

30 November 2022

Mike Head
Environment Manager,
RES Australia
Suite 6.01 Level 6,
165 Walker Street,
North Sydney, NSW 2060.

Attention: Mike Head. Environment Manager

Dear Mike,

**RE: DULACCA WIND FARM
REPORTING ON BASELINE SURVEYS AND
PROJECT NUMBER**

The Dulacca Renewable Energy Project, Bird and Bat Management Plan (July 2021, Report No. 19103 (2.14)) outlined pre-operational bird and bat monitoring programs to be undertaken at Dulacca Renewable Energy Project for 24 months. Surveys have now been implemented for 24 months, which has fulfilled *Conditions 6, 6(a), and 7* of the EPBC Act Approval (EPBC 2018/8368). This letter fulfills *Conditions 9(a)(ii)* of the Planning Approval and *Conditions 9(a), 10(a), 10(b) and 10(c)* of the EPBC Approval.

Pre-operational surveys

A total of eight pre-operational BUS were undertaken at 10 fixed points (seven impact, three reference) by experienced zoologists during 2020, 2021 and 2022 across the dry and wet seasons, with two in each season in each of two years to account for seasonal differences in bird activity and migration. Survey timing was as follows:

- Early dry season: 7-9 May 2020
- Late dry season: 3-5 Aug 2020
- Early wet season: 21-26 Nov 2020
- Late wet season: 2-7 Mar 2021
- Mid dry season: 6-9 Jul & 12-14 Jul 2021
- Late dry season: 2-8 Sep 2021
- Mid wet season: 7-10 Dec 2021
- Late wet season: 12-14 Feb 2022

Bat recording Song Meters were located near six proposed wind turbine sites (impact sites) and two reference sites which were distributed across the different habitat types present at the study area. A total of six sites were monitored during each survey. Survey timing was as follows:

- Survey 1 - Early wet season: 21-26 Nov 2020
- Survey 2 - Late wet season: 2-8 Mar 2021
- Survey 3 - Mid dry season: 6-14 Jul 2021
- Survey 4 - Mid dry season: 2-9 Sep 2021
- Survey 5 - Mid wet season: 7-10 Dec 2021
- Survey 6 - Late wet season: 12-15 Feb 2022

Reports have been prepared for submission to DCCEEW to fulfill *Condition 8* of the EPBC Act Approval (EPBC 2018/8368), and are as follows:

- Nature Advisory (2022a). *Dulacca Renewable Energy Project, Bird Utilisation Survey Baseline Report – Year Two (Report No. 19103.3 (4.1))*. Prepared for Dulacca Energy Project Co Pty Ltd as trustee for the Dulacca Energy Project Trust issued in August 2022 by Nature Advisory, Hawthorn East, Victoria.
- Nature Advisory (2022b). *Dulacca Renewable Energy Project, Microbat Baseline Report – Pre-operational (Report No. 19103.03 (5.1))*. Prepared for Dulacca Energy Project Co Pty Ltd as trustee for the Dulacca Energy Project Trust issued in August 2022 by Nature Advisory, Hawthorn East, Victoria.

The approved Bird and Bat Management Plan for Dulacca Renewable Energy Project Report No. 19103 (2.14) (July 2021), outlined the additional requirements required by the State and Commonwealth following the pre-operational 24 months of monitoring. These requirements are summarised in **Table 1** and are addressed below.

Table 1: BBMP sections requiring an update to meet Queensland Planning Act and Commonwealth EPBC Act approval conditional requirements.

Condition number	Permit condition requirements	BBMP Section
Queensland Planning Act approval conditions		
9(a) (ii)	Prepare a Bird and Bat Management Plan (BBMP) certified by a suitably qualified ecologist. The BBMP must include: Incorporate baseline data, including additional pre-operational surveys	2
Commonwealth EPBC Act approval conditions		
9	To inform turbine strike monitoring, the approval holder must engage a suitably qualified ecologist to:	
9(a)	Assign a risk profile to each turbine within the study area prior to first full operation using the results of the bird and bat utilisation surveys required under condition 6(a)	2.1 & 2.2.4
10	Upon completion of the bird and bat utilisation surveys required under condition 6, the approval holder must engage a suitably qualified ecologist to revise the BBMP to include the following [within 3 months]:	
10(a)	The results of the bird and bat utilisation surveys required under condition 6	2.2.2 & 2.2.3
10(b)	The risk profile of each turbine within the study area	2.2.4
10(c)	Any additional or improved mitigation measures (including timing, frequency and longevity) that will be implemented to ensure that impacts on EPBC Act listed threatened species and EPBC Act listed migratory species are minimised	5.1 & 5.3

Bird Species, abundance and activity summary

A total of 117 bird species were recorded during the combined survey periods of around 48 survey days. Of these, 103 species were recorded at impact points and 93 at reference points. An additional nine species were recorded as incidentals only, while travelling between sites during the BUS survey. Species recorded were mostly common, widespread birds, predominantly farmland and woodland species and some observations of raptors.

Threatened or Migratory Bird Species summary

No bird species listed as threatened or Migratory under the EPBC Act or threatened under the NC Act were observed during fixed-point counts, indicating low activity levels on the site of these species. This also implies that:

- None of the five most common species recorded at impact and reference points are listed as threatened or migratory under the EPBC Act or threatened under the NC Act.
- None of the five most counted species flying at RSA height are listed as threatened or migratory under the EPBC Act or threatened under the NC Act

One species listed as Vulnerable under the NC Act was observed *incidentally*; the Glossy Black-Cockatoo, which is not listed under the EPBC Act. The record of this species was one account of the species recorded at one location in the north-eastern portion of the study area at a flight height of 60 metres. As only one individual was observed, flying at a height below RSA and likely dispersing over the study area rather than moving between foraging and roosting or nesting locations, the risk to the species from the wind farm is considered low.

