



Office of
Environment
& Heritage

Your reference: 10/11837
Our reference: FIL07/13603 DOC11/29762
Date: 27 June 2011

Mr Neville Osborne
Manager – Energy
Infrastructure Projects
NSW Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attn: Mr James Archdale

Dear Mr Osborne

Exhibition of Environmental Assessment for Epuron, White Rock Wind Farm (Application Reference MP 10_0160)

I refer to the publicly exhibited Environmental Assessment provided for the proposed Epuron, White Rock Wind Farm received by the Office of Environment & Heritage (OEH) on 25 May 2011.

The OEH has reviewed the information provided (Epuron, White Rock Wind Farm Environmental Assessment, April 2011). **Attachment 1** provides detailed comments and recommendations on the proposal.

In summary, from the information presented in the EA, the Department is of the opinion that the most significant environmental issues are:

- Inadequate assessment of the potential impacts on biodiversity; and
- The development of an adequate biodiversity offset.

The OEH strongly recommends that the Director General of the Department of Planning & Infrastructure (DoP&I) does not make a final determination with respect to MP 10_0160 until these matters have been satisfactorily addressed. It is expected that the OEH will be given an opportunity to review the draft Director General's Environmental Assessment Report for this proposal. This will ensure that the OEH has the opportunity to recommend additional Conditions of Approval, where its key issues are not addressed appropriately by the proponent before determination.

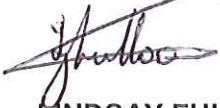
Where relevant, the OEH would also appreciate receiving a copy of the submissions received by the DoP&I (or a report summarising these submissions) in response to the exhibition of the Environmental Assessment. This will assist the OEH to review the draft Director General's Report and to recommend further conditions of approval, if necessary.

The Department of Environment, Climate Change and Water is now known as the Office of Environment and Heritage, Department of Premier and Cabinet

PO Box A290 Sydney South NSW 1232
59-61 Goulburn St Sydney NSW 2000
Tel: (02) 9995 5000 Fax: (02) 9995 5999
TTY (02) 9211 4723
ABN 30 841 387 271
www.environment.nsw.gov.au

If you have any questions, or wish to discuss this matter further please contact the undersigned in the Armidale office on 6773 7000.

Yours sincerely



LINDSAY FULLOON
Acting Head Regional Operations - Armidale
Environment Protection and Regulation
Office of Environment and Heritage
Department of Premier and Cabinet

Encl: Attachment 1 - OEH Submission for Proposed Epuron White Rock Wind Farm, Key issues and comments on Draft Statement of Commitments

ATTACHMENT 1 – OEH SUBMISSION FOR PROPOSED EPURON WHITE ROCK WIND FARM KEY ISSUES AND COMMENTS ON DRAFT STATEMENT OF COMMITMENTS

BIODIVERSITY IMPACTS

Description of dominant vegetation types

Issue:

Only very basic descriptions of the vegetation communities are provided. There is no plot data against which the condition of the impacted vegetation can be assessed.

Background:

- a) While very basic descriptions of the vegetation communities are provided there is no plot data against which the condition of the impacted vegetation can be assessed.
- b) The assessment indicates that the vegetation type described as "Cleared Pasture with Scattered Trees" is dominated by introduced pasture species and exotic grasses but also states that *Poa sieberiana* (Snow Grass) does occur as a dominant native grass within the pasture areas.
- c) There is insufficient information to determine whether the vegetation type "Cleared Pasture with Scattered Trees" may contain areas of Derived Native Grassland, or indeed woodland, given the occurrence of scattered trees representative of the EECs in the study area, nor is there any discussion to indicate that such an assessment has been made.
- d) Should areas of Derived Native Grassland be identified this will need to be quantified to enable the calculation of adequate offsets.

Recommendation:

Plot data should be made available to OEH to enable assessment of impacted vegetation. If not already done, an assessment of the vegetation type "Cleared Pasture with Scattered Trees" is required to determine whether any areas of Derived Native Grassland occur within the study area. If such an assessment has been completed the results should be provided.

Threatened species assessment

Issue:

1. The Flora & Fauna Assessment appears to underestimate the potential occurrence of a number of threatened species and the impact of the development on these species.
2. No effort has been made to investigate caves within the site perimeter that may be utilised by bats.

