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Australian Government

Department of Climate Change, Energy,  
the Environment and Water

## **PUBLIC ENVIRONMENT REPORT GUIDELINES**

**Liverpool Range Wind Farm Project, NSW**

**(EPBC 2022/09416)**

***Environment Protection and Biodiversity Conservation Act 1999***

## **GUIDELINES FOR A DRAFT PUBLIC ENVIRONMENT REPORT**

### **PREAMBLE**

Tilt Renewables Australia Pty Ltd as trustee for Liverpool Range Wind Farm Project Trust (the Proponent) proposes to install, operate, maintain, and decommission a wind farm and associated ancillary infrastructure, located east of Coolah and northwest of Cassilis townships, within the Central West-Orana Renewable Energy Zone, New South Wales.

The proposal was referred under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) to the Minister for the Environment on 2 March 2023. The Minister determined on 30 March 2023 that approval is required as the action has the potential to have a significant impact on the following matters of national environmental significance (MNES) that are protected under Part 3 of the EPBC Act:

- Listed threatened species and communities (section 18 & section 18A); and
- Listed migratory species (sections 20 & 20A).

On the same date, the delegate of the Minister determined that the proposed activity be assessed by a Public Environment Report (PER).

Information about the action and its relevant impacts, as outlined below, is to be provided in the PER. This information should be sufficient to allow the Minister to make an informed decision on whether or not to approve, under Part 9 of the EPBC Act, the taking of the action for the purposes of each controlling provision.

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## **1 GENERAL OVERVIEW**

### **1.1 General content**

The PER should be a stand-alone document that primarily focuses on the matters of national environmental significance (MNES) listed in Section 4.1. It should contain sufficient information to avoid the need to search out previous or supplementary reports. It should take into consideration relevant statutory documents and policy statements, such as those listed below:

- *EPBC Act policy statement 3.5 - White box - yellow box - Blakely's red gum grassy woodlands and derived native grasslands (2006)*
- *Survey Guidelines for Australia's Threatened Birds. EPBC Act survey guidelines 6.2 (2010)*
- *Survey Guidelines for Australia's Threatened Bats. EPBC Act survey guidelines 6.1(2010)*
- *Significant impact guidelines - matters of national environmental significance (2013)*
- *EPBC Act referral guidance for the endangered koala (DCCEEW 2022)*
- *Identifying habitat for the endangered koala (DCCEEW 2022)*
- *Survey guidelines for Australia's threatened mammals (2011)*
- *EPBC Act environmental offsets policy (2012)*

The department supports the application of NSW Biodiversity Assessment Method (BAM) and Biodiversity Offset Scheme (BOS), which are endorsed for EPBC Act biodiversity assessment and offset measures.

The PER should enable interested stakeholders and the Minister to understand the environmental consequences of the proposed development. Information provided in the PER should be objective, clear, and succinct and, where appropriate, be supported by maps, plans, diagrams or other descriptive detail. The body of the PER is to be written in a clear and concise style that is easily understood by the general reader. Technical jargon should be avoided wherever possible. Cross-referencing should be used to avoid unnecessary duplication of text.

Detailed technical information, studies or investigations necessary to support the main text should be included as appendices to the PER. It is recommended that any additional supporting documentation and studies, reports or literature not normally available to the public from which information has been extracted be made available at appropriate locations during the period of public display of the PER.

After receiving the Ministers approval to publish the report, the Proponent is required to make the draft PER available for a period of public comment. Specific instructions regarding publication requirements will be provided as part of the Minister's direction to publish.

If it is necessary to make use of material that is considered to be of a confidential nature, the Proponent should consult with the department on the preferred presentation of that material, before submitting it to the Minister for approval for publication.

The level of analysis and detail in the PER should reflect the level of significance of the expected impacts on the environment. Any and all unknown variables or assumptions made in the assessment must be clearly stated and discussed. The extent to which the limitations, if any, of available information may influence the conclusions of the environmental assessment should be discussed.

The Proponent should ensure that the PER assesses compliance of the action with principles of Ecological Sustainable Development as set out in the EPBC Act, and the objects of the Act at Attachment A, and a copy of Schedule 4 of the EPBC Regulations, that is *Matters to be addressed by draft public environment report and environmental impact statement* is at Attachment B.

## **1.2 Format and style**

The PER should comprise three elements, namely:

- the executive summary;
- the main text of the document, and
- appendices containing detailed technical information and other information that can be made publicly available.

The guidelines have been set out in a manner that may be adopted as the format for the PER. This format need not be followed where the required information can be more effectively presented in an alternative way. However, each of the elements must be addressed to meet the requirements of the EPBC Act and Regulations.

The PER should be written so that any conclusions reached can be independently assessed. To this end all sources must be appropriately referenced using the Harvard standard. The reference list should include the address of any Internet “web” pages used as data sources.

The main text of the PER should include a list of abbreviations, a glossary of terms and appendices containing:

- a copy of these guidelines;
- a list of persons and agencies consulted during the PER;
- contact details for the Proponent; and
- the names of the persons involved in preparing the PER and work done by each of these persons.

