

# Draft Scoping Requirements for Kentbruck Green Power Hub Environment Effects Statement

*Environment Effects Act 1978*

DECEMBER 2019

# DRAFT

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# Public comments invited

Public comments are invited on these draft scoping requirements in relation to matters that should be investigated and documented as part of the environment effects statement (EES) process for the proposed Kentbruck Green Power Hub project.

The draft scoping requirements are open for public comment until midnight on Friday 20 December 2019.

Any comments received will be considered during the finalisation of the scoping requirements. Please note that any submissions on the draft scoping requirements will be treated as public documents.

Written comments should be posted to:  
Impact Assessment Unit, Planning  
Department of Environment, Land, Water & Planning  
PO Box 500,  
EAST MELBOURNE VIC 8002  
or emailed to: [environment.assessment@delwp.vic.gov.au](mailto:environment.assessment@delwp.vic.gov.au)

Queries about the Kentbruck Green Power Hub project itself should be directed to the proponent:  
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Website: <https://kentbruckgreenpowerhub.com.au/>

Queries about the EES process and Draft Scoping Requirement should be directed to the department:  
Impact Assessment Unit  
Telephone: 8392 5503  
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# List of abbreviations

DELWP	Department of Environment, Land, Water and Planning
EE Act	<i>Environment Effects Act 1978</i>
EES	Environment effects statement
EMF	Environmental management framework
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FFG Act	<i>Flora and Fauna Guarantee Act 1988</i>
Ha	Hectares
km	Kilometres
kV	Kilovolts
MNES	Matters of national environmental significance
TRG	Technical reference group
MW	Megawatts
GWh	Gigawatt hours
EPA	Environment Protection Authority

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# 1. Introduction

In light of the potential for significant environmental effects, on 25 August 2019 the Minister for Planning (the Minister) determined under the *Environment Effects Act 1978* (EE Act) that Neoen Australia Pty Ltd (the proponent) is to prepare an environment effects statement (EES) for the proposed Kentbruck Green Power Hub (the project). The purpose of the EES is to provide a detailed description of the project, assess its potential effects on the environment<sup>1</sup> and assess alternative project designs and approaches to avoid and mitigate effects. The EES will inform and seek feedback from the public and stakeholders and enable the Minister to issue an assessment of the project's environmental effects at the conclusion of the EES process. The Minister's assessment of the project's effects will inform statutory approval decision-makers.

Scoping requirements set out specific matters to be investigated and documented in an EES. The draft scoping requirements presented here are for public review and comment. The final *Scoping requirements for the Kentbruck Green Power Hub EES* will be issued by the Minister following consideration of public comments received on this draft.

While the scoping requirements are intended to cover all relevant matters, the EES will need to address other issues that emerge during the EES investigations, especially those relevant to statutory decisions that will be informed by the assessment.

## 1.1 The project and setting

The project is located in southwest Victoria, approximately 330km west of Melbourne (see Figure 1). The proposed windfarm footprint is 7,500Ha, extending from approximately 3km east of Nelson to almost 30km to the north of Portland. The majority of the windfarm site is located within an active commercial forestry operation, with the remaining extent on agricultural land mainly used for grazing.

The proposed windfarm will consist of up to 157 wind turbines. The indicative rotor length is 190m with maximum blade tip height of 270m above ground level and the lowest blade tip height 45m (Figure 2). Depending on final turbine selection, each turbine will produce from 4MW to 8MW peak power output, to yield a forecast total capacity of approximately 900MW and annual production of approximately 3,300GWh. The project includes an on-site electrical substation and a battery storage facility with capacity of up to 1,000MW hours of storage. The operational life of the project is anticipated to be 25 years..

The project will include the upgrade and construction of onsite access tracks, alteration of access to main roads, 16 lattice tower wind monitoring masts (anemometers) and up to eight power collection stations in addition to an operations building. Temporary infrastructure associated with construction of the project would include a construction compound (with office facilities, parking and toilet facilities), laydown areas, concrete batching plants and may also include an on-site quarry.

The project will require up to 45km of new transmission lines (underground and/or overhead) to connect to the National Electricity Market via the existing Haywood-Portland 500kV powerline. The location of the connection has not been determined. Options being considered, by the proponent, include connection via the Heywood Terminal station approximately 35km east of the northern aspect of the project or connection via a new electrical terminal station adjacent to the existing 500kV line north of Portland (see Figure 1).

The project site is bounded by different land-uses, including agricultural land uses, national parks and natural reserves. Agricultural land uses include radiata pine forestry practices to the immediate north of the project area along with agricultural grazing land to the east and west. Significant natural reserves lie immediately adjacent the project area including: Discovery Bay Coastal Park to the south, the Lower Glenelg National Park to the north and Cobboonee National Park to the north-east of the wind farm. The Discovery Bay Coastal Park and the western portion of Lower Glenelg National Park are elements of the recently listed Glenelg Estuary and Discovery Bay Ramsar site, which encloses the proposal to the immediate south and north of the project area (see Figure 1).

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<sup>1</sup> For assessment of environmental effects under the EE Act, the meaning of 'environment' includes physical, biological, heritage, cultural, social, health, safety and economic aspects (Ministerial Guidelines, p. 2).

