West Mokoan Solar Farm Planning Report

27-Mar-2026
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Client: Lightsource Development Services Australia Pty Ltd

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Prepared by

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Table of Contents

List of Figures

List of Tables

1.0 Introduction

1.1 Overview of the Proposal

The Kennedys Creek Solar Farm (PA1900684-1) and West Mokoan Solar Farm (PA2000978) are being developed as a single project, known as the West Mokoan Solar Farm (the Project), by Lightsource Development Services Australia Pty Ltd (the Applicant).

This planning report has been prepared in support of an application made under Section 47 (Applications for permits) of the *Planning and Environment Act 1987* (P&E Act) to:

- Combine the approved Planning Permit for West Mokoan Solar Farm (PA2000978) and approved Amended Planning Permit for Kennedys Creek Solar Farm (PA1900684-1) into a single Planning Permit
- Make the following design/Project changes:
  - Include a decentralised Battery Energy Storage System (BESS) (DC-coupled, sited with Power Conversion Systems (PCS)) across both solar farm sites, including the option for partial noise walls around PCS /inverter locations (requirement to be confirmed during detailed design stage)
  - Include 81 Lake Mokoan Road as part of the West Mokoan Solar Farm site
  - Relocate the West Mokoan solar farm substation from north of the Stockyard Creek channel to the West Mokoan solar farm southern land parcel and connect to new transmission infrastructure from the Kennedys Creek Solar Farm site
  - Make minor updates and design changes as a result of the above.

For clarity, the combined Project uses the former project names to describe the overall Project site (subject site) as follows:

- West Mokoan Solar Farm site – refers to the northern portion, which comprises three areas, separated by the Stockyard Creek channel, and Lake Mokoan Road (approved under permit PA2000978)
- Kennedys Creek Solar Farm site – refers to the southern portion, which comprises two areas, separated by Benalla- Yarrawonga Road (approved under permit PA1900684-1)

1.1.1 Decentralised BESS

A decentralised BESS solution is proposed across both West Mokoan Solar Farm (PA2000978) and Kennedys Creek Solar Farm (PA1900684-1). Acoustic Assessments and visualisations have been prepared to assess the impacts of the decentralised BESS on nearby sensitive receptors.

1.1.2 Re-Inclusion of 81 Lake Mokoan Road

81 Lake Mokoan Road was originally included and approved as part of the application for the West Mokoan Solar Farm Planning Permit (PA2000978). It was subsequently removed from the subject site, prior to permit approval, but is now proposed to be re-included as part of the application. The site is not proposed to be developed as part of the solar farm, however the existing dwelling located within the site is proposed to be repurposed as worker accommodation and potentially an office during Project construction and operation.

1.1.3 Substation Relocation

Subsequent to approval of the Kennedys Creek Solar Farm amended Planning Permit (PA1900684-1), it was identified that the connection route could be designed to avoid significant impact to vegetation within the Trust for Nature (TFN) conservation reserve property which sits just north of Stockyard Creek channel on the West Mokoan Solar Farm site. To avoid the conservation reserve, the substation was relocated to the south of Stockyard Creek. The new location has been selected to avoid impacts to the conservation reserve and to minimise amenity impacts to neighbouring residences.

1.2 Planning Permit History

1.2.1 Planning Permit for Kennedys Creek Solar Farm (PA1900684)

AECOM Australia Pty Ltd (AECOM) submitted a Planning Permit application for South Energy on behalf of 433 Link Development Pty Ltd for the use and development of a Solar Energy Facility and associated Utility Installation to Department of Environment, Land, Water and Planning (DELWP), now Department of Transport and Planning (DTP), on 19 September 2019.

Planning Permit PA1900684 was granted on 30 November 2020 for:

> *Use and Development of a solar energy facility, utility installation and associated buildings and works, native vegetation removal, creation of access to a Road Zone Category 1, business identification signage, and remove, vary and create easements.*

PA1900684 was amended on 5 February 2021 in accordance with Section 71 of the P&E Act, to correct a clerical error at condition 73.

1.2.2 Planning Permit for West Mokoan Solar Farm (PA2000978)

AECOM submitted a Planning Permit application for South Energy on behalf of 892 Yarrawonga Development Pty Ltd for the use and development of a Solar Energy Facility and associated Utility Installation to DELWP, now DTP, on 8 October 2020.

Planning Permit PA2000978 was granted on 3 November 2022 for:

> *Use and development of a Solar Energy Facility and Utility Installation and associated buildings and works, removal of native vegetation, display of business identification signage, removal and creation of easements and create or alter access to the Transport Zone 2.*

1.2.3 Amended Planning Permit for Kennedys Creek Solar Farm (PA1900684-1)

On 22 September 2021, ownership of the Project Applicant (433 Link Development Pty Ltd and 892 Yarrawonga Development Pty Ltd) was transferred from South Energy to Lightsource bp. South Energy retain ownership of the subject site and therefore an interest in the Project.

Following the transfer of Project ownership, Lightsource bp resolved to develop the Kennedys Creek Solar Farm and the West Mokoan Solar Farm as a single Project (West Mokoan Solar Project).

AECOM submitted a Planning Permit application on behalf of Lightsource bp to amend the Kennedys Creek Solar Farm to include:

- A transmission line connecting the Kennedys Creek Solar Farm to the West Mokoan Solar Farm
- Relocation of the substation to the north-east of the site to connect to the new transmission infrastructure and associated minor updates and design changes
- Numbering and wording changes to the conditions of the Permit for consistency with the conditions of the Planning Permit for the West Mokoan Solar Farm (PA2000978).

Planning Permit PA19000684-1 was amended on 23 April 2024 in accordance with Section 72 of the P&E Act as follows:

- *Amendments to the layout of the development, including:*
  - *The construction of a powerline between the site and West Mokoan Solar Farm*
  - *Relocation of the substation to the north-east of the site*
  - *Removal of an additional 0.578ha of native vegetation*
  - *Various other design changes as a result of the above*
- *Amendment to the address of the land to add in the following land parcels:*
  - *Lot 5 LP206524H*
  - *Lot 4 LP206524H*
  - *Lot 3 LP206524H*

- *Allotment 2020 Parish of Winton PP3843*
- *Allotment 2019 Parish of Goorambat PP2704*
- *Lot 2 PS627741K*
- *Lot 1 PS627741K*
- *Lot 2 LP123365*
- *Lot 6 LP206524H*

- *Various amendments to the conditions of the permit, including:*
  - *Replacement of various conditions with updated standard conditions*
  - *Updating references to current legislation*
  - *Deletion and replacement of the former CFA conditions (35-56) with four new CFA conditions for consistency with the conditions of the West Mokoan Solar Farm permit (PA2000978)*
- *Various amendments to the notes of the permit, including the addition and deletion of some permit notes, to match those of the West Mokoan Solar Farm permit (PA2000978).*

1.2.4 Extension of Time for Kennedys Creek Planning Permit PA1900684-1

The Kennedys Creek Planning Permit (PA1900684-1) expired on 30 November 2024. An Extension of Time was sought from DTP on 6 February 2025. A 12-month extension to the commencement and completion dates was approved on 5 March 2025. Planning Permit PA1900684-1 will now expire if one of the following applies:

- *'The development has not commenced by 30 November 2025*
- *The development has not been completed 30 November 2027.'*

The approval letter is included in Appendix A – Planning Permits.

1.3 Application Details

The application details for the Project are summarised in Table 1.

Table 1 Application Details

Requirements	Details
Responsible Authority	DTP
Property Address and Formal Property Description	West Mokoan Solar Farm: • 892 Benalla-Yarrawonga Road, Goorambat (Lot 1 on Plan of Subdivision 625748) • Benalla-Yarrawonga Road, Benalla (Lot 1 on Title Plan 104377; Lots 1-2 on Title Plan 173518; Lot 1 on Local Plan 206524) • Crown Land (Allotment 98B Parish of Goorambat PP2704) • 616 Benalla-Yarrawonga Road, Benalla (Lots 2-5 on Local Plan 206524) • 81 Lake Mokoan Road, Goorambat (Lot 2 on Plan of Subdivision 625748) Kennedys Creek Solar Farm: • Murray Road, Benalla (Lot 3 and 4 on Plan of Subdivision 318659) • 51 Nelson Road, Benalla (Lot 6 on Plan of Subdivision 627741) • 67 Nelson Road Benalla (Lot 7 on Plan of Subdivision 627741) • 284 Benalla-Yarrawonga Road, Benalla (Lot 3 on Plan of Subdivision 715932) • 127 Nelson Road, Benalla (Lot 2 on Plan of Subdivision 803108)

Requirements	Details
	Transmission line area: • Lake Mokoan Road, Winton North (Allotment 2020 Parish of Winton PP3843) • 368 Benalla-Yarrawonga Road, Benalla (Lot 2 PS627741) • 370 Benalla-Yarrawonga Road, Benalla (Lot 1 PS627741) • 82 Snowy Lane, Benalla (Lot 2 LP123365) • Benalla-Yarrawonga Road, Benalla (Lot 1 PS717978) • N/A (Allotment 2019 Parish of Winton PP2704) • 524 Benalla-Yarrawonga Road, Benalla (Lot 6 LP206524) • 572-616 Benalla-Yarrawonga Road (Lot 5 LP206524, Lot 4 LP206524 and Lot 3 LP206524)
Total Project Site Area	• 770 hectares, comprising: - West Mokoan Solar Farm (464 hectares) - Kennedys Creek Solar Farm (283 hectares) - Transmission line area (22 hectares)
Proposal	Use and Development of a Solar Energy Facility and Utility Installation (transmission line and Battery Energy Storage System) and associated buildings and works, removal of native vegetation, creating or altering access to the Transport Zone 2, display of business identification signage and remove, vary or create easements.
Planning Permit Triggers	• **Clause 35.07 Farming Zone** – A Renewable Energy Facility and Utility Installation are defined as Section 2, Permit Required uses (Clause 35.07-1). A planning permit is also required to construct a building or construct or carry out works (**Clause 35.07-4**) for a Section 2 use. • **Clause 33.01 Industrial 1 Zone** – A Renewable Energy Facility and Utility Installation are defined as Section 2, Permit Required uses (**Clause 33.01-1**). A planning permit is also required to construct a building or carry out works (**Clause 33.01-4**) for a Section 2 use. • **Clause 36.01 Public Use Zone** – A Renewable Energy Facility and Utility Installation are defined as Section 2, Permit Required uses (**Clause 36.01-1**). A planning permit is also required to construct a building or carry out works (**Clause 36.01-2**) for a Section 2 use. • **Clause 52.02 Easements, Restrictions and Reserves** – A permit is required to create, vary or remove an easement or restriction under Section 23 of the Subdivision Act 1988. • **Clause 52.05 Signs** – **Clause 35.07-7** refers to the sign requirements at **Clause 52.05** and specifies that the Farming Zone is in Category 4 – Sensitive Areas. A 'Business Identification Sign' is a Section 2 sign (permit required) and must not exceed three (3) square metres. **Clause 33.01-5** refers to the sign requirements at **Clause 52.05** and specifies that the Industrial 1 Zone is in Category 2 – Office and Industrial. A 'Business Identification Sign' is a Section 1 sign (permit not required). The total display area of all signs must not exceed eight (8) square metres. • **Clause 52.17 Native Vegetation** – **Clause 52.17-2** requires a planning permit to remove, destroy or lop native vegetation, including dead native vegetation. • **Clause 52.29 Land Adjacent to the Principal Road Network** requires a planning permit to create or alter access to a Transport Zone 2. • **Clause 53.13 Renewable Energy Facility (**other than wind energy facility and geothermal energy extraction) – applies to land proposed to be used and developed for a Renewable Energy Facility including a Solar Energy Facility. **Clause 53.13-2** outlines the requirements that must be accompanied with the application.

Requirements	Details
	• **Clause 52.06 Car Parking** – The provision of car spaces must be made before a new use commences (**Clause 52.06-2**) Car parking provision is to the satisfaction of the Responsible Authority. • **Clause 53.22 Significant Economic Development** – An application is exempt from an application requirement in the Planning Scheme if in the opinion of the responsible authority the information is not relevant to the assessment of the application. It is also exempt from the decision requirements of sections 64(1), (2) and (3), and the review rights of sections 82(1) of the P&E Act.
Zones	• Farming Zone (FZ) • Public Use Zone – Schedule 1 (PUZ1) • Industrial 1 Zone (IN1Z) • Transport Zone 2 (TRZ2)
Overlays	N/A
Aboriginal Cultural Heritage Sensitivity	The subject site includes Aboriginal Cultural Heritage Sensitivity (AACHS)
Bushfire Prone	Yes

1.4 Consultation Summary

1.4.1 Pre-Application Meeting with DEECA and DTP

AECOM and Lightsource bp met with DEECA and DTP on 1 May 2024 to discuss the Project prior to lodgement of the Planning Permit application. Attendees from DEECA included members of the environment team, and from DTP included members of the Development Approvals and Design – Renewables' team.

The purpose of the meeting was to provide DEECA and DTP with an update on the progress of the Project in relation to the planning and ecology assessment. The meeting sought to enable a discussion about the planning permit assessment process, response and approach to the loss of vegetation on the Kennedys Creek site, and the proposed approach to the ecology impact assessment. The meeting included discussion of the following key points:

- DTP supported the lodgement of a new Planning Permit application to combine West Mokoan Solar Farm (PA2000978) and Kennedys Creek Solar Farm (PA19000684-1). It was noted that a new set of documentation that captures the combined project and effects of the proposed changes would be required (provided as outlined in Section 1.5)
- DTP did not object to the application being lodged without finalised flood modelling and suggested highlighting in the application that there is no statutory requirement regarding flooding
- DTP suggested that this Planning Permit application will look to create a new set of conditions rather than compare and draw from conditions in the existing Planning Permits
- AECOM raised a question regarding the Planning Permit application fee and whether the full amount would apply.

Following the meeting, DEECA provided written advice to AECOM on 16 May 2024 which stated the following:

- *Ensure that the information supporting the application meets the requirements of the Guidelines for the Removal, Destruction or Lopping of Native Vegetation (Guidelines, DELWP 2017). DEECA would prefer a single environmental/ecological assessment report be provided, collated from the multiple current sources. Assessments over 5 years old should be updated and changes included. Please include a track changes version to clearly show updates from the existing permit/s to assist with the assessment process.*

- *Provide an updated Native Vegetation Removal (NVR) Report, including all current proposed native vegetation removal.*
- *Include an updated/revised Avoid and Minimise statement that clearly focuses on the proposed changes to the design layout and resultant native vegetation impacts from the original permit. Further, provides detailed justification for any new native vegetation impacts and why the proposed redesign is required. Further efforts to minimise the impacts on native vegetation should be considered and included.*
- *Provide a new Offset statement, including revised evidence of a compliant native vegetation offset being available, and including all/total amended requirements. Information provided to date has only included reference to tree removal. Consideration of any other patches of native vegetation and potential habitat for and impacts to habitat (including for Striped Legless Lizard (Delma impar)) that may be affected by the proposal should be considered in the assessment and avoid/minimise statement.*

1.4.2 DEECA

AECOM and Lightsource bp met with DEECA and DTP on 27 November 2024 to discuss updates made to the draft planning permit application documentation. Attendees from DTP included members of the Development Approvals and Design department. Attendees from DEECA included members of the Planning and Environment Assessment department.

The purpose of the meeting was to discuss the unresolved referral comments from DEECA. The meeting facilitated a detailed discussion about the proposed referral response and approach to the loss of previously identified EVC vegetation.

The meeting included discussion of the following key points:

- AECOM provided an update on the key findings from the Ecology site visit (conducted the week of 21st October 2024) and outlined the area of native grasslands (identified as HZ235 Plain Woodland/Herb-rich Gilgai Wetland Mosaic) which has been cropped by the farmer currently leasing the land from South Energy.
- DEECA agreed that the cropping of land is considered 'as of right' as the land is currently used for agricultural purposes. DEECA agreed that this additional clearing should be considered as a 'past loss' in addition to all other inadvertent/unauthorised losses/impacts that have occurred on site.

DEECA provided further written advice to AECOM on 6 December 2024 which included the following clarifications:

- *'One NVR Report is required for all native vegetation to be considered as part of the application, which should include currently proposed vegetation for removal, and all inadvertent/unauthorised losses/impacts that have occurred*
- *It would also assist process efficiency to present this as a separate map as shown in Figure 10 of the Flora and Fauna Assessment (AECOM, 29/07/2024)*
- *It appears that further opportunities exist to avoid and minimise impacts on native vegetation. Figure 10 of the Flora and Fauna Assessment highlight that several scattered trees are proposed for removal, despite being in a "non-impact zone" or the edges of solar arrays/internal access roads/fencing. As discussed, if no further opportunities are deemed possible, the avoid and minimise statement should be updated to justify this.'*

AECOM wrote to DEECA on 7 February 2025 requesting that additional wording be included in the Native Vegetation Offsets condition to distinguish between offsets for past losses and design losses, per the wording below:

'To offset the removal of 17.762 hectares of native vegetation, the permit holder must secure the following native vegetation offset in accordance with Guidelines for the removal, destruction or lopping of native vegetation (DELWP 2017):

a. A general offset of 3.249 general habitat units, comprising:

1. Past losses offset of 2.6850

2. *Design losses offset of 0.5640*

b. *Located within the Goulburn Broken Catchment Management boundary or the Benalla Rural City Council municipal area, and*

c. *With a minimum strategic biodiversity value of 0.3233*

d. *The offset(s) secured must also protect 67 large trees.'*

DEECA responded on 24 March 2025, confirming that it *'is comfortable that it is possible for us to recommend a 'split' offset condition, subject to DEECA assessing the proposed NVR in accordance with the Native Vegetation Guidelines and being comfortable to recommend conditional approval of the application.'*

Details of the updated Ecology reporting including the separate Native Vegetation Removal reports are discussed at Section 6.1.

1.4.3 Country Fire Authority

There has been consultation with the CFA throughout the planning permit application process, and the Proponent continues to engage with the CFA to ensure that their requirements are satisfied.

AECOM, Lightsource bp, and Riskcon met with the CFA and DTP on 29 November 2024 to discuss the unresolved referral comments from the CFA. The Meeting facilitated a detailed discussion about the referral matters and the proposed approach to addressing them, in particular the response to the *Design Guideline and Model Requirement for Renewable Energy Facilities v4* (CFA, 2023) (the CFA Guidelines). Attendees from CFA included members from the Community Infrastructure – Specialist Risk and Fire Safety department. The meeting included discussion of the following key points:

- AECOM and Riskcon presented the draft Fire Safety Concept Plan and key updates to the Fire Safety Studies
- The CFA advised that a non-compliant layout would not be accepted, and that the layout would have to be redesigned in order to comply with the CFA Guidelines.

Lightsource bp have since engaged RED Fire Engineers to provide additional support and assist in the preparation of a CFA Response Memo to ensure that the Project addresses the CFA Guidelines where possible to the satisfaction of the CFA.

AECOM, Lightsource bp, and RED Fire Engineers, met with the CFA on 20 March 2025 to provide an update on the Project and sought to enable discussion around which parts of the CFA Guidelines are flexible, and which are not.

The meeting included discussion of the following key points:

- RED Fire Engineers presented the new proposed initial design including water tank provisions, fire hydrant provisions, fire water containment, firefighting strategy, and access roads
- The CFA advised that further detail would be required, specifically the provision of a plan that shows the proposed design
- The CFA confirmed that the detailed design to comply with the CFA Guidelines could be assessed via a secondary consent application.

On 12 September 2025, the CFA provided formal comment on the planning permit application in the form of recommended planning permit conditions in accordance with Section 52 of the P&E Act.

Following discussions with the CFA, Lightsource bp updated the site layout to address these conditions. The revised plans were provided to the CFA for review and, on 16 March 2026, the CFA confirmed that the inclusion of additional 45 kL water tanks adjacent to each BESS installation was satisfactory. The CFA also advised that the gas modelling condition is only required where acoustic barriers (noise walls) are present on three adjoining sides of a BESS installation; where barriers are present on one or two sides only, the modelling is not required. Benalla Rural City Council

AECOM met with Benalla Rural City Council (Joel Ingham – Manager Development) on 24 March 2025 to discuss the additional inadvertent loss of native vegetation (Plains Woodland Ecological Vegetation Class (EVC 803)) on 892 Benalla-Yarrawonga Road, Goorambat. AECOM provided Council with an

update on the Project status and presented the suggested offset condition (discussed in Section 1.4.2). Council had no objections to the condition and maintained its in principal support of the Project.

1.4.4 Goulburn Broken Catchment Management Authority

AECOM has sought advice from Goulburn Broken Catchment Management Authority (GBCMA) via a formal Floodplain Advice Application. GBCMA provided additional data for consideration in the Flood Report. Ongoing flood modelling and consultation with the GBCMA is occurring to refine the understanding of flood levels and to inform the detailed design of the site, including identification of possible design measures to mitigate flooding and reduce the requirement for elevated infrastructure. Refer to Section 6.6 and Appendix H for further information and the Flood Report.

1.5 Report Structure and Supporting Documents

This planning report provides an assessment of the combined solar farms, primarily relying on the existing assessments for West Mokoan Solar Farm (PA2000978) and Kennedys Creek Solar Farm (PA1900684-1). This Report is presented as follows:

- Section 1.0 provides an overview of the Project, Planning Permit history, information about the applicant, and relevant consultation with stakeholders
- Section 2.0provides details on the site surrounds, along with existing conditions and uses present on site
- Section 3.0 outlines the proposal, detailing the Project's key components
- Section 4.0 provides information relating to the construction and operation of the Project
- Section 5.0 provides an assessment of legislation and planning policy that are of relevance to the Project
- Section 6.0 provides a summary of the specialist technical reports and assessments and any potential impacts relevant to the Project
- Section 7.0 provides the conclusion of this report.

This report should be read in conjunction with the following supporting documents which have been specifically prepared (or updated) for this application:

- Appendix A - Planning Permits PA1900684-1 (including extension of time) and PA2000978
- Appendix B - Application Plans prepared by the Applicant
- Appendix C - Ecological Assessment
- Appendix D - Acoustic Assessments
- Appendix E - Preliminary Hazard Analysis and Fire Safety Study
- Appendix F - Traffic Impact Assessments
- Appendix G - Landscape Plans and Landscape Early Works Strategies
- Appendix H - Flood Report
- Appendix L - Heritage Assessments and Cultural Heritage Management Plans
- Appendix Q - Plan of Subdivision

In addition, the following Appendices includes all previous documentation (unamended), historically used to support Planning Permits PA1900684-1 and PA2000978, but which have not been updated for this combined application, including:

- Appendix I - Surface Water Assessments
- Appendix J - Consultation Material
- Appendix K - Landscape and Visual Impact Assessments

- Appendix M - Glint and Glare Assessments
- Appendix N - Agricultural Impact Assessments
- Appendix O - Preliminary Geotechnical Assessments
- Appendix P - Preliminary Environmental Management Plans
- Appendix R - Woodland Restoration Plan
- Appendix S - DEECA and Winton Wetland Committee of Management Public Land Managers Consent, Goulburn-Murray Water Landowner's Consent, and DELWP Written In-Principal Support.

2.0 Subject Site and Existing Conditions

2.1 Location

The Project is located within the Rural City of Benalla, which forms part of the Hume Region in north-eastern Victoria. The subject site is located approximately four kilometres north-east of the town centre of Benalla and 175 kilometres north-east of Melbourne. Larger regional cities within the Hume Region include Shepparton, Wangaratta and Wodonga. Figure 1 shows the location of the site in relation to greater Melbourne and regional Victoria.

The region has high solar irradiance as identified in the solar exposure data collected by the Bureau of Meteorology (BOM) at the Benalla Airport Station (approximately four kilometres south-west of site), where the level of total solar energy for a day falling on a horizontal surface in Benalla is approximately 17.2 Megajoules per square metre (MJ/m²).

2.2 Subject Site

2.2.1 Location

As noted in the introduction, the combined project uses the former project names to describe the overall subject site as follows:

- West Mokoan Solar Farm site – refers to the northern portion, which comprises three areas, separated by the Stockyard Creek channel, and Lake Mokoan Road
- Kennedys Creek Solar Farm site – refers to the southern portion, which comprises two areas, separated by Benalla- Yarrawonga Road.

The subject site adjoins Murray Road, Nelson Road and Benalla-Yarrawonga Road in the south, and Benalla-Yarrawonga Road and Lake Mokoan Road in the north. The total area of the combined sites is 748 hectares (770 hectares including the additional impact area for the transmission line). Figure 2 provides an overview of the subject site and boundaries.

Kennedys Creek Solar Farm is located on the northern side of both Nelson Road and Murray Road and bisects Benalla-Yarrawonga Road. It has frontages to Nelson Road, Benalla-Yarrawonga Road, and Murray Road. It is irregular in shape with a total area of approximately 283 hectares.

