

EXHIBIT "1"

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AES LAWA'I SOLAR, LLC,
a Delaware limited liability company

BEFORE THE PLANNING COMMISSION
OF THE
COUNTY OF KAUAI

In The Matter Of The Application) USE PERMIT NO. U-2018-1
) CLASS IV ZONING PERMIT
Of) NO. Z-IV-2018-1
) SPECIAL PERMIT NO. SP-2018-2
AES LAWA'I SOLAR, LLC, a Delaware)
limited liability company, for a Use Permit, a)
Class IV Zoning Permit, and a Special Permit)
for real property situated at Kōloa and Lāwa'i,) APPLICATION; EXHIBITS "A" – "F"
Kona, Kaua'i, Hawai'i, identified by Kaua'i)
Tax Map Key No. (4) 2-6-003:001 (por.).)
) (LĀWA'I SOLAR PROJECT)
)
_____)

USE PERMIT; CLASS IV ZONING PERMIT; AND SPECIAL PERMIT
(LAWA'I SOLAR PROJECT)

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APPLICATION

Comes now, AES LAWAI SOLAR, LLC, a Delaware limited liability company, the Applicant in the above-captioned proceedings, by and through its undersigned attorney, and hereby submits the following Application:

SUMMARY

The Applicant is AES Lawa'i Solar, LLC, a Delaware limited liability company. The Applicant is an affiliate of AES Distributed Energy, Inc., which is a subsidiary of The AES Corporation. The AES Corporation has a long history in the development and operation of solar powered electric production facilities. The Applicant proposes to construct and operate a solar energy facility on the Subject Property (the "Solar Project"), which is an approximately 196.33 acre portion of a 1,062.291 acre Master Lot located in Kōloa and Lāwa'i, Kona, Kaua'i, Hawai'i. The Master Lot is owned by McBryde Sugar Company, LLC which has granted the Applicant easements to operate the Solar Project on the Subject Property.

AES proposes to sell the electric power generated by the Solar Project to the Kauai Island Utility Cooperative ("KIUC"). KIUC is in the process of developing a substation ("KIUC Substation") on an approximately 2.5 acre portion of the Master Lot adjacent to the Subject Property. The KIUC Substation will collect the energy produced by the Solar Project and connect it into KIUC's island wide electric grid. The Solar Project will produce approximately 28 Mega Watts (MW) DC (Direct Current)/20 MW AC (Alternating Current) of electrical power. The Applicant and KIUC have entered into a twenty-five (25) year Power Purchase Agreement whereby KIUC will purchase the electrical power generated by the Solar Project from the Applicant. The system is unique in that it will feed the electrical power

into a Battery Energy Storage System ("BESS") which will discharge the stored power into the KIUC grid during non-daylight, peak hours.

SECTION 1. APPLICANT/SUBJECT PROPERTY/OWNER.

1.1 Applicant. The Applicant is AES Lawa'i Solar, LLC, a Delaware limited liability company. The Applicant has authorized Max W. J. Graham, Jr., Michael J. Belles, and Ian K. Jung of Belles Graham Proudfoot Wilson & Chun, LLP to file this Application pursuant to the Applicant's Authorization attached hereto as Exhibit "A". AES is an affiliate of AES Distributed Energy, Inc. which is a wholly owned subsidiary of the The AES Corporation. The AES Corporation has a long history in the development and operation of solar powered electric facilities, battery energy storage systems and other renewable and conventional power generation facilities. AES Corporation is a Fortune 200 global power company with over 37,000 MW of generating capacity, seven utility companies, and 19,000 employees in 17 countries.

1.2 Subject Property. McBryde Sugar Company, LLC ("McBryde") owns a 1,062.291 acre lot located in Kōloa and Lāwā'i, Kona, Kaua'i, Hawai'i, identified by Kauai Tax Map Key No. (4) 2-6-003:001 ("Master Lot"). The Applicant proposes to develop a Solar Project within the Master Lot consisting of: a photo-voltaic solar energy facility on an approximately 196.33 acre portion of the Master Lot; two (2) construction staging areas; and access roads. McBryde has agreed to grant the Applicant an easement ("Solar Project Easement") to use: the 196.33 acre portion of the Master Lot to operate the solar facility; the roads within the Master Lot for access purposes; and the two (2) staging areas during the construction of the Solar Project. The area subject to the Solar Project will be referred to as the "Subject Property". McBryde has authorized Applicant to file this Application pursuant to the Owner's Authorization attached hereto as Exhibit "B".

SECTION 2. LOCATION AND LAND USE DESIGNATIONS OF PROPERTY.

2.1 Location. The Subject Property is located in Kōloa and Lāwā'i, Kona, Kaua'i, Hawai'i, as shown on the Location Map attached hereto as Exhibit "C-1", on the Tax Maps attached hereto as Exhibits "C-2" and "C-3", and on the Aerial Photograph attached hereto as Exhibit "F-1". The Subject Property is located in the ahupua'a of Lāwā'i and in the ahupua'a of Kōloa, as shown on the Ahupua'a Boundary Map attached as Exhibit "C-4".

