

# Kalaeloa Home Lands Solar



# HCDA Development Permit Application



Department of Business, Economic Development & Tourism Hawai'i Community Development Authority

7/18/2021

Arion Energy, LLC Kalaeloa Home Lands Solar, LLC Kalaeloa Home Lands Solar HCDA Development Permit Application

Prepared for: Hawaii Department of Business Economic Development and Tourism Hawaii Community Development Authority

Planning Office 547 Queen Street Honolulu, HI 96813

Prepared by: NORTH SHORE CONSULTANTS, LLC 66-031 Mahaulu Lane. Haleiwa, HI 96712

and

A Imanaka Asato

IMANAKA ASATO | A LIMITED LIABILITY LAW COMPANY Topa Financial Center, Fort Street Tower 745 Fort Street Mall, 17th Floor, Honolulu, HI 96813

Landowner:



Land Management Division State of Hawaii, Department of Hawaiian Home Lands 91-5420 Kapolei Parkway, Kapolei, Hawaii 96805

July 20, 2021

# **Table of Contents**

1 - INTRODUCTION	. 3
2 – LAND USE AND ZONING	. 3
3 – PROJECT DESCRIPTION	. 4
4 - COMPLIANCE WITH APPLICABLE RULES	. 5
4.1 General Land Use Compatibility	. 6
4.2 Consistency with the Kalaeloa Master Plan	. 7
4.3 Compliance with the Kalaeloa Rules	. 7
4.4 Compatibility with HRS § 206E	. 8
4.5 Archaeological Resources	. 8
4.6 Federal Aviation Administration Rules	. 8
4.7 Public Consultation	10
5 – CONCLUSION	11
6 – COMPLIANCE TABLES	12

## **1 - INTRODUCTION**

Kalaeloa Home Lands Solar, LLC. ("KHLS") is a Hawaii-based renewable energy firm which has been active in the local photovoltaic ("PV") industry since 2015. In 2018, KHLS, through its owner Arion Energy, Inc., obtained the rights to develop a 29.84-acre parcel in Kalaeloa for PV electrical generation from the Department of Hawaiian Home Lands ("DHHL"). On September 29, 2018, Arion was awarded rights to sell electricity to Hawaiian Electric. Inc. ("Hawaiian Electric") under the Community-Based Renewable Energy Program ("CBRE"). Through the CBRE program award, KHLS received an initial allocation of 1.725 megawatts ("MW") of electric generation. Based on this allocation, phase I of the project will cover approximately 7 out of the 29.84 acres available on the parcel. Future phases of the project will be built based on the demand for power from Hawaiian Electric or other power users. At full development, the parcel will site a utility scale solar farm with a solar PV system size of up to 9 MW dc generating clean, renewable energy.

CBRE is an innovative program established by Hawaiian Electric which allows private companies to provide the benefits of solar energy to residential and commercial customers without access to privately-owned rooftop solar, including many renters and apartment dwellers. Under the CBRE program, commercial and residential participants will contract directly with KHLS and receive a credit on their monthly electric bill based on the output of the CBRE solar project and their level of participation.

KHLS obtained a conditional use permit ("CUP") on July 7, 2021 from the Hawaii Community Development Authority ("HCDA") for the project. *See* Ex. L. KHLS is now seeking a development permit and design standard variances in order to construct the project. The variance application is submitted separately.

# 2 – LAND USE AND ZONING

The KHLS project is located within the urban district, under state land use designations. Pursuant to HAR §15-15-24, lands within the urban district allow for any all uses that are permitted by the counties, either by ordinances or rules and other conditions. Formerly part of the Barbers Point Naval Air Station, the project land was previously zoned F-1. HCDA acquired 2,165 acres of Kalaeloa in 2002, and in 2006 published its master plan for the area. The subject property is identified as lot 2J and designated for Eco-Industrial use in the Kalaeloa Master Plan ("KMP"). *See* Ex. A, Fig. 1. With the passage of the Kalaeloa Community Development District Rules ("Kalaeloa Rules") in 2012, these zoning designations were replaced by transect zone designations. *See* Ex. A, Fig. 2; *see also* Hawaii Administrative Rules ("HAR") § 15-215, Fig. 1.2. The KHLS project will be located on land designated T-3 transect zone, General Urban Zone. *See* Ex. A, Fig. 3.

