Overview of Bats and Industrial Wind Turbines

Some interesting facts about bats:

- a) bats are prodigious insect eaters as each bat can consume its **entire body weight** of insects *every day*,
- b) bats are not only critical to agriculture due to their powerful insect control, but also as pollinators and seed distributors,
- c) bats make up about one fifth of the world's mammal population,
- d) there are 1200± species of bats worldwide, and 45± species in North America,
- e) the <u>White Nose Syndrome</u> (WNS) only affects about three (3) species of bats,
- f) WNS originated in upstate New York, so its worst effects are in the Northeast,
- g) the fact that WNS has killed high numbers of certain bats, makes the remaining bats *much* more valuable not only to agriculture, but to the entire ecosystem,
- h) the wind industry has not been able to come up with any meaningful way to prevent high quantities of bats deaths (other than shutting down the turbines).
- i) Some sample additional sources of bat info: <u>here</u>, <u>here</u>, <u>here</u> and <u>here</u>.

There are numerous studies and reports that have verified: **a**) the importance of bats, and **b**) their wholesale killing by wind turbines. These are some examples, recently published in the monthly *Energy & Environmental Newsletter*:

<u>The Economic Importance of Bats</u> and the US agricultural loss <u>calculations</u> Bats are farmers' new best friends

Wind Turbines vs Bats – and the Human Health Consequences

Bats Worth More Than \$1 Billion to Corn Industry

The Ecological, Economic and Scientific Value of Bats

Wind farms killing more bats than expected

Turbine Bat Killings Continue

Wind Turbines Kill 600,000-900,000 Bats a Year in US (3-5 million a year worldwide) Birds, bats, and wind turbines often compete for airspace

Wind Developers Want Permission To Kill More Bats – A Lot More

Report: Wind Turbine Ontario Bat Mortality Reports (85 bats killed/turbine/year)

Report: France: 1.2 to 3.3 million bats destroyed by wind turbines

Report: Critique of Maple Ridge (NY) Wind Project Bird & Bat Study

Study: Turbines Could Decimate North America's Most Widespread Bat Species

Study: Turbine Effects on Bats Likely Worse Than Thought

Study: <u>Wind turbines impact bat activity, leading to high losses of habitat use in a</u> <u>biodiversity hotspot</u>

Study: Factors associated with bat mortality at US wind facilities

Study: <u>Bird and bat species' vulnerability to collision mortality from wind turbines</u>

Study: Strong geographic and temporal patterns in conservation status of N.A. bats

Study: Wind turbines along mountain ridges might lead to bat conflicts

Study: Increasing Evidence that Bats Forage near Wind Turbine

1/29/21