

PLANNING PERMIT

Application No.: PA2101365-1

Planning Scheme: Wellington Planning Scheme

Responsible Authority: Minister for Planning

ADDRESS OF THE LAND:

Land

Land on Hopkins Road, Fulham, formally described as:

Volume	Folio	Description
10105	846	Lot 2 on Plan of Subdivision 323461L
09706	481	Lot 2 on Plan of Subdivision 204862W
09775	279	Crown Allotment 25 Section B Parish of Wurruk Wurruk

Roads

Hopkins Road reserve

Settlement Road reserve.

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THE PERMIT ALLOWS

Use and development of a Solar energy facility, Utility installations and associated buildings and works, the removal of native vegetation and display of business identification signage.

THE FOLLOWING CONDITIONS APPLY TO THIS PERMIT

DEVELOPMENT PLANS

1. Before development starts, including the removal of native vegetation, excluding stage 1 landscaping works, amended development plans must be submitted to, approved and endorsed by the responsible authority.

Once endorsed, the development plans will form part of this permit.

The development plans must be fully dimensioned and drawn to scale. The plans must be generally in accordance with the submitted *Fulham Solar Farm Development Plans – Drawing No. 31046* (prepared by Ricardo, dated 27 August 2021 and 11 November 2021) and the submitted *Fulham Solar Farm Proposed Power Line Alignment – Drawing No. 31046* (prepared by Ricardo, dated 4 November 2021) but modified to include:

- a. Detailed, fully dimensioned location / site layout, floor, elevation and other typical detail plans (including the specifications, model, dimensions and materials) of all proposed buildings, structures, fencing, and works, including:
 - i. Operations and maintenance facility, including car parking;
 - ii. Substation;

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- iii. Battery energy storage system (BESS);
 - iv. Noise attenuation measures prescribed by the endorsed Predictive Noise Assessment required by condition 19;
 - v. Security fencing;
 - vi. Electrical cabling within the facility which must be located underground;
 - vii. Internal access tracks, including indicative sections and information regarding material;
 - viii. Site access points, including emergency / secondary site access points;
 - ix. Laydown area(s);
 - x. Equipment/material storage area(s);
 - xi. Landscaping, in accordance with the endorsed Landscaping Plan required by condition 3;
- b. The colours and finishes of all buildings and works, which must be non-reflective, and matched where possible to colours present within the surrounding landscape to minimise visual impact.
 - c. Solar arrays must be specified as having anti-reflective glazing or coatings and non-reflective frames.
 - d. Glare screening, which must be designed in accordance with the revised Glint and Glare Assessment required by condition 11 c.
 - e. Minimum setbacks of all buildings and solar arrays from site boundaries dimensioned.
 - f. All development set back from the top bank of the designated waterway in the south-east corner of the site in accordance with condition 31, and this setback dimensioned.
 - g. Dimensioned plans and elevations of any overhead power lines and other grid connection works. These must show setbacks of all power line poles from the road carriageway.
 - h. The location and areas of all native vegetation on the site, including all native vegetation permitted to be removed under this permit in accordance with condition 30.
 - i. Roadworks, including road widening and upgrades to Hopkins Road.
 - j. Any landscaping in accordance with the Landscaping Plan required under condition 3.
 - k. Emergency management design features and facilities required by the Country Fire Authority (CFA) conditions 38-69 inclusive.
 - l. Any other design or development features that are required by any other endorsed plan forming part of this permit.

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WRITTEN CONSENT TO MODIFY ENDORSED PLANS

- 2. The use and development must be generally in accordance with the plans endorsed in accordance with this permit. The development plans endorsed under condition 1, and any other plan endorsed under a condition of this permit, must not be altered or modified without the written consent of the responsible authority.

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LANDSCAPING PLAN

3. Before development starts, a Landscaping Plan must be submitted to, approved and endorsed by the responsible authority.

Once endorsed, the Landscaping Plan will form part of this permit.

The Landscaping Plan must generally be in accordance with the planting arrangements illustrated in the submitted *Hopkins Road, Fulham Landscape Plan* (prepared by Davidson Design Studio, dated 27 September 2021) and include:

- a. Details (including type, location, species and height at maturity) of all vegetation buffers.
 - b. Location and heights of the proposed security fencing.
 - c. Schedule of timing of planting.
 - d. Maintenance and monitoring program, including weed management and the replacement of dead or diseased plants, as soon as practicable.
4. The endorsed Landscaping Plan must be implemented to the satisfaction of the responsible authority.
 5. Once the landscaping is carried out, it must be maintained in good health for the operational life of the facility, including the replacement of any dead or diseased plants to the satisfaction of the responsible authority.

6. Temporary stock-proof fencing must be provided around the landscaping if grazing is to occur during planting establishment, until the landscaping is sufficiently established to the satisfaction of the responsible authority.

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ENVIRONMENTAL MANAGEMENT PLAN

7. Before development starts, including the removal of native vegetation, excluding stage 1 landscaping works, an Environmental Management Plan (EMP) must be submitted to, approved and endorsed by the responsible authority in consultation with DELWP Gippsland Region.

Once endorsed, the EMP will form part of this permit.

