bell Bay Industrial Precinct is around 1 hour 15 minutes' drive.

F2. IMPACT AREAS, NMSF



## 3.3. RENEWABLE ENERGY SUPPLY-CHAIN NEEDS

The NMSF will draw on direct and indirect supply chain during the development, construction and operation phases of the project. Supply chain opportunities will present for local businesses in activities that support key phases of the project's lifecycle.

Ideally the project will primarily draw on a regional and state catchment to support construction and operation. However, given the specialised nature of particular activities associated with large-scale solar projects and the relative supply-chain immaturity, the project is expected to draw from a national catchment.

A summary of direct project supply-chain opportunities associated with a generic solar and wind farm project is outlined in Table 2. There will also be indirect economic opportunities for population service industries on the back of worker demand for retail, hospitality and accommodation.

T2. SUPPLY-CHAIN OPPORTUNITIES, RENEWABLE ENERGY

| Phase | Industry Sector | Activity & Jobs |
|---|---|---|
| Pre-development & Planning | **Professional and technical services** | ▪ Engineering and surveying<br>▪ Planning, legal and financial services<br>▪ Environmental services<br>▪ Project management and administration |
| Construction & Operation | **Construction and trades** | ▪ Electricians and technicians<br>▪ Metal workers, welders and fitters<br>▪ Labourers<br>▪ Machinery operators<br>▪ Site preparatory and civil construction workers |
| | **Manufacturing and wholesale trade** | ▪ Parts and materials<br>▪ Equipment<br>▪ Machinery |
| | **Transport and logistics** | ▪ Truck drivers<br>▪ Machinery operators<br>▪ Machine and equipment servicing |

Source: Urban Enterprise, 2023

## 3.4. SOCIOECONOMIC PROFILE: PRIMARY CATCHMENT

The primary catchment area is home to approximately 90,000 residents, the vast majority of whom live in Greater Launceston; the key economic and population hub in north east Tasmania.

The following observations in relation to the primary catchment's socioeconomic profile are relevant:

- Greater Launceston is the regional population and service centre in north east Tasmania. The economy is relatively diverse, with a high level of employment in health, retail, education and construction.
- Manufacturing is an economic advantage across the region, particularly in Northern Midlands and George Town municipalities;
- There is a relatively high level of unemployment within the catchment and a higher level of disadvantage when compared to the state average; and
- Northern Midlands possesses a lower unemployment rate and higher participation rate compared with Launceston and George Town.

F3. PRIMARY CATCHMENT AT A GLANCE

| **Population (2021)** | | **Unemployment (June, 2022)** | | **SEIFA (2016)** | |
|---|---|---|---|---|---|
| Northern Midlands | 13,745 | Northern Midlands | 3.5% | Northern Midlands | 959 |
| Launceston | 70,055 | Launceston | 5% | Launceston | 936 |
| George Town | 7,033 | George Town | 7.9% | George Town | 857 |
| **Total** | **90,833** | Tasmania | 3.1% | Tasmania | 938 |
| **Businesses (2022)** | | **Jobs (2021)** | | **Participation (2021)** | |
| Northern Midlands | 1,213 | Northern Midlands | 5,679 | Northern Midlands | 80.4% |
| Launceston | 6,008 | Launceston | 40,577 | Launceston | 77.4% |
| George Town | 353 | George Town | 2,838 | George Town | 67.3% |
| **Total** | **7,574** | **Total** | **49,094** | Tasmania | 78.0% |
| **Top 5 Employing Industries** | | | | | |
| Northern Midlands | | Launceston | | George Town | |
| 1. Agriculture | 17.8% | 1. Health | 22.3% | 1. Manufacturing | 39.4% |
| 2. Manufacturing | 13.0% | 2. Retail Trade | 11.8% | 2. Agriculture | 7.4% |
| 3. Construction | 8.9% | 3. Education | 9.9% | 3. Construction | 6.7% |
| 4. Health | 8.9% | 4. Accommodation | 8.2% | 4. Education | 6.7% |
| 5. Transport | 8.6% | 5. Construction | 6.7% | 5. Health | 6.0% |

Source Census of Population & Housing, ABS, 2021, Business Counts, ABS, 2022.

## 3.5. EMPLOYMENT

### 3.5.1. EMPLOYMENT BY INDUSTRY

The primary catchment's employment mix is relatively well-matched to some of the general construction, manufacturing and transport activities required to deliver and maintain renewable energy projects.

Currently, solar manufacturing capabilities do not exist in the primary catchment or the broader region, thus will be required to be supplied from elsewhere. Further, more specialised technicians and engineers that will be required during the development phase may be imported from mainland Australia (if technical skills cannot be sourced locally in Tasmania).

T3. EMPLOYMENT BY INDUSTRY, PRIMARY CATCHMENT

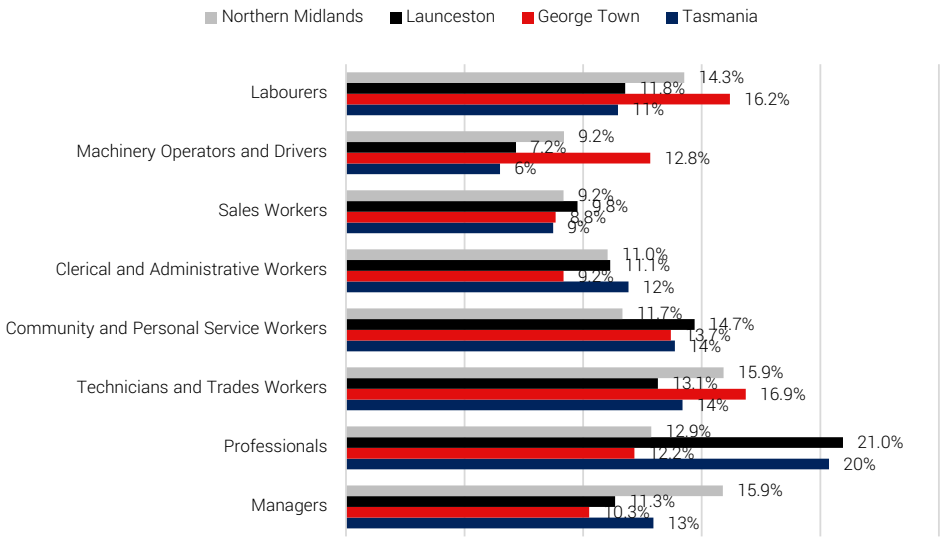
| Industry | | Employment 2021 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | George Town | | Launceston | | Northern Midlands | | Primary Catchment | |
| | Health Care and Social Assistance | 171 | 6% | 9,054 | 23% | 503 | 9% | 9,728 | 20% |
| | Retail Trade | 145 | 5% | 4,787 | 12% | 412 | 7% | 5,344 | 11% |
| | Education and Training | 191 | 7% | 4,023 | 10% | 183 | 3% | 4,397 | 9% |
| ⚡ | **Manufacturing** | **1,119** | **41%** | **1,884** | **5%** | **737** | **13%** | **3,740** | **8%** |
| | Accommodation and Food Services | 145 | 5% | 3,311 | 8% | 284 | 5% | 3,740 | 8% |
| ⚡ | **Construction** | **191** | **7%** | **2,700** | **7%** | **508** | **9%** | **3,399** | **7%** |
| | Public Administration and Safety | 76 | 3% | 2,185 | 6% | 236 | 4% | 2,497 | 5% |
| ⚡ | **Transport, Postal and Warehousing** | **138** | **5%** | **1,523** | **4%** | **490** | **9%** | **2,151** | **5%** |
| ⚡ | **Professional, Scientific and Technical Services** | **38** | **1%** | **2,022** | **5%** | **89** | **2%** | **2,149** | **5%** |
| | Other Services | 42 | 2% | 1,805 | 5% | 162 | 3% | 2,009 | 4% |
| | Agriculture, Forestry and Fishing | 210 | 8% | 612 | 2% | 1,011 | 18% | 1,833 | 4% |
| ⚡ | **Wholesale Trade** | **34** | **1%** | **1,085** | **3%** | **484** | **9%** | **1,603** | **3%** |
| | Financial and Insurance Services | 7 | 0% | 1,229 | 3% | 29 | 1% | 1,265 | 3% |
| | Administrative and Support Services | 48 | 2% | 1,044 | 3% | 126 | 2% | 1,218 | 3% |
| ⚡ | **Electricity, Gas, Water and Waste Services** | **44** | **2%** | **684** | **2%** | **58** | **1%** | **786** | **2%** |
| | Rental, Hiring and Real Estate Services | 27 | 1% | 504 | 1% | 87 | 2% | 618 | 1% |
| | Arts and Recreation Services | 13 | 0% | 537 | 1% | 56 | 1% | 606 | 1% |
| | Information Media and Telecommunications | 8 | 0% | 450 | 1% | 9 | 0% | 467 | 1% |
| | Mining | 72 | 3% | 67 | 0% | 30 | 1% | 169 | 0% |
| | **Total** | **2,719** | **100%** | **39,506** | **100%** | **5,494** | **100%** | **47,719** | **100%** |

Source: Census of Employment, Place of Work, ABS, 2021 | ⚡ key renewable energy supply-chain sectors.

### 3.5.2. OCCUPATIONS

Occupations held by primary catchment employed residents indicates an alignment of skills required in the construction and operation phase of the project. This includes a higher proportion of labourers, machinery operators and drivers, technicians, and trade workers compared to Tasmania.

F4. OCCUPATIONS, PRIMARY, SECONDARY & TASMANIA, 2021



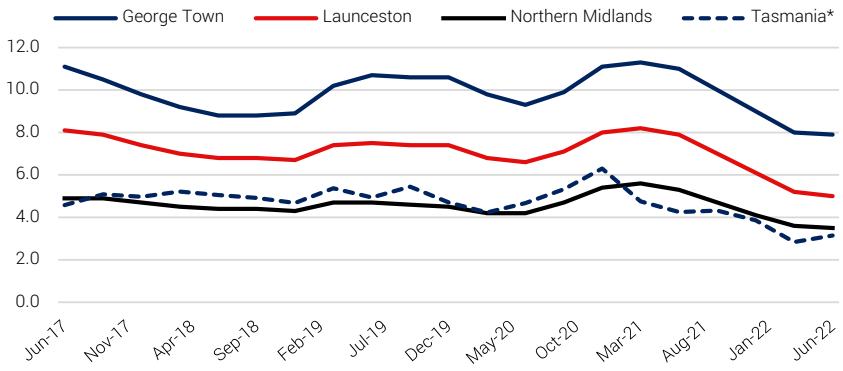

Source: Census of Population & Housing, ABS, 2021.

### 3.5.3. UNEMPLOYMENT

The unemployment rate across the entire primary catchment as at June 2022 was higher than the state average. This trend has prevailed for the past 12 months and suggests that there is capacity to increase participation within the existing local labour market.