Maps, diagrams and other illustrative material should be included in the PER. The PER should be produced on A4 size paper capable of being photocopied, with maps and diagrams on A4 or A3 size and in colour where possible.

The Proponent should consider the format and style of the document appropriate for publication on the Internet. The capacity of the website to store data and display the material may have some bearing on how the document is constructed.

## **2 SPECIFIC CONTENT**

### **2.1 General information**

The content below has been determined in accordance with the requirements under Schedule 4 of the Regulations ([Attachment A](#)). The department notes that some of the information may have been provided as part of the EPBC Act referral. The information provided in the EPBC referral and associated documentation, including the Environmental Assessment Report, can be used to write the PER. Specific content requirements have been included under each section below.

### **2.2 Description of the action**

The PER must include a description inclusive of the following information:

- the title of the action;
- the full name and postal address of the designated Proponent;
- a clear outline of the objective of the action;
- the location of the action;
- the background to the development of the action;
- how the action relates to any other actions (of which the Proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action;
- the current status of the action; and
- the consequences of not proceeding with the action.

This section must describe the proposed action in sufficient detail to allow an understanding of all relevant stages (including interdependencies between stages) and components, and to determine potential associated environmental impacts.

The various elements of the project must be described in the text and illustrated with maps, diagrams, plans (at a suitable scale) and other information as required to provide sufficient context and basis for the identification and assessment of impacts. Include precise location (including coordinates) of all elements of the action that may have impacts on MNES.

The description of the action must also include details on how the works are to be undertaken (including stages of development and their timing) and design parameters for those aspects of the structures or elements of the action that may have relevant impacts.

Include updated information if any changes have been made to the project since the referral documentation was submitted.

### **2.3 Feasible Alternatives**

Any feasible alternatives to the action to the extent reasonably practicable, including:

- (a) if relevant, the alternative of taking no action;

- (b) a comparative description of the impacts of each alternative on the NES matters protected by controlling provisions of Part 3 of the EPBC Act for the action; and
- (c) sufficient detail to make clear why any alternative is preferred to another.

Short, medium and long-term advantages and disadvantages of the options should be discussed.

### **3 MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE**

The PER must provide information of the impacts to any MNES identified as potentially being significantly impacted by the proposed action, including:

- Listed threatened species and communities (section 18 & section 18A)
- Listed migratory species (section 20 & section 20A).

#### **3.1 Description of the environment**

A description of the environment of the proposal site and the adjacent areas that may be affected by the action. It is recommended that this includes the following information:

- (a) Listed threatened species and ecological communities (section 18 & section 18A) and listed migratory species (sections 20 and 20A) that are likely to be present in the vicinity of the site, including the following details:
  - Details of the scope, timing (survey season/s) and methodology for studies or surveys used to provide information on the listed species/migratory species/community/habitat at the site (and in areas that may be impacted by the project).

The department requires a detailed assessment of species and ecological communities, including but not limited to:

- a. White Box-Yellow Box-Blakely's Red Gum Woodland and Derived Native Grassland – critically Endangered
- b. Regent Honeyeater (*Anthochaera Phrygia*) – critically endangered
- c. Swift Parrot (*Lathamus discolor*) – critically endangered
- d. Painted Honeyeater (*Grantiella picta*) – vulnerable
- e. Large-eared Pied Bat (*Chalinolobus dwyeri*) – vulnerable
- f. Corben's Long-eared Bat (*Nyctophilus corbeni*) – vulnerable
- g. Greater Glider (southern and central) (*Petauroides volans*) – endangered
- h. Koala (*Phascolarctos cinereus*) (combined populations of Qld, NSW and the ACT) – endangered.
- i. Gang-gang Cockatoo (*Callocephalon fimbriatum*) – endangered
- j. Grey Falcon (*Falco hypoleucos*) – vulnerable

- k. Superb Parrot (*Polytelis swainsonii*) – vulnerable
- l. Pilotbird (*Pycnoptilus floccosus*) – vulnerable
- m. Grey-headed Flying-fox (*Pteropus poliocephalus*) – vulnerable
- n. Yellow-bellied Glider (south-eastern) (*Petaurus australis australis*) – vulnerable
- o. *Homoranthus darwinioides* – vulnerable
- p. White-throated Needletail (*Hirundapus caudacutus*) – vulnerable; marine; migratory (CAMBA, JAMBA, ROKAMBA)
- q. *Ozothamnus tessellatus* – vulnerable
- r. South-eastern Glossy Black-Cockatoo (*Calyptorhynchus lathami lathami*) – vulnerable
- s. Spotted-tail Quoll (SE mainland population) (*Dasyurus maculatus maculatus*) – endangered.

