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Dear Anthony

Hills of Gold Wind Farm – Amended Project – November 2022

Thank you for your e-mail of 6 November 2022 to the Biodiversity, Conservation and Science Directorate (BCS) of the Department of Planning and Environment regarding the updated Biodiversity Development Assessment Report (BDAR) for the amended project, including additional assessment of residual matters relating to biodiversity, for the Hills of Gold Wind Farm.

BCS is satisfied that our concerns relating to the potential impacts of the operational wind farm and the associated risk of Serious and Irreversible Impact (SAII) on microbats have been addressed.

There are, however, residual concerns relating to justification for the retention of moderate risk turbines in the proximity to habitat features such as tree canopies and Ben Halls Gap Nature Reserve. While an explanation why further avoidance is not possible, justification as to why moderate risk turbines that are unrelocatable and proposed to be retained has not been provided.

In regards the amended project, BCS notes that there are a range of proposed access tracks including both temporary and permanent tracks associated with the project. Given the terrain in which the development is located and the narrow width of the proposed tracks, BCS is not able to determine whether these tracks are fit for purpose or if the engineering specifications are adequate for the transportation of required infrastructure. We advise that if the project is approved and the track footprint subsequently requires widening to accommodate the anticipated traffic and internal cabling a Modification may be required.

BCS provides comments and recommendations in **Attachment A** and detailed comments in **Attachment B**.

If you require any further information regarding this matter, please contact David Geering, Senior Conservation Planning Officer, via david.geering@environment.nsw.gov.au or (02) 6883 5335.

Yours sincerely

Sarah Carr
Director North West
Biodiversity, Conservation and Science Directorate

10 January 2023

Attachment A – BCS's comments and recommendations

Attachment B - BCS's detailed comments

BCS's comments and recommendations

Hills of Gold Wind Farm – Amended Project

Comments

- 1.1 BCS supports the increased hub height from 135 metres to 150 metres and reduced blade length from 85 metres to 82 metres.
- 1.2 BCS supports the implementation of an adaptive low wind-speed turbine curtailment strategy.
- 1.3 BCS notes that further investigation will be undertaken into microbat activity levels as part of the development of the Bird and Bat Adaptive Management Plan.
- 1.4 BCS notes the commitment made to a rigorous monitoring program involving at least five years of carcass searches by conservation detection dogs and a robust Trigger Action Response Plan (TARP).
- 2.1 BCS notes that an analysis and evaluation of options for the location of moderate-risk turbines has been undertaken.
- 3.1 BCS is satisfied that the methodology to survey potential owl breeding habitat employed is as agreed.

Recommendations

- 2.2 Where moderate risk turbines are unrelocatable and proposed to be retained detailed justification is required.
- 4.1 The BDAR be updated to correctly record the credit requirement for Southern Myotis and Koala.
- 5.1 Ensure that all data entered into the BAM-C is consistent with the field data.
- 6.1 The proponent should determine an access option for the subject site based on the option which would present the least relative impact to biodiversity values.

BCS's detailed comments and recommendations

Hills of Gold Wind Farm – Residual matters and Amended Project

Residual Matters

1. BCS supports the mitigation measures to address SAIL impacts to microbats

BCS commends efforts undertaken by the proponent to move closer to a resolution of matters relating to the risk of Serious and Irreversible Impacts (SAIL) to Large-eared Pied Bat, Large Bent-winged Bat and Little Bent-winged Bat.

BCS note that the following mitigation and minimisation measures have been implemented:

- a total of six turbines removed from the proposed project layout since exhibition of the EIS,
- relocation of 11 turbines, including nine adjacent to Ben Halls Gap Nature Reserve, increasing separation distances between turbines,
- refinement of turbine model selection resulting in rotor swept area being higher and smaller,
- a proactive low wind-speed turbine curtailment strategy involving:
 - all turbines to be feathered to prevent free-wheeling prior to predetermined cut-in speeds (i.e. prior to energy generation); and
 - all moderate risk turbines to be subject to proactive low wind-speed turbine smart curtailment from the outset of the operational phase of the project.