2.2 Land Use Designations. The respective State Land Use Commission ("SLUC"), Kaua'i General Plan, County of Kauai Comprehensive Zoning Ordinance ("CZO"), and other relevant land use designations for the Subject Property are as follows:

a. SLUC. As shown on the Land Use District Boundary map attached as Exhibit "C-5", the Subject Property is located in the SLUC Agricultural District. The Subject Property has been located in the SLUC Agricultural District since the inception of the SLUC Districts.

b. Kaua'i General Plan. As shown on the General Plan Map attached as Exhibit "C-7", the Subject Property is located in the Kaua'i General Plan Agriculture Land Use Designation. The Subject Property has been consistently located in an Agriculture designation or classification under prior General Plans.

c. CZO. As shown on the Zoning Map attached as Exhibit "C-5", the Subject Property is located in the CZO Agriculture District and in the CZO Open District. The Subject Property has been located in the CZO Agriculture District and in the CZO Open District since the adoption of the CZO.

d. Development Plan Area. The Subject Property is located within the Koloa-Poipu-Kalaheo Development Plan Area. The Subject Property has been located

within the Koloa-Poipu-Kalaheo Development Plan Area since the original adoption of the original Koloa-Poipu-Kalaheo Development Plan (Ordinance No. 254, June 16, 1975).

e. Special Management Area. None of the Subject Property is located within the Special Management Area ("SMA") of the County of Kauai.

f. Violations. There are no existing violations of any land use laws or regulations on the Subject Property.

g. Land Use Conditions. The Subject Property is not subject to any land use conditions.

h. Important Agricultural Lands. Because McBryde has designated other of its Kaua'i lands as Important Agricultural Lands ("IAL") pursuant to HRS Chapter 205 Part III, the Subject Property has not been, and will not be, designated as IAL.

SECTION 3. PAST, EXISTING AND PROPOSED USES OF SUBJECT PROPERTY.

3.1 Past and Existing Uses. The Subject Property has been used for agricultural purposes in the past, including sugar cane cultivation, and for cattle and livestock pasture purposes. The Subject Property has been used most recently for livestock pasture purposes.

3.2 Proposed Solar Project. The Applicant wishes to develop the Solar Project on the Subject Property described as follows:

a. The Solar Project will be located on the Subject Property as shown on the Solar Project Site Plan and Overall Site Plan attached hereto as Exhibit "E-1" and Exhibit "E-2". It will consist of an approximately 28 Mega Watt-Direct Current (MW-DC)/20 Mega Watt-Alternating Current (MW-AC) ground-mount solar photo-voltaic ("PV") system, coupled with a 20 MW-AC/100 Mega Watt hour (MWh) Battery Energy Storage

System (BESS), and related interconnection and ancillary facilities. The PV system will consist of solar panels mounted on single-axis trackers which will rotate along a fixed horizontal axis from east to west as the sun moves across the sky, increasing the efficiency of the system as opposed to a traditional fixed tilt system. The solar panels and mounting poles are shown on the standard Tracker Structural Elevations attached as Exhibit "E-3", the Solar Panel Photograph (Overhead) attached hereto as Exhibit "F-2", and the Solar Panel Photograph (Ground Level) attached hereto as Exhibit "F-3". The Solar Project will include solar panels which will produce direct current electricity. The output of the solar panels will be either directed to the BESS to be stored or to go directly into the power grid operated by KIUC. The output will go through an inverter which will convert the electricity from direct current to alternating current. The inverters will be connected to step-up transformers to convert the inverter output to medium voltage. All of the power generated by the Solar Project will be directed to a new substation ("Solar Project Substation") where a generator step-up transformer will convert the medium voltage to transmission voltage to interconnect with the adjacent KIUC Substation. The KIUC Substation will be constructed by KIUC at the same time as the Solar Project, and will be located on an approximately 2.5 acre portion of the Master Lot. The Solar Project Substation will be located immediately adjacent to the KIUC Substation and will be connected via an underground line.

b. Additional communication connections and equipment will be installed to interface with KIUC's supervisory control and data acquisition ("SCADA") system so that the energy generated by the Solar Project can be remotely controlled and dispatched by KIUC. The Solar Project will include an energy management system ("EMS") that will: allow all operations to be supervised and all system functions to be protected in response to real-time

dispatch signals from KIUC; and will report production data, energy forecasts, and other system health data.

c. The Solar Project site will be surrounded by seven (7) foot high chain link security fence. There will be a 25 foot buffer around the outside of the security fence and there will be access roads throughout the site which will allow for convenient access and navigation within the site to all major equipment. As shown on the Aisle Cross-Section attached hereto as Exhibit "E-4", the distance between the rows of solar panels will range from 18 feet (in the south section) to 25 feet (in the north section). The average height of the solar panels will be 7.5 feet above ground level. This will allow for easy access through the entire Solar Project site, even between rows of panels.

d. As more fully described in Section 4.2 a., the Northern Section of the Subject Property is separated from the Southern Section of the Subject Property by a valley containing three Reservoirs. The Northern Section and the Southern Section are connected by three dams (Northern Dam, Central Dam, Southern Dam). The Central Dam is used for vehicular access. Both the Northern Section and the Southern Section will be used for the placement of the arrays of solar panels ("Solar Arrays"). Although the solar facilities will be connected by underground lines elsewhere in the Solar Project, the physical conditions of the three Dams prohibits the installation of underground facilities. As a result, the Northern Solar Arrays will need to be connected to the Southern Solar Arrays by overhead lines spanning the valley. As discussed in the Endangered Species Recommendations for the Lawa'i Solar and Storage Project dated August 3, 2017, prepared by Reginald K. David, Rana Biological Consulting, attached as Exhibit "E-9" ("Endangered Species Report"), the most optimal place to install the overhead lines is across the Central Dam. The Applicant will follow this

recommendations, and will implement all of the mitigative measures contained in the Endangered Species Report.