However, Northern Midlands' unemployment rate remains the lowest in the catchment (at 3.5%), indicating a lower capacity for job creation.

F5. UNEMPLOYMENT RATE, PRIMARY CATCHMENT & TASMANIA, 2017 - 2022




Source: Small Area Labour Markets, National Skills Commission, 2022, Labour Force Survey, ABS, 2022.
*Note time series for Labour Force Survey data and Small Area Labour Markets do not exactly align

## 3.6. ECONOMIC & SUPPLY-CHAIN ALIGNMENT

The primary catchment has the potential to service some of the supply chain needs for the NMSF through the existing business and employment base located in the region, including:

- 300 jobs in related manufacturing sectors;
- 350 jobs in heavy and civil construction, and site preparation services;
- 630 jobs in road freight transport
- 240 jobs in electricity generation and distribution;
- More than 300 jobs in surveying, mapping and engineering design and consulting services.

The LQ analysis in Table 4 shows that there is a clear manufacturing specialisation in related supply-chain requirements in the primary catchment, including metal product and electrical equipment manufacturing.

Further, the Western Junction industrial precinct in Northern Midlands (co-located with Launceston Airport) and the Bell Bay Industrial Precinct in George Town include several businesses that have served other renewable energy project types in Tasmania. These businesses are well-placed to support the delivery and operation of NMSF.

T4. SUPPLY-CHAIN ALIGNMENT, JOBS IN THE PRIMARY CATCHMENT

| Industry | Jobs | Location Quotient |
|---|---|---|
| **Manufacturing** | | |
| Structural Metal Product Manufacturing | 207 | 2.9 |
| Other Fabricated Metal Product Manufacturing | 55 | 2.2 |
| Professional and Scientific Equipment Manufacturing | 20 | 2.1 |
| Electrical Equipment Manufacturing | 19 | 2.1 |
| **Total** | **301** | **2.6** |
| **Electricity, Gas, Water and Waste Services** | | |
| Hydro-Electricity Generation | 37 | 0.2 |
| Electricity Distribution | 205 | 0.7 |
| **Total** | **242** | **0.6** |
| **Construction** | | |
| Other Heavy and Civil Engineering Construction | 183 | 1.3 |
| Site Preparation Services | 167 | 1.0 |
| **Total** | **350** | **1.1** |
| **Transport, Postal & Warehousing** | | |
| Road Freight Transport | 628 | 1.1 |
| **Total** | **628** | **1.1** |
| **Professional, Scientific & Technical Services** | | |
| Surveying and Mapping Services | 49 | 1.0 |
| Engineering Design and Engineering Consulting Services | 260 | 1.1 |
| **Total** | **309** | **1.1** |
| **Total** | **1,830** | |

Source: Australian Bureau of Statistics, Census of Place of Work, 2021

## 3.7. KEY POINTS

- **The NMSF will draw on a regional, state and national supply chain during the development, construction and operation phases of the project.**
  - **Solar panel manufacturing and specialised technician (design, engineering) capabilities are likely to be imported from outside of Tasmania.**
  - **Local and regional opportunities will present for regional businesses in general construction and civil works, electrical and engineering, parts manufacturing, transport, machinery operating and servicing.**
- **Greater Launceston is the regional population and service centre in north east Tasmania. The economy is relatively diverse, with a high level of employment in health, retail, education and construction.**
- **There is a relatively high level of unemployment within the catchment. This indicates a level of capacity within the labour market to support the project, particular during the construction – which has a higher level of peak labour demand.**
- **Manufacturing is an economic advantage across the region, particularly in Northern Midlands and George Town municipalities.**
- **The Western Junction industrial precinct in Northern Midlands (co-located with Launceston Airport) and the Bell Bay Industrial Precinct in George Town include several businesses that have served other renewable energy project types in Tasmania. These businesses are well-placed to support the delivery and operation of NMSF.**

# 4. SOCIOECONOMIC IMPACT ASSESSMENT

## 4.1. INTRODUCTION

This section identifies and assesses the potential socioeconomic impacts that could arise during the construction and operational phase of the NMSF project.

## 4.2. POTENTIAL SOCIOECONOMIC IMPACTS OF SOLAR FARMS

To assist with identifying potential impacts, the following approach has been adopted:

- Review existing literature and case study socioeconomic impact assessment for comparable solar farm projects across Australia; and
- Review relevant technical studies prepared for the NMSF to identify potential social impacts.

### 4.2.1. LITERATURE REVIEW

The findings from the literature review and case study are as follows:

- The most substantial economic impacts such as direct and indirect job creation and business supply-chain generally occur during the short-term construction phase.
- Economic impacts during the operational phase are modest due to lesser demand for on-site employment to service and maintain the infrastructure.
- The state-wide benefits primarily relate to long term cost savings associated with renewable energy sources of generation and environmental benefits of renewable energy production.
- Isolated local and private beneficiaries include landowners who provide the right to use their land, and an increase in municipal rate revenue collected by Council, which is ultimately re-directed for community benefit.
- Social impacts typically relate to:
  - Amenity impacts such as noise, visual and traffic during construction;
  - Community concerns around property rights and potential impacts to the natural environment, health and wellbeing.
  - Increased pressure on local infrastructure and services due to cumulative demand from seasonal labour and major projects undertaken concurrently.

T5. KEY SOCIOECONOMIC IMPACTS, SOLAR FARMS

| Impact category | Description |
|---|---|
| Agrisolar | Agrisolar projects include special solar panels that allow for existing agricultural grazing to continue on-site. While research into agrisolar is an emerging field, a number of domestic and international studies conducted in recent years have suggested strong synergies in the co-location of agriculture and solar energy production for farming productivity, water conservation and higher renewable energy production.[2]<br>The integration of solar energy and grazing within a single site provides the opportunity for renewable energy operators and landholders/farmers to work in partnership to maximise the productive use of rural land and reduce operating costs for all parties. |
| Construction phase impacts | Output and jobs associated with the construction phase of a project. These are typically substantial and there is scope for local benefits if there is alignment with the local business and employment profile.<br>Other impacts associated with the construction phase include:<br>▪ Amenity disruptions from construction activities (noise, traffic etc).<br>▪ Cumulative demand for worker housing, accommodation, retail and services.<br>▪ Competition for labour force between other renewable energy and major projects. |
| Operational phase impacts | Output and jobs during the life of the project. These are often substantially lower than the construction phase impacts, albeit over a much longer time period. |
| Energy consumption | The capacity to generate renewable energy for state consumers. The power that is generated from renewable energy projects typically gets exported into the national energy market, and therefore benefits all consumers of electricity. |
| Remuneration for landowners | Landowners are remunerated for the right to use their land for the construction and operation of a renewable energy project, in-turn delivering financial benefits to the private landowner(s).[3] |
| Council rates | Local government receives annual payments from renewable energy generators under state government legislation. The payment combines a fixed charge with a variable charge based on a power station's capacity.[4] |
| Property values* | To date, there have been minimal domestic studies measuring the impact that proximity to solar farms has on surrounding property values. This includes the effect that visual amenity impacts caused by solar farm development has on surrounding residential property prices.[5] |
| Social impacts | Social impacts typically include the following:[6]<br>▪ Amenity impacts such as noise, visual and traffic;<br>▪ Community concerns around property rights and potential impacts to the natural environment, health and wellbeing.<br>▪ Increased pressure on local infrastructure and services due to cumulative demand from seasonal labour and major projects undertaken concurrently. |

Source: Refer to footnotes. *Given the lack of research that is available, an assessment of this impact has been excluded.

[2] Barron-Gafford et al, (2019) Agrivoltaics provide mutual benefits across the food energy water nexus in drylands. Nature Sustainability, Vol 2, Sep 2019, 851.

[3] Host Landowner Negotiations, Australian Energy Infrastructure Commission, 2020

[4] Section 94 (6A) Electricity Industry Act 2000

[5] Analysis provided by Cogency, 2022

[6] Findings from case study analysis, Urban Enterprise, 2022

### 4.2.2. REVIEW OF TECHNICAL STUDIES

Several technical studies have been prepared for the NMSF that are relevant to the SEIA. Table 6 provides a summary of relevant findings relating to impacts during the project's lifecycle.

T6. KEY SOCIOECONOMIC IMPACTS, NMSF TECHNICAL STUDIES

| Technical Study | Purpose | Findings |
|---|---|---|
| **Agricultural Assessment, Ag-Challenge Consulting** | Assess the potential impacts on existing agricultural land use. | • The subject site currently comprises 910 hectares of agricultural land, which is utilised for grazing on both dryland and irrigated pastures.<br>• The land is not highly productive or versatile, and is not considered significant or strategically important from an agricultural perspective.<br>• The proposed change of primary land use to solar energy production will mean that the current agricultural versatility (cropping or grazing) will be reduced in favour of energy production.<br>• The design of the solar farm will enable sheep to be grazed underneath the solar panels, thus retaining some of the current level of agricultural productivity.<br>• There are no perceived detrimental impacts of the proposal to the surrounding agricultural businesses and the impacts to the agricultural amenity are not considered to be significant. |
| **Flora and Fauna Overview Assessment** | Provide preliminary information on the extent and quality of native vegetation and fauna habitat within the study area | • Areas of native vegetation were generally found along the habitat corridors between paddocks, and the along the proposed access roads, and considered to be of 'moderate' 'high', or 'very high' quality, and provide 'moderate' or 'high' fauna habitat.<br>• Desktop evaluation and field surveys indicated potential suitable habitat for 31 listed flora species.<br>• Desktop evaluation and field surveys indicated potential suitable habitat for 13 listed or migratory fauna species.<br>• The solar farm layout will have limited impact on native vegetation and listed matters as it is predominantly built on the low-quality agricultural land, leaving the native vegetation corridors intact.<br>• Using existing access tracks or tracks through farmland would be preferred to avoid impacts on treed shelterbelts or woodland areas. |
| **Landscape and Visual Impact Assessment** | Assess the potential landscape and visual amenity impact of the proposed solar farm. | • Potential views of the Project are visible to the northwest and southwest areas of the Project.<br>• No dwellings were identified as having more than 50% of potential visibility towards the Project. Five dwellings were identified as having 26-50% of potential visibility, and 12 dwellings were identified as having 1-25% of potential visibility of the Project.<br>• Visual impact rating for four locations were rated as 'Moderate' as the scenic quality of the region was generally high due to the 'Scenic Protection Areas' to the south of the Project.<br>• Overall the Project will result in a 'Low to Moderate' modification to the existing visual landscape character.<br>• Mitigation strategies through retaining existing vegetation will assist in reducing the visual impact experienced at certain locations.<br>• With the implementation of the recommended mitigation measures, the proposed development could be undertaken whilst maintaining the core landscape character of the area, and have a minimal visual impact on the surrounding visual landscape. |
| **Traffic Impact Assessment** | Assess the potential traffic impacts of the construction and operational phase of the development. | • No crash patterns of concern observed.<br>• The proposed transport route is expected to have sufficient capacity to accommodate the additional traffic generated during construction of the proposed development.<br>• Operational traffic volumes of NMSF are estimated to be minimal and are not expected to have any noticeable impact to the safety and function of the surrounding road network after construction.<br>• Mitigation methods to address the traffic issues are outlined in detail in the assessment and include the installation of advisory signage, minor road repairs and the provision of sufficient parking for staff and delivery vehicles. |

