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4507 DA Schoondijke  
The Netherlands

Date : 27 August 2007  
Your ref. : -  
Our ref. : PE/GL 07-8238

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Subject : Report ECN-X--07-100 Noise measurements of the Wind EnergyBall V100

Dear Mr. van Wijck,

**This letter gives a summary of the report ECN-X--07-100**

Acoustic measurements on the Wind EnergyBall V100 have been performed August 21<sup>st</sup> 2007. Since it was known that the turbine is very quiet, the measurements were made during evening hours in order to minimise the effects of the background noise. During the measurements, the subjective experience is that the turbine cannot be distinguished from the background noise and also the acoustic measurements show that the turbine noise does not exceed the background noise. The turbine is indeed very quiet.

Since the turbine noise measurements did not exceed the background noise measurements, the apparent sound power levels could not be determined according IEC61400-11. The background noise levels that are measured during the test are presented in Table 1 as function of standardised wind speed.

Table 1. Measured background sound pressure levels for standardised wind speeds from 4 m/s to 9 m/s. The sound pressure levels are obtained from the 10-second averaged data.

Standardised wind speed Vk [m/s] at 10m height	Background sound pressure levels L n,k [dB(A)]
4	41.6
5	42.1
6	42.7
7	43.5
8	44.4
9	45.4

Yours sincerely,



dr. P.J. Eecen  
ECN Wind Energy

**Energy research Centre of the Netherlands**

## Report summary

Nieuwegein, November 5<sup>th</sup> 2009

Number : V068304aaA0.md  
Project : Sound emission V200  
Location : Biervliet

This is a summary of report R068304aaA0.md d.d. November 5<sup>th</sup> 2009. Measurements were made according to 'Wind turbine generator systems – part 11' IEC61400-11, December 2002.

Turbine: Wind Energy Ball V200  
Rotor diameter: 1.98 m  
Hub height: 14 m (tube mast)  
Rated power: 2250 W  
Date of measurement: October 16<sup>th</sup> 2009  
Location: Braakmanweg 1, Biervliet, the Netherlands

Sound pressure level at 50 m distance (with no reflecting or attenuating objects)

Wind class	Sound pressure level at 50 m [dB(A)]
Wind 5 m/s	37
Wind 6 m/s	39
Wind 7 m/s	42
Wind 8 m/s	44
Wind 9 m/s	47
Wind 10 m/s	50

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ir. M.T. Dijkstra