

APPENDIX D. Applicable Land Use Policies, Plans, and Regulations

Federal, state, and county land use policies, plans, and regulations that are applicable to the Proposed Action are described below. Each section also discusses the extent to which the Proposed Action complies with the objectives of these land use plans, policies, and regulations.

Applicable Federal Land Use Policies, Plans, and Regulations

National Environmental Policy Act (42 U.S.C. 4371 et seq.).

The National Environmental Policy Act (NEPA) of 1969 provides an interdisciplinary framework for federal agencies to analyze and disclose the environmental impacts of their proposed actions and consider reasonable alternatives. The purpose of NEPA is to promote agency analysis and public disclosure of the environmental issues surrounding a proposed federal action in order to reach a decision that reflects NEPA's mandate to strive for harmony between human activity and the natural world.

DOE has prepared this Environmental Assessment (EA) to comply with NEPA (42 USC 4321, et. seq.), Council on Environmental Quality regulations for implementing NEPA (40 CFR Parts 1500-1508), and DOE NEPA regulations (10 CFR Part 1021). The EA examines the potential environmental impacts associated with the proposed action and No Action Alternative and determines whether the proposed action has the potential for significant environmental impacts. The information contained in the EA will enable DOE to fully consider the potential environmental impacts of issuing a loan guarantee for the Kahuku Wind Power project.

Farmland Protection Policy Act (7 USC 4201).

The Farmland Protection Policy Act (FPPA) was established to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to non-agricultural uses. Farmland includes land designated as prime farmland, unique farmland, and land of statewide or local importance. Federal actions are subject to FPPA requirements if the actions may irreversibly convert farmland (directly or indirectly) to non-agricultural use.

Approximately 60% (341 ac or 138 ha) of the project area is considered prime farmland. Construction of the proposed facilities would disturb approximately 67 ac of the 578 ac project area (about 11.5%). Roughly 32 ac of the disturbed areas (about 5.6% of the project area) would contain structures, hardened surfaces, and associated setbacks. Therefore, the proposed project would not convert a substantial portion of the project area to non-agricultural uses. As indicated above, Kahuku Wind Power LLC is in the process of evaluating the possibility of allowing complementary agricultural uses in the project area (e.g. community gardens, small plot farming, and grazing of livestock). If this occurs, it would increase the amount of area available for agricultural uses.

A Farmland Conversion Impact Rating form and supporting documentation were completed and submitted to the Natural Resources Conservation Service (NRCS). The rating that resulted from

the NRCS evaluation did not exceed 160 points. According to the Farmland Protection Policy Act, sites with a rating less than 160 need no further consideration.

Applicable State Land Use Policies, Plans, and Regulations

Hawai‘i State Plan.

The Hawai‘i State Plan is a policy document intended to guide the long-range development of the State of Hawai‘i by: identifying goals, objectives, and policies for the State of Hawai‘i and its residents; establishing a basis for determining priorities and allocating resources; and providing a unifying vision to enable coordination between the various counties’ plans, programs, policies, projects and regulatory activities to assist them in developing their county plans, programs, and projects and the State’s long-range development objectives. The Hawai‘i State Plan is dependent upon implementing laws and regulations to achieve its goals.

The sections of the Hawai‘i State Plan that are most relevant to the proposed project are Sections 226-18(a) and (b), which establish objectives and policies for energy facility systems. These sections are reproduced and discussed below.

§226-18 *(a) Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all:*

(1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;

Currently, wind power is the most commercially viable utility-scale renewable energy resource. The Kahuku area in particular has a strong, proven wind resource to ensure that the project would offer a dependable energy source. In addition, the proposed project would result in environmental and economic benefits of reduced air pollutant emissions and enhanced energy independence. Consequently, it is consistent with this objective.

(2) Increased energy self-sufficiency where the ratio of indigenous to imported energy use is increased;

Kahuku Wind Power LLC would help to increase the ratio of indigenous to imported energy on O‘ahu by harnessing the naturally occurring wind energy in the area.

(3) Greater energy security in the face of threats to Hawaii's energy supplies and systems.

The proposed facility would reduce O‘ahu’s dependence on imported fossil fuels and fluctuating energy costs.

(4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use.