| | | |
|---|---|---|
| **Noise Impact Assessment** | Undertake a noise assessment for the proposal | • Noise from construction activities: All construction works will be completed under a Construction Environmental Management Plan (CEMP). Due to the distances between the proposed site and the closest receptors construction noise impacts are relatively minimal. However, scheduling construction activities in accordance with the Prohibited Hours as defined in the Regulations, community engagement and best practice noise management controls, regular maintenance, broadband reversing beepers etc. will further minimise residual risk of harm to nearby receptors.<br>• Noise from operational activities: The closest receptor is located approximately 1,250 m north of Solar West. Night-time compliance is achieved at this receptor with the current modelling with no additional mitigation. Some receptors close to the existing transmission line corridor may experience some corona ('buzzing') noise during periods of heavy rain or high humidity, the installation of any additional transmission lines to cater for this project is not expected to increase corona noise at these receptors significantly. |
| **Aboriginal Heritage Assessment** | Undertake an Aboriginal and cultural heritage assessment for the proposal. | • The field survey identified five Aboriginal heritage sites. Two are classified as artefact scatters (AH14167 and AH14168), and three sites classified as Isolated artefacts (AH14148, AH14165, AH14166).<br>• No additional Aboriginal sites, suspected features or specific areas of elevated archaeological potential were identified.<br>• Search results show that there are:<br>  • No registered Aboriginal sites that are located within or in the immediate vicinity of the project footprint.<br>  • No stone resources identified within the study area that would be suitable for stone artefact manufacturing.<br>  • No sizeable rock outcrops occurring within the study area, and therefore there is no potential for Aboriginal rock shelters to be present.<br>• Refer to the assessment for further details on field survey results, significance assessment and recommended management/mitigation measures. |
| **Historic Heritage Assessment** | - To locate and document heritage sites within the study area.<br>- To assess the archaeological sensitivity values of the study area.<br>- To assess the scientific and cultural values of identified historic heritage sites. | • The Connorville Station property is permanently registered on the Tasmanian Heritage Register (THR) and is therefore acknowledged as being of State significance.<br>• The listing is based primarily on the heritage values of the buildings.<br>• The setting of the house in the landscape and the relationship to the outbuildings is important.<br>• The majority of the project footprint is located within the heritage-listed boundaries of the Connorville property.<br>• The project footprint is confirmed as avoiding any of the buildings of heritage significance.<br>• No dwellings or other structures were ever constructed within or in the immediate vicinity of the project footprint.<br>• The archaeological potential is assessed as being low.<br>• No other historic sites or suspected features were identified. |
| **Bushfire Impact Statement** | Provide an analysis and evaluation of the bushfire potential at a local and landscape level surrounding the proposal | • Whilst there is potential for a bushfire to impact the site, predominantly by ember transfer, there is a lack of bushfire prone vegetation connectivity across the proposed site, resulting in fire severity that is unlikely to be a significant threat to the proposal site.<br>• As the proposal is Agri-Solar, the majority of the site will be grazed by sheep on a continual basis, minimising any grass fire risk.<br>• Buildings, battery storage and associated sources of fire have been identified and deemed as low risk, providing mitigation measures are in place.<br>• The assessment has determined that the bushfire risk surrounding the and including the site has been considered in detail and proposed recommended mitigation measures to moderate the risk to an acceptable level. Mitigation measures will be specified in the form of a Bushfire Mitigation Plan. |

## 4.3. IMPACT FRAMEWORK

A socioeconomic impact framework has been prepared to outline and justify the suite of expected impacts that could arise from the project. For each impact, the main stakeholder groups and industries affected are identified.

For short term impacts, the economic benefits are expected over a finite period, and will not endure beyond the 18 month construction phase of the project.

For ongoing impacts, the economic benefits are expected to be delivered once the proposal is delivered and operational, and will incur either on an ongoing basis or over a long term horizon.

T7. ECONOMIC & COMMUNITY BENEFIT FRAMEWORK

| No. | Benefit/Impact | Rationale | Main stakeholders/ and industries affected |
|---|---|---|---|
| SHORT TERM | | | |
| 1 | **Economic stimulus: construction phase** | The direct investment to construct the solar farm and associated infrastructure will stimulate the construction industry through additional output and jobs created during the construction phase. | Regional, state and national construction industry: civil trades, labourers, machinery operators, technicians. |
| 2 | **Amenity disruptions from construction activities** | Amenity impacts such as noise and traffic may arise from associated construction activities. | Local residents (proximate), passing travellers. |
| 3 | **Competition for labour force** | If major projects with high employment needs are delivered concurrent with NMSF, competition for labour force may increase and create tensions between major projects. Conversely, if there is adequate capacity, the local labour force will benefit from an increase in participation. | Local and regional labour force, major projects. |
| 4 | **Cumulative demand for housing, accommodation and services** | The importation of workers during the construction phase will create additional demand for local infrastructure and services such as commercial accommodation, rental housing, retail and hospitality.<br>Increased retail and hospitality spending is recognised as a benefit to regional businesses.<br>An insufficient availability of housing and accommodation may increase competition between residents, visitors and other temporary workers. Conversely, if there is adequate availability, local businesses will benefit from the short term uplift in demand. | Local businesses and local residents (housing only) |
| LONG TERM & ONGOING | | | |
| 1 | **Economic stimulus: Operational phase** | The operation and maintenance of the project will require direct expenditure and jobs, which will create flow-on indirect benefits to the economy. | Local and regional economy |
| 2 | **Agricultural value of grazing** | Currently, the development area is primarily used for cattle and sheep grazing, with some crop production.<br>Under the Agrisolar proposal for NMSF, sheep grazing will effectively replace cropping and cattle grazing. The extent to which production value will be impacted is unknown. However the impacts to the agricultural amenity of the region are insignificant. | Local and regional agriculture industry |
| 3 | **Renewable energy generation close to transmission** | The proposal will leverage the existing electricity transmission network to transport electricity to state consumers, making efficient use of existing infrastructure.<br>The project benefits from proximity to Palmerston Substation, and the proposed new transmission line route has been selected as it follows an existing line and utilises some of the existing easement; thereby minimising impacts to community and environment where possible. | Local, regional and state energy consumers. |
| 4 | **Assist in state and national energy transition** | The project will assist in meeting state and national policy objectives for renewable energy generation and emissions reductions. | State and national economy. |

| | | | |
|---|---|---|---|
| 5 | **Municipal revenue** | The change in land use at the development area will alter the rates liability for the landowner. There is expected to be an uplift in Council revenue in the form of higher rates and charges. | Northern Midlands Council. Local economy and community. |
| 6 | **Amenity impacts** | Once built and operational, the physical infrastructure of the solar farm could create long term amenity impacts such as visual, noise and traffic. The scale of the impact typically depends on the significance of the environment affected, the potential to enact permanent change, and the extent of stakeholder groups that are impacted. | Local residents (proximate), passing travellers. |

Source: Urban Enterprise, 2023

## 4.4. SOCIOECONOMIC IMPACTS

This section assesses and quantifies (where possible) economic impacts expected to be created by the NMSF. Impacts are assessed for the short term construction phase, and the ongoing phase (i.e. once the project is complete and operational).

This assessment adopts the input-output method of analysis (I-O). The I-O method is based on the interdependencies and relationship between industry sectors and is widely used across the public and private sector to estimate the direct and flow on economic impacts of a project or activity to an economy.

The Productivity Commission of Australia states that "*input-output tables can be used to compute output, employment and income multipliers. These multipliers take account of one form of interdependence between industries – that relating to the supply and use of products. The numbers add up the direct and indirect impacts of a change in final output of a designated industry on economic activity and employment across all industries in an economy.*"

Definitions of economic terms can be found in the glossary of terms.

### 4.4.1. CONSTRUCTION PHASE (SHORT TERM)

During the construction phase, the following socioeconomic impacts are expected:

1. Economic stimulus generated from construction investment.
2. Amenity disruptions from construction activities.
3. Competition for labour force.
4. Cumulative demand for housing and accommodation.

#### 1. ECONOMIC IMPACTS GENERATED DURING THE CONSTRUCTION PHASE.

To derive the scale of economic impacts (jobs and investment) during the construction phase of the project the following sources of information have been referenced:

- Findings from case study analysis of large-scale renewable energy projects across Australia, including Tasmania (Appendix A). In total, 16 solar farm projects and one wind farm project were reviewed. The case study analysis included one solar farm project in Victoria that is operational; and employment figures provided in retrospect.
- The Renewable Energy Transition Modelling Tool (RETMT), developed by Remplan.

Based on the above, the construction phase of the project is estimated to generate:

- $1.09 billion in total economic output, including:
  - $478 million in direct output; and
  - $609 million in indirect output.
- 986 jobs (FTE), including:

- 370 direct jobs; and
- 616 indirect jobs.

These economic impacts are estimated to endure over the 18-24 month construction period. Indirect impacts also account for flow-on expenditure from wage stimulus associated with labour imported from outside of the primary impact area.

It is important to note that not all of the direct jobs generated by the project will flow to the impact area. A proportion of jobs will be required to be imported from outside of the region and Tasmania, given the requirement for specialised jobs and skills (e.g. solar technicians).

The greatest opportunity for local businesses and workers to support the construction phase is through more general construction activities such as civil construction and site works, trade workers and labourers, machinery operators, transport and logistics.

T8. ECONOMIC IMPACTS, CONSTRUCTION PHASE

| | Direct | Indirect | Total |
|---|---|---|---|
| Output ($M) | $478 | $609 | $1,087 |
| Jobs (FTE) | 370 | 616 | 986 |

Source: Urban Enterprise, 2023

### 2. AMENITY DISRUPTIONS FROM CONSTRUCTION ACTIVITIES

Amenity impacts such as noise and traffic may arise from associated construction activities. The findings from the technical studies indicate the following:

- The proposed transport route is expected to have sufficient capacity to accommodate the additional traffic generated during construction of the proposed development; and
- Due to the distances between the proposed site and the closest receptors, construction noise impacts are relatively minimal.

### 3. COMPETITION FOR LABOUR FORCE

There are several renewable energy projects planned in proximity to the development area and within the broader region. Examples of nearby projects that may overlap with the construction phase of NMSF include:

- Low Head Wind Farm (42MW) – located in George Town. Approved with construction expected to commence mid-2023.
- St Patricks Plains Wind Farm (300 MW) – situated in the Central Highlands LGA, adjacent to Northern Midlands. Designs completed, seeking approvals.
- George Town Solar Farm (5MW) – located in George Town. Approved, pre-construction.

