

Elaine Solar Farm and BESS

Planning Permit Application
PA2302521 - Use and
development of a solar
energy facility and utility
installation (battery and
powerline), display of
business identification
signage and removal of
native vegetation

Officer Assessment Report
Development Approvals & Urban Design

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Summary

Key information	Details
Application Number:	PA2302521
Received:	3 October 2023
Applicant:	Elgin Energy Pty Ltd c/- Urbis Pty Ltd.
Planning Scheme:	Moorabool Planning Scheme
Land Address:	Various land parcels in Elaine, located off Woodshed Road and Horsehill Road. Formerly known as: <ul style="list-style-type: none">• Crown Allotment 17 on Title Plan 609966X• Crown Allotments 19B, 21E, 21F, 21G, 50 on Title Plan 488617T• Woolshed Road Reserve• Midland Highway Road Reserve• Horsehill Road Reserve
Project Name:	Elaine Solar Farm and BESS
Project Description:	Use and development of: <ul style="list-style-type: none">• 150 megawatt (MW) solar energy facility, located across two sites: Windy and Peters• 150MW battery energy storage system (BESS)• Ancillary infrastructure• Business identification signage at the gate access points• 2.569ha native vegetation removal
Development value:	\$300,000,000
Zone:	Farming Zone (FZ) Transport Zone (TRZ2)
Overlays:	Design and Development Overlay (DDO2)
Particular Provisions:	Clause 52.05 - Signs Clause 52.17 - Native Vegetation Clause 53.13 - Renewable Energy Facility (Other than wind energy facility)
Why is a permit required?	Clause 35.07 – Farming Zone: 35.07-1 – Use of land for a renewable energy facility (other than wind energy facility). 35.07-1 – Use of land for a utility installation. 35.07-4 – Construct a building or construct or carry out works associated with a Section 2 use of Clause 35.07-1. 35.07-4 – Earthworks which change the rate of flow or the discharge point of water across a property boundary. 35.07-4 – A building setback less than 100m from a Transport Zone 2. Clause 36.04 - Transport Zone: 36.04-1 – Use of land for a utility installation. 36.04-2 - Construct a building or construct or carry out works associated with a Section 2 use of Clause 36.04-2. Clause 43.02 - Design and Development Overlay: 43.02-3 – Construct a building or construct or carry out works. Clause 52.05 – Signs: 52.05-14 – Display of business identification signage.



Key information	Details
	Clause 52.17 – Native Vegetation Clause 52.17-1 – A permit is required to remove, destroy or lop native vegetation, including dead native vegetation.
Responsible Authority:	Under Clause 72.01-1, the Minister for Planning is the responsible authority for a planning permit application for the use or development of land associated with: <ul style="list-style-type: none">• Energy generation facility with an installed capacity of 1 megawatt or greater• Utility installation used to:<ul style="list-style-type: none">○ Transmit or distribute electricity○ Store electricity if the installed capacity is 1 megawatt or greater
Referral authorities	<ul style="list-style-type: none">• Clause 66.02-2 - Secretary to DEECA (Recommending referral authority)• Clause 66.02-4 – AusNet (Determining referral authority)• Clause 66.02-7 – WorkSafe (Determining Referral Authority)
Notice:	<ul style="list-style-type: none">• Owners and occupiers of land with 1km of the subject site• Moorabool Shire Council• Beon/Australian Energy Operations (owner/operator of Elaine Terminal Station)• Country Fire Authority (CFA)• Emergency Management Victoria (EMV)• Energy Safe Victoria (ESV)• Head, Transport for Victoria (Head, TfV)• Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC)
Submissions/objections:	Six (7) total: <ul style="list-style-type: none">• 1x submission from CFA• 1x submission from Beon/Australian Energy Operations• 1x submission from Head, Transport for Victoria• 4x objections
CHMP	Not required (land not in CHS)
BP3	No
Delegation	Received 26 March 2024

Table 1. Summary of application details



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

Milestone	Date
Pre-application meeting (DTP, DEECA, ESV, CFA and Urbis)	9 June 2023
Application lodgement	3 October 2023
Further information requested	11 October 2023
Further information received	22 November 2023
Public notice period	At least 28 days. The statutory declaration was provided on 20 December 2023.
Decision Plans and Elevations	<ul style="list-style-type: none"> Site Plans prepared by URBIS, titled 'Elaine Solar Farm', Rev C and dated 21 November 2023 (3 pages). Elevations prepared by URBIS, titled 'Elaine Solar Farm Specification Details', Rev B and dated 3 November 2023 (10 pages).

Table 2. Application milestones

2. The subject of this report is the decision plans and elevations.

3. The assessment was informed by consultant reports including:

- Landscape and Visual Impact and Visual Assessment Report prepared by Peter Haack Consulting dated 10 November 2023 (154 pages).
- Glint and Glare Impact Assessment prepared by Forge Solar, undated and advertised with the application (32 pages).
- Environmental Management Plan Framework prepared by URBIS, Rev 001 and dated 9 November 2023 (26 pages).
- Noise Impact Assessment prepared by WSP, Rev 5, dated 9 October 2023 (54 pages).
- Landscape Strategy, prepared by URBIS, dated September 2023 (13 pages).
- Feature Survey prepared by Veris, dated 6 July 2023 (5 pages).
- Agricultural Assessment prepared by Ag-Consulting dated September 2023 (23 pages).
- Preliminary Bushfire Risk Assessment: Elaine Solar Farm, Elaine Victoria, prepared by Ecology and Heritage Partners, Ref. 16674 and dated 21 September 2023 (10 pages).
- Biodiversity Assessment prepared by Ecology and Heritage Partners, Ref: 16674 and dated January 2024 (69 pages).
- Traffic and Transport Assessment prepared by Impact Traffic Engineering Pty Ptd, Version 01 and dated 21 September 2023 (39 pages).
- Engagement Outcomes Report prepared by URBIS, dated 22 September 2023 (47 pages).
- Flooding Impact Assessment prepared by Ecological Australia, version v1, dated 14 September 2023 (64 pages).



Site Description

4. The subject site is located in Elaine, in the Moorabool Local Government Area, approximately 20km southeast of Ballarat in Victoria.
5. The site is approximately 267.2 hectares (ha) in size and is split across two sites located on either side of the Midland Highway:
 - Site 1: 'Windy' – Approximately 170ha and located on the western side of Midland Highway.
 - Site 2: 'Peters' – Approximately 96ha and located on the eastern side of Midland Highway.
6. A 33kv overhead powerline is proposed to connect the two sites. The powerline would run along Horsehill Road and Woolshed Road, crossing the Midland Highway.

