

EES Self-Assessment – Hazelwood North Solar Farm

Date: 15 March 2023

Project name: Hazelwood North Solar Farm

Attention: Manthos Investments Pty Ltd c/- Robert Luxmoore Pty Ltd

Company: Cogency Australia Pty Ltd

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Document Purpose

This document contains an Environmental Effects Statement (EES) self-assessment of the Hazelwood North Solar Farm project against the criteria set out by the Victorian State Government's Department of Transport and Planning¹ (DTP). It provides the proponent, Manthos Investments Pty Ltd, with advice as to whether or not a formal referral to the Minister for Planning is required for an EES under the *Environment Effects Act 1978*.

The project involves the use and development of land at Firmins Lane, Hazelwood North VIC 3840 (the 'site') for a large-scale solar farm, a battery storage facility, and associated uses/works.

Background

The *Ministerial Guidelines for assessment of environmental effects under the Environment Effects Act 1978* (Seventh ed., 2006) help to determine when a project should be referred to the Minister for Planning.

A project with 'potential adverse environmental effects that, individually or in combination, could be significant in a regional or State context' should be referred to the Minister.

The guidelines for referral state that the potential for a significant effect on the environment will reflect the following factors:

- 'significance of the environmental assets affected, in relation to:
 - character of the potentially affected environmental assets
 - geographic occurrence of the environmental assets
 - values or importance of the environmental assets, based on expert knowledge, relevant policy and evidence of social values
- potential magnitude extent and duration of adverse effects on environmental assets in the short, medium and longer term as a result of the development operation and where relevant, decommissioning of a project
- potential for more extended adverse effects in space and time, as a result of interactions of different effects and environmental processes affecting environmental assets.'

To provide more guidance on the above factors and the need for a referral, the guidelines provide a set of criteria. The Impact Assessment Unit (IAU) within DTP does not consider referrals to the Minister unless the project triggers one or more of the criteria. If a project does not trigger the criteria, then the proponent is advised to conduct a self-assessment for their own due diligence.

Accordingly, an assessment of the potential impacts of the Hazelwood North Solar Farm against the referral criteria is provided in Tables 1 and 2.

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¹ Formerly Department of Environment, Land, Water and Planning (DELWP)

Assessment

Tables 1 and 2 below provide an assessment of the project against the EES referral criteria.

Table 1: Referral criteria - individual potential environmental effects

Triggering one of these individual types of potential effects on the environment (of regional or State significance), would warrant referral of the project to the Minister for Planning.

Criteria	Assessment
<ul style="list-style-type: none"> potential clearing of 10 ha or more of native vegetation from an area that: <ul style="list-style-type: none"> - is of an Ecological Vegetation Class identified as endangered by the Department of Sustainability and Environment (in accordance with Appendix 2 of Victoria's Native Vegetation Management Framework); or - is or is likely to be of very high conservation significance (as defined in accordance with Appendix 3 of Victoria's Native Vegetation Management Framework); and - is not authorised under an approved Forest Management Plan or Fire Protection Plan 	<p>This criterion is not triggered. The Ecological Impact Assessment (Nature Advisory, 2023) indicates the project would require the removal of 4.699 hectares of native vegetation.</p> <p>The site has already been disturbed due to forestry and agricultural uses, and is therefore largely cleared. The native vegetation is predominantly present within the creek corridors, which will be avoided for development.</p>
<ul style="list-style-type: none"> potential long-term loss of a significant proportion (e.g. 1 to 5 percent depending on the conservation status of the species) of known remaining habitat or population of a threatened species within Victoria <div data-bbox="233 1323 778 1659" style="border: 2px solid red; padding: 10px; margin: 10px 0;"> <p style="text-align: center; color: red;">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 Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright</p> </div>	<p>This criterion is not triggered. The Ecological Impact Assessment (Nature Advisory, 2023) indicates the project would not require the long-term loss of a significant proportion of the remaining habitat of a threatened species. Retention buffers and environmental measures within the areas of greatest environmental value will help to minimise the impacts on important habitats.</p> <p>Targeted flora surveys were undertaken in November 2022 and found that no threatened flora species occur within suitable habitat proposed to be impacted.</p> <p>Targeted fauna surveys were undertaken in September 2022. The Flinders Pygmy Perch was recorded in large numbers during aquatic surveys in the creeks within the site. Nonetheless, the solar farm and battery footprint avoids impacting creeks.</p>
<ul style="list-style-type: none"> potential long-term change to the ecological character of a wetland listed under the Ramsar Convention or in 'A Directory of Important Wetlands in Australia' 	<p>This criterion is not triggered. The nearest listed Ramsar wetland is the Gippsland Lakes, which is 50-100 km downstream from the site.</p>