It should be noted that the overall scale approved projects is not significant (less than 50MW), thus there is unlikely to be substantial competition for labour associated with these projects.

In addition, there are several other renewable energy projects proposed across Tasmania, including onshore wind, battery storage and hydrogen, as well as the planned installation of new transmission infrastructure.

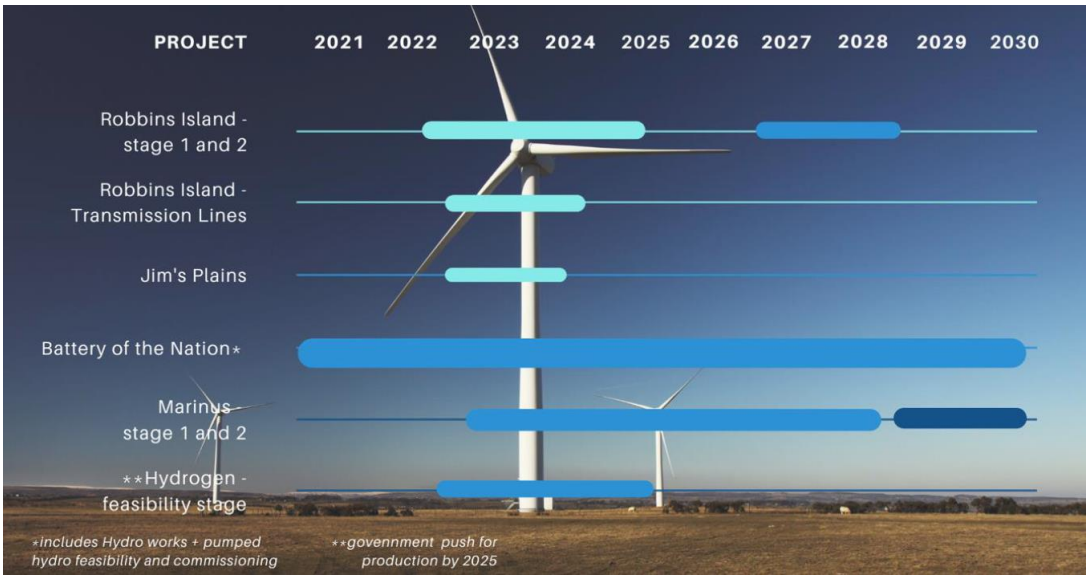
Key projects in Tasmania but outside the regional catchment are summarised in Figure 5, including details regarding timelines for each project. A summary of these projects is provided below:

- Marinus Link is a proposed 1,500MW capacity undersea electricity connection to link Tasmania and Victoria. It is a two-staged project, with peak construction in stage 1 in 2024 expected to create 402 new jobs.
- Battery of the Nation is a project that seeks to expand renewable energy storage and generation in Tasmania and is considered complementary to Marinus Link.

- Robbins Island is a wind project comprises that up to 1,000MW output with a total of $1.2 billion investment, plus transmission lines. Total peak employment is expected to be around 700 FTE at stage 1 construction.
- Jim's Plains is a wind and solar project comprising 200MW of wind and 40MW solar which is forecast to have a peak employment of 518 FTE jobs during the construction phase.

If all these renewable energy projects were to be delivered as planned and overlap with the construction phase of NMSF, the cumulative job impacts would be notable. Any potential overlap could increase competition for local labour, and might lead to conflicts and delays across projects.

F6. KEY TASMANIAN RENEWABLE ENERGY PROJECTS




Source: The Tasmanian Energy Industry Workforce Development Plan 2020 to 2027

## 4. CUMULATIVE DEMAND FOR HOUSING, ACCOMMODATION AND SERVICES

The project is estimated to require 370 direct jobs during the construction phase. Not all of these workers will originate from the impact area. Given the specialised nature of certain jobs and skill requirements (e.g. solar technicians), a proportion of jobs are anticipated to be imported from other parts of Tasmania and Australia.

For imported labour, an uplift in demand for local infrastructure and services can be expected during the construction phase such as rental housing, commercial accommodation, retail and hospitality. Given the development area's close proximity to Greater Launceston, demand will largely be concentrated to this location.

At this stage it is too difficult to determine the distribution of local, regional and imported labour. However, temporary workers will likely use a mix of commercial accommodation and rental housing when staying in-region. Key inputs for the methodology and assumptions in this section are detailed in Appendix B.

### Commercial Accommodation

To determine whether there is adequate commercial accommodation room capacity to serve worker demand, an assessment of room supply relative to average room demand has been undertaken for Launceston and surrounds (see Appendix B for catchment).

Analysis shows that the current occupancy rate for commercial accommodation in Launceston is estimated at 44%, indicating there is capacity to support additional overnight visitation.

The level of regional, state and national employment needs is uncertain at this stage. Three scenarios for the proportion of imported labour during the construction phase of the project have been assessed to understand the

impact on accommodation demand (see Table 10). The results show that the project will generate demand for between 7-13% of the catchment's accommodation room supply.

Given Launceston's relatively low occupancy rate, the accommodation demand generated by the project is considered to be an economic benefit. This is particularly the case given that workers will generate weekday demand, which is typically an off-peak period.

T9. EXISTING COMMERCIAL ACCOMMODATION ROOM SUPPLY & DEMAND

| | Description | 2022 |
|---|---|---|
| **Total room demand** | Total commercial accommodation room nights required to accommodate existing visitors | 458,555 |
| **Total room supply** | Total commercial accommodation room nights available. | 1,038,060 |
| **Occupancy rate** | Existing commercial accommodation occupancy rate. | 44% |
| **Vacancy rate** | Existing commercial accommodation vacancy rate. | 56% |
| **Current available capacity** | Additional commercial accommodation room nights available | 289,752 |

Source: Urban Enterprise, 2023 (refer to appendix for detailed sources)

T10. NMSF ACCOMMODATION IMPACT, IMPORTED LABOUR SCENARIOS, CONSTRUCTION PHASE

| | Low | Base | High |
|---|---|---|---|
| **Total construction workers (peak demand)** | | 370 | |
| Proportion from outside impact area | 20% | 30% | 40% |
| No. of workers from outside impact area | 74 | 111 | 148 |
| Working days in the year | | 260 | |
| Worker commercial accommodation demand (i.e. room nights) | 19,240 | 28,860 | 38,480 |
| **Worker demand (room capacity)** | 7% | 10% | 13% |

Source: Urban Enterprise, 2023

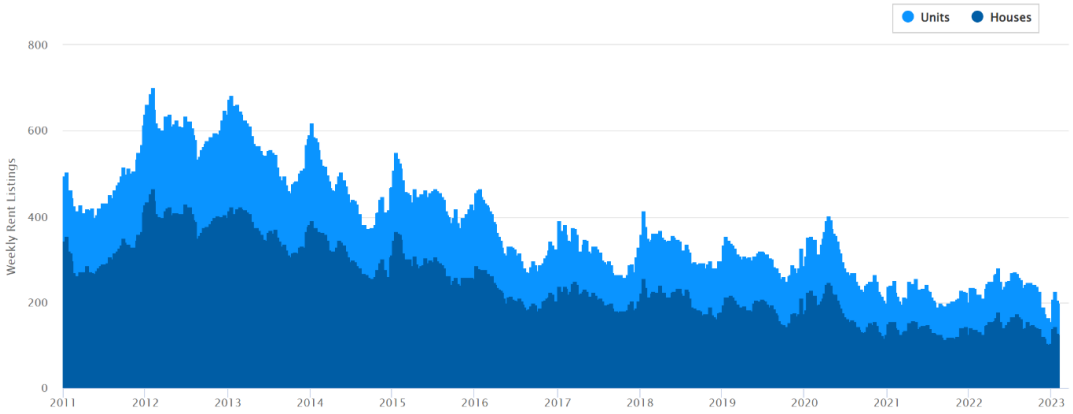
### Rental Market

The rental market in Launceston is experiencing declining capacity, with a decreased number of rental properties available alongside increasing rents.

Although available rental listings have declined from peaks between 2012 and 2014, current active listings show good availability of rental properties proximate to the development area; indicating capacity to absorb rental demand. As of February 2023, there were 200 available rentals including 127 houses and 73 units.

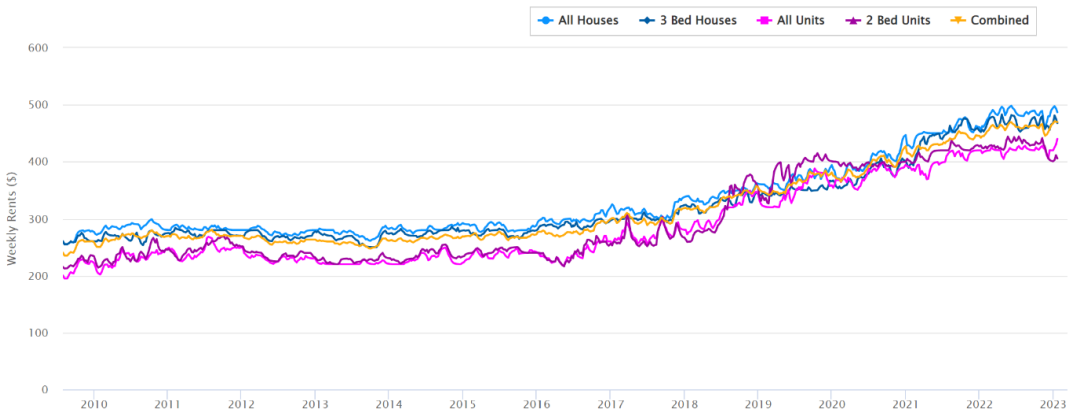
As previously mentioned however, there are a diverse range of renewable energy projects proposed across Tasmania. If all projects were to be delivered as planned, the cumulative demand for housing and accommodation could be material, presenting potential challenges for the region to service demand for rental housing and accommodation.

F7. RENTAL LISTINGS, LAUNCESTON REGION




Source: SQM Research, 2023 *Note the exact statistical boundaries used for this analysis are unclear, however, Urban Enterprise assumes it relates to the urban area of Launceston (i.e. not the local government area)

F8. RENTAL PRICES, LAUNCESTON REGION




Source: SQM Research, 2023 *Note the exact statistical boundaries used for this analysis are unclear, however, Urban Enterprise assumes it relates to the urban area of Launceston (i.e. not the local government area)

### 4.4.2. OPERATIONAL PHASE (ONGOING)

Once the project is complete and operational, the project could result in the following socioeconomic impacts:

1. Economic impacts generated during the operational phase.
2. Agricultural production value (sheep grazing).
3. Renewable energy generation close to transmission.
4. Assist in state and national energy transition.
5. Municipal revenue from land use changes.
6. Amenity impacts (visual, noise, traffic).