The EMP must include:

- a. Measures to avoid and minimise amenity and environmental impacts during the operation of the Solar energy facility and Utility installations;
- b. Measures to mitigate any consequential impacts on native vegetation retained on and off the site, including tree protection zones;
- c. Design measures and/or procedures to manage dust, odour, light spill, mud, flood, surface water quality and stormwater run-off;
- d. Procedures for weed management and control prior to construction and post construction that do not risk causing offsite soil contamination;
- e. Vehicle and equipment hygiene measures to prevent the spread of weeds and pathogens to, from and within the site;
- f. Fuel load management measures that are to be implemented including but not limited to vegetation management and possible grazing opportunities;

- g. Any other measures to address the requirements of the CFA's Guidelines for Renewable Energy Installations listed at conditions 38-69 inclusive;
 - h. Measures to manage, monitor and review erosion and control sediment-laden runoff;
 - i. Response measures to environmental incidents;
 - j. A program for recording and reporting environmental incidents; and
 - k. The persons responsible for implementing the above measures, including procedures for staff training and communication.
8. The recommendations of the endorsed EMP must be implemented to the satisfaction of the responsible authority.

Construction Environment Management Plan

9. The EMP must include a Construction Environment Management Plan (CEMP), which must include:
- a. Measures to avoid and minimise amenity and environmental impacts during the construction of the Solar energy facility and Utility installations;
 - b. Procedures to manage construction noise and vibration in accordance with the requirements of *EPA Publication 1254.2: Noise control guidelines* and *EPA Publication 480: Environmental guidelines for major construction sites*;
 - c. Erosion and sediment control measures to ensure that no polluted and / or sediment laden run-off or other stormwater is discharged directly or indirectly onto adjoining land or into drains, water courses or wetlands;
 - d. Procedures to manage any dust emissions;
 - e. Vehicle and equipment hygiene measures to prevent the spread of weeds and pathogens to and from the site;
 - f. Locations of any construction waste storage and the method of storage and disposal;
 - g. The location of any temporary buildings or works (including storage and stockpiling) and procedures to remove these and reinstate the affected parts of the land when construction is complete;
 - h. a detailed description of the measures to be implemented to protect the native vegetation to be retained during construction works. These measures must include the erection of a native vegetation protection fence around all native vegetation to be retained on site, to the satisfaction of the responsible authority, including the protection zones of all native trees to be retained. All tree protection zones must comply with AS 4970-2009 Protection of Trees on Development Sites
 - i. Land rehabilitation and revegetation techniques, including monitoring and reporting systems and requirements;
 - j. A construction timetable, including typical daily start and end times;
 - k. Procedures to manage mud and debris on the surrounding road network which may occur during construction;
 - l. All person/s responsible for implementation and compliance of each of the CEMP requirements;

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- m. All persons undertaking works on-site must be fully briefed on all aspects and requirements of the endorsed CEMP. All works constructed or carried out must be in accordance with the endorsed CEMP, to the satisfaction of the responsible authority.

Drainage and Stormwater Management Plan

- 10. The EMP must include a Drainage and Stormwater Management Plan (DSMP), which must include:
 - a. Details (and computations) of how the works on the land are to be drained including drains conveying stormwater to the legal point of discharge.
 - b. Details of how the drainage design affects the continuation of existing overland flow paths and flood patterns across the land.
 - c. Assessment of impacts on on-site infiltration and surface water quality, including adjacent land and waterways, specifically the site's south-eastern designated waterway.
 - d. Details on how polluted or contaminated runoff is to be managed.

GLINT AND GLARE MANAGEMENT

- 11. Prior to the endorsement of development plans in accordance with condition 1 of this permit, an updated Glint and Glare Assessment, similar to that submitted with the application (prepared by Ricardo, dated 8 September 2021) must be prepared in consultation with Wellington Shire Council and Department of Defence, and submitted to and approved by the responsible authority.

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The Glint and Glare Assessment must include:
 - a. An updated assessment based on the final design and layout of the facility, including assessment of potential impacts which may breach any copyright
 - i. Residents of dwellings within 1 kilometre of the subject site;
 - ii. Road users within 1 kilometre of the subject site;
 - iii. Nearby aviation infrastructure, including West Sale Airport and RAAF Base East Sale.
 - b. Modelling of the tracking behaviour (e.g. backtracking) of the selected system.
 - c. Recommendations to mitigate potential glint and glare impacts to the receptors identified in condition 11.a, including:
 - i. Details (including location, height and materials) of any glare screening or other method required to mitigate glint and glare impacts while landscaping treatments are established to an appropriate height and density;
 - ii. Details (including location, width, height and density) of any landscaping treatments required.
 - d. An assessment from a suitably qualified person confirming that subject to any proposed mitigations, the glint and glare from the solar farm would not have an impact on road safety, aviation safety or the reasonable amenity of the residents of dwellings assessed in the Glint and Glare Assessment.
- 12. Before any solar arrays are installed on the site, any glare screening must be constructed in accordance with the endorsed development plans.

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13. Despite what is shown on the endorsed development plans, any glare screening may be removed with the written consent of the responsible authority, following the satisfactory growth of landscaping planted under this permit.
14. Glint and glare impacts must not detrimentally impact upon the operation of the West Sale Airport or RAAF Base East Sale, to the satisfaction of the responsible authority.
15. Before development starts, the operator of the Solar energy facility must provide a contact phone number and email address to the operators of West Sale Airport and RAAF Base East Sale, which can be contacted should an issue associated with glint and glare arise.
16. Should glint or glare impacts be identified by the operators of West Sale Airport or RAAF Base East Sale, measures must be undertaken as soon as practicable to rectify the issue, to the satisfaction of the responsible authority.

