



Infigen Energy  
Level 22, 56 Pitt Street  
SYDNEY NSW 2000

S4400C4

**Attention: Rachel Drury**

13 August 2014

Dear Rachel,

**CAPITAL WIND FARM 2  
MODIFICATION 2**

As requested, we comment on the proposed modification to increase the wind turbine generator (WTG) blade length.

As discussed, an increase in blade length does not necessarily translate into an increase in the noise levels from a WTG. For example, the Senvion 3.4M104 WTG with a rotor diameter of 104m has a documented sound power level of 105.6 dB(A) at its rated power wind speed; whereas the Senvion 3.2M114 WTG with a larger rotor diameter of 114m has a lower documented sound power level of 104.2 dB(A) at its rated power wind speed. There are many other examples where a WTG with a larger blade length has a lower sound power level than the Senvion 3.4M104 WTG such as the Vestas V110, V117 and V126 with rotor diameters of 110m, 117m and 126m respectively and the Siemens SWT3.2 with a rotor diameter of 113m<sup>1</sup>, and conversely, there will be examples where the opposite is true. This is because the sound power level of a turbine is the result of many variables, of which blade length is but one.

Therefore, a proposal to increase blade length does not prejudice the ability of a wind farm to secure compliance with its operational noise criteria (as contained in Part E of the Project Approval 10/09150 dated 1 November 2011) subject to a detailed noise assessment based on a representative WTG with an increased blade length, or a revised noise assessment for a final WTG model and layout as required under Condition E3 of the Project Approval.

If you have any questions or require clarification, please call me.

Yours faithfully  
**Sonus Pty Ltd**

A handwritten signature in black ink, appearing to read "Jason Turner", is written over a set of horizontal lines.

Jason Turner  
**Associate**

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<sup>1</sup> When removing a 2 dB(A) margin of uncertainty to enable a direct comparison with the Senvion sound power level data.