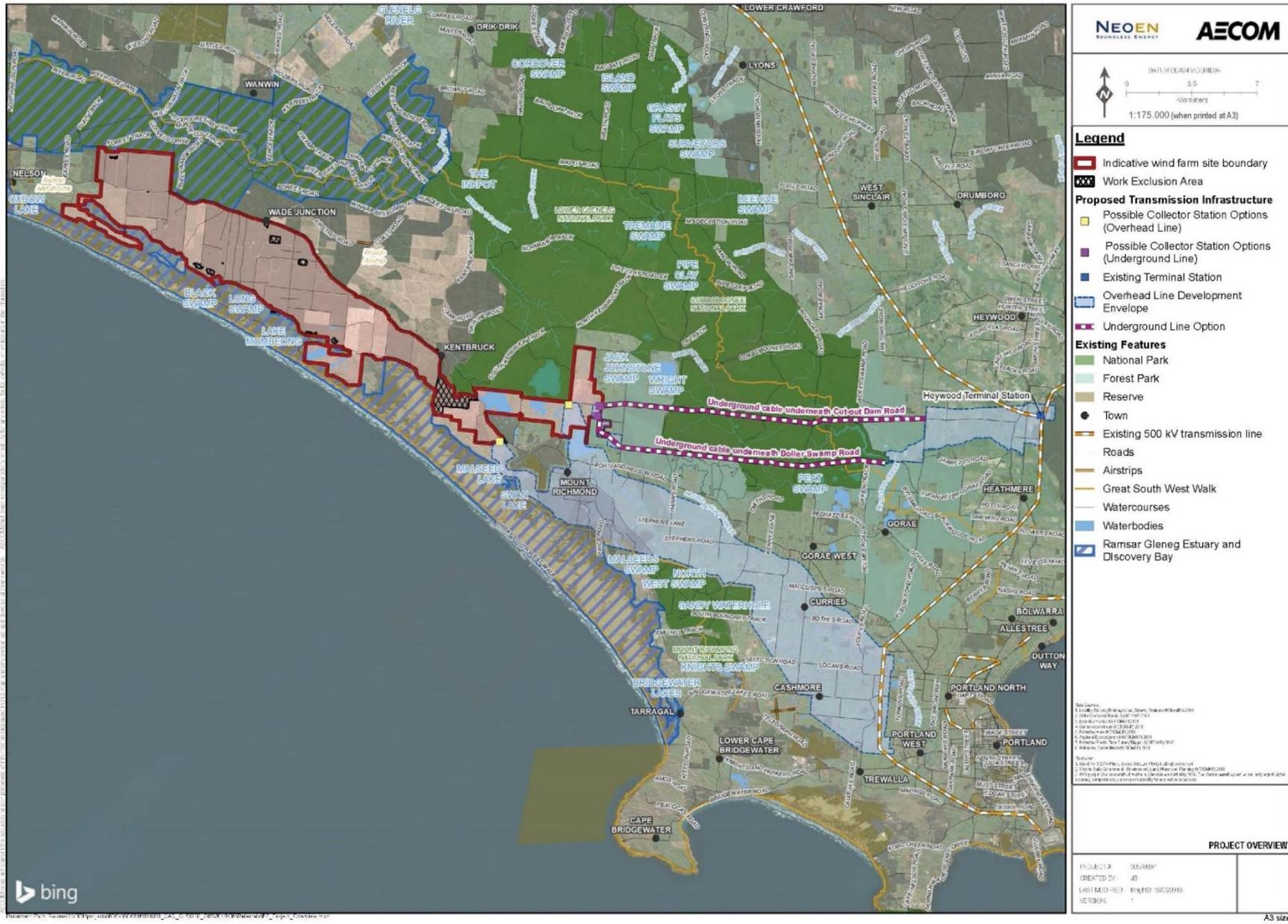


Figure 1: Location of the project (source: Neoen – AECOM).

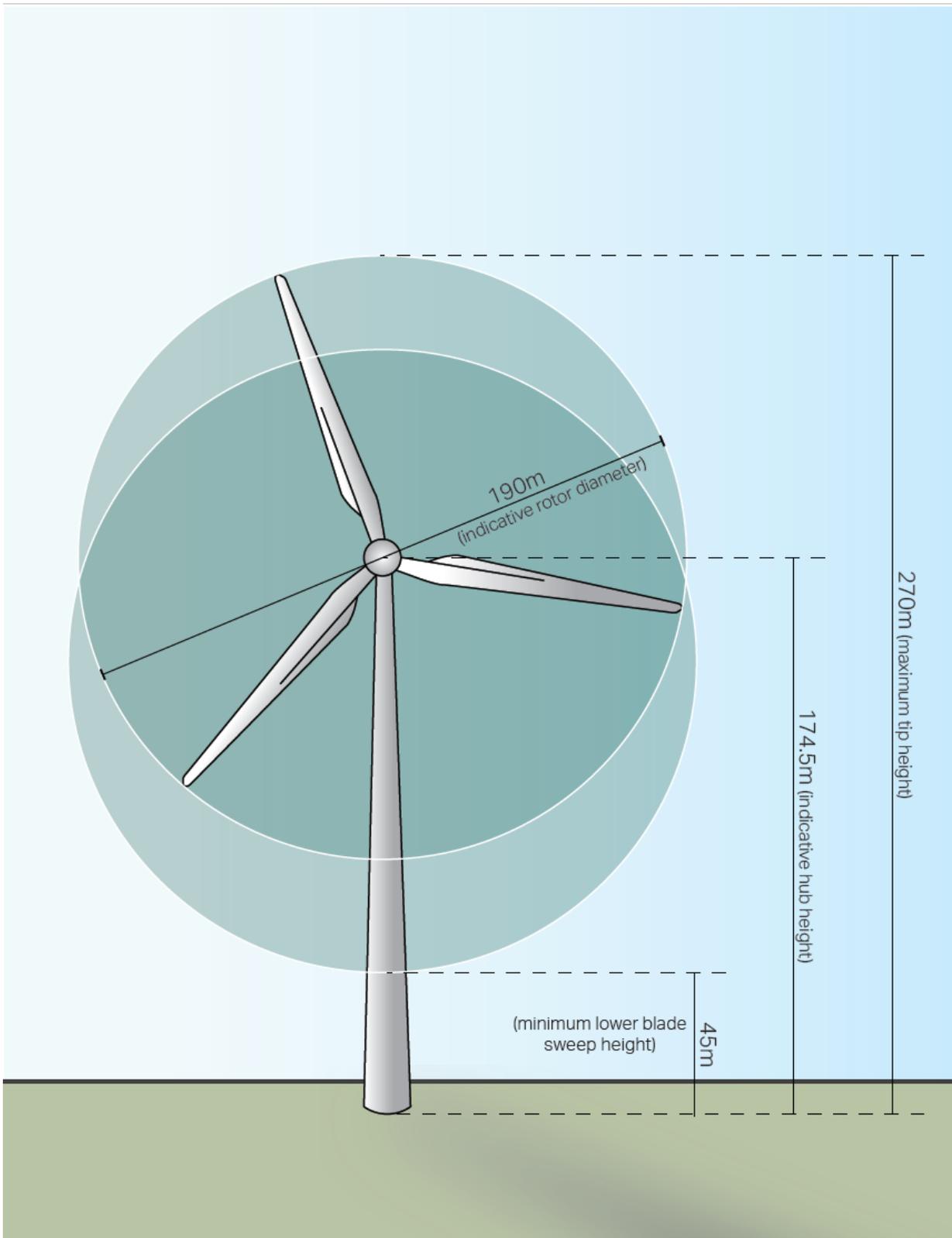


Figure 2: Indicative wind turbine dimensions (source: Neoen – AECOM).