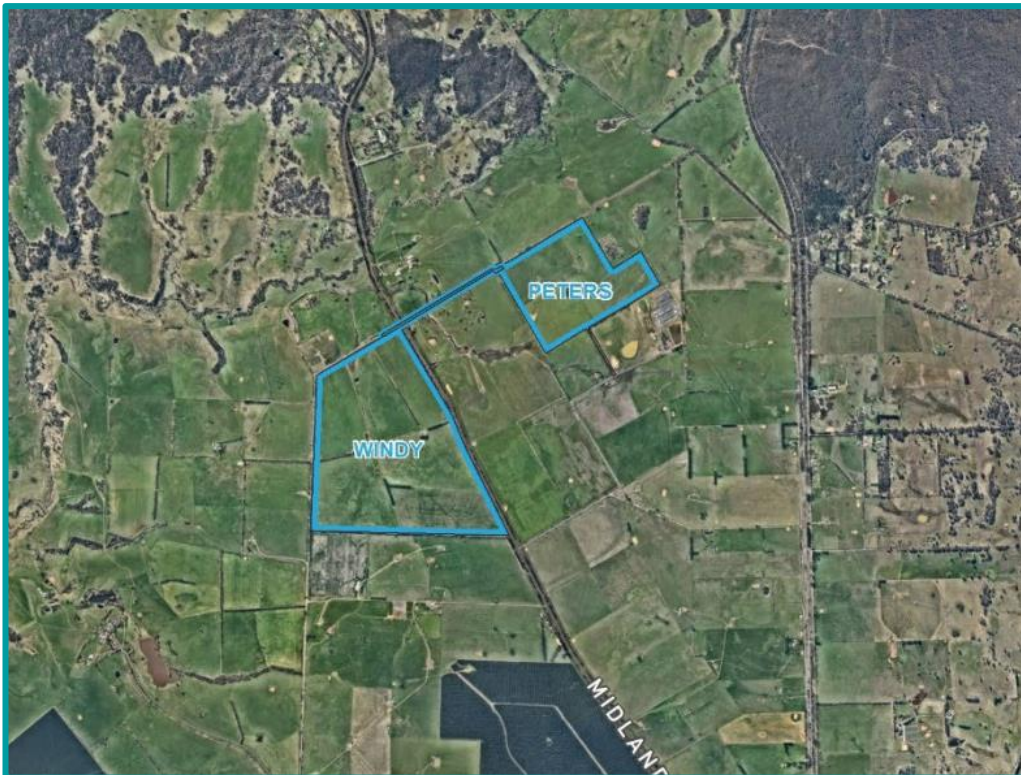


Figure 1: Subject site

7. The site has road frontages to Horsehill Road and Midland Highway (Windy site) and Woolshed Road and an unnamed Government Road (Peters site).
8. The landforms of the sites are flat to gently undulating:
 - Windy rises from north to south, with an elevation of 383m AHD in the north, rising to approximately 401m AHD to the south.
 - Peters has a varied elevation across the site with elevations of approximately 400m AHD on the eastern side and 389m on the western side.
9. The sites are located on agricultural land used for sheep and minor cattle grazing. Ground cover comprises of mostly improved pasture species with some patches of native vegetation and scattered trees.
10. A modelled wetland is located in the north of the Windy site.



11. There are six farm dams within the Windy site and three farm dams within the Peters site.
12. There is an old hut structure located near the centre of the Windy site.
13. The southern boundary of the Peters site abuts the existing Elaine Terminal Station.
14. The relevant parcels of land for the application are:
 - Windy site: Crown Allotment 17 on Title Plan 609966X (Volume 7076 Folio 091).
 - Peters site: Crown Allotments 19B, 21E, 21F, 21G, 50 on Title Plan 488617T (Volume 8389 Folio 061).
 - Overhead 33kv powerline: Woolshed Road Reserve, Midland Highway Road Reserve, Horsehill Road Reserve.
15. There are no easements or restrictions that encumber the Windy site.
16. Crown Allotment 50 of the Peters site is encumbered by the following easements:
 - Easement E-1 in favour of S.E.C of VIC.
 - Easement E-1 and E-2 are marked for the transmission of electricity and has been acquired by Vide Notification L142683C to the S.E.C of VIC.
17. The easements contain a 220kV electricity transmission line. There are no works proposed over the easements.

Site Surrounds

18. The subject site is located approximately 20km east of Ballarat in Victoria. The majority of the subject site and the surrounding land is located in the Farming Zone (FZ), except for where the proposed powerline crosses the Midland Highway which is located with the Transport Zone Schedule 2 (TPZ2). Refer to Figure 3.
19. The surrounding land to the north is mostly used for farming and agriculture and includes including scattered dwellings.
20. The surrounding land to the southwest is the Lal Lal Wind Farm and is used for renewable energy generation and grazing. The closest wind turbine to the site is approximately 95m from the boundary of the Windy site.
21. The Elaine Terminal Station is located adjacent to the southern boundary of the windy site.