The proposed project would reduce the emission of several greenhouse gases, as described in Section 3.2.2. Although very low levels of emissions would be generated from operation and construction of the proposed project, these would be more than offset by the benefits of the proposed project. Therefore, the project is in accordance with this objective.

§226-18 *(b) To achieve the energy objectives, it shall be the policy of this State to ensure the provision of adequate, reasonably priced, and dependable energy services to accommodate demand.*

The proposed facility will provide clean, cost-competitive electricity to O‘ahu’s consumers. The WPMS buffers highly variable wind power and is capable of maintaining grid stability. Consequently, the project is consistent with this objective.

Hawai‘i Revised Statutes, Chapter 195D.

The purpose of Chapter 195D of Hawai‘i Revised Statutes (HRS), is “to insure the continued perpetuation of indigenous aquatic life, wildlife, and land plants, and their habitats for human enjoyment, for scientific purposes, and as members of ecosystems...” (§195D-1). Section 195D-4 states that any endangered or threatened species of fish or wildlife recognized by the Endangered Species Act (ESA) shall be so deemed by State statute. Like the ESA, the unauthorized “take” of such endangered or threatened species is prohibited [§195D-4(e)]. Under Section 195D-4(g), the Board of Land and Natural Resources (BLNR), after consultation with the State’s Endangered Species Recovery Committee (ESRC), may issue a temporary license (subsequently referred to as an “ITL”) to allow a take otherwise prohibited if the take is incidental to the carrying out of an otherwise lawful activity. Kahuku Wind Power LLC is currently seeking an ITL. A Draft Habitat Conservation Plan (HCP) was submitted to the State Department of Land and Natural Resources (DLNR) in August 2009 to support the issuance of the ITL. The final HCP was approved by ESRC in February 2010, and by the Board of Land and Natural Resources on March 11, 2010 (SWCA and First Wind 2010). Acquisition of an ITL is anticipated in May or June of 2010. Therefore, the project is compliant with this statute.

Hawai‘i Revised Statutes, Chapter 343.

Chapter 343 (Environmental Impact Statements) was developed “to establish a system of environmental review which will ensure that environmental concerns are given appropriate consideration in decision making along with economic and technical considerations” (§343-1). This chapter requires the development of an Environmental Assessment (EA) or Environmental Impact Statement (EIS) for certain actions. The approval of an HCP and issuance of an ITL under Chapter 195D, Hawai‘i Revised Statutes (HRS), do not by themselves trigger a requirement for environmental review pursuant to Chapter 343, HRS.

The only component of the Proposed Action that would trigger HRS Chapter 343 is the construction of a fence for predator control at a seabird colony on West Maui at Makamaka‘ole. Because Makamaka‘ole is situated on State land within a Conservation District, a State EA would be prepared prior to construction in accordance with Chapter 343 of HRS.

Hawai‘i Revised Statutes, Chapter 205.

Under The State Land Use Law (Act 187), HRS Chapter 205, all lands and waters in the State are classified into one of four districts: Agriculture, Rural, Conservation, or Urban. Conservation Districts, under the jurisdiction of DLNR, are further divided into five subzones: Protective, Limited, Resource, General, and Special (Hawai‘i Administration Rules, Title 13, Chapter 5). State of Hawai‘i Land Use District Boundaries are governed by the City and County Land Use Ordinance.

The project area and surrounding lands are in an Agricultural District (Figure 3-17). State Conservation District lands exist mauka of the property, including the Kahuku Military Training Area and the Pūpūkea-Paumalū Forest Reserve. The subzone designation for both of these areas is Resource. Land across Kamehameha Highway from the project area, including the James Campbell NWR, is in the General subzone of a State Conservation District. Conservation District lands are not subject to any County zoning or community plan designations or restrictions.

The Waialua Substation is located in an Urban District and Flying R Ranch site is located in an Agricultural District.

Per HRS Chapter 205-4.5, wind energy facilities are a permissible use in State Agricultural Districts. The statute states that these facilities are permitted “provided that the wind energy facilities and appurtenances are compatible with agriculture uses and cause minimal adverse impact on agricultural land.” The proposed facility meets these requirements as it will result in disturbance of only a small percentage of the project area and it compatible with agricultural land use. As indicated, Kahuku Wind Power LLC is in the process of evaluating the possibility of complementary agricultural uses in the project area.

