



Shaping the future for birds

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Allen G. Kam, Esq, AICP, HIREP EIS Manager
State of Hawai'i
Department of Business, Economic Development and Tourism
Renewable Energy Branch, State Energy Office
P.O. Box 2359
Honolulu, HI 96804

Sent via U.S. mail, facsimile (808) 586-2536 and electronic mail

Subject: Scoping Comments for the Programmatic Environmental Impact Statement (PEIS) for the Hawai'i Interisland Renewable Energy Program: Wind (DOE/EIS-0459)

Dear Mr. Kim:

American Bird Conservancy submits these scoping comments for the Wind and Transmission Programmatic Environmental Impact Statement (Wind PEIS) for the Hawai'i Interisland Renewable Energy Program (HIREP).

Wind power can be an important part of the solution to global warming, but wind farms can also kill birds—including seabirds, songbirds, waterbirds, and endangered species—through collisions with wind turbines or power lines, and also harm them through habitat loss, fragmentation, or degradation. American Bird Conservancy believes that wind power can co-exist with birds through careful siting, operation and construction mitigation, monitoring, and compensation to reduce and redress any unavoidable bird mortality and habitat loss from wind energy development. Due to biological considerations, not every location with commercially viable wind speeds will be appropriate for wind-energy development.

The state of Hawai'i will be a particularly challenging place to develop wind energy because the islands are already the bird extinction capital of the world. **Therefore, it is vitally important that the wind energy build-out in Hawai'i employ the principles of bird-smart wind power and that the Wind PEIS specify that bird-smart wind power principles be used in Hawai'i.**

The principles of bird-smart wind power for terrestrial wind farms include the following:

Siting: Bird-smart wind power (including wind farms and associated infrastructure such as transmission lines) is sited to prevent harm to birds, ideally in already altered habitats such as farmland, and avoids sensitive areas. Examples of such sensitive areas in Hawai'i may include, but are not limited to, remaining high-elevation forest of importance to declining and endangered forest passerines; flyways used by nocturnal, Endangered Species Act (ESA)-listed seabirds,



Shaping the future for birds

such as Hawaiian Petrel (‘Ua‘u) and Newell’s Shearwater (‘A‘o) for flights between nesting colonies and the ocean; nesting habitat of these same seabirds; areas in or adjacent to increasingly uncommon and threatened wetland habitat important to Hawai‘i’s three ESA-listed wetland-dependent bird species; upland and wetland sites used by Nēnē (Hawaiian Goose) ; ‘Io (Hawaiian Hawk) foraging and key nesting areas; and areas in or adjacent to Important Bird Areas, including all National Wildlife Refuges and state-designated Natural Area Reserves. Pre-construction assessments should always be conducted to confirm whether a particular site presents a high risk to birds and, therefore, should not be developed for wind power.

Operation and Construction Mitigation: Bird-smart wind power uses the best technology and management practices to avoid and minimize harm to birds, such as burying transmission lines in high-risk areas and between wind turbines within a wind project site, following Avian Power Line Interaction Committee standards for above-ground transmission lines, using lighting that minimizes nighttime migratory bird collision mortality (such as strobe lights), using unguyed rather than guyed meteorological towers, and restoring habitat disturbed by construction, e.g., re-compacting soils disturbed by construction and replanting native vegetation (or restoring the site if the wind farm is decommissioned).

Monitoring: Bird-smart wind power includes the implementation of effective, federally reviewed and approved, site-specific, pre- and post-construction studies/assessments to assist with improved siting and operation, and to properly quantify impacts. Pre-construction assessments must provide sufficient data to assist with micro-siting (e.g., using radar to detect local bird movement corridors), create an annual baseline with sufficient statistical power to enable valid comparisons with post-construction studies. These studies should use all existing available bird study data, and be conducted during months when bird use can be expected to be at its peak at the selected site. Post-construction fatality monitoring studies must employ mathematical models that best account for the relative difficulty of locating bird carcasses in different habitats, as well as carcass removal by scavenging predators that may reduce the number of carcasses found. Post-construction studies should run for at least two years, with the goal of determining the efficacy of, and make needed revisions to, operational mitigation measures.

Compensation: Bird-smart wind power redresses the loss of any birds or habitat unavoidably harmed by construction and operation to a no-net-loss standard. This includes bird deaths caused by collisions with turbines and their associated power lines, and lost or degraded habitat, including areas of abandoned habitat. Such compensation could include acquiring additional land for the National Wildlife Refuge system or funding other off-site habitat conservation projects; for instance, projects that protect and enhance nesting habitat of species such as the Hawaiian Petrel and Newell’s Shearwater through fencing and exclusion of ungulates, and predator control; or projects that create wetland habitat or enhance the quality of existing wetlands. Other possibilities include removal of invasive guava plants adjacent to seabird nesting colonies to enhance breeding, and restricting night lighting on buildings, parking lots, and other areas to prevent collisions of juvenile seabirds.