*Listed migratory species (sections 20 and 20A)*

The Department requires a detailed assessment of the following migratory species, including but not limited to:

- a. White-throated Needletail (*Hirundapus caudacutus*) – Vulnerable, Listed migratory (CAMBA, JAMBA and ROKAMBA)
- b. Rufous Fantail (*Rhipidura rufifrons*) – marine; migratory (Bonn)
- c. Satin Flycatcher (*Myiagra cyanoleuca*) – marine; migratory (Bonn)
- d. Black-faced Monarch (*Monarcha melanopsis*) – marine; migratory (Bonn)

**Note:** The above list (for both listed threatened species and ecological communities and migratory species) may not be a complete list and it is your responsibility, as the proponent, to ensure that any species or ecological communities listed under the EPBC Act at the time of the controlled action decision, which will or are likely to be significantly impacted by the proposed action, are assessed for the Minister’s consideration. Any listing events (i.e. new listing or up-listing of a species or ecological community) that occur after the controlled action decision will be managed in accordance with s158A of the EPBC Act.

Some of the listed migratory species requiring assessment as part of the PER are also listed as threatened species under the EPBC Act. The species that fall within both categories should be considered in accordance with their status as a threatened species. Assessment of these species does not need to be duplicated in the migratory species section. The white -throated needletail is a vulnerable species, accordingly, a separate assessment of the impact of the proposed action for this species under the provision of listed migratory species is not required. However, please include the potential impact of blade strikes and mitigation and management measures as relevant.

Furthermore, it is also the responsibility of the proponent to maintain awareness of any changes to species distributions. Please ensure that a recent Protected Matters Search Tool report has been generated and used during the assessment stage before finalising the draft PER.

In order to undertake a robust assessment of the nature and scale of the likely impacts of the proposed action, the PER must include a detailed assessment of the presence of individuals and suitable habitat for each of the above listed threatened and migratory species within and adjacent to the project site. The PER must also include a detailed presence and habitat assessment for any other listed threatened and migratory species and and/or ecological community which will or is likely to be impacted by the proposed action.

### 3.2 Species/communities general information

Information required	
a.	A description of any potential MNES and their habitat (including but not limited to those listed in this request for information) that occur in the proposed action area and adjacent areas <sup>1</sup> .
b.	A description and map of the current land use/s, land topography, surface and ground water bodies, waterways and vegetation communities (habitat types as they relate to potentially impacted listed threatened species) on the proposed action site and adjacent areas.
c.	For listed threatened species and ecological communities and listed migratory species that have the potential, or are likely, to be present at and in the vicinity of the proposed action area, including but not limited to those listed in this request for further information, this section must provide the following: <ul style="list-style-type: none"> <li>a) Information on the abundance, distribution, ecology and habitat preference of the species or communities.</li> <li>b) Quantification of the extent of habitat and (if known) the number of individuals present or historical patterns of use on and adjacent to the proposed action area (including maps identifying known or potential habitat).</li> <li>c) Assessment of the quality and importance of known or potential habitat for the species or communities within the proposed action site and surrounding areas.</li> <li>d) Information detailing known populations or records within at least five kilometres of the proposed action area and (if known) the size of these populations.</li> <li>e) Information on the survey methodology used, including a map/s of survey points or transects, how the survey points or transects were selected, when surveys were conducted (e.g. dates, time of day, season, etc.) and search effort (e.g. 20 hours over eight days).</li> </ul>

<sup>1</sup> The adjacent areas refer to the shared border area of the Coolah Tops National Park, located northeast of the proposed action area, which provide suitable habitat for the Koala and other EPBC listed species, and all other areas adjacent to the proposed action, which provide habitat or potential habitat for the EPBC listed ecological community and species.

	<p>f) An assessment of the adequacy of any surveys undertaken. In particular, the extent to which these surveys were appropriate for the species and undertaken in accordance with relevant survey guidelines.</p> <p>g) Results of any surveys undertaken.</p>
d.	Information about the methods, data and scientific literature used to identify and assess the environmental values on the proposed action site and adjacent areas, including survey data and historical records. Survey data for the proposed action site must be provided for the above listed threatened species, should be as recent as possible, and preferably not have been collected more than five years before the date of the referral. If the survey data is more than five years old, the Proponent must justify why the use of that survey data is appropriate.

## 4 IMPACT ASSESSMENT

### 4.1 General impact information

The PER must include a description of all the relevant impacts of the action (including, direct, indirect, cumulative and facilitated), including the magnitude, duration and frequency of the impacts. Impacts as a result of the proposed action must be assessed in accordance with relevant departmental policies and guidelines, including the SPRAT Database and the Significant Impact Guidelines 1.1. Relevant impacts are impacts that the action will have or is likely to have on an MNES. Impacts during both the construction, operational and (if relevant) the decommissioning phases of the project must be addressed, and the following information provided:

Information required	
a.	Provide a description of the intended land uses proposed as part of the completed development, associated ongoing activities, and details of the intended party that would be responsible for future management activities on the wind farm site.
b.	Include current maps and coordinates/shapefile of the proposed impact area and areas of habitat for MNES proposed to be retained. Maps must clearly identify development footprints, buffer zones, and any conservation areas where impacts will be avoided, and areas of adjacent habitat that would be subject to indirect impacts, including areas that are to be retained within and adjacent to the site.
c.	<p>Confirm the area of habitat that will be directly and indirectly impacted by the proposed action, including areas where:</p> <ul style="list-style-type: none"> <li>• Connectivity to adjacent habitat will be retained, removed or functionally lost.</li> <li>• Adjacent habitat will be subject to intensification of ongoing impacts (for example, through increased levels of dust or erosion).</li> </ul>
d.	Confirm the quantity and quality of suitable habitat to be impacted within the proposed action area.