LIGHT SPILL MANAGEMENT

17. All lighting installed and operated at the site must comply with *AS 4282 Control of the obtrusive effects of outdoor lighting*.

OPERATIONAL NOISE

18. The use of the land must at all times comply with *EPA Publication 1826.4: Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues* (EPA Publication 1826.4).
19. Prior to the endorsement of development plans in accordance with condition 1 of this permit, an updated Predictive Noise Assessment must be provided to the Minister for Planning and Wellington Shire Council and must:
 - a. Model the final design layout and all electrical components of the facility and assess this against EPA Publication 1826.4.
 - b. Demonstrate the proposal will comply with EPA Publication 1826.4 at all times without relying on limiting the operating capacity of any part of the facility.

All measures relied on to achieve compliance with EPA Publication 1826.4 must be shown on the development plans under condition 1 and implemented to the satisfaction of the responsible authority.

The Predictive Noise Assessment must be made available to the public.

20. Within 1 month of the commencement of the use, a Post-Construction Acoustic Assessment must be prepared by a suitably qualified acoustic engineer and must be submitted to the responsible authority and Wellington Shire Council, demonstrating compliance with EPA Publication 1826.4 at all times. The report must assess the compliance of the use with EPA Publication 1826.4 and, where necessary, make recommendations to limit the noise impacts in accordance with EPA Publication 1826.4 to the satisfaction of the responsible authority. The report must be made available to the public.
21. Within 1 year of the commencement of the use, a Post-Construction Acoustic Assessment must be prepared by a suitably qualified acoustic engineer and must be submitted to the responsible authority and Wellington Shire Council, demonstrating compliance with EPA Publication 1826.4 at all times. The Post-Construction Acoustic Assessment must assess the compliance of the use with EPA Publication 1826.4 and, where necessary, make

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recommendations to limit the noise impacts in accordance with the EPA Publication 1826.4 to the satisfaction of the responsible authority. The report must be made available to the public.

TRAFFIC MANAGEMENT

Traffic Management Plan

22. Before development starts, excluding stage 1 landscaping works, a Traffic Management Plan (TMP) must be prepared in consultation with the relevant road authority, and submitted to, approved and endorsed by the responsible authority. When endorsed, the TMP will form part of this permit.

The TMP must:

- a. Include measures to be taken to manage traffic impacts associated with the construction of the facility, including powerlines.
- b. Specify designated transportation routes that will be used to access the site during construction of the facility, including powerlines, including the amount and type of vehicles required.
- c. Include a program to inspect, maintain and repair public roads used by construction traffic.
- d. Include details of any proposed modifications or upgrades to existing roads that will be required before, during and after construction of the Solar energy facility and Utility installations.
- e. Address potential environmental and social impacts associated with the traffic generated by construction of the Solar energy facility and Utility installations, including potential coordination with public transport routes.
- f. Be prepared by a suitably qualified independent civil or traffic engineer.
- g. Be approved by the relevant road management authority (or authorities) prior to submission.

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NATIVE VEGETATION REMOVAL

23. Before development starts, the permit holder must advise all persons undertaking the vegetation removal or works on site of all relevant permit conditions and associated statutory requirements or approvals.

24. Except with the written consent of the responsible authority, within the area of native vegetation to be retained and any tree or vegetation protection zone associated with the permitted use and / or development, the following is prohibited:

- a. vehicular or pedestrian access
- b. Trenching or soil excavation
- c. Storage or dumping of any soils, materials, equipment, vehicles, machinery or waste products
- d. Entry and exit pits for the provision of underground services
- e. Any other actions or activities that may result in adverse impacts to retained native vegetation.

25. The native vegetation permitted to be removed, destroyed or lopped under this permit is 27.878 hectares of native vegetation with a strategic biodiversity value score of 0.466.
26. To offset the removal of 27.878 hectares of native vegetation, the permit holder must secure the following native vegetation offset in accordance with Guidelines for the removal, destruction or lopping of native vegetation (DELWP 2017):
 - a. A general offset of 8.181 general habitat units:
 - i. Located within the West Gippsland Catchment Management boundary or Wellington municipal area,
 - ii. with a minimum strategic biodiversity value of at least 0.373.
27. Before any native vegetation is removed, evidence that the required offset has been secured must be provided to the satisfaction of the responsible authority. This evidence must be one or both of the following:
 - a. An established first party offset site including a security agreement signed by both parties, and a management plan detailing the 10-year management actions and ongoing management of the site, and/or
 - b. Credit extract(s) allocated to the permit from the Native Vegetation Credit Register.
28. A copy of the offset evidence will be endorsed by the responsible authority and form part of this permit. Within 30 days of endorsement of the offset evidence, a copy of the endorsed offset evidence must be provided to Planning and Approvals at the Department of Environment, Land, Water and Planning, Gippsland regional office via email to Gippsland.Planning@delwp.vic.gov.au. **This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Responsible Authority by the Act 1987. The document period of 10 consecutive years. After the tenth year, the landowner must provide a report at the reasonable request of a statutory authority.**
29. Where the offset includes a first party offset, the permit holder must provide an annual offset site report to the Responsible Authority by the anniversary date of the execution of the offset security agreement, for a period of 10 consecutive years. After the tenth year, the landowner must provide a report at the reasonable request of a statutory authority.