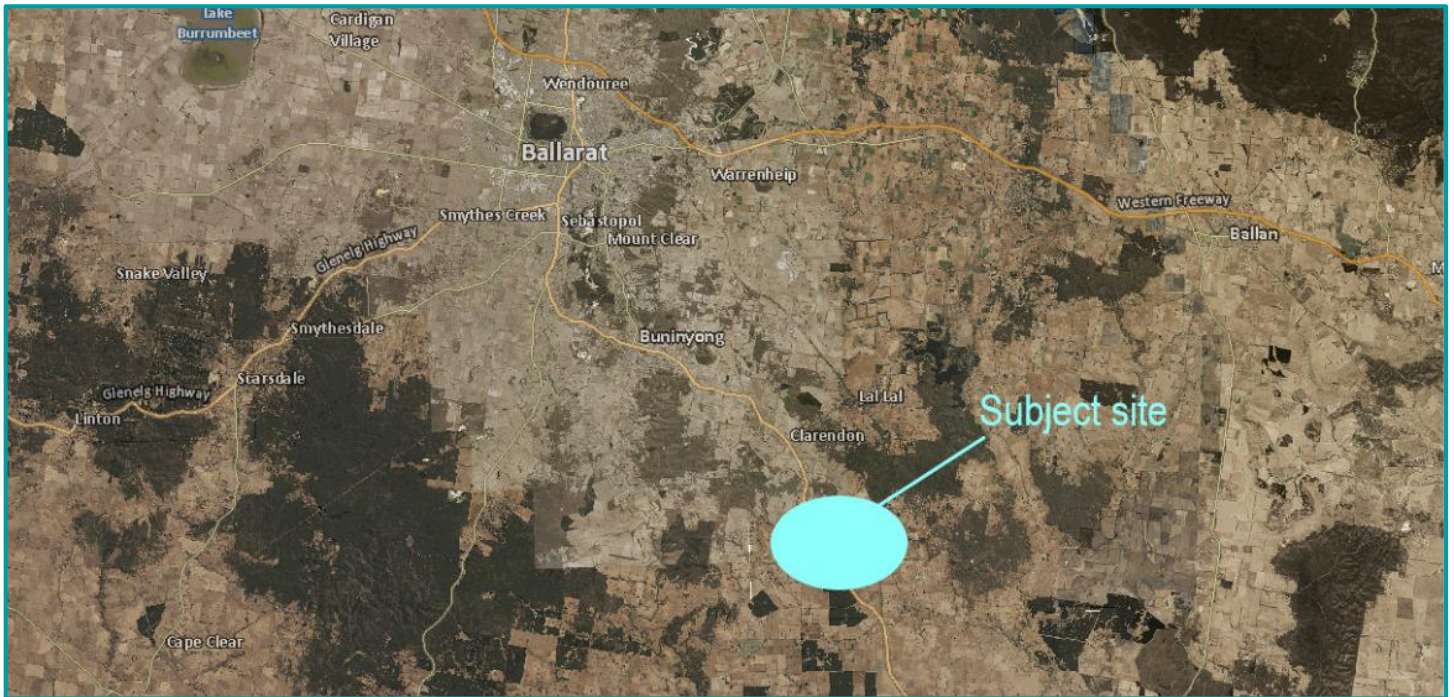


Figure 2: Subject site and surrounds

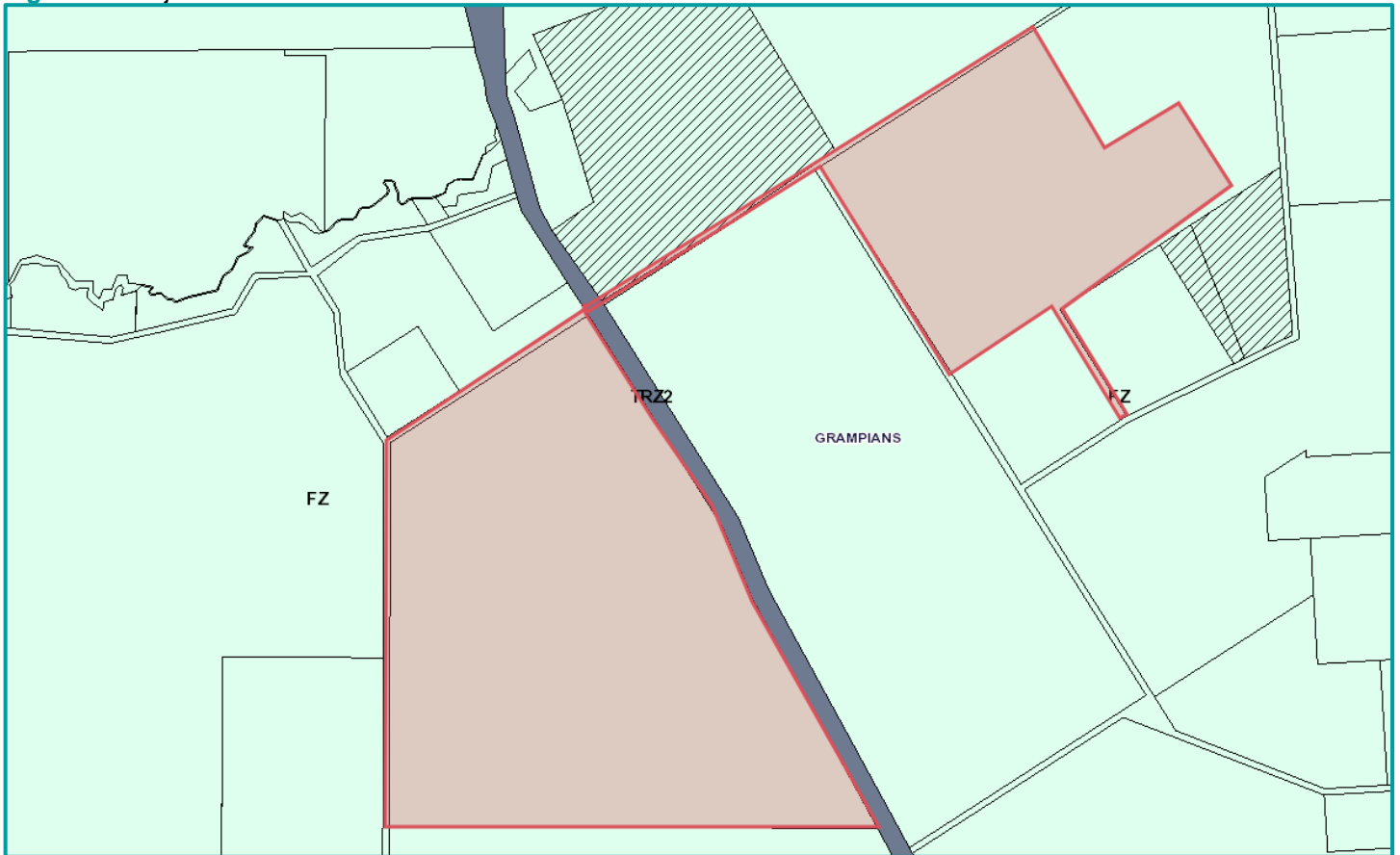


Figure 3: Zoning Map (subject site shown in red)



22. Planning application PA230251 seeks planning approval for the use and development of a solar energy facility and utility installation (battery and powerline), associated buildings and works, display of business identification signage, and removal of native vegetation.

23. The proposed solar energy facility features the following components:

- 150MW solar energy facility:
 - Installation of 256,866 ground mounted solar panels:
 - 60,636 on Peters
 - 196,230 on Windy
 - Single axis tracking technology
 - Max overall height of 3.2m
- 35 solar inverters/transformers
- 33/220kv switchyard and substation
- Battery Energy Storage System (BESS) on the Peters site:
 - Nominal capacity of 150MW/300MWh
 - Grouped in containerised modules on a pad of approximately 2.4ha
- Switch room on northern boundary of the Windy site
- 33kv powerline along Woolshed Road connecting the Wind and Peters sites
- 220kv overhead powerline connecting the substation to the Elaine Terminal Station
- Construction of internal access and perimeter roads
- 2.3m high chain mesh security fence and cameras
- 9 x 45,000L water tanks
- Business identification signs at each site measuring 2.4m x 1.2m
- Removal of 2.569ha of native vegetation including 6 large trees

24. An overview of the project elevations is shown in Figures 4 to 8.

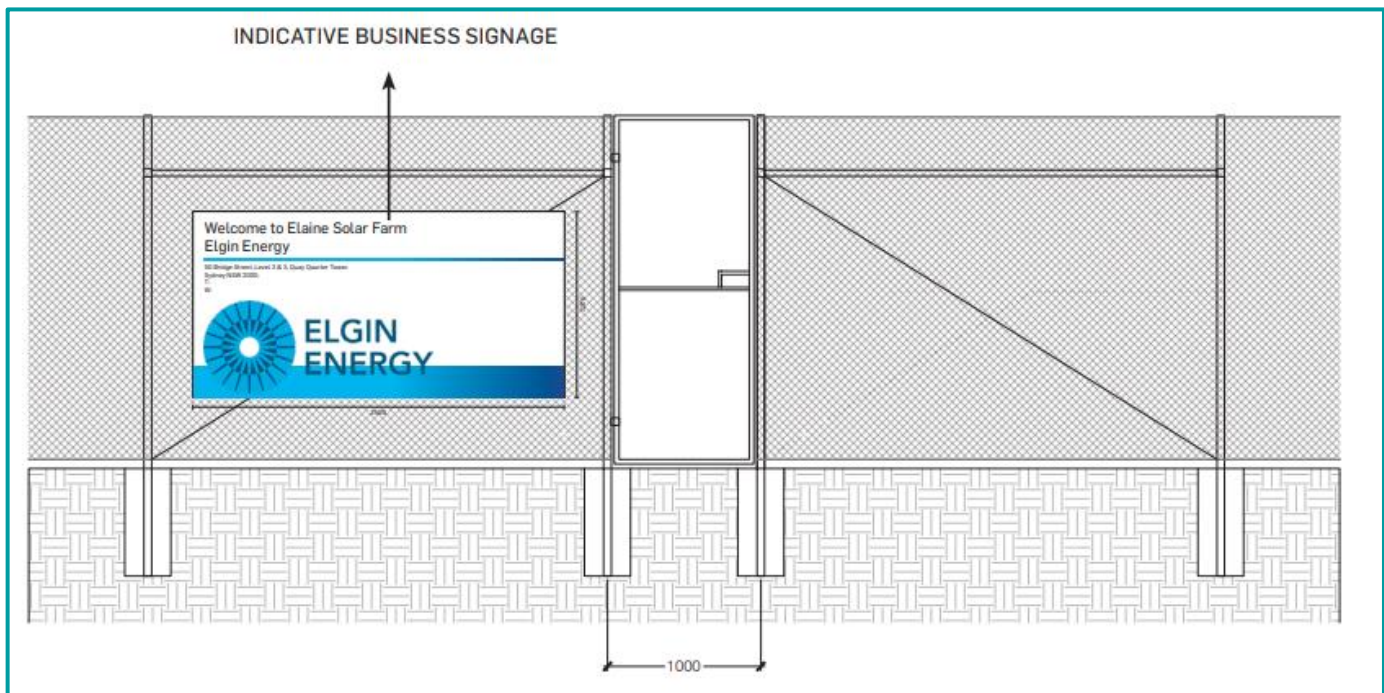
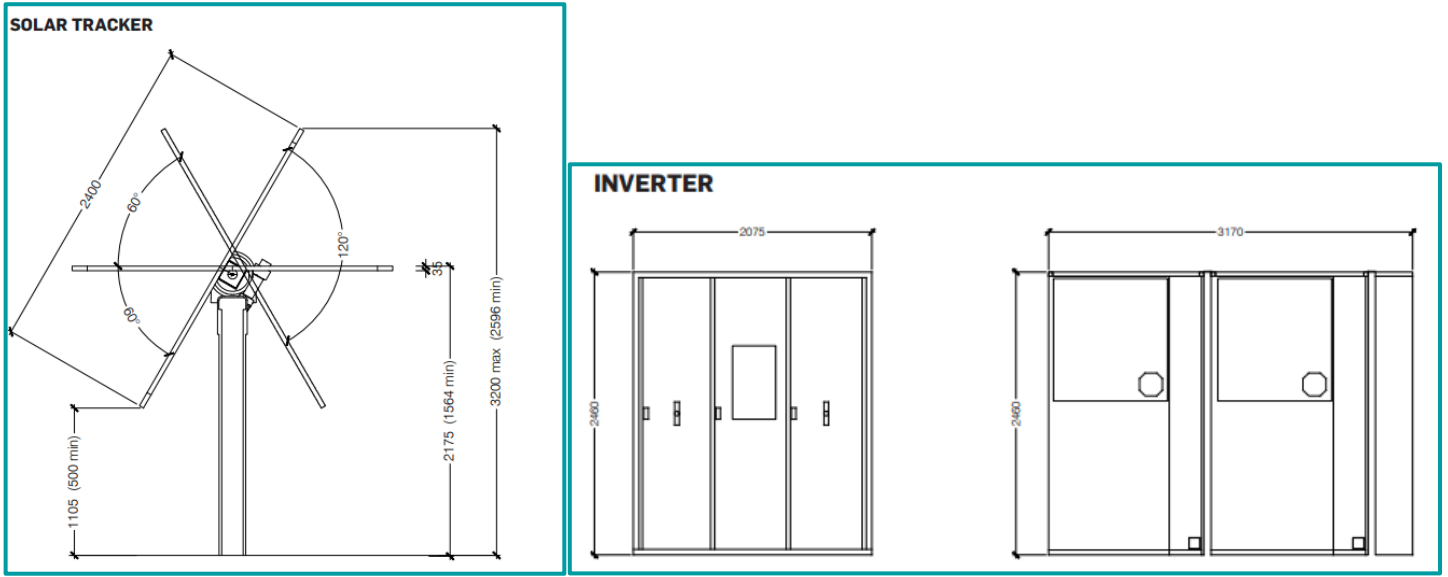