## 1.2 Minister's requirements for this EES

In light of the potential for significant environmental effects, the Minister's decided that an EES was required to assess the project potential environmental effects. The Minister published procedures and requirements applicable to the preparation of the EES, in accordance with section 8B(5) of the EE Act (see Appendix A). In the procedures and requirements, the Minister identified key environmental risks that the project appeared to pose, viz.:

- effects on biodiversity and ecological values within, near and downstream of the project site including native vegetation, listed communities and species (flora and fauna) under the *Flora and Fauna Guarantee Act 1988* and *Environment Protection and Biodiversity Conservation Act 1999*;
- effects on surface water environments and related beneficial uses, including as a result of changes to stream flows, discharge of sediment and acid formation from disturbance of wetlands (including but not limited to Long Swamp and Glenelg Estuary and Discover Bay Ramsar site);
- effects on groundwater that may result in adverse changes to groundwater dependent ecosystems or affect the ecological character of the Glenelg Estuary and Discovery Bay Ramsar site;
- effects on Aboriginal and non-Aboriginal cultural heritage values;
- effects on state and regional landscape values and national parks;
- effects on local amenity values (e.g. visual, noise), including non-neighbouring landholders;
- effects on socio-economic environment, at local and regional scales, including increased traffic movement and indirect effects of construction on the capacity of local community infrastructure; and
- effects from a cumulative perspective, including threatened flora and fauna, social and amenity values, with particular consideration of the currently operating and already approved wind farm projects in the region.

These draft scoping requirements provide further detail on the specific matters to be investigated in the EES in the context of the *Ministerial Guidelines for Assessment of Environmental Effects under the EE Act* (Ministerial Guidelines).

## 2. Assessment process and required approvals

### 2.1 What is an EES?

An EES describes a project and its potential environmental effects. It should enable stakeholders and decision-makers to understand how the project is proposed to be implemented and the likely environmental effects of doing so. An EES has two main components.

1. The EES main report – an integrated, plain English document that assesses the potential impacts of the project and examines avoidance, mitigation or other measures to reduce the environmental effects. The main report draws on technical studies, data and statutory requirements such as specific limits for surface water and groundwater quality and waste discharge to the environment and should clearly identify which components of the scope are being addressed throughout.
2. The EES technical reports – specialist studies, investigations and analyses that provide the basis for the EES main report. These reports will be exhibited in full, as appendices to the main report.

### 2.2 The EES process

The proponent is responsible for preparing the EES, including conducting technical studies and undertaking stakeholder consultation. The Department of Environment, Land, Water and Planning (DELWP) is responsible for managing the EES process. The EES process has the following steps<sup>2</sup>:

- preparation of a draft study program and draft schedule by the proponent (completed);
- establishment of an inter-agency technical reference group (TRG) convened by DELWP (completed);
- preparation and exhibition of draft scoping requirements by DELWP on behalf of the Minister (current step);
- finalisation of the scoping requirements after considering public comments received during the advertised exhibition period, for issue by the Minister;
- review of the proponent's EES studies and draft documentation by DELWP and the TRG<sup>3</sup>;
- completion of the EES by the proponent;
- review of the complete EES by DELWP to establish its adequacy for public exhibition;
- exhibition of the proponent's EES and invitation for public comment by DELWP on behalf of the Minister;
- appointment of an inquiry panel by the Minister to review the EES and public submissions received, and provide a report to the Minister; and finally
- following receipt of the inquiry report, an assessment of the project's environmental effects by the Minister for the consideration of statutory decision-makers.

#### Technical reference group

DELWP has convened an agency-based TRG, comprising representatives of relevant state government agencies and departments as well as the Glenelg Shire Council. The TRG will advise DELWP and the proponent on:

- applicable policies, strategies and statutory provisions;
- the scoping requirements for the EES;
- the design and adequacy of technical studies for the EES;
- the proponent's public information and stakeholder consultation program for the EES;
- responses to issues arising from the EES investigations;
- the technical adequacy of draft EES documentation; and
- coordination of statutory processes.

#### Consultation plan

The proponent is responsible for informing and engaging the public and stakeholders to identify and respond to their issues in conjunction with the EES studies. Stakeholders include potentially affected parties, the local community and interested organisations and individuals, as well as government bodies. Under its EES

<sup>2</sup> Further information on the EES process can be found at [planning.vic.gov.au/environment-assessment/what-is-the-ees-process-in-victoria](http://planning.vic.gov.au/environment-assessment/what-is-the-ees-process-in-victoria).

<sup>3</sup> For critical components of the EES studies, peer review will be required. Peer review managed by DELWP may also be appropriate.

consultation plan, the proponent will inform the public and stakeholders about the EES process and associated investigations and will provide opportunities for input and engagement during the EES investigations. The EES consultation plan is reviewed by DELWP and the TRG before it is finalised. The consultation plan will be published on the DELWP website<sup>4</sup>. The EES consultation plan will need to:

- identify stakeholders;
- characterise the stakeholder groups in terms of their interests, concerns and consultation needs and potential to provide local knowledge;
- describe the consultation methods to be used and outline a schedule of consultation activities during the EES investigations and development of the EES; and
- outline how inputs from stakeholders will be recorded, considered and/or addressed in the EES.

### **Statutory approvals and the EES process**

The project will require a range of approvals under Victorian legislation. DELWP coordinates the EES process as closely as practicable with the approvals procedures, consultation and public notice requirements, in particular the planning approval process.

The key approvals known to be required under Victorian legislation are: an approved cultural heritage management plan (CHMP) under the *Aboriginal Heritage Act 2006*, approvals for a wind energy facility under the *Planning and Environment Act 1987* and an approved work plan and work authority under the *Mineral Resources (Sustainable Development) Act 1990* (for development of an on-site quarry).

Other approvals are likely to be required and will be determined throughout the course of the EES.

### **2.3 Accreditation of the EES process under the EPBC Act**

The project was also referred to the Commonwealth under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). A delegate for the Commonwealth Minister for the Environment determined on 7 November 2019 that the project is a controlled action<sup>5</sup> and requires assessment and approval under the EPBC Act. The provisions for the Commonwealth's controlled action decision under the EPBC Act are Ramsar wetlands (sections 16 and 17B), listed threatened species and ecological communities (sections 18 and 18A) and listed migratory species (sections 20 and 20A).

The EES process is accredited to assess impacts on matters of national environmental significance (MNES) under the EPBC Act through the Bilateral Assessment Agreement between the Commonwealth and the State of Victoria. Note that what are generally termed 'effects' in the EES process correspond to 'impacts' defined in section 82 of the EPBC Act.

The Commonwealth Minister or delegate will decide whether the project is approved, approved with conditions or refused under the EPBC Act, after having considered the Minister for Planning's assessment under the EE Act.

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<sup>4</sup> [planning.vic.gov.au/environment-assessment/browse-projects/projects/kentbruck-green-power-hub](http://planning.vic.gov.au/environment-assessment/browse-projects/projects/kentbruck-green-power-hub)

<sup>5</sup> Under the EPBC Act, projects are considered as 'actions'. For the purposes of this document the term 'project' also means 'the action'.

## 3. Matters to be addressed in the EES

### 3.1 General approach

Preparation of the EES should be consistent with the principles of a systems approach and a risk-based approach<sup>6</sup>, so that a greater level of effort is directed at investigating and addressing those matters that pose a relatively higher risk of adverse effects. The EES should put forward a sound rationale for the level of assessment and analysis undertaken for any environmental effect or combination of environmental effects<sup>7</sup> arising from construction and operational stages of the project.