# **3 – PROJECT DESCRIPTION**

To construct this project, KHLS leased 29.84 acres of land in Kalaeloa, Oahu, owned by DHHL (TMK # (1) 9-1-013:029) (Latitude (N) 21° 18' 46" Longitude (W) 158° 05' 07"). *See* Ex. A, Figs. 4, 5. The property is located immediately west of the crosswind runway, Runway 11-29 at John Rogers Field ("JRF"). Runway 11-29 is utilized primarily during the periods when trade winds are not present. The property is bordered by the perimeter fence of the airport on its eastern side; Western Perimeter Road on its west side; an existing solar generating facility on its northern boundary; and Lake Champlain Street, which is owned by the U.S. Navy, on its southern side. *See* Ex. A, Figs. 4 and 7. Nearby properties include Campbell Industrial Park is located just west of the property, the JRF and other airport operations center and hangars, industrial warehousing, and two other solar PV generation projects. Other uses in the area are primarily made up of industrial uses including warehousing, manufacturing, and trucking baseyards.

The purpose of the proposed project is to provide renewable solar electric power to Oahu's power grid, or directly to end users. At full development, the parcel will site a utility scale solar farm with a solar PV system size of up to 9 MW dc generating clean, renewable energy. The energy generated would reduce Oahu's dependence on fossil-fuel for power generation by providing electricity to power approximately 3,000 homes. This would result in the offset of more than 400,000 tons of emissions over 30 years and eliminate the need for more than 32,000 barrels of oil per year<sup>1</sup>. The proposed action would assist the state in reaching its goal of providing 100% renewable energy by 2045.

The PV system will be a series of ground supported flat panels accompanied by control/cabinet enclosures and transformers. Solar panels will be mounted on tracking mechanisms which allow the panels to follow the sun to maximize power output. All-weather gravel maintenance roads will be constructed around the site perimeter and between rows of solar panels. Each panel is approximately 39 inches wide and 66 inches long, dark in color, and stand between six and eight feet above ground level. The maximum height varies throughout the day as panels move to maintain the best sun angle. Tracker-mounted panels, similar to the panels that will be installed at KHLS, are shown in Ex. A, Fig. 6.

The facility will be unmanned except for periodic maintenance activities such as mowing, landscaping or panel cleaning. Electrical maintenance will be conducted as needed as well. No employee housing or other habitable structures will be constructed on the site. The installation emits little noise, and no dust or odors during operation. Electrical power is produced during daylight hours; however, the hours of operation in the traditional sense cannot be determined without instrumentation.

<sup>&</sup>lt;sup>1</sup> US EPA <u>https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator</u>

Alternating current ("AC") electric power will be transmitted by above-ground power lines to an existing power corridor that is located 175 feet southwest of the parcel. Transmission will require an easement across the western perimeter drainage structure and addition of a single power pole at the southwest corner of the parcel. Details on transmission and connectivity are subject to approval following completion of Hawaiian Electric's ongoing interconnection study.

KHLS will be developed in multiple phases. Phase I is currently approved by Hawaiian Electric and will consist of 5,440 solar panels on ground-mounted tracking stands, producing approximately 1.725 MW of electricity. It will be developed along the south side of the parcel and cover 7 of the 29.84 acres. *See* Figure 7, 8 and 9. Timing for the remaining phases is contingent upon Hawaiian Electric's timeline and demand for the CBRE program in the project area.

KHLS obtained its CUP from HCDA on July 7, 2021, prior to submitting this application. *See* Ex. L. KHLS is required to obtain a development permit as the proposed project is built on a 29.84-acre property, in excess of the 40,000 s.f. threshold size for development projects. *See* HAR §§ 15-215-8, -78. KHLS is also seeking a variance from three T-3 zone design standards for the project as follows:

- 1. HAR §15-215-43c, Architectural Standards: Increase the height of the fence along the Western Perimeter Road (Saratoga Street) from three feet to six feet;
- 2. HAR § 15-215-44, Landscape: Eliminate the requirements for internal landscaping and permanent automatic irrigation within the required front yard area; and
- 3. HAR §15-215-46c. Open Space: Allow less than 20% open space at full development.

