



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850

In Reply Refer To:
2011-CPA-0014
2011-TA-0161

Mr. Allen G. Kam
AICP – HRIP EIS Manager
State of Hawaii – Department of Business
State Energy Office
P.O. Box 2359
Honolulu, Hawaii 96804

FEB 25 2011

Subject: Notice of Intent to Prepare a Programmatic Environmental Impact Statement for the Hawaii Interisland Renewable Energy Program on Oahu, Maui, Molokai and/or Lanai

Dear Mr. Kam:

The U.S. Fish and Wildlife Service (Service) has reviewed the Department of Energy's (DOE) Notice of Intent (NOI) to prepare a Draft Programmatic Environmental Impact Statement (DPEIS) for the Hawaii Interisland Renewable Energy Program: Wind. Hawaii's Department of Business, Economic Development and Tourism (DBEDT) proposes to facilitate the development of wind-generated electric energy and the required improvements to the existing electric transmission infrastructure in Hawaii. This letter responds to the NOI and has been prepared under the authority of and in accordance with provisions of the National Environmental Policy Act (NEPA) of 1969 [42 U.S.C. 4321 *et seq.*; 83 Stat. 852], as amended, the Fish and Wildlife Coordination Act (FWCA) of 1934 [16 U.S.C. 661 *et seq.*; 48 Stat. 401], as amended, the Endangered Species Act (ESA) of 1973 [16 USC 1531 *et seq.*; 87 Stat. 884], as amended, and other authorities mandating Service review for impacts on trust resources. Based on these authorities, the Service offers the following comments for your consideration.

Proposed Action

The purpose of the proposed project is to transform the way in which renewable energy is generated in the State of Hawaii. The proposed action supports the development of up to 400 megawatts of wind energy within Maui County for the purpose of transmitting the generated electrical energy to Oahu. In addition, the proposed action may include the development of combinations of power facilities and wind farms on the islands of Maui, Lanai and Molokai. The

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development of undersea corridors, routes and landing sites for power cables to connect energy facilities between islands for the purpose of transmitting energy to Oahu is also addressed. The DPEIS will also analyze a no action alternative.

General Comments

Fish and Wildlife Resources within the Project Area

Important fish and wildlife resources occur throughout the proposed project areas, including the coastal, wetland, stream and marine habitats. We recommend the DPEIS include an analysis of the potential for project-related losses of aquatic and terrestrial ecological functions as a result of planned project alternatives. The Service recommends that particular attention be given in the DPEIS to construction, operation and maintenance related impacts on endangered and threatened species, migratory birds, wetlands, streams, coral reefs, fisheries and rare, native species and habitats. The DPEIS should discuss the indirect and cumulative effects of these impacts over time and include proposed measures to avoid, minimize and mitigate these impacts.

Aquatic Habitat Concerns

The DPEIS should include an analysis of potential impacts to affected wetland, stream and coral reef-related ecological functions. We are concerned that project plans to construct power transmission cable landing sites and deep-water cable alignments could result in the degradation or loss of nearshore coral reef and deep water coral resources that may occur within the footprint and vicinity of the proposed projects, including live coral colonies and other marine animals and plants that rely upon coral habitat for shelter, forage, and reproduction. Project related suspension of fine sediments may settle on and smother established coral colonies, algae meadows, or sessile organisms that occur within the nearshore environment. Other habitats that should be surveyed and characterized include rock reef macro-invertebrates, coralline and macro-algae, sand flats and associated infauna, and seagrass beds. We recommend that impacts on these resources be addressed for each alternative in the DPEIS.

We recommend that project-related dredging, filling and construction operations be scheduled to avoid the spawning period for most corals, which in Hawaii is April through August. Best Management Practices should also be incorporated into the project to avoid or minimize the project-related degradation of water quality that may impact fish and wildlife resources. The proposed project should be designed to avoid any unnecessary impacts to fish and wildlife resources and include measures to minimize those impacts. Unavoidable losses of fish and wildlife resources, including the loss of wetland, stream or coral reef habitat will be expected to be compensated for in accordance with current mitigation regulation under Section 404 of the Clean Water Act. Project-related mitigation should include a post-construction evaluation of impacts to affected resources as well as an assessment of the effectiveness of each mitigation action that is implemented. We recommend the proposed mitigation measures be identified and justified in the DPEIS in relation to offsetting anticipated impacts for each alternative being analyzed.

Threatened and Endangered Species

This project has the potential to have direct and indirect effects to many listed species on various islands. All aspects of project design, construction, operation, and maintenance will need to be evaluated in the PDEIS. We recommend that you assess the effect of the action as it relates to other activities that are interrelated to, or interdependent with, the action. The NOI states that the DOE will be co-lead for this project. If a project may affect listed species and is funded, authorized, or permitted by a Federal agency, then that agency is required to consult with us pursuant to section 7(a)(2) of the ESA. If no Federal agency is involved with the project and implementation of the project could result in take of a listed animal species, the applicant should apply for an incidental take permit under section 10(a)(1)(B) of the ESA.