Native Vegetation Removal Plan

30. Prior to the endorsement of development plans in accordance with condition 1, an updated Native Vegetation Removal Plan must be submitted to and approved by the responsible authority. The plan must be generally in accordance with *Figure 2-1: Native vegetation to be removed in Hopkins Road, Fulham – Flora and Fauna Assessment* (prepared by Nature Advisory, dated November 2021), and not more than 1:500 scale to enable the responsible authority to locate the native vegetation permitted to be removed and retained and audit for compliance. For large or linear sections, the plan must detail sub-plans, to the satisfaction of the responsible authority. The plan must be modified to include:
 - a. A key, north point, dimensions and geo-references (such as VicGrid94 co-ordinates)
 - b. Recent aerial photography
 - c. The location and identification of the land affected by the permit, including standard parcel identifiers for the affected and adjacent land
 - d. The location and area of all native vegetation permitted to be removed under this permit, including large trees with patches and scattered trees, without obscuring the underlying aerial photography (outline without fill)

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- e. The location and area of all native vegetation proposed to be retained, including large trees with patches and scattered trees, without obscuring the underlying aerial photography (outline without fill)

WEST GIPPSLAND CATCHMENT MANAGEMENT AUTHORITY CONDITIONS

31. All works, excluding landscaping, perimeter road, and security fencing, must be located at least 30 metres from the top bank of the designated waterway in the south-eastern corner of the site. This buffer may be reduced to 20 metres, subject to the development and implementation of a Waterway Management Plan, to the satisfaction of the West Gippsland Catchment Management Authority.
32. Any high value or electrical infrastructure should be installed at or above 600 millimetres above the existing ground surface level.

COMPLAINTS

Complaints Investigation and Response Plan

33. Before development starts, including the removal of native vegetation, a Complaint Investigation and Response Plan (CIRP) must be submitted to, approved and endorsed by the responsible authority. ~~Once endorsed, the CIRP will form part of this permit.~~

The CIRP must:

- a. Respond to all aspects of the construction and operation of the solar energy facility, including any impacts on adjacent rail infrastructure and operations.
- b. Be prepared in accordance with Australian/New Zealand Standard AS/NZS 10002:2014 – *Guidelines for Complaint Management in Organisations*.
- c. Include a process to investigate and resolve complaints (different processes may be required for different types of complaints).

34. The endorsed CIRP must be implemented to the satisfaction of the responsible authority.

Complaints Register

35. Before development starts, including the removal of native vegetation, a Complaints Register must be established which records:
 - a. The complainant's name and address (if provided).
 - b. A receipt number for each complaint, which must be communicated to the complainant.
 - c. The time and date of the incident, and operational conditions at the time of the incident.
 - d. A description of the complainant's concerns.
 - e. The process for investigating the complaint, and the outcome of the investigation, including the actions taken to resolve the complaint.
36. All complaints received must be recorded in the Complaints Register.
37. The complete copy of the Complaints Register must be provided, along with a reference map of complaint locations, to the responsible authority on each anniversary of the date of this permit and at other times on request.

EMERGENCY MANAGEMENT

Risk Management Plan

38. Before development plans are endorsed under condition 1, a risk management plan (RMP), incorporating a risk assessment, must be prepared in conjunction with the relevant fire authority. The RMP must:
- a. Be prepared with consideration to CFA's *Guidelines for Renewable Energy Facilities* (the current version at the time of preparing the RMP).
 - b. Specify an appropriate fire break width around the facility perimeter, between any landscape buffer/screening vegetation and solar panels, battery energy storage systems (and related infrastructure). The width of the perimeter fire break must be a minimum of 10m, and at least the distance where radiant heat flux (output) from the vegetation does not create the potential for ignition of on-site infrastructure.
 - c. Specify appropriate fire break widths between battery energy storage systems (and related infrastructure) and solar panels. The width of the fire breaks must be at least the distance where radiant heat flux (output) from the battery energy storage system fully involved in fire does not create the potential for ignition of adjacent infrastructure (including other battery energy storage systems) and vegetation.
 - d. Identify and assess controls for the management of onsite and offsite risks at the facility, including but not limited to:
 - i. Battery chemistry and technology risks including thermal runaway, off-gassing, toxic smoke.
 - ii. Electrical equipment faults.
 - iii. Fire spread between battery containers.
 - iv. Grassfire/bushfire to and from the battery containers.
 - v. Ember attack to the battery containers.
 - vi. Radiant heat and flame contact to the battery containers.
 - vii. Physical/mechanical damage to battery containers.
 - viii. Radiant heat from battery containers fully involved in fire as an ignition source (to other battery containers, site infrastructure, on-site buildings, site boundary and vegetation).
 - ix. Related dangerous goods storage and handling including transformer oil/diesel spills/leaks, refrigerant gas releases.
 - e. Provide an evidence-based determination of the effectiveness of the risk controls against the identified hazards/risks.
 - f. Identify battery safety and protective systems including battery management systems, monitoring systems, overcharge detection, off-gas detection, pressure relief systems, thermal detection, smoke detection, gaseous or extinguishing agent (suppression) systems, refrigeration/cooling systems, visual and audible warning systems.
 - g. Be developed or peer-reviewed by a suitably qualified, independent third party.