### **4 - COMPLIANCE WITH APPLICABLE RULES**

Pursuant to HAR § 15-215-78(e), the approval of a development permit shall require each of the following findings of fact:

- (1) KMP consistency. That the proposal complies with and advances the goals, policies and objectives of the KMP;
- (2) Kalaeloa Community Design District (KCDD) rules compliance. That the proposed project complies with the Kalaeloa CDD Rules; and
- (3) Compatibility. That the proposal will not have a substantial adverse effect on surrounding land uses and will be compatible with the existing and planned land use character of the surrounding area.

Under Hawaii Revised Statutes ("HRS") § 206E-5.6, the authority shall not approve a development project unless the proposed project is "reasonable and consistent with the development rules and policies of the relevant development district.

As outlined in this section below, KHLS project complies with each of the requirements of HAR § 15-215-78(e) and HRS § 206E-5.6. KHLS has completed all required studies and is in compliance with all other applicable rules.

#### 4.1 General Land Use Compatibility

KHLS is compatible with the existing and planned land use character of the surrounding properties. The KHLS project sits on a remnant parcel of approximately 29.84 acres near the end of the crosswind Runway 11-29 at JRF, at Kalaeloa Airport. The KHLS project is located within the urban district which allows all uses that are permitted by the counties, subject to conditions set forth by the Land Use Commission. HAR § 15-15-24. However, because the property is within the jurisdiction of the HCDA, the land uses are governed by the transect zones of which the property is zoned T-3 General Urban Zone. Solar farms are permitted in the urban district and in T-3 zones with a CUP. HAR § 15-215, Fig. 1.7. KHLS obtained a CUP for this project on July 7, 2021. *See* Ex. L.

The KHLS project is compatible because it is one of the only uses allowed on the property. Although the airport is used infrequently, the potential land uses near public airfields is severely restricted by FAA regulations, contained in 14 C.F.R. Part 77, and other regulations. See Section 4.6 *infra* for further discussion. Importantly, no buildings or habitable structures are permitted on the subject property due to the height restrictions, approach angle for the airport and distance from the end of the runway<sup>2</sup>. There are also restrictions on the amount of time that personnel may be present on the property. Conversely, PV generation has been approved near runways as the solar panels are a passive activity requiring little human presence and the panels form a suitable "soft" crumple zone if an aircraft would run through the perimeter fence or land short of the runway. The existing infrastructure is adequate to support the planned development. *See* Ex. N.

In addition, the property is at the boundary of Campbell Industrial Park with surrounding land uses that include airport operations, industrial warehousing, and solar PV generation. Specifically, to the north there are two PV projects currently in operation. Because there is no other viable use for the property and PV generation has been approved in nearby surrounding areas, the KHLS project is reasonable, compatible with the character and land uses for nearby properties and is consistent with the rules and policies of the development district.

<sup>&</sup>lt;sup>2</sup> Land Use Compatibility and Airports

https://www.faa.gov/about/office\_org/headquarters\_offices/apl/noise\_emissions/planning\_toolkit/media/iii.b.pdf

#### 4.2 Consistency with the Kalaeloa Master Plan

KHLS will meet the visionary goals of the KMP by supporting the State's renewable energy goals and providing plan-compatible uses near the airport restricted area. Section 3.2.2 states that Kalaeloa lands "offer the potential for alternative energy development or industries aimed at reducing Hawaii's dependence on fossil fuels" and industries such as solar "may have development potential in Kalaeloa." KMP at § 3.2.2. In addition, the KMP encourages eco-industrial uses, which include "environmentally compatible industries that benefit the entire population of Oahu" and the KMP specifically notes that solar energy generation is "compatible in these parcels." *See* KMP at § 4.1.4.

KHLS property is designated for eco-industrial land use under the KMP. The project will power nearly 3,000 homes at full buildout and supplant approximately 400,000 barrels of oil during its projected lifespan, significantly reducing dependance on fossil fuel energy for Kalaeloa and nearby residents. KHLS will also allow subscribers to access solar energy through the CBRE program, which in many cases would not have access to renewable resources. It is anticipated that most of the subscriptions will be provided to DHHL beneficiaries. In addition, the project is consistent with the eco-industrial land uses in the KMP, utilizing the development potential for alternative energy. The renewable energy generation and commitment to providing resources to the community helps to further the Hawaii's renewable energy goals and reduce dependence on fossil fuels. Accordingly, this project is consistent with the goals and requirements of the KMP.