The above socioeconomic impacts are discussed in-turn. Note that benefits have been quantified where possible using an adopted set of assumptions (Appendix D).

#### 1. ONGOING ECONOMIC IMPACTS GENERATED DURING THE OPERATIONAL PHASE

The estimated economic impacts during the operational phase of the project include:

- $36.4 million in total economic output, including:
  - $15.1 million in direct output; and
  - $21.3 million in indirect output.
- 27 ongoing jobs (FTE), including:
  - 11 direct; and
  - 16 indirect.

T11. ECONOMIC IMPACTS, OPERATIONAL PHASE

| | Direct | Indirect | Total |
|---|---|---|---|
| Output ($M) | $15.1 | $21.3 | $36.4 |
| Jobs (FTE) | 11 | 16 | 27 |

Source: Urban Enterprise, 2023

#### 2. IMPACT ON AGRICULTURAL PRODUCTION VALUE

The development area (543ha) forms part of a substantial sheep and cattle station of ~17,600 ha, and in single ownership. The current land use of the development area is a combination of grazing with sheep, grazing with cattle, occasional irrigated fodder crop production, and farm forestry. Grazing occurs on both irrigated and dryland pastures. At the time of field inspection, ~40 ha of the development area was irrigated pastures, ~110 ha was commercial farm forestry, ~125 ha is fenced off and planted out to open woodland for wildlife corridors and windbreaks, and the remaining ~300 ha was available for dryland livestock grazing. The current grazing pressure are around 2,000 crossbred ewes and 100 angus cows with calves at foot, which are grazed on ~275 ha.[7]

The Agricultural Assessment states that the 543ha development area is not highly productive or versatile agricultural land. The change in use will result in the discontinuation of cropping and beef cattle grazing, but sheep grazing can continue at the development area. The development area would have a negligibly reduced agricultural value, and low impact on the property's agricultural amenity. All other agricultural activities currently in use across the balance of Connorville Station property will remain.

Further, the Assessment found that there is no perceived detrimental impact on the continued agricultural use of surrounding properties for grazing, cropping and irrigation as a consequence of the proposed project.

[7] Northern Midlands Solar Farm Agricultural Assessment, Ag-Challenge Consulting, 2022

### 3. RENEWABLE ENERGY GENERATION CLOSE TO TRANSMISSION

The proposal will primarily leverage the current electricity transmission network in the Northern Midlands region to transport electricity to state consumers and export markets, making efficient use of existing infrastructure.

The project is also expected to align with the planned Marinus Link, which is a proposed 1,500 MW capacity undersea and underground electricity connection connecting Tasmania and Victoria as part of Australia's future electricity grid. The proposed route for Marinus Link plans to connect to the Palmerston substation, which has been identified as the preferred connection point for the NMSF.

### 4. ASSIST IN STATE AND NATIONAL ENERGY TRANSITION

The project supports the ongoing state and national transition to renewable energy production and consumption by:

- Delivering cleaner and more affordable power to consumers;
- Contributing to state and national renewable energy generation and greenhouse gas reduction targets; and
- Contribute to a critical mass of renewable energy investment needed to develop the industry and position Tasmania as a clean energy powerhouse.

### 5. MUNICIPAL REVENUE UPLIFT FROM LAND USE CHANGE

The landowner of Connorville Station currently pays annual rates and charges associated with agricultural activities. Council charges rates based on a property's Assessed Annual Value (AAV), which is a rental value determined by the Valuer General, and its designated land use.

There is expected to be an uplift in Council revenue as a result of the change in land use at the development area; renewable energy generation activities will generate a higher rating liability.

To estimate the uplift, the following sources of information have been referenced:

- Existing rates and charges payments by the landowner to Council; and
- Northern Midlands Council's rates and charges guide (Appendix E).

It is assumed that the general rate (associated with a property's land use) paid by the landowner will increase from 2.54 cents per AAV dollar (the rate charged for primary production) to 8.8 cents per AAV dollar (rate charged for industrial land use).

This is expected to result in an increase in the landowner's rates and charges from approximately $16,000 per annum to $52,000 per annum, representing an uplift in Council revenue of around $36,000 per annum.

Northern Midlands Council identifies rates and charges as an important source of Council revenue, accounting for approximately 50% of Council's annual income to provide a range of services, projects and infrastructure to the community.

T12. COUNCIL REVENUE UPLIFT ESTIMATE

| | Current payment | Potential future payment | Uplift |
|---|---|---|---|
| Fire Levy | $1,447 | $1,447 | - |
| General Rate | $14,698 | $50,924 | +$36,225 |
| Total | $16,145 | $52,371 | **+$36,225** |

Source: Urban Enterprise, 2023

### 6. AMENITY IMPACTS

Once built and operational, the physical infrastructure of the solar farm may create long term amenity impacts such as visual, ecology and traffic. The key findings from the technical studies are summarised below. Please refer to technical studies for detailed analysis and findings.

### Visual Amenity

- Overall the Project will result in a 'Low to Moderate' modification to the existing visual landscape character.
- With the implementation of the recommended mitigation measures, the proposed development could be undertaken whilst maintaining the core landscape character of the area, and have a minimal visual impact on the surrounding visual landscape.

### Traffic

- Operational traffic volumes of NMSF are estimated to be minimal and are not expected to have any noticeable impact to the safety and function of the surrounding road network after construction.

### Acoustic

- Night-time noise compliance is achieved with the current modelling with no additional mitigation. Some receptors close to the existing transmission line corridor may experience some corona ('buzzing') noise during periods of heavy rain or high humidity, the installation of any additional transmission lines to cater for this project is not expected to increase corona noise at these receptors significantly.

### Native Vegetation

- Areas of native vegetation were generally found along the habitat corridors between paddocks, and the along the proposed access roads, and considered to be of 'moderate' 'high', or 'very high' quality, and provide' moderate' or 'high' fauna habitat.
- Desktop evaluation and field surveys indicated there occurred potential suitable habitat for 31 listed flora species.
- Desktop evaluation and field surveys indicated there occurred potential suitable habitat for 13 listed or migratory fauna species.

## 4.5. SUMMARY OF SOCIOECONOMIC IMPACTS

The socioeconomic impacts of the proposal during the construction and operational phase are summarised in Table 13.

T13. SOCIOECONOMIC IMPACT SUMMARY

| No. | Impact | Economic Impact | Main stakeholders/ and industries affected |
|---|---|---|---|
| SHORT TERM | | | |
| 1 |  **Economic stimulus construction phase** | The estimated construction investment of $478 million is estimated to generate $1.09 billion in total economic output and support 986 (FTE) jobs during the construction phase, including 370 direct jobs. | Regional and state construction industry: civil trades, labourers, machinery operators, technicians. |
| 2 |  **Amenity disruptions from construction activities** | Amenity impacts such as noise and traffic may arise from associated construction activities. However, technical studies prepared as part of the development application suggest these impacts will be minimal, and will be appropriately managed through construction and environmental management plans. | Local residents (proximate), passing travellers. |
| 3 |  **Competition for labour force** | There are a small number of renewable energy projects planned in proximity to the development area, and a diverse range of other renewable energy projects across the State.<br>Some of the jobs and skills required to deliver these projects, and anticipated timing of construction may overlap with NMSF. The overlap has the potential to increase competition for local labour, and could lead to tensions and delays across projects. | Major projects planned in-region. |
| 4 |  **Cumulative demand for housing and accommodation** | Some of the 370 construction workers will be imported from outside of the region, and will require a mix of rental housing and commercial accommodation.<br>Greater Launceston has adequate rental property and commercial room capacity to meet accommodation demand generated by the project's construction phase.<br>However, if all renewable projects are delivered across Tasmania (as planned), servicing the cumulative housing needs could place temporary upward pressure on rents and commercial room rates. | Local businesses and local residents (housing only) |
| LONG TERM & ONGOING | | | |
| 1 |  **Ongoing economic impacts Operational phase** | The ongoing operation of the solar farm is estimated to generate $36 million in total economic output and support 27 (FTE) jobs per annum, which includes 11 direct jobs (FTE). | Local and regional economy |
| 2 |  **Agricultural value of grazing** | The development area is primarily used for cattle and sheep grazing, with some crop production.<br>Under the Agrisolar proposal for NMSF, sheep grazing will replace cropping and cattle grazing on the development area. The potential reduction in agricultural value would be negligible, and would have low impact on the property's agricultural amenity. All other agricultural activities currently in use across the balance of Connorville Station will remain.<br>There will be no perceived detrimental impact on the continued agricultural use of surrounding properties for grazing, cropping and irrigation as a consequence of the proposed project. | Local and regional agriculture industry |

| | | | | |
|---|---|---|---|---|
| 3 |  | **Renewable energy generation close to transmission** | The project benefits from proximity to Palmerston Substation, and the proposed new transmission line route has been selected as it follows an existing line and utilises some of the existing easement; thereby minimising impacts to community and environment where possible. | Local, regional and state energy consumers. |
| 4 |  | **Assist in state and national energy transition** | 288MW DC / 370MWp AC of renewable energy capacity will assist Tasmania's transition to new energy, delivering more affordable, reliable and secure electricity to consumers and export markets. | State and national economy. |
| 5 |  | **Municipal revenue** | Council will receive an uplift in revenue in the form of additional rates and charges due to a change in land use on-site. The estimated revenue uplift delivered to Council in year 1 is in the order of $36k per annum. Ongoing rate revenue will be redirected into the Northern Midlands community for wider benefit. | Northern Midlands Council.<br>Local economy and community. |
| 6 |  | **Amenity impacts** | Once built and operational, the physical infrastructure of the solar farm could create long term amenity impacts such as visual, noise and traffic. Technical studies prepared as part of the development application indicate that there are unlikely to be any substantial amenity impacts during the operational phase of the project. The proposed location of components in the development area have had regard to environmental and amenity impact minimisation. | Local residents (proximate), passing travellers. |

Source: Urban Enterprise, 2023

## 4.6. IMPACT EVALUATION

The significance of impacts are evaluated by considering the expected magnitude (low, moderate and high) and the likelihood of the impact occurring during the lifecycle of the project.

The following criteria has been used to assess the magnitude of impacts:

- Duration – The timeframe over which the impact occurs or the frequency of potential impacts.
- Extent – The geographical area or the range and number of stakeholders affected.
- Magnitude – Scale or degree of change from the existing condition as a result of the impact.
- Sensitivity – The extent to which people or an environment can adapt to or mitigate the impact.

The following categories have been used to assess the likelihood of impacts taking place:

- Highly Unlikely – High improbability that the impact will occur.
- Unlikely – An improbability that the impact will occur.
- Possible – moderate probability that the impact will occur.
- Likely – A good probability that the impact will occur.
- Highly Likely – A very high probability that the impact will occur.