West Mokoan Solar Farm is located on the eastern side of Benalla-Yarrawonga Road and has frontages to Benalla-Yarrawonga Road, Lake Mokoan Road and Dam Wall/Boundary Road. It is intersected by Stockyard Creek and has a total area of approximately 464 hectares.

A transmission line connects Kennedys Creek and West Mokoan Solar farm sites, generally along the western boundary of the sites adjacent to Boundary Road and Dam Wall Road. The impact area for the transmission line covers an additional 22 hectares.

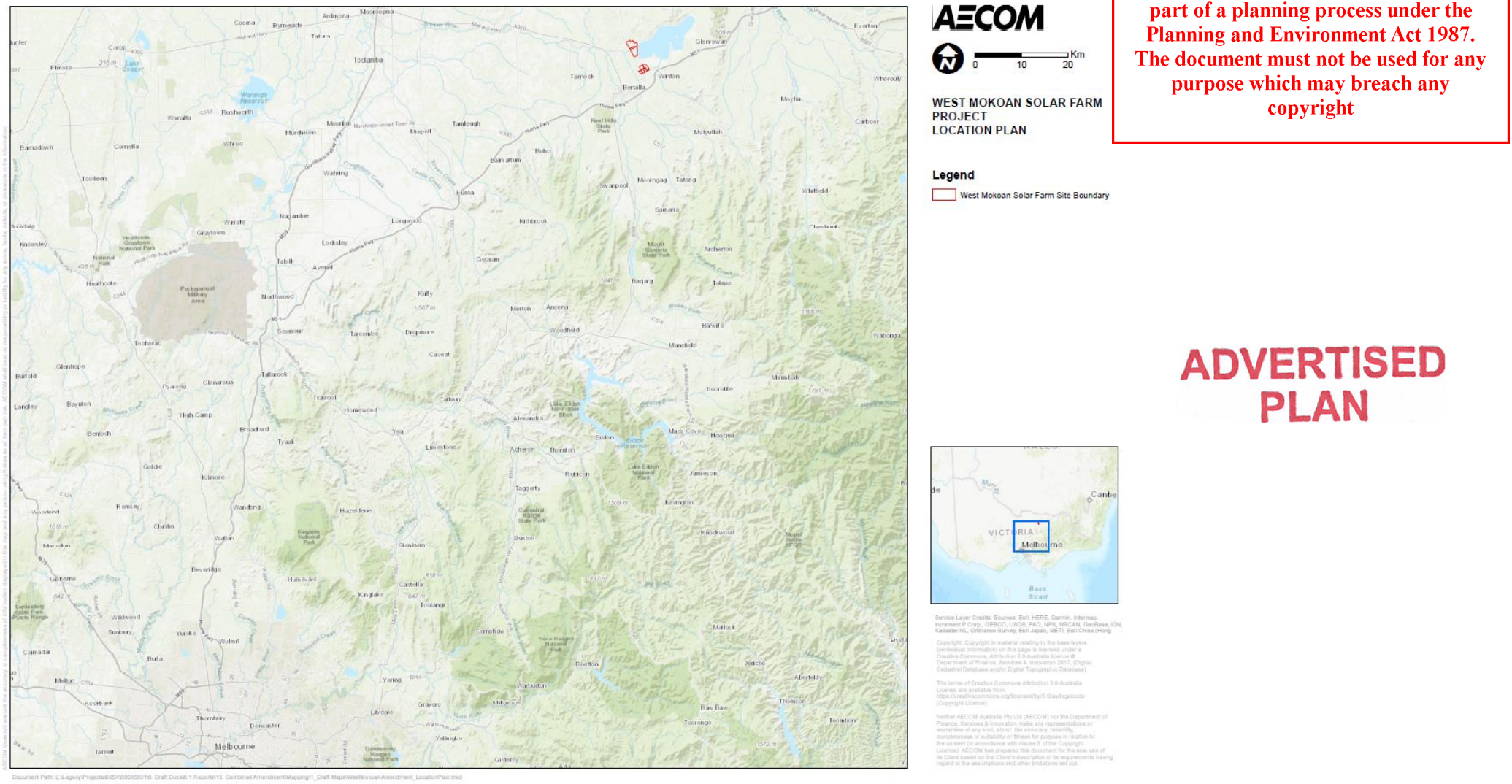

Figure 1 Site location (Melbourne and regional Victoria context) (AECOM, 2026)

Figure 2 Site context map (AECOM, 2026)

2.2.2 Title and Easements

The address and legal description of properties forming the subject site are listed in Table 2. Table 3 describes the easements on the subject site as shown in Figure 3.

Table 2 Site addresses and associated legal descriptions

Site Address	Legal Description	Volume & Folio Number and Encumbrance (if applicable)
Kennedys Creek Solar Farm		
127 Nelson Road, Benalla	Lot 2 PS803108	• 12155/784 • Section 173 Agreement AG095069D
284 Benalla-Yarrawonga Road, Benalla	Lot 3 PS715932	• 11459/279 • Section 173 Agreement AG095069D
51 Nelson Road, Benalla	Lot 6 PS627741	• 11257/205 • Section 173 Agreement AG095069D • Covenant G033191
67 Nelson Road, Benalla	Lot 7 PS627741	• 11257/202 • Section 173 Agreement AG095069D
Murray Road, Benalla	Lot 3 PS318659S and Lot 4 PS318659	• 10241/081 • Covenant G371487
West Mokoan Solar Farm		
616 Benalla-Yarrawonga Road, Benalla	Lot 1 on Local Plan 206521H; Lots 2-5 on Local Plan 206524	• 09742/669
81 Lake Mokoan Road, Goorambat	Lot 2 on Plan of Subdivision 625748F	• 11122/147
892 Benalla-Yarrawonga Road, Goorambat	Lot 1 on Plan of Subdivision 625748F	• 1112/146
Benalla-Yarrawonga Road, Benalla	Lot 1 on Title Plan 104377J; Lots 1-2 on Title Plan 173518C; Lot 1 on Local Plan 206524H;	• 09519/148 • 09354/266 • 09742/669
Crown Land	Allotment 98B Parish of Goorambat PP2704	• 11738/048
Road reserves of Lake Mokoan Road and Benalla-Yarrawonga Road	Allotment 2007 Parish of Goorambat PP2704;	• 11738/078
Stockyard Creek	Lot 1 on Title Plan 576184J	• 08916/940
Transmission Line Area		
368 Benalla-Yarrawonga Road, Benalla	Lot 2 PS627741	• 11257/201 • Caveat AX509932Q • Section 173 Agreement AG095069D
370 Benalla-Yarrawonga Road, Benalla	Lot 1 PS627741	• 11257/200 • Caveat AX509969Q • Section 173 Agreement AG095069D

Site Address	Legal Description	Volume & Folio Number and Encumbrance (if applicable)
524 Benalla-Yarrawonga Road, Benalla	Lot 6 LP206524H	• 09742/674 • Caveat AX509963D
572-616 Benalla-Yarrawonga Road, Benalla	Lot 3 LP206524H Lot 4 LP206524H Lot 5 LP206524H	• 09742/671 • 09742/672 • 09742/673
82 Snowy Lane, Benalla	Lot 2 LP123365	• 09256/156 • Caveat AX509972C
Benalla-Yarrawonga Road, Benalla	Lot 1 PS717978A	• 11625/237 • Caveat AX509941P • Section 173 Agreement AS552279R
Lake Mokoan Road, Winton North	Allotment 2020 Parish of Winton PP3843	• 11782/961
Benalla-Yarrawonga Road, Benalla 3672	Lot 1 PS717978A	• 11625/237 • Caveat AX509941P • Section 173 Agreement AS552279R

Table 3 Easements on subject site

Easement	Purpose	Affected Property
Kennedys Creek Solar Farm		
E-1	Transmission of electricity	Murray Road (Lot 3 and 4 PS318659)
E-2	Gasp pipeline	Murray Road (Lot 3 and 4 PS318659)
E-2	Transmission of electricity	51 Nelson Road (Lot 6 PS 627741)
E-3	Pipeline purposes	51 Nelson Road (Lot 6 PS627741)
E-1	Powerline	127 Nelson Road (Lot 2 PS803108)
E-4, E-9 (PS 715932M)	Transmission of electricity	127 Nelson Road (Lot 2 PS803108)
E-6, E-7, E-8, E-9, E10 (PS 715932M)	Water supply	51 Nelson Road (Lot 6 PS 627741), 67 Nelson Road (Lot 7 PS627741) and 127 Nelson Road (Lot 2 PS803108)
West Mokoan Solar Farm		
E-1	Transmission of electricity	(Lot 1 PS625748F) (TP 173518C)
E-2	Transmission of electricity and telecommunications	(Lot 1 PS625748F)
E-3	Powerline	(Lot 1 PS625748F)
C	Easement to the State Electricity Commission (SEC)	(Lot 1 TP173518C)
E-4 and E-5	Powerline	(Lot 1 and 2 PS625748F)
E-1	Easement to the SEC	(Lot 1-5 LP206524H)
E-2 and E-4	Electricity easement	(Lots 1-5 LP206524H)
E-3	Drainage easement	(Lots 2-5 LP LP206524H)

Figure 3 Landownership details and easement locations (AECOM, 2026)

2.2.3 Land Use

The subject site is currently used for agricultural purposes, including livestock grazing (sheep and cattle), and contains some vegetation. The site contains two residential dwellings with minimal farm related infrastructure, including out-buildings. The dwellings are located at 892 Benalla-Yarrawonga Road in the north-west of the subject site (see Figure 4) and at 616 Benalla-Yarrawonga Road in the south-west of the subject site (see Figure 5). Vehicular access to these properties is provided via Benalla-Yarrawonga and Lake Mokoan Roads respectively.

Figure 4 Dwelling at 892 Benalla-Yarrawonga Road

Figure 5 Dwelling at 616 Benalla-Yarrawonga Road

2.2.4 Landscape

The land of the subject site is relatively flat and has been cleared for its current use of sheep and cattle grazing and cropping as shown in Figure 6. The site contains a number of scattered trees as well as planted vegetation. Intersecting the subject site generally northeast / southwest is a channel named Stockyard Creek. A number of scattered trees sit between the northern side of the channel and the subject site. Winton Wetlands, a significant restoration project, is located directly to the east of the subject site, though notably separated from the subject site by, Boundary Road and a tall dam wall.

Vegetation on the site is classified as Ecological Vegetation Class (EVC) 803 Plains Woodland, EVC 55_62 Plains Grassy Woodland, EVC 235 Plains Woodland/Herb-rich Gilgai Wetland Mosaic and EVC 175_61 Grassy Woodland. Additional information on the existing landscape and vegetation is contained in the Ecological Impact Assessment at Appendix C.

Figure 6 Subject site (view from Benalla-Yarrawonga Road) which is largely cleared farming land with scattered trees

2.2.5 Access

Access to the subject site is provided from Benalla-Yarrawonga Road along the western boundary and from Lake Mokoan Road, which intersects the northern land parcel of the West Mokoan Solar Farm.

Figure 7 Benalla-Yarrawonga Road from the north-west corner of the subject site

2.2.6 Existing Power Infrastructure

The site is located adjacent to the existing 66kV Glenrowan Terminal Station-Benalla Zone Substation 1 overhead line, running on Nelson Road along the southern boundary of the site. The 220kV Glenrowan to Shepparton overhead transmission line traverses through the West Mokoan Solar Farm running generally northwest to southeast. Several powerlines are also located within the subject site. Table 3 describes the identified easements and Figure 3 maps out the location of these easements in relation to the subject site.

Additionally, the 220kV Glenrowan to Shepparton transmission line is located to the north-east of the subject site running parallel to Boundary Road as shown in Figure 8. This line is made up of two parallel infrastructure systems, approximately 40 metres and 30 metres tall. The line runs north-west parallel to Boundary Road until the road bends towards the north, after which the transmissions lines run straight to cut through 616 Benalla-Yarrawonga Road and eventually cross over Benalla-Yarrawonga Road.

Figure 8 Subject site and view into existing powerline infrastructure

2.3 Site Surrounds

2.3.1 Land Use

The subject site is generally surrounded by land used for agricultural purposes with associated dwellings and farm related infrastructure, vegetation, and waterways. The surrounding land is within the Farming, Public Use and Special Use Zones. The immediate surrounds can be described as follows:

- **North**
  - To the north of Kennedys Creek Solar Farm (until the southern boundary of West Mokoan Solar Farm) is residential property comprising a single dwelling and associated out buildings. Land beyond the dwelling is predominantly used for agricultural purposes.
  - To the north of West Mokoan Solar Farm, land use is a mixture of defence industry purposes, agricultural land and associated dwellings.
  - To the northwest of West Mokoan Solar Farm is the Chesney Vale CFA Fire Station, located at Lake Mokoan Road. The township of Goorambat is located approximately eight kilometres from the subject site.
- **South**
  - Directly to the south of West Mokoan Solar Farm (until the northern boundary of Kennedys Creek Solar Farm) is 524 Benalla-Yarrawonga Road, which contains a dwelling and farm related infrastructure. Land further to the south is generally used for agricultural purposes with some properties containing associated dwellings and infrastructure within the FZ.
  - To the immediate south of Kennedys Creek Solar Farm is the Benalla-Winton Discovery Trail, a 21-kilometre-long bike trail that connects Benalla to the Winton Wetlands. The Mokoan Inlet Channel runs parallel to Nelson Road before connecting into Winton Creek and the swamps

associated with the Winton Wetlands. The Trail and Inlet Channel are both zoned PUZ1 (Service and Utility).

- The Benalla to Yarrawonga rail corridor which is within the PUZ4 (Transport) is situated approximately 800 metres south of Kennedys Creek Solar Farm. To the immediate south-west, off Murray Road, is a precast concrete facility being used for the West Gate Tunnel Project, with a new 700 metre siding also being created from the existing rail line to provide direct access to the precast facility. To the immediate south of the rail corridor is the D&R Henderson timber and manufacturing facility.
- Further to the south is agricultural land and associated dwellings zoned FZ. Benalla CBD is located approximately four kilometres south-west of the site. Benalla Airport is located approximately three kilometres south-west of the site.

- **East**
  - To the east of the combined sites is the Winton Wetlands, which is a large wetland restoration project of national significance. The land is owned by the DEECA and is predominantly within the Public Use Zone and the Public Park and Recreation Zone.
- **West**
  - Directly west of the subject site is Benalla-Yarrawonga Road, a Transport Zone 2. Further to the west is Thales Australian Munitions within the SUZ1 (Defence Industries Benalla) and the Benalla Landfill and Resource Recovery Centre, zoned PUZ1 (Service and Utility). Areas used as agricultural land with associated dwellings (within the FZ) are also located in the vicinity to the west of the site.
  - Kennedys Creek, which is identified as being of Aboriginal Cultural Heritage Significance is located six kilometres west of the site.

2.3.2 Residential Dwellings

There are five residential dwellings within close proximity to the subject site as outlined in Table 4.

Table 4 Surrounding residential dwellings and associated legal descriptions

Address	Legal Description	Location and Distance to Subject Site
18 Farnley Road, Goorambat	Lot 1 PS333287	Approximately 580 metres northwest of West Mokoan Solar Farm
286 Farnley Road, Goorambat	Lot 1\LP117481	Adjacent to the eastern boundary of West Mokoan Solar Farm
28 Sergeant Road, Chesney Vale	Lot 94B\PP2704	Approximately 450 metres east of West Mokoan Solar Farm
524 Benalla-Yarrawonga Road, Benalla	Lot 6\LP206524	Adjacent to the southern boundary of West Mokoan Solar Farm
623 Benalla-Yarrawonga Road, Benalla	Lot 2 TP425167 Lot 6 TP951186 Allot. 1A Sec. T Allot. 1B Sec. T Allot. 16B Sec. T Allot. 17 Sec. T	Adjacent to the southwestern boundary of West Mokoan Solar Farm

2.3.3 Access

The main road corridors in the region include the Hume Freeway which connects Melbourne city centre to the Hume region and the Midland Highway which connects Bendigo through northern Victoria's east towards Shepparton and to Benalla. The Midland Highway is located approximately two kilometres west of the site and the Hume Freeway is approximately nine kilometres south of the site. In addition, there are various other notable road corridors including:

- Benalla-Yarrawonga Road which abuts the site to the west.
- Benalla-Tocumwal Road further to the west of the site.
- Benalla-Winton Road to the south of the site.

A summary of the local roads is provided in Table 5 below:

Table 5 Local Road Summary

Road	Description
Farnley Road	Unsealed, single carriageway to the north of West Mokoan Solar Farm
Sergeant Road	Unsealed, single carriageway to the northeast of West Mokoan Solar Farm
Lake Mokoan Road	Sealed, two-way carriageway which separates the northern and southern land parcels of the Project site.
Boundary Road	Unsealed, single carriageway to the east of the Project site
Benalla-Yarrawonga Road	Sealed, two-way carriageway to the west of the Project site
Nelson Road	Unsealed, single carriageway along the southern boundary of Kennedys Creek Solar Farm
Channel Road	Unsealed, single carriageway along the south-eastern boundary of Kennedys Creek Solar Farm
Snowy Lane	Unsealed, single carriageway between West Mokoan Solar Farm and Kennedys Creek Solar Farm

2.3.4 Other Existing Solar Farms

There are currently seven known solar farms that are within proximity to the proposal. Please refer to Figure 9 for the location of the solar farms in relation to West Mokoan Solar Farm and Table 6 for the known solar farms in the area, their status, and their distance to the proposal.

Table 6 Solar Farms in Proximity to West Mokoan Solar Farm

Solar Farm	Status	Distance from Proposal
Winton North Solar farm	Approved (not constructed)	20 kilometres south-east
Winton Solar Farm	Operating	11 kilometres south-east
Mokoan Solar Farm	Operating	10 kilometres south-east
Glenrowan West Solar Farm	Operating	14 kilometres south-east
Glenrowan Solar Farm	Operating	16 kilometres south-east
Goorambat Solar Farm	Approved (not constructed)	8 kilometres north
Goorambat East Solar Farm	Approved (under construction)	8.5 kilometres north

2.4 Site Selection

The subject site was selected for its suitability as a solar farm due to its levels of solar exposure (estimated to be approximately 17.2 MJ/m^2 annually) and for the following reasons:

- The topography of the land is relatively flat ensuring a straightforward and efficient layout, construction, and ongoing maintenance process.
- The site has direct access to existing transmission lines associated with the Glenrowan to Shepparton network.
- The proposed development will not result in the loss of high-quality agricultural land as identified in the Agricultural Impact Assessment (Appendix N)
- There are a limited number of residential dwellings within close proximity to the site.
- The proposed design has sought to limit the extent of native vegetation removal on the subject site. This ensures that minimal clearance and loss of native vegetation will be required for the Project.

Generally, solar developments are compatible with farming regions and are able to co-exist with agricultural operations that may be located near or within the subject site. For example, as part of an ongoing maintenance program for the Project, livestock (sheep) may be utilised for grazing purposes on the site following construction of the Project.

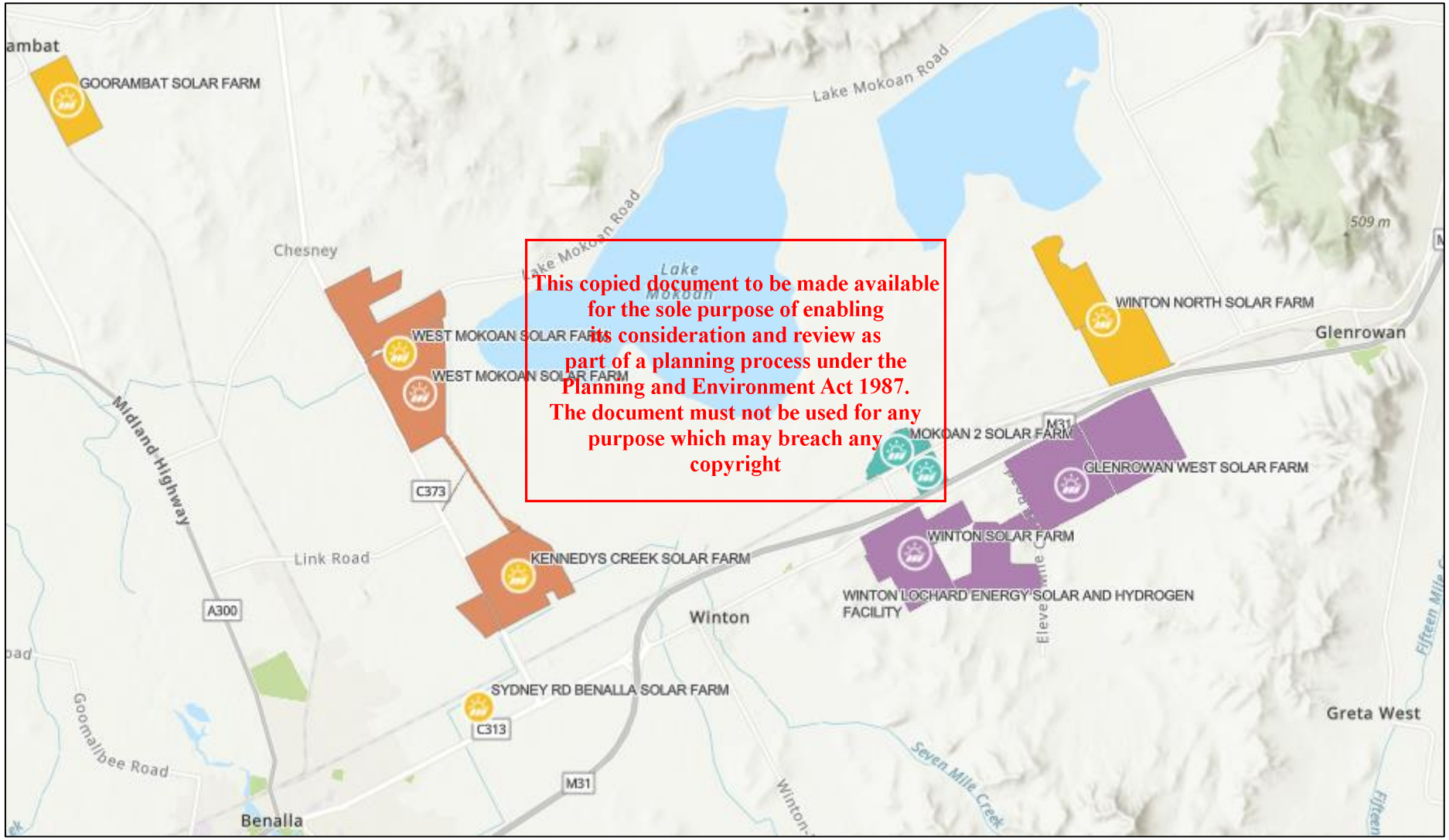

Figure 9 Solar Farm locations in relation to West Mokoan Solar Farm (DTP, 2026: https://spatial.planning.vic.gov.au/planningwebmaps/RenewablesSummary.html)

3.0 Proposal Details

This section provides a summary of the proposal. The primary Project components consist of:

- Approximately 616,230 solar photovoltaic (PV) panels (approximately 358,020 at West Mokoan and approximately 258,300 at Kennedys Creek) on a single-axis tracking system mounted on aluminium or steel piles with an installed capacity of up to 300 megawatt (MW) Alternating Current (AC) Capacity at the point of interconnection (390 MW Direct Current (DC) Capacity)
- Approximately 56 Power Conversion Systems (PCS) with two inverters per PCS (approximately 32 PCS at West Mokoan and approximately 24 at Kennedys Creek). Note, all PCS on site, are planned to have Battery Storage System (BESS) units collocated
- Approximately 224 DC-Coupled BESS units (co-located with up to 56 of the PCS) of up to 300MW / 600 – 1400 megawatt hour (MWH) capacity (connected to approximately 512 DCDC converters at West Mokoan and approximately 384 DCDC converters at Kennedys Creek) and associated mitigation measures (where required)
- DC and AC cabling for electrical reticulation
- A transmission line between Kennedys Creek and West Mokoan site parcels, connecting the Kennedy's Creek substation to the switching station (indicatively named 'Benalla Terminal Station') located in the West Mokoan site area
- A step-up substation located within Kennedy's creek area, connecting the Kennedy's Creek portion of the site to the transmission line between the two site parcels
- A step up-substation and switching station (indicatively named 'Benalla Terminal Station') located within West Mokoan project area, to facilitate the connection of the combined Project into the wider electricity network
- Operations and Maintenance (O&M) facility area, control building, office and amenities
- Site access, internal all-weather access tracks and laydown areas
- Landscaping, native vegetation removal and revegetation
- Security fencing, Closed Circuit Television (CCTV) and Infra-Red lighting
- Business identification signage
- Realignment of easements.

3.1.1 Solar Modules and Mounting Structure

The concept layout comprises of a Single Axis Tracking System (refer to Figure 10 for typical system to be used). The final layout of the Project will be subject to a detailed design process.

