



**STATE OF HAWAII
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT**

DAVID Y. IGE
GOVERNOR

MARY ALICE EVANS
DIRECTOR

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: <https://planning.hawaii.gov/>

DTS 202108270807MA

Coastal Zone
Management
Program

September 7, 2021

Environmental Review
Program

Land Use Commission

TO: Daniel Orodener, Executive Officer
Land Use Commission

Land Use Division

FROM: Mary Alice Evans, Director *Mary Alice Evans*
Office of Planning and Sustainable Development

Special Plans Branch

State Transit-Oriented
Development

SUBJECT: Special Permit (SP) 21-412, Mahi Solar
Petitioner: Mahi Solar, LLC
Land Area: Approximately 620 Acres
Location: Kunia, Central Oahu, Oahu, Hawaii
TMKs: (1) 9-2-001: 020 Por.; 9-2-004: 003 Por., 006
Por., 010 Por., and 012 Por.

Statewide Geographic
Information System

Statewide
Sustainability Program



The Office of Planning and Sustainable Development (“OPSD”) recommends approval of the subject Special Permit, subject to conditions in addition to that imposed by the City and County of Honolulu Planning Commission in its Findings of Fact, Conclusions of Law, and Decision and Order (“Planning Commission’s D&O”) dated July 29, 2021 for Mahi Solar LLC’s application for a Special Use Permit (2020/SUP-7).

Petitioner proposes to establish a solar photovoltaic and battery energy storage system on approximately 620 acres of land in five separate areas west of Kunia Road and mauka of the H-1 Freeway. The proposed project would provide 120 Megawatts (MW) of solar energy with a 480-MW-hours Battery Storage system. The project also includes a 34.5 kilovolt substation and a new 138 KV transmission circuit west of Kunia Road. According to the Department of Planning and Permitting’s Recommendation to the Planning Commission, the contract with the Hawaiian Electric Company is approved for 25 years with an option to extend 10 years for a total Project operational life of 35 years. In addition, the time period for the Special Permit (“SP”) is proposed for two years of permitting and construction and an additional two years for decommissioning of the project, for a total of 39 years.

According to the submittal, the Project site is designated as Agriculture and Preservation in the Central Oahu Sustainable Communities Plan (“SCP”) and the Ewa Development Plan (“DP”). The Project site is within the State Agricultural Land Use District and zoned AG-1 Restricted Agricultural District. The site is bounded by

Mr. Daniel Orodener
September 7, 2021
Page 2

agricultural lands to the north, south and east, and the Honouliuli Forest Reserve, designated as conservation land, to the west side. Kunia Loa Ridge Farmlands are located adjacent to areas 4A and 4B. The Honouliuli National Historic Site administered by the National Park Service is located south of Area 5.

Approximately 98.8 acres are currently in diversified agricultural production. 109.9 acres are fallow and about 204 acres are overgrown. The applicant proposes to increase the agriculture productivity on the project area by utilizing about 600 acres for agriculture.

Special Permit Guidelines

The guidelines for SP's 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 five (5) 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 Land Use Commission ("LUC").

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. The following page references are located in Exhibit 15.

Page 7-2. The document indicates that the applicant will make available about 610 acres of the project area for agricultural use through an Agrivoltaics Program in cooperation with the Hawaii Agricultural Research Center.

Page 4-5 to 4-7. The document indicates that, under the Agricultural Lands of Importance to the State of Hawaii ("ALISH") classification, the project area contains Prime, Unique and Other Important Agricultural Lands.

Page 4-5 to 4-6. There are no A rated lands as designated by the Land Study Bureau. Other soils on the proposed West Oahu Solar project site are designated by the Land Study Bureau as:

B Lands	399.8 Acres
C Lands	115.6 Acres
D Lands	36.8 Acres
E Lands	61.9 Acres
Unclassified	5.9 Acres
Total	620 Acres

As noted in HRS § 205-4.5(a)(21), solar facilities on lands classified as B or C for which a SP is granted pursuant to HRS § 205-6 may be permitted under certain restrictions relating to the decommissioning of the solar project, and the use in conjunction with compatible agricultural uses at reduced rates.

Page 4-7 to 4-12. Important Agricultural Lands (“IAL”). Approximately 69.5 acres, or 11% of the project lands are in IAL-designated areas. The document indicates that approximately 29.3 acres located within Area 1 are lands designated as IAL via Land Use Commission (LUC) Docket No. DR18-61 by the owner Hartung Brothers. Another 40.2 acres of IAL located within Area 5 are owned by Monsanto and designated as IAL via LUC Docket No. DR17-59. Also, about 305.6 acres owned by Fat Law’s Farm, Inc. have been included in the City’s IAL recommendations currently before the LUC. We note that the City’s IAL recommendations have not been approved by the LUC yet. However, Solar projects have been considered to be temporary uses on Agricultural lands.

Appendix E A Ka Paakai O Ka Aina Analysis for the Longroad Energy Management, LLC Mahi Solar Facility by ASM Affiliates. December 2020 (“CIA”).