Planned and recommended management measures have been included (where relevant) to optimise benefits and minimise negative impacts.

T14. CONSTRUCTION PHASE IMPACT EVALUATION & MANAGEMENT MEASURES

| No. | Impact | Magnitude of Impact | Likelihood | Management measure(s) | Recommendations |
|---|---|---|---|---|---|
| 1 | **Economic stimulus construction phase** | **Moderate** | **Likely** | None identified. | Advocate for use of local suppliers (where possible).<br><br>Liaise with regional education and training providers to notify of job and skill requirements for NMSF. |
| 2 | **Amenity disruptions from construction activities** | **Low** | **Unlikely** | Providing regular updates and notifications about the project and potential disruptions to nearby landowners.<br><br>Public community consultation sessions held in-region. | Construction and environmental management plans will be prepared as part of a condition on the planning permit. |
| 3 | **Competition for labour force** | **Moderate** | **Possible** | None Identified. | Liaise with other renewable energy project proponents to discuss synergies with jobs and skills and potential for resource sharing (if required). |
| 4 | **Cumulative demand for housing and accommodation** | **Low** | **Possible** | None identified. | Engage with Northern Midlands Council, Greater Launceston Council and relevant Chamber of Commerce/Business Associations to notify of impending accommodation requirements during the construction period. |

Source: Urban Enterprise/Cogency, 2023

T15. OPERATIONAL PHASE IMPACT EVALUATION & MANAGEMENT MEASURES

| No. | Impact | Magnitude of Impact | Likelihood | Planned management measure(s) | Recommendations |
|---|---|---|---|---|---|
| 1 | **Ongoing economic impacts Operational phase** | Low | Highly likely | None identified. | Advocate for use of local suppliers (where possible) using platforms such as the Industry Capability Network.<br><br>Liaise with regional education and training providers to notify of job and skill requirements for NMSF |
| 2 | **Loss of agricultural production value** | Low | Highly likely | The project proposes to reduce the productivity of some land currently used for cropping and grazing. | The land with the lowest agricultural and environmental value has been selected (and the development appropriately sited) to minimise disruptions to agricultural activities |
| 3 | **Renewable energy generation close to transmission** | High | Highly likely | None identified. | None. |
| 4 | **Assist in state and national energy transition** | Low - Moderate | Highly likely | None identified. | None. |
| 5 | **Municipal revenue** | Low | Highly Likely | None identified. | None. |
| 6 | **Amenity impacts** | Low | Unlikely | Technical studies prepared to assess potential amenity impacts and recommend management measures.<br><br>Public community consultation sessions held in-region. | Refer to other technical studies for planned and recommended management measures relating to ongoing amenity impacts. |

Source: Urban Enterprise/Cogency, 2023

# APPENDICES

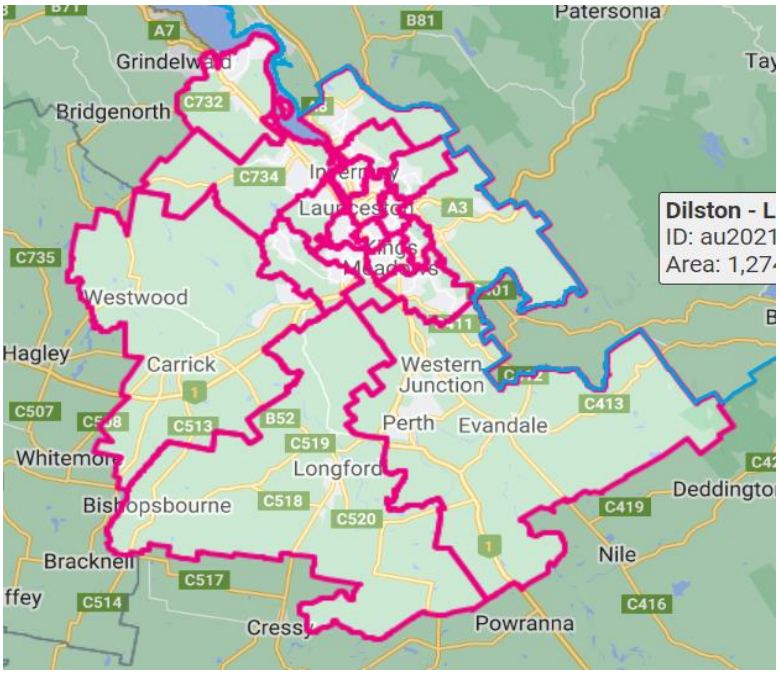
## APPENDIX A CASE STUDY ANALYSIS

| Project | Location | Energy Capacity | Status | Construction impacts | Ongoing impacts |
|---|---|---|---|---|---|
| Robbins Island Renewable Energy Park | North-west Tasmania | 900MW | Planning Approval 2020 | 2,766 jobs, including 1,038 direct jobs. Gross value-added of $384m, including direct GVA of $153m | 101 direct ongoing FTE jobs, including 40 direct jobs |
| Numurkah Solar Farm | Numurkah - 200km north of Melbourne | 128MW | Operational (retrospective) | 203 direct jobs in Hume region 87 in rest of Victoria = 290 direct jobs<br>$122.4m expenditure in Victoria<br>Economic activity of $317.4m in Hume region | 6 direct jobs in Hume region<br>$4.2m expenditure in Victoria<br>Economic activity of $12.5m in Hume region |
| Culcairn Solar Farm | Culcairn - 45km north of Albury | 350MW | Planning Approval 2021 | 350 direct jobs in NSW<br>$177m direct expenditure<br>60% spent in Riverina Murray region | 6 direct jobs<br>$15.1m direct expenditure<br>90% spent in Riverina Murray region |
| Bookaar Solar Farm | Bookaar - 8km north west of Camperdown | 200MW | Planning Approval 2022 | 150 direct jobs, 105 locally<br>$280m capital investment - $28m spent locally | 8-12 ongoing jobs nationally, 6 locally<br>Economic stimulus to the Study Area of $29.5 million over 30 years |
| Frasers Solar Farm | Toongabbie - 180km east of Melbourne | 75MW | Planning Approval, 2020 | 250 jobs (direct & indirect)<br>$110m investment | 4 direct ongoing jobs |
| Fulham Solar Farm | Fulham - 220km east of Melbourne | 80MW | Planning Approval, 2022 | 90 direct jobs | 10 direct jobs |
| Maffra Solar Farm | Maffra - 230km east of Melbourne | 30MW | Planning Approval, 2018 | 100 jobs (assuming direct and indirect)<br>$50m investment | * |
| Perry Bridge Solar Farm | Perry Bridge - 250km east of Melbourne | 44MW | Planning Approval, 2021 | 88 direct jobs | 2-3 direct jobs |
| Tragowel Solar Farm | Tragowel - 270km north of Melbourne | 510MW | Planning Approval, 2019 | $500m investment | * |
| New England Solar Farm | Uralla, NSW | 720MW (includes 400 MWh battery storage facility) | Under construction | 700 direct jobs | 15 direct jobs |
| Western Downs Green Power Hub | Chinchilla, QLD | 460MW (includes 150 MWh battery storage facility) | Under construction | 400 direct jobs | 10 direct jobs |
| Cultana Solar Farm | Whyalla, SA | 280MW | Under construction | 700 direct jobs | 10 direct jobs |
| Limondale Solar Farm | Balranald, NSW | 249MW | Operational | 300-400 direct jobs | 7 direct jobs |
| Darlington Point Solar Farm | Darlington Point, NSW | 330MW | Operational | 500 direct jobs (25% locals)<br>$450m investment | * |

Source: various online sources | * information unavailable.

## APPENDIX B COMMERCIAL ACCOMMODATION ASSUMPTIONS & METHODOLOGY

### CATCHMENT BOUNDARY




Source: Remplan Mapbuilder, 2023

### ACCOMMODATION ASSESSMENT ASSUMPTIONS

| | | | | | Source |
|---|---|---|---|---|---|
| **Demand** | | | | | |
| Commercial accommodation visitors (2017-21): 407,880<br>Commercial accommodation visitor nights (2017-21): 917,110 | | | | | National Visitor Survey, Tourism Research Australia |
| **Average travel party size: 2** | | | | | Urban Enterprise, 2023 |
| **Existing visitor market demand for commercial accommodation (i.e. number of room nights demanded in a year): 458,555** | | | | | Urban Enterprise, 2023 |
| **Supply** | | | | | |
| | Units | Available Room Nights | Average visitors per unit | Capacity | Urban Enterprise, 2023 |
| Rooms | 1,351 | 493,115 | 2 | 986,230 | |
| Cabins | 71 | 25,915 | 2 | 51,830 | |
| Total | 1,422 | 519,030 | | 1,038,060 | |

## APPENDIX C CASE STUDY SUMMARY, SOCIAL IMPACTS

| Project | Location | Energy Capacity | Socioeconomic impacts identified |
|---|---|---|---|
| **Daroobalgie Solar Farm** | Daroobalgie, NSW | 100 MW | Construction phase:<br>▪ Direct investment and employment generated.<br>▪ Flow-on output and employment supported from indirect business and worker expenditure.<br>▪ Local amenity impacts confined to nearby areas (noise, sound, traffic).<br>Operational phase:<br>▪ Direct output and employment generated.<br>▪ Changes to existing rural views and visual characteristics could result in reduced enjoyment of the natural and rural landscape.<br>▪ Agricultural uses would preclude. |
| **Culcairn Solar Farm** | Culcairn, NSW | 350 MW | Construction phase:<br>▪ Direct investment and employment generated.<br>▪ Flow-on output and employment supported from indirect business and worker expenditure.<br>▪ Increase competition for regional labour force, particularly construction workers.<br>▪ Increase in demand for commercial accommodation.<br>Operational phase:<br>▪ Ongoing employment generated.<br>▪ Loss of agricultural use and value.<br>▪ Funds delivered to local Council and the community.<br>▪ Landowner payments.<br>▪ Support small-scale tourism activities. |
| **Goorambat East Solar Farm** | Near Benalla, VIC | 250 MW | ▪ Direct investment and employment generated.<br>▪ Opportunities for apprenticeship places.<br>▪ $CO_2$ emission reductions.<br>▪ Community funds. |
| **West Wyalong Solar Farm** | West Wyalong, NSW | 90 MW | ▪ Increased supply of renewable energy and reduction in emissions.<br>▪ Increased employment and economic activity during the project's construction and operation phase.<br>▪ Increased job opportunities for local workers.<br>▪ Increased retail spend, from temporary construction workers.<br>▪ Increased demand on local infrastructure and services during construction.<br>▪ Reduced accommodation capacity during construction.<br>▪ Cumulative impacts on infrastructure and services, from major developments. |