#### 4.3 Compliance with the Kalaeloa Rules

KHLS will conform to all applicable community development district rules and standards after construction of the Project. **Table 1, Conformance to Kalaeloa Rules (HAR §15-215)** presents proposed measures to comply with each of the applicable rules as specified in HAR § 15-215-78(e).

Per the requirements of HAR § 15-215-78(e) (3), the KHLSproject will not have an adverse effect on surrounding land use. The lot location of the project and the adjacent parcels are designated transect zone T3 General Urban Zone, which allows for solar projects when a CUP is obtained. *See* HAR §15-215, Fig. 1.7. KHLS obtained its CUP on July 7, 2021, thus land use for a solar project has been approved for the property. As the nearby properties include airport operations, industrial warehouses, PV generation facilities, an additional solar farm undoubtedly conforms to the existing and planned land use character of the surrounding area. Here, the KHLS project is compatible with, and required by, the administrative rules.

#### 4.4 Compliance with HRS § 206E

**Table 2, Compliance with HRS § 206E** summarizes the project's compliance with the specific sections of the HRS. Refer to the attached construction plans, and attachments, as well as **Table 2** for more details regarding the proposed improvements in relation to the HRS. Based on this compliance table, the proposed project is reasonable and consistent with the rules and policies of the Kalaeloa District and will be in complete compliance with applicable provisions of HRS §206E-5.6(j).

#### 4.5 Archaeological Resources

Adhering to the historical and cultural requirements mandated by the State Historic Preservation Division ("SHPD") is a prerequisite to an application under the Kalaeloa Rules. ASM Affiliates completed an *Archaeological Field Inspection of TMK: (1) 9-1-013:029, Honouliuli Ahupua 'a, 'Ewa, Island of O 'ahu*, for the project. Archival documents, records, and maps indicate that the parcel was historically used as an extension of the adjacent Naval Air Station runway and that numerous archaeological studies have been conducted in the Barbers Point vicinity. This led to a determination that there are no archaeological resources known to exist on the parcel. ASM also conducted a physical inspection of the study parcel, the boundaries of which were clearly identifiable in the field. The inspection revealed that the entire parcel had been graded significantly in the past and that no archaeological resources were observed; given the extensive grading no such resources are expected to remain intact if any were ever present.

Based on their archival research, the documented extensive land alteration, and a physical inspection of the property, it was concluded that there are no archaeological resources within the subject parcel that would present any significant development constraints.

ASM assisted DHHL in preparing a letter to SHPD indicating the results of the study, pursuant to HAR § 15-215-63(b), and requesting a determination of "No Effect" on March 6, 2019, with a supplemental request submitted on January 9, 2020. *See* Exs. F, G. That request was approved by SHPD on May 14, 2020. A copy of the SHPD Concurrence Letter is included as Ex. G.

#### 4.6 Federal Aviation Administration Rules

Based on the location of the KHLS project at the end of the JRF crosswind runways, Arion is required to obtain approval from the Federal Aviation Administration ("FAA"). *See* 14 C.F.R. Part 77. The FAA requires project developers to submit a FAA Form 7460-1, Notice of Proposed Construction or Alteration. Based on this information an Obstruction Evaluation / Airport Airspace Analysis ("OE/AAA") is performed to ensure that the proposed activity does not penetrate imaginary surfaces around an airport, cause interference with communications

systems, or create glint and glare. The three primary aspects of the OE/AAA are discussed below:

#### 1. Airspace Penetration

The standards for determining obstructions in navigable airspace are set forth in 14 C.F.R. Part 77. Imaginary surfaces are defined that extend out from the runway at locations where aircraft are likely to fly. This imaginary surface is called the runway protection zone ("RPZ"). The height above ground of the RPZ is lowest and narrowest near the runway increasing in width and altitude with distance from the runway. The imaginary surface is different for different types of airports. Kalaeloa Airport does not now have instrument landing capacity, thus the angle of the RPZ is 50:1 (H/V). Ex. A, Fig. 10 shows the components of restricted surfaces, Ex. A, Fig. 11 shows the slope position of the RPZ and Ex. A, Fig. 12 shows the approximate location of the RPZ with respect to the project site. The maximum elevation for any structure at the eastern boundary of the project site is 22 feet, and 40 feet on the western boundary. The maximum elevation of the photovoltaic installation will be 10 feet, which is the same height as the airport perimeter fence. The electrical pole at the southwestern corner will be 32 feet above ground level at its maximum. The FAA has concurred that the construction will not create an obstruction to aircraft operations at the Kalaeloa Airport. See FAA Determination Letter dated October 14, 2020 attached as Ex. H.

#### 2. <u>Communications Systems Interference</u>

Communications interference includes negative impacts on radar, navigational aids and infrared instruments. Radar interference occurs when objects are placed too close to radar antennae and reflect or block the transmission of signals between the transmitter and receiver such as an aircraft. It is possible for interference to be caused by other communications signals, but more commonly it is caused by a physical structure placed between the transmitter and receiver. Navigational aids ("NAVAIDS") are passive systems with no transmitted signal. These can be impacted by objects within the line of sight between aircraft and the NAVAID. Infrared ("IR") communications systems can be impacted by objects that retain heat after dark creating false signals in the IR communications systems<sup>3</sup>. The proposed project will not emit radar or radio signals and there will be no line-or-site interference.

#### 3. Glint and Glare

Glint and glare are components of reflectivity, or light reflected off surfaces which can cause temporary visual interference even after the source of illumination has ceased.

<sup>&</sup>lt;sup>3</sup> https://www.faa.gov/airports/environmental/policy\_guidance/media/FAA-Airport-Solar-Guide-2018.pdf

Glint is defined as an instantaneous flash and glare is a steadier reflection.

The amount of reflectivity varies greatly among solar technologies with concentrated solar power ("CSP") technologies being highly reflective and PV technologies being primarily absorptive rather than reflective. *See* Ex. A, Fig. 13. Because solar projects will introduce new visible, potentially reflective surfaces in proximity to the airport, the siting and design of these facilities require assessment and approval by the FAA. Existing conditions surrounding most airports include a number of reflective surfaces. Near the Kalaeloa Airport there are large metal warehouses with reflective roofs, and the Pacific Ocean in close proximity to the runways. The property is near 21 degrees north latitude, which implies that the sun is normally to the south of the site. Panels would be expected to have a slight angle facing south and will track the movement of the sun as it moves from southeast to southwest.

Solar installations are presently operating at several airports. Project managers and air traffic controllers from six airports where solar facilities had been operating for one to three years were contacted regarding complaints about reflectivity. To date there have been no serious complaints from air traffic controllers or pilots due to glare impacts from existing airport solar PV installations. Anecdotal evidence suggests that either significant glare is not occurring during times of operation or if glare is occurring it is a minor part of the landscape to which pilots and tower personnel are exposed<sup>3</sup>.

KHLS' predecessor commissioned a glint and glare study for the proposed development in 2011. *See* Ex. K. Although it was determined there is some risk of eventual glare, it concluded that glint from PV modules **will not have any relevant effect on airplanes' visibility, nor deteriorate the actual approaching flight conditions.** 

In January 2011, KHLS submitted its Form 7460-1 to the FAA, which was approved. An extension to the permit was granted on October 14, 2020, authorizing the proposed construction to proceed at the latest by April 14, 2022. *See* Ex. H. The approval will expire if construction has not begun before that date. Based on this **the FAA has approved KHLS to proceed with constructions**.

#### 4.7 Public Consultation

Public consultations were completed in advance of the Final Environmental Assessment ("FEA") for the project, which was published in the Environmental Notice on August 12, 2012. *See* Ex. K. A listing of the the consultation made in advance of the FEA is included in Table 3 as well. Presentations were made to the General Aviation Council of Hawaii on June 10, 2011 and to the Kalaeloa Stakeholders meeting on June 10, 2021. *See* Exs. I, J. KHLS will present to the Makakilo/Kapolei/Honokai Hale Neighborhood Board No. 34 at the next available meeting.