In the case of potentially significant effects, analyses documented within the EES should be detailed enough to provide a good understanding of the nature of the effects including:

- the potential effects on individual environmental assets —magnitude, extent and duration of change in the values of each asset— having regard to intended avoidance and mitigation measures;
- the likelihood of adverse effects, including those caused indirectly as a result of proposed activities, and associated uncertainty of available predictions or estimates;
- further management measures that are proposed where avoidance and mitigation measures do not adequately address effects on environmental assets, including specific details of how the measures address relevant policies;
- likely residual effects, including significant residual impacts on MNES, that are likely to occur assuming the proposed measures to avoid and mitigate environmental effects are implemented; and
- proposed approach to managing and monitoring environmental performance and contingency planning.

### 3.2 Content and style

Together with the Minister's reasons for decision, the published procedures and requirements and the Ministerial Guidelines, the content of the EES and related investigations is to be guided by these scoping requirements. It is the proponent's responsibility to ensure that adequate studies are undertaken to support the assessment of environmental effects, focusing primarily on significant effects (including those that might emerge during the investigations). The EES should demonstrate how the project will achieve a balance of economic, social and environmental outcomes that contribute to ecologically sustainable development and provide a net community benefit. The EES should address statutory requirements associated with approvals that will be informed by the Minister's assessment as well as significant issues that emerge during the investigations.

The EES should provide a clear, objective and well-integrated analysis of the potential effects of the proposed project, including proposed avoidance, mitigation and management measures, as well as feasible alternatives. To facilitate decisions on required approvals, the EES should also address statutory requirements associated with approvals that will be informed by the Minister's assessment. Overall, the main report should include:

- an executive summary of the potential environmental effects of the project outlined in, including potential effects on identified MNES;
- a description of the entire project, including its objectives, rationale and key elements;
- a description of the relationship of the project to public policies and plans;
- an outline of the primary approvals required for the project to proceed;
- descriptions of the existing environment and future climate change scenarios, where these are relevant to the assessment of potential effects;
- appropriately detailed assessments of potential effects of the project on environmental values, relative to the 'no project' scenario, together with an estimate of the uncertainty associated with predictions;
- intended measures for avoiding, minimising, managing and monitoring effects;
- any proposed offset measures where avoidance and mitigation measures will not adequately address effects on environmental values, including the identified MNES, and discussion of how any offset package proposed meets the requirements of the Victorian Guidelines for the Removal,

<sup>6</sup> Ministerial Guidelines (p. 14).

<sup>7</sup> Effects include direct, indirect, combined, facilitated, short and long-term, beneficial, adverse and cumulative effects.

Destruction or Lopping of Native Vegetation and the EPBC Act Environmental Offsets Policy as it relates to MNES;

- predictions of residual effects, including residual significant impacts on MNES, of the project assuming implementation of proposed management measures;
- responses to issues raised through public and stakeholder consultation;
- evaluation of the implications for the project from the implementation of legislation and policy; and
- conclusions on the significance of impacts on regional, state and federal matters.

The proponent may choose to prepare a website with interactive functionality to provide an alternative form of access to EES information, which may compliment the conventional EES chapters and technical documents. Such an approach should be discussed with DELWP and should be integrated with the preparation of the EES package, including review by the TRG.

The EES should also include an outline of a program for community consultation, stakeholder engagement and communications proposed for implementation during the construction and operation of the project, including opportunities for local stakeholders to engage with the proponent to seek responses to issues that might arise during project implementation.

The proponent must also prepare a concise, graphical-based non-technical summary document (hard copy A4, no more than 25 pages) for free distribution to interested parties. The EES summary document should include details of the EES exhibition, public submission process and availability of the EES documentation.

### 3.3 Project description

The EES is to describe the project in sufficient detail to allow an understanding of all components, processes and development stages, and to enable assessment of their likely potential environmental effects. The project description should canvass the following:

- an overview of the proponent's environmental performance and track record, including experience in delivering similar projects, as well as organisation health, safety and environmental policies, and whether the proponent has been subject to any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources;
- contextual information on the project, including its objectives and rationale, its relationship to statutory policies, plans and strategies, including the justification for need and selection of the project and implications of the project not proceeding;
- existing and planned land uses within, and in the vicinity of, the proposed project, supported by plans and maps.
- the proposed operational life of the project, and any decommissioning and rehabilitation arrangements; and
- other necessary works proposed for the project, such as road upgrades and/or connections, and infrastructure and services relocation.

The EES should detail the project's components:

- location, footprint, layout and access arrangements during construction and operation;
- design and expected construction staging and scheduling;
- proposed construction methods, and extent of areas to be disturbed during construction;
- solid waste, wastewater and hazardous material generation and management during construction and operation;
- lighting, safety, security, and noise requirements during construction and operation;
- hours of construction work and a description of the expected duration of project components, including which components are temporary and which are permanent; and
- operational requirements including maintenance activities and decommissioning.

### 3.4 Project alternatives

The EES should document the proponent's design development process leading to the project design presented in the EES. The EES should canvass the proponent's consideration of feasible alternatives and include an explanation of how specific alternatives were shortlisted for evaluation within the EES. The EES should document the likely environmental effects of the alternatives, particularly where these offer a potential to minimise and/or avoid environmental effects whilst meeting the objectives of the project. The discussion of feasible alternatives and their effects should include:

- site selection process and extent of footprint;
- turbine models and configurations (including height, blade length and generator models);
- turbine and infrastructure layouts;
- internal collector powerline route selection process and investigations into the potentially suitable technologies, such as undergrounding;
- external powerline routes and configurations (e.g. underground);
- substation locations;
- access road site selection and alignment process;
- sourcing of raw construction materials (e.g. on-site quarry, including proposed locations); and
- site access and transport route selection process.

Where appropriate, the assessment of environmental effects of relevant layout, route and design alternatives is to address the matters set out in the subsequent sections of this document. The depth of investigation of alternatives should be proportionate to their potential to minimise potentially significant adverse effects as well as meet project objectives.

### 3.5 Applicable legislation, policies and strategies

In addition to the EE Act and the EPBC Act, the EES will need to identify relevant legislation, policies, guidelines and standards, and assess their specific requirements or implications for the project, particularly in relation to required approvals. Particular attention is drawn to the recent changes in the EP Act which are expected come into effect on 1 July 2020.

### 3.6 Draft evaluation objectives

Draft evaluation objectives are provided in Section 4 for each of the topics to be addressed in the EES. The draft evaluation objectives identify desired outcomes in the context of key legislative and statutory policies, as well as the principles and objectives of ecologically sustainable development and environment protection, including net community benefit. They provide a framework to guide an integrated assessment of environmental effects, in accordance with the Ministerial Guidelines, and for evaluating the overall implications of the project. These objectives may be refined by the proponent or DELWP as the EES is prepared.