Raptor summary

Ten raptor species were recorded during the fixed-point counts at impacts points, comprising 206 counts in total. Wedge-tailed Eagle was the most counted raptor species at impact points and was observed throughout the study area. None of the raptor species observed are listed as threatened or Migratory under the EPBC Act or threatened under the NC Act.

The proportion of flights recorded at rotor swept area (80 to 230 metres above ground) were 1.57% of counts at impact points and 0.78% of counts at reference points. This comparatively low percentage reflects the high RSA height at the Dulacca Renewable Energy Project.

The study area supports average numbers of raptors, a bird group considered more likely to collide with operating wind turbines. Raptors formed 31.16% of all birds observed at RSA height at impact points. The number of raptors was low in relation to the total number of birds recorded at impact points (206 of 8,820 observations or 2.34%). Based on the utilisation rate by raptors at impact points, risks to raptor populations within and immediately surrounding the study area were considered to be low.

Bat summary

A total of 16,867 files containing bat calls were recorded during the six surveys conducted at the study area, which could be classified to species or species complexes. Fourteen bat species were positively identified to species-level from 13,026 calls. None of these species are listed as threatened under the EPBC Act (Matter of National Environmental Significance) or threatened under the Queensland *Nature Conservation Act 1992* (NC Act). The greatest number of calls identified to species-level were attributed to Yellow-bellied Sheath-tailed Bat (14.4% of identified calls), Goulds Wattled Bat (13.8%), Little Pied Bat (13.7%), Little Broad-nosed Bat (11.1%), White-striped Free-tailed Bat (9.9%) and Northern Free-tailed Bat (6.5%). The remaining eight identified species each accounted for <3% of calls. Of these 14 species, six are open-space adapted species likely to fly at rotor sweep area (RSA) height, all of these are common, and none are listed as threatened under the EPBC Act or NC Act.

A further 15 species complexes were identified based on 3,841 calls that could not be definitively assigned to a species. Some of the calls assigned to the Long-eared Bat Species Complex may have been produced by Corben's Long-eared Bat *Nyctophilus corbeni*, which is listed as Vulnerable under both the EPBC Act and NC Act. Given the patchy distribution and generally low abundance of Corben's Long-eared Bat in southern and central Queensland, the calls assigned to the Long-eared Bat Species Complex were more likely to have been produced by Gould's Long-eared Bat *Nyctophilus gouldi* or Lesser Long-eared Bat *Nyctophilus geoffroyi*. These two species are both common and widespread in the region and are not listed as threatened under the EPBC Act or NC Act.

The EPBC Act approval conditions state that high-risk is assigned to a turbine if a listed species "[has] been detected within the vicinity of [a] turbine". Corben's Long-eared Bat "could have been" rather than "[has] been" detected. Further surveys that incorporate trapping to capture bats may help determine if Corben's Long-eared Bat is present in the study area. However, as they are typically very sparsely distributed, there is a possibility that extensive trapping effort may not provide sufficient evidence for the statement that Corben's Long-eared Bat "could have been detected during bat detector surveys" to be revised to "has been detected during bat detector surveys".

Turbine Risk Profile and Mitigation summary

The EPBC Act approval conditions for the project define a turbine as a low-risk turbine if EPBC Act listed threatened or migratory bird species have not been detected within the vicinity of the turbine for a minimum of two years, as detailed in the Dulacca Renewable Energy Project Bird and Bat Management Plan (BBMP). As no bird species listed as threatened or migratory under the EPBC Act were recorded during the two years of pre-operational BUS, all turbines are defined as low-risk turbines (see Figure 1 below). Further pre-operational BUS are not required and the mitigation measures currently in the BBMP are not required to be updated. Additional site-specific mitigation measures that could be beneficially adopted in the revision of the BBMP ahead of the first full operation of the wind farm are also not required. These conclusions fulfill *Conditions 9(a), 10(b) and 10(c)* of the EPBC Act Approval (EPBC 2018/8368).

The identification of echolocation calls in the Long-eared Bat Complex that may have been produced by Corben's Long-eared Bat does not provide sufficient evidence for any turbines to be assigned as high-risk turbines, as defined in the EPBC Act approval conditions. All turbines within the study area are considered to meet the EPBC Act approval condition definition of low-risk turbines which states "Low-risk turbine means any turbine that has been assigned as a low-risk turbine if EPBC Act listed threatened species or EPBC Act listed migratory species have not been detected within the vicinity of the turbine for a minimum of two years." These conclusions fulfill *Conditions 9(a), 10(b) and 10(c)* of the EPBC Act Approval (EPBC 2018/8368).

Additional comments

It is noted that the main body of the BBMP in section 3.2.2 states that turbines will be searched out to 120m once per month. However, it is erroneously noted in table 10 that pulse searches will occur as a part of mortality monitoring at each of the 15 searched turbines. This is not inline with section 3.2.2 and it is proposed that this is removed from this table.

Yours sincerely,



Bernard O'Callaghan

Director
Nature Advisory Pty Ltd

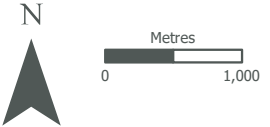


Esri, HERE, Garmin, (c) OpenStreetMap contributors, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Figure 1: Turbine risk profiles at Dulacca Wind Farm

Project: Dulacca Renewable Energy Project **Client:** RES Australia Pty Limited **Date:** 25/11/2022

- ▭ Study Area
- Turbine classification (with count)**
- Low risk (43)
- High risk (0)



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