Background:

- a) The Assessment identifies threatened flora and fauna species that have been recorded in the study area (i.e. based on field survey and records from the Atlas of NSW Wildlife). The brief period during which flora and fauna were surveyed has undoubtedly contributed to a number of species being potentially overlooked and to a possible misinterpretation of the abundance of some species in the study area. To fully understand the pattern of occurrence and abundance of microchiropteran bat species, for example, requires the analysis of Bat detector data over an extended period rather than simply five nights in September.

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- b) Given the lead time for projects such as this it is not unreasonable to expect that survey effort could be spread over a more extended timeframe to take into account changes in occurrence, abundance and detectability of flora and fauna.
- c) A number of the potentially occurring species, even though threatened and now in very much reduced numbers, remain reasonably typical components of the woodland avifauna of the Northern Tablelands yet they are attributed a "Low" or "Low to Moderate" chance of occurrence. Several of these species were recorded as occurring in the Environmental Assessment of the adjacent Sapphire Wind Farm.
- d) Section 6.1, which addresses the Assessment of Significance for threatened species, provides general comments only for many species considered. A number of these general comments reveal a lack of understanding of the ecology and behaviour of the species concerned resulting in an underestimation of the Likely Level of Impact. Little Lorikeets, for example, are a highly mobile, flocking species that congregates at sites where nectar flows are high. Flocks regularly fly at the height range of turbines. Their flocking behaviour, and speed at which they fly, would suggest a higher Likely Level of Impact than Low.
- e) The general comments provided for threatened species have not been substantiated in the document nor has any effort been made to specifically apply the available knowledge to the potential impact of this wind farm.
- f) Section 3.2.1 of the Flora and Fauna Assessment states "*Some caves that may be utilised by cave-roosting microchiropteran bat species occur within steep gorges within the southern parts of the site perimeter but will not be affected by the project.*"
- g) These caves may not be affected by the project but it is important to ascertain to what degree they are being utilised: whether for roosting or as maternity colonies, by what species and by how many bats. This information will allow a better assessment of the potential impact on bats. The presence of a maternal colony, for example, may result in a greater impact than a roosting cave as lactating females will have a more restricted foraging area that may be centred on the wind farm.

Recommendation:

- a) The threatened species assessment should include a search of other available Environmental Assessments with the district to obtain a more comprehensive list of species predicted to occur in the Glen Innes – Guyra Basalts CMA sub-region.
- b) More specific detail regarding those species that are most likely to be impacted is required.
- c) An assessment of any caves within the area should be undertaken to determine the bat species, and numbers, utilising them and the purpose for which they are occupied.

Assessment of impacts

Issue:

There is a general lack of understanding of the ecology and behaviour of many species that results in a potential underestimation of the impact of the development on these species.

Background:

- a) Section 4.2 addresses the impact on fauna, specifically birds and bats. The discussion contained therein suffers from general lack of understanding of the ecology and behaviour of many species.

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- b) Table 4.1 highlights the Risk Potential of raptors such as the Wedge-tailed Eagle as being high. This is accompanied by brief comments suggesting that "*Some minor changes to local distribution and abundance of these species may be expected*" and "*these impacts are not expected to be significant*". However, there is no discussion regarding how the potential risks may be reduced.
- c) It is suggested that bird mortality is expected to be low as turbines are located in primarily cleared areas. This downplays the fact that the turbines are within a fragmented woodland landscape and the migratory behaviour of many woodland bird species, notably honeyeaters, are characterised by flocks of birds flying from ridge to ridge above canopy height. This is particularly so when birds fly across cleared areas.
- d) During periods of eucalypt flowering, large flocks of honeyeaters move through the New England Tableland woodlands. This pattern of migratory behaviour may result in a potentially high likelihood of bird strike as the birds congregate on ridge tops and fly across cleared areas at rotor height.
- e) The methodology detailed in the Environmental Assessment for recording flight characteristics of individual species, while in accordance with the *Wind Farms and Birds: Interim Standards For Risk Assessment*, did not take place at a time when migrating bird species may have been congregating in the study area. The flaws in this level of assessment will be further compounded when used in the model assessing the cumulative impacts of this wind farm.
- f) In the discussion on Cumulative Impacts, Section 4.2.3, it is suggested that "*Cumulative impacts are expected to occur at a minor level*". This statement is predicated on there being no operational wind farms within 50km of this proposal. However, there is acknowledgement of an additional three known proposals within 8 kilometres of this wind farm. Cumulative impact should be based on the combined 371 turbines currently proposed for this area.