PV modules, or 'solar panels' convert energy from the sun into DC electricity through a process known as the photoelectric effect. The modules likely to be selected for this Project will be ~640 W (or similar order of magnitude) bifacial modules with dimensions of approximately 2. 382 metres by 1.134 metres. These modules are attached to mounting structures and will be set back at least 15 metres from all property boundaries.

The capacity of the Project is expected to be up to 390 MW DC and 300 MW AC. The final DC capacity will be optimised as required through detailed design and depends on the final equipment selection. AC capacity will be restricted to the grid export limit approved by AEMO (currently estimated as 300 MW AC). The exact type of module that will be utilised will be subject to final design and may alter the maximum electrical capacity of the Project.

Single Axis Tracking Systems likely to be selected for the Project may comprise of one module in portrait orientation (1P) or two in portrait orientation (2P) (refer to examples in Figure 11).

The panel modules are sited to rotate around the horizontal axis, following the sun's trajectory. The mounting configuration for this Project will consist of modules mounted on each tracker arm in portrait configuration, with the tracking angle ranging from +60 to -60 degrees to the horizontal each day. The spacing between the rows of the solar panels would be approximately at least 2.5 metres for single axis tracking. A typical Single Axis Tracker System comprises PV modules mounted on steel or aluminium racking systems aligned north to south with a maximum height above ground level of approximately 5.50 metres. The exact height of these PV modules will be subject to detailed design.

In relation to the electrical configuration, groups of PV modules are connected in a series to form a string. The modules generate electricity in DC, which is converted to AC via an inverter, which is then transformed to a suitable voltage for onward transmission to the grid network.

Table 7 outlines the specifications for the proposed system.

Table 7 Typical Single Axis Tracking System Specifications

Item	Single Axis Tracking System
Mounting Structure Configuration	
Row alignment	North-south (tracking east-west)
Tracker Rotation Range	+60 to -60 degrees
Row Spacing (centre to centre)	~5.4 metres (subject to detailed design)
PV Module Mounting Configuration	Subject to detailed design
Electrical Configuration	
String Configuration	28 modules per string (subject to detailed design)
Quantity of Modules	Approximately 616,230 (subject to detailed design)
Maximum Capacity	Up to 390 MW DC (subject to detailed design) Approximately 300 MW AC (subject to detailed design)

Figure 10 Example of Typical Single Axis Tracking System with 2P configuration

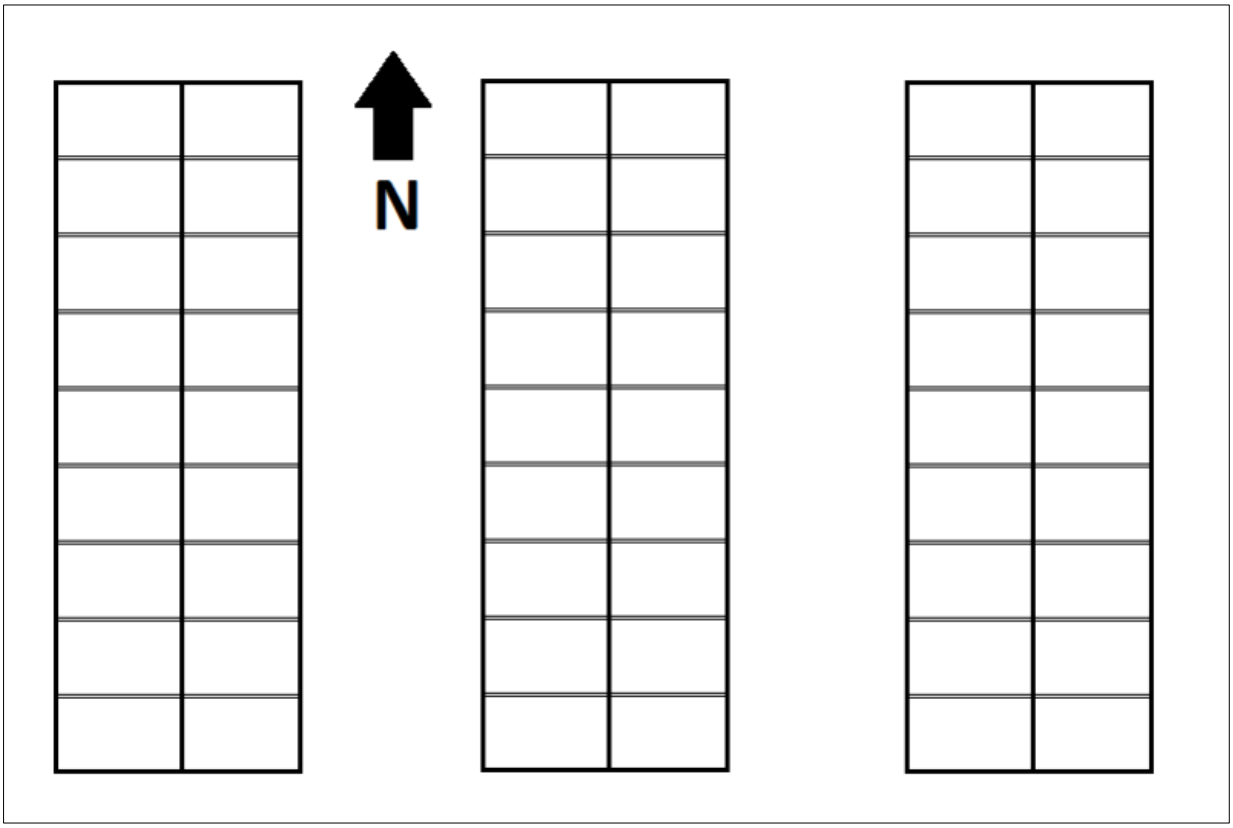

Figure 11 Solar farm panel rows oriented along the north-south axis

3.1.2 Power Conversion Systems

Alternating current (AC)/ Direct current (DC) and DC/AC conversion takes place in the PCS. The energy flows into the batteries to charge them or is converted to AC from the battery storage and fed into the grid.

The PCS houses transformers and inverters, which will be sited between the PV Module Arrays along the solar farm's internal access tracks. The PCS convert the DC to AC, while the transformers increase the voltage from Low Voltage to a Medium or High Voltage, as required by the electricity grid connection.

The Project proposes 56 PCS, each with two 3.575 megavolt-amperes (MVA[1]) inverters (depicted in Figure 12). PCS are a compact, containerised product, with each unit measuring approximately 2.5 metres wide by 2.9 metres high, with a depth of 12.2 metres (equivalent to a 40-foot shipping container). The location of the PCS is identified in the Application Plans at Appendix B.

[1] MVA stands for megavolt-amperes, and it is equivalent to one million volt-amperes. Where a megawatt (Mw), equivalent to one million watts, is usually used to measure the power output of a generator, MVA is used to measure the electrical load of a system.

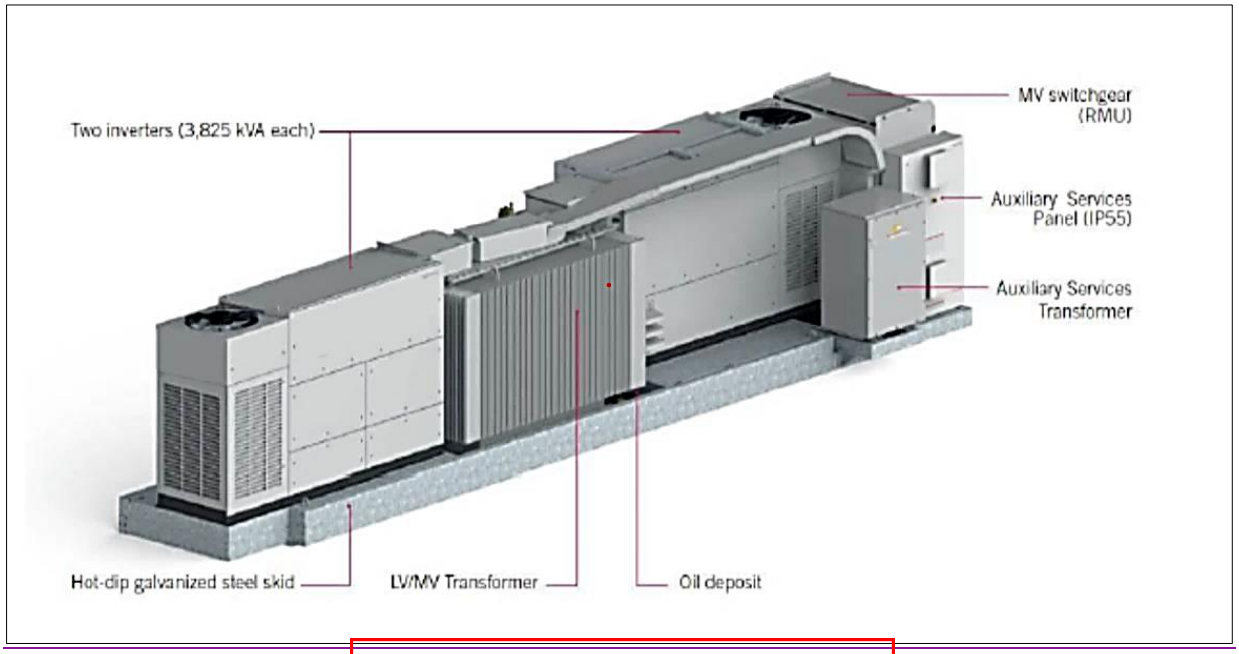

Figure 12 Typical example of PCS (Source: Ingeteam)

3.1.3 Cabling

Cabling (AC and DC) consisting of copper or aluminium cables will be installed in a trench. The width and depth of the trench will be dependent on the number and size of cables required and will be finalised in the detailed design phase of the Project. Cables are typically bedded in a sand backfill approximately 100 millimetres above and below each cable, with excavated material used to backfill the trench to ground level. Identification of the location of the cables is via tape or near the top of the trench backfill. The cables extend through the PV Module Array, thereby following the array of layout and access tracks, electrical control cabinets and PCS to the substation and transmission line at the north-east boundary of the site.

3.1.4 Grid Connection and Transmission Line

A transmission line has been approved to connect the Kennedys Creek and West Mokoan sites. The transmission line is anticipated to be made up of about 12 poles, nine of which are to be installed outside of the solar farm sites and generally aligning with the Boundary Road road reserve. Each pole will be approximately 40 metres tall and have a bore pile foundation that is 1.5 metres in diameter and a pile cap of 2.5 x 2.5 metres. Figure 13 and Figure 14 provide indicative sections of the pole height and width.

The Project has committed to avoid several patches of native vegetation within 368 Benalla-Yarrawonga Road, Benalla and along the Boundary Road road reserve in the construction of the transmission line. Within each construction area, a hardstand area of approximately 20 x 20 metres will be established to support the construction of foundations and crane installation of poles. This proposed hardstand area has been adjusted in some locations to avoid native vegetation and only two poles are proposed to impact native vegetation along Boundary Road. Native vegetation impacts are expanded in Section 2.10 and Appendix C.

No Go Zones will be implemented on the boundary of the impact areas to prevent any inadvertent incursions into retained native vegetation during construction.

There will be no impact between the pole locations other than access between each pole, which will utilise Boundary Road to avoid the need for any further access track construction.

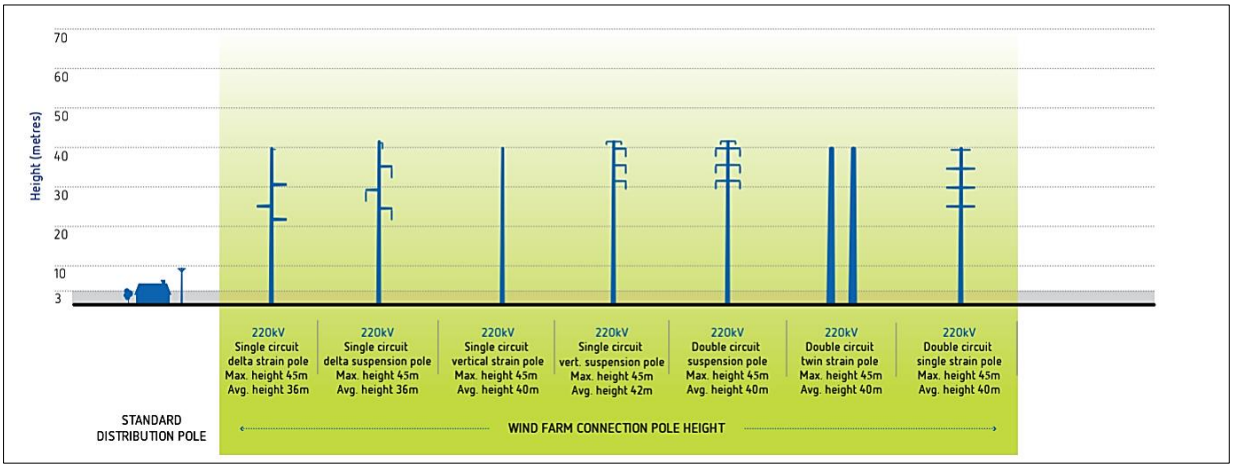

Figure 13 Indicative Transmission Pole Height (Source: AusNet)

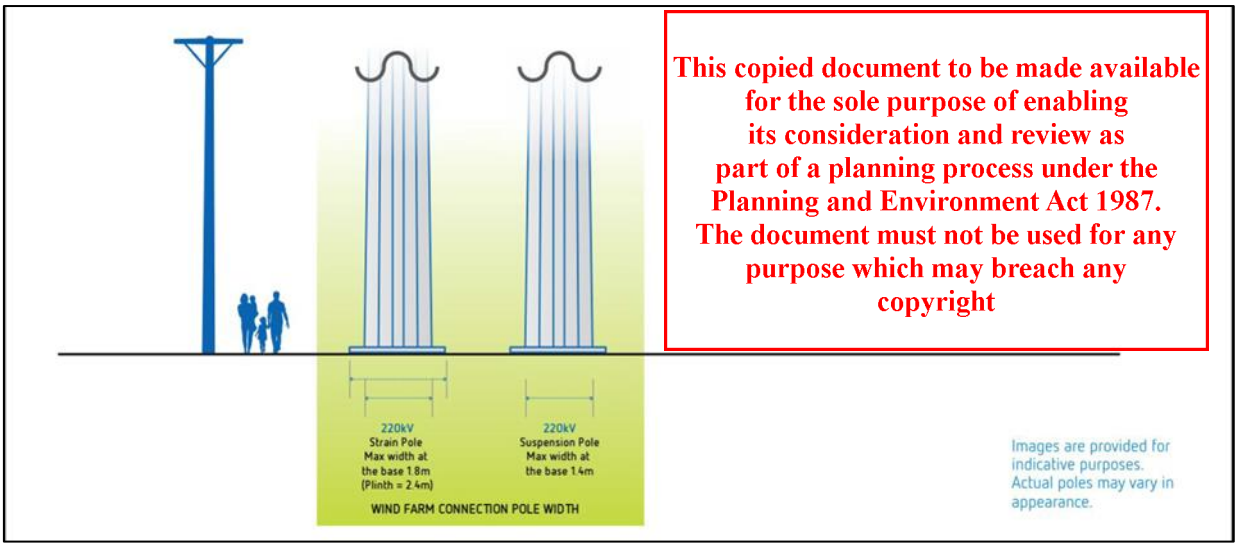

Figure 14 Indicative Transmission Pole Width (Source: AusNet)

3.1.5 Substation

The Kennedys Creek substation is proposed on the north-eastern boundary of the Kennedys Creek site along Boundary Road. This allows for the substation to connect into the new proposed transmission line that runs northwards along Boundary Road.

The West Mokoan substation and co-located switching station (indicatively named 'Benalla Terminal Station') is proposed in the centre of the southern land parcel of the West Mokoan site. This allows for the Benalla Terminal Station to connect into the electricity network via the existing 220 kilovolt (kV) lines which run through the site. The Benalla Terminal Station is an augmentation of the Transmission Network that enables the two solar farms and any future Energy Generation Facility project on nearby land to connect to the Transmission Network.

The West Mokoan substation and Benalla Terminal Station are proposed to be constructed on an elevated design to achieve at least 500mm clearance above the 1% Annual Exceedance Probability (AEP) flood level (including allowance for climate change) and to ensure the substation remains safe, operable, and resilient during the 0.5% AEP flood event plus projected climate change impacts over its design life. A Surface Water Assessment and Flood Report (including hydrology and hydraulic modelling results) for both pre- and post-development scenarios is being undertaken in consultation with the Goulburn Broken Catchment Management Authority (CMA) (refer to Appendix H and Appendix I) to determine the height of the bench.

A switchyard will be located within the designated substation areas. The switchyard will consist of High Voltage switching equipment.

The West Mokoan site provides space of approximately 60 metres x 135 metres to be reserved adjacent to the proposed substation for a potential future substation and Benalla Terminal Station expansion. At this stage, a detailed layout of the potential future substation and Benalla Terminal Station expansion is not included in this planning permit application or considered further in this assessment, however the reservation of this land for potential expansion is proposed. The location of the substations and typical elevations are contained within the Application Plans at Appendix B.

3.1.6 Subdivision of Land

The Transmission Network Service Provider (TNSP), AusNet (or another nominated TNSP) may require freehold title to the switching station lot to proceed with the construction of the grid connection point. A new title in a subdivision of Lot 2-5 on LP 206524H will be required to enable land ownership of the switchyard asset to be transferred to AusNet (or another nominated TNSP) at a later stage. The indicative area for the required switchyard lot is approximately 2.5 hectares. The size and outline of the required subdivision are indicative and would be subject to further detailed design, consultation with AusNet (or another nominated TNSP), the landholder, and Benalla Rural City Council. The subdivision would be subject to a separate planning permit application.

At the end of the operational life of the Project, the infrastructure on the subject site, other than the substation on Lot 2-5 on LP 206524H, its associated access road or any above or below ground electrical infrastructure that connects the substation to the existing electricity network, will be decommissioned as detailed in Section 4.1.4. The use of the remaining infrastructure will continue following the decommissioning of the solar farm project as these items are required to be made available to connect any future Energy Generation Facility project on nearby land to the Transmission Network.

The subdivided lot may be reconsolidated back into the residual lot, subject to further consultation with AusNet (or another nominated TNSP), the landholder and the Benalla Rural City Council.

3.1.7 Operations and Maintenance Area

There is one Operations and Maintenance (O&M) Area for staff which will be located at 572 Benalla-Yarrawonga Road. The O&M facility is anticipated to include an office, workshop and warehouse building as well as a yard for car parking, waste storage and receiving deliveries.

The O&M facility is used for all operational and maintenance requirements of the solar farm and substations, and will contain external lighting covering the yards, and all necessary utilities including water and electricity.

The control building within the O&M area will accommodate the switch room, auxiliary room and the control room. These rooms contain the medium voltage reticulation switchgear, auxiliary power systems (33kV/415V) including battery banks and the Supervisory Control and Data Acquisition (SCADA) industrial control system. The switchgear is the combination of electrical disconnect switches, fuses or circuit breakers used to control, protect and isolate electrical equipment. Typically, the control building will be developed on stilts to allow for cable reticulation. The control building is likely to be 80 square metres.

3.1.8 Battery Energy Storage System

The proposed BESS configuration is for DC-coupled BESS units co-located with all of the 56 PCS throughout the sites with a duration of 2 – 4 hours. The BESS will have a 300MW / 1400MWh capacity. The DC-coupled BESS will enable a hybrid connection for the Project from the solar farm inverters.

Key benefits of the DC-coupled solution include the BESS:

- Sharing a single connection point
- Sharing the same inverters as the solar farm, with no additional inverters required
- Being able to charge from ‘behind-the-meter’, reducing solar farm clipping losses.

The major components of the BESS units include Lithium ion batteries, inverters, transformers, heating ventilation air conditioning and fire protection (refer to Figure 15 and Application Plans at Appendix B).

Each BESS unit has an approximate height of 3 metres, width of 2.5 metres and length of 6 metres. The components of the BESS include:

1. Battery Packs – A typical example of a BESS unit might contain 48 Lithium Iron Phosphate (LFP) battery packs, each consisting of 69 series wired battery cells. Each battery pack typically contains approximately 3.8 L of lithium-ion electrolyte, and each unit contains a total of approximately 182.4 L of electrolyte. Each pack contains an integrated electrolyte sink, which has been designed to contain all electrolyte contained within the battery pack in the event of a release.
2. Battery Management System (BMS) – Each unit typically contains 8 rack mounted BMS to ensure optimal battery functionality. The BMS monitors the battery voltage, State of Charge (SOC), and temperature, to monitor function and ensure early detection of pre-fault conditions to prevent thermal runaway events. In the event the BMS determines the parameters exceed the permissible values, the BMS will disconnect the affected string of battery packs and alarm the site emergency management system.
3. Liquid Cooled Chiller – The battery packs are liquid cooled, improving heat dissipation and uniform cell temperature management. Cell temperature is maintained between 20oC and 35oC. Each unit contains 320 L of Ethylene Glycol Coolant (non-DG) and 16 kg of R134a refrigerant.
4. Standard Enclosure and Rack – The units are enclosed in an IP55 rated steel container. The components within the enclosure can be accessed from 3 exterior doors.
5. Air-conditioner
6. DC Junction Box – The junction box contains surge protection devices for power monitoring which is required to safely exchange power between the units and the plant power conversion system and disconnects for isolating the system.
7. Typical Distribution Management Cabinet (DMC) – the DMC houses auxiliary power distribution equipment including a lead acid battery back-up UPS, system communication, control and monitoring hardware including network switch and Energy Management Control Unit.
8. Typical Fire Protection Systems – The fire protection system includes temperature monitoring, smoke detection, audible fire alarm and visual fire strobe, and gas detection (set to alarm at 25% LEL, activating two off-gassing valves for exhaust of gas).
9. Typical Fire Suppression Systems – The units include aerosol fire suppression which automatically trigger when a fire in the unit is detected. These work by chemically extinguishing the fire preventing the spread to other cells and modules within the overall unit.

Acoustic Assessments have been prepared (refer to Section 6.1.1 and Appendix D) to consider the need for acoustic mitigation associated with the BESS. Single sided noise walls are proposed to be installed at up to up to nine of the BESS on the Kennedys Creek site, at four metres in height. **Error! Reference source not found.** Figure 16 provide examples of the visualisations of noise walls on other utility and BESS projects.

