

Assessment Officer Report

PA2402710, Baddaginnie
Solar Farm



Officer Assessment Report
Development Approvals & Design

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Department
of Transport
and Planning

OFFICIAL

Executive Summary



Key Information	Details		
Application No:	PA2402710		
Received:	29 January 2024		
Statutory Days:	63		
Applicant:	Birdwood Energy Pty. Ltd. c/- Chris Smith & Associates		
Planning Scheme:	Benalla		
Land Address:	Baddaginnie-Benalla Road, Baddaginnie 3670 (Lot 1 of Title Plan 106246)		
Proposal:	Use and development of the land for a renewable (solar) energy facility and utility installation, associated buildings and works and native vegetation removal associated buildings and works.		
Description	Construction of a 5MW solar farm with an 20MWh battery (note that the battery does not require a permit)		
Development Value:	\$ 14,500,000		
Why is the Minister responsible?	<p>In accordance with the schedule to Clause 72.01 of the Planning Scheme:</p> <p><i>The Minister for Planning is the responsible authority for matters under Divisions 1, 1A, 2 and 3 of Part 4 of the Act, and matters required by a permit or the scheme to be endorsed, approved or done to the satisfaction of the responsible authority, in relation to the use and development of land for a:</i></p> <ul style="list-style-type: none"> <i>Energy generation facility with an installed capacity of 1 megawatt or greater.</i> 		
Why is a permit required?	Clause	Control	Trigger
Zone:	Clause 35.07	Farming Zone – Schedule to the Farming Zone	<p><i>Use the land for renewable energy facility (other than wind energy facility)</i></p> <p><i>Construct a building or construct or carry out works</i></p> <p><i>A building which is within any of the following setbacks:</i></p> <ul style="list-style-type: none"> <i>Building within 40m of a Transport Zone 3</i> <i>Building within 100m of a watercourse</i>
Overlays:	N/A		
Particular Provisions:	Clause 52.06	Car Parking	<i>Car parking must be provided to the satisfaction of the responsible authority.</i>
	Clause 52.17	Native Vegetation	<i>To remove, destroy or lop native vegetation, including native vegetation.</i>
	Clause 53.13	Renewable Energy Facility (Other than a wind energy facility)	N/A
		Significant Economic Development	N/A
	Clause 53.22?		



Cultural Heritage: CHMP is not required.

Referral Authorities: Department of Environment, Energy and Climate Action (s55 – recommending referral authority)
WorkSafe (s55 – determining referral authority)

Public Notice: Notice of the application under section 52(1)(a) of the Planning and Environment Act 1987 (the Act) was given to owners and occupiers of all land adjoining the site.
Notice of the application was given to Benalla Rural City Council under section 52(1)(b) of the Act.
Notice of the application was given to the following authorities under section 52(1)(d) of the Act:

- Country Fire Authority
- Head, Transport for Victoria
- Yorta Yorta Nation Aboriginal Corporation
- VicTrack

Delegates List: Approval to determine under delegation received on **24 October 2024**.



Application Process

1. The key milestones in the application process were as follows:

Milestone	Date
Pre-application meeting	N/A
Application lodgement	29 January 2024
Further information requested	23 February 2023
Further information received	9 August 2024
Decision Plans	Plans prepared by Birdwood Energy , titled 'Development Plans' and dated 18 July 2024 . Plans prepared by Solar Mounting Systems & Birdwood Energy , titled 'Elevation Plans' and dated 16 July 2023 .

2. The subject of this report is the decision plans (as described above).
3. The application is supported by consultant reports including:
 - Town Planning Report, prepared by Chirs Smith & Associates, dated February 2024
 - Glint and Glare Assessment, prepared by Environmental Ethos, dated 8 January 2024.
 - Noise Impact Assessment, prepared by ADP Consulting, dated 4 August 2023.
 - Native Vegetation Impact Assessment, prepared by Confluence Ecology and Community, dated 16 July 2024.
 - Visual Impact Assessment, prepared Geoscene International, dated January 2024.
 - Construction Environmental Management Plan, prepared by Birdwood Energy, dated 8 January 2024.
 - Plan of Existing Conditions, prepared by Chris Smith & Associates, dated 11 November 2022.
 - Colour & Material Info Sheets, dated 2023.
 - Planting Plan, prepared by Geoscene International, dated March 2024.
 - Traffic Impact Assessment, prepared by Traffic Works, dated 16 July 2024.

Proposal Summary

4. The applicant seeks approval for a solar energy facility, utility installation, associated buildings and works and native vegetation removal. The proposal will cover approximately 6.5 hectares of land.
5. The battery associated with the facility is defined as a minor utility installation as it connects to the existing 22 kV powerline that runs east-west along Baddaginnie-Benalla Road. Pursuant to Clause 62.01, a permit is not required for the use of land for a minor utility installation and its use is therefore not considered in this application.
6. Specific details include:
 - Approximately 13,888 solar panels, each panel being approximately 2.2 m tall and 1.1 m wide, installed on static, steel SMS (solar mounting system) frames.
 - Eight (8) BESS containers, each having general dimensions of 9m length, 3m height and 2m width.
 - 20MW/h Battery Energy Storage System (BESS) which will connect to the existing AusNet 22kV line and is exempt from requiring a permit.
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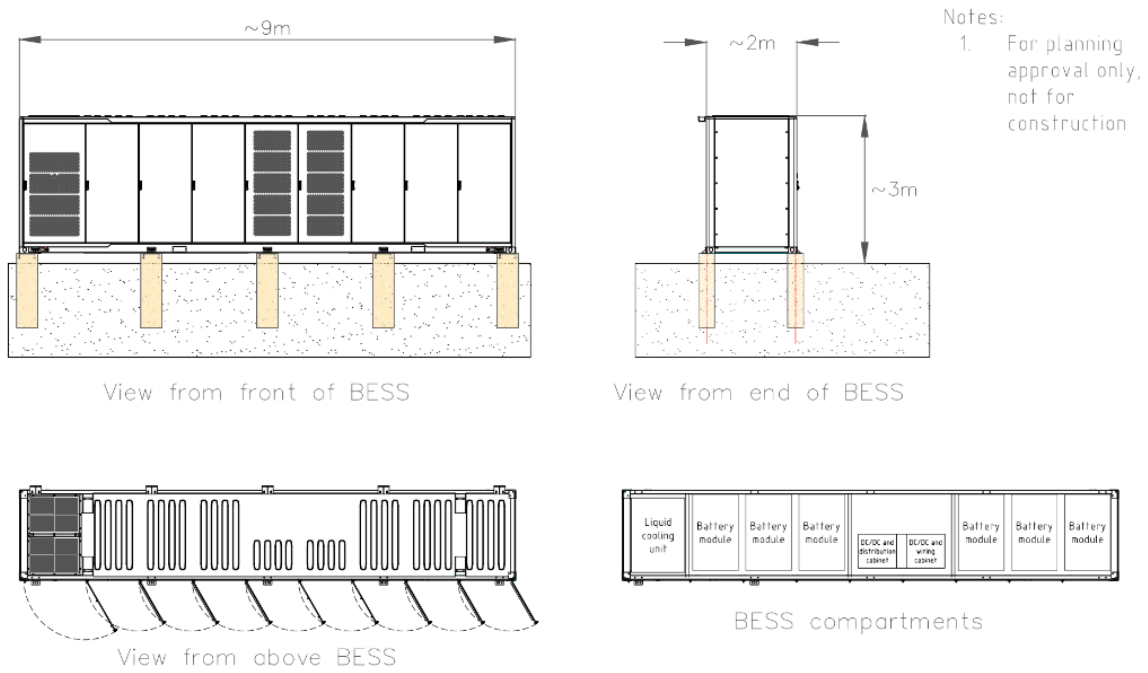


Figure 2. Elevation detail of BESS (Source: Birdwood Energy, 2023)

