



Office of Environment & Heritage

Date

Your reference:

Our reference:

Contact:

29 May 2014

MP 10_0053

DOC14/85201

David Geering

(02) 6883 5335

Tracy Bellamy
Planning Officer - Infrastructure Projects
Department of Planning and Infrastructure
GPO Box 39
Sydney, NSW 2011

Dear Ms Bellamy

**RE: Paling Yards Wind Farm
(MP 10_0053)**

The Office of Environment Heritage (OEH) has reviewed the exhibited Environmental Impact Statement (EIS) for the Paling Yards Wind Farm, and provides the following submission at Attachment A for consideration by the Department of Planning and Infrastructure.

The OEH has previously responded, on 22nd February 2013 and 19th April 2013, to earlier drafts of an Environmental Assessment and raised a number of concerns. These concerns have been largely addressed through changes to the proposal and with the inclusion of a Supplementary Ecology Report (SER). The latter only addresses biodiversity issues raised in the OEH submission to the DPI. There are, however, several instances where the SER conflicts with the initial Flora & Fauna Impact Assessment. These issues will require clarification.

In summary, OEH raises the following issues with regard to the assessment:

- The area of impact differs between the two assessments and requires clarification;
- Several turbines have been removed from the proposal therefore eliminating impact to Box Gum woodland within existing Commonwealth Conservation agreements. However, it is stated that approval for these turbines may be sought at a later date;
- One turbine within remnant vegetation has been deleted and a further three have been relocated to sites just within the remnant. While this reduces impact there is no discussion regarding why deletion of all four turbines is not feasible;
- There is insufficient consideration of the effects of common weather conditions on bird and bat collisions;
- Insufficient information is provided regarding monitoring potential impacts on bird and bat populations;
- The two assessments differ regarding a need for a biodiversity offset. This requires clarification.

If you have any questions regarding this matter further please contact David Geering on 02 68835335.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'SArdill', written in a cursive style.

SONYA ARDILL
Senior Team Leader Planning
North West Region

Attachment A: OEH response to the Paling Yards Wind Farm Environmental Impact Statement

ATTACHMENT A

Paling Yards Wind Farm Project

Response to Environmental Impact Statement

Acronyms

DNG - derived native grassland

DPE - Department of Planning and Environment

EEC - endangered ecological community

EA - ecological assessment

SER - supplementary ecology report

SoC – Statement of Commitment

1. Assessment of Impacts

The area of impact differs between the Environmental Assessment and the SER and requires clarification.

The EA reports a total impact of 0.75 ha while the SER reports a total permanent impact of 12.6 ha (Table 4.3). A further 1.4 ha is deemed to be temporary impact.

The EA states that the entire 0.75 ha impact is of Western Tablelands Dry Forest emphasising the remaining turbines are within improved pasture and “*are not representative of Derived Native Grassland*”. In contrast the SER reports a total of 2.9 ha of Apple Box – Yellow Box dry grassy woodland occurring as Derived Native Grassland within the Development Footprint, of which 1.9 ha will be impacted. 9.2 ha of Broad-leaved Peppermint – Brittle Gum – Red Stringybark dry forest also occurs within the development footprint in modified forms where the vegetation “*has been recently cleared and allowed to regenerate with a thinned tree canopy*” and “*has been cleared except for some scattered trees that have been retained amongst the native grasses used as pasture*”. An additional 1.6 ha of Red Stringybark – Scribbly Gum – Red Box – Long-leaved Box shrub – tussock grass open forest occurs in a modified form where the vegetation “*has been recently cleared and allowed to regenerate with a thinned tree canopy layer and more densely distributed shrubs*”.

The SER supports its assessment of the impact with vegetation maps and comprehensive descriptions of the vegetation types as they occur within the development footprint. The EA describes the vegetation occurring within identified Remnant Native Vegetation areas only in general terms and refers to the remaining areas as “*cleared paddocks that are grazed and maintained*”.

Recommendation:

- 1.1 That the actual area of impact be clearly described and quantified.