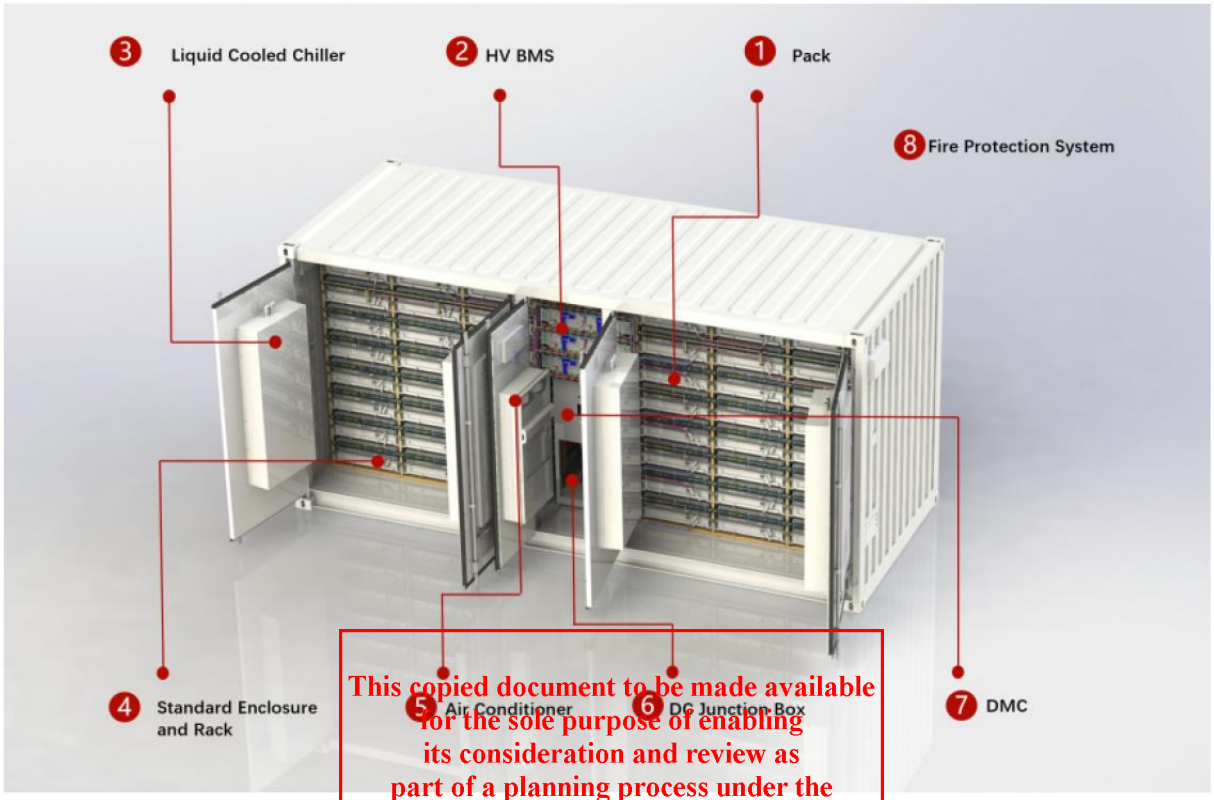

Figure 15 Typical BESS unit example (Source: Canadian Solar)

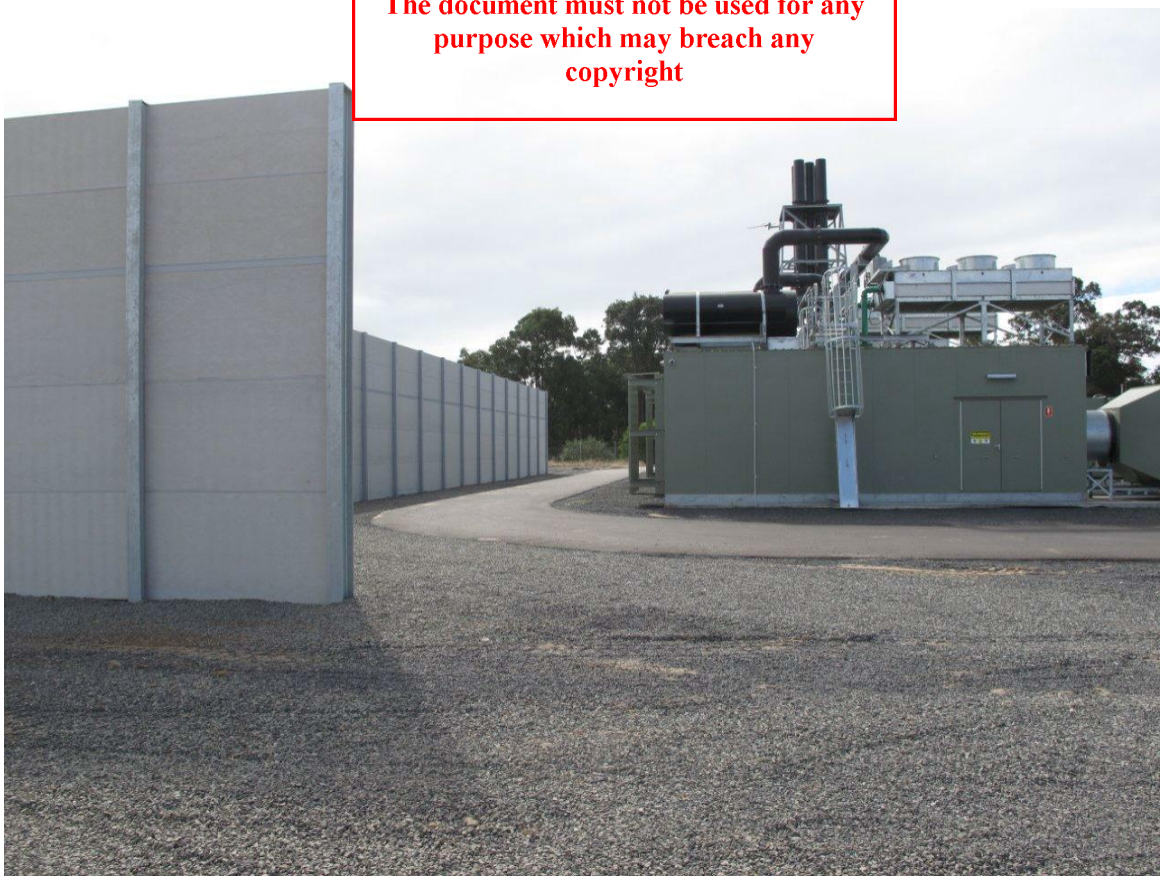

Figure 16 Example noise wall material (Source: Wallmark)

3.1.9 Laydown Area and Site Access

There are five construction laydown areas on the site (listed north to south):

- 892 Benalla-Yarrawonga Road, Goorambat on the West Mokoan Solar Farm
- 572 Benalla-Yarrawonga Road, which is co-located with the Benalla Terminal Station and West Mokoan substation on the west Mokoan Solar Farm
- 572 Benalla-Yarrawonga Road, which is co-located with the O&M facility on the West Mokoan Solar Farm
- 51 Nelson Road on the Kennedys Creek Solar Farm
- 127 Nelson Road, Benalla, which is co-located with the Kennedys Creek substation.

These areas will be utilised to store equipment. The proposed laydown areas will be accessed via the site entrances from Benalla-Yarrawonga Road and Nelson Road . The size of the laydown areas is to be confirmed and will depend on the contractor requirements for the Project.

A network of site access tracks will provide access throughout the site during construction and will remain in situ for the ongoing maintenance of the solar farm. Tracks will be constructed using locally sourced crushed gravel and will be approximately four metres wide. The access track also includes a four metre wide perimeter track sited within a 10 metre wide fire break in accordance with CFA recommendations.

The Project site will have 10 access points, inclusive of four emergency only access points (comprising five on the West Mokoan site and five on the Kennedys Creek site):

- Six from Benalla-Yarrawonga Road (three emergency-only)
- Three from Lake Mokoan Road (one emergency-only)
- One from Boundary Road.

The Project will utilise existing access points, and in situ crossovers where possible and will create new access points and crossovers in line with VicRoads and Benalla Rural City Council standards.

3.1.10 Landscaping

Landscape Plans have been prepared by AECOM for the Project (refer Appendix G). Infill, five and 10 metre wide landscaping buffers have been proposed along the boundaries of the sites, based on proximity to sensitive receptors and presence of existing vegetation. Within the landscape buffer area, a range of trees, shrubs, grasses and ground cover will be planted. The landscaping proposed will vary in height and Indigenous species to the area have been selected as appropriate. Plant species have also been nominated based on feedback provided by the Regent Honeyeater Group.

Planting within easements will reflect the requirements of APA Group, Optus, Telstra, AusNet and AAPT and therefore no trees will be located within the easements to allow continued access to the easements and associated infrastructure.

Where possible, existing (native) vegetation will be retained, particularly along the unnamed waterways and along the property boundaries where visual screening already occurs. The existing vegetation, along with vegetation within the road reserves will contribute to the overall screening of the solar farm.

Landscape and Visual Impact Assessments and Landscape Early Works Strategies have been prepared by AECOM (refer Appendix G) which provide an assessment of the potential landscape and visual impacts during the construction and operation stages of the Project (including proposed landscaping) and recommend mitigation measures to manage the potential impacts. Visualisations have also been prepared (refer to Section 6.5) to identify the visual impact of the Project on the surrounding area.

3.1.11 Native Vegetation Removal and Revegetation

3.1.11.1 Native Vegetation Removal

The development of the solar farm will result in the loss of 17.762 hectares of native vegetation comprising:

- Five patches of native vegetation, totalling 13.236 hectares
- 67 large trees and eight small trees

The removal of this vegetation is considered necessary to provide an efficient and effective layout of the solar farm and transmission line and to ensure the solar farm operation is not impaired by the overshadowing of solar panels.

Owing to the long history of the Project, there are noted differences between the extent of native vegetation presented in past reports and the current Flora Native Vegetation assessment. In accordance with the *Guidelines for the removal, destruction and lopping of native vegetation* (DELWP, 2017) these differences are considered as native vegetation losses that have occurred on the same property in the past five years.

The Project presents the total loss of native vegetation proposed to be removed for the current application (referred to as Design Loss) plus losses that have occurred in the past five years that is not associated with the Project (referred to as Inadvertent Losses) (refer to Table 8).

Table 8 Comparison of native vegetation permitted for removal under previous permits and current application

Permit number	Extent of proposed vegetation removal (ha)	Number of large trees in patches and large scattered trees proposed to be removed	Number of small, scattered trees proposed to be removed
West Mokoan Solar Farm (PA2000978)	1.891	20	2
Kennedys Creek Solar Farm (PA1900684-1)	1.963	20	0
Total (current permit application)	2.845 (Design) 14.917 (Past) **Total = 17.762**	42 (Design) 25 (Past) **Total = 67**	4 (Design) 4 (Past) **Total = 8**

The cause of the loss of these trees is largely unknown, due to the land not currently being in the control of Lightsource bp. It is assumed that a number of the losses are due to land management by the farmer currently managing the land (i.e. controlled burns or chopping down), and that some of the losses are as a result of natural senescence, noting a number of them were recorded as Stags. Benalla Rural City Council was contacted regarding the losses and advised it was comfortable with the losses being considered in this planning permit application.

Considering that a number of trees had been inadvertently lost and that some additional native vegetation removal was required as a result of the new transmission line and associated design changes, the combined Project has maintained a similar Concept Design to those presented as part of previous permit applications in order to retain the highest number of trees possible.

The Ecological Flora and Fauna Assessment prepared by AECOM (Appendix C) includes a Native Vegetation Removal Report which confirms 17.762 hectares of proposed removal of native vegetation and as a result 3.249 general habitat units of offset will be required within a minimum strategic biodiversity score of 0.3233.

3.1.11.2 Revegetation

Lightsource bp has committed to native vegetation enhancement and revegetation within and outside of the West Mokoan and Kennedys Creek sites (refer to the Woodland Management Plan (Appendix R).

On the West Mokoan site, part of the land north of Stockyard Creek (Lot 1 TP104377 and Lot 98B PP2704) is proposed to be restored to contribute to regional landscape linkages by adding value to past revegetation efforts and connecting areas of remnant woodland through biodiversity enhancement activities. This will be achieved through managing issues such as grazing, weeds, pest animals, biomass levels, and through tree and shrub enhancement planting.

In addition, a remnant woodland currently managed for biodiversity conservation and protected under a Trust For Nature conservation covenant will be managed by the Project. Along with adjacent areas of

Crown land, these areas will be managed and restored to reconnect woodland values (refer to Figure 17).

Most of this land will be under the control of Lightsource bp. A portion of the land is Crown land. A Woodland Management Plan has been prepared (Appendix R) which incorporates standard biodiversity enhancement techniques whilst drawing on local experience and methods adopted by the Regent Honeyeater Group which have high planting success rates in the region.

DELWP (now DEECA) provided in-principal support to the former Project applicant (prior to the transfer of ownership to Lightsource bp) on 4 March 2021 (written confirmation attached at Appendix S1) for:

- Issuing of a licence for the purposes of Conservation Management over the Crown land shown below and bordered by the blue dashed line as shown in Figure 18
- Issuing of a section 134, Land Act 1958 lease to enable the development of a solar farm over the Crown land shown below and bordered with the green dashed line as shown in Figure 18

Lightsource bp is committed to fulfilling the obligations committed to as part of the Woodland Management Plan.

On the Kennedys Creek site, part of the land to the east of the solar farm development area (Lot 2 PS803108) has been identified for revegetation opportunities (refer to Figure 19). The Woodland Management Plan would be updated to include this area and relevant management measures if the Project is approved.

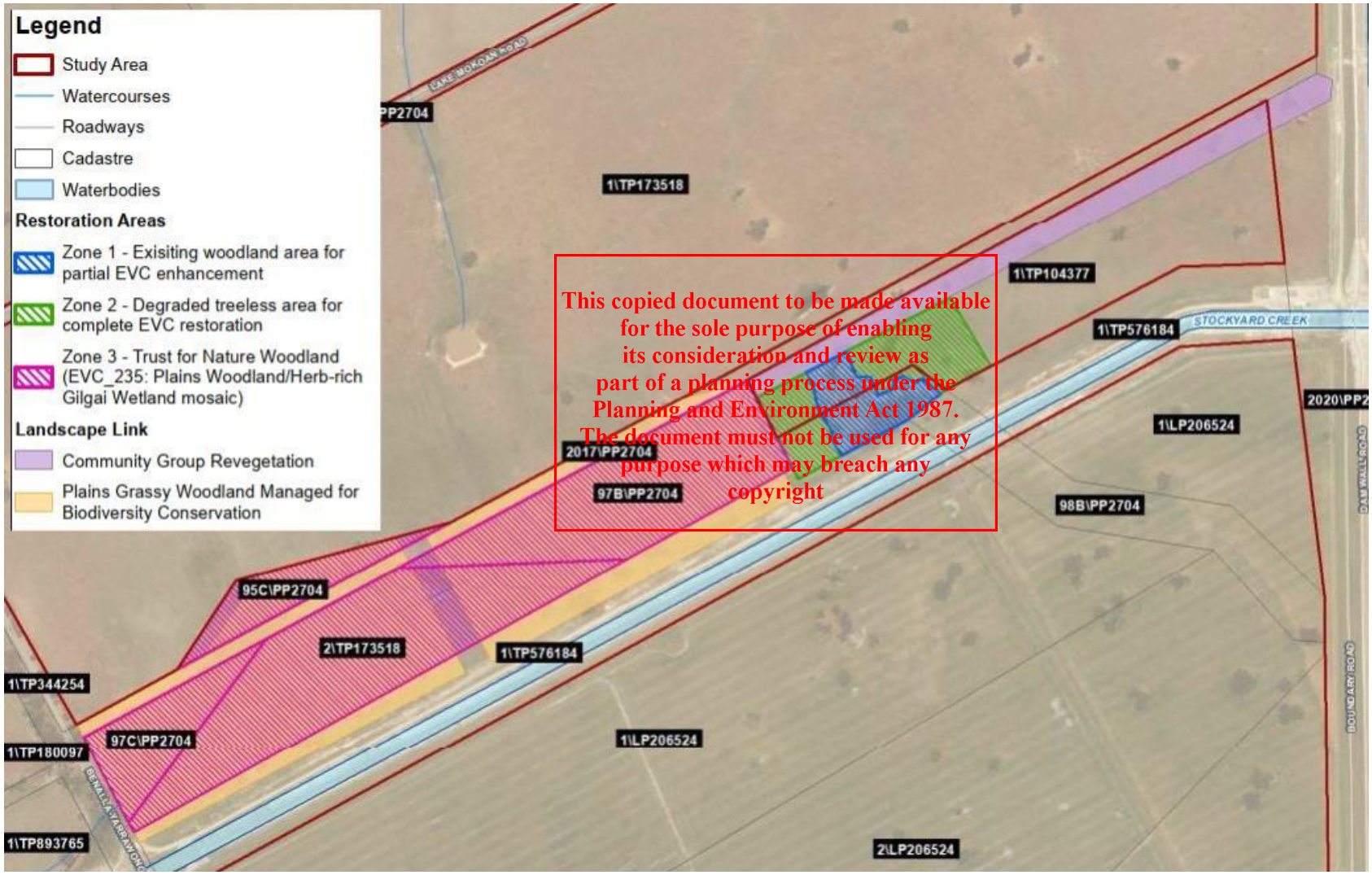

Figure 17 Restoration area and landscape link

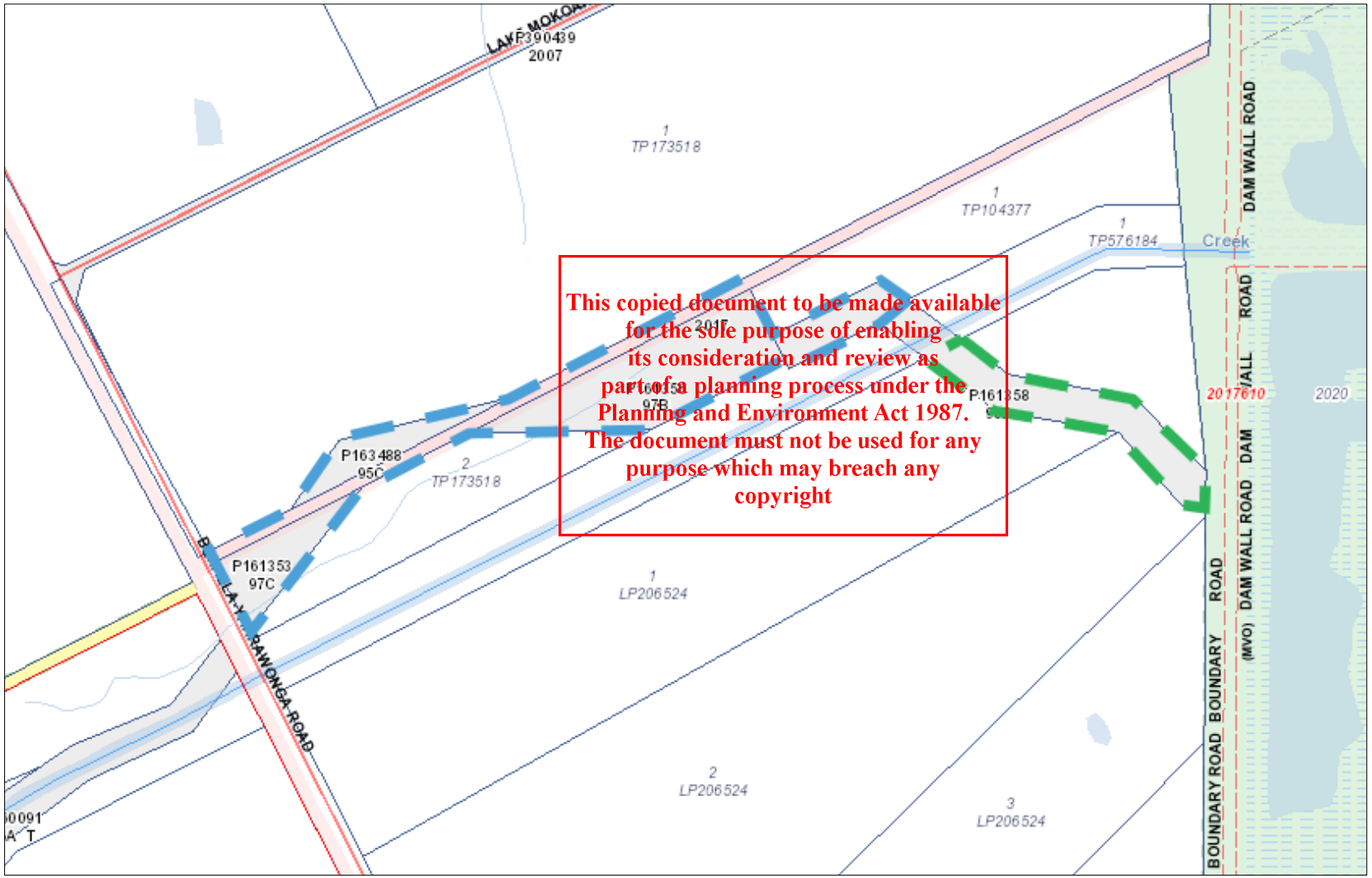

Figure 18 Areas of Crown Land subject to leases and licences from DELWP (now DEECA)

Figure 19 Kennedys Creek Revegetation Area

3.1.12 Security Fencing

The solar farm will be surrounded by a chain link fence measuring up to 2.3 metres in height. The extent of security fencing is dependent on insurance requirements for the Project. Typical security fence vehicle gates will be incorporated into the fencing system to allow vehicular and pedestrian access to the PV modules, inverters, transformers and substation locations for operation and maintenance activities. Fencing incorporated around the perimeter of the site will be designed to reduce impacts on wildlife that may occur as a result of fauna species attempting to move through the landscape where fencing has been erected. Further, the proposed fencing will be designed to withstand flood events and debris and will protect the proposed perimeter landscaping, ensuring that the solar farm is secure. The exact design specifications of the fencing are not yet determined and will be finalised during the detailed design phase of the Project.

Appropriate safety signage will be displayed on the fencing and gates. An example of typical fencing anticipated to be used for the Project is included in the Application Plans at Appendix B. Security fencing will also be installed around the substations which will be approximately three metres in height.

3.1.13 Closed Circuit Television and Infra-Red Lighting

A Closed Circuit Television (CCTV) security system may be installed with cameras and infrared lighting. If required, the system will be installed at regular intervals on the site perimeter and within the site, most likely at every PCS location on support posts of up to 8 metres high. Infrared lighting uses a spectrum of lighting just below red and is not visible to the human eye, therefore lighting impacts produced by the CCTV security system will be minimal. The indicative location of the CCTV cameras is shown on the Application Plans (Appendix B).

Further, lighting is proposed to be installed for the substations and O&M facilities. While exact details of the proposed lighting are subject to detailed design, it is anticipated that any lighting provided will be low-level and directed towards the facility area to minimise the potential for light spill. No flood lights are proposed to provide illumination of this area. The proposed lighting will comply with *Australian Standard 4282 Control of the obtrusive effects of outdoor lighting.*

3.1.14 Business Identification Signage

Business identification signage will be installed to clearly identify certain elements within the subject site, such as the site entrance and safety information. At this stage, details and location of the signage are not fully confirmed, although all signage will be limited to the extent necessary for identification purposes and will not exceed three square metres. It is anticipated that sign will be installed at all site access points along Benalla-Yarrawonga Road, Lake Mokoan Road and Nelson Road, which will identity the West Mokoan Solar Farm. Full details of signage requirements will be determined during the detailed design phase.

3.1.15 Site Maintenance

There is the opportunity for sheep grazing on the site during the operation of the solar farm to control vegetation growth and weed management (refer to Figure 20). As the solar panels will be arranged in a Single Axis Tracking Configuration, low hanging wires and exposed electronics will be kept to a minimum, reducing hazards for sheep. Further, the supporting pole for the solar panels for this system is sufficient in height to provide adequate space for the movement of sheep.

With regards to weed management, sheep grazing can be seen as an effective solution, however this will be subject to entering into an agreement with a local farmer. If this does not become a viable option, other alternatives for weed and fire fuel control will be included in the Environmental Management Plan (EMP) and relevant Bushfire Management Plan for the Project.

Figure 20 Example of sheep grazing amongst solar panels

4.0 Construction and Operation

The following subsections describe the construction activities, operation, and decommissioning of the combined Project.

4.1.1 Construction Activities

Construction is anticipated to commence in late 2025 / early 2026 and will continue for a 24 to 30 month period. Construction activities include:

- Preliminary works for site set up and mobilisation to establish construction areas, including any external road works in support of site access
- Civil works, which may include clearing of the land, grading, compaction, stormwater drainage, sediment controls and dust suppression
- Installation of:
  - footings (final siting to be determined during detailed design)
  - solar panels onto mounting structures and connection to solar farm infrastructure including electrical control cabinets
  - the PCS
- Connection of site infrastructure, including electrical control cabinets, PCS and underground cabling
- Construction of:
  - Substations and switching station
  - Control building and O&M area
  - A decentralised BESS with a proposed capacity of:
    - Approximately 120 MW/480 MWh for Kennedys Creek site, with approximately 22 PCSs (48 double inverters) across the site
    - Approximately up to 180 MW/720 MWh for West Mokoan site, with approximately 32 PCSs (64 double inverters) across the site.
  - Hardstand Areas - for the transmission line, each pole location will have an approximately 30 metre by 30 metre hardstand area
- Demolition of the dwellings located at 892 and 616 Benalla-Yarrawonga Road.

These activities would be undertaken during standard hours for building and works and will be managed through a CEMP as proposed by the PEMP (Appendix P). Construction access will be provided from each solar farm site and via Boundary Road. Ongoing communication with local residences would occur throughout the construction process.

4.1.2 Operation and Monitoring

The solar farm is anticipated to operate for up to 40 years. Key operation details include:

- Up to eleven full-time equivalent jobs are to be created for the operational phase on a long-term or permanent basis
- Sheep may be used to manage vegetation growth amongst the solar panels during the operation of the solar farm
- Monitoring is typically undertaken remotely, and operational activities are expected to include remote monitoring of equipment on a daily basis
- Cleaning of the modules will be required on an as needs basis (which may be required once every two years, or several times per year)

- Full servicing of PCS, substation and switching station equipment will typically be undertaken on an annual basis
- There will be storage of hazardous or dangerous goods or materials on site during the operation of the Project. However, the Preliminary Hazard Analysis (Appendix E) found that the risks at both the West Mokoan and Kennedys Creek site boundaries do not exceed the acceptable risk criteria.

4.1.3 Construction and Operational Traffic

The following activities (including vehicle movements) will be required during construction:

- Site set up and mobilisation (semi-trailer and low loader).
- Road / hardstand material construction equipment delivery (B-double truck, dog and low loader).
- General equipment delivery (B-double truck, low loader and semi-trailer).
- AC Cable installation (semi-trailer and low loader).
- Overhead line installation (semi-trailer, low loader and Restricted Access Vehicle (RAV)).
- Switchyard construction (concrete agitator, low loader, semi-trailer, RAV and truck).
- Other employee movements, waste, consumables etc. (light vehicle, van and truck).

Within this overall construction period, construction activity will commence relatively low and build to a 'peak' period of approximately nine months in the middle of the construction period. The level of activity will decrease towards the end of construction and commissioning. During the 'peak' construction period, the daily two-way construction traffic generation is estimated at up to 137 two-way construction vehicle trips per day, including 30 light vehicle trips, 2D shuttle bus trips and 118 heavy vehicle trips.

