

### I33 Murphy Smith

**I33-1** The comment provides an introduction to the letter, stating the author's strong opposition to the Campo Wind Project with Boulder Brush Facilities (Project). The comment also discusses the author's professional background. The comment does not raise an issue regarding the adequacy of the analysis contained within the Draft Environmental Impact Report (EIR); therefore, no further response is required.

**I33-2** The comment addresses Chapter 2.6, Noise, of the Draft EIR. The comment states one of the problems is the use of A-weighted and C-weighted scales, which misrepresent lower frequency sounds below 20 Hertz (Hz). The usage of an A-weighted Residual Background Sound Criterion (RBSC) and its comparison with a C-weighted prediction of wind turbine operational noise is required by the Section 6952(f)(3) of the County of San Diego Zoning Ordinance for large wind turbine noise assessment. Predictions of A-weighted wind turbine operation noise are compared with A-weighted thresholds as defined by Sections 36.402(b), 36.402(c), and 36.404(a) of the County's code for noise abatement and control. The A-weighting scale was developed to imitate average healthy human hearing, not inaudible infrasound. The County does not have noise regulations pertaining to infrasound, which occurs at sound frequencies less than 20 Hz. Please refer to Response to Comment I32-2 for further discussion regarding the PowerPoint. Please also refer to Global Resource GR-4, Noise.

**I33-3** This comment expresses concern with the noise methodology used in the impact analysis. Specifically, the comment states that much of the Draft EIR uses software-modeled noise rather than actual recorded noise levels. The comment further states that CadnaA only models noise in the frequency range of 31 Hz to 8,000 Hz, and the software completely ignores the inaudible range below 20 Hz.

In response, modeling sound propagation from an aggregate of operating wind turbines for a proposed facility site, using industry-accepted software like CadnaA and other comparable techniques based on International Organization for Standardization 9613-2, is common industry practice. These models input manufacturer sound power data, which results from application of standardized sound level measurement procedures (e.g., IEC 61400-11). The County does not regulate infrasound, a portion of the sound spectrum that is below 20 Hz and thus inaudible.

## Responses to Comments

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- I33-4** This comment expresses concern regarding low frequency sounds. Specifically, the comment states that low frequency waves like those from the wind turbines are not absorbed by the atmosphere and can travel much further. The comment further states the energy is amplified by resonances in the valleys of mountainous terrain. In response, low frequency noise is absorbed by the atmosphere, but at lower rates than sound energy at higher frequencies. The comment does not provide further evidence of resonance-based amplification due to valleys and mountainous terrain. On the other hand, such terrain features provide opportunities for direct sound paths—like sight-lines—to be occluded and thus result in lower noise levels at a distant receptor.
- I33-5** The comment expresses concern regarding potential health effects of wind turbines, and states that the scientific and medical community are still investigating the impacts of infrasound and noise pollution on human health and the environment. The comment further states the County powers should withdraw support for the Project. In response please refer to Global Response GR-2, Public Health, and Global Response GR-4, Noise.
- I33-6** The comment restates language from County Ordinance No. 9962, Noise Abatement and Control. The comment does not raise an issue regarding the adequacy of the analysis contained within the Draft EIR; therefore, no further response is required.
- I33-7** This attachment to the comment letter contains a PowerPoint presentation. Please refer to Response to Comment I32-2.