2. Avoidance

The EA does not contain sufficient explanation regarding avoidance measures.

Several turbines have been removed from the proposal therefore eliminating impact to Box Gum woodland within existing Commonwealth Conservation agreements. While OEH welcomes the avoidance of these Box Gum woodland remnants it is stated several times within the EA that approval for these turbines may be sought at a later date. OEH again reiterates that placement of turbines within firstly an existing conservation agreement and secondly within an area of Box Gum Grassy Woodland Endangered Ecological Community should be avoided where possible to do so.

An additional turbine within remnant vegetation has been deleted and a further three have been relocated to sites just within the remnant. While this reduces impact there is no discussion regarding why deletion of all four turbines, or further relocation outside the remnant, is not feasible.

Recommendations:

- 2.1 That the proponent ensures that all avoidance measures implemented in finalising the location and design of the facility are provided;
- 2.2 That the level of avoidance implemented is justified; and
- 2.3 That the DPE include a condition of consent ensuring that turbines are not placed within existing Commonwealth Conservation agreements containing Box Gum Grassy Woodland EEC.

3. Bird and Bat Collision

The EA has not adequately justified conclusions related to the risk of bird and bat collision and the significance of this impact.

The arguments provided in the EA regarding the potential for bat strike are not consistent with current knowledge of the potential for bird or bat fatalities at wind farms and demonstrates a poor understanding of the current literature on the subject. The SER provides a more comprehensive assessment of bird & bat strike although concedes that while the expected risk to bats at risk from rotor collision would be small this has yet to be confirmed.

Most turbines are to be located in open pasture with scattered trees. The SER considered these areas to have low potential for bat strike however several turbines are located on the edge of remnant native vegetation where bat activity, in particular, is likely to be higher.

Neither assessment adequately discusses the likely influence of weather conditions commonly occurring at the site on bird collisions. Sites which experience poor weather and/or low visibility conditions need to be assessed taking this into account because it is likely to influence flight behaviour and increase the likelihood of impacts.

While the risk factors for affected bat species based on habitat requirements and behaviour are generally addressed, the Assessment of Impacts (in the EA) relies heavily on the cut & paste of information. This is prone to errors. For example, the following statement relating to the Yellow-bellied Sheath-tailed Bat *"Foraging is generally within flyways within the forest and woodland, with the species often utilising the ecotone between forest and open areas"* is common to all the bat species considered in the assessment. The Yellow-bellied Sheath-tailed Bat forages high over the canopy and is likely to occur within the rotor swept area. In addition, the SER identifies the Eastern False Pipisrelle and Eastern Bent-wing Bat as foraging near the RSA.

While the SER raises some additional factors that could potentially influence the susceptibility of bats to rotor strike there is little discussion of them. Additional risk factors relevant to consideration for an adequate impact assessment on all bat species known and likely to occur at the site include.

- Tree-roosting species may perceive turbines as potential roost trees;
- Ridge-top sites might coincide with availability of insect prey;
- Migrating bats may rely on sight (rather than echo-location) to navigate, being drawn to large structures on ridge-tops;
- Bats may investigate moving blades as movement may be mistaken as evidence of prey;
- Audible sound from turbines may attract bats from considerable distances; and
- Mating behaviour of tree-roosting bats may be centred on the tallest prominent feature in landscape.
- Risk of concussion from passing through low-pressure areas near turbines.

Recommendation:

- 3.1 That the Proponent take into account weather in assessing impacts on birds and bats, as well as further consideration of the above mentioned risk factors.

4. Indirect Impacts

The EA does not adequately address the potential for indirect impacts to fauna on the development site.

There is a growing literature indicating that wind farms can have a detrimental impact on how fauna, particularly migratory species, utilise habitat surrounding turbines. Indirect impacts include, but are not restricted to:

- significant alteration of flight paths,
- change in habitat use patterns,
- changes in occupancy or population densities and
- changes in breeding success.