e.	<p>Provide an assessment of the direct, indirect, consequential and cumulative impacts that may occur during construction and operation phases, including:</p> <ul style="list-style-type: none"> <li>• The nature and extent of impacts (including direct, indirect and facilitated impacts*), including timing and whether the impact is temporary or permanent.</li> <li>• Details of any policy guidelines, relevant studies, surveys or consultations with species experts/field specialists.</li> <li>• A local and regional scale analysis of likely impacts, with reference to the project’s potential contribution to cumulative impacts in the context of development patterns in the locality and region.</li> <li>• A risk assessment of potential impacts from the action that are likely to be unpredictable, severe, or irreversible.</li> </ul> <p><i>*Note: Facilitated impacts may include (but are not limited to) behavioural avoidance or other changes to aerial species, movement due to turbines and external lighting or the risk of injury or mortality to MNES as a result of vehicle strike.</i></p>
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#### 4.2 Impacts to threatened species and ecological communities and migratory species

For listed threatened species and ecological communities and migratory species, the PER should include relevant impacts listed in section 4.1 in addition to the following impacts listed in Table 4.1.

**Table 4.1 Listed Threatened Species and Communities and migratory species**

Information required	
a.	An assessment of the likely impacts associated with the construction, operation, maintenance and decommissioning stages and vegetation clearing of the project.
b.	Include the direct and indirect loss and/or disturbance of MNES individuals and habitat as a result of the proposed action. This must include the quality of the habitat impacted and quantification of the individuals and habitat area (in hectares) to be impacted.
c.	An assessment of the impacts of habitat fragmentation in the proposed action area and adjacent areas, including consideration of species’ movement patterns and site utilisation.
d.	An assessment of the likely duration of impacts to MNES as a result of the proposed action.
e.	A discussion of whether the impacts are likely to be repeated, for example as part of maintenance.
f.	A discussion of whether any impacts are likely to be unknown, unpredictable or irreversible.
g.	Justification, with supporting evidence, how the proposed action will not be inconsistent with:

	<ul style="list-style-type: none"> <li>• Australia’s obligations under the Biodiversity Convention, the Convention on Conservation of Nature in the South Pacific (Apia Convention), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); and</li> <li>• a recovery plan or threat abatement plan.</li> </ul>
h.	Assess the impacts, including but not limited to, noise, vibration, dust and vehicle strike resulting from the construction and operation of the project to habitat and species in the project site and adjacent areas.
i.	Assess the impacts of linear clearing for proposed roads on species and habitat including, but not limited to habitat fragmentation and fauna movement including Greater Glider gliding distance.

### 4.3 Impacts to listed migratory species

For listed migratory species, the PER should include impacts listed in section 4.1 in addition to the following impacts listed in Table 4.2.

**Table 4.2 Listed Migratory Species**

Information required	
a.	Justify, with supporting evidence, how the proposed action will not be inconsistent with Australia’s obligations under: <ul style="list-style-type: none"> <li>• The Bonn Convention;</li> <li>• China-Australia Migratory Bird Agreement;</li> <li>• Japan-Australia Migratory Bird Agreement;</li> <li>• International Agreement – Republic of Korea-Australia Migratory Bird Agreement;</li> <li>and</li> <li>• Any international agreement approved under subsection 209(4) of the EPBC Act.</li> </ul>

### 4.4 Impacts to listed threatened and migratory bird and bat species associated with wind turbines

Further information is required in the PER, with supporting evidence, in relation to the utilisation of the project site and its surrounds by the listed threatened and migratory bird and bat species at risk of turbine strike and barotrauma. This information (refer to Table 4.3) is required to enable a robust assessment of potential impacts associated with individual mortality from turbine collision and barotrauma, and potential changes to species utilisation of the project site and its surrounds as a result of the proposed action.

**Table 4.3 Impacts to birds and bats associated with wind turbines**

Information required	
a.	<p><i>Desktop assessment</i></p> <p>To predict the potential for at risk threatened and migratory bird and bat species to be using the project site and its surrounds, the PER must include the process and outcomes of:</p> <ul style="list-style-type: none"> <li>• A preliminary site characterisation (desktop and/or initial site visit) for each species to identify all drivers of presence on the project site and utilisation of the project site. This characterisation must include, but not limited to, the consideration of:</li> <li>• <u>Site characteristics</u>: focal habitat features, topography, prevailing wind and weather patterns, wetlands (including adjacent to project site), and distance to potential nesting, roosting and foraging areas.</li> <li>• <u>Species characteristics</u>: behaviour, flight or demographic factors (e.g. species presence [ongoing, transitory/migratory]), site use (e.g. transit, roosting, breeding and/or foraging), flight paths (including migratory flight paths) where relevant and/or available, flight heights, soaring, flocking, and population numbers.</li> </ul>
b.	<p><i>Site-specific assessment</i></p> <p>To validate the outcomes of the desktop assessment, the PER must include a detailed discussion of how at-risk listed threatened and migratory bird and bat species are using the project site (both project site and proposed disturbance footprint). This discussion must be informed by site-specific and species-specific site utilisation surveys (undertaken by a suitably qualified expert) and supported by other relevant scientific evidence. Further, this discussion must include detailed information on:</p> <ul style="list-style-type: none"> <li>• How the design of the site utilisation surveys for each relevant species has been informed by its drivers of presence on the project site and utilisation of the project site and its surrounds (as determined through the preliminary site characterisation).</li> <li>• How site utilisation surveys for each relevant species have been designed to improve understanding of site utilisation on the project site and its surrounds, and support an ongoing Before-After, Control Impact (BACI) framework for an adaptive Bird and Bat Management Plan (BBMP).</li> </ul> <p>At least 24 months of site utilisation surveys must be undertaken prior to commissioning to provide sufficient baseline data about a relevant species potential to utilise the proposed action area and its surrounds. For the purpose of this section, the term “commissioning” means the commencement of Hold Point Testing in accordance with the requirements specified by EnergyCo for the Central-West Orana Renewable Energy Zone.</p>