It is estimated that the Project will generate up to 400 Full Time Equivalent (FTE) employment opportunities during construction with approximately 250 personnel on site during peak construction with a range of different skills required.

Peak trips expected to occur between 5:30AM and 6:30AM with around 57 vehicle arrivals, and from 6:00PM to 7:00PM with 57 vehicle departures from the site on a typical weekday.

Once operational, it is estimated that the Project will generate up to 10 light vehicles (cars / utilities) two-way vehicle movements per day. There would also be an occasional heavy vehicle movement for waste collection or general maintenance and deliveries.

4.1.4 Decommissioning

Decommissioning of the Project will occur at the end of its operational life. A decommissioning plan for the Project and associated infrastructure will be prepared in advance of decommissioning in consultation with the relevant regulatory authorities and landholders. The basis of the plan will be that the Project and associated infrastructure are to be decommissioned in line with the applicable legislative requirements and best practice guidelines existing at that time. Should the Project be approved, the development approval for the Project will include standard conditions regarding the cessation of operations, decommissioning and rehabilitation of the Project Area.

Lightsource bp's contractors will seek to recycle all dismantled and decommissioned infrastructure and equipment, where feasible and practicable. Lightsource bp requires its contractors to manage the recycling of solar panels, through the life of the Project, if panels are damaged during construction or operations and in the decommissioning stage. Structures and equipment that cannot be recycled would be disposed of at an approved waste management facility in accordance with all statutory requirements.

Vehicle movements and personnel requirements during the decommissioning phase are expected to be similar or less than the construction phase of the Project.

Decommissioning does not apply to the substation on Lot 2-5 on LP 206524H, its associated access road or any above or below ground electrical infrastructure connecting the substation to the existing Transmission Network as these items are required to be made available to connect any future Energy Generation Facility project on nearby land to the Transmission Network.

5.0 Legislation and Policy

This section provides an overview of the Commonwealth, State, regional and local legislation and policies of relevance to the Project. The policies from the Planning Policy Framework (PPF), including the Municipal Planning Strategy (MPS) of the Benalla Planning Scheme. An assessment against these policies is provided in Section 5.2.1 of this report.

5.1 Commonwealth Legislation and Policy

Table 9 contains Commonwealth legislation of relevance and provides an assessment of the proposed solar farm at Kennedys Creek and West Mokoan.

Table 9 Commonwealth Legislation and Policy Assessment

Legislation / Policy	Description and Assessment
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	The EPBC Act is the Commonwealth's principal environmental protection and biodiversity conservation legislation. It provides for the conservation of biodiversity and the protection of the environment, particularly those aspects which are considered to be among the nine Matters of National Environmental Significance (MNES), including World Heritage Properties, National Heritage Places, Ramsar wetlands, nationally listed threatened species and ecological communities and listed migratory species. The EPBC Act states that 'controlled actions', i.e. actions that are determined as likely to have a significant impact on a MNES are subject to assessment and approval under the EPBC Act. **Assessment:** The Project is not expected to result in a significant impact to any MNES. Further Striped Legless Lizard habitat surveys were undertaken in 2024 to support further habitat assessments. It was confirmed that there is a low potential for SLL to occur on the Project site.

5.2 State Legislation and Policy

5.2.1 State Legislation and Policy Assessment

Table 10 contains State legislation and policies of relevance and provides an assessment of the proposed solar farm at Kennedys Creek and West Mokoan.

Table 10 State Legislation and Policy Assessment

Legislation / Policy	Description and Assessment
P&E Act	The P&E Act establishes 'a framework for planning use, development and protection of land in Victoria in the present and long-term interests of all Victorians.' Section 4 of the P&E Act contains the overarching objectives of planning in Victoria, which include: *a) To provide for the fair, orderly, economic and sustainable use, and development of land;* *b) To provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity;* *c) To secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria;*

Legislation / Policy	Description and Assessment
	d) To conserve and enhance those buildings, areas or other places which are of scientific, aesthetic, architectural or historic interest, or otherwise of special cultural value; *e) To protect public utilities and other assets and enable the orderly provision and co-ordination of public utilities and other facilities for the benefit of the community;* *f) To facilitate the development in accordance with the objectives set out in paragraphs (a), (b), (c), (d) and (e);* *fa) To facilitate the provision of affordable housing in Victoria;* *g) To balance the present and future interests of all Victorians.* **Assessment:** The Project is consistent with the P&E Act as the proposed development and land use will not prejudice the existing and future land uses on the surrounding properties. The Project will provide economic benefits to the local community and to the Region. Amendments to the concept plan and addition of a transmission line does not affect the merits of the Project. The layout and design of the Project has sought to retain existing native vegetation where practicable and provides setbacks (approximately 5 metres from top of bank) to the unnamed water courses. Detailed EMPs will be prepared and implemented during the construction and operation of the Project to ensure appropriate measures are in place to effectively avoid, identify, manage and mitigate potential environmental impacts. It is therefore considered that the Project will not result in adverse environmental effects. Furthermore, the Project seeks to deliver a clean and sustainable energy resource which will contribute to the reduction in carbon emissions in Victoria. Amendments to the concept plan have sought to retain the approved layout as far as practical while also allowing for changes as required to allow the transmission line connection.
Environment Effects Act 1978 (EE Act)	The EE Act contains a framework by which projects with the potential to have significant effects on the environment may require the preparation of an EES for assessment by the Minister for Planning. An EES may be required for declared 'public works' or works determined by the Minister for Planning to require an EES following referral. Where an EES is required, scoping requirements are issued by the Minister for Planning to guide the preparation of the EES. Once prepared it is placed on exhibition for public review and submission (typically for a period of 30 days). Public submissions can be considered in a number of ways by an inquiry panel appointed by the Minister for Planning. After considering all relevant submissions and conducting any necessary hearings, the inquiry panel's report is provided to the Minister for Planning to assess the environmental effects of the Project to relevant statutory decision-makers to inform their decision whether or not to approve the Project and, if so, on what conditions. **Assessment:** The Ecology Impact Assessment (refer Appendix C) assessed the referral criteria relating to flora and fauna.

Legislation / Policy	Description and Assessment
Flora and Fauna Guarantee Act 1988 (FFG Act)	The FFG Act is the primary legislation dealing with biodiversity and conservation and sustainable use of native ecology in Victoria. Under the FFG Act, a permit is required for the impacts (to kill, injure, disturb or collect) protected or threatened listed flora and fauna. **Assessment:** The Project does not affect any flora species listed under the FFG Act; however, the Victorian Temperate Woodland Bird Community was identified within the site. For this community, no specific approvals are required under the FFG Act. The Project has taken this community into consideration by avoiding and minimising loss of habitat as much as possible. Further. the Project is in accordance with the Guidelines for the removal, destruction or lopping of native vegetation and the appropriate native vegetation offsets have been provided in accordance with these guidelines.
Renewable Energy Action Plan (2017)	Victoria's Renewable Energy Action Plan establishes Victoria's long-term renewable energy policy agenda and pathway. The Plan states that Victoria's renewable energy target is to be 25 per cent renewable energy generation by 2020 and 40 per cent renewable energy generation by 2025, which includes '*20 percent for large-scale solar power, to develop strong industry capability and lead the nation*.' The Plan identifies the following opportunities: • Investing in growing the renewable energy sector and economy. • Helping communities discover new energy opportunities and manage the transition. • Ensuring a reliable and resilient electricity supply. • Building skills and capabilities to grow the sector. **Assessment:** The Project supports the opportunities outlined in the *Renewable Energy Action Plan* by investing in the renewable energy sector through the development of a solar farm, producing a reliable supply of energy to the Region. Further, the Project will be strengthening the skills and capabilities of the sector by creating approximately 400 jobs during construction and operation phase and offering up to 11 jobs on a long-term or permanent basis for the operation and maintenance of the Project.
Victoria's Climate Change Framework (2016)	Victoria's Climate Change Framework identifies the Government's long-term vision for climate change action. The vision for 2050 for Victoria is for net-zero emissions. The Plan sets out four pillars that underpin the State's transition to net zero emissions while maintaining economic prosperity which includes: • Increase energy efficiency and productivity. • Move to a clean electricity supply. • Electrify our economy and switch to clean fuels. • Reduce non-energy emissions and increase carbon storage. **Assessment:** The Project will contribute towards Victoria's 2050 vision for achieving zero-net emissions through the development and use of the land for a solar farm that has the potential to reduce carbon dioxide emissions by approximately 705,000 tonnes per year. The Project will support economic

Legislation / Policy	Description and Assessment
	prosperity while simultaneously introducing a cleaner supply of energy to the region.
Victoria's Climate Change Adaptation Plan 2017-2020	Victoria's Climate Change Adaptation Plan 2017-2020 provides a blueprint for action to help Victoria meet the challenges and act on the opportunities of climate change. The Plan is underpinned by the vision: *'Victoria will meet the challenges and act on the opportunities of climate change. Our state will sustain a thriving natural environment, and will be a healthy, prosperous, safe and vibrant place to work and live for all Victorians'.* **Assessment:** The Project supports Victoria's Climate Change Adaptation Plan by providing solar energy and contributing towards meeting the renewable energy targets and by building the resilience of community infrastructure.
Aboriginal Heritage Act 2006 (AH Act)	The main purpose of the AH Act is to provide for the protection of Aboriginal cultural heritage in Victoria. The AH Act seeks to empower traditional owners as protectors of their cultural heritage, strengthen the ongoing right to maintain the distinctive spiritual, cultural, material and economic relationship of traditional owners of the land and waters and promote respect for Aboriginal cultural heritage. **Assessment:** The Project acknowledges and respects the Aboriginal Cultural Heritage significance of Kennedys Creek, by being designed in a way that is sufficiently set back to protect the Creek from the development and operation of the solar farm. Cultural Heritage Management Plans (CHMPs) have been prepared and approved for the Kennedys Creek and West Mokoan sites to ensure that Aboriginal Cultural Heritage can be managed within the sites and transmission line footprint. Approved CHMPs are attached at Appendix L.
Water for Victoria (2016)	Water for Victoria is the Victorian Government's strategic plan for management of water resources. The Plan recognises agriculture's significant contribution to the State and National economy. Water and its management are vital to the development of the agricultural sector. **Assessment:** The Project recognises that water management and quality is vital to the agricultural sector. The Project supports the objectives of Water for Victoria – Water Plan as the solar farm has been designed in a way where solar panels will be sufficiently set back from the watercourses as to reduce the risk of surface water contamination during the construction phase and to minimise impediment to flood flows during the Project's operation. Furthermore, the Project aligns with the Water Plan in recognising the cultural importance of water for Traditional Owners and Aboriginal people by ensuring that no development or construction occurs within zones of Aboriginal Cultural Heritage.
Agriculture Victoria Strategy (2017)	The *Agriculture Victoria Strategy (2017)* recognises the sector's importance to economic growth and its potential for enhancing social and economic wellbeing across Victoria. The Strategy recognises a number of challenges for Victorian farmers including adaptation to climate change and '*responding to the potential for increased land use conflict*'. The Department of Economic Development, Jobs, Transport and Resources' Vision set out in the Strategy is for '*a productive, competitive*

Legislation / Policy	Description and Assessment
	and sustainable Victorian economy that contributes to a prosperous and inclusive society.' The short/intermediate outcomes for agricultural in Victoria include 'collective long-term planning by regional stakeholders seeking agreed agricultural land uses' and *'government, industry and community engage in conversations about future regional land use planning, including strategic agriculture land use'.* **Assessment:** The *Agricultural Victoria Strategy 2017* states the importance of the agriculture sector as a vital contributor to economic growth. The Project recognises the value of productive agricultural land whereby the subject site is located on land that has been deemed suitable for alternative uses other than agricultural purposes. Further, the design of the Project ensures that the subject site can still be used for the grazing of livestock (sheep) for maintenance purposes, further enhancing the productive quality of the site.
Solar Energy Facilities – Design and Development Guideline (2022)	The *Solar Energy Facilities – Design and Development Guideline* were developed by the Victorian Government to support the siting, design and assessment of large-scale solar energy facilities. The Guideline was finalised in July 2019 and officially came into effect on 17 September 2019 under Amendment VC161 and has since been amended (October 2022). The main aim of the Guideline is to ensure new solar energy facilities are sited in locations with sufficient access to the electricity transmission network, and to avoid or minimise impacts on the local environment, productive agricultural land, irrigated areas and sensitive land uses. Following the introduction of Amendment VC161, Amendment VC192 was gazetted on 19 November 2020 to amend clause 72.01-1 of the Victorian Planning Provisions to make the Minister for Planning the responsible authority for all energy generation facilities and utility installations that are 1 megawatt in capacity or greater. No amendments were made to the *Solar Energy Facilities – Design and Development Guideline*, which remains relevant to the Project. **Assessment:** The Project has considered the Guideline and provides an assessment at Section 5.2.2 of this report. The Project complies with the ideal siting guidelines and best practice standards.
Country Fire Authority (CFA) Guidelines for Renewable Energy Installations v4 (2023)	The previous version of this report referenced the CFA Guidelines for Renewable Energy Installations, which has been superseded by Design Guidelines and Model Requirements for Renewable Energy Facilities v4 (CFA, 2023). It provides standard considerations and measures in relation to fire safety, risk and emergency management that should be considered for all new renewable energy facilities and the upgrading of existing facilities. **Assessment:** The Project layout considers and responds to the guidelines. In addition, Preliminary Hazard Analysis and CFA Response have been prepared which responds to CFA requirements – refer Appendix E.

5.2.2 Solar Energy Facilities - Design and Development Guidelines (2022)

An assessment has been undertaken against the development guidelines to ensure that the Project is sited and designed to meet the intent of the guidelines and is in accordance to best practice standards to further support this Planning Permit application. A response to the best practice standards is provided in Table 11. A design response has also been provided in Table 12 in accordance with the guidelines.

Table 11 Assessment of the Project Against Best Practice for Proponents Standards

Best Practice Standard	Report Reference
Engaging the Community	
Consultation	Prior to the lodgement of Planning Permits PA1900684-1 and PA2000978, consultation occurred with DELWP, Benalla Rural City Council, relevant State agencies, and the broader community. Further consultation will be undertaken throughout construction phases of the Project. Consultation relating specifically to this Planning Permit application is discussed at Section 1.4.
Design Stage	
Siting Facility Components	The proposed site layout has considered and responded to the Guideline as discussed in Section 3.0.
Landscape Screening	Landscape screening and design is discussed in Section 3.1.10. The Landscape Plan (Appendix G) provides full details of the landscape design. The Landscape Early Works Strategy (Appendix G) contains strategies to mitigate, minimise, and manage any potential impacts.
Glint and Glare Management	Glint and glare have been assessed within the Glint and Glare Assessment (Appendix M) and is addressed at Section 6.9.3.
Designing Security Measures	Security measures such as fencing, CCTV and lighting are addressed at Section 3.1.13.
Traffic Impacts	Traffic impacts are addressed at Section 6.4. A Traffic Impact Assessment (Appendix F) provides a full assessment and response to any traffic impacts imposed on and by the Project. It is anticipated that a Traffic Management Plan will be required as a condition of Permit.
Noise	Noise impacts are addressed at Section 6.1.1.
Earthworks and Dust Management	Earthworks and dust will be managed through a Preliminary Environmental Management Plan (PEMP) (Appendix P). Environmental management is further discussed in Section 6.9.6. Whilst a PEMP has been prepared, it is anticipated that an Environmental Management Plan (EMP) will be required as a condition of Permit.
Natural Hazard Risk Management	The site is within a designated bushfire prone area and bushfire risk has been addressed in Section 5.7.4. Risks associated with flooding have been addressed within the Surface Water Assessment (Appendix I) and the Geotechnical Assessment (Appendix O).

Best Practice Standard	Report Reference
Other Matters	
Dangerous Goods and Building Fire Safety	It is anticipated that a Bushfire Management Plan (BMP) will be required as a condition of Permit. The proposal incorporates the following measures: • A minimum 10 metre setback (fire break) has been provided from the site boundary and all landscape screening for CFA emergency access. • Internal access roads will facilitate safe and efficient internal circulation for emergency and personnel vehicles in the instance of a fire. • The subject site's cleared expanses will provide natural offsets to act as fire breaks. Appropriate bushfire management measures will be incorporated within all site management practices, with ongoing collaboration with the CFA viewed as a positive outcome to be achieved. During the construction phase of the Project, should the handling, storage and use of dangerous goods be required, the requirements of the relevant Australian Standards will be complied with. It is anticipated that there will be no storage of hazardous or dangerous goods or materials on site during the operation of the Project. A Preliminary Hazard Assessment has been undertaken and is included at Appendix E and discussed in Section 6.3.
Electromagnetic Radiation and Interference	The Project will produce electromagnetic fields that will be less than recommended limits. Electromagnetic fields are related to the strength of the source, duration of exposure and distance a person stands from the source, given that dissipation of the electromagnetic field is exponential over a distance. It is considered that no unreasonable impact will occur as a result of the proposed solar farm.
Heat Island Effect	Heat island effect has been considered as part of the glint and glare assessments (Appendix M).
Construction and Operation Stage	
Environmental Management Plan	A PEMP (Appendix P) has been prepared for the Project and Environmental management is discussed at Section 6.9.6. It is anticipated that an EMP will be required to be provided as a condition of Permit.
Risk and Emergency Management Planning	Several considerations relating to bushfire risk, as well as mitigation measures, have been implemented as addressed at Section 5.7.4. A future BMP may be required as a condition of Permit. The BMP would incorporate the requirements of *AS 37452010 Planning for Emergencies in Facilities.*
Site Access and Traffic Management	Traffic impacts are addressed at Section 6.4. A Traffic Impact Assessment (Appendix F) provides a full assessment and response to any traffic impacts imposed on and by the Project. It is anticipated that a Traffic Management Plan will be required as a condition of Permit.

Best Practice Standard	Report Reference
Construction Noise and Dust Management	Earthworks and dust will be managed in accordance with the PEMP (Appendix P) to ensure changes to the topography and natural overland flows of the site are minimised. Dust suppression measures will also be implemented within the CEMP, as discussed in the PEMP. Construction noise will be managed by avoiding noise-generating activities outside of regular work hours, shutting down equipment when not in use, and using noise reduction equipment where practicable, as outlined in the PEMP. Environmental management is further discussed in Section 6.9.6. Whilst a PEMP has been prepared, it is anticipated that an EMP will be required as a condition of Permit.
Decommissioning	
Decommissioning	Decommissioning will be carried out appropriately to ensure the land is able to be returned to its original condition. Decommissioning is addressed at Section 4.1.4 and in the PEMP (Appendix P).

Table 12 Assessment of Project Design Response

Documentation	Response Reference
Detailed plans and elevations of the proposed development including the layout and height of the facility and associated building and works, and their materials, reflectivity, colour, lighting and landscaping.	Application Plans (Appendix B) have been prepared for the Project and include details of the design such as the layout, materials, colours and lighting. A separate Landscape Plan (Appendix G) has been prepared to show specific details of plant species and locations.
Detailed plans and elevations of the proposed transmission infrastructure and electricity utility works required to connect the facility to the electricity network, access roads and parking areas	The Application Plans (Appendix B) include detailed plans and elevations showing all details of the Project including transmission infrastructure and access roads.
Accurate visual simulations illustrating the development in the context of the surrounding area and from key public viewpoints.	Photo montages have been prepared (Figure 25 to Figure 31) and show various views to the Project.
The extent and assessment of any vegetation removal.	A Native Vegetation Removal (NVR) Report has been prepared and is included within the Ecological Assessment (Appendix C). The NVR report indicates that 17.762 hectares of vegetation is proposed to be removed.
A rehabilitation plan for the site.	A PEMP has been prepared (Appendix P) and indicates that a Decommissioning and Rehabilitation Plan will be developed through the EMP which is anticipated to be required as a condition of Permit.

Documentation	Response Reference
A description of the proposal including the types of process to be utilised, materials to be stored and the treatment of waste.	A detailed description of the proposal is at Section 3.0.
An explanation of how the proposed design derives from and responds to the site analysis including cumulative impacts with any other existing and proposed renewable energy facilities in the surrounding area	The Project has been designed in response to a detailed site analysis as discussed at Section 3.0. Whilst there has been a substantial increase in renewable energy developments recently in regional Victoria, there are limited solar energy facilities in the immediate area of the proposed solar farm in the Benalla / Goorambat area (see Figure 9). It is considered that the proposed solar farm will not contribute to a cumulative effective of solar energy facilities in the area given the distance between the proposed solar farm and others in the area.
An explanation of agricultural values and production including irrigation infrastructure impacts and whether any land is productive farmland of strategic significance.	An Agricultural Impact Assessment has been prepared (Appendix N) and is discussed at Section 6.9.4.
Whether a works approval or licence is required from EPA Victoria or another authority administering the regulatory requirements of the Dangerous Goods Act 1985.	During the construction phase of the Project, should the handling, storage and use of dangerous goods be required, the requirements of the relevant Australian Standards will be complied with. It is anticipated that there will be no storage of hazardous or dangerous goods or materials on site during the operation of the Project.
A description of how the proposal responds to any significant landscape features for the area identified in the planning scheme.	A Landscape and Visual Impact Assessment (Appendix K) has been prepared and is discussed at Section 6.9.1.
An assessment of: • potential amenity impacts (such as noise; glint or glare; light spill; emissions to air, land or water; vibration; smell and electromagnetic interference): an assessment of potential noise impacts should have regard to EPA Victoria's Noise from industry in regional Victoria guidelines. • effects of traffic to be generated on roads. • visual impact …on the surrounding landscape and on abutting land that is described in a schedule	Several specialist reports have been prepared to accompany this Planning Application and are attached. The following reports have been prepared: • Acoustic Assessments at Appendix D • Preliminary Hazard Analysis and Fire Safety Study at Appendix E • Traffic Impact Assessments at Appendix F • Landscape Plans and Landscape Early Works Strategies at Appendix G • Landscape Visual Impact Assessment details are outlined at section 6.7 and at Appendix K • Ecological Impact Assessment at Appendix C • Details of heritage assessment is provided in section 6.9.2

Documentation	Response Reference
to the *National Parks Act 1975* and Ramsar wetlands and coastal areas • impact of the proposal on any species (including birds and bats) listed under the Flora and Fauna Guarantee Act 1988 or the EPBC Act • impacts on Aboriginal or non-Aboriginal cultural heritage	ADVERTISED PLAN
A statement of why the site is suitable for a Renewable energy facility including a calculation of the greenhouse benefits.	The site is considered suitable for a renewable energy facility and is addressed at Section 5.4. The proposed solar farm will have a capacity of up to approximately 300 MW AC capacity (or 380 MW DC capacity).
An EMP including a construction management plan as well as any rehabilitation and monitoring requirements.	A PEMP has been prepared (Appendix P) and as discussed in the PEMP, it is anticipated that an EMP will be required as a condition of Permit.
Any other matter required by the responsible authority.	It is considered that all matters have been addressed as required by DEECA, through the implementation of an extensive pre-application phase. Any other matters are able to be addressed through a Request for Further Information (if required) or condition on Permit.

5.3 Regional Policy

Table 13 contains regional policies of relevance and provides an assessment of the Project.

Table 13 Regional Policy and Assessment

Policy	Description and Assessment
Hume Regional Growth Plan (2014)	The *Hume Regional Growth Plan* (RGP) is an identified document at **Clause 11.01-1S** of the Planning Scheme. The site is located within the Hume Region as identified at Map 1 of the RGP. More specifically, the site is located in Central Hume as shown at Map 2 of the RGP. The RGP provides high level land use guidance at a local level and informs the decision making of a range of authorities regarding future investment in the Hume Region. The RGP identifies that the Hume Region is growing and changing, and that the Region is supported by the larger regional cities of Shepparton, Wangaratta and Wodonga. It is identified that the Region's economy is 'based on access to natural resources, such as water and productive agricultural land (including extensive irrigated areas), environmental assets (such as significant areas of natural beauty), heritage assets and the strategically important Melbourne-Canberra-Sydney (Hume corridor) and Melbourne-Brisbane (Goulburn Valley corridor) national road and rail transport corridors.' The economy of the Region is largely reliant on agriculture and manufacturing. It is recognised that tourism is also an important industry and is a major employer for the Region.

