



California Wind Energy Association

March 20, 2019

San Diego County Planning Commission
5510 Overland Avenue, Ste. 110
San Diego, CA 92123
via jeRae.Bailey@sdcounty.ca.gov

Re: Public Health Position Statement on the Human Health Effects of Wind Turbines
(February 2019)

Dear Planning Commission:

The California Wind Energy Association (CalWEA) is a 19-year-old trade association representing wind energy and related companies focused on the California market, primarily including owners, operators and developers of wind energy projects located in California.

CalWEA is gratified that the County's Public Health Services has conducted a thorough review of the peer-reviewed science and other materials related to the human health impacts of wind turbines, culminating in its February 2019 Public Health Position Statement on the Human Health Effects of Wind Turbines (the "Statement"). CalWEA agrees with the Statement's conclusion (on p. 8) that:

the available scientific evidence suggests that low-frequency noise and infrasound, EMF, and shadow flicker from wind turbines are *not* likely to affect human health. Based on the available research, it is reaffirmed that the current state of research indicates no conclusive, direct, causal link between wind turbines and adverse health outcomes or impacts. (Endnotes omitted.)

CalWEA is especially pleased that Public Health Services did not view wind turbines only in isolation, but also has taken a broad view of the health impacts of wind energy, concluding (on p. 9) that, when compared to traditional fossil fuels:

alternative sources of energy, such as wind energy, can have significant *benefit* to individual health (e.g., lung health), health care systems (e.g., cost savings), and public health (e.g., air quality). [Emphasis in original.]

The Statement does recognize that wind turbines "may be a source of annoyance for a small minority of community residents", which may cause stress for these individuals that itself may be associated with certain reported health effects. However, the Statement concludes that "[t]he weight of evidence suggests that, when sited properly, wind turbines are not related to adverse health effects." CalWEA notes that proper siting is required in California through the stringent California Environmental Quality Act (CEQA) and the County's wind energy

ordinance, which require studies of potential impacts related to noise, including low-frequency noise and shadow flicker. County staff rigorously reviews wind projects to make sure that impacts are mitigated through buffers and setbacks.

When considering the Public Health Services' well-considered Statement along with proposals for wind energy projects in San Diego County, CalWEA urges the Planning Commission to further consider the important role that wind energy will play in meeting California's climate change mitigation goals. A recent study performed for the California Energy Commission looking at means of achieving California's energy-decarbonization goal¹ shows that dramatic growth in wind energy will be required to achieve that goal most affordably.² Realizing this goal will require counties to recognize in their permitting decisions that wind turbines do not impact public health and are, in fact, an critical part of the solution to the most pressing environmental and public health problems of our time.

Sincerely,



Nancy Rader
Executive Director

¹ SB 100, signed into law in September 2018, establishes as state policy that zero-carbon resources are to supply 100% of California retail sales by December 31, 2045.

² California Energy Commission, "Deep Decarbonization in a High Renewables Future," at Figure 14. CEC-500-2018-012. June 2018. (Available at: <https://www.energy.ca.gov/2018publications/CEC-500-2018-012/CEC-500-2018-012.pdf>.) This study shows that, absent a large amount of wind energy from within or outside of the state to balance solar resources, decarbonization will come at an added cost of nearly \$20 billion per year.