	<p>The proposed site utilisation survey methodology for each relevant species must be included as an appendix to the PER.</p> <p>At a minimum, each site utilisation survey must record the relevant information specified in 'Species characteristics' of the 'Desktop Assessment' requirements for each relevant species.</p>
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## 5 AVOIDANCE AND MITIGATION MEASURES

The PER should provide proposed avoidance, mitigation and management measures for any likely impact that this proposed action may have on the EPBC listed threatened species stated in Section 3.1.

The PER must provide information on proposed safeguards and mitigation measures to deal with the relevant impacts of the action. Specific and detailed descriptions of proposed measures must be provided and substantiated, based on best available practices and must include the following elements (refer to Table 5.1).

**Table 5.1 Avoidance, mitigation and management measures**

Information required	
a.	A detailed summary of measures proposed to be undertaken by the Proponent to avoid, mitigate and manage relevant impacts of the proposed action on relevant MNES, for all stages of the proposed action.
b.	The proposed measures must be based on best available practices, appropriate standards, evidence of success for other similar actions and supported by published scientific evidence.
c.	<p>All proposed measures for MNES must be drafted to meet the 'S.M.A.R.T' principle:</p> <ul style="list-style-type: none"> <li>• S – Specific (what and how)</li> <li>• M – Measurable (baseline information, number/value, auditable)</li> <li>• A – Achievable (timeframe, money, personnel)</li> <li>• R – Relevant (conservation advices, recovery plans, threat abatement plans)</li> <li>• T – Time-bound (specific timeframe to complete)</li> </ul>
d.	Consideration of measures to minimise and mitigate the effects of fragmentation caused by clearance for access roads. This may include measures to narrow road widths and salvaging hollow-bearing trees in clearance areas.
e.	Identify and consider avoidance of high-quality habitat for MNES such as hollow bearing trees.

f.	Details of specific and measurable environmental outcomes to be achieved for relevant MNES. All commitments must be drafted using committal language (e.g. 'will' and 'must') when describing the proposed measures.
g.	Details of the proposed measures to be undertaken to avoid, mitigate and manage relevant impacts to MNES due to the proposed action, including those required through other Commonwealth, State and local government approvals.
h.	Information on the timing, frequency and duration of the proposed avoidance, mitigation, management and monitoring measures, and corrective actions to be implemented.
i.	An assessment of the expected or predicted effectiveness of the proposed measures.
j.	Any statutory or policy basis for the proposed measures, including reference to the SPRAT Database and relevant approved conservation advice, recovery plan or threat abatement plan, and a discussion on how the proposed measures are not inconsistent with relevant plans.
k.	Details of ongoing management, including monitoring programs to support an adaptive management approach, that validate the effectiveness of the proposed measures and overall demonstrate that environmental outcomes will be achieved.
l.	Details of tangible, on-ground corrective actions that will be implemented in the event the monitoring programs indicate that the environmental outcomes have not or will not be achieved.
m.	For each EPBC matter likely impacted, please provide the proposed avoidance and mitigation measures in a table, which outlines: <ul style="list-style-type: none"> <li>i. stage of development (e.g., construction phase, operational phase or decommissioning phase)</li> <li>ii. objectives (e.g., to reduce impact on native vegetation, to protect migratory species from blade strike)</li> <li>iii. avoidance (e.g., avoidance of clearance of habitat)</li> <li>iv. mitigation measures (e.g., implementation of construction management plan)</li> <li>v. performance criteria (e.g., erosion and sediment control measures are consistent with the guidelines stated in the Blue Book)</li> <li>vi. monitoring and reporting (e.g., monitoring is to be undertaken weekly during operation)</li> </ul>

	<ul style="list-style-type: none"> <li>vii. corrective action (e.g., immediately reinstate appropriate erosion and sediment control devices after the identification of a failure)</li> <li>viii. responsible party (e.g., project environmental officer, who will ensure the measures are undertaken)</li> <li>ix. timing (the construction management plan to be approved by a relevant body prior to the commencement of construction), and</li> <li>x. the cost of the mitigation measures, including how measures will be funded to ensure enduring protection (and by whom).</li> </ul>
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A framework or outline of the following management plans should be prepared and included in the PER in relation to the proposed action, including any further management plans as appropriate:

**Table 5.2 Management Plans**

<b>Information required</b>	
a.	<ul style="list-style-type: none"> <li>i. A detailed outline of an Environmental Management Plan (EMP) that sets out the framework for management, mitigation and monitoring of relevant impacts of the action, including any provisions for independent environmental auditing.</li> <li>ii. The EMP needs to address the project phases (construction, operation, decommission) separately. It must state the environmental objectives, performance criteria, monitoring, reporting, corrective action, responsibility and timing for each environmental issue.</li> <li>iii. The EMP should also describe contingencies for events such as accidental vessel or machinery spills, heavy or prolonged rainfall or storms.</li> <li>iv. In the construction phase of the EMP, include management around dust suppression and enforcement of reduced construction zone vehicle speeds.</li> </ul>
b.	<p>A detailed outline of a Vegetation Clearance Plan, which:</p> <ul style="list-style-type: none"> <li>v. Identify vegetation that is potential nesting or breeding habitat for relevant listed threatened species and listed migratory species, within the proposed action area.</li> <li>vi. Identification of the likely breeding season for relevant listed threatened species and listed migratory species, within the proposed action area.</li> <li>vii. Pre-clearance survey methods, which include, but are not limited to the following requirements: <ul style="list-style-type: none"> <li>• If clearing of habitat of a species occurs during the breeding season of that species, a qualified ecologist must undertake a pre-clearance survey within 72 hours prior to the removal of the habitat, or removal of vegetation within 50 m of nesting or breeding habitat.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>If a breeding activity of a listed threatened species is identified during pre-clearance surveys, vegetation clearing within 100 m of the breeding activity must be delayed up until the breeding activity has ceased.</li> </ul>
c.	<p>A detailed outline of a Koala Plan of Management, which includes:</p> <ol style="list-style-type: none"> <li>includes options for protective covenants on un-impacted areas, if applicable, in particular, areas which are better quality habitat for koalas, within the proposed action area.</li> <li>analysis of the quality of habitat, which will be avoided and discussion of its effectiveness in achieving conservation outcomes for these species.</li> <li>includes mitigation measures to prevent the Koala to travel to the proposed action site</li> <li>includes mitigation measures to prevent the impacts of proposed action (including but not limited to direct mortality, indirect mortality and injury; e.g., vehicle strike, habitat loss from edge effect and fragmentation) on the Koala</li> <li>includes plans for re-establishment of native vegetation communities and koala habitat.</li> </ol>
d.	A detailed outline of a Bird and Bat Management Plan in relation to risk of turbine collision and barotrauma.
e.	A detailed outline of a Rehabilitation Management Plan which outlines management and mitigation associated with rehabilitation. Include information on whether any post construction rehabilitation sites will be subsequently cleared during the decommissioning stage.

## 6 REHABILITATION REQUIREMENTS

Information required	
a.	Rehabilitation acceptance criteria, including for the restoration of habitat for relevant listed threatened species and communities.
b.	A summary of the procedures, including contingency measures, that will be undertaken to achieve the rehabilitation acceptance criteria.
c.	A summary of a monitoring program to determine the success of rehabilitation activities implemented by the proponent.
d.	The details of any rehabilitation activities proposed to be undertaken as required by Commonwealth, State or Territory, and local government legislation. Attach relevant

	Commonwealth, State or Territory, and local government approvals and permits as supporting documents to the PER.
e.	Maps showing the areas that will be rehabilitated within the project area and the size in hectares of these areas.
f.	A summary of the vegetation community that is being rehabilitated and the dominant species that will be including in the rehabilitation site.
g.	Information on management of the rehabilitation site including, but not limited to erosion and sediment control and weed and pest management.

## 7 OFFSETS

The PER must include an assessment of the likelihood of residual significant impacts occurring on MNES after avoidance, mitigation and management measures relating to the proposed action have been applied. If it is determined that a residual significant impact is likely, then environmental offsets will be required to be provided.

The PER must include a detailed outline of a Biodiversity Offset Strategy for any MNES for which a residual significant impact is likely. Noting the information in the referral, the department considers a draft Biodiversity Offset Strategy may be required for, but not limited to, the listed threatened species and communities, and migratory species listed in Section 3.1.

### 7.1 Background

Significant residual impacts are impacts to a threatened species or community that remain **after any avoidance and mitigation measures have been considered**. Significant residual impacts must be offset in accordance with the department's *EPBC Act Environmental Offsets Policy 2012*<sup>2</sup> and Offsets assessment guide (OAG)<sup>3</sup>, or other endorsed offset framework (for example, the NSW Biodiversity Offset Scheme).

As mentioned above, **offsets should only be used if there are no other feasible measures for avoidance or mitigation.**

The PER must describe the proposed offset strategy, outlining how the offsets will be achieved for each protected matter, demonstrating that the offset liability can be satisfied by the mechanisms, and specifying the expected timeframe for legal security of the offsets.