Adjustments to the curtailment strategy may be implemented based on the results of monitoring on the efficacy of the strategy (to be prescribed in the finalised Bird and Bat Adaptive Management Plan (BBAMP)). This may include additional curtailment measures, if an unacceptable number of strikes are found to occur, or a reduction in the level of curtailment, if sufficient evidence is presented to demonstrate that it is safe to do so.

BCS supports these mitigation measures noting the commitment to a rigorous carcass monitoring program, of which a key component is the use of conservation detection dogs to maximise the likelihood of detection, and a robust Trigger Action Response Plan (TARP). This monitoring program will be conducted over a minimum of five years to ensure that adequate strike data can be collected.

Comments

- 1.1 BCS supports the increased hub height from 135 metres to 150 metres and reduced blade length from 85 metres to 82 metres.
- 1.2 BCS supports the implementation of an adaptive low wind-speed turbine curtailment strategy.
- 1.3 BCS notes that further investigation will be undertaken into microbat activity levels as part of the development of the Bird and Bat Adaptive Management Plan.
- 1.4 BCS notes the commitments made to a rigorous monitoring program involving at least five years of carcass searches by conservation detection dogs and a robust Trigger Action Response Plan (TARP).

2. Analysis of options for turbine relocation and deletion has been provided however justification for the retention of moderate-risk turbines is required.

At the exhibition stage of this development 4 turbines were classified as being high risk and 29 turbines as being a moderate risk.

In our response dated April 2022, concerns were raised regarding the setback of some individual turbines from nearby habitat features. As such, we requested an analysis and evaluation of options for the location of turbines identified as moderate risk.

This analysis has been provided in Table 54 of the BDAR. The relocation of eight turbines has resulted in the risk rating being downgraded from moderate to low. Several other turbines may be micro-sited to reduce their risk rating. It is noted that two turbines (WP40, WP41) do not meet the criteria for a moderate risk of indirect impact but they have been categorised moderate as a precautionary measure.

In addition, three of the high-risk turbines have been deleted from the project and one relocated to achieve a moderate risk rating. Deletion or relocation of turbines has reduced the number of moderate risk turbines from 29 to 17.

BCS requested that where moderate risk turbines are unrelocatable and proposed to be retained detailed justification be provided. This is particularly so for turbines which are expected to indirectly impact on the biodiversity and ecosystem functions protected by the Ben Halls Gap Nature Reserve. Except for several turbines that are noted as being highly productive, no justification is provided as to why individual turbines should not be deleted.

In the absence of detailed justification for retention, we reiterate our previous recommendations that the relative impact of each turbine should be considered and the turbines resulting in the highest impacts are prioritised for deletion.

There are several turbines that BCS regards as potentiation candidates for deletion from the project. For example, turbines WP24 and WP28 are placed in PCT 1194, a Threatened Ecological Community (TEC). It is stated in Table 54 that further avoidance of biodiversity impacts is not possible for these turbines, due to the turbines being located within a highly vegetated area. The deletion of these turbines from the project will achieve further avoidance of a TEC as well as reduce the potential of blade strike for microbats.

Comment

- 2.1 BCS notes that an analysis and evaluation of options for the relocation of moderate-risk turbines has been undertaken.

Recommendation

- 2.2 Where moderate risk turbines are unrelocatable and proposed to be retained detailed justification is required. In the absence of detailed justification, the relative impact of each turbine should be considered and turbines resulting in the highest biodiversity impact should be deleted.

3. An agreed approach to calculating potential impacts to threatened owl breeding habitat has been reached

BCS is satisfied that the methodology employed to survey threatened owls is as agreed and that the spatial files to confirm that all potential habitats have been surveyed have been received and reviewed.

Any further surveys to refine the quantum of impact to owl breeding habitat and determine the presence/absence of nest trees should be completed prior to project approval.