### 3.7 Environmental management framework

Inadequate management of environmental effects during project design, construction, operation, decommissioning and rehabilitation could result in a failure to achieve necessary environmental outcomes and statutory requirements or sustain stakeholder confidence. Hence, the proposed environmental management framework (EMF) in the EES should describe a transparent framework with clear accountabilities for managing and monitoring the environmental effects and risks associated with the construction and operational phases<sup>8</sup>. The entity responsible for approval of environmental plans should be identified.

The EMF should describe the baseline environmental conditions to allow evaluation of the residual environmental effects of the project, as well as the efficacy of applied environmental management and contingency measures. The framework should include:

- the context of required approvals and consents;

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<sup>8</sup> Ministerial Guidelines (p. 20).

- the proposed environmental management system to be adopted;
- organisational responsibilities and accountabilities for environmental management;
- an environmental risk register that is maintained during project implementation;
- the environmental management measures proposed in the EES to address specific issues, including commitments to mitigate adverse effects and enhance environmental outcomes;

An important aspect of the EMF is community consultation, stakeholder engagement and communications during the construction and operation of the project. As the project proceeds it will largely be the EMF that outlines opportunities for local stakeholders to engage with the proponent to seek responses to issues that might arise during construction or operation. To this end the EMF will set out procedures for:

- complaints recording and resolution;
- auditing and reporting of performance including compliance with relevant statutory conditions and standards; and
- review of the effectiveness of the EMF for continuous improvement.

Management measures proposed in the EES to address specific issues, including commitments to mitigate adverse effects and enhance environmental outcomes should be clearly described in the EMF. The EMF should describe proposed objectives, indicators and monitoring requirements, including for (but not limited to) managing or addressing:

- biodiversity values (including MNES) including bird and bat mortality and any mitigation or offsetting measures, if required;
- wetland values (including Ramsar listed wetlands)
- surface water and groundwater values;
- landscape and visual values, including blade glint and shadow flicker;
- noise and vibration, including during construction, decommissioning, and from operational turbines;
- air quality during construction;
- Aboriginal cultural heritage values;
- historic heritage values;
- aviation (including with respect to aerial firefighting) and electromagnetic interference;
- socioeconomic and land use values, such as for neighbouring residents and visitors to neighbouring National Parks and other Reserves; and
- traffic, particularly during construction, including managing temporary disruption and changed accessibility.

## 4. Assessment of specific environmental effects

Preparation of the EES document and the necessary investigation of effects should be proportional to the project risk, as outlined in the Ministerial Guidelines (p. 14). The risk-based approach should be adopted during the EES studies prior to the assessment of potential impacts, so that a greater level of effort is directed at investigating and managing those matters that pose relatively higher risk of adverse effects.

The following sections set out specific requirements for the assessment of effects. The sections are listed in order of apparent environmental risk (from most significant to least). The significance of risk may change as the assessment is progressed but it remains incumbent on the proponent, in consultation with the TRG, to assess risk and direct assessment effort accordingly. Each of the sections below use the following structure.

1. Identify **key issues** or risks that the project poses to achieve the draft evaluation objective.
2. Characterise the **existing environment** to underpin impact assessments having regard to the level of risk.
3. Assess the **likely effects** of the project on the existing environment and evaluate their significance.
4. Present design and **mitigation measures** that could substantially reduce and/or mitigate the risk of significant effects. An assessment of residual effects (post mitigation) and their significance will be required to illustrate the effectiveness of the proposed mitigation measures.
5. Propose **performance objectives** and management measures to evaluate whether the project's effects are maintained within permissible levels and propose contingency approaches if they are not.

The description and assessment of effects must not be confined to the immediate area of the project but must also consider the potential of the project to impact on nearby environmental values, including areas impacted through transport route upgrades.

### 4.1 Biodiversity and habitat

#### Draft evaluation objective

*To avoid or minimise potential adverse effects on biodiversity values within the project site and its environs, including native vegetation, listed species and ecological communities, other protected species and habitat for these species.*

#### Key issues

- Potential for significant effects and their acceptability on key threatened and listed fauna species including but not limited to Southern Bent-wing Bat, South Eastern Red-tailed Black Cockatoo, Australasian Bittern, White-throated Needletail, Orange-bellied Parrot and migratory shorebirds.
- Disruption to the movement of fauna between areas of habitat across the broader landscape, including but not limited to movement between conservation areas such as Discovery Bay Coastal Park, Lower Glenelg National Park and Long Swamp.
- Direct or indirect loss, disturbance and/or degradation of listed or other protected species and nearby habitat that may support listed species or other protected flora, fauna or ecological communities.
- Disturbance and increased risk of mortality for protected bird and bat species arising from project infrastructure, including collision with wind turbine blades and transmission lines.
- Potential for adverse effects on the ecological character and biodiversity values of the Glenelg Estuary and Discovery Bay Ramsar site.
- Potential cumulative effects on listed threatened species and ecological communities, such as Orange-bellied Parrot, Southern Bent-wing Bat, South Eastern Red-tailed Black Cockatoo, Australasian Bittern, White-throated Needletail and Brolga from the project in combination with other projects.
- The availability of suitable offsets for the loss of native vegetation and habitat for listed threatened species under the FFG Act and EPBC Act.

#### Existing environment

- Characterise the type, distribution and condition of biodiversity values within a suitable study area, comprising the project site and its environs, including native vegetation, terrestrial and aquatic habitat and habitat corridors or linkages. This should include identifying and characterising any

ephemeral wetlands/habitat for threatened species and communities listed under the FFG Act or EPBC Act.

- Identify and characterise any areas of native vegetation and groundwater dependant ecosystems that may be affected by groundwater drawdown or surface hydrological changes.
- Identify the presence and movements of Southern Bent-wing Bats within and near the project site, including locations of roosting or breeding sites within movement distances from the project site, in consultation with DELWP.
- Identify the presence of foraging and roosting habitat for South Eastern Red-tailed Black Cockatoo within the project site and broader locality in consultation with DELWP and the National Recovery Team for the species.
- Describe the biodiversity values that could be directly or indirectly affected by the project, including:
  - native vegetation and any ecological communities listed under the EPBC Act and FFG Act;
  - presence of, or suitable habitats for, protected flora and fauna species (including migratory species), in particular species listed under the EPBC Act, FFG Act, and DELWP advisory lists; and
  - potential use of the site and its environs for movement and/or foraging by protected fauna species including: Southern Bent-wing Bat, Red-tailed Black Cockatoo, Australasian Bittern, White-throated Needletail, Orange-bellied Parrot and Brolga.
- Describe any existing threats to biodiversity values, including:
  - direct removal of individuals or destruction of habitat;
  - historic or ongoing disturbance or alteration of habitat conditions (e.g. habitat fragmentation, severance of wildlife corridors or habitat linkages, changes to water quantity or quality, fire hazards, etc.);
  - background threats that lead to the mortality of listed threatened fauna; and
  - the presence of any declared weeds, pathogens and pest animals within and in the vicinity of the project area.
- Characterisation of the existing environment is to be informed by relevant databases, literature (and published data), community observations (including citizen science), appropriate targeted and/or seasonal surveys and modelling of the potential and actual presence of threatened species and communities consistent with Commonwealth and state survey guidelines, conservation advices and threatened species recovery plans. Where surveys do not identify a listed species or community, but past records and/or habitat analysis suggest that it may occur, a precautionary approach to the further investigation and assessment of its occurrence should be applied.

