Biodiversity Council

Submission to *Onshore Wind Farm Guidance: Best practice approaches when seeking approval under Australia's national environmental law May 2024*

6 June 2024

About The Biodiversity Council

The Biodiversity Council brings together leading experts including Indigenous knowledge holders to promote evidence-based solutions to Australia's biodiversity crisis. The Council was founded by 11 universities with the support of Australian philanthropists.

Introduction

The Biodiversity Council welcomes the opportunity to provide feedback on the Department of Climate Change, Energy, the Environment and Water's (DCCEEW) *Onshore Wind Farm Guidance: Best practice approaches when seeking approval under Australia's national environmental law May 2024.*

Our understanding

This guidance has been developed to support proponents who are seeking approval of their onshore wind farm project under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) ('EPBC Act'). It describes the information requirements to support regulatory assessment of their project, and the likely ongoing responsibilities should their project be approved.

The guidance is intended to support "a smooth and efficient regulatory pathway" while maintaining protection for matters of national environmental significance (MNES) listed under EPBC Act. The guidance states that the identification and management of impacts during the design of onshore wind projects needs to reflect the Australian Government's Nature Positive Plan by avoiding and minimising impacts on MNES and supporting restoration of the environment.

The Nature Positive Plan Plan outlines three fundamental principles to respond to the Independent Review of the EPBC Act:

1) Better environment and heritage outcomes
2) Faster, better decision-making and clear priorities
3) Accountability and trust

As currently drafted, the guidance reinforces a case-by-case, discretionary approach, and therefore fails to deliver better environmental outcomes or reduce regulatory burden for proponents. Below, we outline the key areas of concern and make suggestions for improvement.

Key concerns

1. <u>The guidance takes a case-by-case rather than a strategic approach to project assessment</u>

The guidance treats each wind farm project in isolation. The section on monitoring in the guidance states:

> *"To provide sufficient baseline data about a relevant species' potential to utilise the project site and its surrounds, we consider it is best practice to provide at least 24 months of site utilisation surveys before assessment of your proposed wind farm can be completed and an approval decision made"* (p. 22).

Proponents are not required to have regard to data on bird and bat collisions from existing turbines in the surrounding area, nor to consider the potential impact of other proposed wind farms in the vicinity, nor to consider whether the habitat may be important for the species in the context of changing climates and/or population recovery.

It may be an unrealistic expectation for proponents to collaborate to share information, and this is why governments have a critical role in undertaking spatial conservation planning, requiring the submission of proponent data to a public repository so that it may be used by other proponents,

regulators or third parties, providing clear guidance on critical habitats that should not be considered for development, including due to impacts incurred in other parts of the region. Regional planning is an approach to coalescing these elements into practical advice and a coherent regional strategy that balances energy development needs with other values such as biodiversity, cultural, and agriculture.

The Nature Positive Plan identifies regional planning as a key reform to achieve Nature Positive (p. 3):

> "[r]egional plans can speed up decision-making while delivering nature positive outcomes at a landscape scale. Regional plans will be built around a three-level (traffic light) map, designed to pre-identify areas for protection, restoration and sustainable development
>
> … "regional plans and National Environmental Standards will provide project proponents with certainty, giving clear indicators of conservation priorities and where development impacts will largely be prohibited"
>
> … "Approaches to regional planning and project assessments will be developed together to create a framework for practical implementation of new environmental laws. This will support consistent project assessment and decision making by the Commonwealth, states and territories. Implementation of standards at regional scale will provide flexibility and ensure critical habitat and other significant environmental matters are protected, including from cumulative impacts."

The guidance does not make reference to regional planning.

DCCEEW's website links to a consultant report from 2006 that sought to model the cumulative risks posed by multiple wind farms[1]. It is clear that DCCEEW could adopt a more strategic approach to considering cumulative population-level impacts even in the absence of regional plans. Yet there appears to be no strategy for identifying areas of critical habitat where wind farms should not proceed, or to manage cumulative population-level impacts on birds and bats from multiple wind farms in the same area.

