



## OFFICE OF PLANNING STATE OF HAWAII

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Ref. No. P-15745

September 19, 2017

Mr. Michael A. Dahilig, Director  
Department of Planning  
County of Kauai  
4444 Rice Street, Suite 473  
Lihue, Hawaii 96766

Dear Mr. Dahilig:

Subject: AES Lawai Solar, LLC  
Project: Use Permit No. U-2018-1  
Class IV Zoning Permit No. Z-IV-2018-1  
Special Permit No. SP-2018-2  
Tax Map Keys: 2-6-003: 001 (Por.)  
Location: Koloa and Lawai, Kauai, Hawaii

Thank you for the opportunity to review the subject application for a Special Use Permit to establish a 28-megawatt (MW) solar photovoltaic (PV) system in Koloa and Lawai, Kauai. The proposed project will consist of solar panels and appurtenant facilities on an approximately 196.33-acre portion of a 1,062.291-acre lot located within the State Agricultural District and in the County of Kauai Agriculture and Open Districts. The Petition Area is owned by McBryde Sugar Company, LLC, which is leasing to the Petitioner AES Lawai Solar, LLC (Petitioner) easements to operate the system. The Petitioner plans to sell the electric power to Kauai Island Utility Cooperative (KIUC). KIUC will be constructing a substation adjacent to the Petition Area on approximately 2.5 acres. The substation will collect the produced solar energy and connect it to the KIUC's island-wide electric grid. The system is unique because it will feed the electrical power generated by the system into a Battery Energy Storage System ("BESS"), which will also discharge the stored power into the KIUC grid during the non-daylight, peak hours.

Petitioner and KIUC have entered into a 25-year Power Purchase Agreement. Petitioner is an affiliate of AES Distributed Energy, Inc. a wholly owned subsidiary of The AES Corporation. The PV system will consist of ground-mounted solar panels on a single-axis trackers which will rotate along a fixed horizontal axis from east to west following the sun, which increases the efficiency of the system. The electrical output of the panels will either be directed to the BESS to be stored or go directly into the power grid operated by KIUC. The substation will be constructed concurrently with the solar project, and connected with underground lines.

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The solar project site will be surrounded by a 7-foot high chain link security fence, with a 25-foot wide buffer around the security fence. The average height of the solar panels will be 7.5 feet above ground level. The distance between the solar panel rows will range from 18 feet in the south section to 25 feet in the north section.

The Petition Area is not on any Important Agricultural Lands (IAL). The landowner has designated other lands as IAL.

The guidelines for Special Permits are contained within Hawaii Administrative Rules (HAR) § 15-15-95 which allow certain "unusual and reasonable" uses within Agricultural and Rural Districts other than those for which the district is classified. HAR § 15-15-95 lists six (6) guidelines for determining whether a proposed use is "unusual and reasonable." The following assesses the proposed project relative to the Special Permit guidelines:

**1. The use shall not be contrary to the objectives sought to be accomplished by Chapters 205 and 205A, HRS, and the rules of the Commission.**

Hawaii Revised Statutes (HRS) Chapter 205 seeks to protect agricultural lands and ensure their continued availability for agricultural use. It provides that the Agricultural District shall include lands with a high capacity for agricultural production, grazing, or other agricultural uses. Chapter 205 also recognizes, however, that some lands in the Agricultural District may not be suitable for the uses permitted in the Agricultural District and, therefore, other uses may be allowed with a Special Permit.

Pursuant to HRS §§ 205-2 and 205-4.5, as amended by Act 55 and Act 52, solar energy facilities may be permitted on land with Class B or C soils. More specifically, HRS §§ 205-2 and 205-4.5 state the following:

- HRS § 205-2(6)(A) and (B): Solar energy facilities may be permitted on land with soil classified by the LSB as overall (master) productivity rating class B, C, D, or E. Solar energy facilities placed within land rated Class B or C, however, shall not occupy more than ten percent of the acreage of the parcel, or 20 acres of land, whichever is lesser, unless a special use permit is granted.

The proposed project requires a Special Permit as it would occupy more than 10% of the Petition Area and more than 20 acres of land. At 196.33 acres, the Petition Area occupies approximately 18% of the 1,062.291-acre parcel. The parcel contains lands designated with A, B, C, D and E. However, the majority of the area to be occupied by the solar project is B and C lands, with some E lands. **The**

**Petitioner should provide the approximate land area in acres that would be within LSB designated B and C soils.**

- HRS § 205-4.5(a)(3): Within the Agricultural District, the raising of livestock, including poultry, bees, fish, or other animal or aquatic life that are propagated for economic or personal use are permitted.

The proposed pasturage of sheep, in combination with the solar energy facility, is an allowable use. The Petitioner proposes to lease the usable portions of the Petition Area to Omao Farms, as indicated in Petitioner's Exhibit E-8 to sheep grazing at least 50% below the fair market rental value.

- HRS § 205-4.5(a)(21)(A),(B) and (C): Solar energy facilities on land rated Class B or C for which a special use permit is granted are permitted provided that:
  - (A) The area occupied by the solar energy facilities is also made available for compatible agricultural activities at a lease rate that is at least fifty per cent below the fair market rent for comparable properties;
  - (B) Proof of financial security to decommission the facility is provided to the satisfaction of the appropriate county planning commission prior to date of commencement of commercial generation; and
  - (C) Solar energy facilities shall be decommissioned at the owner's expense and according to certain requirements.

The Applicant represents that each of the above criteria would be met.