Shaping the future for birds

All wind farms should have an Avian and Bat Protection Plan (ABPP) which includes American Bird Conservancy's bird-smart principles and recommendations of the Bat and Wind Energy Cooperative (BWEC). Projects should have a means of implementing the ABPP and tracking and reporting on this implementation. Wind farms should also comply with relevant state and federal wildlife protection laws such as the Endangered Species Act, Migratory Bird Treaty Act, and National Environmental Policy Act.

The Wind PEIS should also analyze the following issues:

Siting Issues in Maui, Lānaʻi and Molokaʻi:

Wind power facilities should not be sited in high-elevation forests known to be of importance to native forest passerines, such as the ESA-listed Maui Parrotbill (Kiwikiu) and ʻĀkohekohe (Crested Honeycreeper), Maui ʻAlauahio (Maui Creeper), ʻIʻiwi, and ʻApapane. All three islands, especially Maui and Lānaʻi, have significant populations of ESA-listed Hawaiian Petrels and Newell's Shearwaters. It will be critically important to site wind facilities away from upland nesting areas and away from areas used as flyways to and from the colonies by adults and fledging young. Upland and coastal areas and wetlands should be selected to avoid areas used by Nēnē, which are already known to be susceptible to wind turbine strikes. Wind facilities should not be sites in or near wetlands important to ESA-listed waterbirds, for example in the vicinity of Maui's Kealia Pond National Wildlife Refuge and others.

In addition, the Wind PEIS should analyze the wildlife impacts of transmission lines on each island with respect to the potential locations of wind farms and landing sites for undersea transmission cables.

Species-Specific Issues:

The species of particular concern for Hawaiian wind-energy projects are Nēnē, Newell's Shearwater, and Hawaiian Petrel. Non-endangered species believed to be vulnerable to collisions with turbines and power lines may include the Pueo (Hawaiian Short-eared Owl), frigate birds, other shearwaters and petrels, and albatrosses in specific locations. Native forest birds may be vulnerable to habitat destruction and fragmentation to a greater degree than to collision risk, so habitat fragmentation concerns should be included in the Wind PEIS.

Particular care needs to be taken to ensure that wind facilities (turbines, meteorological towers) do not pose threats to ESA-listed Hawaiian Petrels and Newell's Shearwaters, which are highly susceptible to light attraction, which may cause them to circle lights until they are exhausted and/or they collide with structures. Downed birds, even if they are not killed by impact or exhaustion, may be unable to fly and fall prey to exotic predators such as feral cats and mongooses. Even unlit man-made objects such as communications towers, wind turbines, and power lines can be a collision hazard to these seabirds if they are located in regularly used flyways between nesting sites and the ocean. Wetland species can potentially come into contact with turbines or associated infrastructure as they move between wetland areas if turbines are close to wetlands or along flight pathways between wetlands. The Nēnē often gravitates to open areas in lowland or upland areas and could be attracted to open sites considered for wind development or created by wind facilities. Soaring species such as the Great Frigatebird (ʻIwa)



Shaping the future for birds

can collide with wind turbines, even far from the ocean, as frigatebirds cross islands or soar on updrafts along mountain slopes.

Transmission Issues:

Transmission lines should not come ashore in areas known to be nesting sites for Wedge-tailed Shearwaters ('Ua'u kani), which often nest in low, coastal areas. Nor should the lines come ashore in wetlands of importance to the ESA-listed Hawaiian Coot ('Alae ke'oke'o), Hawaiian Common Moorhen ('Alae 'ula), and Hawaiian Black-necked Stilt (Ae'o).

In addition, undersea transmission cables coming ashore on the northeast and south-central portions of Moloka'i and the northeast portion of Lāna'i pose a collision risk, especially for Hawaiian petrels, Newell's shearwaters, and other coastal seabirds (frigatebirds, boobies, terns and noddies). Also, the Mokapu Peninsula of O'ahu has a very large Red-footed Booby ('Ā) colony and many resident frigatebirds; the interactions between the species may heighten collision risks of any transmission line on Mokapu Peninsula.

If any potential transmission landing sites that are not mentioned in the HIREP fact sheet are added, they will need careful analysis for their impacts on birds and habitat.

Issues Associated with Utility Infrastructure Upgrades in O'ahu:

The HIREP fact sheet asks for public input regarding utility infrastructure upgrades in O'ahu. Any upgrades to the utility infrastructure on O'ahu should include an analysis of possible future solar projects and locations of possible wind or offshore current projects. Building wind farms on the other islands may also require utility infrastructure upgrades; those need analysis in the Wind PEIS.

