

# Do wind turbines negatively impact our health?

No. When properly sited, wind turbines are a **safe and effective** means of generating electricity.

- » The first wind turbines came online in the U.S. in the 1980's. People have been safely living and working around wind turbines for generations.
- » The weight of scientific evidence, more than 80 peer-reviewed studies, shows properly sited wind turbines are not related to adverse health effects.<sup>1,2</sup>
  - This includes concerns around: audible noise, low frequency noise, infrasound and shadow flicker
- » Studies have found the “nocebo” effect (the opposite of the “placebo” effect) can lead individuals who are subject to misinformation about wind energy to report negative health effects, despite no evidence for such health effects.<sup>3</sup>
- » Wind energy actually provides significant public health benefits by improving air quality which helps to reduce asthma and breathing related illnesses.<sup>4</sup>



## WIND TURBINES AND SOUND



With the evolution of modern wind turbine technology, most of the time the mechanical sound from the turbine is virtually indistinguishable from the natural environment. Turbines only run when the wind is blowing. When ground level winds are high, the sound of the wind masks most of the turbine sound. The sound from the rotating blades may be audible depending on one's distance from the turbine, weather conditions and time of day. Infrasound, which is sound below 20 Hz and often described as inaudible, is generated by a wide range of sources, including cars, severe weather and wind. The measured level of infrasound within wind farms is well below the audibility threshold and far below those that would pose a risk to health. Developers work to site wind turbines at a safe distance from homes and businesses so that sound levels meet or exceed all industry best practices and guidelines.

### Sources:

<sup>1</sup> “Wind turbines and health: a critical review of the scientific literature,” R. McCunney, *Journal of Occupational and Environmental Medicine* 2014.

<sup>2</sup> “Health effects and wind turbines: a review of the literature,” L. Knopper and C. Ollson, *Environmental Health* 2011.

<sup>3</sup> “The Link Between Health Complaints and Wind Turbines: Support for the Nocebo Expectations Hypothesis,” F. Chrichton, *Frontiers in Public Health*, 2014.

<sup>4</sup> “The climate and air-quality benefits of wind and solar power in the United States,” Millstein, Wisner, Bolinger and Barbose. *Nature Energy*, August 2017.