Comment

3.1 BCS is satisfied that the methodology to survey potential owl breeding habitat is as agreed.

Amended Project

4. The credit requirement in the BDAR must correspond with that in the BAM-C

The credit requirement calculated by the BAM-C for two species credit species does not correspond with those provided in the BDAR.

Tables 96 and 102 of the BDAR indicate that the credit requirement for Southern Myotis is 89 and the Koala is 1,581. The credit reports provided in Appendix G provide the following summary for these two species:

Species	Peel	Hunter	Tomalla	Walcha	Total
Southern Myotis	0	1	47	42	90
Koala	233	2	740	608	1,583

The difference between the figures in the BAM-C and that provided in the BDAR suggests that the credits generated in the Hunter IBRA sub-region have not been included in the calculations above. This error should be corrected in the BDAR.

Recommendation

4.1 The BDAR be updated to correctly record the credit requirement for Southern Myotis and Koala.

5. The data for some vegetation plots have been incorrectly entered into the BAM-C

In BCS's initial response to the exhibited BDAR (dated 4 February 2021) it was noted that there were inconsistencies between the field data provided and the data that had been entered into the BAM-C. In a subsequent response (20 April 2022) it was noted that "*the inconsistencies between data provided in the various sets of plot data have been explained and corrected*".

The data audit of the recently amended BDAR has revealed two instances where data from vegetation plots (plots 25 and 26) and have been entered into the BAM-C with zero values. Errors in the BAM-C data can have an impact on the final biodiversity credit liability for the project.

BCS has determined that there would be a difference of 25 additional credits for Vegetation Zone 1194_High_TEC, when Plot 26 (which has all zero values) is removed.

BCS could not verify the change in credits for Vegetation Zone 934_DNG, as only the minimum plot numbers have been reached for this Vegetation Zone. However, it is expected that a similar change in credit gain would be found if Plot 25 were revised to not contain zero scores.

BMA-C credit case - Walcha Plateau IBRA Sub-region:

With Plot 26

Snow Gum - Mountain Gum - Mountain Ribbon Gum open forest on ranges of the NSW North Coast Bioregion and eastern New England Tableland Bioregion								
14	1194_High_TEC	63.1	5.5 hectares	High Sensitivity to Loss	PCT Cleared - 80%	High Sensitivity to Gain	2	172

Without Plot 26

Zone	Vegetation zone name	Vegetation integrity loss	Area	Sensitivity to loss	Sensitivity to loss(Justification)	Species sensitivity to gain class	Biodiversity risk weighting	Potential SAI	Ecosystem credits
Snow Gum - Mountain Gum - Mountain Ribbon Gum open forest on ranges of the NSW North Coast Bioregion and eastern New England Tableland Bioregion									
1	1194_Classname1	72.2	5.5 hectares	High Sensitivity to Loss	Biodiversity Conservation Act listing status	High Sensitivity to Gain	2		197
									Subtotal: 197

Total: 197

The data entered in the BAM-C must be consistent with the field data sheets.

It should be noted that, as regular updates are made to the BAM-C, it is possible that the credit obligation of the project may change, or that new species credit species may be generated when the calculator is revised. Should this occur further amendments will be required in the BDAR to account for these changes.

Recommendation

5.1 Ensure that all data entered into the BAM-C is consistent with the field data.

6. The project footprint should be located to avoid or minimise direct and indirect impacts.

The development footprint has been amended to include access to the site for construction and haulage of large infrastructure components from Crawney Road, rather than via Devil's Elbow and Barry Road/Morrison Gap Road.

Three options to access the site from Crawney Road have been proposed. The accumulated impact from all these options have been assessed, although the proponent has committed to construction of only one option.

Table 59 of the BDAR provides a summary of the primary biodiversity considerations of the three options without providing any indication of additional constraints, or the proponents preference, relating to the three options. As such, there is insufficient information for BCS to develop an informed opinion on the merits of the proposed options.

It is recommended that the proponent selects an option, and provide justification for that selection, based on which option would represent the least relative impact to biodiversity values.

Recommendation

6.1 The proponent should determine an access option for the subject site based on the option which would present the least relative impact to biodiversity values.