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Fire Management Plan

39. Before development starts, excluding stage 1 landscaping works, a Fire Management Plan, incorporating a risk assessment, must be prepared in conjunction with CFA. The Fire Management Plan must:
- a. Inform the construction and operational requirements for the facility.
 - b. Consider fire risks to and from the site and detail the control measures (systems, activities and accountabilities) for the prevention and management of fire.
 - c. Include but not be limited to:
 - i. Monitoring for fire in the area.
 - ii. Vegetation and fire break management.
 - iii. Battery energy storage system inspections, testing, monitoring and servicing.
 - iv. Peat presence and management (if applicable).
 - v. Fire detection, protection systems and equipment inspections and servicing.
 - vi. Hot work permits/processes and other ignition control mechanisms.
 - vii. Internal access roads, gates and fencing maintenance.

Siting and Design for Solar Arrays and Power Conversion Equipment (PCE)

40. Solar facilities are to have a minimum 6 metre separation between solar panel banks. A bank of solar panels may be that connected to a single power conversion unit/inverter.
41. The area under solar arrays must consist of non-combustible material such as mineral earth, crushed rock, or vegetation managed to no more than 100 millimetres. Managed vegetation may include localised crops or root vegetables or other plants with low flammability, planted to ensure that no part of the plant extrudes from underneath panel banks.

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Siting and Design for Battery Energy Storage Systems

Note: CFA acknowledges that the proposed battery installation includes a 20-container AC coupled battery installation in the south-east of the subject site, and 69 DC coupled batteries (in groups of three) located in the separation areas between solar pods/zones.

The following conditions apply to both types of battery installation unless specified:

42. Facilities with battery energy storage systems must be designed to separate battery containers/enclosures to a distance that prevents radiant heat exposure from igniting:
- a. Other battery containers/enclosures (battery to battery ignition).
 - b. Related system infrastructure (power conversion equipment, substations, etc.).
 - c. Buildings and structures.
 - d. Vegetation, both on-site and off-site, including screening vegetation. The potential for radiant heat impact from surrounding vegetation must be reduced to a level that prevents ignition of battery infrastructure.
43. The AC coupled battery energy storage systems must be:
- a. Located so as to be reasonably adjacent to a site vehicle entrance (suitable for emergency vehicles).

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- b. Located so that the site entrance and any fire water tanks are not aligned to the prevailing wind direction (therefore least likely to be impacted by smoke in the event of fire at the battery energy storage system).
44. All BESS facilities must be:
- a. Provided with an in-built fire detection and suppression system in each battery container/enclosure. Where these systems are not provided, additional measures to effectively detect and/or suppress fires within containers must be detailed within the Risk Management Plan.
 - b. Provided with suitable ember protection to prevent embers from penetrating battery containers/enclosures.
 - c. Provided with a suitable access road for emergency services vehicles to and within the site, including to battery energy storage system(s) and fire service infrastructure.
 - d. Installed on a non-combustible surface such as concrete.
 - e. Provided with adequate ventilation as per the manufacturer's requirements/the Safety Data Sheet(s) for the BESS and/or any relevant national or international standards.
 - f. Provided with underground (buried) cabling and enclosed wiring, except where required to be above-ground for grid connection.
 - g. Provided with impact protection to at least the equivalent of the W guardrail-type barrier, installed in accordance with the manufacturer's instructions.
 - h. Provided with appropriate spill containment (bunding or otherwise) that includes provision for management of fire water runoff.
45. Landscaping/vegetation (buffers, screening or otherwise), to be planted under a requirement of any permit, with a width of greater than 15 metres must be designed in consultation with CFA.
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Fire Monitoring and Detection

46. For BESS facilities at unmanned sites, appropriate monitoring and intervention measures must be provided to ensure that any shorts, faults, off-gassing, temperature increases above normal parameters and equipment failures with the potential to ignite or propagate fire are rapidly identified and controlled, and any off-gassing, smoke or fire is notified to 000 immediately.
47. The provision for direct alarm monitoring to the fire brigade for BESS automatic detection systems must be considered.

Fire Protection for Battery Energy Storage Systems

48. A fire protection system suitable for the risks and hazards at the facility must be provided.

AC Coupled Battery Installation

49. For the AC coupled battery installation, the fire protection system must be designed in line with the requirements of *AS 2419.1-2005: Fire hydrant installations, Section 3.3: Open Yard Protection*. For the purposes of determining system requirements, the 'area' referenced within AS 2419.1-2005 may be considered that of the battery installation, including the fire break around the battery infrastructure, rather than the entire area of the yard or site.
50. The fire protection system for the AC coupled battery installation must include at a minimum, a fire water supply in static storage tanks of a quantity no less than 144,000L or

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as per the provisions for Open Yard Protection of AS 2419.1-2005, flowing for a period of no less than four hours, whichever is the greater.