Recommendation:

- a) More specific detail regarding those species that are most likely to be impacted, taking into account the best available knowledge of behaviour, is required.
- b) Discussion of Cumulative Effects should take into account all known proposals for additional wind farms.

Offset Proposal

Issue:

Based on the information provided, the proposed offset is inadequately detailed and is unlikely to be sufficient to offset the impacts of the proposed wind farm.

Background:

- a) Other than identifying three potential areas for conservation and indicate that the proposed offset will be "*at least 44ha in total*", the proponent has not proposed any specific offset areas.
- b) The proponent has made no attempt to assess the proposed offset areas against the Department's '*Principles for the use of biodiversity offsets in NSW*'. Indeed, the proponent is uncertain as to whether the required vegetation type occurs within the proposed offset areas.
- c) The EA presents no detail regarding the condition of the impact and offset sites. Such data is essential to calculate the offset required for the loss.

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- d) OEH considers that the offset area proposed may fall short of that required to adequately offset the impacts of the wind farm. The exhibited documents, while identifying potential offset areas, do not contain sufficient information to allow any assessment of the offset areas. To suggest that the proposed offset will be “at least 44ha in total” does not take into account assessment of condition of either the impact or offset areas.
- e) Only very basic descriptions of the vegetation communities are provided. There is no plot data against which the condition of the impacted vegetation can be assessed. There is insufficient information to determine whether or not the vegetation type described as “Cleared Pasture with Scattered Trees” may contain areas of Derived Native Grassland or Woodland, particularly given the occurrence of scattered trees representative of the EECs in the study area and the acknowledgement that *Poa sieberiana* (Snow Grass) occurs as a dominant native grass within the pasture areas.
- f) Should areas of Derived Native Grassland be identified this will need to be quantified to enable calculation of adequate offsets.
- g) While it is stated that the offsets are not considered too close to the wind farm, two of the three identified offset areas appear either in close proximity to turbines or where turbines could well impact of the ability of fauna to access the site once site conditions are improved.
- h) An offset can only produce a ‘maintain or improve’ outcome if the condition of an appropriately sized area constituting the offset is improved via appropriate management, and this increase is quantified via a suitable metric along with an outline of the management that will be applied in perpetuity. Furthermore, it is important that potential offsets are not under any influence of disturbance by the wind farm.

Recommendation:

That the proponent be required to submit a Biodiversity Offset Strategy that:

- a) Considers the conservation value of the vegetation to be impacted;
- b) Adequately assesses the condition of both the impact and proposed offset sites;
- c) Proposes an adequate offset, the quantum of which is justified by a suitable metric or other scientific methodology, and which also meets the Department’s *Principles for the use of biodiversity offsets in NSW*; and
- d) Includes a proper description of the proposed offset, including maps.

Given that this wind farm is one of four currently planned for this area, the proponent should give serious consideration to the potential for developers to work together to formulate a single larger potential offset area thus reducing the need for case by case assessment while maximising the benefits achieved.

ABORIGINAL CULTURAL HERITAGE

The Environmental assessment for the White Rock Wind Farm adequately provides a description of the archaeological and community survey for the proposed development. The assessment has undertaken a landscape assessment approach which identified Aboriginal sites and areas of potential archaeological deposit (PADs). The report also demonstrates that potential impacts to ACH have been removed through altering the proposal in some instances.

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The assessment method is consistent with the prescribed systematic landscape approach in the OEH code of practice for archaeological assessments (2010). Further, as the project is Part 3A, Aboriginal consultation appears to have been undertaken consistently with the OEH Aboriginal consultation guidelines (2005). The now legislated OEH 2010 consultation guidelines are pertinent for Aboriginal Heritage Impact Permits only. OEH acknowledge that some communities have preferred to have been involved in the survey however the consultation log demonstrates that adequate opportunities were provided by the proponent to express views on the assessment method and for a site visit.

OEH advises that an effective buffer for a scarred tree is the distance of agreed buffer from the drip line of the tree's canopy and not the trunk. In this case the 30m buffer recommended in the report for three scarred trees should start from the edge of the outer tree canopy. This will protect the tree's root system.