The NOI has a table listing threatened and endangered species that may be impacted by the proposed action. We recommend that you begin collecting data on species presence in proposed project areas early in the planning process to ensure surveys are conducted at appropriate times of the year or over multiple years. This is critical for species that may be difficult to detect. All proposed project sites require biological surveys. This includes locations of wind energy production, transmission lines, trenching, substations, and all energy delivery systems.

It is noted in the NOI that the endangered nene (*Branta sandvicensis*), Hawaiian hoary bat (*Lasiurus cinereus semotus*), Hawaiian stilt (*Himantopus mexicanus knudseni*), Hawaiian petrel (*Pterodroma phaeopygia sandwichensis*), and the threatened Newell's shearwater (*Puffinus auricularis newelli*) may fly through the proposed areas of wind turbines and transmission lines. We will assist you in developing study designs and survey methodologies for these species. Island-wide radar surveys may be necessary to determine seabird flyways to their nesting grounds to fully assess the magnitude of the potential impact to listed seabirds. In addition, designated critical habitat for listed species may also be affected by this proposed project, depending on landing and transmission routes on each island and the amount of power integrated into the grid on Oahu.

There may be additional listed species that will be affected by the proposed action as project areas are defined. An example of a listed species not mentioned in the NOI is the endangered Blackburn's sphinx moth (*Manduca blackburni*). This species may occur within proposed cable landing areas and power facility development sites. Adult moths feed on nectar from native plants, including iliee (*Plumbago zeylanica*), maiapilo (*Capparis sandwichiana*), and beach morning glory (*Ipomoea pes-caprae*). Larvae feed on native aiea (*Nothocestrum latifolium*), native pilo (*Capparis sandwichiana*), and non-native tree tobacco (*Nicotiana glauca*). We recommend surveying for the presence of Blackburn's sphinx moth host plants during the wettest time of the year on each effected island. Therefore, we also recommend you request a species list from us when more information about individual projects, their exact locations, and likely action areas are more certain.

Waterbirds, migratory shorebirds, and migratory waterfowl all may be affected by this proposed action, including species protected by the Migratory Bird Treaty Act. The wedge-tailed shearwater (*Puffinus pacificus*) is also known to collide with low-profile objects, such as power

lines, protruding into the sky and there is a nesting colony near one of the proposed landing sites on Oahu. The pueo is state-listed on Oahu (*Asio flammeus sandwichensis*) and can inhabit habitat similar to that found on suitable wind energy areas.

Sea turtles, including the threatened green (*Chelonia mydas*) and olive ridley (*Lepidochelys olivacea*), and the endangered hawksbill (*Eretmochelys imbricate*) and leatherback (*Dermochelys coriacea*), may be impacted through disturbance from marine cable installation and shore crossings. The Service addresses impacts to sea turtles on land while the National Marine Fisheries is the appropriate agency for potential impacts to sea turtles in the water. We recommend surveys be conducted to assess if the areas proposed for cable landings have sea turtle basking or nesting beaches.

The Service supports the development of renewable energy resources that are emission-free and increase energy security while avoiding, minimizing and mitigating impacts to trust resources. It is stated in the NOI that the range of wind development projects that could be pursued under this proposed action vary widely in power capacities and configurations amongst the islands. This includes the potential to develop facilities on multiple islands, a range of configurations of undersea cable corridors and routes, and locational criteria for landing sites. The NOI does not indicate that an appropriate range of alternatives will be analyzed to demonstrate that impacts to listed species are avoided and minimized.

Invasive Species

The Service considers the spread of non-native invasive species to be a major threat to threatened and endangered species and other trust resources because of their potential to become established and alter the existing terrestrial or aquatic ecosystem. Although many species are already established, the Service would view actions that result in the augmentation of existing non-native invasive species populations as a negative effect. Construction activities and the transportation of equipment and materials described in the proposed action are potential pathways for the introduction and expansion of terrestrial and aquatic non-native invasive species (i.e., microbes, plants, vertebrates, and invertebrates). Pathways for introduction and spread of non-native invasive species in the proposed action could include, but are not limited to, construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels and their contents, shipping material, and other sources that provide conditions for transport of non-native invasive species. We recommend that the DPEIS include an evaluation of the potential movement and spread of non-native invasive species due to planned activities, and provide measures that will be implemented related to the proposed action that will prevent or reduce impacts from invasive species. This may be accomplished by pathway risk analysis. The Service can provide more specific recommendations related to pathway risk analysis when the proposed project is more refined.

The Service appreciates the opportunity to comment on the notice of intent to prepare a DPEIS. If you have any questions regarding these comments, please contact Kevin Foster for questions

Mr. Allen G. Kam

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regarding aquatic resources or Tim Langer on terrestrial resources by telephone at (808) 792-9400 or by facsimile transmission at (808) 792-9581.

Sincerely,



 Loyal Mehrhoff
Field Supervisor

cc:

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