



22<sup>nd</sup> May 2017

Crookwell Development Pty Ltd  
Suite 4, Level 3, 24 Marcus Clarke Street  
Canberra ACT 2600

**Attention: Shaq Mohajerani (Project Development Manager) by email**

Dear Shaq,

**RE: CROOKWELL 2 WIND FARM  
RESPONSE TO MOD-2 APPLICATION OEH ECOLOGY SUBMISSION  
BL&A REF: 8172.4**

We note the correspondence to the Department of Planning and Environment (DPE) from Allison Treweek, OEH South-east Regional Operations, dated 14 November 2016. The letter contains a number of specific recommendations and requests for information, particularly in relation to the Bird and Bat component of the Crookwell 2 Wind Farm – modification of consent (Mod-2).

We note the Condition 83 of the Conditions of Consent requires the development of a Bird and Bat Adaptive Management Program (BBAMP). The proponent has indicated their desire to move ahead with this BBAMP as a matter of urgency.

In addition, we recognise that construction will be initiated in early 2017, thus our recommendations are provided in light of this constraint.

We offer the following responses to the specific recommendations incorporated in the OEH letter.

- 1. Carry out s5A assessments of significance (7 part tests rather than the outdated 8 part tests) for each species listed in Attachment B, that take into consideration the increase by 32% of the total wind farm RSA), the increase in the footprint of individual turbines, as well as the impact from the proposed microsite allowance of 100m diameter.*

*Response:*

- The proposed modifications to the consent are based on the approved development application dated 10 June 2005 and additional modifications endorsed on the 29 June 2009;
- It is noted that while the total RSA for the turbines will increase, most of this increase will be in heights above 50 metres, which is above the flight heights of typical species of farmland birds found in predominantly agricultural landscapes such as at Crookwell 2 Wind Farm;
- It is noted that the increase in RSA may increase potential impact on species of raptor;
- The Bird and Bat Risk Assessment has been conducted – Report 8172 (7.1) (see point 2 below) and used to inform the BBAMP – Report 8172 (8.1). This Risk Assessment considers the risks presented to the species listed in Attachment B - Page 5 of the OEH letter. Any species considered at moderate

to high risk is focused upon in the BBAMP – Report 8172 (8.1) (see point 4 below); and

- We understand that you are proposing a revised micro-siting of 50 metres to minimise potential heritage impacts. Thus, this reduced micro-siting distance together with the *Micro-siting Biodiversity Management Plan* – Report 8172 (6.2) – that has been prepared should also contribute to minimizing impacts (see point 5 below).
- Based on these assessments the modifications proposed will have limited impacts on bird and bat species flying up to 100m. As such, s5A assessments of significance for each species listed in Attachment B will not provide useful additional information about risks to these species.

2. *A Bird and Bat Risk Assessment detailing potential impacts on all at risk birds and bats should be carried out which including the impact on raptors.*

*Response:*

- A *Bird and Bat Risk Assessment* – Report 8172 (7.1) has been prepared as the basis for the development of the BBAMP – Report 8172 (8.1) (See point 4 below);
- The Bird and Bat Risk Assessment includes an analysis of the risk to:
  - All birds and bats species;
  - Raptors; and
  - Includes species listed in Attachment B - Page 5 of the OEH letter.
- Any species considered at moderate to high risk is subject to increased focus in the BBAMP. Only one species – Wedge-tailed Eagle – is at moderate risk. No species are at high risk.

3. *Clarify that the lower minimum RSA height is 30m, not 28m.*

*Response:*

- The original turbine dimensions were a lower minimum RSA height of 27 meters above ground; and
- The Mod-2 turbine dimensions have a lower minimum RSA height of 30 meters above ground.

4. *The BBAMP should be prepared in consultation with OEH, implemented prior to construction and include at least 12 months of pre development surveys.*

*Response:*

- The BBAMP has been developed in consultation with OEH and has been prepared for comment by OEH. It will be completed prior to full operation;
- It is proposed that two Bird Utilisation Surveys (BUS) are completed for – Crookwell 2 Wind Farm). These are to be completed prior to the commencement of full operation;
- One BUS survey was completed in autumn 2017. Another is proposed for spring 2017; and

- The information gathered during the BUS surveys inform the Risk Assessment and BBAMP for Crookwell 2 Wind Farm.
5. *Provide justification as to why micro-siting needs to occur rather than detailed assessments as part of the MOD application. The Micro-siting Biodiversity Management Plan should include information on how buffer distances will be calculated in accordance with the Natural England Technical Information Note TIN051.*

*Response:*

- The proposed 50 metre micrositing provides the opportunity to address construction-related issues; and
  - The *Turbine Micro-siting Management Plan* – Report 8172 (6.2) – that has been prepared provides guidance to ensure any micro-siting will not have increased environmental impact.
6. *Provide justification for the removal of paddock trees and a map showing where they are located. OEH considers that given the lack of trees on the site it should be possible to site the turbines away from any paddock trees.*

*Response:*

- It is my understanding that Figure 4-11 of the Original Crookwell 2 Wind Farm EIS shows the existing trees to be removed and proposed replanting across the Crookwell 2 Wind Farm project site.
  - As such, the removal of paddock trees is already approved.
7. *Consultation with OEH on the preparation of the Construction and Operation Fauna and Flora Management Plans.*

*Response:*

- A CEMP (Construction Environmental Management Plan) was approved by Department on 15th May 2009. This plan was exercised the CEMP to commence our early works in June 2009. Sub-Plan 6 of the CEMP is 'Flora and Fauna Management Plan (see attached).
- The operational Flora and Fauna Management Plan will primarily focus on the management of matters related to birds and bats including pest animal management and related matters. This will be outlined in the BBAMP. OEH will be consulted in this process as outlined in Points 2 and 4 above.

If you have any questions, please don't hesitate to call me.

Yours sincerely,



**Bernard O'Callaghan**  
Senior Ecologist and Project Manager