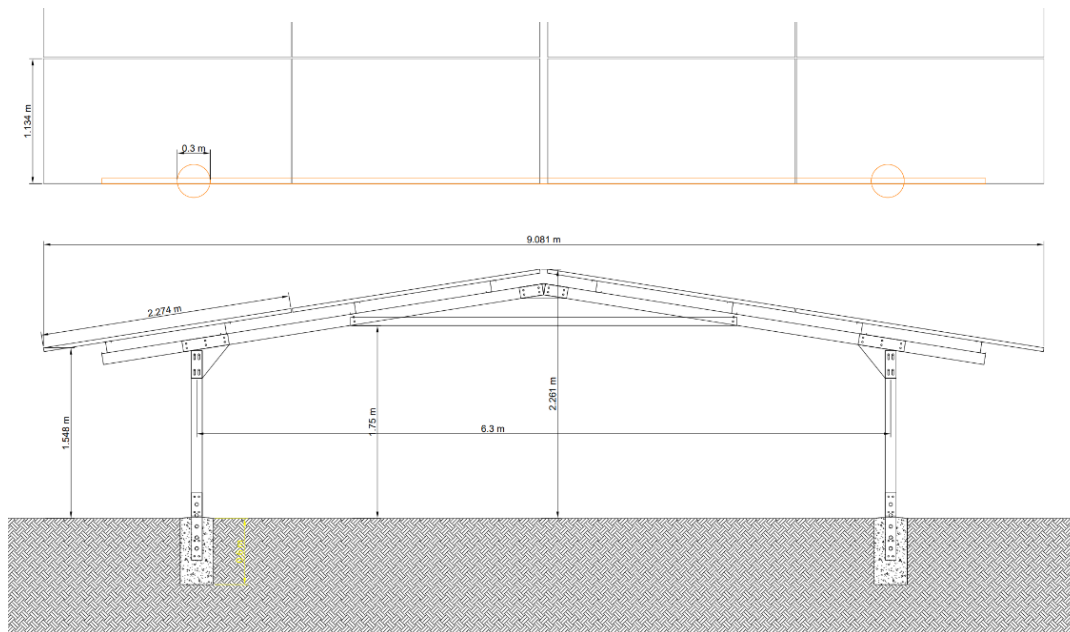


Figure 3. Elevation detail of solar array (Source: Solar Mounting Systems, 2023)



Site Description

7. The subject land is approximately 2.1km km southeast of the township of Baddaginnie, approximately 6km of the township of Benalla and 162 km northeast of Melbourne CBD.
8. Figure 5 below comprises aerial imagery of the site located at Baddaginnie-Benalla Road, Baddaginnie 3670 (Lot 1 of Title Plan 106246) and its immediate surrounds.
9. The subject site is approximately 40 ha and is currently used for agricultural purposes. The proposed development would occupy about 6.5 ha of the subject site to the eastern site of the subject site, while the balance of the site will continue to be used independently of the proposed solar energy facility.
10. The subject site has 477m frontage to Baddaginnie-Benalla Road along the northern boundary, which contains a 22 kV transmission line that the proposal would connect to. The site has a 1030m frontage to Forshaw Road along the eastern boundary (with approximately 630m of this frontage being made road).
11. The subject site has one vehicle access point, to Baddaginnie–Benalla Road via a gravel driveway which leads to the existing agricultural shed on the site.
12. The site is formally described as comprising of the following land parcels:
 - Lot of Title Plan 106246
13. There are no easements which affect the site.



Figure 5. Aerial photograph of subject site Baddaginnie-Benalla Road and Surroundings (Source: Planning Report)

Site Surrounds

14. The surrounding development consists mainly of medium to large rural landholdings, with the dominant land use being grazing. Reflecting this, the prevailing zone within the area is the Farming Zone (FZ), with some land being within the Public Conservation and Resource Zone (PCRZ), reflecting biodiversity corridors along watercourses and state forest.
15. Development surrounding the site can be described as follows:
 - To the **north** of the site fronts Baddaginnie-Benalla Road, beyond. Beyond Baddaginnie-Benalla Road, the Northeast Railway line runs parallel to the road and provides the main railway connection between Sydney and Melbourne.
 - To the **south** of the site beyond the Hume Freeway, the land south of the site is wholly rural, albeit with a wide spectrum of differing rural uses, ranging from lifestyle rural properties, niche agricultural properties to larger commercial grazing properties. Typically, each of these properties contains an ancillary dwelling to support the respective rural uses.
 - To the **east** of the site is a mix of dryland rural properties and larger grazing properties. Several of these properties are horse studs which include training facilities. These properties are evenly distributed along Baddaginnie-Benalla Road. Beyond the highway, approximately 2.5 km east of the site, the Reef Hills State Park represents a major environmental corridor and habitat area over an area exceeding 20 square kilometres.
 - To the **west** of the site land is a riparian corridor of an unnamed ephemeral watercourse within the PCRZ, which is a tributary of Baddaginnie Creek. Beyond this, the small township of Baddaginnie is located approximately 2.1km south-west of the property, which is accessible via Baddaginnie-Benalla Road. Images of the site and surrounds are reflected in **Figures 6-7**.



Figure 6. View looking from the northeastern boundary of the subject site. (Source: DTP Officer, 2024)



Figure 7. Viewing looking from the northwestern boundary of the subject site. (Source: DTP Officer, 2024)

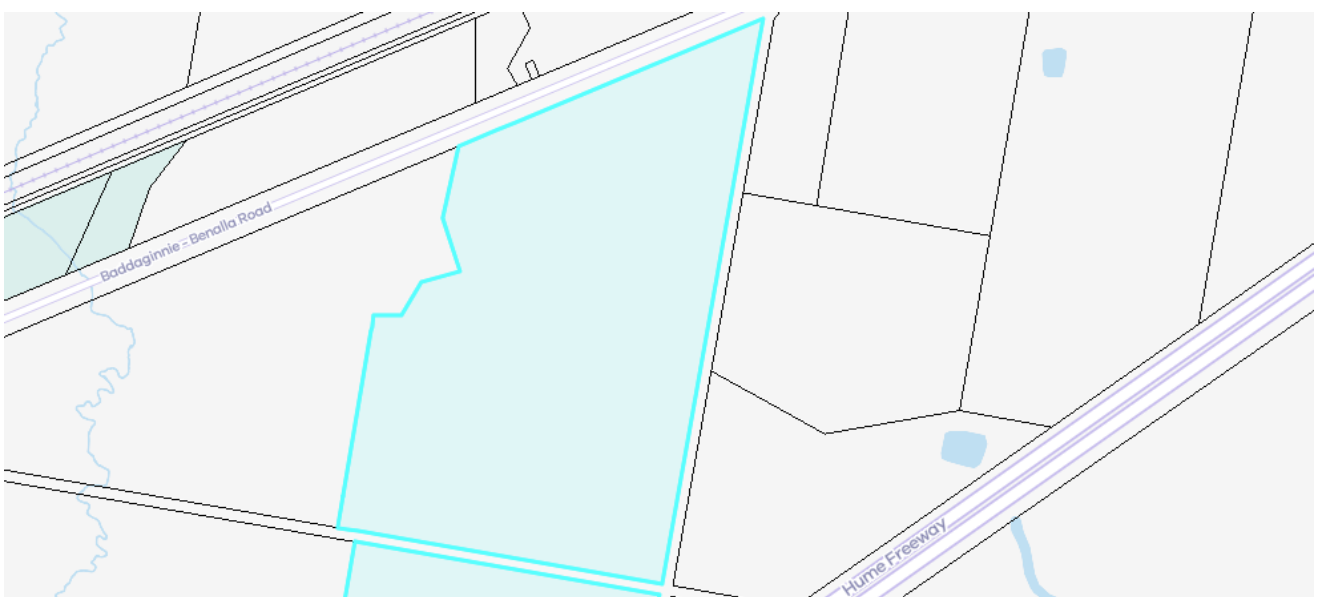


Figure 8. Subject site (Source: Radius)



Municipal Planning Strategy

16. The following objectives and strategies of the Municipal Strategic Statement of the scheme are relevant to the proposal:

Clause	Description
02.02	Vision
02.03	Strategic Directions

Planning Policy Framework

17. The following objectives and strategies of the Planning Policy Framework of the scheme are relevant to the proposal:

Clause 11	Settlement
11.01-1S	Settlement
11.02-1S	Supply of urban land
11.02-2S	Structure planning
Clause 12	Environmental and Landscape Values
12.01-1S	Protection of biodiversity
12.01-2S	Native vegetation management
Clause 13	Environmental Risks and Amenity
13.02-1S	Bushfire planning
13.05-1S	Noise management
13.07-1S	Land use compatibility
Clause 14	Natural Resource Management
14.01-1S	Protection of agricultural land
14.01-2S	Sustainable agricultural land use
Clause 15	Built Environment and Heritage
15.03-2S	Aboriginal cultural heritage
Clause 17	Economic Development
17.01-1S	Diversified economy
Clause 18	Transport
18.02-4S	Roads
Clause 19	Infrastructure
19.01-1S	Energy supply
19.01-2S	Renewable energy

18. The assessment section of this report provides a detailed assessment of the relevant planning policies.

Zoning and Overlays

Farming Zone (FZ)

19. The proposal seeks the use and development of a solar energy facility on land in the Farming Zone.
20. Pursuant to Section 2 of **Clause 35.07-1**, a planning permit is required for the use of land for a renewable energy facility (other than a wind energy facility).
21. Pursuant to **Clause 35.07-4**, a planning permit is required to construct a building or construct or carry out works associated with a use in Section 2 of Clause 35.07-1.
22. Pursuant to **Clause 35.07-4**, a planning permit is required for a building which is within any of the following setbacks:
 - 40 metres from a Transport Zone 3 Zone or Public Acquisition Overlay if:
 - The Head, Transport for Victoria is not the acquiring authority; and
 - The purpose of the acquisition is for a road.
23. Pursuant to Section 3(a) of the *Planning and Environment Act 1987*, a “building” includes “fences, walls and out-buildings”. It is noted that the perimeter security fencing of the site is located approximately 5 metres from a Transport Zone 3 being Baddaginnie - Benalla Road.
 - 100 metres of a waterway, wetlands or designated flood plane.