- a. The quantity of static fire water storage is to be calculated from the number of hydrants required to flow from AS 2419.1-2005, Table 3.3. (E.g., For battery installations with an aggregate area of over 27,000 square metres, 4 hydrant outlets are required to operate at 10 litres per second for four hours, which equates to a minimum static water supply of 576 kilolitres.)
- b. The fire water supply must be located so as to be reasonably adjacent to the AC coupled battery energy storage system and shall be accessible without undue danger in an emergency (e.g. fire water tanks are to be located closer to the site entrance than the battery energy storage system).
- c. The fire water supply must comply with AS 2419.1-2005, Section 5: Water Storage.

DC Coupled Battery Installations

51. In addition to the fire water provided for the AC coupled battery installation, the fire protection system for the DC coupled battery installations must include at a minimum, a fire water supply in static storage tanks of an aggregate quantity no less than 144,000 litres.
52. This quantity must be provided across a minimum of three static water tanks that comply with AS 2419.1-2005, Section 5: Water storage, located at strategic locations within the facility. These locations are to include the primary and secondary entrances to the facility, and elsewhere in consultation with CFA.
53. Static fire water tanks are to be positioned at least 10 metres from any infrastructure (electrical substations, power cabling equipment, battery energy storage systems, etc.).

Firefighting Water Supply

54. Fire water access points must be clearly identifiable and unobstructed to ensure efficient access.
55. Any static fire water storage tank(s) must be:
 - a. Above ground water tank(s) constructed of concrete or steel.
 - b. Capable of being completely refilled automatically or manually within 24 hours.
 - c. Provided with a hard-suction point, with a 150 millimetres full bore isolation valve, equipped with a Storz connection, sized to comply with the required suction hydraulic performance. (Adapters that may be required to match the connection are 125 millimetres, 100 millimetres, 90 millimetres, 75 millimetres, 65 millimetres Storz tree adapters with a matching blank end cap provided.) The hard-suction point must be:
 - i. Positioned within 4 metres to a hardstand area and provide a clear access for emergency services personnel.
 - ii. Protected from mechanical damage (e.g. bollards) where necessary.
 - d. An all-weather road access and hardstand must be provided to the hard-suction point. The hardstand must be maintained to a minimum of 15 tonne GVM, 8 metres long and 6 metres wide or to the satisfaction of the relevant fire authority.
 - e. The road access and hardstand must be kept clear at all times.

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- f. Where the access road has one entrance, a 10 metre radius turning circle must be provided at the tank.
- g. An external water level indicator must be provided to the tank and be visible from the hardstand area.
- h. Signage indicating 'FIRE WATER' and the tank capacity must be fixed to each tank.
- i. Signage must be provided at the front entrance to the facility, indicating the direction to static water tank(s).

Access

- 56. Construction of a perimeter road with a width of no less than 4 metres within the perimeter fire break.
- 57. Roads including on-site access tracks, are to:
 - a. Be of all-weather construction and capable of accommodating a vehicle of 15 tonnes.
 - b. Where roads are constructed roads, they are to be a minimum of 4 metres in trafficable width with a 4 metre vertical clearance for the width of the formed road surface.
 - c. Be of average grade no more than 1 in 7 (14.4% or 8.1°) with a maximum of no more than 1 in 5 (20% or 11.3°) for no more than 50 metres.
 - d. Where there are dips in the road, they are to be no more than a 1 in 8 (12.5% or 7.1°) entry and exit angle.
 - e. Roads must incorporate passing bays at least every 600 metres, which must be at least 20 metres long and have a minimum trafficable width of 6 metres. Where roads are less than 600 metres long, at least one passing bay must be incorporated.
 - f. The provision of at least two but preferably more access points to the facility, to ensure safe and efficient access to and egress from areas that may be impacted or involved in fire. The number of access points must be informed through a risk management process.
 - g. Where a single point of access is proposed, a suitable turning arrangement at the end of the internal access road must be provided, such as a turning circle of 10 metre radius or T-turn arrangement.

- 58. Road networks must enable responding emergency services to access all areas of the facility.

Operation of Battery Energy Storage Systems

- 59. BESS facilities are to be inspected regularly for any signs of mechanical damage to the external containers/enclosures and any accumulation of materials (including leaf litter) in or within 10 metres of the system. Any identified issues must be immediately remedied.
- 60. BESS facilities are to be regularly serviced as per the manufacturer's specifications to ensure that all safety and protective systems are in effective working order.

Fuel / Vegetation Management

- 61. Fire breaks of a width specified in the Risk Management Plan, must be maintained around:
 - a. The perimeter of the facility.
 - b. Containers and infrastructure for BESS facilities.
- 62. Fire break(s) must:

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- a. At the perimeter, commence from the boundary of the facility or from the vegetation screening (landscape buffer) inside the property boundary.
 - b. Be constructed using either mineral earth or non-combustible mulch such as crushed rock.
 - c. Be free of vegetation, including grass, at all times.
 - d. Be free of all combustible and extraneous materials at all times (e.g., this area must not be used for the storage of materials or the placement of infrastructure of any kind).
63. Grass within the facility must be maintained at below 100 millimetres in height during the declared Fire Danger Period.
64. All plant and heavy equipment must carry at least a 9 litre water stored-pressure fire extinguisher with a minimum rating of 3A, or firefighting equipment as a minimum when on-site during the Fire Danger Period.
65. Long grass and/or deep leaf litter must not be present in areas where plant and heavy equipment will be working.