Policy	Description and Assessment
	Relevant key drivers for change and challenges for growth within the Region are identified as (selected as relevant): • *Preparing for the potential impacts and opportunities arising from climate change.* • *Impacts of climatic conditions such as long-term droughts, wide spread flood and an increase in the number of days of extreme heat and fire danger.* • *Strong transport links connecting the region to intrastate and interstate markets and services as well as gateways for international trade, including potential future links such as high speed rail.* • *Changes in economic sectors, particularly agriculture and manufacturing.* • *Economic adjustments to initiatives that support national and global action to reduce greenhouse gas emissions, such as a price on carbon.* • *The RGP also acknowledges that 'infrastructure will also be needed to support renewable energy initiatives, such as solar energy generation' and the importance of 'developing alternative energy sources such as solar.* • *The RGP mentions that the Hume Region will continue to be one of Australia's major food producing areas and that 'agricultural production will be supported through the protection and enhancement of key agricultural assets including land and water resources.'* **Assessment:** The Project aligns with the objectives and strategic directions outlined in the *Hume Regional Growth Plan* by: • Delivering a renewable energy facility that will generate clean energy for the region and therefore contribute to the reduction of the impacts of climate change. • Minimising losses for the agricultural sector by not utilising highly productive farmland. While the solar farm is in operation, some agricultural activities are still able to continue, as the subject site has the potential to support the grazing of livestock (sheep) alongside the operation of the solar farm. Long term losses to farmland are negligible, as the land can be rehabilitated for farming uses following the decommissioning of the solar farm. • Supporting the local economy by diversifying the strengthening economic sectors while contributing to reducing greenhouse gas emissions and the generation of sustainable energy.
Victoria's Regional Statement (2015)	Victoria's Regional Statement identifies the diverse aspects of Victoria's regional economy, including food, fibre, tourism, manufacturing and natural resources. The Regional Statement recognises the major benefits renewable energy developments have for regional Victoria to reduce emissions, create jobs and put downward pressure on energy prices. The Statement identifies that Government supports '*sustainable enterprises such as nature-based tourism, resource recovery / recycling industries and clean and innovative industries that have a natural home in the regions, such as new energy technology.'* Further the Statement identifies that the Victorian Government is committed to:

Policy	Description and Assessment
	• *$20 million fund (New Energy Jobs Fund) to support Victorian-based new energy technology projects that create or preserve long term sustainable jobs.* • *An initiative to use our energy purchasing power to source renewable energy certificates from new projects in Victoria, bringing forward around $200 million of new investments in renewables.* **Assessment:** The Project is consistent with Victoria's Regional Statement whereby the Proposal supports a diverse regional economy. Further, the Project will provide a net community benefit and will support the reduction in carbon emissions, create jobs and support the reduction of energy prices by providing an additional energy source.
Goulburn Broken Regional Catchment Strategy 2021-27	The *Goulburn Broken Regional Catchment Strategy 2021-27* provides the vision for the integrated management of natural resources in the catchment. It is a plan for improving catchment health and builds on achievements and lessons from past. The Project site is located within the eastern boundary of the catchment. The Strategy is guided by a set of principles including: • *Strengthen partnerships* • *Community-led* • *Embed resilience principles* • *Supported by science* • *Foster stewardship* These principles provide guidance to the priority directions for the next six-years, as set out by the Strategy, which includes: • *Reversing the declining health of the Catchment's land, water and biodiversity* • *Implement pathways to adapt and transform drivers of change* • *Give effect to priorities in First Nations Country Plans* • *Continue to build our understanding of tipping points and their role in navigating change* • *Build values of environmental stewardship amongst an increasingly diverse community* • *Broaden investment and contributions to natural resource management.* **Assessment:** The Project considers the principles and directions of the strategy and has incorporated advice from the GBCMA (refer 1.4.2) into the amended design.

5.4 Local Policy

Table 14 provides an assessment against local policy relevant to the Project.

Table 14 Local Policy and Assessment

Policy	Description and Assessment
Benalla Rural City Council Plan 2021-2025	Benalla Rural City Council Plan is the Council's medium-term strategic planning document that guides decision making and sets key direction to work towards the community's vision for the future. The Council Plan is informed by the long-term Benalla Rural City Community Vision 2036 that seeks to *'provide a sustainable, thriving and cohesive community where lifestyle, culture, health and wellbeing are supported by strong leadership and community partnership'.* Through leadership and quality service, Benalla Rural City Council seeks to meet community needs and aspirations with a focus on thoughtfully planned growth to maintain and enhance the high productivity of the collective community. Council states that they will: • *Plan and guide the community of Benalla Rural City with unwavering accountability,* • *Strive for continuous improvement,* • *Make decisions based on sound research and participate in decision making that meets the needs of the whole community in solid equity,* • *Act with transparency, truthfulness and integrity,* • *Provide clear, innovative and strong leadership,* • *Serve the community, environment and council with respect.* **Assessment:** The Project is consistent with the Council Plan by presenting an opportunity to create new jobs in the renewable energy sector, further diversifying the economy of Benalla. Through the provision of clean energy, the Project offers a sustainable and proactive solution that will support the community into the future. The amendments to the Project continue to support the objectives of the Council Plan and further contribute to the use of renewable and clean energy and technology in Victoria.
*Benalla Rural City Environment Strategy (2016)** * *Included this but note that the strategy was for 2016-2020*	Benalla Rural City Environment Strategy, along with the Environment and Sustainability policy, has been developed to help protect the environment within the council region, and safeguard its ability to support the community into the future. The Environment Strategy is aimed at improving the environmental performance of the Benalla Rural City Council in the delivery of its services, infrastructure and other operations. Themes addressed in the strategy include: • Water conservation and reuse • Energy production and conservation • Greenhouse gas emissions reduction and offset • Waste generation and recycling • Native vegetation conservation and management.

Policy	Description and Assessment
	The Environment Strategy is underpinned by five strategic directions, including: • *Appropriate land use, development and biodiversity management* • *Acting to mitigate climate emissions and adapt to climate change impacts* • *Efficient waste management and resource recovery* • *Strategic and collaborative water management* • *Supporting and building community resilience and capacity.* **Assessment:** The Project aligns with the strategic directions outlined in the Strategy by contributing to the increase in renewable energy facilities within Benalla, aiding in the mitigation of climate change impacts. Further, the development and use of the land for a solar farm is considered as suitable both from a suitability perspective and is considered to be compatible with surrounding agricultural activities.
Benalla Community Plan (2016-2036)	The Community Plan was developed by community and community groups to provide aspirations and motivations for the future of Benalla Rural City Council. It is underpinned by a vision which seeks to ensure that *Benalla Rural City is welcoming and friendly, thriving and prosperous, innovative and industrious, caring and supportive for all residents and visitors – a place where people want to continue to live, move to and call home.* The Community Plan is guided by seven strategic directions, which include: • *Community wellbeing and sense of place* • *A well-connected and accessible community* • *A vibrant, thriving and progressive economy* • *Planned population growth* • *A sustainable environment* • *Benalla Rural City, a destination of choice* • *Leadership and community spirit.* **Assessment:** The Project is consistent with the Community Plan by being located on farmland and industrial zoned land that is currently not being used intensively. The Project will provide a locally produced sustainable energy source while creating jobs for residents, with knock-on benefits to the wider community, contributing to the diversification and strength of the local economy. A community investment program will be set up by Lightsource bp which will provide additional benefits to the community by allocating a portion of the Project's revenue to fund projects which will benefit the community.
Municipal Planning Strategy	The following outlines how the proposed solar farm is consistent with the MPS. • **Clause 02.02** (Vision) – The Project is consistent with the vision at Clause 02.02 as it provides the opportunity for the development of a sustainable renewable energy facility that will connect to the national electricity network and support the region, contributing to a thriving and sustainable future for the community. Further, the Project aligns with the municipal vision as:

Policy	Description and Assessment
	- The Project contributes to the mitigation of greenhouse gas emissions by providing a clean and sustainable renewable energy source. - The proposed location of the Project is approximately 4 kilometres from the Benalla Township which will allow diversification of the local economy and also the potential to stimulate small-scale tourism. • **Clause 02.03-2** (Environmental and landscape values – Flora and Fauna) – The Project has been designed such that areas with ecological value are avoided and protected where possible. • **Clause 02.03-2** (Environmental and landscape values – Landscapes) – The Project provides sufficient landscaping to ensure local aesthetic value and sensitive views are protected. A number of assessments have been prepared to inform the design of the Project, in Section 6.1 (Ecology) and 6.5 (Landscape and Visualisations) of this report. • **Clause 02.03-3** (Environmental risks and amenity – Flooding) – The Project has undertaken a Surface Water Assessment and Flood Assessment in consultation with the GBCMA to understand and respond to potential flooding considerations. • **Clause 02.03-3** (Environmental risks and amenity – Bushfire) – The Project has been designed to be resilient and defendable in the case of a bushfire (With access tracks throughout) and does not increase bushfire risks to human life. Further, the design of the solar farm responds to the CFA Design Guidelines and Model Requirements for Renewable Energy Facilities. • **Clause 02.03** (Climate Change) – The Project aligns with Clause 02.03 (Climate Change) as the proposed solar farm will play a role in reducing greenhouse gas emissions and mitigate climate change. • **Clause 02.03-4** (Natural resource management – Agriculture) – Impacts to agricultural productivity are considered to be minimal as the Project only represents a very small percentage of productive agricultural land within the region. Further, the Project site is able to be used for the grazing of livestock during operation of the solar farm for maintenance purposes, which retains the agricultural productivity of the site. The Project enables agricultural diversification and allows for the sustainable use of farmland that will support the regional economy. The proposed location of the Project is considered appropriate for the proposed use, enabling diversification in the area where sensitive receptors are minimal. A renewable energy facility is contemplated I the Farming Zone, Industrial 1 Zone, and Public Use Zone – Schedule 1 as it is a Section 2 Use (Permit required) in both zones. • **Clause 02.03-4** (Natural resource management – Water) – The layout and design of the solar farm has sought to retain existing native vegetation where practicable and provides setbacks (approximately 5 metres from top of bank) to the two unnamed water courses to reduce the risk of surface water contamination during the construction phase and to minimise impediment to flood flows during the Project's operation. Detailed EMPs will be prepared and implemented during the construction and operation of the Project to ensure appropriate measures are in place to effectively avoid, identify, manage and mitigate potential environmental impacts.

5.5 Planning Policy Framework

The Planning Policy Framework (PPF) of the Benalla Planning Scheme seeks to ensure that land use and development in Victoria meet the objectives of planning as set out in the P&E Act. The PPF is general in nature and is often used to guide more specific planning policies within a municipality. The PPF clauses that are most relevant to the Project are detailed in Table 15 below.

Table 15 Planning Policy Framework and Assessment

Clause	Assessment
Clause 11 (Settlement)	The Project facilitates growth and development by responding to the needs of existing and future communities by providing an energy source that is clean and sustainable.
Clause 11.01-1S (Settlement)	The Project strengthens Benalla's identity as an environmentally sustainable region that invests in sustainable policies and actively participates in mitigating greenhouse gas emissions.
Clause 11.01-1L (Local settlements – Benalla)	The Project does not impinge on the boundary for urban growth.
Clause 11.03-6S (Regional and local places)	The Project considers the distinctive needs of the region in planning for existing and future land use and development by being able to adapt in response to new and changing demographic and technological trends.
Clause 12 (Environmental and Landscape Values)	The Project considers and protects ecological value and biodiversity where possible.
Clause 12.01-1S (Protection of biodiversity)	The Project has been designed in a way that protects ecological value and avoids environmental loss where possible.
Clause 12.01-2S (Native vegetation management)	The Project ensures that there will be no net loss in the contribution made by native vegetation to Victoria's biodiversity.
Clause 12.03-1S (River corridors, waterways, lakes and wetlands)	The Project is sensitively sited to minimise impacts to waterway systems and addresses the impacts of use and development on drought and flooding events.
Clause 12.05-2S (Landscapes)	The site is not located on significant landscape. Nevertheless, any visual impacts that may be caused by the Project will be mitigated by landscaping, providing natural screening that protects the landscape values of the surrounding region, while also contributing to Victoria's biodiversity.
Clause 13 (Environmental risks and amenity)	The Project is located on a site that will not detrimentally interfere with natural environment processes, minimising environmental degradation and amenity conflicts.
Clause 13.01-1S (Natural hazards and climate change)	The Project has been designed to respond to the risks associated with climate change and ensures that climate change adaptation strategies are implemented.
Clause 13.02-1S (Bushfire planning)	The Project has been designed to be resilient and defendable in the case of a bushfire (with access tracks throughout) and does not increase bushfire risks to human life. Further, the design of the solar farm responds to the CFA Design Guidelines and Model Requirements for Renewable Energy Facilities.

Clause	Assessment
Clause 13.03-1S (Floodplain management)	The Project has considered flood hazards, natural flood capacity, and flood storage, and the floodplain areas of environmental significance as part of the Surface Water Assessment (Appendix I). Findings of the assessment are discussed in Section 6.6 and Section 6.9.1.
Clause 13.07-1S (Land use compatibility)	The site is appropriately located in an area where the surrounding land is largely agricultural farmland so that risks to community amenity and safety are minimised.
Clause 14 (Natural Resource Management)	The Project has minimal impact to agricultural productivity given that the subject site is not used for intensive farming.
Clause 14.01-1S (Protection of agricultural land)	The Project ensures that impacts of agricultural productivity are minimised given that the subject site is not used for intensive farming. Currently, the site has been largely cleared for broad acre farming. Further, a solar farm is not a high impact use as it has minimal noise.
Clause 14.01-2S (Sustainable agricultural land use)	The use of the subject site for a renewable energy facility is a sustainable use of farmland and will facilitate agricultural diversification, supporting the economy of the region. Further, it does not negate the future use of the site for agricultural purposes following decommissioning of the solar farm.
Clause 14.02-1S (Catchment planning and management)	The Project will be able to conserve the existing watercourses that traverse through the eastern portion of the site by ensuring that solar panels are set back from the watercourses sufficiently.
Clause 14.02-2S (Water quality)	The Project will be able to conserve the existing watercourses that traverse through the eastern portion of the site by ensuring that solar panels are set back from the watercourses sufficiently.
Clause 14.02-3S (Protection of declared irrigation districts)	The Project does not undermine the or interfere with irrigation infrastructure and does not hinder existing and future agricultural production, as the Project will be able to graze sheep alongside the operation of the solar farm and will be fully rehabilitated to the site's previous agricultural use following decommissioning of the Project.
Clause 15 (Built Environment)	The Project provides planting in strategic locations and seeks to conserve native vegetation where possible.
Clause 15.01-6S (Design for rural areas)	The solar farm responds appropriately to its landscape and protects views by providing planting in strategic locations that will screen views of the solar farm from sensitive receptors, including surrounding residential dwellings and the Winton Wetlands. In addition, screening will provide landscaping to mitigate visual impacts within the environment.
Clause 15.03-2S (Aboriginal cultural heritage)	The Project provides for the protection and conservation of Aboriginal Cultural Heritage places by preparing a CHMP and ensuring that the Project works do not propose impacts to areas of Aboriginal Cultural Heritage Sensitivity.
Clause 17 (Economic Development)	The Project will provide economic, environmental and social benefits to the local community, further strengthening the economic growth and wellbeing of the region.
Clause 17.01-1S (Diversified economy)	The Project will strengthen and diversify the economy by: • Creating and supporting direct and indirect jobs on a full-time basis during the construction and operation of the Project

Clause	Assessment
	• Presenting a unique opportunity which could potentially stimulate small-scale tourism initiatives such as viewing and education opportunities for visitors in the region • Creating opportunities for local businesses to be engaged during the development, construction, delivery and operation of the Project, further increasing the local skilled workforce and economic output of the region.
Clause 17.01-1R (Diversified economy – Hume)	The Project will strengthen the renewables sector within the Hume region through a solar farm, and strengthen and diversify the economy by: • Creating and supporting direct and indirect jobs on a full-time basis during the construction and operation of the Project • Presenting a unique opportunity which could potentially stimulate small-scale tourism initiatives such as viewing and education opportunities for visitors in the region • Creating opportunities for local businesses to be engaged during the development, construction, delivery and operation of the Project, further increasing the local skilled workforce and economic output of the region.
Clause 17.03-1S (Industrial land supply)	The Project will not prejudice the availability of industrial zoned land surrounding the western portion of the site for future industrial use.
Clause 19 (Infrastructure)	The Project ensures the efficient provision of renewable energy infrastructure.
Clause 19.01-1S (Energy supply)	The Project is appropriately located near existing power infrastructure that has capacity for renewable energy.
Clause 19.01-2S (Renewable energy)	The Project will deliver economic and environmental benefits to the region and has the capacity to supply renewable and sustainable energy, further mitigating greenhouse gas emissions.
Clause 19.01-2R (Renewable energy - Hume)	The addition of this Project among other solar farm proposals in the region will contribute to a renewable energy hub within Benalla which will maximise resource efficiency.

5.6 Land Use Terms

The development of a solar farm and associated infrastructure is consistent with the definition of a 'solar energy facility' pursuant to Clause 73.03 (land use terms) of the Planning Scheme. The definition is:

> *Land used to generate electricity from solar energy using ground-mounted photovoltaic and thermal technology, where the primary role is to export power to the electricity network. It does not include the generation of electricity principally used for an existing use of land.*

A 'solar energy facility' is included within the broader definition of 'renewable energy facility'. The definition of a 'renewable energy facility' is:

> *Land used to generate energy using resources that can be rapidly replaced by an ongoing natural process. Renewable energy resources include the sun, wind, the ocean, waterflows, organic matter and the earth's heat.*
>
> *It includes any building or other structure or thing used in or in connection with the generation of energy by a renewable resource.*
>
> *It does not include a renewable energy facility principally used to supply energy for an existing use of the land.*

Further, a 'renewable energy facility' is nested under the land use term 'energy generation facility'. The definition of an 'energy generation facility' is as follows:

> *Land used to generate energy for use off site other than geothermal energy extraction. It includes any building or other structure or thing used in or in connection with the generation of energy.*

The Project also includes the use for a 'utility Installation' pursuant to Clause 73.03 (land use terms) of the Scheme. The definition is:

> *'Land used:*
>
> *a. For telecommunications;*
>
> *b. To transmit or distribute gas or oil;*
>
> *c. To transmit, distribute or store power, including battery storage;*

Elements of the Project that are considered to fall under the land use term 'Utility Installation' include the decentralised BESS, substation and the transmission line.

5.7 Zones and Overlays

The Project site is located within the Farming Zone (FZ), Industrial 1 Zone (IN1Z) and Public Use Zone – Schedule 1 (PUZ1). It adjoins Benalla-Yarrawonga Road which is in Transport Zone 2 (TRZ2) which applies to roads that form the principal road network, including declared arterial roads.

Planning permit requirements associated with the Project are discussed in Section 5.7.4 of this report.

The site is not affected by any overlays and there are no overlays within the vicinity of the site as shown in Figure 22. The site is located within a Designated Bushfire Prone Area. There are areas of AACHS within the Project site, shown in Figure 23.

5.7.1 Farming Zone

The West Mokoan part of the Project, eastern portion of the Kennedys Creek site and the western portion of the transmission line area is located wholly within the Farming Zone.

A **permit is required** for the use and development of land for a *renewable energy facility*, subject to the requirements of **Clause 53.13** (Renewable Energy Facility (other than Wind Energy Facility)). A **permit is required** for the use and development of land for a *utility installation.*

The Project is consistent with the purpose of **Clause 35.07** (Farming Zone) for the following reasons:

- A planning assessment of the Project against the PPF (including the MPS and LPPF) has been undertaken in Section 5.4 and 5.5 of this report. It is considered that the proposed use and development of the land for the purposes of a solar farm and associated infrastructure are generally supported by the PPF, including the MPS and LPPF.
- During construction and operation, the Project will create jobs that support direct and indirect full-time employees, supporting the local community and diversifying employment opportunities.
- The subject site has been chosen for the Project based on sustainable land management practices that include an assessment of amenity, heritage, topography and ecological values, and the proximity to existing local infrastructure, such as the 66kV transmission line running along Nelson Road along the southern boundary of the Kennedys Creek site.
- The Project will only utilise a minimal portion of agricultural land, ensuring limited impact to agricultural productivity for the Region.
- The proposed use is not anticipated to impact upon agricultural activity nearby or adjacent to the Project.

The Project appropriately responds to **Clause 35.07-6** (Decision guidelines) as follows:

- The site has excellent access to the existing infrastructure and services, which includes the proposal to connect both solar farms at Kennedys Creek and West Mokoan, reducing the number of connections to the National Energy Market required.

- The Project will not permanently remove land from agricultural production. Once the Project is decommissioned, the subject site can be rehabilitated to ensure that it continues to be viable for agricultural activities.
- The proposed design layout ensures ground disturbance is kept to a minimum and allows the design of the Project to follow the existing topography of the land.
- Prominent natural features such as the watercourse will be retained and protected where sufficient setbacks and appropriate fencing design will limit impacts to water quality and water flows through the site (refer to Section 6.9.1).
- The site has adequate separation from sensitive areas and uses. It is anticipated that adjacent and nearby land uses will retain acceptable levels of amenity for dwellings with the FZ.

5.7.2 Industrial 1 Zone

The south-western portion of the Kennedys Creek site is within the Industrial 1 Zone.

A **permit is required** for the use and development of land for a *renewable energy facility.* A **permit is required** for the use and development of land for a *utility installation.*

The Project appropriately responds to **Clause 33.01-2** (Decision guidelines) as follows:

- It is considered that the Project is in accordance with the PPF, including the MPS, as demonstrated in Section 5.2.1 and 5.5 of this report.
- The site has excellent access to the existing infrastructure and services, it is also proposing to connect to the West Mokoan Solar Farm, reducing the number of connections to the National Energy Market required.
- During construction and operation, the Project will create jobs that support direct and indirect full-time employees, therefore supporting the local community and diversifying employment opportunities.
- The proposed location of the Project is adequately separated from sensitive areas and uses and will have minimal effect upon existing residential areas.
- Due to the rural nature of the proposed location, traffic flows will not be obstructed during construction and operation of the solar farm.
- During the operation of the solar farm, the land may still be used for the grazing of livestock, meaning that agricultural productivity can be maintained, and the land can be effectively utilised for a use other than the proposed use.

5.7.3 Public Use Zone – Schedule 1

The eastern portion of the transmission line area and Stockyard Creek is located within the PUZ1.

A **permit is not required** for the use and development of land or to construct a building or carry out works for the purpose of 'Services and Utility' on the condition that the use must be carried out by or on behalf of the public land manager.

The Project is consistent with the purpose and Decision Guidelines of **Clause 36.01** (Public Use Zone) and **Clause 36.01-4** (Decision guidelines) as:

- Planning assessment of the Project against the PPF and MPS has been undertaken in Section 5.2.1 and 5.5 of this report.
- The proposed use of land for medium voltage overhead powerline is not anticipated to impact upon Stockyard Creek or its values as a public utility.
- The transmission line is proposed adjacent to an existing transmission line easement; the detailed design process will seek to reduce the footprint and impact of the transmission line as far as practical.
- The Project has been designed in accordance with the Solar Energy Facilities – Design and Development Guideline. The proposed overhead powerline does not impact any native vegetation.

DEECA has been consulted extensively about the proposed installation and has indicated no objection to the amended development. A letter acknowledging the Project and not objecting to the Project, subject to conditions has been included at Appendix S.

Written consent from Goulburn Murray Water as the public land manager has been obtained and is included at Appendix S.

5.7.4 Bushfire Prone Area

The site is located within a Designated Bushfire Prone Area. It is anticipated that the highest fire risk is likely to be due from grass fires. The proposed solar farmland use is not a listed land use at **Clause 13.02** (Bushfire), notwithstanding, it is anticipated that a Bushfire Management Plan will be prepared prior to the development of the site as a condition of planning permit.

The Bushfire Management Plan will be prepared in consultation with the CFA to ensure that appropriate fire risk assessments are undertaken, and measures are implemented during development and operation, to minimise the risk to life and property from fire.