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Criteria	Assessment
<ul style="list-style-type: none"> potential extensive or major effects on the health or biodiversity of aquatic, estuarine or marine ecosystems, over the long term 	<p>This criterion is not triggered. The project will not cause major effects on the biodiversity of these ecosystems in the long term, due to the creek corridors within the site being avoided for development. Furthermore, environmental management measures to be implemented during construction, operation and decommissioning aim to protect these ecosystems.</p> <p>This is confirmed in the Ecological Impact Assessment and the environmental management plans.</p>
<ul style="list-style-type: none"> potential extensive or major effects on the health, safety or well-being of a human community, due to emissions to air or water or chemical hazards or displacement of residences <div data-bbox="233 1025 778 1361" style="border: 1px solid red; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="color: red; text-align: center;">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 Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright</p> </div>	<p>This criterion is not triggered. The project will not cause extensive or major direct or indirect emissions via air or water, or displacement of local residences.</p> <p>The construction phase will be guided by the environmental management plans and mitigation measures to avoid or minimise such emissions.</p> <p>The project's battery storage facility is planned to be located at the heart of the site, to avoid or minimise to an acceptable level any major noise impacts on surrounding sensitive receptors.</p> <p>The Hydrological Impact Assessment confirms that the proposed works will not noticeably alter the volume or quality of water infiltrating into the groundwater and hence it is not expected to impact on the groundwater. In addition, with the inclusion of standard stormwater management measures in detailed design it is considered that there will be no significant impact on surface water quality.</p>
<ul style="list-style-type: none"> potential greenhouse gas emissions exceeding 200,000 tonnes of carbon dioxide equivalent per annum, directly attributable to the operation of the facility 	<p>This criterion is not triggered. The project does not have the potential to cause excessive carbon dioxide emissions. On the contrary, the purpose of the project is to contribute to the generation of renewable energy and the reduction of greenhouse emissions.</p>

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Table 2: Referral criteria – a combination of potential environmental effects

Triggering a combination of two or more of the following types of potential effects on the environment (of regional or State significance), would warrant referral of a project to the Minister for Planning.

Criteria	Assessment
<ul style="list-style-type: none"> potential clearing of 10 ha or more of native vegetation, unless authorised under an approved Forest Management Plan or Fire Protection Plan 	<p>This criterion is not triggered. The Ecological Impact Assessment (Nature Advisory, 2023) indicates that the project would require the removal of 4.699 hectares of native vegetation. The site has already been disturbed due to forestry and agricultural uses, and is therefore largely cleared. The native vegetation is predominantly present within the creek corridors, which will be avoided for development.</p>
<ul style="list-style-type: none"> matters listed under the <i>Flora and Fauna Guarantee Act 1988</i>: <ul style="list-style-type: none"> - potential loss of a significant area of a listed ecological community; or - potential loss of a genetically important population of an endangered or threatened species (listed or nominated for listing), including as a result of loss or fragmentation of habitats or -potential loss of critical habitat; or - potential loss of critical habitat; or - potential significant effects on habitat values of a wetland supporting migratory bird species 	<p>This criterion is not triggered. The Ecological Impact Assessment (Nature Advisory 2023) indicates the project does not have the potential to cause harm in the manner listed under the <i>Flora and Fauna Guarantee Act 1988</i>. The retention buffers around the areas of greatest environmental value, and the environmental management plans, will help to avoid or limit the clearance of important habitats.</p>
<ul style="list-style-type: none"> potential extensive or major effects on landscape values of regional importance, especially where recognised by a planning scheme overlay or within or adjoining land reserved under the <i>National Parks Act 1975</i> 	<p>This criterion is not triggered. This site is suitably located within a Farming Zone, and is not subject to any overlays that relate to landscape values. The surrounding properties are predominantly industrial, agricultural and rural living, with few sensitive receptors.</p>
<ul style="list-style-type: none"> potential extensive or major effects on land stability, acid sulphate soils or highly erodible soils over the short or long term 	<p>This criterion is not triggered. A preliminary site assessment by OTG Energy in 2022 indicates that the site's soils are stable and suitable for the project.</p>