## **5 – CONCLUSION**

Based on the foregoing application, the KHLS project meets the requirements of HAR § 15-215-78(e). The project complies with and advances the goals of the KMP, is in complete compliance with the Kalaeloa Rules, will not have a substantial adverse effect on surrounding land uses and will be compatible with the land use of surrounding areas. The project is also reasonable, and consistent with the rules and policies of the Kalaeloa development district. Finally, KHLS has completed all required studies and is in compliance with all other applicable rules. *See* Tables 1 and 2; *see also* Ex. C. Accordingly, Arion respectfully requests HCDA grant a development permit for the KHLS project.

## **6 – COMPLIANCE TABLES**

TABLE 1: Conformance to Kalaeloa Rules (HAR §15-215)				
CATEGORY	KALAELOA RULES (HAR §15-215)	REQUIREMENTS (Allowable)	PROPOSED	COMMENTS
TRANSECT ZONE	<ul><li>§ 15-215-23(b)(3)</li><li>Figure 1.2</li><li>Figure 1.3</li></ul>	Transect Zone: T-3 General Urban Zone	Solar farm	A solar farm is permitted in Transect T-3 following approval of a Conditional Use Permit ("CUP"). KHLS received approval of the CUP on July 7, 2021.
SITE AREA				30 acres; see Figure 5, supra
PROJECT TYPE	§ 15-215-78	Development permit and CUP	Solar farm	Land areas over 40,000 sf require a development permit
THOROUGHFARES	§ 15-215-24	Thoroughfares shall have street trees planted along their lengths within the public frontage area. See Figure 1.5.	No thoroughfares constructed; no trees permitted in runway path	Not applicable
BUILDING TYPE	§ 15-215-38	Allowable building types in the T3 General Urban Zone include Front Yard House; Side Yard House; Townhouse; Duplex, Triplex, Quadplex; Flex-loft; Industrial; Courtyard; Urban Block, etc. See Figure 1.6	No buildings are proposed	Not applicable

TABLE 1: Conformance to Kalaeloa Rules (HAR §15-215)				
CATEGORY	KALAELOA RULES (HAR §15-215)	REQUIREMENTS (Allowable)	PROPOSED	COMMENTS
FRONTAGE TYPE	§ 15-215-39	Permissible Frontage Types for the T3 General Urban Zone include Common Yard, Porch & Fence, Terrace or Lightwell, Forecourt, Stoop, Shopfront, Gallery, and Arcade	No buildings are proposed	Not applicable
SETBACK	§ 15-215 Figure 1.3	Figure 1.3.C Setback T3 Setback: Front Yard = 5'-15' Side Yard = 0' Front Yard = 0'	Fence line Setback 5' from north and west Perimeter Road	Perimeter Roads are: North: Future Extension of Honua St. West: Western Perimeter Road South: no setback Lake Champlain Road East: no setback from Airport perimeter fence
LAND USE	§ 15-215-40	Mixed use with commercial emphasis. See Figure 1.7	Solar Farm	A solar farm is permitted in Transect T-3 with a CUP. FAA land use restrictions prevent other mixed use, residential or commercial development.
BUILDING PLACEMENT	§ 15-215-41 Figure 1.8	Building placement and encroachment defined in Figure 1.8	No buildings will be constructed	Not applicable
BUILDING FORM	§ 15-215-42	Figure 1.3- Development standards	No buildings will be constructed. No structures over 10 feet above ground level	Not applicable
ARCHITECTURAL STANDARDS	§ 15-215-43 Figure 1.3	Frontage Type, Building Type, Building Form	No buildings will be constructed	A variance will be requested to permit a 6-foot occluded chain-link fence facing the thoroughfare.

