

CRITIQUE OF “HEALTH NUISANCES OF LAND-BASED WIND TURBINES,” STATEMENT BY THE
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by

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The French National Academy of Medicine has used this document in an attempt to redefine “Wind Turbine Syndrome”:

In summary, the health nuisances seem to be primarily visual (disfigurement of the landscape and its psychosomatic consequences) and to a lesser degree noise (of an intermittent and random character as generated by wind turbines of older generations). Medically, wind turbine syndrome is a complex and subjective entity with several factors contributing to its clinical expression, some related to the wind turbine itself, others to the complainants and to the social, financial, political, and communication environment (p. 14).

To reach this conclusion, the authors first review turbine noise levels and hearing thresholds, concluding that noise levels are low. They then review the following potential mechanisms:

- Outer hair cells (Salt): “The work is not clinical or experimental but theoretical, based on the analysis of electrophysiologic, biomechanical, and acoustic models and data, and its conclusions are conservative.” Mechanism not supported (p. 9).
- Otolith organs (Schomer, Todd, Rand): Conflicts with other studies suggesting that the sensitivity of otolith hair cells to infrasound is too low for this mechanism to be relevant to the production of motion sickness symptoms (pp. 9-10).
- Stimulation of visceral organs (Pierpont): Intensities of infrasound not high enough (p. 10).
- Direct action of noise on sleep: This mechanism is supported with a 1.5 km radius, but not further mentioned in the conclusions (see below) (p. 10).
- Psychological factors: These are supported, including the impact of new technologies, the nocebo effect, individual factors of hearing sensitivity and emotional/psychological fragility, and social and economic factors such as lack of profit sharing and excessive communication of unsupported fears on social media (pp. 10-12).

The authors continue:

These nuisance factors being identified, the analysis of the medical and scientific literature (more than sixty articles have been published to date on the health effects of wind turbines) does not make it possible to demonstrate that, when wind turbines are properly located, they have a significant impact on health. In other words, no disease or infirmity can be imputed to their functioning.

The problem, however, is that the definition of health has evolved. According to WHO, this today is defined as "a state of complete physical well-being, mental and social," not only the absence of illness or infirmity.

In this sense, we must admit that wind turbine syndrome, though the symptoms are subjective, reflects an existential suffering, a psychological distress, in short a violation of the quality of life, which, however, concerns only a part of the neighboring population (p. 14).

The authors proceed to discuss how to ameliorate the effects of wind power development, assuming (as they do) that wind energy is a political given. They propose extending the setback distance from 500 to 1000 m, while recognizing that this is neither politically feasible nor likely to be effective with larger turbines (p. 17).

They discuss caps on dBA noise levels relative to pre-construction and suggest that post-construction enforcement should be improved (p. 15). They suggest design features that affect airflow over and around the blades or stop the turbines when noise thresholds are exceeded (p. 16).

They recommend better public discussion and profit-sharing:

In the dual aim of improving the acceptance of wind energy and mitigating its impact health, directly or indirectly, on a part of the population of residents, the workgroup recommends:

To facilitate dialogue between local residents and farmers [who host turbines] as well as the referral of complaints to the authorities, to ensure that public inquiry is conducted with legal rigor and effectively implemented, and to ensure that residents have more interest in the economic repercussions or spin-off of the projects (p. 18).

MY CRITIQUE OF THE ACADEMY'S REPORT:

Out-of-date on noise descriptions. Does not use the "wind turbine signature" of pulsatile infrasound/low frequency noise with duration of 4 to 100 msec, which is perceptible at sound pressure levels as low as 60 dB (Punch & James 2016, Cooper 2014).

Never mentions migraine as a clinical entity affecting 18% of women and 6% of men; individual differences are instead treated as a reason to discredit physiologic causation and discredit as psychological frailty the population affected. They cite 4 to 20% affected, saying this is so close to the 10% considered affected by traffic noise in Europe that it is acceptable. This is tantamount to defining a sacrifice population and includes blaming of victims.

All the recommended interventions are either in place, have been tried and are useless, or have been called for for years but require changes in human nature, reducing the recommendations herein to "tut-tut, let's all behave better."

This document attempts to redefine "wind turbine syndrome" to represent factors which are actually not wind turbine syndrome. Wind turbine syndrome is the reaction of migrainous or motion-sensitive people to wind turbine acoustic emissions, the latter now well defined as sharply pulsatile low-frequency noise. Wind turbine syndrome is different from hysteria or nocebo, as it occurs in people by surprise, who had no thoughts about the turbines before the turbines were installed and turned on and the symptoms began.

I challenge every member of the French working group and their consultants, listed in the report, who self-identifies as having migraine, motion sensitivity, or balance problems, or their family members, including children with developmental disorders such as autism in which auditory and position/balance processing are distorted, to spend a week in a wind park. This would be simple to accomplish and could lead to a tidy "exposure" experiment without ethical obstacles, as the authors believe that they could not be affected as they do not have the psychological limitations and shortcomings they blithely attribute to affected people and use as an excuse to dismiss them.

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