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Criteria	Assessment
<ul style="list-style-type: none"> potential extensive or major effects on beneficial uses of waterbodies over the long term due to changes in water quality, streamflows or regional groundwater levels <div data-bbox="201 439 746 770" style="border: 1px solid red; padding: 5px; text-align: center; color: red;"> <p>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 Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright</p> </div>	<p>This criterion is not triggered. The project will not cause major effects on waterbodies in the long term, due to the creek corridors within the site being avoided for development. Furthermore, environmental management measures will be implemented to protect these waterbodies during construction, operation and decommissioning.</p> <p>The Hydrological Impact Assessment confirms that the proposed works will not noticeably alter the volume or quality of water infiltrating into the groundwater and hence it is not expected to impact on the groundwater. In addition, with the inclusion of standard stormwater management measures in detailed design it is considered that there will be no significant impact on surface water quality.</p>
<ul style="list-style-type: none"> potential extensive or major effects on social or economic well-being due to direct or indirect displacement of non-residential land use activities 	<p>This criterion is not triggered. The project is unlikely to prevent the continued or future use of the site for agricultural purposes, particularly as 'agrisolar' grazing activities are proposed to continue in conjunction with the project.</p> <p>Furthermore, the project is unlikely to prevent the continuation of existing activities on surrounding properties.</p>
<ul style="list-style-type: none"> potential for extensive displacement of residences or severance of residential access to community resources due to infrastructure development 	<p>This criterion is not triggered. The site area currently features no residential dwellings, therefore the potential for residential displacement due to the project is low. In addition, siting and vegetation screening of the solar farm will further reduce the impact on surrounding properties.</p>
<ul style="list-style-type: none"> potential significant effects on the amenity of a substantial number of residents, due to extensive or major, long-term changes in visual, noise and traffic conditions 	<p>This criterion is not triggered. The area surrounding the site has a low population density, given that adjacent properties are predominantly used for agriculture, industry and rural residential living. There are therefore limited sensitive receptors.</p> <p>Furthermore, the size and shape of the site allows for extensive visual screening and large setbacks of infrastructure from site boundaries. The proposed layout of the project, it is unlikely to cause significant effects on the amenity of a substantial number of residences.</p>
<ul style="list-style-type: none"> potential exposure of a human community to severe or chronic health or safety hazards over the short or long term, due to emissions to air or water or noise or chemical hazards or associated transport 	<p>This criterion is not triggered. The project's potential to produce air or water pollution or hazardous chemicals that would lead to severe or chronic health or safety hazards is low.</p> <p>The potential noise impacts due to the project's battery storage facility will be negligible due to it being centrally located, away from sensitive receptors.</p>

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Criteria	Assessment
<ul style="list-style-type: none"> potential extensive or major effects on Aboriginal cultural heritage 	<p>This criterion is not triggered. The Cultural Heritage Impact Assessment (Tardis Heritage, 2023) indicates that the project will not cause extensive or major effects on Aboriginal cultural heritage. The areas with the greatest heritage value are within the site's creek corridors, which will be avoided through the implementation of buffers and environmental management measures where crossings are required.</p>
<ul style="list-style-type: none"> potential extensive or major effects on cultural heritage places listed on the Heritage Register or the Archaeological Inventory under the <i>Heritage Act 1995</i>. <div style="border: 2px solid red; padding: 10px; margin: 10px 0;"> <p style="color: red; text-align: center;">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 Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright</p> </div>	<p>This criterion is not triggered. A review of the Regulations and the Aboriginal Cultural Heritage Register Information System (ACHRIS) shows that part of the activity area includes areas of cultural heritage sensitivity.</p> <p>The activity area is located within 200 metres of waterways (Plough Creek and Boyds Creek), pursuant to Regulation 26, and within 50 metres of Aboriginal cultural heritage places VAHR 8121-0174 [Traralgon Bypass 5], VAHR 8121-0175 [Traralgon Bypass 6], VAHR 8121 0209 [Mountain View SS 2], VAHR 8121-0212 [Mountain View SS 5], VAHR 8121-0210 [Mountain View SS 3] and VAHR 8121-0211 [Mountain View SS 4].</p> <p>These places will be avoided, with development buffers and environmental management measures to be implemented within the site's creek corridors.</p> <p>This is confirmed in the final Aboriginal Cultural Heritage Impact Assessment, the Cultural Heritage Management Plan, and the environmental management plans.</p>

Conclusion

As a due diligence exercise, this self-assessment has investigated the potential impacts of the Hazelwood North Solar Farm project against the criteria for Ministerial referral for an EES. It has been determined that none of the criteria will be triggered, and thus an EES referral to the Minister for Planning is not required.

This is consistent with the other solar farms in Victoria (see Table 3 below), and the history of the site's use for forestry and agriculture.

Table 3: Examples of approved large-scale solar farms in Victoria and their EES referral history

Project	Size	EES Referral History
Fulham Solar Farm	80 MW	An EES referral was lodged due significant removal of native vegetation. It was determined that an EES was not required for the project.
Bookaar Meningoort Solar Farm	200 MW	An EES referral was not lodged, as no criteria were triggered.
West Mokoan Solar Farm	233 MW	An EES referral was not lodged, as no criteria were triggered.

Project	Size	EES Referral History
Frasers Solar Farm	75 MW	An EES referral was not lodged, as no criteria were triggered.
Morwell Solar Farm	70MW	An EES referral was not lodged, as no criteria were triggered.

This self-assessment and the referral criteria will be regularly re-visited during the planning and design process for the project. If updates to the project are made and/or if new information reveals that significant environmental impacts of State or regional significance may occur, then Cogency, on behalf of Manthos Investments Pty Ltd (c/o Robert Luxmoore Pty Ltd), will re-assess whether or not an EES referral would be required.

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