CIA, Pages 50-52, Identify Whether Any Valued Cultural, Historical, or Natural Resources Are Present Within the Petition Area, and Identify the Extent to Which Traditional and Customary Native Hawaiian Rights are Exercised, of the study references the Pohakea Trail which may pass through some areas of the project site, such as Solar Area 4A and 4B. The study indicates that the Pohakea Trail may be a foot path or part of a roadway that ascends the Waianae Mountains. The trail was mentioned as a valued cultural resource. Access to the trail has been obstructed. Several of the interviews mention the trail.

CIA, Page 51, Identify the Extent to Which Those Resources and Rights will be Affected or Impaired by the Proposed Action, of the CIA regarding access to the Pohakea trail and for native plant species,

“remains obstructed, then the proposed project infringes upon customary access rights and any concomitant resources and traditional customary practices (i.e. gathering of plant resources for cultural purposes for cultural purposes) that

would otherwise occur along this trail... If the proposed project footprint extends into native plant habitats then such resources would be adversely impacted.”

The CIA notes that the botanical survey identified several native species in fallow fields and roadsides which are noted in historical and traditional accounts.

CIA Page 52, Specify any Mitigative actions to be taken to Reasonably Protect Native Hawaiian Rights if they are Found to Exist. The study recommends that consultation be conducted with the appropriate agencies and persons who would have more knowledge of the trail’s historical location and possible status, so that the Petitioner can consider the trail in the project plans. Further, the study recommends that efforts should be made to avoid native plant species and their associated habitat. Such areas should be identified and avoided. The CIA also indicates that archaeological resources should also be identified and avoided. The CIA concludes that if these recommendations are implemented then impacts to traditional and customary practices would be mitigated.

Appendix F An Archaeological Inventory Survey for the Mahi Solar Project Area by ASM Affiliates. (AIS) We note that the document does not include a letter from the Department of Land and Natural Resources, State Historic Preservation Division (“SHPD”) for the review and approval of the AIS with mitigation and preservation measures for the proposed project.

The AIS indicates that two major sites were discovered on the project site that may be affected by the proposed development. Major portions of the historic Waiahole Ditch (Areas 1, 3 and 5) designated as 50-80-09-2268 have been located within the project area. The Waiahole Ditch is significant under Criteria A and C, and avoidance and protection of this historic resource is recommended. As noted in the AIS, the site is significant with respect to both its engineering aspects and its effects on Oahu’s physical and political landscapes, and continues to be a functioning water source for irrigation. We note that State Agribusiness Development Corporation (“ADC”) is primarily responsible for Waiahole Ditch system such that a condition is warranted to mitigate impacts to this important resource.

The AIS also identified site 50-80-12-7346, Oahu Sugar Company Irrigation features that provided water to former cultivated fields within the project area. Infrastructure elements include earthen ditches, reservoirs, metal aqueduct pipes and siphons, concrete reinforced masonry structures and pumps, and concrete sectional flumes. The AIS notes this infrastructure is no longer functional and has either deteriorated in place or has been bulldozed into refuse piles. This site is also considered significant under Criteria A and D. The AIS indicates that there is a possibility of significant undiscovered aspects of the site or that predate this site could be found. The recommendation is for monitoring.

As the SHPD had not yet reviewed and accepted the AIS, the Planning Commission's D&O imposes Condition No. 5, providing that approval of the AIS shall be obtained prior to issuance of building permits and that specific conditions could be imposed during the CUP, grading or building permits from DPP.

OPSD is very concerned with the deferral of significance determination of identified archaeological sites and needed mitigation measures until a later point in the development approval process. The basis for this concern stems from the Supreme Court's decision in *Ka Paakai O Ka Aina v. Land Use Commission*, State of Hawaii (94 Haw. 31, 2000) ("Ka Paakai"). Ka Paakai involved a district boundary amendment and a statutory and constitutional interest in the protection of cultural resources. Here, the process is a special permit and involves archaeological sites, but there is arguably a similar interest in archaeological sites such that the Ka Paakai analysis is relevant – the LUC cannot defer or condition away their obligation to make a determination as to whether the Ka Paakai requirements (identify resources, identify impacts, and mitigation) have been met.

The SHPD's approval would have facilitated such determination for the LUC, but absent such approval, we believe the LUC must make specific findings and conclusions with respect to the identified archaeological sites, potential impacts from the project, and needed mitigation measures. We further believe that the AIS and its recommendations provide a sufficient basis for the LUC to determine significance and needed mitigation.

2. The desired use would not adversely affect surrounding property.

The 620-acre project area is located in Kunia, Central Oahu, bounded by agricultural land to the north, south and east sides. The Honouliuli Forest Reserve is located to the west side. Kunia Loa Ridge Farmlands is located adjacent to Areas 4A and 4B. The Honouliuli National Historic Site Internment Camp is located nearby Area 5 to the south side. The nearest residential area is about 1.2 miles to the southeast.