CATEGORY	KALAELOA RULES (HAR §15-215)	REQUIREMENTS (Allowable)	PROPOSED	COMMENTS
LANDSCAPE	§ 15-215-44	<ul> <li>(Anowable)</li> <li>Standards for landscaping for T3 zone,</li> <li>(1) All required yards shall be landscaped;</li> <li>(2) New plantings shall be selected from Figure</li> <li>1.10 (preferred plant species)</li> <li>(4) Landscaping shall have an automatic irrigation system</li> <li>with a rain or moisture sensor,</li> </ul>	No interior landscaping. approved landscape plants only along Western Perimeter Road. Temporary irrigation system	Variance will be requested from permanent irrigation requirement.
RECREATION SPACE	§ 15-215-45	25 SF of recreation per 1000 of industrial.	No industrial development	Not applicable
OPEN SPACE	§ 15-215-46	20% of each lot	90% lot coverage at full development	Variance from open space requirements is requested for full development
PARKING	§ 15-215-47	One (1) off-street stall per 450 SF of floor area	No buildings will be constructed; site will be occupied only infrequently	Not applicable
LOADING	§ 15-215-47(1)	Loading spaces are required from 5,000 SF of floor area.	No buildings will be constructed	Not applicable
BICYCLE PARKING	§ 15-215-47(m)	Within 400 feet of building entrance.	No buildings will be constructed	Not applicable

TABLE 1: Conformance to Kalaeloa Rules (HAR §15-215)				
CATEGORY	KALAELOA RULES (HAR §15-215)	REQUIREMENTS (Allowable)	PROPOSED	COMMENTS
GREEN BUILDING	§ 15-215-48	Green Building (applicable to new buildings and additions and renovations of existing buildings that increase existing floor area by 25% or more) Project qualification based on green building rating system.	No buildings will be constructed	Not applicable
LARGE LOT DEVELOPMENT	§ 15-215-62	Design standards for large lots	No buildings will be constructed.	Not applicable
HISTORIC AND CULTURAL SITES	§ 15-215-63	Developer shall obtain a letter from SHPD which confirms that the developer has complied with all requirements.	No Effect Recommendations have been accepted by SHPD	Project is in compliance with §15-215-63
DEDICATION OF PUBLIC FACILITIES	§15-215-64(a),	Public Facilities Dedication (applicable to projects where existing floor area is increased by more than 25%) The developer shall dedicate land for public purposes	There will be no publicly accessible space	Not applicable
Joint Zone Development	§15-215-64	Land use requirements	Entire project located within T-3 transect zone	Not applicable

TABLE 2: Compliance with HRS § 206E			
STATUTORY REFERENCE	CONSIDERATION	COMMENTS	
§ 206E-5.6(j)(1)(A)	Advance District Goals and policies	KMP Core values include: Support the multiplicity of uses at Kalaeloa and encourage the achievement of excellence in many fields of endeavor, including: education, research, technology, environment, defense, commerce, sports, culture and the arts. KMP designated the subject parcel Eco-industrial: <i>environmentally compatible industries that benefit the entire population of Oahu. Potential industries such as solar or hybrid energy generation</i>	
§ 206E-5.6(j)(1)(B)	Protects, preserves, or enhances desirable neighborhood characteristics through compliance with the standards and guidelines of the applicable district rules	Project complies with KCDD Rules for T-3 transect by obtaining a Conditional Use Permit and compliance with most applicable district design guidelines. Existing land use in the area is primarily eco-industrial.	
§ 206E-5.6(j)(1)(C)	Compatibility with the existing and planned land use character of the surrounding area	Project is located at the end of an active runway. Land-use in the area are restricted by aviation safety rules. Proposed use is consistent with other solar farms are located nearby.	
§ 206E-5.6(j)(1)(D)	Provides housing opportunities for all income groups, particularly low, moderate, and other qualified income groups	CBRE provides opportunities for DHHL beneficiaries and others to participate in renewable energy without up-front investment. New solicitations are aimed at Low and Moderate income groups.	
§ 206E-5.6(j)(2)(A)	Supports Pedestrian Oriented development	Not applicable	
§ 206E-5.6(j)(2)(B)	Supports Transient Oriented development	Not applicable	
§ 206E-5.6(j)(2)(C)	Supports community amenities	Supports renewable energy goals with electric discounts to subscribers	
§ 206E-5.6(j)(3)(A)	Supports habitat preservation	Not applicable. Previously disturbed habitat at the end of an active runway where habitat is minimized for the safety of aircraft	
§ 206E-5.6(j)(3)(B)	Maintains cultural, historical, or natural resources	None identified	