Emergency Management Plan

66. Before development starts, excluding stage 1 landscaping works, an Emergency Management Plan (EMP) must be developed for the facility in conjunction with CFA. The plan must:
- a. Be prepared with consideration to CFA's *Guideline for Renewable Energy Installations*.
 - b. Incorporate emergency procedures based on identified risks and hazards at the facility, including but not limited to:
 - i. Bushfire/grassfire
 - ii. Electrical infrastructure faults and fire.
 - iii. BESS damage or faults, including battery monitoring faults, temperature increases above normal operating parameters, electrical faults, chemical spills or reactions, off-gassing, thermal runaway, smoke and fire.
 - c. Incorporate a plan for partial and full decommissioning of the BESS in the event of an emergency incident that renders the facility inoperable or unsafe, prior to its anticipated end-of-life.
67. Arrangements must be made for site familiarisation with the local brigade prior to commissioning of facilities to confirm access arrangements, fire detection, suppression and protection systems, and contact information for at least two persons who may be able to provide information or support during emergencies (24 hours a day).
68. An invitation is to be provided to the local brigade at least annually for a site familiarisation visit, prior to October each year.

Provision of Emergency Information

69. Prior to the commissioning of the facility, an Emergency Information Container must be installed at each road entry to the site. The container must:
- a. Be painted red and marked 'EMERGENCY INFORMATION' in white contrasting lettering not less than 25 millimetres high.
 - b. Be installed at a height of 1.2 metres to 1.5 metres above ground level.

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- c. Be unobstructed and accessible with a fire brigade standard 003 key.
- d. Be maintained to ensure that the information within is current and accurate, and that the container remains accessible (e.g., clear of vegetation and infestations, and clearly identifiable).
- e. Contain emergency information for the facility, including:

General Information:

- i. A description of the facility, its infrastructure and operations.
- ii. Site plans that include the layout of the entire site, including any buildings, internal roads, infrastructure, fire detection and protection systems and equipment, dangerous goods storage areas (including BESS facilities and inverters), substations, grid connections, bunds, drains and isolation valves, site neighbours and the direction of north.
- iii. Details of smoke and fire detection, fire suppression (including the quantity of any on-site fire water supply and related infrastructure) warning and alarm systems at the facility.
- iv. Contact details for site personnel and/or facility operators, regulatory authorities and site neighbours.
- v. Procedures for management of emergencies, including evacuation, containment of spills and leaks, and fire procedures (including bushfire/grassfire).
- vi. A manifest of dangerous goods (if required) as per Schedule 3 of the Dangerous Goods (Storage and Handling) Regulations 2012.
- vii. Safety Data Sheets (SDS) for any dangerous goods stored on-site, including batteries.

Solar Facilities:

- i. Specifications for safe operating conditions for temperature and the safety issues related to electricity generation, including isolation and shut-down procedures if solar panels and related infrastructure are involved in fire.

Battery Energy Storage Systems:

- i. Specifications for safe operating conditions for temperature.
- ii. Schematics and technical data for BESS containers.
- iii. Details of the hazards for the BESS, including thermal runaway, electrical safety hazards, explosion hazards, dangerous goods hazards (including off-gassing), and the effects of fire on the BESS.
- iv. Details of battery monitoring systems and safety systems, including battery smoke and fire detection systems, fire suppression systems, thermal detection, gas detection and pressure relief systems, cooling systems, and warning and alarm systems at the facility.
- v. The shut down and/or isolation procedures if the batteries are involved in fire.

DECOMMISSIONING

- 70. Once the Solar energy facility permanently ceases operation, the responsible authority must be notified within three months.

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71. Subject to condition 72, once the Solar energy facility permanently ceases operation, all infrastructure, equipment, buildings, structures and works must be removed, and the site or the relevant part of the site must be rehabilitated and reinstated to the condition it was in prior to the commencement of development to allow it to be used for agricultural purposes (or any proposed alternative use). This includes, but is not limited to, all solar panels, power conversion units, operations and maintenance facility, control building, substation, switchyard, and above and below ground electrical infrastructure and equipment.
72. If the landowner requests, items of infrastructure or other works (such as access tracks or the control building) that are suitable for the ongoing agricultural use of the land (or proposed alternative use) may be retained, subject to the written consent of the responsible authority.
73. Within three months of the Solar energy facility permanently ceasing operation, a Decommissioning Management Plan (DMP) prepared by a suitably qualified and experienced person must be submitted to, approved and endorsed by the responsible authority. Once endorsed, the DMP will form part of the permit.
74. The DMP must include, as a minimum:
- Identification of infrastructure, equipment, buildings and structures to be removed, and details of how these will be removed.
 - Details of how the site will be rehabilitated to meet the requirements of condition 71.
 - A requirement that a Decommissioning Traffic Management Plan (DTMP) be submitted to, approved and endorsed by the responsible authority prior to decommissioning works starting. The DTMP must be approved by the relevant road management authority (or authorities) prior to submission to the responsible authority for endorsement. The DTMP must specify measures to manage traffic impacts associated with removing the infrastructure, equipment, buildings and structures from the site, to the satisfaction of the responsible authority.
 - A requirement that all decommissioning works identified in the DMP be completed to the satisfaction of the responsible authority as soon as practicable, but no later than 12 months after the DMP is endorsed, or such other period approved by the responsible authority.
75. The endorsed DMP must be implemented to the satisfaction of the responsible authority.

