

Stress effects of wind turbine noise: The role of psychological factors

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As with other sources of noise, annoyance induced by wind turbine noise depends not only on physical factors but psychological factors. International studies show that noise level explains a maximum of only 26 % of the variance of wind turbine noise annoyance. Therefore it is useful to explore the influence of other factors, e. g. psychological factors. In the context of wind energy discussed psychological factors are: noise sensitivity, attitudes towards wind energy, stress due to the planning process, financial participation and positive and negative expectations, for example. The impact of these factors will be explained by examples based on our own and further international empirical research.

The knowledge of the impact of these factors can be used to shape a fair planning process for the residents and thereby reduce the incidence of annoyance.