Figure 4: Proposed security fencing and business identification signage



Figures 5 and 6: Elevations of the proposed solar trackers and inverters

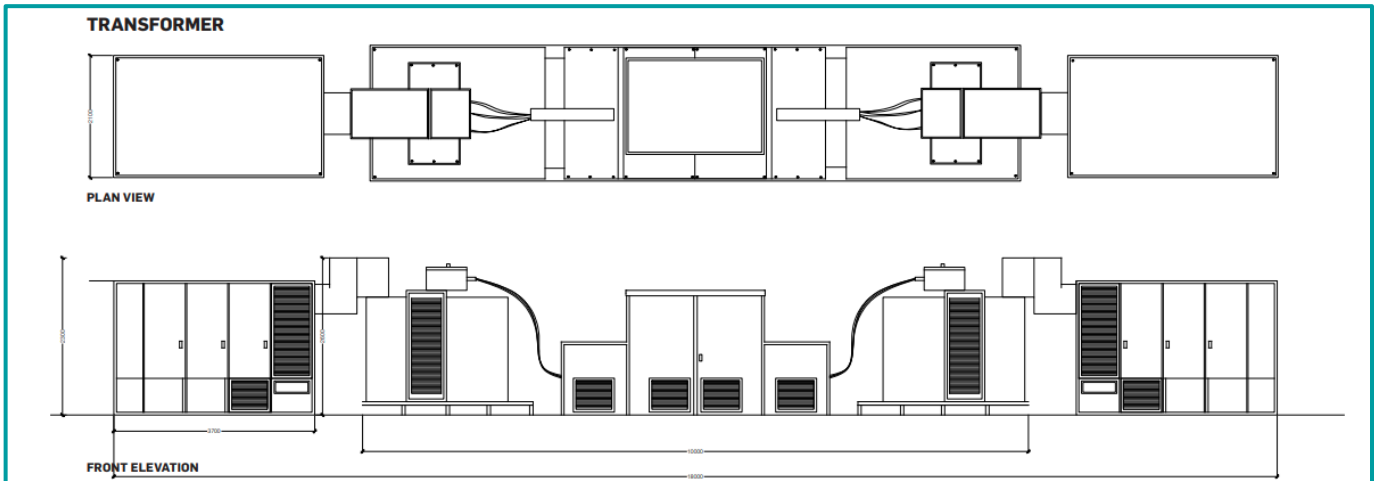


Figure 7: Plan and elevations of the proposed transformer

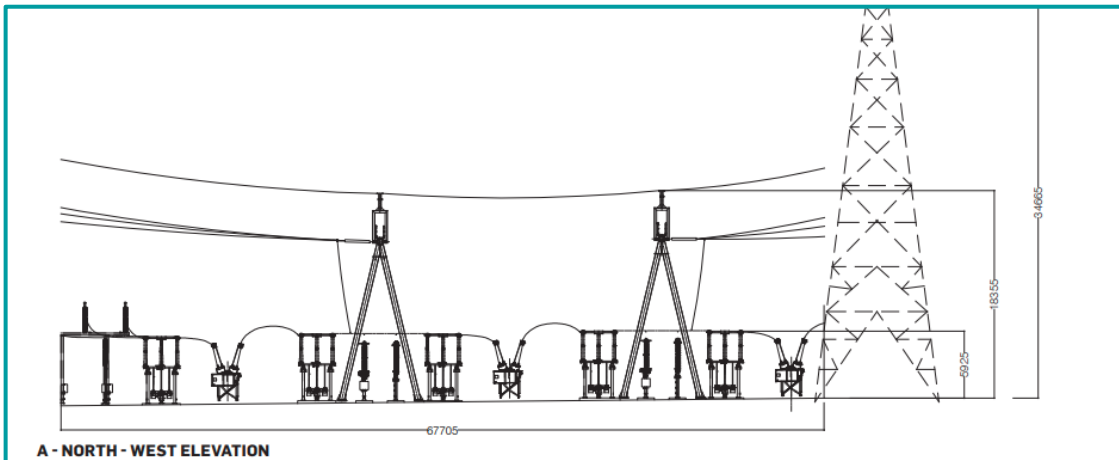


Figure 8: Elevation of the proposed substation and above ground transmission line



Planning Policy Framework

25. The Planning Policy Framework (PPF) provides the broad policy direction within the Victoria Planning Provisions. The planning principles set out under the PPF are to be used to guide decision making on planning proposals across the state. The following policies are considered relevant to this application:

- Clause 12 – Environmental and Landscape Values
 - Clause 12.01-1S – Protection of Biodiversity
 - Clause 12.01-1L - Biodiversity
 - Clause 12.01-2S – Native Vegetation Management
 - Clause 12.03-1S – River and Riparian Corridors, Waterways, Lakes, Wetlands and Billabongs
 - Clause 12.05-1S – Environmentally Sensitive Areas
 - Clause 12.05-2S – Landscapes
- Clause 13 – Environmental Risks and Amenity
 - Clause 13.01-1S - Natural Hazards and Climate Change
 - Clause 13.02-1S – Bushfire Planning
 - Clause 13.05-1S – Noise Management
 - Clause 13.07-1S – Land Use Compatibility
 - Clause 13.07-1L – Land Use Compatibility in Moorabool
- Clause 14 – Natural Resource Management
 - Clause 14.01-1S – Protection of Agricultural Land
 - Clause 14.01-2S – Sustainable Agricultural Land Use
 - Clause 14.02-1S – Catchment Planning and Management
- Clause 15 – Built Environment and Heritage
 - Clause 15.01-6S – Design for Rural Areas
- Clause 17 – Economic Development
 - Clause 17.01-1S – Diversified economy
 - Clause 17.01-1R – Diversified Economy – Central Highlands
- Clause 18 – Transport
 - Clause 18.01-1S – Land Use and Transport Integration
 - Clause 18.02-4S – Roads
- Clause 19 – Infrastructure
 - Clause 19.01-1S – Energy Supply
 - Clause 19.01-2S – Renewable Energy



Permit Triggers

26. A planning permit is triggered by the following clauses of the Moorabool Planning Scheme:

Clause	Permit Trigger
Clause 35.07-1 (FZ)	Use of the land for the purpose of a Renewable energy facility (other than a Wind energy facility). Use of land for the purpose of a utility installation (other than Minor utility installation and Telecommunications facility).
Clause 35.07-4 (FZ)	Construct a building or construct or carry out works associated with Section 2 use. Earthworks which change the rate of flow or the discharge point of water across a property boundary. Construction of a building setback less than 100m from a Transport Zone 2.
Clause 36.04-1 (TRZ2)	Use of land for a utility installation (as the use is not being carried out on behalf of the relevant transport manager).
Clause 36.04-2 (TRZ2)	Construct a building or construct or carry out works associated with Section 2 use of Clause 36.04-2.
Clause 43.02-3 (DDO2)	Construct a building or construct or carry out works.
Clause 52.05-14 (Signs)	Display of a business identification sign less than 3m ² .
Clause 52.17-1 (Native Vegetation)	Remove, destroy or lop native vegetation including dead vegetation.