### Likely effects

- Assess the direct and indirect effects of the project and feasible alternatives, including transport route upgrades and use, on native vegetation, listed ecological communities, and listed threatened and other protected flora species.
- Assess the direct and indirect effects of the project and feasible alternatives, on listed threatened, migratory and other protected fauna species under the EPBC Act, FFG Act and/or DELWP advisory lists.
- Assess the direct and indirect effects of the project and feasible alternatives, on the ecological character of the Glenelg Estuary and Discovery Bay declared Ramsar site.
- Assess the direct and indirect effects of the project, on biodiversity values, including:
  - disturbance or alteration of habitat conditions (e.g. habitat fragmentation, severance of wildlife corridors or habitat linkages, displacement due to avoidance of project infrastructure, changes to water quantity or quality, hydrological changes to wetland function, fire hazards, etc.);
  - on the ability of wetlands, including Glenelg Estuary and Discovery Bay Ramsar site, to support listed species and communities;
  - direct removal of individuals or destruction of habitat;
  - threats of mortality of listed threatened fauna (including site and species specific risk-factors); and
  - the presence and potential spread of any declared weeds, pathogens and pest animals within and in the vicinity of the project area.

- Assess the potential cumulative effects on listed species of fauna, in particular Brolga and Southern Bent-wing Bat, from the project in combination with other projects, in particular nearby proposed, approved or operating wind energy facilities.

#### **Mitigation measures**

- Identify and describe potential alternatives, proposed design options and mitigation measures and their effectiveness in avoidance or reduction of significant effects on any flora, fauna and/or ecological communities listed on the EPBC Act, FFG Act or DELWP advisory lists, other protected species or ecological character of the Ramsar site. Provide clear statements noting which avoidance or mitigation measure will be committed to.
- Justify and describe the assumptions and level of uncertainty associated with the proposed measures achieving their desired outcomes.
- Develop hygiene controls for vehicle and machinery movement to minimise the spread of pathogens and weeds.
- Describe the application of the three-step approach to avoiding the removal of native vegetation, minimising impacts from removal of native vegetation that cannot be avoided and providing offsets to compensate for the biodiversity impact from the removal of native vegetation.

#### **Performance objectives**

- Describe and evaluate proposed commitments to manage residual effects of the project on biodiversity values, including an outline of an offset strategy and offset management plan to secure appropriate offsets to satisfy both Commonwealth and state offset requirements.
- Develop contingency measures to be implemented in the event of adverse residual effects (including ineffective mitigation) on flora and fauna values requiring further management.

## **4.2 Cultural heritage**

### **Draft evaluation objective**

*To avoid or minimise adverse effects on Aboriginal and historic cultural heritage and associated values.*

### **Key issues**

- Destruction or disturbance of sites or places of Aboriginal or historical cultural heritage significance.

### **Existing environment**

- Review land use history, previous studies and relevant registers to identify areas with Aboriginal cultural heritage value or potential Aboriginal cultural heritage value.
- Identify and characterise Aboriginal cultural heritage sites or areas of sensitivity potentially impacted by the project.
- Identify and document known, and previously unidentified places and sites of historic cultural heritage significance potentially impacted by the project, including any areas of significant archaeological interest, in accordance with the Guidelines for Conducting Archaeological Surveys (Heritage Victoria, 2013).

### **Likely effects**

- Assess potential effects of the project on:
  - identified sites or places of Aboriginal cultural heritage significance; and
  - sites and places of historic cultural heritage significance, having regard to the *Guidelines for Investigating Historical Archaeological Artefacts and Sites*.

### **Mitigation measures**

- Describe and evaluate proposed design, management or site protection measures that could avoid or mitigate potential adverse effects on known or potential Aboriginal or historical cultural heritage values.
- Develop management and contingency measures in accordance with the requirements for a Cultural Heritage Management Plan (CHMP) under the *Aboriginal Heritage Act 2006*.

### **Performance objectives**

- Outline any proposed commitments to mitigate and manage residual effects on sites and places of Aboriginal cultural heritage significance (within the framework of a draft CHMP as appropriate).
- Outline any proposed commitments to mitigate and manage residual effects on sites and places of historical heritage significance, including site investigation and recording procedures.

## **4.3 Catchment values and hydrology**

### **Draft evaluation objective**

*To maintain the functions and values of aquatic environments, surface water and groundwater quality and stream flows and prevent adverse effects on protected beneficial uses.*

### **Key issues**

- Potential for the project to have significant impact on wetland systems, including, but not limited to, Glenelg Estuary and Discovery Bay Ramsar site and its associated aquatic environments, and the ability for wetland systems to support habitat for protected flora and fauna species.
- The potential for adverse effects on nearby and downstream water environments (including Glenelg Estuary and Discovery Bay Ramsar site and listed Nationally Important Wetlands) due to changed water quality, flow regimes, impacts on groundwater or waterway conditions during construction.
- The potential for adverse effects on the functions, values and beneficial uses of groundwater due to the project's activities, including water extraction, interception or diversion of flows, discharges or seepage from quarrying areas, turbine foundations and other operational areas or saline water intrusion.
- Potential for the project to have a significant effect on hydrology and affect existing sedimentation and erosion processes leading to land and aquatic habitat degradation.
- Potential for occurrence and disturbance of acid sulphate soils.

### **Existing environment**

- Characterise the groundwater (including depth, quality and availability to licence/ use) and surface water environments and drainage features in the project area and its environs.
- Characterise the wetland systems in the project area and its environs including the extent, types and condition of wetlands that could be impacted by the project, having regard to terrestrial and aquatic habitat, including as habitat corridors or linkages.
- Characterise hydrological requirements for wetlands in the project area and its environs and their acceptable limits for change.
- Characterise soil types and structures in the study area and identify the potential location and disturbance of acid sulphate soils.

### **Likely effects**

- Assess the potential effects of the project on surface water and groundwater environments and beneficial uses, including on permanent and ephemeral wetland systems in the project area and its environs and downstream, considering appropriate climate change scenarios.
- Assess the potential effects on Glenelg Estuary and Discovery Bay Ramsar site, due for example to changed water quality, flow regimes, impacts on groundwater or waterway conditions during construction considering appropriate climate change scenarios.
- Identify and assess potential effects of the project on soil stability, erosion and the exposure and disposal of any waste or hazardous soils (e.g. acid sulphate soils).