TABLE 2: Compliance with HRS § 206E			
STATUTORY REFERENCE	CONSIDERATION	COMMENTS	
§ 206E-5.6(j)(3)(C)	Supports resources relevant to the State's economy	Renewable energy goals are relevant to the State's economy and energy mandates	
§ 206E-5.6(j)(3)(D)	Commitment of state funds and resources	No state funds will be utilized. State land assigned to DHHL will be committed for over 20 years. The proposed project will generate a significant revenue stream for the Agency and its beneficiaries on property that will quite likely not be utilized for any other purpose due to its location.	
§ 206E-5.6(j)(3)(E)	Employment and economic development	Supports economic development in the construction sector, and by allowing apartment dwellers the opportunity to advance renewable energy without large capital investment, their own rooftop or commitment of land. Subscribers will enjoy lower utility costs.	
§ 206E-5.6(j)(3)(F)	Maintenance of educational programs	Provides an example of private enterprise supporting renewable energy goals. Outreach provides educational materials on alternative energy to subscribers.	

TABLE 3: Agency and Public Consultation		
Name/agency	Address	
Cameron Black	PO Box 2359	
Hawaii-DBEDT	Honolulu, Hawaii 96804	
Strategic Industries Division		
Department of Land and Natural Resources	Kakuhihewa Building,	
State Historic Preservation Division	601 Kamokila Blvd., Suite 555,	
	Kapolei, Hawai'i, 96707	
Honolulu International Airport	300 Rodgers Boulevard	
Oahu District Manager	Honolulu, HI 96819	
	(808) 836-6411	
Hawaii-DOT	400 Rodgers Boulevard, Suite 700	
Airports Division	Honolulu, HI 96819-1880	
Hawaii-DOT	400 Rogers Blvd, Suite 700	
Airports Division, Engineering Branch	Honolulu, HI 96819-1880	
US Coast Guard	1 Coral Sea Road	
Air Station Barbers Point	Kapolei, HI 96707	
Daniel Oshiro, NEPA Coordinator	3949 Diamond Head Road Rm. 112	
Hawaii National Guard	Honolulu, HI 96816	
Environmental Office		
Honolulu Community College	Kalaeloa Airport Hangar 111	
Commercial Aviation Program	91-1259 Midway Rd.	
	Kapolei, HI 96707	
HCDA	Kapolei Building	
Kalaeloa Field Office	1001 Kamokila Blvd, Suite 167	
	Kapolei, HI 96707	
Robert Mills	650 S. King St.	
Honolulu-DPP	Honolulu, HI 96823	
Mr. Paul "Kaipo" Pomaikai, Sr., President	91-1335 Kinoiki Street	
Kanehili Homestead Association	Kapolei, HI 96707	
Ms. Shirley Swinney, President	91-216 Koanimakani Place	
Kapolei Community Development Corporation	Kapolei, HI 96707	
Ms. Michelle Kauhane, President	91-1036 Kahanalei Street	
Kaupe'a Homestead Association	Kapolei, HI 96707	

TABLE 3: Agency and Public Consultation			
Name/agency	Address		
Ms. R. Homelani Schaedel, President	91-1016 Koanimakani Place		
Malu'ohai Residents Association	Kapolei, HI 96707		
Mr. Brian Daniels	3031 Manoa Road		
	Honolulu, Hawaii 96822		
Mr. Rob Moore, Chief Flight Instructor (3)	91-1259 Midway Road, Hanger 111		
Gavin Flight Services Hawaii	Kapolei, Hawaii 96707		
Mr. Robert Van Wagoner	PO Box 837		
	Haiku, HI 96708		
Colin K. Perry	91-215 Ewa Beach Rd.		
	Ewa Beach, HI 96706		
Mr. Henry Greene			
Mr. Bill Plum			

#### **Exhibits**

- A. Application Figures and Diagrams
- **B.** Project Construction Drawings (bound separately)
- C. Development Permit Submittal Requirements
- D. Permitting and Construction Schedule
- E. Landowner Authorization
- F. HCDA Request Letter to SHPD
- G. SHPD Concurrence Letter
- H. FAA Determination Letter
- I. Kalaeloa Stakeholders' Meeting Agenda
- J. GAC Support Letter
- K. Final FEA
- L. Conditional Use Permit signed
- M. ALTA Survey
- N. Arion Energy Statement of Infrastructure