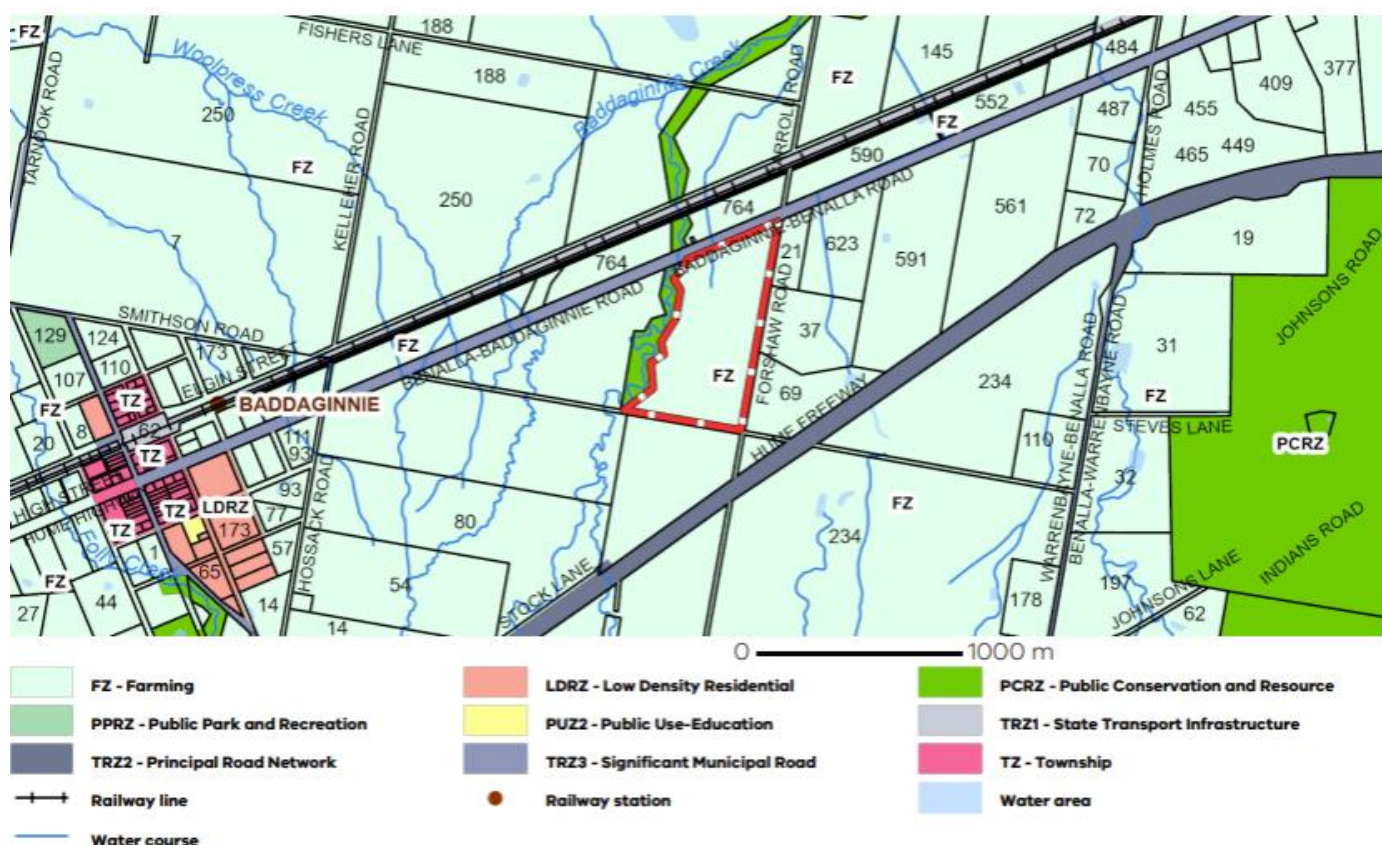


Figure 9. Zoning Map (subject site shown in red) (Source: VicPlan)



Particular and General Provisions

Provisions that Require, Enable or Exempt a Permit

Clause 52.06 – Car Parking

23. Pursuant to Clause 52.06-6, car parking must be provided to the satisfaction of the responsible authority.

Clause 52.17 – Native Vegetation

24. Pursuant to Clause 52.17-1 a permit is required to remove, destroy or lop native vegetation, including dead native vegetation. A total of 6.153 of native vegetation is to be removed which falls within the detailed assessment pathway.

Other Planning and Environmental Approvals

25. It is the proponent's responsibility to ensure all relevant approvals outside the *Planning and Environment Act 1987* (P&E Act) are in place. However, comment is made of the following relevant legislation:

Environment Protection Regulations

26. The Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues (Noise Protocol), is incorporated into the Environment Protection Regulations as of 1 July 2021 (EPA publication 1826.4).

27. The Noise Protocol is used to determine noise limits for new and existing commercial, industrial and trade premises within Victoria. As of 1 July 2021. The Noise Protocol replaces the *Noise from Industry in regional Victoria (NIRV; EPA publication 1411)*.

Environment Protect and Biodiversity Conservation Act 1999 (EPBC Act)

28. Under the EPBC Act, an action that has, will have, or is likely to have, a significant impact on matters of national environmental significance, including nationally or internationally important flora, fauna, ecological communities, and heritage places must be referred to the Commonwealth Minister for Environment.

29. The Native Vegetation Impact Assessment prepared by Confluence Ecology and Community, dated 16 July 2024 determined that no EPBC referral is required as the project is unlikely to have a significant impact on matters of national environmental significance (MNES).

Environmental Effects Act 1978

30. The Ministerial Guidelines for Assessment of Environmental Effects under the Environmental Effects Act 1978 (DSE 2006) outlines the triggers for referral of a project to the Victorian Minister for Planning who will determine if an Environmental Effects Statement (EES) is required.

31. Documentation in relation to the EE Act has not been submitted as part of the proposal. It is the responsibility of the proponent to determine whether a referral is required under the EE Act.

Flora and Fauna Guarantee Act 1988 (FFG Act)

32. Under the FFG Act a permit is required to take, kill, injure, disturb or collect threatened species or protected flora species from public land.



33. The Native Vegetation Impact Assessment prepared by Confluence Ecology and Community, dated 16 July 2024 states no protected flora was identified on the site. As such a permit under the FFG Act is not required for the project.

Aboriginal Heritage Act (AH Act)

34. The AH Act seeks to avoid adverse effects to Aboriginal cultural heritage values as far as reasonably practicable. Where adverse effects cannot be avoided, measures must be implemented to minimise and mitigate adverse effects.
35. While part of the subject land is within the identified area of cultural sensitivity, the proposed solar facility and associated works will be located at minimum approximately 10 metres outside the area of cultural heritage sensitivity. It is therefore considered that for the purposes of the AH Act, the “activity area” for the proposal is not within an area of cultural heritage sensitivity and a cultural heritage management plan is not required.
36. Notice of the application was given to Yorta Yorta Aboriginal Corporation, the Registered Aboriginal Party for the site, under Section 52(1)(d) of the P&E Act 1987 on 30 August 2024.
37. As of 22 October 2024, no response has been received from Yorta Yorta Nation Aboriginal Corporation.