Section 4.9 Views. The Petitioner has assessed visual impacts to the surrounding areas. The solar arrays would have a relatively low profile and would not be visible from surrounding locations. The panels would be most visible from Palawai Street. Landscaping would be installed along the fence line to provide screening.

The application also includes Attachment H, a Glare Study. The study indicates that there would be no impacts to airport operations from the solar panels. The State Department of Transportation ("DOT") should be contacted to provide comments on the project. The DOT may also require that a radiofrequency study be included. However, we note that the proposed site is about 10 miles from Kalaeloa Airport.

Sections 4.4 and 7.2.3. Potential Impacts and Mitigation Measures. Biological Resources. The project areas border and is close to the Oahu Elepaio critical habitat. Also, other endangered species such as the Hawaiian short-eared Pueo and the Hawaiian Hoary Bat may use the project sites for nesting and foraging. The application provides proposed mitigation measures on page 7-4 that should be included as conditions if the application is approved. The application also indicates that there were no federally or State-listed endangered, threatened, or candidate plant species identified in the project area. We note that the Planning Commission's D&O contains Condition No. 9 relating to the protection of endangered, threatened, and native flora and fauna species and their habitat.

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 additional infrastructure support from public agencies for the proposed solar project. A Traffic Impact Study was provided, indicating little to no impacts. Stormwater runoff was assessed and would not have adverse impacts on drainage. The proposed project will incorporate multiple layers of fire prevention and suppression measures on the property such that it will not impact fire protection services.

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

OPSD recognizes the State interest in encouraging renewable energy in appropriate locations around the State to promote energy self-sufficiency and reduce the State's dependence on fossil fuels. We note that the proposed solar project is within the State Agricultural District, however the proposal will be utilizing lands that are classified as B, C, D and E lands. Solar facilities are allowed via the Special Permit procedures under HRS § 205-4.5(a)(21) on lands classified as B and C rated lands under certain restrictions relating to the decommissioning of the solar project, and the use in conjunction with compatible agricultural uses at reduced rates. The application appears to meet these requirements.

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 suitable for the uses permitted within the district. As noted above, the project would be located on approximately 620 acres of Class B, C, D and E lands, as rated by the LSB productivity rating system. The project site lands would be considered suitable for agricultural uses which allow solar energy facilities.

State Issues and Concerns

OPSD also offers the following comments on other matters of concern.

- A. Pursuant to Hawaii Administrative Rules § 15-15-95(b), Special Permits for areas greater than 15 acres require approval of both the county planning commission and the LUC. Since the proposed project site is larger than 15 acres, the LUC must approve the project and can impose additional conditions of approval.

- B. HRS § 205-4.5(a)(21) provides 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 according to the following requirements:
 - (i) Removal of all equipment related to the solar energy facility within twelve months of the conclusion of operation or useful life; and
 - (ii) Restoration of the disturbed earth to substantially the same physical condition as existed prior to the development of the solar energy facility.

Recommendation

Having reviewed the application relative to State interests and the applicable Special Permit guidelines, OPSD recommends approval of the State Special Permit to establish the Mahi Solar Project, subject to the imposition of conditions in addition to that imposed by the City Planning Commission. OPSD concurs that the proposed project meets the Special Permit guidelines for an unusual and reasonable use within the State Agricultural Land Use District. The applicant has met the requirements for the issuance of a Special Permit for the proposed use, and appropriate conditions can be imposed to mitigate any adverse impacts from the proposed project. Accordingly, the following are OPSD's recommendations regarding needed additional conditions of approval:

Mr. Daniel Orodener
September 7, 2021
Page 8

1. The LUC should make a finding concurring with the assessment and recommendations of Petitioner's Archaeological Inventory Survey for the two identified historic sites and impose a condition requiring Petitioner's compliance with its recommendations:
 - Waiahole Ditch – avoidance and protection during development activities
 - Oahu Sugar Company irrigation infrastructure – conduct archaeological monitoring during development activities and prepare an archaeological monitoring plan subject to acceptance by the State Historic Preservation Division prior to ground-disturbing activities.
2. Petitioner and its successors shall (1) maintain the surface and aboveground areas of the easement of the Waiahole Ditch where it traverses the Petition Area and shall have non-exclusive access to such areas; and (2) not interrupt or impair delivery of Waiahole Ditch water during construction and operation of the Project.
3. As recommended by Petitioner's Ka Paakai O Ka Aina analysis to mitigate impacts to traditional and customary practices, Petitioner shall consult with appropriate agencies and persons who have knowledge of the Pohakea trail's historical location and possible status and incorporate consultation recommendations in its development plans. Petitioner shall also identify and avoid all native plant communities and their associated habitats.

Thank you for the opportunity to review the Special Permit application. If you have any questions, please contact Lorene Maki of our Land Use Division at Lorene.k.maki@hawaii.gov

c: Department of Agriculture
City & County of Honolulu, Department of Planning and Permitting