IBERDROLA RENEWABLES

May 20, 2011

Mr. Iain Fisher
CEQA Project Manager
Energy Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3296

Re: Tule Wind Project – Response to Data Request No. 16a

Dear Mr. Fisher:

Tule Wind, LLC (Tule Wind), a wholly owned subsidiary of Iberdrola Renewables, Inc. (IRI) received Data Request Number 16a. IRI's response is enclosed for your use.

If you have questions regarding this information, please contact Patrick O'Neill at 858-712-8313.

Sincerely,

Jeffrey Durocher
Wind Permitting Manager

cc (via e-mail): Greg Thomsen, BLM (GThomsen@blm.gov)
Thomas Zale, BLM (Thomas_Zale@blm.gov)
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Noise

1. Please review the modeled octave band sound levels in Table 1 of the response to data request no. 16. There appears to be a discrepancy. For example, the spectral noise emission data for the Gamesa G87, as provided in Table 8 of the February 2011 Tule Wind Project Noise Study, has a noise emission level of 83.8 dB at 31.5 Hz and 92.2 dB at 63 Hz. However, the data presented in Table 1 of response to data request no. 16 depicts the noise level at 31.5 Hz to be 5 dB higher as compared to the sound level at 63 Hz. The atmospheric attenuation is negligible at these frequencies for the nearby turbines. The primary attenuation is associated with geometric divergence and ground effect, which are the same for both frequencies. Therefore, it seems the overall modeled sound level at 31.5 Hz should be less than the sound level at 63 Hz. Please review the modeled sound levels in Table 1 and update if necessary.

The sound power level presented in the February 2011 Tule Wind Project Noise Study contains A-weighted spectral sound power level for the Gamesa G87 turbine. This means that the value for each octave band reflects the A-weighting factor for that same band. This was consistent with manufacturers' presentation of octave-band data. However, the spectral levels reported at receivers were reported as unweighted octave bands, also called flat-weighted or linear-weighted. This was consistent with comparing the spectral data to various other criteria, such as indoor noise level criteria.

The linear-weighted sound power level can be determined by subtracting the A-weighting factor from the A-weighted octave-band level. This arithmetic is shown in Table 1 for sound power level (SWL) of the Gamesa G87, including all adjustments reported in the February 2011 Tule Wind Project Noise Study.

Table 1. Spectral Sound Power Level Data Weighting – Gamesa G87

	Octave Band SWL (Hz)								
	31.5	**63**	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**
A-weighted level [1] (dBA)	83.8	92.2	98.8	103.9	106.3	105.3	101.0	93.0	79.7
A-weighting factor (dB)	− 39.4	−26.2	−16.1	−8.6	−3.3	0.0	+1.2	+1.0	−1.1
Linear-weighted level (dBL)	123.2	118.4	114.9	112.5	109.6	105.3	99.8	92.0	80.8

[1] As reported in February 2011 Tule Wind Project Noise Study, including all adjustments.

As shown in Table 1 the sound power levels in the 31.5 Hz band is approximately 5 dB greater than the 63 Hz band. The wind turbine sound power levels presented in the Tule Wind Project Noise Study are consistent with the results reported in Table 1 of the response to Data Request No. 16 therefore no modification to the previously reported spectral sound pressure levels are necessary.

Please refer to Section 3.2 of the Tule Wind Project Noise Study and response number 1 of Data Request No. 16 for further details on the modeling methodology and the spectral sound pressure levels at the nearest non-participating property line.