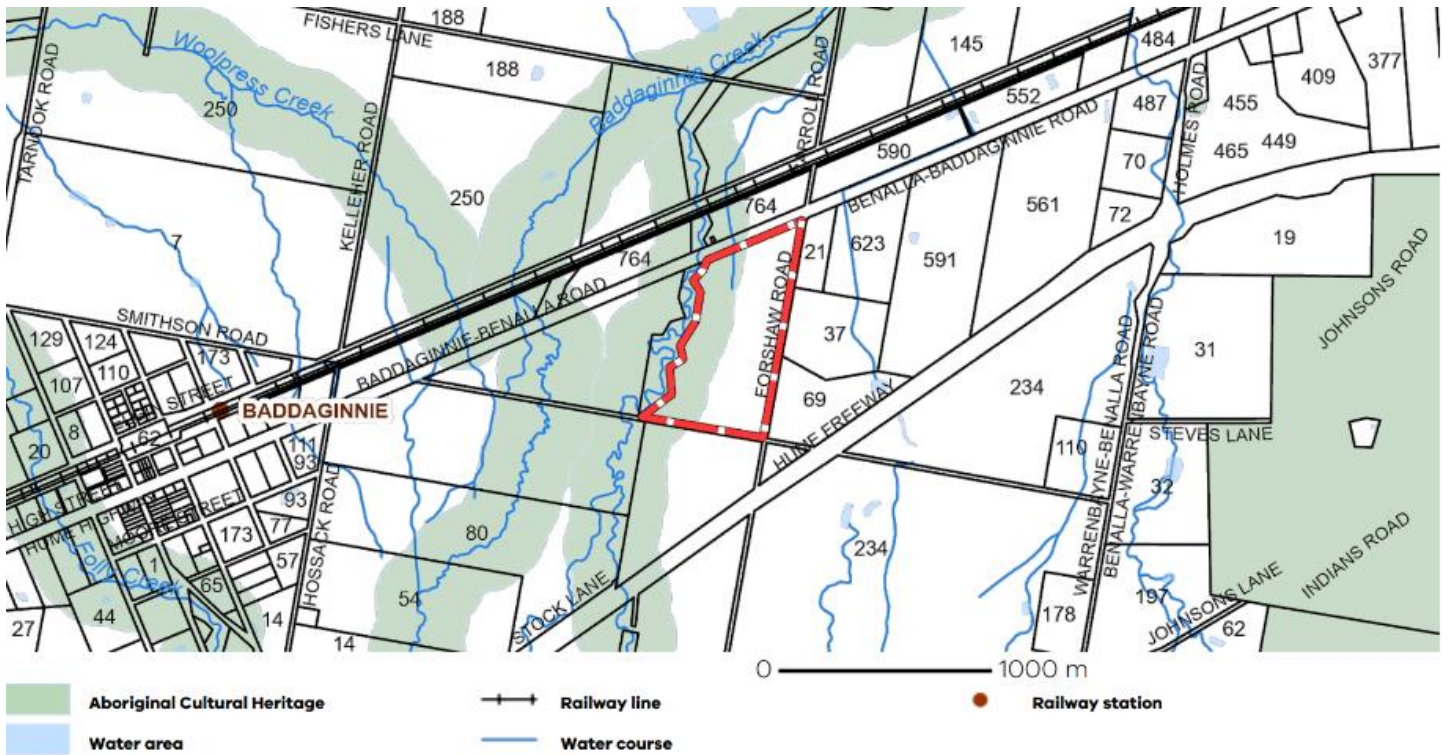


Figure 10. Subject site affected by aboriginal cultural heritage. (Source: VicPlan)



Referrals

38. The application was referred to the following groups:

Provision / Clause	Organisation	Response and date received
Section 55 Referral – Determining	WorkSafe Victoria	No objection– 21 February 2024
Section 55 Referral – Recommending	DEECA – Planning & Environment Assessment, Energy	No objection, subject to conditions – 20 September 2024

39. The referral responses are discussed below.

WorkSafe Victoria

40. WorkSafe Victoria was referred the application on 30 January 2024 in accordance with Clause 66.02-7 of the Benalla Planning Scheme.

41. It is noted that the battery associated with the facility is defined as a minor utility installation as it connects to the existing 22 kV distribution network that runs east-west along Baddaginnie-Benalla Road. Pursuant to Clause 62.01, a permit is not required for the use of land for a minor utility installation.

42. A response was received on 21 February 2024, stating that they do not object to the proposal.

Secretary to the Department of Energy, Environment and Climate Action

43. DEECA – Planning & Environment Assessment – Energy Projects was referred the application on 30 January 2024 in accordance with Clause 66.02-2 of the Benalla Planning Scheme.

44. The proposed 6.153ha of vegetation removal triggers the Detailed Assessment Pathway as defined in the Guidelines (DELWP, 2017).

45. DEECA requested further information on 20 February 2024 as the application did not adequately address the information requirements of Clause 52.17 Native Vegetation of the Benalla Planning Scheme.

46. On 9 August 2024 the proponent provided updated material addressing DEECA's further information request. This included an updated Native Vegetation Impact Assessment prepared by Confluence Ecology and Community. The most significant change of the assessment included the change of method for the offset calculations for the landscaping perimeter.

47. The original application proposed a partial loss calculation across a wider, 6-metre-wide landscaping corridor. This resulted in a minor increase to the proposed vegetation removal from 6.145 hectares to 6.153 hectares.

48. DEECA provided conditional support on 20 September 2024. The conditions relate to pre-construction works including:

- Preparation of a Landscape Concept Plan
- Preparation of an Environment Management Plan
- Protecting retained native vegetation
- Securing native vegetation offsets

49. It is considered that the recommended conditions provided by DEECA appropriately address any native vegetation removal concerns and are to be included on any planning permit that is issued. They have been slightly modified to reduce repetition, and to be more concise.

Notice

50. The applicant was directed to give notice under section 52(1)(a) of the P&E Act by way of notifying adjoining owners and occupiers.
51. DTP gave notice of the application under section 52(1)(b) and (d) of the P&E Act to the following authorities/agencies.
- Benalla Rural City Council
 - Country Fire Authority (CFA)
 - Head, Transport for Victoria
 - Yorta Yorta Nation Aboriginal Corporation
 - VicTrack

Objections and Submissions

52. The application received five submissions including one objection. The submissions and objections are summarised below.

Objection/ Submission	Name/ Authority	Issues Raised
Submission	CFA	No objection subject to conditions relating to the provision of a: <ul style="list-style-type: none"> • Risk Management Plan • Emergency Plan • Fire Management Plan Conditions to this affect have been included within the recommendation.
Submission	Benalla Rural City Council	No objection, recommended conditions include: <ul style="list-style-type: none"> • The section of Forshaw Road between the proposed access and the Baddaginnie-Benalla Road shall have a granular pavement to the satisfaction of Council. During the solar farm works the applicant shall maintain the road surface to a standard as specified in Council's Road Management Plan and at the completion of the project, the gravel surface shall be graded and compacted (if required). • Vehicle access is to be constructed in accordance with the Infrastructure Design Manual drawing SD255 as recommended in the submitted Traffic Impact Assessment. • All works within Forshaw Road will require the application of a Works in Road Reserve Permit from Council.
Submission	VicTrack	No objection, no recommended conditions.
Objection	Head, Transport for Victoria	No objection subject to conditions relating to the provision of a: <ul style="list-style-type: none"> • Traffic Management Plan • Engineering Plans and Reporting • Recommendations associated with glint and glare screening must be carried out in accordance with the Glint and Glare Assessment Report. • Vegetation Management Plan DTP officers do not recommend the inclusion of a Vegetation Management Plan as permit conditions requiring the preparation of a Landscape Plan and updated Glint and Glare Management Plan will outline how vegetation screening will achieve their required height and density.
Objection	[REDACTED]	Objection, key concerns related to: <ul style="list-style-type: none"> • Native Vegetation Removal • Increased temperature • Reduction in land efficiency and value of land The objection is noted and addressed in the assessment below.

Objector – [REDACTED]

53. The matters raised in the objection are summarised as follows:

- Removal of native vegetation
- Increased temperature
- Reduction in land efficiency and value of land

54. The applicant provided a response to [REDACTED] objection via a letter dated 3 October 2024 which stated:

- The majority of the vegetation proposed to be removed is low value grasses with the proposed site having been historically cleared. Furthermore, the development has been sited to avoid any patches of established trees (immediately east of the solar farm) that would provide the greatest level of habitat value. The only trees proposed to be removed would be three (3) isolated paddock trees, one (1) which will in all likelihood be retained, however is sought for removal due to the perimeter fence of the solar farm encroaching more than 10% into its Tree Protection Zone (essentially the tree canopy), and it is therefore technically lost.
- Page 17 of the Planning Report prepared by Chris Smith & Associates addresses the heat island effect in relation to solar farms. This summation is based on past project experience, which in turn is supported by independent expert evidence that has specifically investigated and addressed concerns relating to the heat island effect from solar farms in the rural setting. Additionally, it should be noted that the proposal is for a renewable energy facility, and proposals like this are intended to directly limit changes to both local and global climate changes.