Other Relevant Controls

Clause 52.06 – Car Parking

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

Clause 53.13 – Renewable Energy Facility (other than Wind Energy Facility)


28. Pursuant to Clause 53.13-1, an application under any provision of the planning scheme to use or develop land for a renewable energy facility (other than a wind energy facility), must meet the requirements, as appropriate, contained in Clause 53.13-2.

Other Planning and Environmental Approvals

29. It is the proponent's responsibility to ensure all relevant approvals outside of the *Planning and Environment Act 1987* are in place. However, comment is made on the following relevant legislation:

Environment Protection Act 2017 (EP Act)

30. The EP Act is a legislative framework for protecting the environment in Victoria from pollution and waste. At the centre of the EP Act is the 'general environmental duty', which requires any person in Victoria engaging in an



activity that may risk harming human health and the environment from pollution and waste to minimise those risks, so far as reasonably practicable.

31. The applicant has advised that the proposed facility does not require a Works Approval or Licence under the EP Act.
32. Additionally, preventative measures to reduce risks as far as reasonably practicable will be included within the Construction Environment Management Plan (CEMP) to be prepared for the project. This will include a detailed risk assessment of likelihood and consequence for all activities on site. A condition to this effect has been included within the recommendation.

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

33. 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 Environment Minister.
34. The submitted Biodiversity Assessment prepared by Ecology and Heritage Partners, dated January 2024 determined that no EPBC referral is required as the proposed action is highly unlikely to have a significant impact on any matters of National Environment Significance (MNES).

Environment Effects Act 1978 (EE Act)

35. The *Ministerial Guidelines for Assessment of Environmental Effects under the Environment 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.
36. The submitted Planning Report prepared by Urbis, dated 17 November 2023 has outlined that the project does not trigger a referral under the EE Act. Thus, the proponent has not referred the project.

Flora and Fauna Guarantee Act 1988 (FFG Act)

37. Under the FFG Act, a permit is required to take, kill, injure, disturb or collect threatened species or protected flora species from public land.
38. The Biodiversity Assessment prepared by Ecology and Heritage Partners, dated January identifies that impacts to FFG species located on public land (Yarra Gum and Sifton Bush) are avoided by the proposal. As such a permit under the FFG Act is not required for the project.

Aboriginal Heritage Act 2006 (AH Act)

39. 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.
40. As the subject site is not located within an area of cultural heritage sensitivity, a mandatory Cultural Heritage Management Plan (CHMP) is not required.



41. The application was referred to the following groups:

Referral/ Notice	Provision/ Clause	Organisation	Response Received (date)
<i>Section 55 Referral -Recommending</i>	Clause 66.02-2 - To remove, destroy or lop native vegetation in the Detailed Assessment Pathway as defined in the Guidelines for the removal, destruction or lopping of native vegetation.	Secretary to the Department of Energy, Environment and Climate Action (DEECA)	10 November 2023 (RFI) 21 February 2024 (final referral response)
<i>Section Referral-Determining</i>	55 Clause 66.02-4 – 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 relevant electricity transmission authority (AusNet)	No response as of 15 March 2024
<i>Section Referral-Determining</i>	55 Clause 66.02-7 – To use land for an industry, utility installation or warehouse where a fire protection quantity is exceeded under the Dangerous Goods (Storage and Handling) Regulations 2012.	The Victorian WorkCover Authority (WorkSafe)	22 October 2023

Secretary to the Department of Energy, Environment and Climate Action

42. Pursuant to Clause 66.02-2 (Native Vegetation) of the Moorabool Planning Scheme, any application “To remove, destroy or lop native vegetation in the Detailed Assessment Pathway as defined in the Guidelines for the removal, destruction or lopping of native vegetation (DELWP, 2017)” must be referred to the Secretary to the DEECA.
43. The proposed 2.569ha of native vegetation removal triggers the Detailed Assessment Pathway as defined in the Guidelines (DELWP, 2017). The 2.596ha is comprised of 9 patches and six large trees.
44. DEECA was referred the application on 11 October 2023 and requested further information on 21 November 2023 as the application did not adequately address the information requirements of Clause 52.17 (Native Vegetation).
45. On 25 January 2024 the applicant provided updated material addressing DEECA’s further information request. This included additional photographs of the vegetation proposed to be removed and an updated avoid and minimise statement.
46. DEECA provided conditional support for the application on 21 February 2024 noting that the applicant has taken adequate steps to avoid and minimise the proposed native vegetation removal, and that the required offsets can be secured. The conditions relate to:
- Protection of retained native vegetation, including tree protection fencing.
 - Securing native vegetation offsets.

These conditions have been included in the recommendation.



The Victorian Workcover Authority (WorkSafe)

47. Pursuant to Clause 66.02-7 (Industry, Utility Installation or Warehouse) of the Moorabool Planning Scheme, an application to use land for an industry, utility installation or warehouse where a fire protection quantity is exceeded under the Dangerous Goods (Storage and Handling) Regulations 2012 must be referred to the Victorian WorkCover Authority (WorkSafe).
48. WorkSafe was referred the application on 11 October 2023.
49. On 22 October 2023, WorkSafe advised that they do not object to the granting of a permit.

Notice

50. In accordance with Section 52(1) of the *Planning and Environment Act 1987* (P&E Act), notice of the application was given for a period of 28 days by letter and/or email to:
 - Section 52(1)(a) of the P&E Act:
 - Owners and occupiers of adjoining land
 - Section 52(1)(b) of the P&E Act:
 - Moorabool Council
 - Section 52(1)(d) of the P&E Act:
 - Beon/Australian Energy Operations (owner/operator of Elaine Terminal Station)
 - Country Fire Authority (CFA)
 - Emergency Management Victoria (EMV)
 - Energy Safe Victoria (ESV)
 - Head, Transport for Victoria (Head, TfV)
 - Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC)
 - Owners and occupiers of land with 1km of the subject site

Notice was also given in a local newspaper (Moorabool News).

Objections and Submissions

51. The application received a total of 7 submissions including 4 objections. The submissions and objections are summarised in the table below:

Objection/ Submission	Name/Organisation	Concerns/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	Head, Transport for Victoria	No objection, subject to conditions relating to: <ul style="list-style-type: none">• Disused/redundant vehicle crossings to be removed• Horsehill Road, Woolshed Road and Murphys Road upgraded to all-weather access• Provision of a Transport Management Plan• Construction management provisions• Provision of a Dilapidation Report with 6 months of the commencement of the use• Provision of a Glint and Reflectivity Report assessing the impact of the solar farm on train driver visibility• Provision of a Stormwater Management Plan



		<ul style="list-style-type: none"> • Minimum clearance of the transmission line to Midland Highway • Various other conditions related to the safe operation of the state transport system <p>These conditions have been included in the recommendation, subject to minor alterations for permit holder/reader clarity.</p>
Submission	Australian Energy Operations	<p>Clarified that Australian Energy Operations (a related party to Beon) are the operator of the existing terminal station.</p> <p>Stated that they are aware of the project, have no concerns and are working through the technical details with the proponent.</p>
Objection	[REDACTED]	<p>Objection, key concerns relate to:</p> <ul style="list-style-type: none"> • Reduction to property values • Visual impact, and associated impacts on mental health • Loss of rural and serene lifestyle
Objection	[REDACTED]	<p>Objection, key concern related to:</p> <ul style="list-style-type: none"> • Flooding impacts to existing gravel quarry adjoining the 'Peters' site
Objection	[REDACTED]	<p>Objection, key concerns relate to:</p> <ul style="list-style-type: none"> • Fauna and fauna impacts • Water, flooding and biodiversity impacts as a result of run-off from Windy site into Williamsons Creek • Visual impacts, including a request for a 5m vegetation buffer on the 'Windy' site, as recommended in the Landscape and Visual Impact Assessment submitted with the application • Reduction in property value
Objection	[REDACTED]	<p>Objection, key concerns relate to:</p> <ul style="list-style-type: none"> • Fauna and fauna impacts • Water, flooding and biodiversity impacts as a result of run-off from Windy site into Williamsons Creek • Visual impacts, including a request for a 5m vegetation buffer on the 'Windy' site, as recommended in the Landscape and Visual Impact Assessment submitted with the application • Reduction in property value

DTP Officer Response to Objections

52. An officer assessment relating to matters of visual impact, ecology, vegetation and biodiversity impacts is detailed in the assessment section of this report. All other matters raised in the objections are considered below:

Property Values

52. Consideration of property values is not included within the decision guidelines of the Scheme and as such, cannot be considered in the assessment and determination of the project.