3.3 General Dimensions. The chart below summarizes the Solar Project dimensions and overall ground disturbance associated with major permanent Solar Project features.

Approximate Solar Project Component Dimensions					
	Solar Panels	Solar Trackers	BESS Containers	Inverters	TOTAL
Height	N/A	7' 6" avg. 13' 6" max.	10' 2"	8'	
Width	3' 5"	14'	8'	5' 5"	
Length	6' 9"	148'	44' 4"	22' 6"	
Number of Units Installed	64,800 panels	720	32	8	
Total Surface Area	34 acres	34 acres	0.26 acre	<1 acre	35 acres
Total Ground Disturbance (new impervious surface)	-0- acre	<1 acre	1 acre (with foundations)	<1 acre (with foundations)	<2 acres

a. The proposed ground mounted solar PV system will be on a single axis tracking system which will tilt the panels along a horizontal axis to follow the sun as it moves across the sky from east to west. The average height of the system will be 7.5 feet off the ground at a stow position where the panels are flat. As they rotate, their highest point will reach 13.5 feet high. Given the panels will be approximately 7.5 feet off the ground, there will be room for people and grazing sheep to move under and around the system with ease. The trackers will integrate all wiring into a consolidated bus attached nearly the center structure tube, raising

all cables roughly 6.5-7 feet off the ground. The highest tilt angle will only occur for a brief time at dawn and at dusk.

Additionally, the rows of panels will be spaced from 18 to 25 feet apart, which is greater than a typical fixed tilt ground mount system. This will allow for people, sheep and vehicles to pass between rows with ease. The large distance between rows is required to ensure panels do not shade each other. It also serves a greater purpose of allowing infiltration of runoff water to the vegetation between the panels. The total amount of new impervious surface from the PV system will be very minimal (less than 1 acre).

b. The BESS Containers will be a 10.2 feet (122 inches) in height, 8 feet (96 inches) in width, and 44.3 feet (532 inches) in length. The BESS Containers will include the Lithium-Ion battery modules. In addition, each BESS Container will have several layers of protection to avoid failures and to contain hazards in the event of a failure. In this regard, each container will: house up to 32 racks of batteries with integrated monitoring and circuit protection; include a self-contained Heating Ventilation Air Cooling system (painted white and insulated to minimize cooling loads); and be equipped with its own fire detection and suppression system specifically designed for Lithium-Ion battery energy storage systems.

c. There will be thirty-two (32) BESS Containers (together with an associated inverter and transformer) distributed on eight (8) sites, or Power Conversion Stations (PCS) known as BESS Blocks throughout the Solar Project. Each BESS Block (PCS) will contain four (4) BESS Containers and will be located on a 150 foot by 46 foot concrete pad with 6,900 square feet of land coverage. The total land coverage for the eight (8) BESS Blocks (PCS) will be 55,200 square feet (1.27 acres). The BESS Blocks (PCS) are located as shown on the Overall Site Plan.

3.4 Construction. Project construction and commissioning is proposed to commence within thirty (30) days of final approval of all permits and is anticipated to be completed within fourteen (14) months thereafter.

a. Description of Construction Activities. The general sequence of construction will be to install: sediment and erosion control measures; posts; underground electrical conduit and wire; solar panel racking; panels; array wiring; battery storage array; and electrical equipment. The posts will be installed via hydraulic driver to a predetermined depth according to soil conditions. The posts are structural and will not generally require the addition of concrete footers for foundations. The solar racking will span the posts, and the panels will bolt to the racking to form the array. The terminus of each array will include an approximately two-foot wide and three-foot deep trench for the conduit providing underground electrical connection to the power inverters and BESS Containers. All wiring will be performed and inspected to National Electric Code and best industry practices. Trench excavation will be performed with a backhoe and trench backfilling will be done with the excavated, native soil, and compacted to design specifications in order to prevent sinking. Disturbed soil will be stabilized and seeded per sediment and erosion control plans and applicable state environmental guidelines. In addition to post drivers and backhoes as noted above, typical construction equipment will include all-terrain forklifts, skidsteer with fork attachments for unloading and dispersing material, and other equipment as necessary.

b. Land Coverage. The solar panels will be elevated on structural posts, minimizing new impervious area. The proposed development will add approximately two (2) acres of new impervious surface, which will consist of the solar panel mounting posts, transformer pads, BESS Blocks, inverters, transformers, and fence posts. Because of the small

amount of increase in impervious area, the storm water runoff characteristics will not be significantly altered.