55. Additionally, consideration of property values is not included within the decision guidelines of the scheme and as such, cannot be considered in the assessment of this application.

Amendment VC261

56. Amendment VC261 was gazetted on 4 April 2024. It updated Clause 53.22 to expand the operation of the existing Development Facilitation Program (DFP) to include renewable energy projects and utility installation.

57. Under this amendment, all renewable energy applications that are lodged after 20 September 2023 and have a generation capacity 1MW or greater will be treated as significant economic development, making them eligible for the accelerated pathway. A key change includes the removal of third party appeal rights, so objectors/submitters will no longer be able to appeal a decision to Victoria Civil and Administration Tribunal (VCAT) for applications that meet the DFP pathway criteria.

58. Given the application meets the above criteria, there are no third party appeal rights for any decision on the application, The objection from [REDACTED] is noted and considered to be addressed in the assessment below.



Key Considerations

60. The following are deemed the key considerations in assessing the acceptability of the proposal:

- Policy context and planning controls
- Amenity impacts
- Landscape and visual impact
- Impact on agricultural land
- Natural environment and natural systems
- Vehicle access and traffic

Policy Context

61. The proposal is consistent with the relevant planning policies which supports the transition and provision of renewable energy, diversification of service industries for future economic growth, supports the creation of jobs and skilled workforce while protecting the environment and agricultural land.

Municipal Planning Strategy

62. Clause 02.02 states the following Benalla Rural City Council's vision "A sustainable, thriving and cohesive community where lifestyle, culture, health and wellbeing are supported by strong leadership and community partnership."

63. Clause 02.03 outlines the strategic directions of the Council. Of most relevance to this application is:

- Clause 02.03-2 (Environmental and Landscape Values)
- Clause 02.03-3 (Environmental Risks and Amenity)

An assessment of the project against these themes is provided throughout this report.

Planning Policy Framework

64. The proposal is consistent with the relevant state planning policies which support the renewable energy led transmission to a low-carbon economy with reduced greenhouse gas emissions.

65. The proposal will not compromise the planned network of settlements within regional Victoria and facilitate the economic boost to the regional construction and employment industries within the area (Clause 11.01-1S). The development footprint of the facility is relatively small and the proposal will not unreasonably impact the availability of agricultural land as the site is considered neither highly productive or versatile (Clause 11.02-1S and 11.02-2S).

66. The Native Vegetation Impact Assessment prepared by Confluence Ecology and Community assesses the environmental values of the subject site. The assessment demonstrates that the proposal will require a loss of three (3) trees and patches of native grasses. The assessment acknowledges that the site is almost wholly covered by native grasses, thus total avoidance of vegetation impacts would be impossible to achieve. Nevertheless, the proposed vegetation removal is considered acceptable, as the grasses are currently within grazing land and serve limited, if any, biodiversity or habitat value present (Clause 12.01-1S and 12.01-2S).

67. The submitted Town Planning Report prepared by Chris Smith & Associates assesses the proposed development against the CFA *Design Guidelines and Model Requirements for Renewable Energy Facilities (August 2023)*. CFA was provided notice of the application and does not object to the granting of a permit and has recommended conditions. The proposed development is considered to not result in unreasonable fire risk (Clause 13.02-1S).



68. The application includes a noise impact assessment prepared by ADP Consulting, which demonstrates potential noise impacts on sensitive receptors in proximity to the subject site. A detailed assessment of noise impacts is below (Clause 13.05-1S).
69. It is considered that the application appropriately considers adverse off-site impacts to community amenity, human health and safety in keeping with the objective of clause 13.07-1S (Land use compatibility).
70. The subject site is located on agricultural land that is not considered to be significant or strategically important and is neither highly productive nor highly versatile according to the Hume Regional Growth Plan (2014). Further, the proposal supports opportunities for emerging industries with agricultural industries. As such, it is considered that the objectives and strategies of Clause 14 are met.
71. The facility design has been modified to avoid high impact activity within an area of cultural heritage sensitivity. As such, a new access to the site from Forshaw Road, outside the area of cultural heritage sensitivity is proposed (Clause 15.03-2S).
72. It is considered that the proposal appropriately responds to clause 17.01-1S (Diversified economy) by facilitating growth in an emerging employment sector and supporting rural economies without compromising its long-term agricultural viability.
73. The submitted traffic impact assessment prepared by Traffic Works demonstrates that the development will not unreasonably impact the road network, responding to clause 18.02-4S (Roads). A detailed assessment of traffic and transport impacts is provided below.
74. The proposed solar energy facility will reduce the impacts of climate change while providing broader economic, social and environmental benefits to the broader community and environment, as well as support state and commonwealth carbon-emission reduction targets for 2030 and 2050 (Clause 19.01-1S and 19.01-2S).

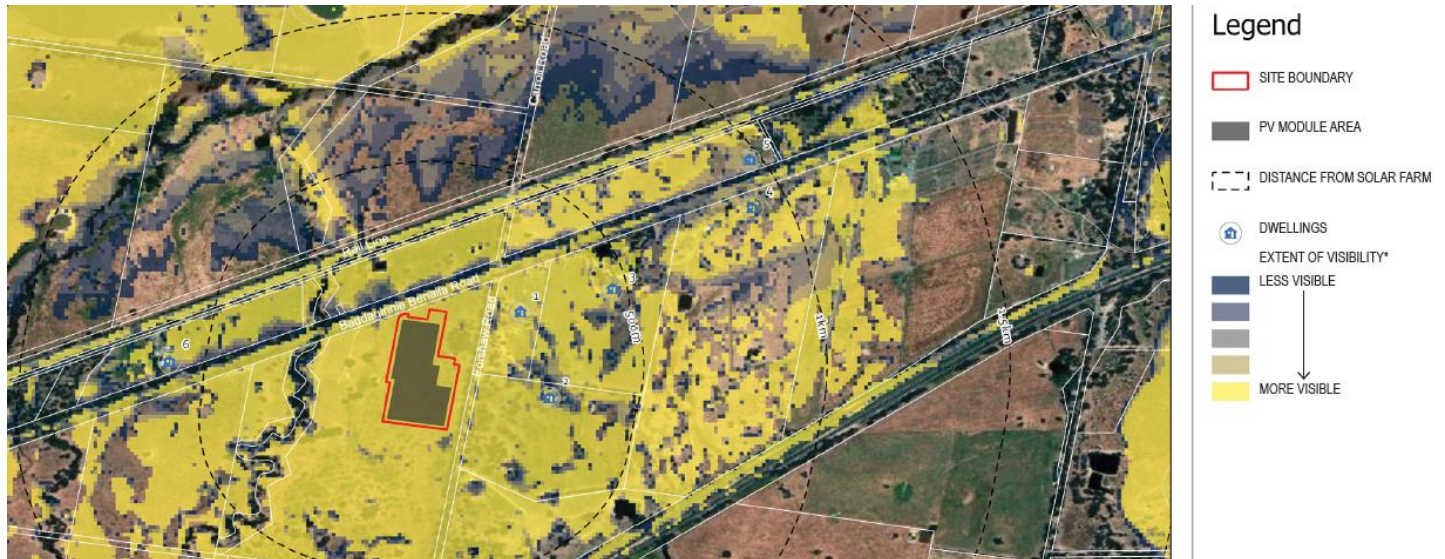
Farming Zone

75. Clause 35.07 FZ seeks to provide for the use of land for agricultural purposes, for non-agricultural uses that do not adversely affect the use of the land for agriculture, encourages the retention of productive agricultural land and promotes the retention of rural employment to support rural communities.
76. Having regard to the relevant decision guidelines at Clause 35.07-6, the proposed use and development is an appropriate outcome in the FZ as follows:
 - The proposal will not impede agricultural production to the site or surrounding farmers as the solar energy facility is considered a low impact use on the land. Minimal ground disturbance will be required to carry out the required buildings and works.
 - The Town Planning Report submitted with the application demonstrates that the proposed solar farm will have limited impacts on the future agricultural viability of the land. It is noted that the 150-ha property owned by the landholder is currently used for grazing and that the proposal involves the use of less than 10% of the subject property for the solar farm and BESS. In addition, after construction, the applicant is to offer the landowner the option to undertake grazing within the perimeter fence.
 - The proposed use and development of the site has considered potential fire hazards and incorporates the fire safety design recommendations in accordance with CFA guidelines, including fire breaks, site access and appropriate separation.
 - The solar farm and ancillary infrastructure are considered appropriate built form outcomes for the site. The built form will be sufficiently setback from adjoining properties and will be mostly screened from view by existing vegetation screening.
 - As stated in the application's Traffic Impact Assessment, during the operation, the facility is expected to generate a negligible increase in traffic and would not be expected to cause road safety issues.