53. Overall, DTP submits that the matters raised in the objections and submissions which are relevant to the planning assessment are suitably addressed by the application, subject to the recommended conditions.

54. It is noted that the permit applicant has been consulting with the objectors outside of the permit application process to negotiate off-site planting outcomes to further minimise the visual impact of the proposed solar farm.



Key Policy Issues

Planning Policies

55. The planning scheme contains policies and controls that guide the assessment of solar energy facilities. These are found in the state and local planning policies, the relevant zone and overlays, and other relevant provisions. The assessment below addresses the relevant sections of the planning scheme while having regard to the matters which must be considered in accordance with section 60 of the Act.
56. The key issues for assessment are:
- Policy context
 - Amenity impacts in terms of noise, light spill, glint and glare, and visual impact
 - Landscape character and visual amenity
 - Traffic and transport
 - Native vegetation impacts
 - Impact on agricultural land
 - Signs

Policy Context

57. 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

58. Clause 02.02 outlines the Moorabool Shire Council's vision is to "...embrace our natural environment and lifestyle options to create an inspiring place for everyone to live, work and play". The Council Plan seeks to achieve this vision by addressing key themes relating to governance and leadership, minimising environmental impact, stimulating economic development, and improving social outcomes.
59. Clause 02.03 outlines the strategic directions of the Council. Of most relevance to this application is:
- Clause 02.03-1 (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

60. Clause 12 (Environmental and Landscape Values) focuses on the protection of ecological systems, native vegetation, biodiversity, and identified environments or landscapes. The application supports the objectives of Clause 12 by:
- Where possible, infrastructure has been sited to avoid impacts to native vegetation. This includes the retention of high-quality Plains Grassland in the Midland Highway road reserve and avoidance of impacts to farm dams that contain aquatic and semi-aquatic vegetation, as per the strategies of Clause 12.01-1S and Clause 12.01-1L.
 - Undertaking the avoid, minimise, offset assessment for the project in accordance with the strategies identified at Clause 12.01-2S. The application is supported by an avoid and minimise statement. A condition of the recommendation will require offsets to be secured for the native vegetation that is proposed to be removed.
61. Clause 13 (Environmental Risks and Amenity) seeks to:
- Strengthen the resilience and safety of communities by adopting a best practice environmental management and risk management approach.



- Identify, prevent and minimise the risk of harm to the environment, human health, and amenity.
- Identify and manage the potential for the environment and environmental changes to impact on the economic, environmental or social wellbeing of society.
- Prepare for and respond to the impacts of climate change (emphasis added).

62. The proposed solar farm appropriately responds to environmental risks and protects amenities. The site has been developed in accordance with the CFA's Guidelines and Model Requirements for Renewable Energy Facilities (CFA 2023 (the CFA Guidelines) to appropriately respond to bushfire risks (Clause 13.02-1S). Noise requirements in accordance with the EPA Noise Protocol can be met with appropriate mitigation in place (Clause 13.05-1S).

63. Clause 14 (Natural Resource Management) seeks to "assist in the conservation and wise use of natural resources including energy, water, land, stone and minerals to support both environmental quality and sustainable development" and "ensure agricultural land is managed sustainably, while acknowledging the economic importance of agricultural production".

64. The subject site is located on agricultural land that is currently used for sheep and minor cattle grazing. The Agricultural Assessment submitted with the application outlines that the proposed solar farm will have some impacts on the future agricultural viability of the land being:

- Future cropping of oats would no longer be practical.
- Slight reduction to the carrying capacity of existing grazing.

However, the Agricultural Assessment concludes that there will be no detrimental impacts of the proposed solar farm on surrounding farms or on the agricultural amenity of the region. As such, it is considered that the objectives and strategies of Clause 14 are appropriately met. Additionally, 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.

65. Clause 15 (Built Environment and Heritage) states that the role of planning is to "recognise the role of urban design, building design, heritage and energy and resource efficiency in delivering liveable and sustainable cities, towns and neighbourhoods." The proposed facility supports this statement by providing essential energy resources to support Victoria's net zero emissions target by 2050.

66. Clause 17 (Economic Development) seeks to provide for a strong and innovative economy, where all sectors are critical to economic prosperity. The proposal solar energy facility meets the objectives of Clause 17 by creating jobs during the construction and operation of the facility.

67. The relevant objectives and strategies of Clause 19 (Infrastructure) seek to:

- *To facilitate appropriate development of energy supply infrastructure.*
- *Support the development of energy generation, storage, transmission, and distribution infrastructure to transition to a low-carbon economy.*
- *Consider the economic, social and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.*
- *Facilitate renewable energy development in appropriate locations.*

68. The proposed solar energy facility will provide benefits to the broader community and is estimated to generate approximately 150MW of solar energy, enough to power approximately 48,000 Victorian homes with renewable electricity the equivalent of reducing 220,000 metric tonnes of carbon emissions per annum. The proposed BESS will assist the delivery of power during peak times to the network to meet community demand for energy needs.

69. Therefore, the proposal is consistent with state, regional and local planning policies that contributes to Victoria's transition to a low carbon economy through the development of renewable energy facilities.

Farming Zone



70. Clause 35.07 (Farming Zone) 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.
71. 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 facility is situated adjacent to the existing Elaine Terminal Station allowing a direct connection into the existing electricity network. This minimises impacts on existing agricultural uses and makes use of existing infrastructure.
 - The proposal has considered agricultural land use in the surrounding area, within the site and in the future. It will not impede agricultural production to surrounding farmers as a solar energy facility is a relatively low-impact use. The Agricultural Assessment submitted with the application demonstrates that the proposed solar farm will have limited impacts on the future agricultural viability of the land being a slight reduction to the existing carrying capacity of grazing and the future cropping of oats would no longer be practical.
 - 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 built form solar farm, BESS and ancillary infrastructure are appropriate for the site. The built form will be sufficiently setback from adjoining properties and will be mostly screened from view by the proposed vegetation screening.
 - As stated in the application's Traffic and Transport Assessment, during the operation, the facility is expected to be operated by up to 3 staff and would generate minimal traffic.

Transport Zone (TRZ2)

72. The application proposes a 33kV powerline connecting the 'Windy' site to the 'Peters' site. The proposed powerline crosses the Midland Highway road reserve which is located in a TRZ2.
73. The purpose of the TRZ2 is to:
- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
 - *To provide for an integrated and sustainable transport system.*
 - *To identify transport land use and land required for transport services and facilities.*
 - *To provide for the use and development of land that complements, or is consistent with, the transport system or public land reservation.*
 - *To ensure the efficient and safe use of transport infrastructure and land comprising the transport system.*
74. As the proposed powerline is not being constructed 'by or on behalf of the relevant transport manager', the use of the land as a utility is a section 2 use in the TRZ2. A permit is therefore triggered by:
- Clause 36.04-1 - Use of land for utility.
 - Clause 36.04-2 - Construct a building or construct or carry out works for a Section 2 use.
75. The proposed powerline meets the purpose and decision guidelines of the TRZ2. The works will not impact the operations and safety of the transport system.
76. Head, Transport for Victoria provided written consent for the application to be made on 29 November 2023. Notice under s52 of the Act was given to Head, Transport for Victoria who did not object to the application subject to the conditions already described in the above section of the report.