The SER acknowledges the potential for indirect impacts in Section 4.2.4 stating that “*Careful planning to avoid placement of turbine clusters in or near areas of high habitat value will manage the alienation of habitat to threatened woodland species*”. However, although turbines P10, P13 and P14 have been resited they are still situated within remnant woodland and thus have the potential to indirectly impact fauna. OEH suggests that consideration should not be restricted to species listed on the EPBC Act or TSC Act.

Recommendation:

- 4.1 That the Proponent assesses the potential for indirect impacts of turbines on fauna.

5. Monitoring & Mitigation

The EIS does not provide detail of the monitoring methodology proposed for monitoring the impacts of rotor strike nor does it adequately consider mitigation measures in response to bird and bat strike.

The EA provides a vague outline of a weekly monitoring programme over a single year. A survey is proposed in spring/summer to provide baseline data for this one-year bird and bat strike monitoring study. This is supported by SoC number 62. Such a snapshot survey does not take into account seasonal occurrences such as the autumn migration of honeyeaters through the southern tablelands or the potential passage of migrating bats from maternity caves to the south of the study area. Furthermore, a one-year monitoring study will not detect annual variations and it is likely that weekly surveys will yield limited data with the removal of carcasses from the site by scavengers.

The SER states that a monitoring program to monitor impacts of bird and bat strike across the wind farm will be established in consultation with OEH, providing no detail of methodologies that may be adopted.

The EIS does not indicate whether monitoring will assess any indirect impacts of the Project on bird and bat populations. This will require the Proponent to establish a monitoring program capable of detecting any changes to the population of birds and/or bats that can reasonably be attributed to the operation of the Project. This may require data to be collected prior to the commencement of construction.

The EA proposes that turbine operation will be modified once a mortality threshold of “*one threatened bat per week, every week*” is reached. There is no discussion as to how this threshold was established. Static thresholds using such measures of turbine kills fail to recognize seasonality, additional causes of mortality and cumulative impacts. The setting of arbitrary thresholds establishes a precedent and has several flaws, not the least of which is the assumption that bat populations are stable and are likely to remain so. This approach also ignores expanding development of wind turbines that may lead to increasing numbers of bat fatalities per population or region. The emphasis on threatened bat does not take into account the potential impact on species that are currently not EPBC or TSC Act listed species but whose behaviour places them at high risk.

In contrast, the SER states that “*a Bird and Bat Monitoring Plan will be developed with the objective of minimising of the operational wind farm on threatened and targeted bird and bat species*” that will outline “*the required monitoring measures, key thresholds for determining permissible impacts and corrective actions*”. While the SER states that such a plan will be developed in consultation with

OEH, an outline of the Monitoring Plan should have been included within the EIS to enable an assessment of mitigation actions in relations to bird and bat strike.

Recommendations:

- 5.1 That the proponent develop a Bird and Bat Monitoring Plan that provides detail of how impacts on bird and bat populations will be monitored, including details on survey locations, parameters to be measured, frequency of surveys and analyses and reporting, and contains mitigation measures that will realistically reduce fatalities.
- 5.2 That the DPE include a condition of consent requiring a monitoring program capable of detecting any changes to the population of birds and/or bats that can reasonably be attributed to the operation of the project. This may require data to be collected prior to the commencement of construction. Data relating to mortality rates should be submitted to OEH on an annual basis for the first five years of operation and every two years thereafter.

6. Offset Proposal

As indicated in Issue 1 above, Assessment of Impacts, the EA reports a total impact of 0.75 ha while the SER reports a total permanent impact of 12.6 ha and a further 1.4 ha of temporary impact. Accordingly, the EA proposes no Offset Proposal while the SER includes a BioBanking Credit Calculator Report indicating the need for an offset of 289 credits, equating to 31.1 hectares.

Statement of Commitment number 59 states that “*The proponent will develop an offset package in accordance with the Principles for the use of biodiversity offsets in NSW*”.

Recommendation:

- 6.1 That the offset requirements be clearly described and quantified and that a biodiversity offset strategy be prepared in consultation with OEH.