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<sup>2</sup> [https://www.dcceew.gov.au/sites/default/files/documents/offsets-policy\\_2.pdf](https://www.dcceew.gov.au/sites/default/files/documents/offsets-policy_2.pdf)

<sup>3</sup> <https://www.dcceew.gov.au/sites/default/files/documents/offsets-how-use.pdf>

While offsets do not need to be secured before the decision on whether to approve the proposed action, should the proposed action be approved, conditions of an approval are likely to require that offsets are secured, and management measures are in place, before commencement of the proposed action.

## 7.2 EPBC Act Environmental Offsets

If offsets are to be secured in accordance with the EPBC Act Environmental Offsets Policy, the PER must demonstrate that the proposed Offset Strategy meets the criteria outlined in **Table 7.1** below.

**Table 7.1 EPBC Act Environmental Offsets checklist**

Information required	
Where required, the draft Offset Strategy must provide, at a minimum:	
a.	Details of how the environmental offset/s meets the requirements of the Department's EPBC Act Environmental Offsets Policy (2012), including the Offsets assessment guide (2012), available at: <a href="http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy">www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy</a> .
b.	details of the proposed environmental offsets for residual significant impacts on each of the above listed threatened species and their habitat.
c.	details of the appropriate offset area (including a map to clearly define the location and boundaries) to compensate for the residual significant impact on each of the above listed threatened species and their habitat.
d.	information about how the proposed offset/s area provides connectivity with other relevant habitats and biodiversity corridors.
e.	the mechanism used to deliver the offset, and justification and supporting evidence used to inform inputs of any associated calculations for offset requirements.
f.	evidence that the relevant MNES, and/or their habitat, is present in the potential offset area/s.
g.	details of the mechanism to legally secure the environmental offset/s to provide enduring protection for the offset area/s against development incompatible with conservation.
h.	Directly contribute to the ongoing viability of the relevant protected matters to deliver an overall conservation outcome that improves or maintains the viability of the protected matter in the region, as compared to what is likely to have occurred under the status quo, i.e., if neither the action nor the offset had taken place;
i.	Compensate for the impacts over the entire duration of the proposed action (should impacts be in perpetuity, the offsets must also be delivered in perpetuity).

j.	The PER must also provide and clearly justify the scores entered into the Offset assessment guide.
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### 7.3 Other endorsed offset frameworks

If using an endorsed framework, the report detailing the outcomes (including credit report) prepared in accordance with the state requirements must be submitted with the PER. For more information see Appendix B: Endorsed offsetting frameworks.

The NSW Biodiversity Assessment Method (BAM) and Biodiversity Offset Scheme (BOS) have been endorsed by the Commonwealth. This means that offsetting outcomes achieved through the BAM will be accepted for the purposes of the EPBC Act, provided that they are 'like-for-like' in relation to listed threatened species and communities as defined for the purposes of the EPBC Act. Payment into the Biodiversity Conservation Fund is also considered acceptable. If you are proposing offsets developed using the BAM, you should append all relevant BAM documentation to your PER; this would generally include a Biodiversity Development Assessment Report (BDAR).

Please note that entities that are listed under the EPBC Act but are not listed under state legislation may not be able to be offset using the BAM. If any such species or communities are present on site and are likely to require an offset, please discuss with the department.

## 8 OTHER APPROVALS AND CONDITIONS

The PER must include information on any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action. This must include:

- (a) details of any local or State Government planning scheme, or plan or policy under any local or State Government planning system that deals with the proposed action, including:
  - what environmental assessment of the proposed action has been, or is being, carried out under the scheme, plan or policy; and
  - how the scheme provides for the prevention, minimisation and management of any relevant impacts;
- (b) a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the Act), including any conditions that apply to the action;
- (c) a statement identifying any additional approval that is required; and
- (d) a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

## 9 CONSULTATION

Any consultation about the action, including:

- (a) any consultation that has already taken place;

- (b) proposed consultation about relevant impacts of the action;
- (c) if there has been consultation about the proposed action, any documented response to, or result of, the consultation; and
- (d) identification of affected parties, including a statement mentioning any communities that may be affected and describing their views.

Please refer to the department's [First Nations engagement guidelines](#) for more information on how and when to engage with First Nations people and communities.

## **10 ENVIRONMENTAL RECORD OF PERSON(S) PROPOSING TO TAKE THE ACTION**

The information provided must include details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

- (a) the person proposing to take the action; and
- (b) for an action for which a person has applied for a permit, the person making the application.

If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework must also be included.

## **11 ECONOMIC AND SOCIAL MATTERS**

The economic and social impacts of the action, both positive and negative, must be analysed. Matters of interest may include:

- details of any public consultation activities undertaken, and their outcomes;
- projected economic costs and benefits of the project, including the basis for their estimation through cost/benefit analysis or similar studies;
- employment opportunities expected to be generated by the project (including construction and operational phases).

Economic and social impacts should be considered at the local, regional and national levels. Details of the relevant cost and benefits of alternative options to the proposed action, as identified in section 3 above, should also be included.

