

# HEALTH IMPACTS FROM INDUSTRIAL WIND TURBINES

## 1. NOISE:



Tax incentives in the US/Europe are making wind turbines a common sight across the rural landscape.  
*Courtesy the [Sunday Times](#).*

**Sleep disturbance is the most common complaint that results from turbine sound.**

***Prolonged lack of sleep negatively affects:***

***-memory***

***-temperament***

***-heart health***

***-stress levels***

### “The Changing Rural Landscape”

Prior to the installation of the wind turbines, these rural communities were typically very quiet at night, with background sound levels ranging between 20 and 25 dBA. After the turbines began operation, the noise levels jumped to 40 or even 50 dBA, and sometimes higher. It is common for wind turbines to be barely audible during the day, yet be the dominant noise source at night. Environmental sounds are quieter in the evening, lowering the background sound levels, and wind speeds tend to be higher at blade height during nighttime hours, which increases sound emissions. Further, nighttime weather conditions enhance sound propagation. The result is that at night wind turbines can be a significantly more noticeable noise source than during the daytime.”

<http://hearinghealthmatters.org/hearingviews/2014/wind-turbine-health-problems-noise/>

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## 2. INFRASOUND:

*Infrasonic signals that reach the brain produce sensations that include: -pulsation -annoyance -stress -panic -ear pressure or fullness -vertigo -headaches -loss of sleep*

**By Jerry Punch, PhD, and Richard James, INCE, BME**

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### Infrasound: More of a Problem Than We Thought?

Industrial-scale wind turbines generate peak sound pressure levels at infrasonic frequencies, especially between 0.25 and 3 Hz, as the blades pass in front of the tower. When present, infrasound can be more of a problem than audible sound.

<http://hearinghealthmatters.org/hearingviews/2014/infrasound-wind-turbine-hearing-health-effects/>

## 3. SHADOW FLICKER/ICE THROW/TURBINE FAILURE/AND TURBINE FIRES ARE ADDITIONAL CONCERNS.



*Shadow flicker is caused by blades passing in front of the sun. Ice, debris, or anything breaking off the wind turbine blades, including the blades themselves, can impact a point 1700' from the turbine base.*

Existing industrial wind turbines (IWTs) in the United States are typically 200 feet shorter than in the proposed Apex Lighthouse Wind project.

Turbines this tall have been generally placed offshore. There has been no testing of the effect of these massive spinning blades placed so close to residences and workplaces. Rural residents in New York deserve to know the effects and risks prior to approval.

If the State of New York plans to mandate thousands of IWT's in rural areas, an independent and comprehensive study must be completed to ensure safety and safe setbacks. The fact that safe setbacks may eliminate large IWT's from an area should not deter the State from implementing such setbacks.

Punch and James do not take a pro-wind or anti-wind position but, rather, advocate for a "pro-health" perspective. They ultimately conclude that:

"Further scientific investigations of the dose-response relationship between IWT [industrial wind turbine] noise and specific health effects in exposed individuals are sorely needed. . . Hopefully, such research can and will be planned and executed by independent researchers with the full cooperation of the wind industry. The major objective of such research should be to reveal directions for the industry in balancing the energy needs of society with the need to protect public health."

The people of Somerset and Yates do not want to end up as "collateral damage". Adverse health effects have been one of Save Ontario Shores' primary concerns since we learned of this project. We urge everyone to look at the following document and the 180 references included within the publication.

<http://hearinghealthmatters.org/journalresearchposters/files/2016/09/16-10-21Wind-Turbine-Noise-Post-Publication-Manuscript-HHTM-Punch-James.pdf>