HRS Chapter 205-4.5 also permits “appurtenances associated with the production and transmission of wind generated energy” within State Agricultural Districts. Public and private “utility lines and roadways, transformer stations, communications equipment buildings...” are also permissible uses within Agricultural Districts. Thus, the off-site microwave towers and associated overhead distribution line, which are required to provide secure high-speed communications between Kahuku Wind Power and HECO, would be permitted.

Hawai‘i Agricultural Land Use Map (ALUM).

Agricultural land use designations have been developed for Hawai‘i. The State of Hawai‘i Agricultural Land Use Map (ALUM) does not depict detailed agricultural uses in the project area. However, the Flying R Ranch site is classified as A-1 (Grazing).

University of Hawai‘i’s Land Study Bureau Detailed Land Classification.

The University of Hawai‘i’s Land Study Bureau developed a Detailed Land Classification for the Island of O‘ahu that divides the island into a five-class agricultural productivity rating using the

letters “A” through “E.” “A” represents the class of highest productivity and “E” the lowest. Roughly 62% of the project area contains Class A&B rated soils and 38% contains non-Class A&B soils.

Although a portion of the project area contains soil classified as Classes A and B, wind energy facilities are permitted uses on these soil classifications, per HRS Chapter 205-4.5.

State Department of Agriculture’s Agricultural Lands of Importance to the State of Hawai‘i.

The State Department of Agriculture’s Agricultural Lands of Importance to the State of Hawai‘i (ALISH) system also ranks areas based on soil agricultural suitability. Designed to inventory prime farmlands, the system divides agricultural lands into three classes (Unique, Prime, and Other). Prime agricultural land is defined as land with soil temperature, soil pH, moisture supply, and growing season needed to produce high yields of crops when treated and managed according to modern farming methods. The Other designation refers to land that is important to agriculture, but lacks properties to be Prime or Unique; this land usually has slopes less than 35% and has been used or could be used for grazing.

The ALISH system ranks less than 60% (341 ac or 138 ha) of the agricultural areas on the property as Prime and 23% (134 ac or 54 ha) as Other. Remaining areas are unclassified. The Flying R Ranch site is ranked as Other.

Wind energy facilities are permitted uses on agricultural areas, per HRS Chapter 205-4.5.

Hawai‘i’s Coastal Zone Management (CZM) Program.

Hawai‘i’s Coastal Zone Management (CZM) Program (HRS 205A) is a broad management framework designed to protect valuable and vulnerable coastal resources by reducing coastal hazards and improving the review process for activities proposed within the coastal zone. The entire State of Hawai‘i is within the coastal zone boundary. The CZM Program focuses on ten objectives and associated policies. Federal actions occurring in, or affecting, the state's coastal zone must be in agreement with the CZM Program's objectives and policies.

The ten objectives are repeated below and a brief assessment of the project with respect to these objectives is provided.

- 1. Recreational resources: Provide coastal recreational opportunities accessible to the public.*

The project would be constructed on private land that is not located on the shoreline. Therefore, construction and operation of the project would not impact existing public access to coastal recreational opportunities.

- 2. Historic resources: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.*

No adverse impacts to historic or prehistoric resources are expected as a result of construction and operation of the Kahuku Wind Power project.

3. *Scenic and open space resources: Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.*

The proposed project would not affect views of the shoreline from Kamehameha Highway. Although the perception of the project would vary depending on the observer, the proposed project would complement the rural atmosphere and agricultural character of the area and maintain open space.

4. *Coastal ecosystems: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.*

The proposed project is not expected to have any significant adverse affects on marine resources. BMPs will be employed to prevent and minimize soil erosion during construction and operation and prevent sediment and other pollutants in stormwater runoff from reaching the ocean.

5. *Economic uses: Provide public or private facilities and improvements important to the State's economy in suitable locations.*

The proposed location is considered suitable because wind energy facilities are compatible with some agricultural uses common in the area.

6. *Coastal hazard: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.*

Due to its distance from the coastline, the project would not increase hazard to life and property from tsunami or storm waves.