Design and Development Overlay (DDO2)

77. The site is located within the DDO2 (Visual Amenity and Building Design). A permit is triggered for buildings and works in the DDO2.
78. The objectives of the DDO2 are:

- To enhance visual amenity in rural, township and vegetated areas of the Moorabool Shire.
- To encourage the use of external cladding, such as non-reflective materials for building construction.
- To discourage the use of materials, such as reflective cladding for building construction, which could have a detrimental effect on amenity.

79. The site is located within the DDO2 (Visual Amenity and Building Design). A permit is triggered for buildings and works in the DDO2.

80. The design objectives of the DDO2 are:

- To enhance visual amenity in rural, township and vegetated areas of the Moorabool Shire.
- To encourage the use of external cladding, such as non-reflective materials for building construction.
- To discourage the use of materials, such as reflective cladding for building construction, which could have a detrimental effect on amenity.

81. Subject to conditions, the application will meet the design objectives of the DDO2:

- The proposed panels, fencing, control rooms, transformers, inverters, water tanks and associated structures have been designed to be generally low in height and scale, with the tallest structure (other than the transmission line) being the switch room at 5m in height.
- Landscaping is proposed around the perimeter of the facility to minimise its appearance in the landscape.
- Conditions have been included in the recommendation requiring the materials of the structures to be non-reflective.
- A condition has been included in the recommendation requiring the resting angles of the panels to be configured between 5 and 60 degrees from horizontal (refer to glint and glare discussion below).

Clause 52.05 (Signs)

82. The application seeks approval for two business identification signs (1.2m x 2.4m), located at the main entry gates at both the 'Windy' and 'Peters' sites (see Figure 9) below.

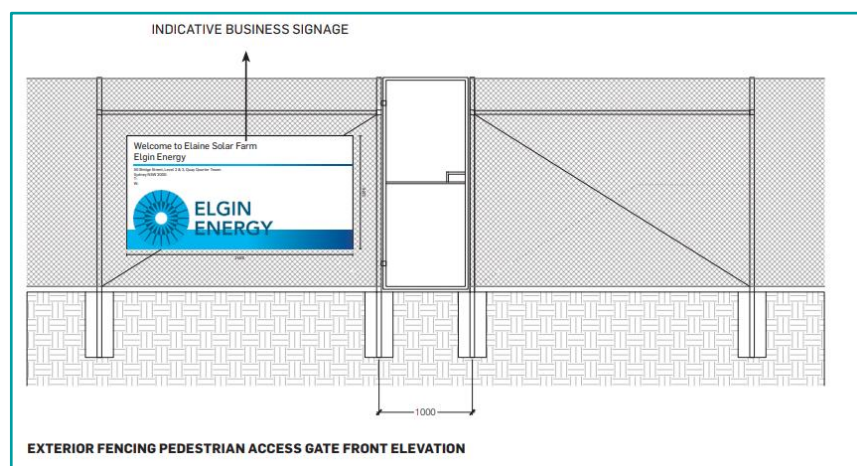


Figure 9: Proposed business identification signs

83. Pursuant to Clause 52.05-14, a permit is required to construct a business identification sign in a Category 4 (Sensitive areas) location.

84. The purpose of Clause 52.05 (Signs) is:

- To regulate the development of land for signs and associated structures.
- To ensure signs are compatible with the amenity and visual appearance of an area, including the existing or desired future character.
- To ensure signs do not contribute to excessive visual clutter or visual disorder.



- *To ensure that signs do not cause loss of amenity or adversely affect the natural or built environment or the safety, appearance or efficiency of a road.*
85. Each of the proposed signs is less than 3m² in display area and thus meet the condition in the table to Section 2 – Permit required.
86. The scale of the signs is considered acceptable in proportion to the size of the facility and the character of the surrounding landscape. The colour and appearance of the signs are unobtrusive, and the signs are not located in a position where they will impact on road safety. As such, the signs are considered to meet the objectives and decision guidelines of Clause 52.05.

Clause 52.17 (Native Vegetation)

87. The application seeks approval for the removal of 2.569ha of native vegetation, comprised of:
- 1.156 hectares of impact to a modelled current wetland (noting that no native vegetation observed by the applicant's ecologist during their site assessment)
 - 1.01 hectares of Plains Grassy Woodland
 - Six large trees
88. Pursuant to Clause 52.17-1 of the Moorabool Planning Scheme, a permit is required to remove, destroy or lop native vegetation.
89. The purpose of Clause 52.17 is:

To ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. This is achieved by applying the following three step approach in accordance with the Guidelines for the removal, destruction or lopping of native vegetation (Department of Environment, Land, Water and Planning, 2017) (the Guidelines):

- 1. Avoid the removal, destruction or lopping of native vegetation.*
- 2. Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.*
- 3. Provide an offset to compensate for the biodiversity impact if a permit is granted to remove, destroy or lop native vegetation.*

90. As the site is located with Location 2, and the application proposes the removal of 2.569ha of native vegetation, the application falls under the Detailed Assessment Pathway of the Guidelines.
91. The Biodiversity Assessment dated January 2024 contains the avoid and minimise statement for the project. The design and development of the facility has suitably avoided and minimised impacts to native vegetation by:
- Avoiding impacts to the high-quality Plains Grassland along the Midland Highway road reserve
 - Avoiding impacts to aquatic and semi-aquatic vegetation in farm dams
 - Situating the panels in areas without native vegetation present, where possible
 - Relocating internal access roads and site access points to reduce impacts to native vegetation
 - Micro-siting the locations of power poles to minimise impacts to native vegetation in road reserves
92. The application was referred to DEECA who did not object to the application subject to conditions which have been included in the recommendation, requiring:
- Protection of retained native vegetation, including tree protection fencing
 - Securing native vegetation offsets prior to the removal

Amenity Impacts

Noise

93. The proposed solar energy facility is not expected to result in any unreasonable noise impacts.



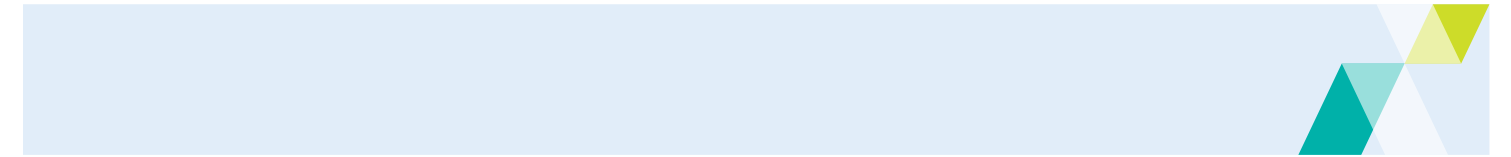
94. The application is supported by a Noise Impact Assessment prepared by WSP and dated October 2023. The noise impact assessment has been prepared in line with EPA Publication 1826.4: *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues*.

95. The noise assessment identified 25 noise sensitive areas (NSAs) in the vicinity of the site, as shown in the table below:

NSA ID	ADDRESS	NOISE LIMIT, dBA, L _{EQ(30 MIN)}			PREDICTED NOISE LEVEL ¹ , dBA
		DAY	EVENING	NIGHT	ALL PERIODS
1	11 Betsons Rd	49	40	34	28
2	16 Mt Doran-Egerton Rd				31 ²
3	33 Betsons Rd				27
4	51 Betsons Rd				31 ²
5	67 Pearsons Rd				30 ²
6	68 Horsehill Rd				34
7	78 Settlement Rd				< 25 ²
8	87 Fords Ln				31 ²
9	89 Jordans Ln				< 25 ²
10	100 Horsehill Rd				32 ²
11	108 Courts Rd				31 ²
12	146 Courts Rd				32 ²
13	154 Murphys Rd				31 ²
14	205 Kingfisher Dr				25 ²
15	430 Settlement Rd				31 ²
16	440 Horsehill North Rd				< 25 ²
17	544 Settlement Rd				31 ²
18	620 Mt Doran Rd				< 25 ²
19	5328 Midland Hwy				< 25 ²
20	5621 Midland Hwy				28 ²
21	5876 Midland Hwy				34
22	5930 Midland Hwy				31 ²
23	6240 Midland Hwy				< 25 ²
24	Elaine-Blue Bridge Rd				31 ²
25	Unnamed Road, West of Midland Hwy				31 ²

Table 1: Predicted Operational Noise Levels and Assessment - Unmitigated levels (Source: Application documents)

96. The predictive noise assessment found that noise from the proposed solar farm is expected to meet the EPA Publication 1826 noise limits to all sensitive receivers without further mitigation, as shown in Table 1 above.