3.5 Landscaping. Because of the existing vegetative screening on the Subject Property, the Solar Project will not be visible from Koloa Road or the neighborhood to the northwest of the Solar Project adjacent to Aka Road. The Applicant will preserve this existing vegetation to screen the Northern Staging Area (also referred to as the Lay Down Area) along Koloa Road (as described in Section 6.11) from the view of residents to the west. If it is necessary to mitigate visual impacts, new landscaping will be installed and maintained around the Solar Project as may be necessary to screen it when viewed from Aka Road or Koloa Road.

3.6 Site Grading. Due to the topography of the site, some earthwork will be required to reduce the slope in certain portions of the site and accommodate the solar panels. The tracking system being installed can tolerate up to a 10 degree slope of the land. The overall permanent disturbance to the site will be minimal given that the proposed solar panels are mounted on structural posts with a racking system. Some grading may also be required for interior service roads. The Applicant will obtain all necessary grading permits. As discussed in the Drainage Report attached hereto as Exhibit "E-6", all additional drainage resulting from construction and grading activities will be maintained on site.

3.7 Operation. After construction and commissioning, the system will operate with minimal servicing and maintenance.

a. Monitoring. Metering equipment will send performance and production data to continuously monitored servers. The Applicant's software will notify its Operations & Maintenance team if the system is underperforming. If necessary, a technician can be dispatched as required to address any issues. The Applicant will have dedicated employees

monitoring the Solar Project twenty-four (24) hours per day seven (7) days per week, including an operator on island.

b. Noise. During operation, the solar panels will be silent. The BESS Blocks, inverters and transformers are also very quiet, emitting less than fifty (50) a-weighted decibels (dBA) at three (3) meters (less than 10 feet), which is approximately the loudness of a conversation.

c. Lighting. Permanent lighting may be required for the Solar Project for site security. Any onsite lighting will be motion sensor-activated as well as angled downward and shielded to avoid excess light or glare beyond the Solar Project boundary. All lighting requirements will be met by using LED lights that meet the requirements of the International Dark-Sky Association.

3.8 Decommissioning. Following the anticipated twenty-five (25) to thirty-five (35) year life and operation of the Solar Project, the Applicant will remove all equipment including the solar panels, racking, footings, BESS Blocks, inverters, transformers, concrete pads, fences, and foundations to a depth of three feet below grade; cover up all pit holes, trenches or other borings or excavations; reseed the soil with appropriate grass seed if necessary; and will otherwise return the land to substantially the same condition as its original condition. The Applicant will provide proof of financial security to decommission the facility as required by the Solar Project Easement.

3.9 Purpose and Need.

a. Grid Stability. The proposed Solar Project will provide eleven percent (11%) of KIUC's total electric generation. One of its key benefits will be to improve electric grid stability by enabling KIUC to utilize stored solar energy from the BESS to be

dispatched at any time KIUC desires. This will help KIUC to meet its morning, afternoon, evening peak demand, along with other supporting ancillary services on the grid. KIUC intends to use approximately 72% of the output from the PV system to charge the BESS, such that KIUC will be able to dispatch the stored energy to: (1) provide energy as the sun sets and into the evening to offset KIUC's evening peak demand; (2) provide energy in the morning to offset KIUC's morning peak; and (3) respond to low-frequency events by supplying additional power automatically, all of which will help KIUC reduce its dependence on more expensive and inefficient conventional oil-fired units. It is anticipated the Solar Project will reduce KIUC's fossil fuel usage by over 3.7 million gallons annually.

b. Reduced Costs. The projected reduction in oil use will result in significant cost savings for KIUC and its members/customers. KIUC anticipates that once the Solar Project is placed into service, KIUC and its members/customers will use approximately 3,700,000 fewer barrels of oil annually. KIUC estimates that this would result in \$97 million (net present value) in total savings over the 25-year term of the PPA.

c. Green Energy. The Solar Project will also provide benefits to human health and environment through the use of an alternative "green" energy source that does not generate greenhouse gases and does not result in water contamination or other environmental impacts often associated with fossil fuel production. The amount of clean renewable green energy expected to be generated from the Solar Project per year is 51,226 Megawatt-hours (MWh). This is enough to power almost 3,800 homes. By EPA estimates, this would offset the emissions of over 85 million miles driven by the average passenger vehicle. The energy generated will also assist KIUC in achieving the State of Hawaii's Renewable Portfolio Standard (RPS), as set forth in Hawaii Revised Statutes §269-91 et seq. It will also be consistent with

KIUC's 2013-2025 Strategic Plan whose goals include: moving towards energy independence; decreasing reliance on foreign imported oil; and meeting at least 50% of KIUC's annual electricity sales with energy generated by renewable resources by the year 2023.

d. Public Benefits. The construction and maintenance of the system will benefit the public as a whole and support the local economy by: increasing tax revenues; providing jobs; and increasing the sale of local goods and services. It will also provide power to the KIUC electrical grid at less than the current cost of oil-fired power, which should help stabilize and even reduce electric rates to KIUC's members.

3.10 PPA. The Applicant and KIUC have entered into a Power Purchase Agreement. By its terms, KIUC will purchase the electrical power generated by the Solar Project over a twenty (25) year period. A description of KIUC's participation is contained in the KIUC Press Release (01/10/17) attached as Exhibit "E-7".