Population viability analysis is key to understanding whether death of individuals from collision with wind turbines is going to have a significant impact on the population overall. Population viability can be very sensitive to small increases in mortality.[2] For high profile and well-known nationally threatened species such as the swift parrot, orange-bellied parrot, red goshawk and brolga, for example, regional plans need to include a detailed regional scale population viability analysis that ensures the program of development does not compromise the persistence of these species. Until that regional scale population viability analysis is complete, development in areas likely to contain sensitive and highly imperilled species needs to be placed on hold.

Recommendation 1: The Biodiversity Council recommends that DCCEEW prioritise regional planning in areas likely to be subject to many wind farm developments.

[1] https://www.dcceew.gov.au/sites/default/files/documents/wind-farm-bird-risk.pdf

[2] Schippers P, Buij R, Schotman A, Verboom J, van der Jeugd H, Jongejans E. (2020) Mortality limits used in wind energy impact assessment underestimate impacts of wind farms on bird populations. *Ecol Evol*. **10**(13): 6274-6287. doi: 10.1002/ece3.6360.

Recommendation 2: The Biodiversity Council recommends that regional scale population viability analyses be undertaken as part of regional planning for threatened species at risk from wind farms.

Recommendation 3: The Biodiversity Council recommends that in the absence of regional plans, that DCCEEW undertake analyses to determine cumulative impacts from multiple wind farms.

Recommendation 4: The Biodiversity Council recommends that DCCEEW facilitate information sharing between proponents including site utilisation and monitoring data.

Recommendation 5: The Biodiversity Council recommends that analysis of the importance of habitat to species recovery under future environmental change be undertaken for sensitive and imperilled species of the region, and that collection of 24 months of site utilisation data be a mandatory requirement for new sites not subject to regional planning or impact analyses by DCCEEW or other government agencies.

2. <u>The regulatory approach is highly discretionary</u>

The guidance gives proponents a large amount of discretion to choose how to avoid and mitigate impacts on birds and bats from turbine strike. The Avoidance section (p. 12) states that:

> *"Where possible, turbines should be sited away from known or likely areas of bird or bat habitat…"*
>
> *"Where possible, turbine-free buffers should be used around features that attract and support aerial species..."*

The Mitigation section (pp. 13-14) states that:

> *"This section contains suggestions for mitigating potential impacts but should not be interpreted as being the ONLY solutions or approaches. We welcome suggested mitigation strategies as long as they demonstrate the desired environmental outcome."*

This is contrary to the logic of the Independent Review of the EPBC Act which recommended the development of standards that set clear outcomes for MNES.[3] Instead of focussing on outcomes, the guidance focuses on how much effort the proponent has made, for instance:

> *"you are taking all practicable steps to avoid and mitigate your proposed wind farm's impact on listed threatened and migratory bird and bat species"* (p. 20).

The guidance requires a Bird and Bat Management Plan (BBMP) to define "the specific environmental outcomes it intends to achieve" (p. 20). The first four of five potential outcomes for the BBMP relate to information gathering - improved understanding of collision risk, improved understanding of site usage, data collection and analysis, and validation of collision risk modelling. The last outcome which **may be included** is:

[3] Samuel, G. (2020) *Independent Review of the EPBC Act – Final Report* Department of Agriculture, Water and the Environment, Canberra, October. CC BY 4.0.

> *"the development and implementation of tangible, on-ground management measures (for example, using artificial intelligence devices) and corrective actions to promote a long-term reduction in the risk of turbine collision and barotrauma impacts on listed bird and bat species"* (p. 21).

To ensure environmental outcomes are achieved for relevant species, the guidance states that the BBMP must include an adaptive management framework with impact thresholds ('triggers') for initiation. This includes "species-specific impact thresholds and targeted adaptive management actions for at-risk target species considered to be at high or very high risk of strike" (p. 24).