Amenity Impacts

Glint and Glare

77. The application is supported by a Glint and Glare Assessment Report, prepared by Environmental Ethos, which has assessed the glint and glare impacts of the project on relevant receptors within 1km of the site.



78. The assessment found that within 1km of the Project site, 6 dwellings were identified in the viewshed modelling as having potential line of sign to the project. The submitted Landscape Visual Impact assessment, prepared by Geoscene International, dated March 2024 has identified existing vegetation provides partial to full screening of these dwellings.
79. In addition, The Hume Freeway, Baddaginnie-Benalla Road, Forshaw Road, and Crool Road are within the Project viewshed, existing vegetation provides limited to partial screening of the highway and local roads.
80. Furthermore, the Glint and Glare modelling found potential glare hazard is geometrically possible affecting sensitive receptors to the east and west of the Project including the following:
- Four rural dwellings
 - The Hume Highway
 - Baddaginnie-Benalla Road
 - Forshaw Road
 - North East Railway
81. Landscape screen planting is proposed as part of the Project along the north, east and west boundaries of the Project, a typical perimeter Planting Plan for visual mitigation is provided in the landscape and Visual Impact Assessment.
82. To mitigate glare hazard and achieve compliance with the Solar Energy Facilities Design and Development Guidelines for glint and glare, the proposed vegetation screening will be required to form a dense foliage screen to a minimum height of 3 metres, the screening vegetation will need to be established and maintained for the life of the Project.



83. Head, Transport for Victoria reviewed the application and recommended conditions be included on the permit to ensure glint and glare impacts are appropriately managed. The conditions relating to glint and glare require:
- Prior to the installation of any solar arrays on the subject site, all the recommendations associated with glint and glare screening must be carried out in accordance with the Glint and Glare Assessment Report prepared by Environmental Ethos and dated January 2024, to the satisfaction of, and at no cost to the responsible authority.
 - Prior to the installation of any solar arrays on the subject site, a Vegetation Management Plan (VMP) must be implemented. The VMP must outline how the vegetation screens will achieve their required height and density, and how they will be maintained for the life of the project to the satisfaction of, and at no cost to the responsible authority.
84. It is recommended that the condition relating to recommendations associated with glint and glare screening in accordance with the submitted Glint and Glare Assessment Report is considered reasonable and will be included on the permit. DTP officers however do not recommend the inclusion of a Vegetation Management Plan as permit conditions requiring the preparation of a Landscape Plan and updated Glint and Glare Management Plan will outline how vegetation screening will achieve their required height and density.
85. Although existing planting is likely to filter most of the glare for majority of the areas, additional supplementary screen planting along the north, east and west boundaries as a form of mitigation to reduce opportunities to view the project and therefore limit glare.
86. Furthermore, as recommended in the Glint and Glare Assessment, prior to establishment of the vegetation screens, temporary screening will be required along the north, east, and west boundaries of the site. Temporary screening may take the form of dust/shade cloth attached to the perimeter fence (2.4m high). Temporary screens may be removed once the vegetation screening has achieved the minimum screening requirements.
87. A permit condition is therefore recommended to require a pre-construction Glint and Glare assessment, and any recommendations for the assessment in the form of mitigation measures to be included on amended plans.

Noise

88. The proposed solar energy facility is not expected to result in unreasonable impacts due to noise while operating at full capacity.
89. The application is supported by a Noise Impact Assessment (NIA), prepared by ADP Consulting in line with EPA publication 1826.4 *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues, dated May 2021*.
90. Predictive noise assessment found the operational solar farm to meet the relevant EPA Publication 1826 noise limits at all sensitive receivers without mitigation measures as shown in *Figure 12*.
91. It is noted that the inverters and BESS units generate noise which can be characterised as being tonal in nature (as defined by the EPA Noise Protocol). A +5 db tonality adjustment for the BESS units and inverters has been applied to reflect the effective noise level tonality adjustments in the EPA Noise Protocol.
92. Given the facility is anticipated to meet the noise criteria without mitigation measures, it is recommended that no post-construction noise testing is required following operation of the facility. It is noted that operational noise impacts will continue to be regulated by the EPA in accordance with EPA Publication 1826.4.
93. A permit condition has been included on the recommendation explaining that the facility should comply with EPA Publication 1826.



Receiver	Predicted Level, L _{Aeq,t} dB(A)*	Corrected Level, L _{Aeq,t} dB(A)	EPA Criteria dB(A)	Complies? Y/N
Dwellings, 700m to the W				
[REDACTED]	19	24	36	Y
Dwellings, 273m to the E				
[REDACTED]	31	36	36	Y
Dwellings, 460m to the NE				
[REDACTED]	20	25	36	Y

Figure 12. Extracted table of predicted operational noise levels and assessment - unmitigated levels (Source: Advertised plans)

Heat island effect

- 94. The Solar Guidelines state that where a solar farm is proposed adjacent to existing horticulture or cropping activities, a minimum 30m separation is appropriate, measured from the property boundary to any part of the panel array. The guidelines note that there is potential temperature increase by 3 to 4 degrees Celsius at solar energy facilities.
- 95. The proposal complies with the suggested setback of the guidelines.

Light Spill

- 96. It is considered that the proposal will not cause unreasonable off-site amenity impacts from lighting. A condition has been included on the permit that requires light to not cause unreasonable offsite impacts in accordance with Australian Standard 4282 "Control of the obtrusive effects of outdoor lighting." Electromagnetic field/ interference
- 97. The Australian Radiation Protection and Nuclear Safety Agency advises that the strength of radiation decreases exponentially with distance from the source, and it will become indistinguishable from background radiation within 50m of a high voltage power line and within 5 to 10m of a substation.
- 98. The proposal is considered to produce low levels of electromagnetic energy associated with electrical equipment. The closest dwelling is located approximately 273m from the facility, well in excess of the 50m separation recommended in the Solar Energy Facilities Design and Development Guidelines.

Landscape and visual impact

- 99. The application is supported by a Landscape and Visual Impact Assessment Report (LVIA), prepared by Scenic Spectrums Pty Ltd.
- 100. The surrounding area is generally characterised by agricultural properties, including some associated rural dwellings. The LVIA states that the potential visual impact of the proposed solar farm has been assessed against all



of the above VPS issues using photomontages representing views from the following six critical viewpoints (*please refer to figure 13 below*).

- D28 – Dwelling on Forshaw Road - ~150 m from the nearest solar panel;
- P17 – Hume Freeway - ~1,008 m to the nearest solar panel;
- P18 – Hume Freeway - ~879 m to the nearest solar panel;
- P26 - Baddaginnie-Benalla Road - ~135.5 m to the nearest solar panel;
- P27 - Baddaginnie-Benalla Road ~49.3 m to the nearest solar panel; and
- P35 - Baddaginnie-Benalla Road - ~221.4 m to the nearest solar panel.

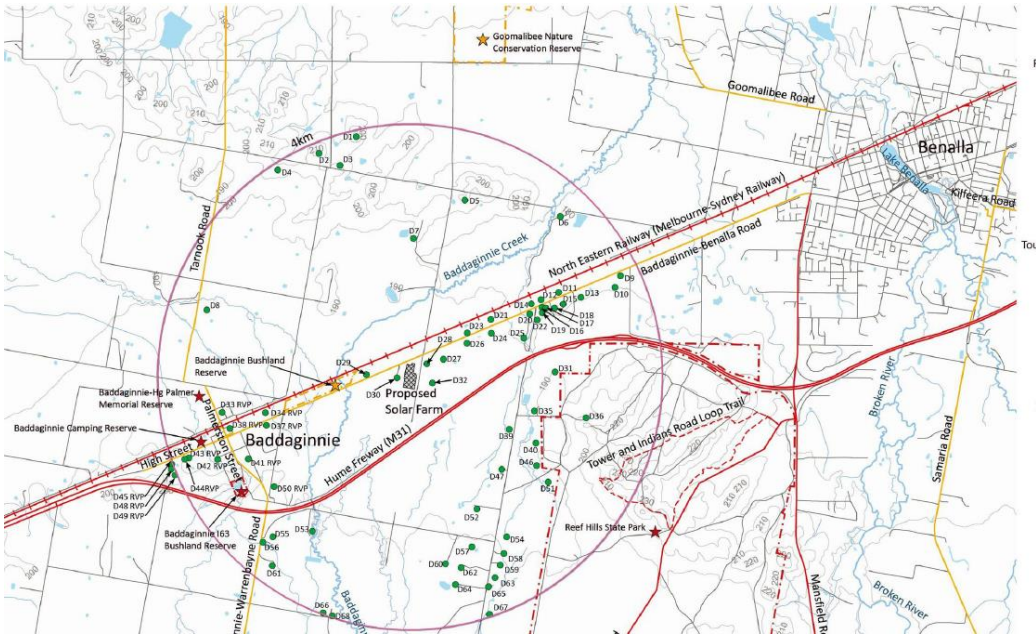


Figure 13. Viewpoint Sensitivity Levels (Source: Advertised plans)

101. The LVIA shows that without vegetation screening viewpoints D28, P26 and P27 which are all within 150 m of the proposed solar panels and within 250 m of the proposed water tank, BESS Units and Inverter, will be seen in much greater detail and colour contrasts will be more vivid from those closer distances.