- 
97. Despite this, noise mitigation options were also investigated for contingency purposes. The predictive noise modelling results indicated that noise from the solar farm could be further reduced by up to 2 dBA at sensitive receivers through either the relocation of northern solar inverters or the construction of 3.5m barriers around the inverters.
98. Given that the facility is anticipated to meet the noise criteria without mitigation, it is recommended that no post-construction noise testing is required following operation of the facility.
99. It is noted that operational noise impacts will continue to be regulated by the EPA in accordance with EPA Publication 1826. As such, a note has been included on the recommendation explaining that the facility should comply with EPA Publication 1826.

Glint and Glare

100. The *Solar Energy Facilities Design and Development Guidelines* (DELWP 2022) and the decision guidelines of Clause 53.13 (Renewable Energy Facility other than a Wind Energy Facility) require the assessment of potential glint and glare impacts to dwellings and roads within 1km of a proposed facility and any aviation infrastructure near a facility, including air traffic control towers or runway approaches.
101. The application is supported by a Glint and Glare assessment prepared by Urbis, which has assessed the glint and glare impacts of the project on:
- Dwellings and roads within 1km of the site
 - Lethbridge Airport (located approximately 21km away)
102. The assessment demonstrates that there are no glint and glare impacts expected for the facility when the resting angle of the panels is configured between 5-60 degrees from horizontal. This range falls within the typical resting angle range for solar farms of around 45-60 degrees.
103. As such, a condition has been included in the recommendation requiring the panels to be configured within the recommended resting angle ranges.
104. When the panels are configured within the recommended ranges, no additional mitigation is required. Nonetheless, vegetation screening is proposed around the perimeter of the facility and is expected to further reduce potential glint and glare impacts.
105. Head, Transport for Victoria reviewed the application and recommended conditions be included on the permit to ensure glint and glare impacts to the Ballarat-Geelong freight railway line are appropriately managed. These conditions require:
- A Glint and Reflectivity Report (Signal Sighting Impact Report) assessing the impact of the development on train driver visibility of rail signals to be submitted to and approved by the authorised rail operator.
 - Establishment and maintenance of landscape screening.
- These conditions have been included in the recommendation.

Light spill

105. 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 the Australian Standard.

Electromagnetic interference

106. It is considered that no unreasonable electromagnetic interference impacts will occur. The plans demonstrate that the proposed powerline and substation are well setback from dwellings. The closest dwelling to the powerline (5876 Midland Highway) is located approximately 90m from the powerline, well in excess of the 50m separation recommended in the *Solar Energy Facilities Design and Development Guidelines*.



Landscape Character and Visual Amenity

107. The application is supported by a Landscape and Visual Impact and Visual Assessment Report (LVIA) and a Landscape Strategy.
108. The LVIA demonstrates that while the facility proposes a significant change to the existing landscape character when viewed from the air, the topography of the land, existing vegetation and the facility's low profile will ensure that only localized changes to the landscape character will occur.
109. The most visible changes to the landscape will be experienced from:
- 68 Horsehill Road (see Figure 10), due to its elevated topography
 - Select views from the Midland Highway, due to gaps in the existing tree line of the road reserve
110. With the adoption of vegetation screening along the perimeter of the facility, the project is assessed as having a low visual impact.
111. It noted that the permit applicant is negotiating additional off-site vegetation screening with the objector at 68 Horsehill Road to further mitigate the visual impacts of the facility, outside of the planning application process.
112. Overall, 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.



Figure 10: Render of anticipated view of the facility from 68 Horsehill Rd (Source: Advertised Plans)

Traffic and Transport

113. The PPF, the FZ, the TRZ2 and Clause 52.06 (Car Parking) require the consideration of access, traffic and car parking relating to the proposed use and development.
114. The application is supported by a Traffic and Transport Assessment which considers the impacts of the proposed facility on local roads, and traffic during construction and operation.



115. The Traffic and Transport Assessment estimates that up to 167 vehicle movements are expected during peak construction activities. To reduce the number of traffic movements along Midland Highway, it is proposed to transport all construction workers to and from the site via 15-seater buses.
116. During the operation of the facility, two vehicles movements are expected each day for routine maintenance operations. Adequate space for the parking of vehicles during the operation of the facility is available in the 5m wide internal access roads on site, and in the laydown areas. As such, car parking provision is considered satisfactory.
117. Head, Transport for Victoria reviewed the application documents and did not object to the facility, subject to conditions relating to:
- Disused/redundant vehicle crossings to be removed
 - Horsehill Road, Woolshed Road and Murphys Road upgraded to all-weather access
 - Provision of a Transport Management Plan
 - Construction management provisions
 - Provision of a Dilapidation Report with 6 months of the commencement of the use
 - Provision of a Glint and Reflectivity Report assessing the impact of the solar farm on train driver visibility
 - Provision of a Stormwater Management Plan
 - Minimum clearance of the transmission line to Midland Highway
 - Various other conditions related to the safe operation of the state transport system
118. The proposed vehicle access and traffic impacts from the facility are accepted, subject to the conditions listed above.

Impacts on Agricultural Land

119. The subject site is located on agricultural land that is currently used for sheep and minor cattle grazing.
120. The Agricultural Assessment submitted with the application outlines that the proposed solar farm will have some impacts on the future agricultural viability of the land being:
- Future cropping of oats would no longer be practical
 - Slight reduction to the carrying capacity of existing grazing
121. However, the Agricultural Assessment concludes that there will no detrimental impacts of 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 and therefore the objectives and strategies of Clause 14.01-1S (Protection of agricultural land) are appropriately met.
122. 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.

Conclusion

123. It is recommended that the delegate of the Minister for Planning:

- Issue a Notice of Decision to Grant Planning Permit PA2302521 for the *use and development of the land for a solar energy facility and utility installation, associated buildings and works, removal of native vegetation and display of business identification signage*, subject to conditions.
- Send a copy of the Notice of Decision to:
 - The applicant
 - Objectors x4
 - Submitters: CFA, Australian Energy Operations and Head, Transport for Victoria
 - Referral authorities: DEECA, AusNet, WorkSafe
 - Moorabool Shire Council

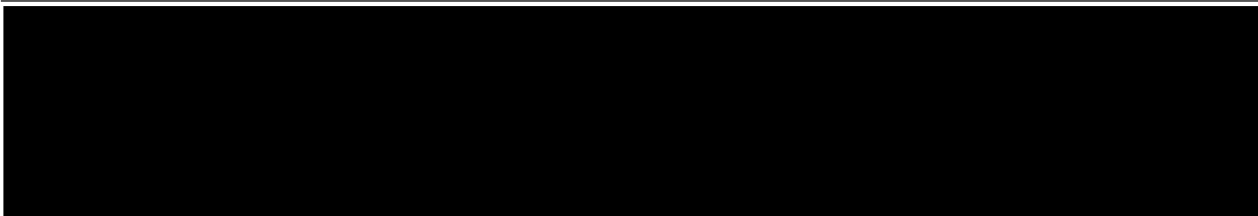
Prepared by: [REDACTED]

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

No Conflict

Conflict and have therefore undertaken the following actions:

- Completed the State Planning Services declaration of Conflict/Interest form.
- Attached the State Planning Services declaration of Conflict/Interest form on to the hardcopy file.
- Attached the State Planning Services declaration of Conflict/Interest form into the relevant electronic workspace.



Reviewed by: [REDACTED]

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Name: Kerry Greenfield

Signed: _____



Title:

[Redacted]

Phone:

Approved by:

[Redacted]

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Name:

[Redacted]

Title:

Phone:

[Redacted]

[Redacted]