### **Mitigation measures**

- Identify proposed measures to mitigate any potential effects, including any relevant design features or preventative techniques to be employed during construction and operation.

### **Performance objectives**

- Describe proposed measures to manage and monitor effects on catchment values and identify likely residual effects.

- Describe contingency measures for responding to unexpected but foreseeable impacts such as disturbance of acid sulphate soils.

## 4.4 Landscape and visual

### Draft evaluation objective

*To minimise and manage potential adverse effects on landscape and visual amenity.*

### Key issues

- Potential effects on significant landscape values and landforms in the vicinity of the project, especially national parks, other reserves and areas identified for their landscape values.
- Potential for nearby residents / communities to be exposed to significant effects to the visual amenity, including blade glint and shadow flicker, from project infrastructure.
- Potential cumulative impacts of other operating and proposed/ approved wind farms on landscape values of the region.

### Existing environment

- Characterise the landscape character, features and values of the project area and its environs.
- Identify public and private view sheds to and from the project and characterise visual values of the area, including dark skies.
- Identify the components of the project that may result in a significant visual amenity effect including turbines, powerlines and on-site quarry.
- Identify viewsheds in which the project site features, including from nearby residences (where permitted), public lookouts, tourist attractions, roads and key vantage points in the vicinity.
- Identify existing built features within the landscape (e.g. 500kV powerlines) and their impact on the existing landscape and visual setting.

### Likely effects

- Assess the landscape and visual effects of the project, including on public and private views, and effects of blade glint and shadow flicker on neighbouring dwellings and communities. Use photomontages and other visual techniques to support the assessment.
- Assess the potential for cumulative impacts associated with the development of the project in the context of existing built infrastructures, as well as nearby operating and proposed/approved wind farm or other developments.

### Mitigation measures

- Outline and evaluate any potential design and siting options that could avoid and minimise potential effects on landscape and visual amenity of neighbouring residences and communities and additional management strategies that may further minimise potential effects.

### Performance objectives

- Describe proposed measures to manage residual effects on landscape and visual amenity values, including in the context of potential rehabilitation and restoration work following decommissioning.

## 4.5 Land use and socioeconomic

### Draft evaluation objective – land use and infrastructure

*To avoid and minimise adverse effects on land use, social fabric of the community, local infrastructure, aviation safety and to neighbouring landowners during construction, operation and decommissioning of the project.*

### Key issues

- Significant disruption to existing and/or proposed land uses, with associated economic and social effects.

- Potential adverse effects of wind turbines and associated infrastructure from an aviation perspective, including but not limited to impacts on aerial safety, air traffic control equipment, obstruction and turbulence.
- Potential interference with communication systems that use electromagnetic waves as the transmissions medium (e.g. television, radio, mobile reception).
- Potential disruption the management of public land.
- Potential adverse economic and social effects.

### **Existing environment**

- Describe the project area and its environs in terms of land use (existing and proposed), residences, zoning and overlays and public infrastructure that support current and strategic patterns of economic and social activity.
- Describe the local community and social setting.
- Identify and describe the nearest aerodromes, air navigation and air traffic management services, transiting air routes, and designated airspaces.
- Characterise current use of aerial spraying and aerial firefighting that could be affected by the project (including any significant water resource that may be used for aerial firefighting in the region).
- Describe the source and predicted volumes of construction materials for wind turbines and associated infrastructure.
- Characterise current local television and radiocommunication services within the project area and surrounding areas.
- Identify locations, values and prescribed management priorities for adjacent/ nearby public land.

### **Likely effects**

- Identify potential long and short-term effects of the project on existing and potential land uses, public infrastructure and fire and emergency management.
- Identify potential economic effects of the project, considering direct and indirect consequences on employment and local and regional economy.
- Identify the potential effects and risks to aviation operations and safety from the project.
- Identify the potential for electromagnetic interference to radio-communications services from the project.
- Identify the potential effects of the project on land management practices and strategic direction for public land.

### **Mitigation measures**

- Demonstrate whether the project is consistent with relevant planning scheme provisions and other relevant policies (including approved management plans for adjacent public land).
- Outline measures to minimise potential adverse effects of the project and enhance benefits to the community and local businesses.
- Describe proposed mitigation or management measures to reduce potential effects on aviation operations and safety with regard to advice from Civil Aviation Safety Authority and emergency services.
- Describe and evaluate potential design responses and/or other mitigation measures (e.g. installation of additional transmitter masts) to reduce potential electromagnetic interference to radio-communications services.

### **Performance objectives**

- Describe proposed measures to mitigate, offset or manage social, land use and economic outcomes for communities living within the project area and its environs as well as proposed measures to enhance beneficial outcomes.
- Describe and evaluate proposed measures to manage and monitor residual electromagnetic interference and effects to aviation operations and safety and describe contingency measures for responding to unexpected impacts.

## 4.6 Community amenity, safety, roads and transport

### Draft evaluation objective

To avoid and minimise adverse effects for community amenity and safety, with regard to construction noise, vibration, dust, traffic and transport, operational turbine noise and fire risk management.

### Key issues

- Managing traffic disruptions for residents, businesses and travellers during the construction of the project.
- Potential damage to local and regional road surfaces along transport routes and increased risk to road safety on transport routes.
- Potential for adverse effects to air quality at sensitive receptors and on other sensitive land uses during construction of wind turbines, associated infrastructure and use of an on-site quarry.
- Potential for adverse effects on noise and vibration amenity at sensitive receptors during construction, operation and decommissioning (including on-site quarry).
- Implications of the project for fire risk management on surrounding land, including additional fire ignition risks arising from the project.

### Existing environment

- Describe the existing road network surrounding the project area, including proposed construction transport route options, in terms of capacity, condition, accessibility and potentially sensitive users.
- Characterise current local conditions in relation to air quality using data collected from existing local monitoring stations, or project-installed monitoring equipment.
- Characterise the ambient noise environment and its values in adjacent established residential, farming zone, commercial and open space areas and at other sensitive land use and high amenity locations.
- Identify sensitive receptors within 3km of wind turbines, associated infrastructure and on-site quarry that may be subject to effects to amenity from the project including, but not limited to, residential dwellings and visitor accommodation (including camping grounds).
- Characterise the fire risk associated with the project area and its environs.

