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**Ref:** Soetwater WEF Update

Savannah Environmental (Pty) Ltd  
PO Box 148  
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**Attention: Ms. Tebogo Mapinga**

Dear Madam

**SPECIALIST STUDY: NOISE IMPACT ASSESSMENT: PROPOSED SOETWATER WIND ENERGY FACILITY NEAR SUTHERLAND: CHANGE OF LAYOUT AND WIND TURBINE DETAILS**

The above-mentioned issue as well as report ACED-HV/NIS/201202-Rev 0 is of relevance.

I conducted an Environmental Noise Impact Assessment (ENIA) during 2012 for the proposed Hidden Valley Wind Energy Facility (WEF). This larger WEF was divided into the Karusa, Soetwater and Great Karoo Wind farms. With the input data as used, this assessment indicated that all three phases of the proposed project will have a noise impact of a **low significance** on all potential noise-sensitive receptors in the area during both the construction and operational phases considering the Vestas V90 3.0MW wind turbine at all wind speeds.

The developer of the Soetwater Wind Farm has optimized the layout of the wind farm, reducing the number of wind turbines from 56 turbines to 43 turbines and micro-siting the wind turbines at optimal locations. The latest layout locates the wind turbines at the same distance, or slightly further from the potential noise-sensitive receptors.

The developer also proposes to use the Vestas V136 wind turbine (generating power up to 4.5 MW with a rotor diameter of up to 150m) with a hub height of up to 120m. The sound power emission levels of the Vestas V90 (original study) and V136 (new proposed) wind turbine are illustrated in **Figure 1**.

Considering the maximum sound power emission level of 105.5 dBA, making use of the proposed Vestas V136 wind turbine may slightly reduce the noise rating levels at the closest noise-sensitive receptors.

Considering the slight adjustment to the wind turbine positions and the potential noise impact, it is my opinion that the change will not increase the significance of the noise impact. It will therefore not be required to do new noise propagation modeling or update the previous noise impact assessment. The findings and recommendations as contained in the previous document will still be valid.

Should you require any further details, or have any additional questions, please do not hesitate to call me on the above numbers.

Yours Faithfully,

Morné de Jager  
Enviro-Acoustic Research cc

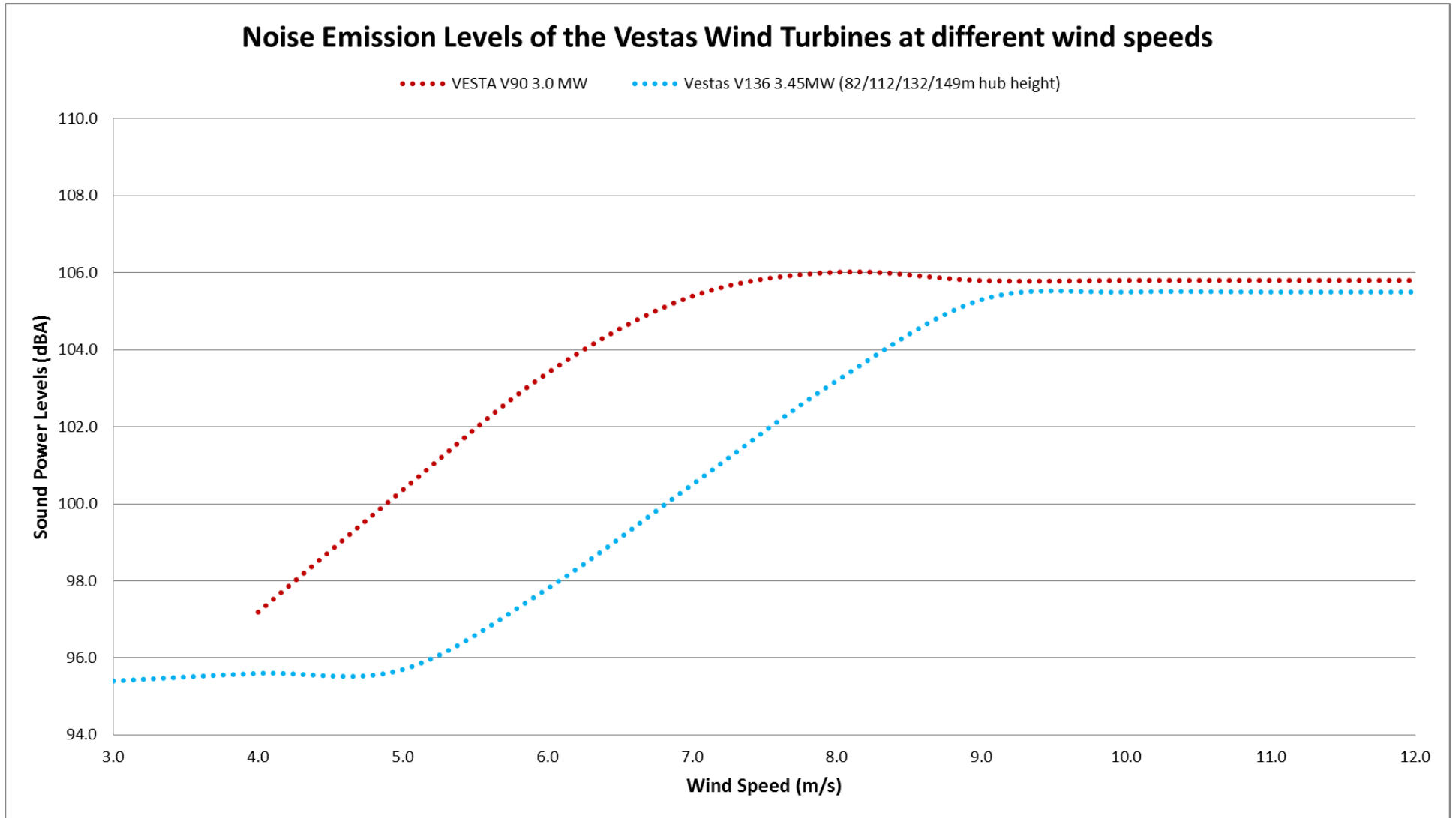


Figure 1: Sound power emission levels of the V90 wind turbine used in the original noise impact assessment versus the new V136 wind turbine