Experience on Kaua'i following major infrastructure upgrades needed after Hurricane Iniki has shown that power line upgrades need to be carefully considered to prevent lines from becoming unacceptable collision hazards to nocturnal seabirds such as the ESA-listed Hawaiian Petrel and Newell's Shearwater, but also the Band-rumped Storm-Petrel ('Akē'akē) and Wedge-tailed Shearwater, which are protected by state law and the Migratory Bird Treaty Act. Any power line located in a flyway between inland nesting sites and the ocean can be a collision hazard, but vertical arrays in which lines are stacked one above the other are much greater hazards to birds than horizontal arrays. In these flyway areas, collisions can be reduced by undergrounding or aligning power lines so that they are at or below the level of trees or buildings. Radar studies are invaluable for identifying potential areas where there could be a high risk for collisions. Lighting of new buildings or substations must be down-shielded to minimize the dispersion of light that could attract seabirds. Upgrades to power lines or expansion of power line grids should not allow lines to cross wetlands where sensitive wetland species could collide with power lines.

Issues Related to Other Mitigation Projects:

The Wind PEIS should identify any current or planned wildlife mitigation projects that could be affected by wind energy or transmission line build-out and analyze potential impacts.



Shaping the future for birds

Issues Related to Habitat Conservation Plans for Threatened and Endangered Bird Species:

The full build-out of wind power on the islands of Maui, Lānaʻi and Molokaʻi will likely result in the deaths of threatened and endangered birds and bats. As a result, Incidental Take Permit applications with Habitat Conservation Plans (HCPs) should be prepared for all proposed wind farms. However, to protect Hawaiʻi's threatened and endangered birds, it is not enough to write HCPs. They must be implemented fully and in a timely fashion, as well as adequately funded. The Wind PEIS should describe how the U.S. Fish and Wildlife Service and State of Hawaiʻi will ensure that HCPs are developed, adequately funded, and fully implemented in a timely manner. It should also suggest a range of potential compensatory mitigation measures and analyze the potential impacts on Hawaiʻi's threatened and endangered birds if compensatory mitigation is not successful. While research or studies can be quite valuable, they do not result in the replacement of threatened and endangered birds that are killed by wind farms or power lines and should not be accepted as compensatory mitigation.

Offshore Wind:

While this Wind PEIS is for terrestrial wind projects, offshore ones have already been proposed for Penguin Banks off Molokaʻi although denied by the U.S. Minerals Management Service because of the site's location within the Hawaiian Islands Humpback Whale National Marine Sanctuary. It is likely that other offshore projects in Hawaiian State waters will be proposed, and these will raise an additional series of concerns for wildlife protection.

The HIREP fact sheet hints that certain offshore areas, such as the channel between Lānaʻi and Molokaʻi, may hold significant wind resources. Many, if not all of the concerns outlined here for terrestrial wind development in Hawaiʻi will apply to offshore wind development, but of course, would be limited primarily to seabirds and wetland birds, which are also known to move between islands. In the case of offshore wind, we must emphasize that although the challenges of adequately monitoring for potential impacts to birds, both pre- and post-construction, are significant, and technology so far lags behind the evaluation needs, we can be certain that a range of protected bird species, including ESA-listed species, will potentially be adversely impacted, not to mention sea mammals and benthic resources.

We believe offshore wind projects are beyond the scope of the current PEIS, and a specific offshore PEIS should be developed before any wind energy project is permitted within Hawaiian waters. However, if it is the intention of the State of Hawaiʻi and Department of Energy to expand this PEIS to include offshore wind, we respectfully request that they reopen comments to specifically solicit input concerning offshore wind development.

Thank you for this opportunity to submit scoping comments on the Wind PEIS. Please add American Bird Conservancy to the notification list at the address below.



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Sincerely yours,

Kelly Fuller
Wind Campaign Coordinator
American Bird Conservancy
1741 Connecticut Ave. NW, Third floor
Washington, D.C. 20009
(202) 234-7181
kfuller@abcbirds.org

American Bird Conservancy (ABC) is a 501(c)(3), non-profit organization dedicated to the conservation of native birds and their habitats throughout the Americas. Founded in 1994, ABC has long been a leader in Partners in Flight and the North American Bird Conservation Initiative, and is the only U.S.-based group dedicated solely to overcoming the greatest threats facing native birds in the Western Hemisphere. ABC has over 8,500 members, with offices in Virginia and the District of Columbia, and additional staff in Georgia, Hawai'i, Idaho, Missouri, Montana, New York, Oregon, and Texas. ABC has active Hawaiian bird conservation and wind energy programs.