SECTION 4. DESCRIPTION OF SUBJECT PROPERTY AND IDENTIFICATION OF SURROUNDING LANDS.

4.1 Adjacent Property. The Master Lot is located adjacent to, or within 300 feet of, the properties identified on the Adjacent Property Index attached as Exhibit "D".

4.2 Natural Environment.

a. General Description. The Subject Property is composed of gently sloping lands (3% - 8%) in an area generally lying west of Koloa Town, east of Kalaheo Town, and south of Koloa Road. The Subject Property is located approximately 400 feet above sea level. The Subject Property is mostly flat and is currently used for local, small-scale cattle ranching. As a result, most of the Subject Property consists of open pastures. There is an existing network of roads within the Master Lot which provides access to the Subject Property

from Koloa Road and Aka Road, to the north, and from Lawai Road and Ala Kukuiula, to the south.

As shown on Exhibit "C-1", the northern (mauka) section of the Subject Property ("Northern Section") is separated from its southern (makai) section ("Southern Section") by a valley (which is not part of the Subject Property). Located within the valley are the Aepo Reservoir, the Aepoalua Reservoir and the Aepoekolu Reservoir. The Northern Section and the Southern Section are physically connected by: the dam that separates the Aepo Reservoir and the Aepoalua Reservoir ("Northern Dam"); the dam that separates the Aepoalua Reservoir from the Aepoekolu Reservoir ("Central Dam"); and the dam at the east end on the Aepoekolu Reservoir ("Southern Dam"). Access between the Northern Section and Southern Section is via a road located on the top of the Central Dam. In addition to the Aepo, Aepoalua and Aepoekolu Reservoirs, the following other reservoirs are located on the Master Lot in the vicinity of the Subject Property: Kaupale Reservoir (to the west); Kumano Reservoir (to the southwest); and Aepoeha Reservoir (to the southeast). These six reservoirs will be collectively referred to as the "Reservoirs".

b. Soils. The soils within the Subject Property are Puhī Silty Clay Loam, as shown on the Soil Survey Map attached as Exhibit "C-8". According to the U.S. Department of Agriculture ("USDA") Soil Survey Geographic ("SSURGO") database (2001) and soil survey data gathered by Foote et al. (1972), the project area's soils consist of: Puhī silty clay loam on the northeast (PnB [3 to 8% slopes]; PnC [8 to 15% slopes], and PnE [25 to 40% slopes]); Lihue silty clay on the southwest (LhB [0 to 8% slopes], LhC [8 to 15% slopes], LhD [15 to 25% slopes], and LhE2 [25 to 40% slopes]); Rough broken land (rRR) along the boundary

of the southeast and southwest sides as well as the central north portion surrounding Aepo and Aepoalua reservoirs; and Water (W) visible within the Reservoirs.

Puhi soils are described as follows:

...well-drained soils on uplands on the island of Kauai. These soils developed in material derived from basic igneous rock. They are nearly level to steep. Elevations range from 175 to 500 feet. The annual rainfall amounts to 60 to 80 inches. The mean annual soil temperature is 73° F. Puhi soils are geographically associated with Lihue and Kapaa soils.

These soils are used for sugarcane, pineapple, truck crops, orchards, pasture, woodland, wildlife habitat, water supply, and homesites. The natural vegetation consists of guava, Java plum, pangolagrass, kikuyugrass, elephantopus, joe, yellow foxtail, and rhodomyrtus. [Foote et al. 1972:115]

Lihue soils are described as follows:

...well-drained soils on uplands on the island of Kauai. These soils developed in material weathered from basic igneous rock. They are gently sloping to steep. Elevations range from nearly sea level to 800 feet. The annual rainfall amounts to 40 to 60 inches. The mean annual soil temperature is 73° F. Lihue soils are geographically associated with Ioleau and Puhi soils.

These soils are used for irrigated sugarcane, pineapple, pasture, truck crops, orchards, wildlife habitat, woodland, and homesites. The natural vegetation consists of lantana, guava, koa haole, joe, kikuyugrass, molassesgrass, guineagrass, bermudagrass, and Java plum. [Foote et al. 1972:82]

Rough broken land is described as follows:

...very steep land broken by numerous intermittent drainage channels. In most places it is not stony. It occurs in gulches and on mountainsides on all the islands except Oahu. The slope is 40 to 70 percent. Elevations range from nearly sea level to about 8,000 feet. The local relief is generally between 25 and 500 feet. Runoff is rapid, and geologic erosion is active. The annual rainfall amounts to 25 to more than 200 inches.

These soils are variable. They are 20 to more than 60 inches deep over soft, weathered rock. In most places some weathered rock fragments are mixed with the soil material. Small areas of rock outcrop, stones, and soil slips are common. Included in mapping were areas of colluvium and alluvium along gulch bottoms.

This land type is used primarily for watershed and wildlife habitat. In places it is used also for pasture and woodland. The dominant natural vegetation in the drier areas consists of guava, lantana, Natal redtop, bermudagrass, koa haole, and molassesgrass. Ohia, kukui, koa, and ferns are dominant in the wetter areas. Puakeawe, aalii, and sweet vernalgrass are common at the higher elevations. (Capability classification VIIe, nonirrigated). [Foote et al. 1972:119]

Using *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Foote et al. 1972), and their survey of Pineapple management, the project area would belong in the category of "Pineapple Group 5", which consists of the following:

...dominantly clays, silty clays, and silty clay loams. They occur in areas where solar insolation is moderate to high. The slope ranges from 3 to 8 percent. The elevation ranges from near sea level to 2,200 feet. The average annual rainfall is 40 to 70 inches.