## **12 INFORMATION SOURCES PROVIDED IN THE PER**

For information given in a draft PER, the draft must state:

- (a) the source of the information;
- (b) how recent the information is;
- (c) how the reliability of the information was tested; and
- (d) what uncertainties (if any) are in the information.

### **13 CONCLUSION**

An overall conclusion as to the environmental acceptability of the proposal should be provided, including:

- (a) A discussion on compliance with principles of ESD and the objects and requirements of the EPBC Act. Reasons justifying undertaking the proposal in the manner proposed should also be outlined.
- (b) Measures proposed or required by way of offset for any unavoidable impacts on NES matters, and the relative degree of compensation, should be restated here.

# **ATTACHMENT A**

## **THE OBJECTS AND PRINCIPLES OF THE**

### **ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999**

#### **SECTIONS 3 AND 3A**

### **3 Objects of the Act**

- (a) to provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance;
- (b) to promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources;
- (c) to promote the conservation of biodiversity;
- (d) to promote a co-operative approach to the protection and management of the environment involving governments, the community, landholders and indigenous peoples;
- (e) to assist in the co-operative implementation of Australia's international environmental responsibilities;
- (f) to recognise the role of indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and
- (g) to promote the use of indigenous peoples' knowledge of biodiversity with the involvement of, and in co-operation with, the owners of the knowledge.

### **3A Principles of Ecologically Sustainable Development**

The following principles are principles of ecologically sustainable development.

- (a) Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.
- (b) If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- (c) The principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.
- (d) The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.
- (e) Improved valuation, pricing and incentive mechanisms should be promoted.

**ATTACHMENT B**  
**MATTERS THAT MUST BE ADDRESSED IN A PER**  
**(SCHEDULE 4 OF THE EPBC REGULATIONS 2000)**

**1 General information**

1.01 The background of the action including:

- (a) the title of the action;
- (b) the full name and postal address of the designated Proponent;
- (c) a clear outline of the objective of the action;
- (d) the location of the action;
- (e) the background to the development of the action;
- (f) how the action relates to any other actions (of which the Proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action;
- (g) the current status of the action; and
- (h) the consequences of not proceeding with the action.

**2 Description**

2.01 A description of the action, including:

- (a) all the components of the action;
- (b) the precise location of any works to be undertaken, structures to be built or elements of the action that may have relevant impacts;
- (c) how the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts;
- (d) relevant impacts of the action;
- (e) proposed safeguards and mitigation measures to deal with relevant impacts of the action;
- (f) any other requirements for approval or conditions that apply, or that the Proponent reasonably believes are likely to apply, to the proposed action;
- (g) to the extent reasonably practicable, any feasible alternatives to the action, including:
  - (i) if relevant, the alternative of taking no action;
  - (ii) a comparative description of the impacts of each alternative on the matters protected by the controlling provisions for the action; and

- (iii) sufficient detail to make clear why any alternative is preferred to another;
- (h) any consultation about the action, including:
  - (i) any consultation that has already taken place;
  - (ii) proposed consultation about relevant impacts of the action; and
  - (iii) if there has been consultation about the proposed action — any documented response to, or result of, the consultation; and
- (i) identification of affected parties, including a statement mentioning any communities that may be affected and describing their views.

### **3 Relevant impacts**

3.01 Information given under paragraph 2.01(d) must include

- (a) a description of the relevant impacts of the action;
- (b) a detailed assessment of the nature and extent of the likely short term and long-term relevant impacts;
- (c) a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;
- (d) analysis of the significance of the relevant impacts; and
- (e) any technical data and other information used or needed to make a detailed assessment of the relevant impacts.

### **4 Proposed safeguards and mitigation measures**

4.01 Information given under paragraph 2.01(e) must include:

- (a) a description, and an assessment of the expected or predicted effectiveness of, the mitigation measures;
- (b) any statutory or policy basis for the mitigation measures;
- (c) the cost of the mitigation measures;
- (d) an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing;
- (e) the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program; and
- (f) a consolidated list of mitigation measures proposed to be undertaken to prevent, minimise or compensate for the relevant impacts of the action, including mitigation measures proposed to be taken by State governments, local governments or the Proponent.

## **5 Other Approvals and Conditions**

5.01 Information given under paragraph 2.01(f) must include:

- (a) details of any local or State government planning scheme, or plan or policy under any local or State government planning system that deals with the proposed action, including:
  - (i) what environmental assessment of the proposed action has been, or is being carried out under the scheme, plan or policy; and
  - (ii) how the scheme provides for the prevention, minimisation and management of any relevant impacts;
- (b) a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the Act), including any conditions that apply to the action;
- (c) a statement identifying any additional approval that is required; and
- (d) a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

## **6 Environmental record of person proposing to take the action**

6.01 Details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

- (a) the person proposing to take the action; and
- (b) for an action for which a person has applied for a permit, the person making the application.

6.02 If the person proposing to take the action is a corporation — details of the corporation's environmental policy and planning framework.

## **7 Information sources**

7.01 For information given the PER must state:

- (a) the source of the information; and
- (b) how recent the information is; and
- (c) how the reliability of the information was tested; and
- (d) what uncertainties (if any) are in the information.