This regulatory approach seems unlikely to lead to reduced risk to MNES from collision with turbines. There are two main ways in which collision strike on birds and bats from turbines is reduced - siting to reduce the frequency with which birds and bats fly near the turbines and curtailment (reducing turbine speed) to avoid birds and bats colliding with them. Both approaches need to be considered during the planning phase for a wind farm. Adaptive management triggers are irrelevant to siting decisions and are unlikely to lead to additional curtailment to address biodiversity risks. Curtailing turbine operations occurs for maintenance, due to weather conditions or for grid management. It results in reduced energy production and therefore has a financial impact on wind farm operators. Legal and contractual issues between the wind farm operators and wholesale energy purchasers may also arise from curtailment.[4] There is no incentive for curtailment to reduce impacts on birds and bats unless required by Commonwealth or State regulators.

To address bird and bat collision risk from wind turbines, the regulatory framework for wind farms must be clear on what constitutes an acceptable impact and what measures are most appropriate to address those impacts. Guidance on general siting and curtailment requirements should be developed so there are clear expectations about what is required from proponents and they can address these as part of project planning.

In addition to impacts on biodiversity, the lack of clear standards or thresholds for impacts on biodiversity is poor regulatory practice. It does not make it clear the outcome that is sought and it does not support compliance. The high levels of discretion mean that proponents who choose to prioritise biodiversity concerns and reduce the number of turbines or implement curtailment are likely to be disadvantaged relative to proponents who focus on profit maximisation and merely make a case that they have taken all 'practicable steps'.

Recommendation 6: The Biodiversity Council recommends that the guidance establish clear thresholds for impacts on listed bird and bat species from collisions with wind turbines.

Recommendation 7: The Biodiversity Council recommends that the guidance outline what measures are most appropriate to mitigate impacts on particular bird and bat species.

[4] https://onlinelibrary.wiley.com/doi/full/10.1002/we.2741; https://www.nrel.gov/docs/fy14osti/60983.pdf

3. The guidance is silent on First Nations

There is no mention of First Nations in the guidance. Given the lack of progress on national cultural heritage reform, it is important that proponents apply the principles of Free, Prior and Informed consent to all onshore wind projects. It would be beneficial if this was captured in the guidance.

Recommendation 8: The Biodiversity Council recommends that the guidance make reference to principles of Free, Prior and Informed consent for all onshore wind projects.

4. Monitoring post-approval through the BBMP lacks a clear purpose

As noted above, the BBMP has a large focus on collection of data. Both State and Federal governments have received annual bird and bat monitoring data from existing wind farms for many years. In 2019, the Arthur Rylah Institute (ARI) undertook a review of existing post-construction monitoring data to evaluate its efficacy at estimating annual mortalities of birds and bats and develop options for future monitoring programs.[5] The review found that the monitoring programs were not designed in a way that would enable valid estimation of total mortalities, and that changes to the existing monitoring approach were required.

DCCEEW should be clear about the purpose of BBMPs. This seems to be either to inform management at the wind farm from which the data is being collected, or to improve understanding of bird and bat mortality from wind farms more generally. The purpose for which a BBMP is being prepared should be clear so that it can be designed to be most effective at achieving its goal(s).

Data collected by BBMPs may have limited utility to inform adaptive management to significantly reduce impacts on birds and bats. BBMPs that are intended to inform post-construction actions must be designed this way from the outset. This should include triggers for curtailment, if relevant. DCCEEW should clearly outline the other mitigation options that are likely to be effective at reducing turbine mortality.

Data from BBMPs may be useful to inform likely collision risk for proposed wind farms in the nearby locations. If this is a key purpose of a BBMP, issues relating to data sharing must be addressed.

BBMPs should not be the primary mechanism by which we understand risks to threatened bird and bat populations from wind turbine collisions.