Permeability is slow to moderately rapid. Runoff is slow, and the erosion hazard is slight to moderate. About 1 to 2 inches of water is available per foot of soil. The rooting depth is 20 to 60 inches or more.

All planting and tilling are done across the slope or on the contour. Field roads serve as diversions. Grassed waterways are needed in some areas. Rainfall is ample; no irrigation is needed. In nearly all areas the old plants are plowed under. Crop residue mulch is not used because it increases heart rot and root rot diseases.

Yields are 35 to 45 tons per acre for the plant crop and 25 to 35 tons per acre for the ratoon crop. [Foote et al. 1972:140]

As shown on the Detailed Land Classification Map (Island of Kauai) (Land Study Bureau, University of Hawaii) attached as Exhibit "C-9", the Over-all Productivity Rating for lands within the Subject Property is Class B, C and D.

c. Rainfall. The Subject Property receives approximately 55 inches of annual rainfall.

d. Biological Resources. The biological resources within the Subject Property are described in the Biological Resources Survey Report dated June 2017 prepared by SWCA Environmental Consultants attached hereto as Exhibit "E-5" ("Biological Report"). The results of the survey of the Subject Property are as follows:

(i) Flora. The vegetation types and plant species identified during the survey are not considered unique and are typical of lands previously used for agriculture. Six indigenous plant species were identified and are common throughout the Hawaiian Islands. None of the plant species observed in or near the survey area were considered rare, and none are federally listed or state-listed threatened or endangered species, species proposed for listing, or candidate species. Therefore, the proposed Solar Project is not expected to have a significant, adverse effect on terrestrial vegetation.

(ii) Fauna. Twenty-two avifauna species were observed in the survey area; of these, only two species are indigenous or endemic (native) to the Hawaiian Islands. The endangered endemic Hawaiian moorhen (*Gallinula galeata sandvicensis*) was observed foraging within the reservoirs adjacent to the survey area. The indigenous black-crowned night-heron (*Nycticorax nycticorax*) was also observed foraging in the reservoirs. No migratory species were observed because the majority of migrant species are likely in their respective summering grounds outside of Hawaii at the time of this survey.

e. Flood Hazard. According to the Federal Insurance Rate Map (Map Nos. 1500020311E and 1500020313E) (Exhibits "C-10", "C-11", and "C-12"), the Subject Property is located in Flood Zone X, which is an area determined to be outside of the 500 year flood plain.

f. Water Resources. The Solar Project will have no well facilities, and will have no impact on Groundwater Resources. The Solar Project will not need to withdraw water from, and will have no impact on any streams in the vicinity, including but not limited to, the Lāwa'i Stream (located to the west of the Subject Property). The Applicant will use an existing pump to draw water from the Aepo Reservoir for the agricultural activities associated within the Solar Project.

4.3 Present Uses And Built Environment. The Subject Property lies to the west of Koloa Town and is undeveloped. There are no existing buildings or structures on the Subject Property. For the past 100 years, agricultural activities on the Subject Property have included sugarcane cultivation and cattle raising. A private, Cane Haul Road (which extends from Koloa Road) provides access to the Subject Property. The Subject Property is surrounded by the Master Lot, which is primarily rural, dominated by a mixture of agricultural uses. The Master Lot is located adjacent to agricultural and residential areas in Lāwa'i and Kōloa.

4.4 Potential Future Uses. The Applicant has no present plans to develop the Subject Property, except as described herein.

SECTION 5. PERMITS REQUESTED AND REQUIRED.

5.1 Use Permit. The construction of the Solar Project will take place primarily within the CZO Agriculture District, although a small portion will be located in the CZO Open District. The Solar Project is a Solar Energy Facility that requires a Use Permit

pursuant to CZO Sections 8-2.4(q)(16) and 2.4(r)(12) and (14). Therefore, the Applicant is requesting that the Planning Commission issue a Use Permit pursuant to CZO Section 8-3.2 for the construction of the Solar Project.

5.2 Class IV Zoning Permit. The Solar Project requires the issuance of a Class IV Zoning Permit as a condition of the Use Permit approval pursuant to CZO Section 8-8.4(4).

5.3 Special Permit. A SLUC Special Permit as described in HRS Section 205-6 and Hawaii Administrative Rules ("HAR") Title 15, Subtitle 3, Chapter 15, Subchapter 12, is required for the proposed Solar Project.

SECTION 6. IMPACTS OF DEVELOPMENT.

