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IMPLICATIONS OF WIND POWER GENERATION: PERCEPTIONS OF PEOPLE EXPOSED TO TURBINE NOISE

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Abstract

The current study aims at analyzing the perceptions of people exposed to wind turbine noise. Noise measurements were carried out in a wind farm in the north of Portugal and the data were analyzed and crossed with the answers to a survey applied in four nearby villages. It was concluded that the direct visibility of the wind turbines from the respondents' houses seems to affect the reported annoyance due to noise exposure. Besides, there is a significant relationship between the general opinion about wind turbines and noise annoyance. In other words, respondents who have a favorable general opinion about wind turbines tend also to report that they are less annoyed by their noise. No such relationship exists, however, with factors, such as gender, age, educational background and employment situation, as well as economic interest in the installation of the turbines. Objectively, the measured noise levels were relatively low, which leads to the conclusion that the negative answers regarding noise annoyance might be related to other contextual factors.

Key words: annoyance, noise, noise levels, visibility, wind turbines

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