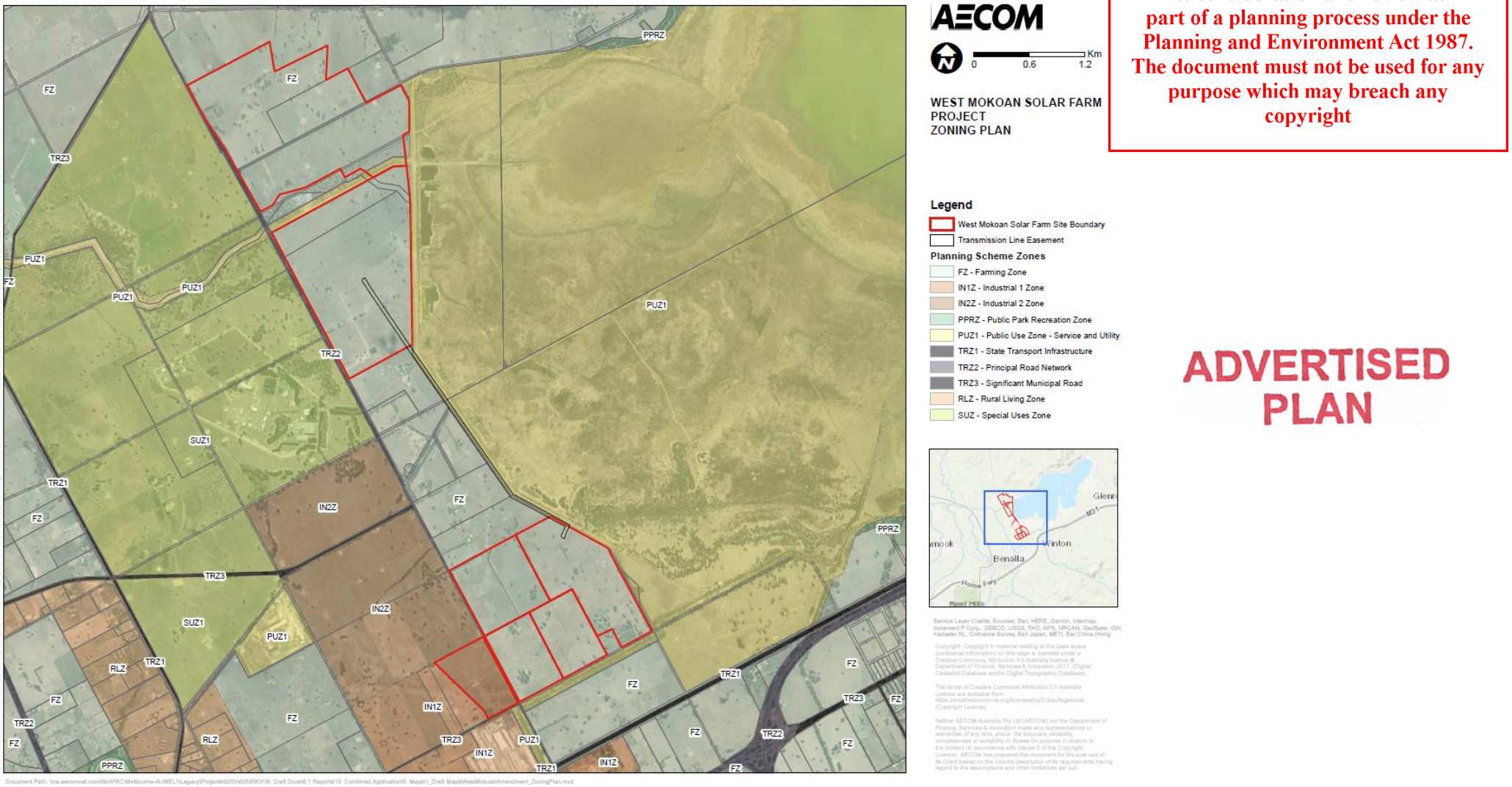

Figure 21 Project site zones (AECOM, 2026)

Figure 22 Project site overlays (AECOM, 2026)

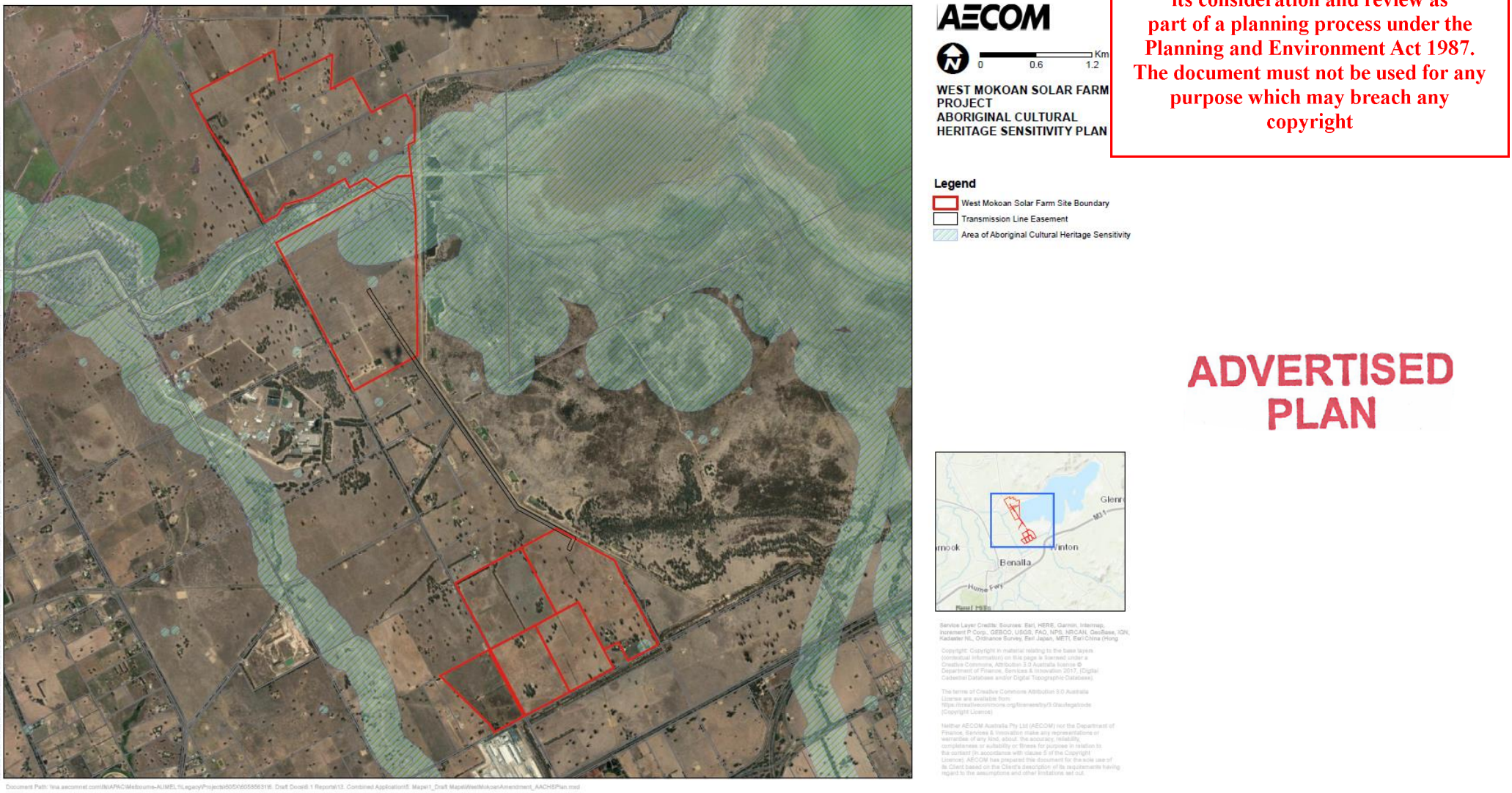

Figure 23 Project site AACHS (AECOM, 2026)

5.8 Particular Provisions

Sections 5.8.1 to 5.8.7 provides an assessment of the proposed Kennedys Creek and West Mokoan Solar Farm against the relevant particular provisions of the Benalla Planning Scheme.

5.8.1 Clause 52.02 – Easements, Restrictions and Reserves

It is proposed to remove and then relocate the 22kV transmission easement that runs through the middle of the site. The purpose of the 22kV easement is to supply electricity to the existing dwelling located at 51 Nelson Road. The overhead line is to be relocated to remove the impediment form the Project development area and is no longer required to connect to this dwelling as the dwelling will be removed. Pursuant to **Clause 52.02,** the Project has considered the impact of varying the easement and has deemed it acceptable for removal and variation, as the 22kV easement does not service any other dwelling or building. The Plan of Subdivision can be found at Appendix Q.

With regard to the proposed transmission line, AusNet Transmission Services will be establishing the easement and retaining ownership of the infrastructure. Transmission line easements are established as Easements in Gross under the *Electricity Industry Act 2000* and the *Transfer of Land Act 1958*. In addition, AusNet Transmission Services has rights under the *Road Management Act 2004* which allows for the installation of utility assets in road reserves subject to the procedure set out in the Act and Code of Practice. AusNet Transmission Services have met with Council who are agreeable to the proposal and do not have any future plans for the road.

Planning approval is therefore not required for the transmission line easement.

5.8.2 Clause 52.05 – Signs

At this stage, full details of the siting and content of signage is not yet confirmed. The signage will be limited to the display of Lightsource bp's branding and will include the name of the site and site address. The signage will not exceed three (3) square metres and will be designed with due consideration to the decision guidelines of **Clause 52.05-8** and to the satisfaction of the responsible authority.

5.8.3 Clause 52.06 – Car Parking

Car parking for the Project will be addressed through a CEMP and TMP during construction. During operation car parking will comply with relevant car parking design standards and ensure that there will be no demand generated for on-street parking as a result of the Project's operation. The car parking will be provided within the proposed utility area and will be provided to the satisfaction of the responsible authority.

5.8.4 Clause 52.17 – Native Vegetation

Solar arrays are comprised of panels that are connected to form strings, which are then grouped into rows and connected to a PCS. Shadowing has a greater effect on solar panels than simply reducing the output of any single shaded panel, as it will reduce the output of the entire string to which it forms a part, meaning that the output of the lowest generating panel determines that output of the whole string.

Consequently, 76 trees within the site are required to be removed as they impeded the efficient layout of the Project and overshadow surrounding panels (or were lost between the identification of the trees in the ecological surveys undertaken in 2019 – 2021 and a more recent feature and level survey of the site undertaken in 2023). The Ecological Assessment and Net Loss Reporting (Appendix C and Section 6.1) contains a Ensym Scenario Test which confirms 4.587 hectares of proposed removal (including 61 large, scattered trees) and as a result 0.918 general habitat units of offset will be required within a minimum strategic biodiversity score of 0.257.

5.8.5 Clause 52.29 – Land Adjacent to the Principal Road Network

The Project site will have 12 access points:

- Six from Benalla-Yarrawonga Road
- Four from Lake Mokoan Road
- One from Nelson Road
- One from Boundary Road.

Clause 52.29 (Land adjacent to the Principal Road Network) applies to the West Mokoan site, which proposes six site access points from Benalla-Yarrawonga Road which is within the TRZ2.

The Project will utilise the existing southern-most access point along Benalla-Yarrawonga Road which allows access into the southern portion of the site. Other access points will be created to allow for construction vehicles to access the various parts of site.

As Benalla-Yarrawonga Road is straight, there are no restricted sight distances from the two proposed access points onto the road. The Project will also create three access points on Lake Mokoan Road to provide access to the site. The site access points will be developed with due consideration to the decision guidelines of **Clause 52.29-6** (Decision guidelines) and to the satisfaction of the responsible authority.

5.8.6 Clause 53.13 – Renewable Energy Facility (other than Wind Energy Facility and Geothermal Energy Extraction)

Clause 53.13-2 (Application requirements) provides an overview of all information that must accompany applications (as appropriate) for a renewable energy facility. The application requirements set out in **Clause 53.13-2** are addressed in Table 16 below.

Table 16 Application Requirements of Clause 53.13-2

Policy Requirement	Section of Report
A site and context analysis, including: • *A site plan, photographs or other techniques to accurately describe the site and the surrounding area.* • *A location plan showing the full site area, local electricity grid, access roads to the site and direction and distance to nearby accommodation, hospital or education centre.*	Refer to: • Section 3.0 of this report. • Appendix B for Application Plans
A design response, including: • *Detailed plans of the proposed development including, the layout and height of the facility and associated building and works, materials, reflectivity, colour, lighting, landscaping, the electricity distribution starting point (where the electricity will enter the distribution system), access roads and parking areas.* • *Accurate visual simulations illustrating the development in the context of the surrounding area and from key public view points.* • *The extent of vegetation removal and a rehabilitation plan for the site.*	Refer to: • Appendix B for the Application Plans • Subject site layout details and proposed works (Section 2.2 and 3.0 of this report) • Landscape Character and Visual Impact, including Visualisations, Landscape Plan and Landscape Early Works Strategy (Appendix G and Section 6.5) • Ecological Impact Assessment (Appendix C and Section 6.1)
Written report and assessment, including: • *An explanation of how the proposed design derives from and responds to the site analysis.* • *A description of the proposal, including the types of process to be utilised, materials to be stored and the treatment of waste.* • *Whether a Works Approval or Licence is required from the Environment Protection Authority.*	Refer to: • The description of the Project and site analysis (Section 2.0and 3.0). • Certificates of Title (attached). • Application Plans (Appendix B). • Ecological Impact Assessment (Appendix C and Section 6.1). • Glint and Glare Assessment (Appendix M and Section 8.6). • Landscape Character and Visual Impact, including Visualisations, Landscape Plan and

Policy Requirement	Section of Report
• *The potential amenity impacts such as noise, glint, light spill, emissions to air, land or water, vibration, smell and electromagnetic interference.* • *The effect of traffic to be generated on roads.* • *The impact upon Aboriginal or non-Aboriginal cultural heritage.* • *The impact of the proposal on any species listed under the Flora and Fauna Guarantee Act 1988 or Environment Protection and Biodiversity Conservation Act 1999.* • *A statement of why the site is suitable for a renewable energy facility including, a calculation of the greenhouse benefits.* • *An environmental management plan including, a construction management plan, any rehabilitation and monitoring.*	Landscape Early Works Strategy (Appendix G and Section 8.4). • Preliminary Environmental Management Plan (Appendix P) • Geotechnical Investigation (Appendix O and Section 6.9.1). • Surface Water Assessment (Appendix I and Section 6.9.1). • Traffic Impact Assessment (Appendix F and Section 6.4). • Heritage Due Diligence Assessment and Draft CHMP (Appendix L Section 6.9.2) • Section 2.2 for site suitability.

5.8.7 Clause 53.22 – Significant Economic Development

Clause 53.22 (Significant Economic Development) applies to the Kennedys Creek and West Mokoan Solar Farms as highlighted in Table 2 of the clause:

- For the use of land for a *renewable energy facility* under the condition that *'an installed capacity of 1 megawatt or greater must be proposed',* and
- For the use of land for a *utility installation (other than a data centre'* under the condition that *'a utility installation is used to:*
  - *Transmit or distribute electricity; or*
  - *Store electricity if the installed capacity is 1 megawatt or greater*

  Must be proposed'.

This application is made under **Clause 53.22** as the Project is for a renewable energy facility with an installed capacity of 1 megawatt or greater and a utility installation used to transmit electricity and store electricity with an installed capacity of 1 megawatt or greater.

5.9 General Provisions

The following sections detail general provisions relevant to the Project.

5.9.1 Clause 62.01 and 62.02 – Uses, Buildings and Works Not Requiring a Permit

Clause 62.01 (Uses not requiring a permit) and **Clause 62.02** (Buildings and Works) identify that any requirement in the Scheme relating to the use of land, or the construction of a building or the construction or carrying out of works other than a requirement in the Public Conservation and Resource Zone does not apply to:

- The use of land to display and construction of a sign
- A temporary shed or temporary structure for construction purposes
- A fence or roadworks, unless specified in the planning scheme
- Clause 66 (Referral and Notice).

5.9.2 Clause 66 – Referral and Notice

Clause 66 (Referral and Notice) outlines referral and notice requirements. The following referrals are required under the Scheme:

- The secretary to the Department of Environment, Land, Water and Planning to remove, destroy or lop native vegetation.
- The relevant electricity transmission authority to construct a building or construct or carry out works on land within 60 metres of a major electricity transmission line (220 Kilovolts or more) or an electricity transmission easement.
- The Victorian WorkCover Authority to use land for an industry, utility installation or warehouse as a fire protection quantity is exceeded under the Dangerous Goods (Storage and Handling) Regulations 2012.

5.9.3 Clause 72.04 – Documents Incorporated in this Planning Scheme

The following Incorporated Documents of relevance to this application are contained in the Benalla Planning Scheme:

- *Building in Bushfire-Prone Areas* – CSIRO & Standards Australia (SAA HB36-1993), May 1993.
- *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP, 2017).

6.0 Impact Assessment

This section identifies the various specialist assessments that were undertaken in support of the Project. As outlined in Section 1.5, the following new or updated assessments have been prepared in addition to the works undertaken for PA1900684-1 and PA2000978 to date. These are described at Sections 6.1 to 6.6.

- Ecology
- Acoustics
- Preliminary Hazard and Fire Safety
- Traffic and Landscape Plans
- Landscape Early Works
- Landscape Visual Impact Assessment.

All other matters are addressed by previous reporting undertaken for PA1900684-1 and PA2000978 to date, and these are summarised at Section 6.8.

6.1 Ecology

An Ecological Assessment has been prepared for the Project to:

- Present a timeline of ecology surveys undertaken and reports prepared to date
- Assess the likelihood of Commonwealth and State listed threatened flora and fauna species and communities occurring within the site
- Considers other significant biodiversity values (e.g. environmental overlays)
- Consolidate the ecological values present within the site
- Detail the ecological impacts resulting from development of the Project within the site, in the context of relevant Victorian and Commonwealth policy and legislation.

The Ecological Assessment was updated in April 2025 to respond to referral comments from DEECA and to account for the additional inadvertent losses on the West Mokoan site that occurred on-site, after the pre-application submission.

The updated Ecological Assessment identifies a total of 57 native vegetation patches (or habitat zones) within the site, comprising 49.91 hectares of native vegetation made up of five Ecological Vegetation Classes (EVCs), including 55_62 - Plains Grassy Woodland, 125 – Plains Grassy Wetland, 175_61 - Grassy Woodland, 235 - Plains Woodland/Herb-rich Gilgai Wetland Mosaic and 803 - Plains Woodland.

A total of 341 Scattered Trees were identified across the site including 319 large Scattered Trees and 22 small Scattered Trees. Additionally, 260 large trees were recorded within habitat zones which are recorded as 'Large Trees in Patches' as defined by the *Guidelines for the removal, destruction or lopping of native vegetation* (The Guidelines; DELWP 2017).

The total loss of native vegetation presented for the Project is based on the Concept Design and the inadvertent loss of native vegetation that has occurred on the same property as the Project within the last five years and is treated as a 'past loss' as per The Guidelines. Based on the consolidated impacts, the Project will result in the removal of up to 17.762 ha of native vegetation including 13.236 ha of native vegetation patches (predominantly EVC 803 Plains Woodland) which include five Large Trees in Patches, plus 70 Scattered Trees (62 Large and eight small).

The Ecological Assessment finds that threatened fauna species with some potential to occur in the study area are unlikely to be significantly impacted by the Project, particularly if loss of patches of woodland vegetation, derived grassland and scattered trees are minimised. All potential Striped Legless Lizard habitat identified to date via site investigations has been avoided by the Project through design refinements.

A Native Vegetation Removal Report has been prepared which confirms 17.762 hectares of proposed removal of native vegetation and as a result 3.2490 general habitat units of offset will be required within a minimum strategic biodiversity score of 0.3233.

The Project also proposes to include two native vegetation areas – one that connects to the TFN Woodland within West Mokoan Solar Farm site and another area within Kennedys Creek Solar Farm site. A Revegetation Management Plan was prepared for the West Mokoan Solar Farm site and included as part of PA2000978. A Revegetation Management Plan for the Kennedys Creek Solar Farm site will be developed for the Project

The Ecological Assessment was prepared based on the various Flora and Fauna Reports previously prepared for the Kennedys Creek Solar Farm and West Mokoan Solar Farm planning permit applications (PA1900684-1 and PA2000978). The previous reports have not been included as appendices in the West Mokoan Solar Farm Flora and Fauna Assessment given they have previously been issued to DTP as part of previous submissions but could be provided if requested.

6.1.1 Striped Legless Lizard Habitat Assessment

The *West Mokoan Solar Project – Striped Legless Lizard Habitat Assessment* (AECOM, December 2024) is a consolidation of all work completed for the Striped Legless Lizard assessment for the Project. The purpose of the assessment is to collate currently available information on the potential for SLL to occur within the West Mokoan Solar Farm Project area and identify any information gaps.

Habitat assessments have been undertaken for the West Mokoan Solar Project to identify whether there is potential habitat for Striped Legless Lizard and whether the species is likely to occur in the area. The assessments included a mix of desktop and field assessments across both sites as follows:

- Desktop assessment of SLL distribution and habitat requirements
- Desktop assessment of SLL observations in north-eastern Victoria
- On site Flora and Fauna assessment in 2019 (West Mokoan and Kennedys Creek)
- On site SLL habitat assessment in 2020/2021 and 2022 (West Mokoan)
- On site Flora and Fauna assessment and targeted SLL habitat assessment in 2022/2023 (Transmission Line)
- On site native vegetation verification in 2024 (West Mokoan, Kennedys Creek, and Transmission Line)
- On site SLL habitat assessment in 2024 (Kennedys Creek)

The assessment concludes that there is a low potential for SLL to occur on the Project site.

The SLL Habitat Assessment is enclosed at Appendix C.

6.2 Acoustic

The *West Mokoan Solar Farm Project – Operational Noise Impact Assessment* (Trinity Consultants Australia, 23 February 2026) assesses the operational noise impacts from the proposed solar farm infrastructure at Kennedys Creek and West Mokoan. This included assessment of the battery energy storage systems (BESS), transformers and tracker motors as operational noise sources on both the Kennedys Creek and West Mokoan sites.

The assessment considered the site extents of both solar farms under multiple noise criteria including the *Environmental Protection Regulations 2021* and considered the potential influence of meteorology, existing terrain, ground type and air absorption to predict noise impacts.

The results and recommendations of the assessment are as follows:

- Noise exceedances are predicted at two of eight residential noise sensitive receptors, under downwind weather conditions. At neutral weather conditions, no exceedance was predicted

- Compliance is predicted at all noise sensitive receiver locations, assuming that four metre noise barriers are implemented to nine of the BESS stations and that three of the nine stations are rotated to maximise the shielding provided by the barriers
- Predicted noise levels after proposed mitigation measures are implemented, demonstrating compliance.

The assessment for both Kennedys Creek and West Mokoan highlighted that there is limited risk of low frequency noise impacts from the proposed development. Cumulative noise impacts are predicted to be unlikely based on the direction and location of existing industry relative to noise sensitive receptors and assuming existing industrial facilities are operating at acceptable levels.

The overall outcome of the assessment concluded that the site represents a suitable location for the proposed development provided the final battery equipment selected and any mitigation measures are operating within the noise limits.

A copy of the Acoustic Assessments is contained within Appendix D.

6.3 Hazard and Fire Safety

The following documents have been prepared in relation to Hazard and Fire Safety for the Project:

- CFA Fire Safety Response (RED Fire Engineers, May 2025)
- Preliminary Hazard Analysis for the Kennedys Creek and West Mokoan Solar Farms (Riskcon Engineering Pty Ltd., June 2025)

6.3.1 CFA Fire Safety Response

A *CFA Fire Safety Response* has been prepared by RED Fire Engineers (May 2025) to respond to the referral comments from the CA and is provided at Appendix E. This document supersedes the Fire Safety Studies submitted with the pre-application submission. The document provides an assessment of the Project against the CFA Renewable Energy Guidelines (v4). Most of the baseline requirements will be met by the Project, and where deviations exist, a preliminary assessment is provided and further discussion with the CFA will ensure that the future Risk Management Plan and Fire Safety Study will be reviewed and endorsed.

6.3.1.1 Preliminary Hazard Analysis

An assessment was completed for each of the Project sites - Kennedys Creek and West Mokoan Solar Farms. The assessments investigated the possible dangerous goods and demonstrating that the Project is safe to operate and compliant with relevant codes, standards and regulations.

The reports included a hazard identification assessment of potential hazards and scenarios which were discussed qualitatively. Scenarios that did not result in off-site impacts were eliminated from further assessment, whilst scenarios with potential risk were carried forward for consequence analysis to estimate the risk and potential impacts off-site. Scenarios that posed further risk were assessed under the frequency analysis which estimated whether the site total fatality risk criteria is within the acceptable risk criteria.

6.3.1.2 West Mokoan Solar Farm Preliminary Hazard Analysis

The *Preliminary Hazard Analysis – West Mokoan Solar Farm* (Rickon Engineering, 2024) concludes that the risks at the site boundary are not considered to exceed the acceptable risk criteria. Therefore, the facility would only be classified as potentially hazardous and would be permitted within the current land zoning for the site.

In addition to the findings, the assessment provided a set of recommendations to cover the battery and inverter equipment as well as common hazards for a mechanical site prior to the commencement of operations at the solar facilities to the extent dangerous goods exceed any thresholds.

The Preliminary Hazard Analysis and CFA Response is provided at Appendix E.

6.3.1.3 Kennedys Creek Solar Farm Preliminary Hazard Analysis

The *Preliminary Hazard Analysis – Kennedys Creek Solar Farm* (Riskcon Engineering, 2024) concludes that the risks at the site boundary are not considered to exceed the acceptable risk criteria. Therefore, the facility would only be classified as potentially hazardous and would be permitted within the current land zoning for the site.

In addition to the findings, the assessment provided a set of recommendations to cover the battery and inverter equipment as well as common hazards for a mechanical site prior to the commencement of operations at the solar facilities to the extent dangerous goods exceed any thresholds.

The Preliminary Hazard Analysis and CFA Response is provided at Appendix E.