The ARI review identified key knowledge gaps that would improve understanding of the risks to birds and bats from wind farm collisions. Victoria is undertaking research to address some of these knowledge gaps. Commonwealth and State regulators should take a strategic and collaborative approach to addressing remaining significant knowledge gaps.

Recommendation 9: The Biodiversity Council recommends that the guidance clarify the purpose of BBMPs.

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5 https://www.ari.vic.gov.au/__data/assets/pdf_file/0024/435309/ARI-Technical-Report-302-Investigation-of-existing-post-construction-monitoring-at-Victorian-wind-farms.pdf

Recommendation 10: The Biodiversity Council recommends that the DCCEEW undertake an assessment of knowledge gaps for understanding the impact of wind farms on MNES and establish a research program to address these gaps.

5. Data should be publicly available

The guidance requires a proponent to provide an annual compliance report against the BBMP. Additional reporting is required if the proponent made changes to the adaptive management approach, trigger levels are reached or conditions of approval are contravened. There does not seem to be any requirement for either DCCEEW or the proponent to make these reports public.

The Samuel Review found that there was lack of confidence that the EPBC Act was contributing to good environmental outcomes and recommended improved community participation in decision-making and transparency of information.[6] This is particularly important for wind farms given the uncertainty about ongoing population impacts from bird and bat collisions with turbines in Australia.[7] The public should be able to see how the mitigation hierarchy has been applied and what assumptions have been made about ongoing impacts.

Moreover, there should be an opportunity for external peer review of the data including collision risk modelling to ensure the appropriate methodology has been used and the data is accurate.

Recommendation 11: The Biodiversity Council recommends that the assessment and monitoring data for wind farms be published on the DCCEEW website to enable greater public scrutiny and external review.

6. The expectations about offsets should be clearer

The guidance does not set specific requirements about offsets for wind farms, but rather refers to the EPBC Act Environmental Offsets Policy. The guidance notes that:

> *"Offsets are to be considered as a last resort after all measures to avoid and mitigate impacts on protected matters have been taken and you should only consider offsetting once those measures have been taken.* ***However, if the impacts that remain are still unacceptable, offsets cannot make those residual impacts acceptable.***
>
> *Considering the information provided in your BBMP and any other relevant management plans, you should provide examples of offsets that could be implemented if adaptive*

[6] Samuel, G. (2020) *Independent Review of the EPBC Act – Final Report* Department of Agriculture, Water and the Environment, Canberra, October. CC BY 4.0.

[7] Lumsden, L.F., Moloney, P. and Smales, I. (2019). *Developing a science-based approach to defining key species of birds and bats of concern for wind farm developments in Victoria*. Arthur Rylah Institute for Environmental Research Technical Report Series No. 301. Department of Environment, Land, Water and Planning, Heidelberg, Victoria. https://www.ari.vic.gov.au/__data/assets/pdf_file/0015/435300/ARI-Technical-Report-301-Developing-a-science-based-approach-to-defining-key-species-of-concern-for-wind-farm-developments.pdf

management responses and mitigation measures fail to adequately reduce impacts on relevant protected species." (p.27)

Where 'adaptive management responses and mitigation measures fail', it is reasonable to expect that there will be mortality of threatened birds and/or bats from collisions with wind turbines. This is not indirect habitat destruction, but direct impacts on populations. To compensate for this impact, offsets must be focussed on increasing population numbers, not simply improving habitat or 'other compensatory measures' like research. The guidance should make it clear that the offsets are intended to fully compensate for the losses in a reasonable time-frame. If it is not possible to increase population numbers through offsetting measures, then this should inform thresholds for impacts on birds and bats (see Recommendation 6) and consideration of whether a more precautionary approach should be taken to siting or mitigation measures.

Recommendation 12: The Biodiversity Council recommends that the guidance clarify that to compensate for impacts on threatened species populations requires offsets that generate increases in population numbers in a reasonable time-frame.

Recommendation 13: The Biodiversity Council recommends that DCCEEW adopt a continuous improvement approach to this guidance, updating it as further information becomes available.