EMERGENCY SERVICES

76. Before development starts, excluding stage 1 landscaping works, the permit holder must provide spatial information data to Land Use Victoria via email vicmap.help@delwp.vic.gov.au to be used to direct emergency services to and within the site. This information must be in the ESRI Shapefile or Geodatabase .gdb format, GDA94 or GDA2020 datum and include:
- The location and boundaries of the solar farm extents polygon(s)
 - All access entry points onto private property
 - All Internal roads
 - The locations of site compound, substations, maintenance facilities.

77. If there are any subsequent changes to infrastructure location, internal roads or access points during construction, or after completion of construction, updated data must be provided to Land Use Victoria via email vicmap.help@delwp.vic.gov.au within 30 days of the change, to enable details of any changes to the solar energy facility to be known to emergency services dispatchers.

EXPIRY

78. This permit will expire if one of the following applies:

- a. The development is not started within three years of the date of this permit.
- b. The development is not completed within six years of the date of this permit.
- c. The use has not commenced within six years of the date of this permit.

The responsible authority may extend the time if a request is made in writing before the permit expires or within six months afterwards.

DATE ISSUED: 28/03/2022



**SIGNATURE OF MICHAEL JUTTNER, DEVELOPMENT APPROVALS AND DESIGN, AS DELEGATE
FOR THE MINISTER FOR PLANNING**

THIS PERMIT HAS BEEN AMENDED AS FOLLOWS:

Date of amendment	Brief description of amendment	Name of responsible authority that approved the amendment
PA2101365-1 20/01/2023	<p>Amendment of the permit in accordance with section 72 of the <i>Planning and Environment Act 1987</i> as follows:</p> <ul style="list-style-type: none">• Amend conditions 1, 3, 7, 22, 39, 66 and 76 to enable the commencement of stage 1 landscaping works prior to the endorsement of plans.• Amend condition 31 to allow landscaping, perimeter road, and security fencing works to occur within 30 metres of the intersecting waterway.	Minister for Planning

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IMPORTANT INFORMATION ABOUT THIS PERMIT

WHAT HAS BEEN DECIDED?

The responsible authority has issued a permit (Note: This is not a permit granted under Division 5 or 6 of Part 4 of the **Planning and Environment Act 1987**).

CAN THE RESPONSIBLE AUTHORITY AMEND THIS PERMIT?

The responsible authority may amend this permit under Division 1A of Part 4 of the **Planning and Environment Act 1987**.

WHEN DOES A PERMIT BEGIN?

A permit operates:

- * from the date specified in the permit; or
- * if no date is specified, from -
 - (i) the date of the decision of the Victorian Civil and Administrative Tribunal, if the permit was issued at the direction of the Tribunal; or
 - (ii) the date on which it was issued, in any other case.

WHEN DOES A PERMIT EXPIRE?

1. A permit for the development of land expires if -
 - * the development or any stage of it does not start within the time specified in the permit; or
 - * the development requires the certification of a plan of subdivision or consolidation under the **Subdivision Act 1988** and a plan is not certified within two years of the issue of a permit, unless the permit contains a different provision; or
 - * the development or any stage of it is not completed within the time specified in the permit, or, if no time is specified, within two years after the issue of the permit or in the case of a subdivision or consolidation within five years of the certification of the plan of subdivision or consolidation under the **Subdivision Act 1988**.
2. A permit for the use of land expires if -
 - * the use does not start within the time specified in the permit, or if no time is specified, within two years of the issue of the permit; or
 - * the use is discontinued for a period of two years.
3. A permit for the development and use of land expires if -
 - * the development or any stage of it does not start within the time specified in the permit; or
 - * the development or any stage of it is not completed within the time specified in the permit, or, if no time is specified, within two years after the issue of the permit; or
 - * the use does not start within the time specified in the permit, or, if no time is specified, within two years after the completion of the development; or
 - * the use is discontinued for a period of two years.
4. If a permit for the use of land or the development and use of land or relating to any of the circumstances mentioned in Section 6A(2) of the **Planning and Environment Act 1987**, or to any combination of use, development or any of those circumstances requires the certification of a plan under the **Subdivision Act 1988**, unless the permit contains a different provision-
 - * the use or development of any stage is to be taken to have started when the plan is certified; and
 - * the permit expires if the plan is not certified within two years of the issue of the permit.
5. The expiry of a permit does not affect the validity of anything done under that permit before the expiry.

WHAT ABOUT REVIEWS?

- * The person who applied for the permit may apply for a review of any condition in the permit unless it was granted at the direction of the Victorian Civil and Administrative Tribunal, in which case no right of review exists.
- * An application for review must be lodged within 60 days after the permit was issued, unless a notice of decision to grant a permit has been issued previously, in which case the application for review must be lodged within 60 days after the giving of that notice.
- * An application for review is lodged with the Victorian Civil and Administrative Tribunal.
- * An application for review must be made on the relevant form which can be obtained from the Victorian Civil and Administrative Tribunal, and be accompanied by the applicable fee.
- * An application for review must state the grounds upon which it is based.
- * A copy of an application for review must also be served on the responsible authority.
- * Details about applications for review and the fees payable can be obtained from the Victorian Civil and Administrative Tribunal.

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