

Our Ref: DOC17/411096 Your Ref: MP 07 0036

> Mr Tim Stuckey Planning Officer GPO Box 39 Sydney NSW 2001

Dear Mr Stuckey

Re: Glen Innes Wind Farm (MP 07_0036) - MOD 4

Thank you for your email dated 7 August 2017 about the proposed modifications (Mod 4) to the Glen Innes Wind Farm, seeking comments from the Office of Environment and Heritage (OEH). I appreciate the opportunity to provide input and apologise for the delay in responding.

Proposed Modifications

We understand that the proposed modifications include:

- Refined turbine dimensions, including increased blade length (from 60m to 68.5m) and increased hub height (from 89 to 110m) (resulting in a total rotor tip height increase to 180m, which is 20% greater than the approved rotor tip height (150m)).
- Refined turbine locations subject to 100 m micro-siting allowance due to potential site requirements including ecological constraints or shallow rock.
- Increased nominal annual generation capacity to up to approximately 90 MW, subject to incremental changes due to installation and local conditions.
- Increased construction track disturbance footprint from the approved 8m to approximately 12m to account for indirect impacts from track construction (and to accord with the biodiversity offset calculations and to provide consistency with approved management plans including the Construction Environmental Management Plan and the Compensatory Habitat Plan).
- Refined substation location to avoid the Travelling Stock Route, Crown Road and unfavourable topography.
- Refined concrete batch plant location.

Bird and Bat Strike

We support the decision made by the proponent to revise their intention to lower the turbine hub height. This would have resulted in the lowest point of the blade swept area being only 10 metres above ground level. Such an arrangement was likely to have increased the strike risk posed to birds and bats, given the likely intersection of the rotor swept area with the flight paths of many woodland bird and bat species, which are predominantly restricted to maximum tree canopy height, which is approximately 25-30 metres at the windfarm location.

Locked Bag 914 Coffs Harbour NSW 2450 Federation House, Level 8, 24 Moonee Street Coffs Harbour NSW 2450 Tel: (02) 6659 8200 Fax: (02) 6659 8281 ABN 30 841 387 271 www.environment.nsw.gov.au Given the proposed amendments to the wind turbine dimensions since the Bird and Bat Adaptive Management Plan was approved, amendments to reflect the dimension changes stated within the BBAMP will be necessary (consistent with the adaptive nature of the plan). However, we are of the view that the methods proposed to monitor and manage bird and bat strike resulting from the operation of the wind turbines, as documented within the approved BBAMP are still relevant and do not require further amendment at this time.

For example, in relation to the assessment and management of the risk of turbine strike to wedgetailed eagles, the BBAMP requires that, should a wedge-tailed eagle breeding site be detected in close proximity to the wind turbines, or a carcass is detected during monitoring, the BBAMP will be modified to focus on this species and options explored for the installation of deterrents within the site to reduce the future risk of mortality. Additionally, should a wedge-tailed eagle carcass be observed, consultation is to occur with the OEH and the operator to develop a suitable short and long-term course of action.

Widening of access track

We understand that the Construction Environmental Management Plan and the Compensatory Habitat Plan were developed with consideration of a 12m access track width, due to previous discussions with the OEH regarding methods of undertaking direct and indirect biodiversity credit calculations.

As the impacts of a 12m corridor have been considered, and appropriate mitigation and management measures prescribed and offset credit calculations developed that take this impact corridor into account, the biodiversity assessment and offset requirements developed to date remain appropriate and adequate. No further assessment is considered necessary in relation to the proposed widening of the access roads as part of the modification proposal.

Micro-siting of turbine towers

We understand that the proposed alterations to the location of turbines is within allowable micrositing limits, and in some locations, is being undertaken to avoid native vegetation impacts. As such, no further biodiversity assessment is considered necessary for this aspect of the proposed modification.

Relocation of substation and concrete batching plant

We are supportive of the proponent's intention to refine the location of the substation to avoid the Travelling Stock Route (TSR) and Crown Road. It is generally considered that many TSRs contain high biodiversity values, and therefore efforts to avoid these values are supported.

In relation to the proposal to increase the footprint of the proposed concrete batch plant, given the corresponding reduction of the footprint of the main layout site, the increased footprint of these facilities combined is likely to be minimal (i.e. 0.1ha). We would expect that the likely biodiversity impact of this increase will also be minimal, and as such, we do not recommend further assessment or increase in offset requirements. Nonetheless, we would recommend that where possible, these facilities be located to reduce the need for the removal of native vegetation.

If you have any further questions about this issue, Ms Nicky Owner, Senior Conservation Planning Officer, Regional Operations, OEH, can be contacted on 6659 8254 or at nicky.owner@environment.nsw.gov.au.

Yours sincerely

7.9.17

KRISTER WAERN A/Senior Team Leader Planning, North East **Regional Operations**

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6659 8254

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