

I recently received, via postal service, a publication from APEX Clean Energy (ie: Lighthouse Wind). This very well designed and professionally produced communique is titled: "Do Wind Turbines Really Kill A lot of Birds?".

The document makes several assertions:

- "Incidental bird deaths at turbine sites will never be more than a small fraction of bird deaths caused by human activities – an estimated 134,000-230,000 of the more than 5 billion."
- "Other causes include buildings (550 Million), powerlines (130 million), cars (80 million) and pesticide poisoning (67 million)."
- "This low rate (re: bird deaths) represents a relatively small percentage of regional bird population and its not likely to cause significant or adverse declines in any region or area."
- "Despite the low threat wind turbines pose to birds, the wind energy industry works toward mitigating potential losses by coordinating with the state's regulatory agencies to minimize impacts. This includes siting turbines away from sensitive habitats and monitoring impacts during operations."
- Sources cited included: Elsevier, American Wind Wildlife Institute, and Wing Power Energy.

A word regarding sources:

- The Elsevier study was written by Mr. Benjamin K Sovacool, a pro-wind scientist. Article was written in 2009.
- The American Wind Wildlife Institute is a pro-wind, non-profit organization, financed by Big Wind. Article was written in 2014.
- The article credited to Wing Power Energy was not found, though a compendium article of the same title was discovered during an internet search. Interestingly, Wing Power Energy is a distributed power company which supports home generation of power and is a direct and diametrically opposed competitor of APEX Clean Energy.
- Regarding bird deaths by wind turbine, APEX Clean Energy states that a maximum of 230,000 birds per year would be dispatched wind turbines. In fact, the Audubon Society estimates that a maximum of 328,000 birds are dispatched by wind turbines annually. Additionally, The Smithsonian asserted that larger wind turbines currently planned for installation will kill more birds than current smaller models.

The communique reports (as stated above) bird deaths by mode. The contention being that wind turbines kill a fraction of the total birds dispatched by the modes stated above. From the APEX communique, wind turbines kill far less birds than even cats or cars.

However, a deeper assessment is required due to the widely varying modes of bird dispatch. As such, a simple statistical analysis was performed to determine how many birds are killed by each unit of measure. That is how many birds are killed per car, per building, per cat and per Wind Turbine. This is the important number.

The assessment is as follows:

Category	Number Units in Category	Number of Deaths in Category	Deaths per Unit
Cats	126,000,000	2,400,000,000	19.05
Wind Turbines	57,636	328,000	5.69
Buildings	120,000,000	550,000,000	4.58
Automobiles	268,000,000	80,000,000	0.30

(sources: *Washington Post*, *FEMA*, *Quora.com*, *Statistica.com*, *Wall St. Oasis*)

The assessment shows that, while one cat will kill 19.05 birds per year (most likely for food), each wind turbine kills over 5 birds per year. This is more than bird-building collisions. Automobiles come in a distant fourth place at less than one bird per car per year.

This assessment shows wind turbines to be much deadlier to birds than APEX Clean Energy would like us to think. In fact, wind turbines pose the highest non-food chain threat to birds based on the data presented by APEX Clean Energy.

Do Wind Turbines Really Kill A lot of Birds? You bet they do!

APEX Clean Energy is, again, attempting to mislead the public regarding the dangers of wind turbines to wildlife. Misinformation has unfortunately become the expectation with this firm.

APEX needs to leave the Towns of Yates and Somerset.

Governor Cuomo, are you listening?

Thank you,

John Riggi

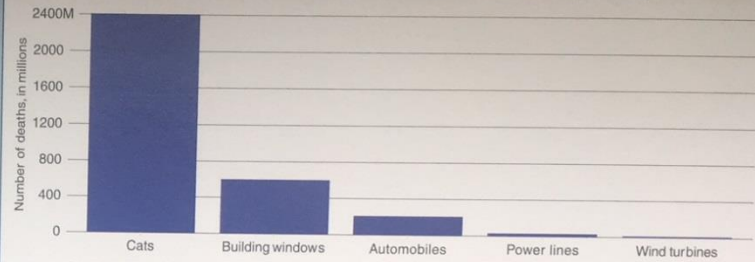
Councilman, Town of Yates

Attached: Front and back of APEX mailing

Do Wind Turbines Really Kill a lot of Birds?

Bird Deaths

Aside from habitat loss, the greatest cause of bird deaths are cats, tall buildings



Source: National Audubon Society

US?



• The **American Wind Wildlife Institute** reports that incidental bird deaths at turbine sites will never be more than a small fraction of bird deaths caused by human activities—an estimated 134,000-230,000 of the more than 5 billion.* Other causes include buildings (550 million), power lines (130 million), cars (80 million), and pesticide poisoning (67 million). *1.3 million*

• **Elsevier**, one of the major providers of global information on analytics and scientific information, documented bird impacts which were considerably higher for fossil-fueled power stations and lower for wind farms.**

• This low rate represents a relatively small percentage of regional bird populations and is not likely to cause significant or adverse declines in any region or area.

Despite the low threat wind turbines pose to birds, the wind energy industry works toward mitigating potential losses by coordinating with the state's regulatory agencies to minimize impacts. This includes siting turbines away from sensitive habitats and monitoring impacts during operations. **Apex Clean Energy** anticipates an investment of more than half a million dollars toward conservation at each of the three **Apex Clean Energy** wind projects in **Western New York**.

For more information: Lighthouse Wind is open Mondays and Wednesdays from 9 a.m. to 5 p.m.



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wind power => distributed power !!

not referenced

American Wind Wildlife Institute, "A Comprehensive Analysis of Small-passerine Fatalities from Collision with Wind Turbines at Wind Energy Facilities." <http://awwi.org/new-study-provides-most-comprehensive-analysis-ever-of-bird-fatalities-at-wind-energy-facilities/> *2014 prior to announcement of project*
 ** USDA Forest Service, "A Summary and Comparison of Bird Mortality," 2005. <http://www.windpowerenergy.com/wp-content/uploads/2012/07/birdmortality.pdf> *2005 out of date*
 *** Sovacool, Benjamin K., 2009. "Contextualizing avian mortality: A preliminary appraisal of bird and bat fatalities from wind, fossil-fuel, and nuclear electricity," Energy Policy, Elsevier, vol. 37(6), pages 2241-2248, June.

Position is pro-wind, pro-green, pro-renewable

American Wind Wildlife Institute => nonprofit encourage development of wind energy while preserving wild life and habitats at risk from wind power
 Dave Phillips -> Board of Directors photo on website (our photo shows turbines on a flat snow covered landscape WITH NO HOMES IN SIGHT!!!)

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math equations used!!!
 From ~~AWWI~~ sponsored study USFW - ~~we~~ recommends search plots for dead birds is twice the height of the turbines

Southern is biased...

FAKE NEWS!!

*****ECRWSS*****

2002 LOCAL POSTAL CUSTOMER

(2008) out of date & new technology *Turbine*