6.4 Traffic

Traffic Impact Assessments (TIA) were prepared by AECOM for the West Mokoan Solar Farm and Kennedys Creek Solar Farm which included assessment of the operational capability of the local road network to cope with the additional traffic associated with the construction and operation of the West Mokoan Solar Farm and Kennedys Creek Solar Farm. The TIAs were prepared in 2023 and 2024, with the original TIA undertaken by AECOM in 2019, and updated to reflect Project updates. The TIA provides an overview of traffic conditions and patterns for roads and intersections surrounding the subject site. Findings are provided in the following sub-sections.

6.4.1 West Mokoan Solar Farm

The TIA assess the operational capability of the local road network to cope with additional traffic associated with the construction and operation of the West Mokoan Solar Farm. The TIA acknowledges the concept layout will include connection to Kennedys Creek Solar Farm via a new overhead transmission line. The Assessment confirmed that:

- There will be a total of five access points to the West Mokoan Solar Farm, with three access points proposed via Lake Mokoan Road and two site access entries proposed via Benalla-Yarrawonga Road to access the southern section of the solar farm.
- It is anticipated that construction activities will take approximately 24 to 30 months and will be undertaken during standard hours between 7:00am to 6:00pm Monday to Friday and 8:00am to 1:00pm on Saturdays.
- As the West Mokoan Solar Farm is expected to take place concurrently with the Kennedys Creek Solar Farm and transmission line, there is potential for cumulative transport impacts. During peak construction periods, there will be up to 229 construction staff on-site, with 80% of works to travel via shuttle buses and the remaining expected to travel in single-occupancy vehicles to and from the site. This will occur approximately between 5:30am and 6:30am for arrivals, and departures to occur between 6:00pm to 7:00pm with around 59 vehicles arriving and exiting. This is further outlined in Section 6.4.1.
- It is estimated there will be 68 heavy vehicle movements to and from the subject site per day during construction for construction activities and deliveries for the solar farm.
- The solar farm is anticipated to operate for up to 40 years and is assumed to include up to five full-time employees for regular visits to the site. It is anticipated that the cleaning of solar panels will occur as required based on weather and local conditions. There will be no storage of hazardous or dangerous goods or materials on site during the operation of the solar farm.

The West Mokoan TIA anticipates that there is unlikely to be material traffic impact on the local road network during the construction of the proposed West Mokoan Solar Farm.

The TIA is provided at Appendix F.

6.4.2 Kennedys Creek Solar Farm

The TIA (originally undertaken in 2019, amended in January 2023 to reflect changes to the Project and inclusion of the transmission line) assess the operational capability of the local road network to cope with additional traffic associated with the construction and operation of the Kennedys Creek Solar Farm.

A site visit was conducted in 2022, which informed updates to the Existing Conditions section of the TIA. The TIA methodology was amended to consider the cumulative impact of construction from both Kennedys Creek Solar Farm and West Mokoan Solar Farm to the north, as these are anticipated to be constructed and operated concurrently. The TIA (dated 25 January 2023) identified that:

- Two primary access gates are located on Benalla-Yarrawonga Road. The northernmost access point has an existing access gate providing access to the eastern section of the site. However, the other two access points will need to be formalised during development. An emergency access point will also be provided. As this location does not currently have an existing access gate, a formalised entry will need to be established. Benalla-Yarrawonga Road runs straight from north to south and therefore there are unrestricted sight distances from the proposed access points onto the road.
- Proposed construction traffic routes will be confirmed following detailed design. It is anticipated that construction vehicles will mainly access Kennedys Creek Solar Farm and the transmission line from Benalla-Yarrawonga Road to Boundary Road near the substation. Alternate access to the transmission line along Boundary Road could be provided from Nelson Road.
- It is anticipated that there will be approximately 50 truck movements during the day associated with the construction of Kennedys Creek Solar Farm and transmission line, accounting for deliveries. When considering cumulative impacts of both West Mokoan and Kennedys Creek Solar Farms and transmission line, construction traffic volumes are predicted to be approximately 68 vehicles entering and exiting the site during morning and evening peak periods.
- Given that construction and operation of the Kennedys Creek Solar Farm, transmission line and West Mokoan Solar Farm are likely to take place concurrently, there is potential for cumulative transport impacts. This includes the following:
  - During peak construction periods, it is anticipated that 229 workers will be on-site, who are assumed to travel to and from the construction area each day. It is expected that workers reside approximately one hour driving radius from the solar farms, with 80% of workers assumed to be travelling via shuttle buses that have a 14 person capacity
  - That peak trips are expected to occur between 5:30am and 6:30am and departures between 6:00pm and 7:00pm, with around 59 vehicles entering / exiting the site
  - That 68 heavy vehicle movements are anticipated to be generated during peak construction works, which are expected to occur outside construction peak periods during the daytime
  - That overall, there will be insignificant impacts to the local road network due to concurrent construction.

It is anticipated that the preparation of a Traffic Management Plan (TMP) will be required by a planning permit condition. The TMP, which will form part of a Project CEMP, will detail any required upgrades to nearby roads following the detailed design of the Project. The TMP will include details of the construction approach, methodology and schedule.

The TIA is provided at Appendix F.

6.5 Landscape Plans, Early Works Strategy and Visualisations

Landscape Plans and a Landscape Early Works Strategy have been prepared for the Project (refer Appendix G). Updated Landscape Plans are identified as 'West Mokoan Solar Farm Landscape Plan' Revision 07 (dated 14 April 2023) and 'Kennedys Creek Solar Farm Landscape Plan' Revision 07 (dated 24 January 2023), prepared by AECOM.

The Early Works Strategy describes the potential impacts associated with development of the Project and outlines the strategies to mitigate, minimise, and manage any impacts. The Early Works Strategy includes a summary of potential impacts identified in the Glint and Glare Assessment (Appendix M), a summary of potential impacts identified in the Landscape and Visual Impact Assessment (Appendix K) and outlines proposed mitigation measures and details for implementing them.

The Landscape Plan for West Mokoan shows a section of 10-metre and five-metre-wide screen planting proposed around the perimeter of the site to mitigate visual impact from sensitive receptors and to

reduce glint and glare. This includes reducing impact to the Dam Wall Hiking Trail, silo tourist trail route, and Benalla-Yarrawonga Road. Existing boundary vegetation will be supported by additional infill planting.

The Landscape Plan for Kennedys Creek delineates sections of the 10-metre and five- metre-wide screen planting proposed around the perimeter of the site to mitigate visual impact from sensitive receptors and to reduce glint and glare. Infill planting to existing screen vegetation is proposed where adjacent to sensitive receptors to reduce visual impact.

Additional visualisations were prepared by AECOM to identify the visual impact of the combined Kennedys Creek and West Mokoan Project site on the surrounding area as shown in Figure 24 to Figure 31. These visualisations demonstrate the anticipated changes to sensitive views as a result of the Project. They illustrate the expected views after construction of the Project, including view with the implementation of the proposed landscape treatments detailed in the existing Landscape Plans (discussed in Section 6.9.1).

Figure 24 View of Project site from north-west corner of former Kennedys Creek site before screening

Figure 25 View of Project site from north-west corner of former Kennedys Creek site after screening

Figure 26 View of Project site from south-east corner of former Kennedys Creek site before screening

Figure 27 View of Project site from south-east corner of former Kennedys Creek site after screening

Figure 28 View of Project site along Dam Wall before screening

Figure 29 View of Project site along Dam Wall after screening

Figure 30 View of Project site along Boundary Road before screening

Figure 31 View of Project site along Boundary Road after screening

Figure 32 View of Project site from Benalla-Yarrawonga Road before screening

Figure 33 View of Project site from Benalla-Yarrawonga Road after screening

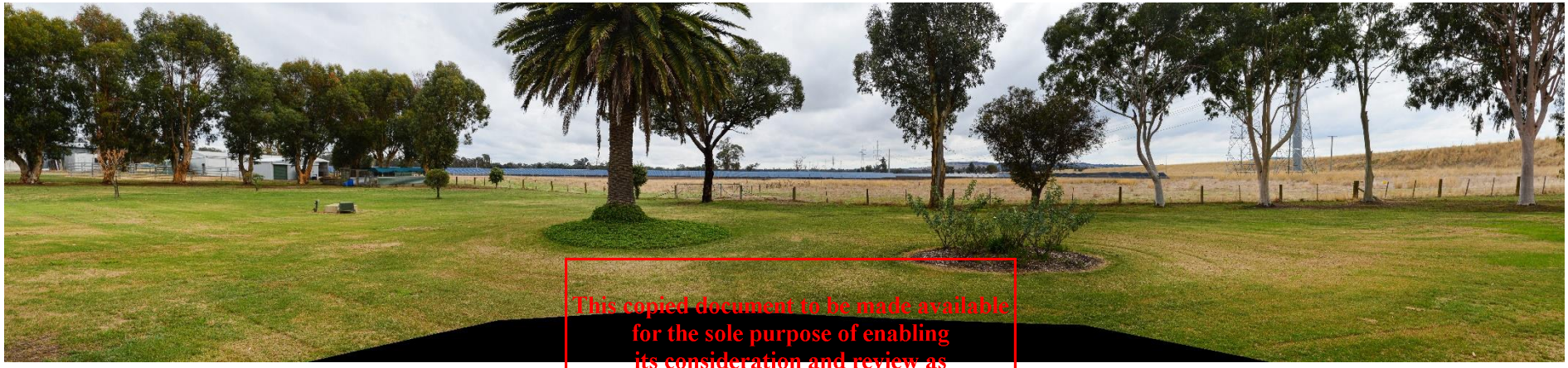

Figure 34 View of Project and dwelling at 524 Benalla-Yarrawonga Road before screening

Figure 35 View of Project and dwelling at 524 Benalla-Yarrawonga Road after screening

6.6 Landscape and Visual Impact Assessments (LVIA)

LVIAs were previously undertaken by AECOM for the solar farms at West Mokoan and Kennedys Creek and updated in 2026 to assess the current proposal. The purpose of the assessments is to assess the potential visual and landscape impacts resulting from the construction and operation of the solar farms.

The *West Mokoan LVIA* (AECOM, March 2026) assessed the impact of the West Mokoan component of the Project on surrounding landscape character, views and visual amenity at operation. The assessment found that the highest change to landscape character would occur mostly within waterway and wetland landscapes due to the high sensitivity of these areas, and secondly within rural agricultural landscapes which has moderate sensitivity due to the picturesque quality and cultural aspects of the landscape and the resulting change in the character of the site due to the proposal.

The proposed landscape strategy (as outlined in Section 6.5) responds to the landscape character and visual impacts, helping to visually integrate the West Mokoan Solar Farm into the existing rural landscape and mitigate the visual impacts from sensitive receptor locations. With the implementation of the proposed landscape concept, the West Mokoan Solar Farm is considered appropriate within its landscape setting.

The *Kennedys Creek LVIA* (AECOM, March 2026) identified the highest change for the Dam Wall Hiking Trail to the north east of the site. Landscape treatments are proposed along this area as a mitigation measure. Whilst the addition of a new transmission line results in an increase in infrastructure, the LVIA found that the Project is visually comparable to a patchwork of industrial and agricultural elements scattered across the area.

The landscape strategy aims to partly screen solar farm from key roads but use an informal planting approach so to still allow some views through to the solar farm. Targeted planting along and within the site boundaries have been recommended and incorporated into the landscape concept plan for the Kennedys Creek Solar Farm. This includes species that will provide habitat for the critically endangered Regent Honeyeater as recommended by the local Regent Honeyeater Project.

When completed, the landscape treatments would assist in reducing the visibility of the Kennedys Creek Solar Farm from key sensitive receptor locations, while allowing views through screening vegetation to the Kennedys Creek Solar Farm for interest from surrounding roads and trails. For these reasons, the Kennedys Creek Solar Farm is considered appropriate within its landscape setting.

6.7 Flood Impact Assessment - Hydrology and Hydraulic Modelling Assessment

Flood Impact Assessments – including hydrology and hydraulic modelling assessments were undertaken for the West Mokoan Solar Farm southern site (AECOM, July 2024) and northern site (AECOM, August 2020) as a result of the Surface Water Assessment and discussions with GBCMA which recommended a detailed assessment be undertaken. The Hydrology and Hydraulic Modelling Assessment for the West Mokoan Solar Farm provides an analysis of existing data associated with surface water near the site and provides detailed hydrological and hydraulic modelling used to determine the extent of flood impacts relating to the Project.

The hydrological and hydraulic assessment indicated that areas within the northern land parcel are inundated under 300mm for a 1% AEP flood event and are therefore categorised as having a low flood risk, except for land adjacent to the designated waterway impacted by the backwater from the Broken River.

The southern land parcel is almost entirely inundated with 1% AEP flood based on GBCMA flood contours and measurement points extrapolations. Areas adjacent to the designated waterway and low-lying land on the north east are inundated with more than 1.5 metres flood depth. However, for a 1% AEP flood scenario under normal depth conditions, the flood depths are much lower and up to 0.6 metres. The topography of the site is less steep compared to the northern land parcel which decreases the hazard rating for this site as a result of lower velocity. The estimated flood depth and 300mm freeboard are to be considered in the solar arrays' height in this area.

The results of this flood investigation have been incorporated into the solar farm layout to avoid adverse impacts to the existing flow regime as well as conveyance impacts to pre-existing flood storage, flood levels, and flood velocities. The proposed infrastructure including single axis trackers, a single line of poles spaced between 6m and 8m apart, and the inverter and transformer blocks would be constructed with 300 mm freeboard above 1% AEP flood level.

The assessment showed that solar farm developments including solar panels and associated structures has negligible impact on the existing flood behaviour across the site. Subsequently, the Project does not increase water levels to any neighbouring buildings outside of the site boundary.

Ongoing flood modelling and consultation with the GBCMA is occurring to refine the understanding of flood levels and to inform the flood management and detailed design of the site.

The Flood Report – including hydrology and hydraulic modelling, is enclosed at Appendix H.

6.8 Aboriginal Cultural Heritage Due Diligence Assessment – Transmission Line

An *Aboriginal Cultural Heritage Due Diligence Assessment* (AECOM, December 2024) was undertaken for the transmission line connecting the West Mokoan Solar farm and Kennedys Creek Solar Farm.

It is noted that CHMPs have been prepared and approved for both the West Mokoan and Kennedys Creek Solar Farms (see Appendix L). The purpose of this assessment was to identify potential impacts on Aboriginal heritage places due to the proposed activity (i.e., the relocation of a 22 kV distribution line and the installation of a transmission line).

The assessment involved a search of the VAHR, review of the landscape context of the Activity Area, review of relevant archaeological and ethnohistoric information for the Activity Area, and preparation of a predictive model for the Aboriginal archaeological record of the Activity Area.

The Activity Area has undergone significant vegetation clearing and other disturbances which led to an assessment of the Activity Area as significantly disturbed. The area was assessed as having negligible potential for Aboriginal archaeology.

Previous assessments identified various Aboriginal sites in the broader region, but no cultural heritage places or areas of aboriginal sensitivity were identified within the Activity Area itself.

The assessment concluded that the proposed activity does not require a mandatory CHMP as it does not comprise a high-impact activity. Recommendations include implementing an unexpected finds procedure if Aboriginal cultural heritage values are identified during ground-disturbing works.

The Cultural Heritage Due Diligence Assessment for the transmission line is enclosed at Appendix T.

6.9 Previous Reporting

As outlined at Section 1.5, the following assessments have not been updated for this combined application:

- Appendix I - Surface Water Assessments
- Appendix J - Consultation Material
- Appendix L - Heritage Assessments and Cultural Heritage Management Plans
- Appendix M - Glint and Glare Assessments
- Appendix N - Agricultural Impact Assessments
- Appendix O - Preliminary Geotechnical Assessments
- Appendix P - Preliminary Environmental Management Plans

The above listed assessments are summarised in the following subsections.

6.9.1 Surface Water

Two detailed Surface Water Assessments were prepared by AECOM for both the West Mokoan and Kennedys Creek Solar Farms to assess the likely changes in water quality, water quantity and stream stability as a result of the Project. These Assessments outline strategies to minimise and manage the potential impacts associated with changes in surface water quality. The findings for both assessments are provided in the following sub-sections.

At this stage, additional surface water assessments and flood modelling are being undertaken, including ongoing consultation with the GBCMA to refine understanding of flood levels and to inform the detailed design of the site.

6.9.1.1 West Mokoan Solar Farm

The Surface Water Assessment for West Mokoan found that the construction activities and some of the proposed infrastructure may alter the local drainage and flood characteristics. Recommendations were provided to manage these impacts.

6.9.1.2 Kennedys Creek Solar Farm

The Surface Water Assessment for Kennedys Creek identifies a number of surface water features on the site, including defined drainage channels, shallow ditches and farm dams. In addition, a Water Determination Application was submitted to Goulburn Murray Water to identify any significant waterways on site. The Waterway Determination identified one designated waterway within the site boundary. This waterway is located to the north west of the site and flows in a northerly direction.

The site is not affected by the Land Subject to Inundation Overlay (LSIO) or the Floodway Overlay (FO), with the nearest FOs occurring to the east of the site at the Winton Wetlands. However, the GBCMA flood estimates do suggest that the land may be subject to some degree of inundation during significant flood events.

The assessment outlines that the proposed arrangement of solar arrays will be intercepted by grassed, pervious surfaces and will not significantly change the fraction of imperviousness for the total area of the site. Solar panels will be set back at least five metres from the top of bank of the identified designated waterway, which will provide sufficient access for future waterway maintenance activities on both sides of the channel. The assessment makes a number of recommendations in relation to the management of the surface water quality, understanding the flood risks and management of the flood risks.

6.9.2 Heritage Assessments and CHMPs

A Heritage Due Diligence Assessment was undertaken by AECOM to identify Aboriginal, historical, and natural heritage values that may be present within the Kennedys Creek site and any potential impacts that the Project may have on heritage values. There were no historical items of significance identified on the site. The Assessment recommended that an Unexpected Find Procedure be implemented should any historical heritage items be identified during ground disturbing works. Historical structures potentially associated with pastoral and agricultural activities were identified around the site, one of which is located within the site. A Heritage Assessment was recommended to be undertaken for any structure identified, should any impacts be proposed. The Heritage Due Diligence Assessment for Kennedys Creek is provided at Appendix H.

CHMP's were prepared for both Kennedys Creek and West Mokoan sites. The West Mokoan CHMP was prepared as the site contains Areas of Aboriginal Cultural Heritage Sensitivity (AACHS) and revealed that no registered Aboriginal cultural heritage sites are within the subject site; however, two areas of Aboriginal Cultural Heritage Sensitivity are partially located within the subject site. The areas of sensitivity are associated with Stockyard Creek and Koo-Wee-Rup Plain.

The Kennedys Creek CHMP was voluntarily prepared as the site is in proximity to a highly sensitive archaeological cultural landform represented by the distribution of Aboriginal sites within the Winton Wetlands. The CHMP found one Aboriginal place was identified within the Activity Area – Aboriginal ring tree "Kennedys Creek SF Ring Tree" (VAHR 81240028). The Place is located just north of Nelson Road (approximately 50 m) and the Mokoan Inlet Channel on a farming property in the south-eastern part of the Activity Area and has since become a designated AACHS. The Project does not propose any infrastructure in proximity to or that will impact the Place.

6.9.3 Glint and Glare Assessments

AECOM undertook analysis of Glint and Glare for both the West Mokoan and Kennedys Creek proposed Single Axis Tracking System. The purpose of the assessments is to conduct a glare potential analysis of the Project and identify potential glare impacts at nominated observation points in the vicinity of the subject site. The reports also recommend improvements or mitigation options to reduce glare issues that may impact the public.

The West Mokoan report indicated that the operation of the array configuration of the solar panels would potentially cause glare with moderate potential for after image. The reported noted that the software runs a simplified model of backtracking which may lead to somewhat conservative results. The report outlines that once vegetation has reached a height of three and a half metres, any predicted glare impacts at surrounding dwellings and the adjacent roads would likely be removed. During the period when the vegetation is growing to a sufficient height, either of the following options could be implemented:

a. Install manmade screening (shade cloth, glare screen or non-transparent security fence) on the site's security fence at 3.5 metres high (noting that the existing security fence would need to increase in height to support this screening)

b. Limit the resting angle during the backtracking operation.

The current preference is to limit the resting angle during the backtracking operation, however both options are able to mitigate the impacts of possible glint and glare until vegetation screening reaches the required height of 3.5 metres.

The Kennedys Creek Assessment determined that the operation of the array of configuration of the solar panels potentially cause glare with low to moderate potential for after image and provides appropriate mitigation measures. Whilst the proposed solar panels have been set back a minimum of ten metres from all property boundaries and landscape screening, it is considered that the proposed setbacks are appropriate at this location.

6.9.4 Agricultural Impact Assessments

Ag-Challenge prepared Agricultural Impact Assessments for both West Mokoan and Kennedys Creek. The Assessments investigate the agricultural impacts of the proposed construction of a solar farm, identifies existing agricultural use on the subject site and identifies any potential impacts on adjacent properties and if the development will have adverse impacts on surrounding land uses.

The West Mokoan Assessment found no perceived detrimental impacts of the development of the solar farm to the surrounding farm businesses. There is however a heightened wildfire risk if there is not attention given to how fuel loads on the farm are managed, therefore the need for a Fuel Load Management Plan should be considered as part of the Project design. The Kennedys Creek Assessment found that the development of a solar farm would have no expected agricultural impacts on adjacent properties and farms, beyond any visual impact.

6.9.5 Preliminary Geotechnical Assessments

AECOM prepared Geotechnical Assessments for both West Mokoan and Kennedys Creek to investigate the ground conditions and ascertain the key risks associated with the construction and operation of the Projects given the site conditions.

The West Mokoan Assessment found that near surface geology of the site generally comprises a relatively thin layer of clayey silt (topsoil) overlying silty/sandy clay. During dry weather, the near surface soils are expected to provide a suitable surface, on which to run construction plant. However, appreciable softening of the clays and subsequent trafficability problems may be encountered during wet weather. The Assessment anticipated that further geotechnical exploration will be undertaken during the detailed design phase.

The Kennedys Creek Assessment indicated that the geological conditions on the subject site are relatively uniform and provide a suitable location for construction of a solar farm. Furthermore, the assessment indicated reduced potential for flooding or landslides, with possibility of the occurrence of small scale surface erosion.

6.9.6 Environmental Management

Preliminary Environmental Management Plans (PEMPs) were prepared by AECOM for both West Mokoan and Kennedys Creek which provide details on the environmental management framework (EMF) and overarching environmental management processes to be implemented during detailed design, construction, operation and decommissioning of the Projects. The PEMPS responds to the requirements of the Victoria Planning Provisions, and in particular Clause 53.13-2 which requires that a planning permit application for a renewable energy facility must include 'an environmental management plan, including a construction management plan, any rehabilitation and monitoring' as an element of the design response.

7.0 Conclusion

This Planning Report and accompanying documentation demonstrates that the Project is consistent with the PPF and accords with the local planning policy objectives and strategies in the Benalla Planning Scheme. Furthermore, it is considered that the proposed solar farm is appropriate in this location for the following reasons:

- The West Mokoan Solar Farm has been approved under Planning Permit PA2000978 and the Kennedys Creek Solar Farm has been approved under amended Planning Permit PA1900684-1. The current application is seeking to combine the approval into a single Planning Permit, along with design changes and refinements which seek to minimise potential impacts where possible
- The Project is consistent with the PPF of the Benalla Planning Scheme in relation to settlement and the region, the environment, economic development and infrastructure and specifically, renewable energy infrastructure
- The Project is consistent with local policy by facilitating investment and diversification of local employment opportunities and the economy
- The design and layout of the Project seek to protect biodiversity and native vegetation where practicable, thereby protecting the landscape character of the area
- The proposed land use for the purposes of a renewable energy facility is consistent with the Farming Zone, the Industrial 1 Zone and the Public Use Zone – Schedule 1 as the land use is a Section 2 Use (Permit Required) within the zones. Further, the Project aligns with the purpose and decision guidelines of each of the zones
- CHMP's have been prepared and approved to manage an Aboriginal place and AACHS within the Project site
- The Project does not significantly alter the productive agricultural quality of the site and is not currently used for intensive agricultural purposes.
- The Project maintains sustainable land management and may enable existing agricultural industries – in particular, the grazing of livestock – to operate whilst maximising the potential of the land to provide a source of renewable energy for Victoria
- The Project will have minimal impact on amenity given that solar farms do not emit odour and the noise assessment finds that the operation of the Project will be within the noise limits. For any potential visual impacts, appropriate landscape treatments have been proposed, including early works, to provide natural screening that will protect visually sensitive areas
- The Project will provide economic benefits to the Region through the creation of direct and indirect jobs during the construction and operation of the Project, diversifying and strengthening the economy and increasing the skilled workforce and economic output of the Region as a whole
- The Project represents a long-term investment within the Benalla area, and an ongoing commitment to co-exist with the local community, including provision of a community investment fund which will further contribute to the enhancement and vitality of the area.

It is therefore requested that the Project be supported by the DTP and the Minister for Planning, and that the Planning Permit Application be approved.