

2 August 2016

Peter Marriott
Generation Project Development Manager
Stockyard Hill Wind Farm Pty Ltd
Level 6, 321 Exhibition St
Melbourne VIC 3000

cc Cara Layton

Dear Peter,

Bird & bat impact assessment for minor change to turbine dimensions

Our ref: Matter 20774

To inform the application by Stockyard Hill Wind Farm Pty Ltd to Amend Planning Permit No. PL-SP/05/0548 for Stockyard Hill Wind Farm, in May 2016 I prepared the report:

Stockyard Hill Wind Farm Bird & Bat Impact Assessment. Assessment to Support Application to Amend Planning Permit No. PL-SP/05/0548 (Biosis 2016).

The assessment includes qualitative consideration of wind turbine collision risk for listed threatened and migratory bird and bat species and quantified modelling of turbine collision risk for Brolgas. The risk assessment was for turbines within the following dimensions:

- overall maximum blade tip height not exceeding 180m above natural ground level;
- hub-height of no greater than 120 m above natural ground level; and
- rotor diameter no greater than 140 m.

These dimensions would have permitted the maximum height span of rotors from 40 m above natural ground level to 180 m above natural ground level.

The conclusions of Biosis (2016) were that any potential impacts of the amended Stockyard Hill Wind Farm on relevant species would be low or negligible and that no significant impacts on any such species, including species listed under the EPBC Act, are likely to result from the amended wind farm. Biosis (2016) concluded that at 95% avoidance rate, and using other assumptions detailed in the report, the annual average projection for Brolga turbine collisions was 0.080.

Stockyard Hill Wind Farm Pty Ltd has requested my advice with regard to risk assessment for minor modifications to turbine dimensions. These would allow for wind turbine specifications with:

- a rotor diameter of up to 142 m (instead of 140 m);
- and ground clearance from the bottom of the blades to the ground level of not less than 32 m.

No changes will be sought to the proposed hub-height or top blade tip height. This means that, whilst the top blade tip height could be at 180 m above natural ground level and the bottom blade tip height could be at 32 m above natural ground level, the maximum rotor diameter will be no greater than 142 m.

My advice is that the very minor modifications entailed in the turbine dimensions now proposed will not change the assessment conclusions of Biosis (2016) for any listed threatened and migratory bird and bat species, including Brolgas. The scale of change is too small to alter the results of the Biosis (2016) collision risk modelling for Brolgas.

Please contact me if you have any enquiries.

Kind regards,

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

Ian Smales
Principal Zoologist