



**Business | Hawaii News**

# Wind farms killing more bats than expected

By Kathryn Mykleseth

Posted January 14, 2017

January 14, 2017

Hawaii's five major wind farms are killing endangered Hawaiian hoary bats at a much faster pace than expected.

The wind farms have killed 146 Hawaiian hoary bats out of the 187 they are allowed. They've killed that many in 6.4 years while they were expected not to reach the total for 20 years or more.

The wind farms have also killed at least 50 nene — the endangered Hawaiian goose and state bird — and 26 petrels, an endangered seabird.

The state Department of Land and Natural Resources Division of Forestry and Wildlife listed the numbers of bats and birds harmed in a report to the 2017 state Legislature, which begins session Wednesday.

The report raises the question of how to balance protection of endangered species with the state's goal of producing more electricity from renewable sources and cutting Hawaii's dependence on imported fossil fuels.

"I believe none of it should happen," said Margaret Phrimacio, a resident of Kahuku, where one of the wind farms is located. Phrimacio said she supports renewable energy but prefers rooftop solar. "The idea is not to harm any further wildlife."

---

**IN HARM'S WAY**

Most wind farms in Hawaii have killed more than half of the endangered Hawaiian hoary bats they are allowed to, even though the wind farms are less than halfway through their contracts to produce electricity.

#### HOW THEY ARE KILLED

Hoary bats are killed by colliding with wind turbine towers and blades. They are also victims of barotrauma — damage to organs such as the lungs by barometric pressure change from the moving blades.

---

Ted Peck, former state energy administrator, said solar and wind are key for the state to reach its goal of 100 percent renewable electric power by 2045.

"If people in Hawaii are concerned about (birds), dealing with the feral cat issues is our first choice of focus," he said. "Every year across the U.S., 250,000 to 750,000 birds are killed by windmills. Every year, 50 million are killed by (flying into) buildings. Every year, a billion birds are killed by cats."

Kate Cullison of the Division of Forestry and Wildlife said, "With regard to bats, we have a lot to learn about the species. There is concern about the increased take levels ... therefore, many of the wind farms are preparing to fund research that will help us understand more about the bat populations and habitat use, which will enable the state to improve management and permit decisions."

State Sen. Gil Riviere (D, Heeia-Laie-Waialua) will propose legislation based on the DLNR report's recommendation to increase staff statewide at the Division of Forestry and Wildlife to help monitor and track statewide habitat conservation plans and fund a report looking into the effects of the state-provided take licenses, said Maxx Phillips, Riviere's policy adviser.

"Our office's stance is 'At what cost?'" Phillips said. "How can we be sure that this (wind power) isn't a better alternative than hydrogen or solar, or a variety of other alternatives that could be available. ... Many in our community throughout the district have increased concerns related to wind energy."

The number of killed endangered animals is likely to grow as more wind farms are built to help the state reach its renewable-energy goals.

Hawaiian Electric Co. plans to add roughly 157 megawatts of wind power across the state over the next five years. Earlier this month HECO put out a call seeking developers who are capable of building wind projects on Oahu before a federal tax credit for wind power expires in 2019.

Marti Townsend, executive director of the Sierra Club of Hawaii, said, "This is ultimately about remaking our energy system into something truly sustainable, not just swapping out fossil fuels and continuing the same shortsighted decision-making that turned us into the endangered species capital of the world."

The Kaheawa wind Power farm on Maui, owned by SunEdison Inc., has 20 wind turbines totaling 30 megawatts. As of June some 34 Hawaiian hoary bats had been killed or injured, according to estimates. The 10-year-old facility is allowed to kill 50 Hawaiian hoary bats over 20 years.

The number of killed or injured bats is estimated based on a model provided by the U.S. Fish and Wildlife Service, which includes a count of dead bats found and an estimate, based on the body count, of how many may have died but not been found.

To help protect the endangered birds, SunEdison has set up mitigation efforts including predator protection with fenced enclosures at Makamakaole in West Maui. Kaheawa set aside \$139,775 for habitat conservation plans.

Kaheawa Wind Power II on Maui, also owned by SunEdison Inc., set aside \$400,000 for conservation plans. The plans include building predator control traps, which are planned to be built in fiscal year 2017.

Kaheawa Wind Power II is improving 338 acres of land for its conservation plan for Hawaiian hoary bats. The area is set to be monitored for hoofed animals and vegetation that could pose a threat to the bat's habitat.

With money from Kaheawa Wind II, the Division of Forestry and Wildlife installed approximately 2.8 miles of fence in July 2014 to protect a portion of the Nakula Natural Area Reserve and the Kahikinui Forest Reserve. Since October 2014, 688 feral goats and 18 feral pigs have been sent away from the area. The state Division of Forestry continues to inspect and maintain the fence.

Kahuku Wind Power on Oahu's North Shore, also owned by SunEdison, paid the state Division of Forestry and Wildlife \$150,000 to fund mitigation efforts. The funds were pooled with other funds to build a fence to prevent hoofed animals from entering a 280-acre section of the Kahikinui Forest Reserve and Nakula Natural Area Reserve.

The Kahuku facility also curtails turbine wind speed between sunset and sunrise from April through November for avoidance measures. The Kahuku facility has set aside \$320,534 for habitat conservation.

SunEdison, which filed for Chapter 11 bankruptcy protection last year, did not respond to requests for comments.

Kawailoa Wind, owned by D.E. Shaw Renewable Investments, on Oahu's North Shore is estimated to have killed 54 Hawaiian hoary bats. The wind facility is about five years into the 20-year life of the project. The facility is allowed to kill 60 bats over its life.

Kawailoa Wind is paying for vegetation management at Ukoa wetland, which is set to begin this year. Kawailoa has set aside \$43,070 for mitigation strategies.

D.E. Shaw did not respond to requests for comments.

Phillips in Sen. Riviere's office said that the mitigation strategies for some of the species, in particular the hoary bat, are not enough because the population base line of the state mammal is unknown.

"We don't think the mitigation measure and adaptive measurements have met the standards of the law," Phillips said. "Specifically with the Hawaiian hoary bat, we don't really know how many bats there are. ... Even at those numbers, if it's only a couple hundred and if they are killing over 50 bats, that is a huge impact to the species' base line."

 **Get the latest news by email** [Sign Up](#)

**Correction:** *Ted Peck, former state energy administrator, said every year across the U.S., 250,000 to 750,000 birds are killed by windmills. A earlier version of the story gave the wrong number of birds killed by windmills.*