### Likely effects

- Assess the potential effects of construction activities on existing traffic, preferred traffic routes and road conditions, including amenity and accessibility impacts.
- Identify any road works required to accommodate the project traffic during the construction stage (having regard to the type and dimensions of vehicles) and potential environment effects.
- Assess the potential effects to traffic and roads during operation and decommissioning of the project.
- Assess the potential effects of construction, operation and decommissioning activities on air quality.
- Assess the potential dust impacts from the proposed on-site quarry in accordance with the requirements of EPA Victoria's *Protocol for Environmental Management: Mining and Extractive Industries (2007)*.
- Assess the potential effects of the project on noise and vibration amenity at sensitive receptors, including information that addresses:
  - how the noise associated with construction of the wind farm will be managed in accordance with relevant guidelines, such as EPA Victoria's *Noise Control Guidelines Publication 1254* and *Noise from Industry in Regional Victoria Publication 1411*; and
  - how the operational wind farm noise will be managed in accordance with relevant guidelines, including *Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria, NZS 6808:2010 Acoustics – Wind Farm Noise* and EPA Victoria's *Noise from Industry in Regional Victoria Publication 1411*.
- Assess the potential noise and vibration (ground and airborne) effects from the proposed on-site quarry activities on sensitive receptors in accordance with guidelines, such as *The Guidelines for Ground Vibration and Airblast Limits for Blasting in Mines and Quarries*.
- Assess the risks that the project could cause a fire affecting land and assets within or outside the project footprint.

- Assess the implications of the project for fire risk management or bushfire suppression activities within the project footprint or in its vicinity.

#### **Mitigation measures**

- Identify the required road upgrades to accommodate construction traffic and additional road maintenance regime to address adverse impacts from project construction (including with reference to potentially limited construction windows due to project area's climate).
- Describe and evaluate the proposed traffic management and safety principles to address changed traffic conditions during construction of the project, covering (where appropriate) road safety, temporary or permanent road diversions, different traffic routes, hours of use, vehicle operating speeds, types of vehicles and emergency services provisions.
- Describe consultation undertaken with relevant authorities, to coordinate roadworks and upgrades required for project traffic.
- Describe and propose siting, design, mitigation and management measures to control emissions to air from construction activities.
- Describe and evaluate both potential and proposed design responses and/or other mitigation measures (e.g. staging/scheduling of works) which could minimise noise and vibration during construction, operation and decommissioning.

#### **Performance objectives**

- Outline and evaluate proposed measures designed to manage and monitor residual effects on road users and describe contingency measures for responding to unexpected impacts.
- Describe proposed measures to manage and monitor effects on amenity values and identify likely residual effects, including compliance with standards and proposed trigger levels for initiating contingency measures.
- Describe contingency measures for responding to unexpected impacts to amenity values resulting from the project during construction, operation and decommissioning.

# Appendix A

## Procedures and requirements under section 8B(5) of the *Environment Effects Act 1978*

The procedures and requirements applying to the EES, in accordance with both section 8B(5) and the *Ministerial guidelines for assessment of environmental effects under the Environment Effects Act 1978* (Ministerial Guidelines), are as follows.

- (i) The EES is to document the investigation and avoidance of potential environmental effects of the Kentbruck Green Power Hub (the proposal), including for any relevant alternatives, as well as associated avoidance, mitigation and management measures. In particular the EES should address:
  - a. effects on biodiversity and ecological values within, near and downstream of the project site including native vegetation, listed communities and species (flora and fauna) under the *Flora and Fauna Guarantee Act 1988* and *Environment Protection and Biodiversity Conservation Act 1999*;
  - b. effects on surface water environments and related beneficial uses, including as a result of changes to stream flows, discharge of sediment and acid formation from disturbance of wetlands (including but not limited to Long Swamp and Glenelg and Discover Bay Ramsar Site);
  - c. effects on groundwater that may result in adverse changes to groundwater dependent ecosystems or effect the ecological character of the Glenelg and Discovery Bay Ramsar site.
  - d. effects on Aboriginal and non-Aboriginal cultural heritage values;
  - e. effects on state and regional landscape values and national parks;
  - f. effects on local amenity values (e.g. visual, noise), including non-neighbouring landholders;
  - g. effects on socio-economic environment, at local and regional scales, including increased traffic movement and indirect effects of construction on the capacity of local community infrastructure; and
  - h. effects from a cumulative perspective, including threatened flora and fauna, social and amenity values, with particular consideration of the currently operating and already approved wind farm projects in the region.
- (ii) The matters to be investigated and documented in the EES will be set out in detail in scoping requirements prepared by the Department of Environment, Land, Water and Planning (the department). Draft scoping requirements will be exhibited for 15 business days for public comment, before being finalised and then issued by the Minister for Planning.
- (iii) The level of detail of investigation for the EES studies should be consistent with the scoping requirements issued for this proposal and be adequate to inform an assessment of the potential environmental effects (and their acceptability) of the proposal and any relevant alternatives, in the context of the Ministerial Guidelines.
- (iv) The proponent is to prepare and submit to the department a draft EES study program to inform the preparation of scoping requirements.
- (v) The department is to convene an inter-agency technical reference group (TRG) to advise the proponent and the department, as appropriate, on scoping and adequacy of the EES studies during the preparation of the EES, as well as coordination with statutory approval processes.
- (vi) The proponent is to prepare and submit to the department its proposed EES consultation plan for engaging with the public and stakeholders during the preparation of the EES. Once completed to the satisfaction of the department, the EES consultation plan is to be implemented by the proponent, having regard to advice from the department and the TRG.
- (vii) The proponent is also to prepare and submit to the department its proposed schedule for the studies, and preparation and exhibition of the EES, following confirmation of the draft scoping requirements. This is to enable effective management of the EES process on the basis of an agreed alignment of the proponent's and department's schedules, including for TRG review of technical investigations and the EES documentation.

- (viii) The proponent is to apply appropriate peer review and quality management procedures to enable the completion of EES studies and documentation to an acceptable standard.
- (ix) The EES is to be exhibited for a period of 30 business days for public comment, unless the exhibition period spans the Christmas–New Year period, in which case 40 business days will apply.
- (x) An inquiry will be appointed under the *Environment Effects Act 1978* to consider and report on the environmental effects of the proposal.

### **Notification**

The following parties (proponent and relevant decision-makers) are to be notified of this decision in accordance with sections 8A and 8B(4)(a)(i) of the *Environment Effects Act 1978*, as appropriate:

- Neoen Australia Pty Ltd (proponent)
- Minister for Energy, Environment and Climate Change
- Secretary of Department of Environment, Land, Water and Planning
- Secretary of Department of Health and Human Services
- Secretary of Department of Jobs, Precincts and Regions
- Minister for Planning
- Minister for Regional Development
- Minister for Water
- Chairperson of Gunditj Mirring Traditional Owners Aboriginal Corporation
- Executive Director of Aboriginal Victoria
- Executive Director of Heritage Victoria
- Glenelg Shire Council
- Environment Protection Authority
- Glenelg Hopkins Catchment Management Authority
- Parks Victoria

**HON RICHARD WYNNE MP**

**Minister for Planning**

Date: 25/08/19