6.1 Botanical Resources and Wildlife. As discussed in the Biological Report, the existing state of botanical resources and wildlife have been heavily compromised by past and present agricultural uses on the Subject Property. As a result, there do not appear to be any mammalian or avian species or botanical resources that will be endangered by the Solar Project. The habitat currently present on the Subject Property is comprised of former sugarcane lands which have been used for various diversified agricultural purposes including ranching since the closure of sugarcane operations in the area. The vegetation is dominated almost to the exclusion of native species by alien introduced grasses and weedy species. Terrestrial mammals present on the Subject Property and within the vicinity are likewise alien species. There is the possibility that the endemic endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) overflies the Subject Property and possibly forages for insects on a seasonal basis above the Subject Property. Avian species present on the Subject Property are likewise prominently alien species, although a Hawaiian moorhen (*Gallinula galeata sandvicensis*) was observed in the vicinity of the Subject

Property (in an adjacent Reservoir). There is the possibility that other endangered species may use resources within the project area on a seasonal basis, including: Nēnē (*Branta sandvicensis*); Hawaiian coot (*Fulica alai*); Hawaiian stilt (*Himantopus mexicanus Knudsen*); and Hawaiian duck (*Anas wyvilliana*). There are no resident seabirds on the Subject Property, though both the threatened Newell's Shearwater (*Puffinus newell*) and the endangered Hawaiian Petrel (*Pterodroma sandwichensis*) have been recorded overflying the general area on an annual basis during the nesting season.

To protect the biological resources, the Applicant will implement the following recommendations from the Biological Report:

a. Flora.

(i) All construction equipment and vehicles arriving from outside Kauai should be washed and inspected before entering the project area.

(ii) Construction materials arriving from outside of Kauai should also be washed and/or visually inspected (as appropriate) for excessive debris, plant materials, and invasive or harmful non-native species (plants, amphibians, reptiles, and insects).

(iii) Inspection and cleaning activities should be conducted at a designated location. The inspector should be a qualified botanist and/or entomologist that is able to identify invasive species that are of concern relevant to the point of origin of the equipment, vehicle, or material.

(iv) When possible, raw materials (e.g., fill materials) should be purchased from a local supplier on Kauai to avoid introducing non-native species not present on the island.

b. Waterbirds.

(i) If a nest with eggs or chicks/ducklings is discovered, work should cease within 100 feet of the nest until the chicks/ducklings have fledged.

(ii) Nests or broods found in the project area before or during construction should be reported to the U.S. Fish & Wildlife Service ("USFWS") within 48 hours.

(iii) If an endangered Hawaiian waterbird is present or flies into the area during ongoing activities, all activities within 100 feet of the bird should cease, and the bird should not be approached. Work may continue after the bird leaves the area of its own accord.

c. Hawaiian Goose.

(i) All regular on-site staff should be trained to identify the Hawaiian goose, and they should know what appropriate steps to take if Hawaiian geese are present on-site. Training would not be necessary if a biological monitor is present for the duration of the construction.

(ii) If a Hawaiian goose is found in the area during ongoing activities, all activities within 100 feet of the bird should cease, and the bird should also not be approached. If a nest is discovered, the USFWS must be contacted. If a nest is not discovered, work may continue after the bird leaves the area of its own accord.

d. Seabirds.

(i) Construction activity should be restricted to daylight hours as much as practicable during the seabird peak fallout period (September 15-December 15) to avoid the use of nighttime lighting that could attract seabirds.

(ii) All outdoor lights should be shielded to prevent upward radiation. This has been shown to reduce the potential for seabird attraction (Reed et al. 1985; Telfer et al. 1987). A selection of acceptable seabird-friendly lights can be found online at the Kauai Seabird Habitat Conservation website (2013).

(iii) Outside lights that are not needed for security and safety should be turned off from dusk through dawn during the fledgling fallout period (September 15-December 15).

e. Mammals.

(i) Any fences that are erected as part of the project should have barbless top-strand wire to prevent entanglements of the Hawaiian hoary bat on barbed wire. No fences in the survey area were observed with barbed wire during the survey; however, if fences are present, the top strand of barbed wire should be removed or replaced with barbless wire.

(ii) No trees taller than 15 feet should be trimmed or removed as a result of the Solar Project between June 1 and September 15, when juvenile bats that are not yet capable of flying may be roosting in the trees.

6.2 Historical Resources. The Subject Property has been heavily disturbed by past and present agricultural activities. As a result, and as set forth in the Archaeological Inventory Survey Report for the AES Lawa'i Solar and Storage Project (prepared by Hallett H. Hammatt, McKenzie Wildey, and Nancine "Missy" Kamai of Cultural Surveys Hawaii, Inc. dated July 2017) ("AIS"), there do not appear to be any pre-contact archaeological, cultural or historical resources on the surface of the Subject Property in which the Solar Project will take place which will be affected by the Solar Project. *[NOTE: The AIS will be submitted under*

separate cover.] Nevertheless, two post-contact historic properties were re-identified and seven post-contact historic properties were identified during the current AIS within the Subject Property. All of these historic properties were related to the former sugarcane cultivation of the Master Lot. The Applicant will follow the recommendation of the AIS to complete an archaeological monitoring plan ("AMP") to mitigate any activities that could adversely affect these historic properties. The AIS has been approved by the State Historic Preservation Division ("SHPD"), and the AMP will be submitted to SHPD for approval. In the event of inadvertent historic site or burial discovery in the future, the Applicant will immediately contact SHPD.