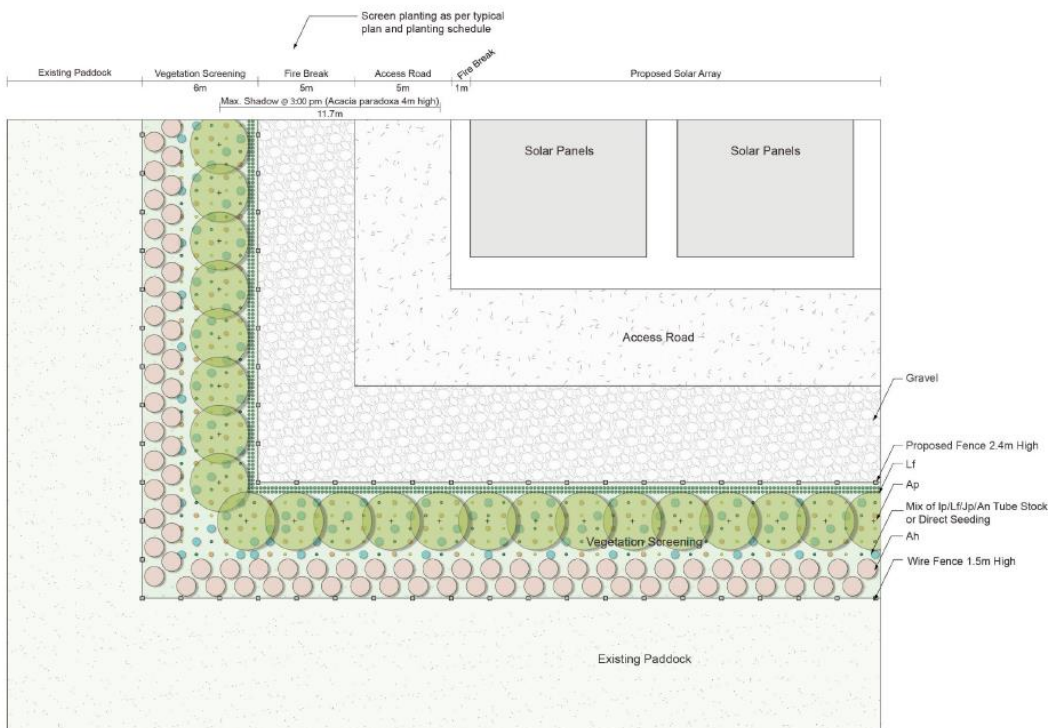
102. With vegetation screening applied to the outside of the proposed perimeter fence however, all of the recommended Visual Performance Standards (VPS) would be achieved from each of the six assessed viewpoints (*please refer to figure 14 below*).

KEY	VPS Not Achieved						VPS Partially Achieved						VPS Achieved					
	Without Vegetation Screen						With Vegetation Screen											
VIEWPOINT	D28	P17	P18	P26	P27	P35	D28	P17	P18	P26	P27	P35						
Desired Land Use Character Settings ²	Partially Achieved	Achieved	Achieved	Partially Achieved	Partially Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved						
Key Landscape Features Disruption	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved						
Exterior Colour Contrast & Reflectivity ³	Partially Achieved	Achieved	Achieved	Partially Achieved	Not Achieved	Partially Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved						
Night Lighting Effects	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved						
Scenic Quality	Partially Achieved	Achieved	Achieved	Partially Achieved	Partially Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved						
Scenic Integrity & Visual Dominance Level	Not Achieved	Achieved	Not Achieved	Not Achieved	Not Achieved	Not Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved						

Figure 14. Overall VPS Assessment Findings for the Six Photomontage Viewpoints (Source: Advertised plans)



103. Although there would be some visually evident change in the Land Use Character due to the proposed vegetation screening and small portions of the proposed BESS Units, Inverter and water tank being visible in Viewpoints D28, P26 and P27, these changes are acceptable within the VPS set for these viewpoints. The proposed perimeter vegetation would also screen the existing woolshed on the development property as viewed from D28 and P26. The potentially visible elements of the proposed solar farm are not greater than other landscape alterations viewed within the nearby landscape.
104. Overall, the potential landscape and visual impacts of the proposal will be within the range of acceptable limits of the recommended Visual Performance Standards (VPS) if the proposed perimeter vegetation screening is implemented on the outside of the proposed perimeter fence on the north, east and western boundaries (see figure 15).



105. The submitted Town Planning Report has also advised that the proposed BESS, PCS and transformer kiosk would be clad with non-reflective materials and be finished in a natural or neutral colour. This will form a condition of the recommendation.
106. It is considered that the proposal will not result in any unreasonable visual impacts from private or public land subject to a condition of the permit requiring the assessment and endorsement of a landscaping plan to confirm the proposed screen planting and future maintenance.

Impact on agricultural land

107. The subject site is a 150-ha property owned by the landholder which is currently used for grazing.
108. The proposal involves the use of less than 10% of the subject property for a solar farm and BESS. After construction, the applicant would offer the landowner the option to undertake grazing within the perimeter fence.
109. The Hume Regional Growth Plan (HRGP) provides a regional approach and understanding of land use planning in the Hume Region, which includes Benalla.
110. The HRGP also maps strategic agricultural land within the region which is of state or sub-regional significance. The development site and surrounding area is not considered as strategic agricultural land, as shown in the below figure.
111. The Town Planning Report submitted with the application outlines that the solar farm is compatible with farming regions and can co-exist with agricultural operations that may be located near the subject site. Furthermore, as part of an ongoing maintenance program, livestock (sheep) may continue to be utilised for grazing purposes on the site following construction.
112. It is further concluded that there will not be detrimental impacts from the proposed solar farm on surrounding farms or on the agricultural amenity of the region. As such, it is considered that the facility will not unreasonably impact the potential of agricultural land.
113. Conditions have been included in the recommendation requiring the rehabilitation of the site back to its prior condition after the solar farm ceases operations, to ensure that the land remains suitable for agricultural use into the future.

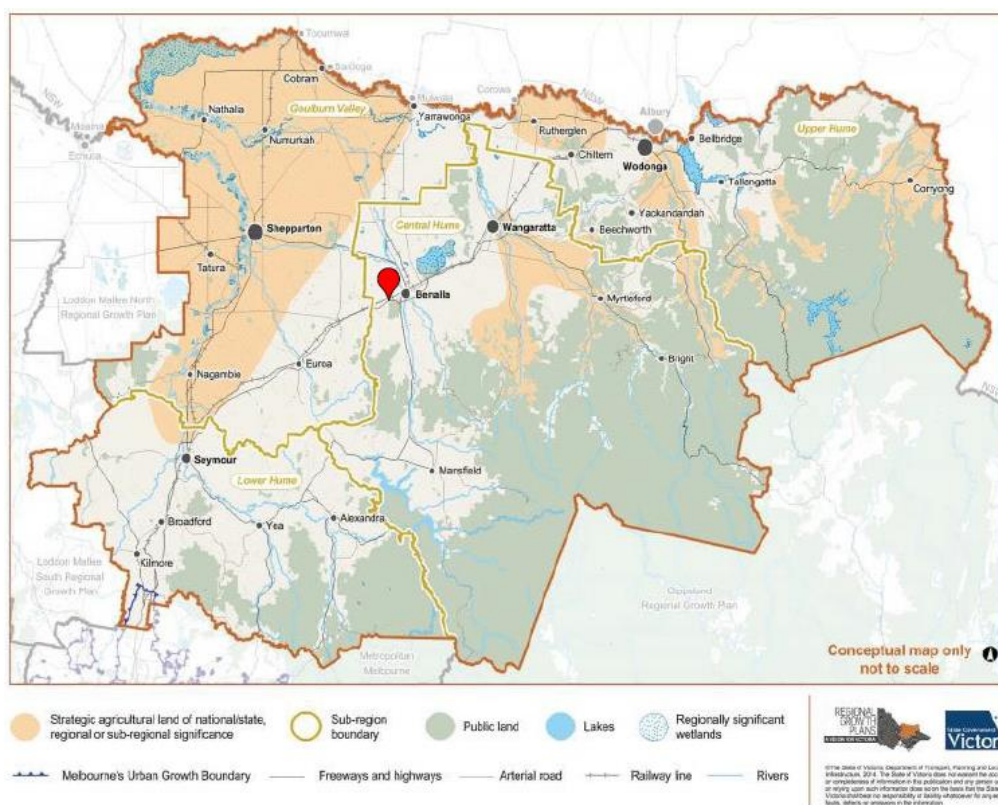


Figure 16. Strategic Agricultural Land, Hume Regional Growth Plan (Source: Advertised plans)