The Kahuku Wind Power project area is entirely located in Flood Zone D where analysis of flood hazards has not been conducted and flood hazards are undetermined. Because of topographic relief, potential for flooding at the project area, outside of the immediate vicinity of the gulches, appears to be very low. Kahuku Wind Power LLC intends to grade some low-lying areas during construction to improve drainage and prevent standing water from collecting after heavy rain. Thus, the project would not increase hazard to life and property as a result of flooding.

7. *Managing development: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.*

The proposed project has been review by various state and federal agencies during preparation of the State HCP. The public was able to comment on the project following release of the State HCP and a public meeting regarding the State HCP was held in on November 4, 2009.

8. *Public participation: Stimulate public awareness, education, and participation in coastal management.*

Since early 2007, Kahuku Wind Power LLC has been engaged in community outreach to discuss the Kahuku Wind Power project. Kahuku Wind Power LLC has given presentations and/or held discussions with local community leaders, various community associations, neighborhood boards, organizations, kupuna (elders), residents, and individual stakeholders in the Kahuku and Ko‘olau Loa area. Kahuku Wind Power LLC has also met with local school officials in the area to educate students about wind facilities and associated technologies. Other groups that Kahuku Wind Power has met with include the Kahuku Community Association, Lā‘ie Community Association, Kahuku Village Association, Defend O‘ahu Coalition, Ko‘olau Loa Neighborhood Board, and North Shore Neighborhood.

9. *Beach protection: Protect beaches for public use and recreation.*

The proposed project is not located on the shoreline and therefore would not affect beaches.

10. *Marine resources: Promote the protection, use, and development of marine and coastal resources to assure their sustainability.*

The proposed project is not expected to have any significant adverse affects on marine resources.

Compliance with the CZM objectives and policies is regulated through the Special Management Areas (SMAs) permit system, which is implemented by the City and County of Honolulu DPP. SMAs are designated sensitive environments that should be protected in accordance with the CZM Program. The City and County of Honolulu DPP has designed O‘ahu’s entire shoreline, as well as certain inland areas of O‘ahu, as SMAs.

The project area is not located within a SMA, nor are either of the off-site microwave tower locations. Therefore, the proposed project is not subject to the permit requirements of the SMA system.

Applicable County Land Use Policies, Plans, and Regulations

General Plan for the City and County of Honolulu.

The General Plan for the City and County of Honolulu is a comprehensive document with long-range social, economic, environmental, and design objectives, as well as broad policies to facilitate the attainment of those objectives. The General Plan is divided into 11 subject areas including population, economic activity, the natural environment, housing, transportation and utilities, energy, physical development and urban design, public safety, health and education, culture and recreation, and government operations and fiscal management (DPP 2006).

The following section reproduces the policies outlined in different sections of the General Plan that are most relevant to the proposed project and discusses the proposed project’s consistency with these policies.

II. Economic Activity

- *Encourage the development in appropriate locations on Oahu of trade, communications, and other industries of a nonpolluting nature.*
- *Take full advantage of Federal programs and grants which will contribute to the economic and social well-being of Oahu's residents.*

The proposed project is generally non-polluting in nature and is appropriately located on the island. Kahuku Wind Power LLC is also attempting to take advantage of a Federal grant to reduce emissions of greenhouse gases and employ new technology in the United States.

III. Natural Environment

- *Protect the natural environment from damaging levels of air, water, and noise pollution.*
- *Protect plants, birds, and other animals that are unique to the State of Hawaii and the Island of Oahu.*
- *Protect Oahu's scenic views, especially those seen from highly developed and heavily traveled areas.*
- *Locate roads, highways, and other public facilities and utilities in areas where they will least obstruct important views of the mountains and the sea.*

The proposed project is expected to have positive, long-term impacts on regional air quality. Although the project has the potential to take unique wildlife species, mitigation measures proposed by Kahuku Wind Power LLC would ultimately result in a net benefit to the species as required by state law. There are no scenic views in the area that would be affected by the project and visual impact of the proposed project was considered during the site and layout selection process.