## APPENDIX D ECONOMIC IMPACT ASSESSMENT ASSUMPTIONS

| Impact | Assumption | Source |
|---|---|---|
| Construction | 1 MW energy generation = 1 direct FTE construction job | Derived from case study analysis (Appendix A), Urban Enterprise, 2022 |
| | 288MW DC / 370MWp AC solar farm is estimated to require a total investment of $478 million | Renewable Energy Transition Modelling Tool, Remplan 2023 |
| Operational | 1MW energy generation = 0.03 direct FTE ongoing jobs | Derived from case study analysis (appendix A), Urban Enterprise, 2023 |

## APPENDIX E NORTHERN MIDLANDS RATES & CHARGES GUIDE 2022

| General Rates | Cents In AAV |
|---|---|
| Industrial | 8.8 |
| Public Purpose | 8.08 |
| Commercial | 7.12 |
| Residential | 5.99 |
| Quarries or Mining | 7.96 |
| Residential Rural | 5.39 |
| Residential Low Density | 5.39 |
| Sport & Recreation | 6.59 |
| Primary Production | 2.54 |
| Vacant Land | 2.93 |
| Fire Levy | |
| Volunteer Rate | 0.315 |
| General Rate | 0.25 |

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06 10 2023


WOODSIDE
VISITORS
PLEASE RESPECT
FARM BIOSECURITY
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WOODSIDE PARK
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Notice of Application
for Permit
06 10 2023


# Community & Stakeholder Engagement Summary Report

**Connorville Station Pty Ltd**

## Northern Midlands Solar Farm

19 May 2023

# Document Details

**Project Name**

| | |
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| Project No: | 2210 |
| Report Name: | Community & Stakeholder Engagement Summary Report |
| Revision: | 1 |
| Date: | 19 May 2023 |
| Client: | Connorville Station Pty Ltd |



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**Document history**

| Revision | Date | Description | Author | Approved |
|---|---|---|---|---|
| 1 | 21/04/23 | Draft community & stakeholder engagement summary report | AP | RW |
| 2 | 19/05/23 | Community & stakeholder engagement summary report | AP | RW |
| 3 | | | | |

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# 1. Executive Summary

The purpose of the Community & Stakeholder Engagement Summary Report is to provide an overview of the engagement activities that took place for the Northern Midlands Solar Farm proposal and the key findings and outcomes.

The Northern Midlands Solar Farm is a landowner led renewable energy proposal involving the use and development of a 288MW solar energy facility, battery energy storage system (BESS), a new 220kV transmission line, access tracks, and internal 33kV line, and associated infrastructure and works (hereby referred to as the 'Proposal') within the Connorville Station property in Cressy, Tasmania.

Connorville Estates Pty Ltd (the Proponent), has engaged Robert Luxmoore Pty Ltd, a project management firm that specialises in large-scale renewable energy assets connected to the Australian National Energy Market (NEM), and Cogency Australia Pty Ltd, a planning and engagement firm, to prepare and lodge a Development Application to be lodged with Northern Midlands Council.

The Proponent is the owner of Connorville Station, one of Tasmania's original and pre-eminent wool properties. Established in 1824, Connorville Station boasts a long association with both the production of merino wool and as a renowned entity in the local area. With the success of their wool production, producing more than 350 bales of fine merino wool and around 130 bales of fine cross-bred wool per year, the Proponent has major private capital. The O'Connor family has a long history in and connection to Tasmania, spanning over 200 years, whereby from generation to generation they have significantly contributed to both the local region and the state.

The shared long-term vision for the property is to continually protect and improve its native vegetation and grasslands as well as to apply principles that ensure the sustainability of the business and the land. The Proponent supports the vision for Tasmania's Renewable Energy future and the 2040 Renewable Energy Target of 200% renewable generation and sees the development of solar power in the Northern Midlands region as an important step to increasing reliable and affordable power and ensuring growth in Tasmania's economy through investment and job creation.

Cogency is also leading the community and stakeholder engagement program. A community & Stakeholder Engagement Strategy was prepared at the outset, which outlined the objectives, principles, methodology, stakeholder mapping, monitoring and review, and action plan. The Proponent, with the support of Cogency has committed to early, proactive, and meaningful engagement, starting from the preliminary concept design phase.

# 2. Proposal Overview

## 2.1 Introduction

The Proponent, Connorville Estates, is seeking to develop a portion of their landholding into a long-term solar energy asset which represents the next generation of renewable energy development in Tasmania. Connorville Estates is a significant family business with a long and renowned history of wool growing in the region. It is proposed that the Proponent will privately finance the Proposal, with the upfront and operational expenses to be recouped over time by profits from the export of generated energy to the grid.

The Proposal (including the transmission line corridor) occupies approximately 543 ha of agricultural land within Connorville Station, historically used for grazing and forestry activities. The land has been selected due to its lower agricultural productivity, poorer soil quality and low environmental value relative to the remainder of the 17,600 ha Station. Responding to the natural and environmental landscape has been an integral part of the planning and design process, ensuring the Proposal is respectful of the site and its context, including the key environmental features.

The proposed Northern Midlands Solar Farm would have a capacity of 288 MW DC and comprises the following key components:

- Solar photovoltaic panels (with a capacity of approximately 288 MW)
- Battery energy storage facility (BESS)
- 220 kV transmission line (approximately 15.4km long) connecting to Palmerston Substation
- Internal 33 kV transmission line
- Inverters
- Switchyard
- Access tracks/points
- Construction laydown/car parking areas
- Security infrastructure
- Screening
- Agrisolar (i.e., agricultural activities to continue in conjunction with the operation of the solar farm)

The battery storage facility is an essential element of this Proposal as it allows for consistent electricity supply to the grid.

As a well-established wool property, the use of the land for sheep grazing is proposed to continue in conjunction with the operation of the solar farm (known as ‘agrisolar’), preserving the value of the farmland. There are currently limited views into Connorville Station from surrounding areas, and views of the solar farm from neighbouring properties, roads and public places would be largely or fully obscured due to the site’s location and existing vegetation. Where views are possible, site fencing and/or screening vegetation will be provided.

## 2.2 Site & Context

Connorville Station is a single property landholding comprising of approximately 17,600 ha, located within the Northern Midlands Council area, approximately 35km south of Launceston. Multiple parcels of land within Connorville Station (approximately 19 lots) have been selected for the Proposal.

As identified by Australian Energy Market Operator (AEMO), the site is located within the Central Highlands Renewable Energy Zone (T3), making it a suitable site to develop a solar farm and battery storage. This proposed location is situated well outside of urban settlement areas, with the nearest being Cressy (15km north-west), Poatina (15km west), Cleveland/Conara (19km east), and Campbell Town (24km south-east).

The site is currently accessed via Connorville Road and Macquarie Road as well as through various unpaved access tracks. An existing 110kV overhead transmission line intersects the site from east to west. Discussions with TasNetworks have confirmed that this line would not support a grid connection for a major solar farm. Therefore, a new 220 kV transmission line is proposed (with multiple route options currently being explored), to connect the Proposal to the Palmerston Substation, approximately 15.4 km away. Please refer to **Figure 1 – Master Plan.**

The land specifically selected for the Proposal supports agricultural activities, pine plantations, corridors of native vegetation, and some man-made waterbodies.

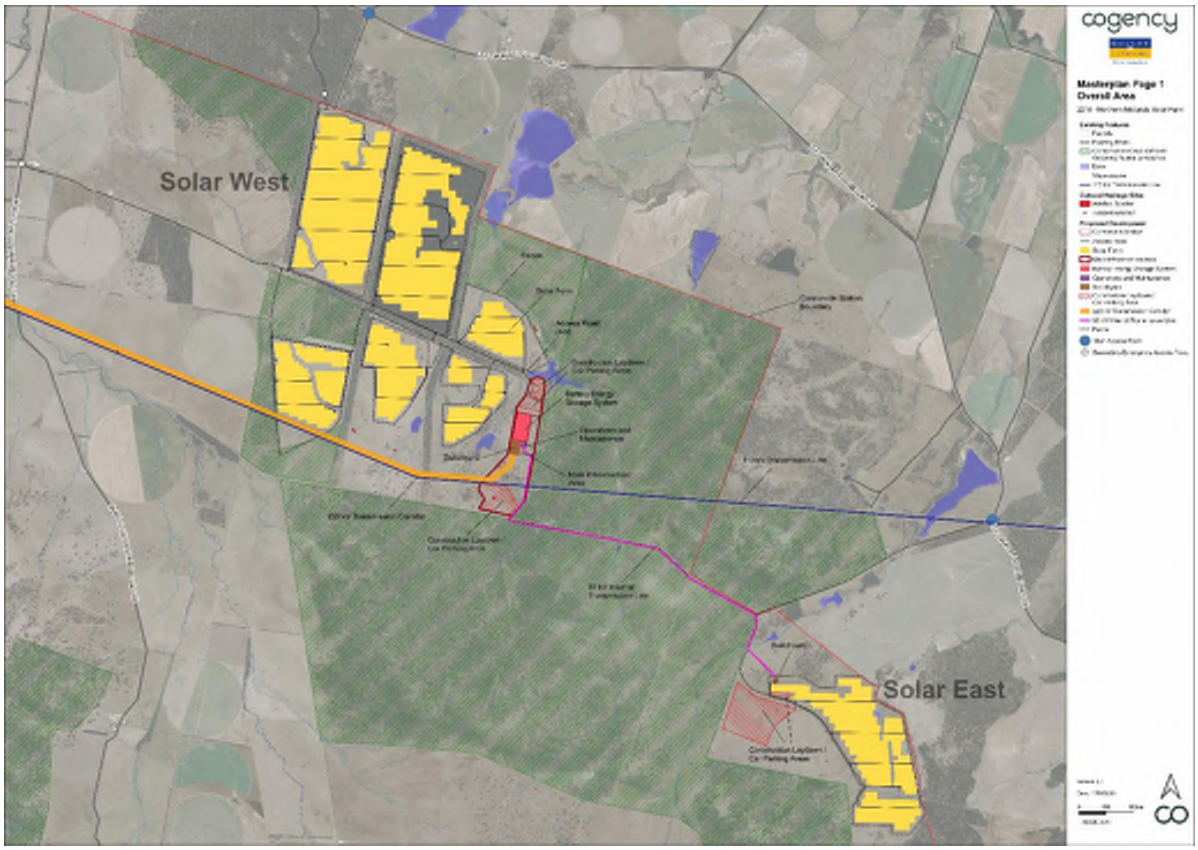



**Figure 1** Master Plan

## 2.3 Proposal Objectives

The key project and planning approval objectives for the Proposal were to:

- Ensure cooperative and mutually supportive participation by the key community and stakeholder groups in line with the Clean Energy Council (CEC) *Best Practice Charter for Renewable Energy Projects* (2018), ReCFIT's *Draft Guideline for Community Engagement, Benefit Sharing and Local Procurement,* and the International Association for Public Participation's (IAP2) *Public Participation Spectrum* (2018).
- Maintain Local and State Government support through regular engagement and involvement.
- Determine whether the Proposal is a "controlled action" or not as per the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), and if so, achieve approval from the Federal Minister for Environment.
- Achieve development approval from the Northern Midlands Council for the Proposal.