Natural environment and natural systems

Flora and fauna impacts

114. The application was accompanied by a Native Vegetation Impact Assessment prepared by Confluence Ecology and Community dated 16 July 2024. The assessment identified that the proposal will require the removal of native vegetation that is assessed to be of low conservation value including 6.153 hectares of Plains Woodland / Herb-rich Gilgai Wetland Mosaic and Plains Woodland vegetation and three Large Trees.
115. The assessment acknowledges that the site is almost wholly covered by native grasses, thus total avoidance of vegetation impacts would be impossible to achieve. Nevertheless, the proposed vegetation removal is considered acceptable, as the grass are currently within grazing land and serve limited, if any, biodiversity or habitat value.
116. Furthermore, based on site condition, habitat assessments and analysis of local flora and fauna databases, the planned works are unlikely to trigger permit requirements relevant to the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). No EPBC listed flora, fauna or ecological communities were found during the site assessment.
117. Attachment 2 of the Assessment includes an Avoid and Minimise Report prepared by Birdwood Energy dated 12 June 2024 which demonstrates the appropriate efforts to avoid and minimise the removal of native vegetation during the planning phase. Beginning with the initial design stages, the PV array was arranged to avoid densely vegetated areas, as well as maintaining maximum setback from the natural waterway to the west of the solar farm. In addition, the planned solar facility infrastructure has been sited within the region of the property which was identified to have higher existing impacts from stock grazing. This included native vegetation of lower condition and also an area that does not meet the threshold for a native vegetation 'patch'.
118. Pursuant to section 55 of the PE Act and Clause 66.02-2 of the Benalla Planning Scheme, Secretary to the Department of Energy, Environment and Climate Action were referred the application. After consultation between the proponent and DEECA, they responded on 20 September 2024 with conditional approval.
119. The recommended conditions relate to pre-construction works including:
- Preparation of a Landscape Concept Plan
 - Preparation of an Environment Management Plan
 - Protecting retained native vegetation
 - Securing native vegetation offsets
120. It is considered that the recommended conditions provided by DEECA appropriately address any native vegetation removal concerns and are to be included on any planning permit that is issued.

Bushfire Risk

121. The subject site is located within a Bushfire Prone Area (BPA). The application is informed by a Town Planning Report which assesses the proposed development against the CFA *Design Guidelines and Model Requirements for Renewable Energy Facilities (August 2023)*. Overall, the potential risk of fire impacting on the solar farm is relatively low. Further, the solar farm is not expected to result in a significant increase in fire risk in the locality.
122. Notice of the application was given to CFA under section 52 of the *P&E Act*. CFA advised that it does not object to a permit being granted for the proposal and recommended several permit conditions requiring preparation of a Risk Management Plan, Emergency Management Plan and Fire Management Plan in consultation with CFA.
123. It is considered that the recommended conditions provided by the CFA appropriately address any bushfire concerns and are to be included as part of the recommendation.

Vehicle access and traffic

124. State and local policies, the FZ, and Clause 52.06 require the consideration of access, traffic and car parking relating to the proposed use and development.
125. The application is supported by a traffic impact assessment prepared by Traffic Works and dated 16 July 2024. The assessment considers the impacts of the proposed use on state arterial and local roads, traffic during construction and operation and the facility's anticipated car parking demand.
126. The assessment anticipates the site will generate during the construction phase, 20 light vehicles (generating 40 trips per day) and 12 heavy vehicles (generating 24 trips per day). It is considered that the road network will not be unreasonably impacted by the marginally increased traffic volumes.
127. Vehicular access to the subject site is available from Forshaw Road, via Baddaginnie-Benalla Road. The subject site access driveway is recommended to be constructed per SD255 of the Infrastructure Design Manual (IDM) requirements and to the Benalla Rural City Council's satisfaction (refer to Figure 20 for an extract and Appendix 2 for the full plan). It should provide sufficient width to facilitate the movements of a 19 m semi-trailer accessing the subject site.
128. Benalla Rural City Council provided a submission on 10 October 2024 and did not object to the facility and recommended the following conditions:
 - The section of Forshaw Road between the proposed access and the Baddaginnie-Benalla Road shall have a granular pavement to the satisfaction of Council. During the solar farm works the applicant shall maintain the road surface to a standard as specified in Council's Road Management Plan and at the completion of the project, the gravel surface shall be graded and compacted (if required).
 - Vehicle access is to be constructed in accordance with the Infrastructure Design Manual drawing SD255 as recommended in the submitted Traffic Impact Assessment.
 - All works within Forshaw Road will require the application of a Works in Road Reserve Permit from Council.
129. Head, Transport for Victoria also provided a submission on 12 September 2024 stating that they do not object to the proposed development, subject to conditions. These conditions include the provision of the following:
 - Traffic Management Plan
 - Engineering Plans and Reporting
 - Recommendations associated with glint and glare screening must be carried out in accordance with the Glint and Glare Assessment Report.
 - Vegetation Management Plan
130. It is considered that the recommended conditions provided by the Benalla Rural City Council appropriately address any traffic impact concerns and are to be included as part of the recommendation.
131. It is also considered that the condition relating to recommendations associated with glint and glare screening in accordance with the submitted Glint and Glare Assessment Report is considered reasonable and will be included on the permit. DTP officers however do not recommend the inclusion of a Vegetation Management Plan as permit conditions requiring the preparation of a Landscape Plan and updated Glint and Glare Management Plan will outline how vegetation screening will achieve their required height and density. The submission from the Head, Transport for Victoria is therefore considered as an objection.



132. The proposal is generally consistent with the relevant planning policies of the **Benalla Planning Scheme** and will contribute to the provision of **renewable energy** within the **Benalla Rural City Council** area.
133. The proposal is generally supported by the various referral agencies.
134. It is **recommended** that Planning Permit No. **PA2402710** for the **use and development of the land for a renewable (solar) energy facility and associated buildings and works and the removal of native vegetation, at Benalla-Baddaginnie Road, Baddaginnie**, be issued under delegation from the Minister for Planning subject to conditions.
135. It is **recommended** that the applicant, referral authorities, CFA, objectors and the council be notified of the above in writing.

Prepared by: [REDACTED]

I have considered whether there is a conflict of interest in assessing this application and I have determined that I have:

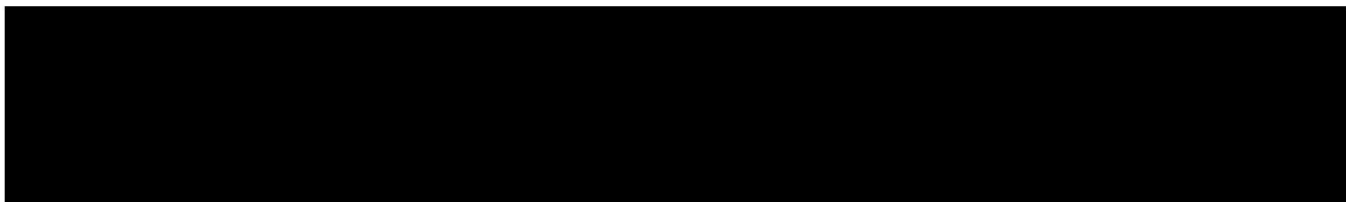
- No Conflict**
- Conflict and have therefore undertaken the following actions:
- Completed the **Statutory Planning Services declaration of Conflict/Interest form**.
- Attached the Statutory Planning Services declaration of Conflict/Interest form on to the hardcopy file.
- Attached the Statutory Planning Services declaration of Conflict/Interest form into the relevant electronic workspace.



Reviewed by: [REDACTED]

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Approved by: [REDACTED]

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