VI. Energy

- *Develop and maintain a comprehensive plan to guide and coordinate energy conservation and alternative energy development and utilization programs on Oahu.*
- *Establish economic incentives and regulatory measures which will reduce Oahu's dependence on petroleum as its primary source of energy.*
- *Support programs and projects which contribute to the attainment of energy self-sufficiency on Oahu.*
- *Give adequate consideration to environmental, public health, and safety concerns, to resource limitations, and to relative costs when making decisions concerning alternatives for conserving energy and developing natural energy resources.*
- *Support and participate in research, development, demonstration, and commercialization programs aimed at producing new, economical, and environmentally sound energy supplies from: a. solar insolation; b. biomass energy conversion; c. wind energy conversion; d. geothermal energy; and e. ocean thermal energy conversion.*

The Proposed Action is consistent with the above listed policies by supporting the proposed Kahuku Wind Power facility. The proposed facility is designed to reduce O'ahu's dependence on imported petroleum. Furthermore, Kahuku Wind Power LLC has considered a wide range of environmental and public concerns in designing the proposed project.

Community Plans.

The county is divided into eight regional areas that are guided by Development Plans or Sustainable Communities Plans (SCP). Kahuku is located in the Ko‘olau Loa SCP. The Ko‘olau Loa SCP is one of eight geographically oriented plans intended to guide public policy, investment and decision-making through 2020 (DPP 1999). The residential communities located in the plan area include Kahuku, Lā‘ie, Hau‘ula, Punalu‘u, Kahana and Ka‘a‘awa. In cooperation of the General Plan, this plan provides a policy context for land use, City budgetary actions and decisions made by the private sector. Land use maps within the Ko‘olau Loa Sustainable Community Plan depict the area as Agriculture (DPP 1999). An update of the Ko‘olau Loa SCP is currently in progress.

Several of the opportunities, objectives, and policies identified in the Ko‘olau Loa Sustainable Community Plan (1999) are relevant to the proposed project. The following statements and policies replicated from the plan are compatible with the proposed project:

P.5 BASIS FOR THE KO‘OLAU LOA SUSTAINABLE COMMUNITIES PLANS

- *Energy conservation will be expanded through commercial wind and solar power operations.*

4.4 ELECTRICAL POWER DEVELOPMENT

- *There is the possibility that the wind farm located in Kahuku may be modernized or expanded.*
- *Locate and design system elements such as renewable electrical power facilities, substations, communication sites, and transmission lines, including consideration of underground transmission lines, to mitigate any potential adverse impacts on scenic and natural resources, as well as public safety considerations.*

The Ko‘olau Loa Sustainable Community Plan specifically calls out an expanded wind farm in Kahuku. Elements of the proposed project have been located and designed to mitigate potential adverse impacts to natural and scenic resources.

3.2 AGRICULTURAL AREAS

- *Agricultural operations including truck crops, vegetables, taro, indigenous Hawaiian plants, shrubs, trees, and flowers and landscaping plants are currently being pursued on former sugarcane lands and in the mauka valleys throughout the region.*

A portion of the project area may be set aside for subsistence farming by local residents. Thus, the proposed project could support this element of the Ko‘olau Loa Sustainable Community Plan (1999).

City and County of Honolulu Zoning.

Land use on O‘ahu is also dictated by zoning ordinances from the City and County. The City and County of Honolulu zoning ordinance defines the project area as AG-1 Restrict Agricultural District. Adjoining land is also zoned AG-1 Restricted or AG-2 General. AG-2 applies to agricultural lands with a minimum lot size of 2 ac (0.8 ha). The AG-1 designation is intended to preserve “important agricultural lands” for agricultural functions such as the production of food, feed, forage, fiber crops and horticultural plants (City and County of Honolulu, Land Use Ordinance, Chapter 21). A wind energy project is permitted in this zoning area with acquisition of a Conditional Use Permit (City and County of Honolulu, Land Use Ordinance, Chapter 21, Section 5.700). Because turbine foundations physically occupy only a small fraction of the project area’s land area, development of wind energy is generally considered compatible with some agricultural uses, such as grazing (Global Energy Concepts LLC 2006).

The proposed project obtained a CUP-M from the City and County of Honolulu’s Department of Planning and Permitting in January 2008. A second CUP-M for the proposed project was approved by the Department of Planning and Permitting in December 2009.

The Waialua Substation site is zoned as R-5 Residential District and the Flying R Ranch site is zoned AG-1 Restricted Agriculture District.

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