The community and stakeholder engagement objectives can be found at chapter 4.1.

# 3. Community Snapshot

The following section provides an overview of the regional and community context of the Proposal. This helped to inform the engagement program which was tailored to reflect the local and regional setting.

## 3.1 Regional Context

The Proposal is located within the Northern Midlands Council area, which is classified as 'rural, agricultural, and very large' (RAV) in the Australian Classification of Local Governments. The Council occupies a landlocked, northeast portion of Tasmania and supports a population of 13,745 (2021). The Council Area was settled in the early 1800s. Since then, the main land uses have been wool growing and cropping (particularly cereals, poppies, and potatoes).

The region consists of relatively flat, dry, and low plains with Tasmania's most fertile soils. Most of the land is therefore put to an agricultural use. Because of its distance from a sea, the Northern Midlands experiences Tasmania's warmest summers and coldest winters and is the driest area in Tasmania. The region receives between an average of approximately 600 mm rainfall per year.

The major industries in the region are agriculture and manufacturing, along with construction. The mountainous country and extensive grazing lands support small to large-scale and multi-million-dollar businesses. Within the Northern Tasmania catchment area (Launceston, George Town, and Northern Midlands municipalities) there is a relatively high level of unemployment. However, the Northern Midlands unemployment rate is the lowest in the catchment area (3.5%). This indicates a level of capacity within the labour market of the wider Northern Tasmania region to support the Proposal, particularly during the construction phase of the solar farm.

## 3.2 Regional Renewable Energy Projects

It is well understood that developing solar power generation in the Northern Midlands region is an important step to increasing reliable and affordable power, and to ensuring growth in Tasmania's economy through investment and job creation.

There are a number of other renewable energy projects in Northern and Central Tasmania at various stages of the development process in addition that will seek to leverage the strength of skills and existing infrastructure proposed for the Northern Midlands Solar Farm including:

- Palmerston BESS
- Triabunna Wind Farm
- St Patricks Plains Wind Farm

## 3.3 Traditional Owners

The traditional owners of the Northern Midlands site are the Tyerrernotepanner people, represented by the Tasmanian Aboriginal Centre and the Aboriginal Land Council of Tasmania (ALCT).

Within the Northern Midlands Region there are 434[1] people who identify as Aboriginal and/or Torres Strait Islander, representing approximately 3.2%[2] of the population (ABS, 2021).

The following are also key Aboriginal community groups within the surrounding municipalities of Northern Tasmania:

- Aboriginal Elders Council of Tasmania (AECT), Launceston

[1] Australian Bureau of Statistics (2021) Northern Midlands 2021 Census All persons QuickStats [Dataset]. ABS. https://ww.abs.gov.au/census/find-census-data/quickstats/2021/LGA64610
[2] Australian Bureau of Statistics (2021) Northern Midlands 2021 Census All persons QuickStats [Dataset]. ABS. https://ww.abs.gov.au/census/find-census-data/quickstats/2021/LGA64610

- Hank Horton ("Kooparoona Niara Aboriginal Mob") of the Deloraine
- Aboriginal Land Council of Tasmania (ALCT), Launceston
- Tasmanian Aboriginal Centre, Launceston (TAC), Launceston
- Melythina Tiakana Warrana (Heart of Country) Aboriginal Corporation (MTWAC), Northeast mob.
- Six Rivers Aboriginal Corporation.

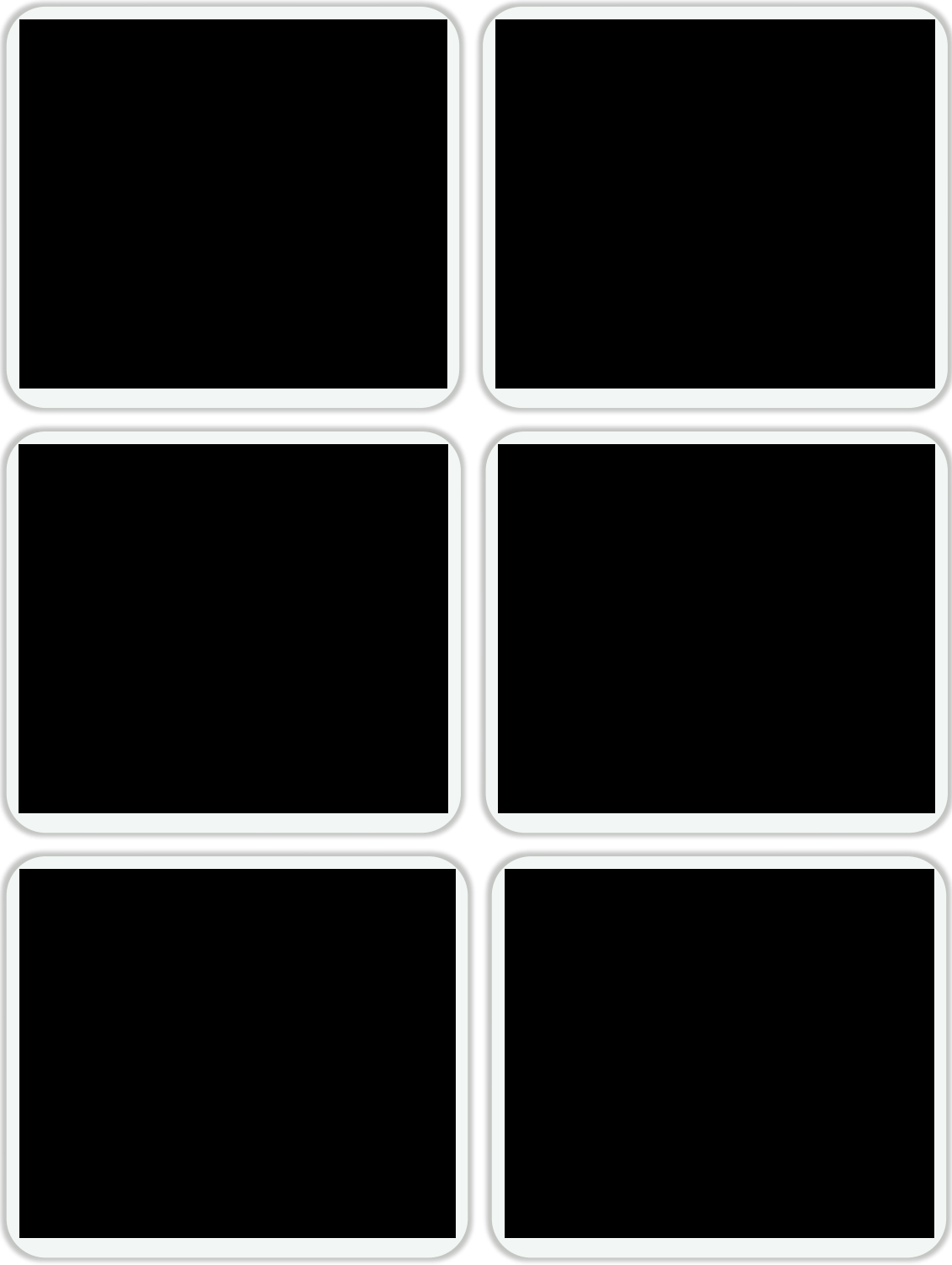
## 3.4 Community Overview

The key communities surrounding the proposed Northern Midlands Solar Farm comprises the residents of Cressy, Poatina, Epping Forest, Cleveland/Conara, and Campbell Town. These towns and villages are relatively small with tight-knit communities and service a rural-based industry. They have rich heritage and cultural environments that the local community members cherish. A brief snapshot of each community is provided in the next section.

The site is located within the locality of Cressy, which is 35 km south of Launceston. The population of Cressy is approximately 1,100[3]. Despite its location in the Northern Midlands Council area's northwest quadrant, Cressy contrasts the developing commuter towns that typify Council's north and is more consistent with the historic country villages of the south. Pastoral land users in Cressy are normally historic and family-based. Cressy is situated along the banks of the Macquarie River, the most significant river in the region and the main catchment in the immediate watershed.

[3] Australian Bureau of Statistics (2021) *Cressy (Tas.) 2021 Census All persons QuickStats* [Dataset}. ABS. https://ww.abs.gov.au/census/find-census-data/quickstats/2021/SAL60139

## Snapshot of Surrounding Local Communities



*This data was obtained from the Australian Bureau of Statistics 2021 Census Data.*

# 4. Engagement Strategy

The Proponent, with the support of Cogency, committed to early, proactive, and meaningful engagement with the local community and stakeholders, starting from the preliminary concept design phase. Preliminary engagement with key stakeholders (the local community, Northern Midlands Council, EPA, ReCFIT, TasNetworks, Aboriginal community groups and neighbouring residents) was undertaken to gain initial feedback, to understand their views on the Proposal and to identify any major issues. The community and stakeholder engagement program was scheduled to allow ample time for interested parties to be informed and involved well in advance of lodgement of the Development Application.

A Community and Stakeholder Engagement Strategy was prepared by Cogency, containing the objectives, principles, methodology and action plan that guided the engagement program for the Northern Midlands Solar Farm. This Strategy was developed in accordance with best practices and guidelines – including ReCFIT's *Draft Guideline for Community Engagement, Benefit Sharing and Local Procurement*, the Clean Energy Council's *Best Practice Charter for Renewable Energy Projects* (2018), ReCFIT's *Draft Guideline for Community Engagement, Benefit Sharing and Local Procurement* and the International Association for Public Participation's (IAP2) *Public Participation Spectrum* (2018). All engagement practices were carried out in accordance with the Strategy.

## 4.1 Engagement Objectives

The design and implementation of the community and stakeholder engagement program was based on the following key objectives, to:

- Deliver an inclusive and robust engagement process that informs, consults, or involves stakeholders (as appropriate) throughout the Proposal's lifecycle.
- Engage early and proactively during the preliminary planning and concept design stage.
- Develop a thorough understanding of the local aspirations and concerns which relate to the Proposal and work with them to achieve mutually beneficial outcomes.
- Develop relationships with targeted stakeholders by raising early awareness and actively engaging with these groups.
- Ensure stakeholders understand how to access information about the Proposal, provide feedback and stay informed.
- Provide a range of mechanisms for the community to ask questions, provide feedback and lodge complaints.
- Promote the Proposal's benefits by establishing clear and consistent messaging to manage misinformation.
- Encourage stakeholder and community input to the key aspects of the Proposal and to the community benefit sharing mechanisms.
- Garner support for the Proposal from the local community and other key stakeholders.
- Keep an up-to-date record providing evidence of all engagement activities undertaken throughout the process.
- Establish a comprehensive database of stakeholders for the life of the Proposal.

These objectives were met through the implementation of the methodology, principles, and engagement action plan, as outlined in the following chapters.