Coastal Zone Management. Page 9 of the application indicates that the larger parcel, including the Petition Area is not within the Special Management Area, however, regarding the objectives of HRS Chapter 205A, the application does not have a separate section addressing the project's compliance with applicable Coastal Zone Management (CZM) program objectives and policies. While it appears that the proposed use is not contrary to the objectives of the program, **the application should include a section detailing responses to the objectives of HRS Chapter 205A.**

Historic Resources. An archaeological inventory survey (AIS) has been provided. We note that the State Historic Preservation Division (SHPD) has not accepted the AIS, according to a letter dated August 30, 2017. However, SHPD indicated that the draft AIS provides adequate information, and provided the Petitioner with a list of corrections and changes to incorporate into a revised AIS. As a mitigation measure, SHPD indicates that

an archaeological monitoring plan should be prepared for one site (Site 1051) to guide monitoring, and that SHPD must accept the plan prior to work onsite.

**The Petitioner should obtain approval for the revised AIS prior to any work being done in the Petition Area. Also, SHPD should approve the monitoring plan prior to any work onsite. Lastly, a condition relating to inadvertent findings should also be included.** These items should be made conditions of approval.

Cultural Impact Assessment. The Petitioner has also submitted a draft Cultural Impact Assessment (CIA). Upon consultation with the Petitioner, we note that a revised CIA will be submitted to the County at a later date. We understand that oral interviews will be included with the revised Assessment. **OP recommends a condition that the final CIA should be included with the submittal of the Special Permit to the Land Use Commission for its consideration.**

Flora and Fauna. The Petition includes information and proposed mitigation measures for endangered, threatened and candidate species for the larger property and the Petition Area. **We agree that the proposed recommendations as listed on pages 25-27 of the Petition should be made conditions of the approval. In addition, OP would like to recommend the following.**

- a. **Petitioner shall develop an endangered species awareness training module, which shall include all potential endangered species that may frequent the Petition area.**
  - b. **All construction workers and solar facility employees shall undergo endangered species awareness training prior to starting work.**
2. **The desired use would not adversely affect surrounding property.**

According to the Petition, the proposed project is not anticipated to directly or indirectly affect adjacent uses. The larger property lies to the west of Koloa town. The property is vacant, and was used primarily for sugar cane cultivation. A private cane haul road extending from Koloa Road provides access to the property.

Construction of the solar facilities would result in short-term impacts that are temporary, intermittent, and localized. Long-term impacts related to operations and maintenance, including glare, noise, ambient temperature, and electric and magnetic fields should be minimal.

**3. The use would not unreasonably burden public agencies to provide streets, sewers, water, drainage, schools, fire, and police resources.**

According to the application, the proposed project would not require infrastructure support from public agencies due to the following:

- Access to the site is provided by a private agricultural road which extends from Koloa Road (State highway) and Aka Road (County Road). There is no public access to the site.
- An Individual Wastewater System will be provided for bathroom facilities.
- Potable water would be available from an existing waterline on the larger property, which is connected to the County water system. The water will be used primarily for the bathroom facilities. There are water reservoirs on-site.
- Drainage across the site currently exists in the form of surface runoff based on the natural topography; the proposed project would not significantly alter the existing drainage patterns.
- It would be unlikely to use fire or police protection services.

**4. Unusual conditions, trends, and needs have arisen since the district boundaries and rules were established.**

OP recognizes the State interest in reducing our islands' dependency on fossil fuels and increasing efficiency measures, with a goal to generate 40 percent clean energy by 2030. OP also recognizes the State interest in conserving the State's agricultural land resource base and assuring the long-term availability of agricultural lands for agricultural use. OP acknowledges the proposed project seeks to balance these interests by providing both renewable energy generation and agricultural production at below-market value rent.

**5. The land upon which the proposed use is sought is unsuited for the uses permitted within the district.**

The land upon which the proposed use is sought is suited for the uses permitted within the district. As noted above, the project would be located on lands that are designated primarily B and C lands, as rated by the LSB productivity rating system. Under the ALISH system, the soils on the subject property are classified as Prime and Other.

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Having reviewed the application and applied the available information to the applicable Special Permit guidelines, OP supports the intent of the proposed project to provide renewable energy for the island of Kauai and offers the following comments:

- Concerns will remain with regard to the statewide challenge in seeking a balance of maintaining the availability of high quality agricultural lands while promoting renewable energy sources such as solar facilities on lands within the Agricultural District.
- OP is concerned that while “agri-voltaic” projects such as this are technically feasible, the agricultural aspect of these projects often fail to be implemented as represented by the applicant, i.e. the number of sheep or other grazing animals co-located within the solar facility is negligible. The proposed project would be located on soils rated ALISH Prime; the proposed solar facility would, therefore, preclude productive agricultural land from being used for agricultural purposes and contributing to the State’s goal of assuring the long-term availability of agricultural lands for agricultural use if the pasturage of sheep does not occur. Petitioner should provide greater assurances that the Petition Area will be truly used for marketable sheep grazing for as long as the SEF system is in place.
- Should the Special Permit be granted, OP recommends that the requirements of HRS § 205-4.5(a)(21)(A), (B), and (C), relating to: 1) compatible agricultural activities; 2) proof of financial security for decommissioning; and 3) decommissioning requirements, be included as specific conditions of approval.

If you have any questions, please contact Lorene Maki of our Land Use Division at (808) 587-2888.

Sincerely,



Leo R. Asunción  
Director

Attachment

cc: Land Use Commission  
Department of Agriculture