6.3 Air Quality/Noise. The Solar Project will have little or no impact on the air quality and ambient noise levels in the area. Air quality and ambient noise levels may be affected at a very minimal level during the Solar Project activities. All vehicles or equipment used by the Applicant during construction will be properly muffled, housed and maintained to reduce any noise impacts or emission impacts. The Environmental Protection Agency (EPA) and State of Hawaii air quality standards will not be exceeded. During operation, the solar panels will be silent. The BESS Blocks, inverters and transformers are also very quiet, emitting less than fifty (50) a-weighted decibels (dBA) at three (3) meters (less than 10 feet), which is approximately the loudness of a conversation.

6.4 Flooding and Drainage. The Subject Property is situated within Flood Zone X (Areas outside of 500 year flood plain), as shown on the Flood Hazard Zones Map and County of Kauai's flood insurance rate map (Flood Insurance Rate Map 1500020311E and 1500020313E) attached as Exhibits "C-9", "C-10", "C-11" and "C-12". The Solar Project will be located within Flood Zone X. The Solar Project will meet all of the requirements of the Flood Plain Management Ordinance of the County of Kauai, as contained in Chapter 15,

Article 1, of the Kauai County Code, 1987. The Solar Project will have no impact on flooding on or around the Subject Property. As discussed in the Drainage Report attached hereto as Exhibit "E-6", all drainage resulting from construction activities, from agricultural activities, and from the increase in land coverage will be retained on site and subject to best management practices. No new surface water flows will be discharged into the Lāwa'i Stream or the Reservoirs.

6.5 Utilities.

a. Water. The Solar Project will obtain potable water from an existing waterline on the Master Lot, which is connected to the County of Kauai, Department of Water system. The water will be used primarily for the bathroom facilities within the Solar Project ("Bathroom").

b. Electric/Communications. The Subject Property will obtain electric service from its own facilities and communication services from Hawaiian Telcom, Inc. Existing electric and communications facilities are presently adequate to provide the demand for such services that will be generated by the proposed Solar Project.

6.6 Wastewater Treatment and Disposal. The Solar Project will utilize an Individual Wastewater Systems ("IWS") approved by the State Department of Health for the wastewater from the Bathroom.

6.7 Solid Waste Disposal. Solid waste collection will be provided by private means. Solid waste will be taken to the County's Transfer Stations for disposal in the County Landfill.

6.8 Governmental Services. The Solar Project will have the following impacts on governmental services:

a. Fire and Police Services. Fire and police services in the vicinity are located in Poipu, approximately four (4) miles from the Subject Property. The Solar Project of the Subject Property will not significantly increase the need for existing fire and police services.

b. Schools. The closest schools are Koloa Elementary School in Koloa, Kalaheo Elementary School in Kalaheo, Waimea Canyon Middle School and Waimea High School in Waimea, and Kauai High School and Chiefess Kamakahelei Middle School in Lihue. The Solar Project will not generate any additional enrollment.

6.9 Economics. The Solar Project will have the following economic impacts:

a. Jobs. The construction activities associated with the Solar Project will result in an average of 25 to 30 static jobs and, at its peak, an estimated 80 to 100 jobs. Thereafter, the Applicant estimates that the following permanent jobs will be generated:

- (i) Operations and Maintenance – 3 positions.
- (ii) Vegetation Maintenance – 5 to 10 positions.
- (iii) Security and Monitoring – 1 position.
- (iv) Contractor Operation and Maintenance – 2 to 3 positions.

b. Housing. The Solar Project will not result in the need for additional worker housing. Once construction is complete, the Solar Facility will be operated by the Applicant's employees or by local contractors or hires, who will be Kauai residents who are already living on Kauai.

c. Property Values. Since the fair market value of real property is based on the value of the land and physical improvements, the completion of the Solar Project will increase the value of the Subject Property. This will result in increased real property taxes

on the Subject Property, which will directly benefit the County of Kauai. However, it will not, in and of itself, have a material impact on the value of, or real property taxes assessed against, surrounding properties.

6.10 Population. The Solar Project will not result in any increase in population.

6.11 Traffic Circulation. The major roads which service the Subject Property are Koloa Road (a State highway) and Aka Road (a County road) to the north, Lāwa'i Road (a County road) and Ala Kukuiula (a private road) to the south, and private, improved Cane Haul Roads within the Master Lot. The Solar Project, in and of itself, will not significantly increase traffic on these roads. During the construction phase of the Solar Project, the Applicant will maintain a staging area at the north end of the Solar Project adjacent to Koloa Road ("North Staging Area") and a staging area at the south end of the Solar Project ("South Staging Area"). An access entry will be constructed along Koloa Road to allow construction vehicles to enter the North Staging Area. During the construction activities, the Applicant will employ traffic control personnel to help control traffic entering the North Staging Area from Koloa Road.

6.12 Heritage Resources. The Subject Property is located within the "Open Space, Parks, Agriculture, Conservation" Heritage Resources Designation ("Open Space H.R. Designation") (Kaua'i General Plan, November 2000). These Maps document the Heritage Resources of Kauai, including mountains, stream valleys and gulches, bluffs and other coastal features. Within the Open Space H.R. Designation are landforms that may have ecological, recreational, cultural and scenic values. In the case of the Subject Property, only its scenic values would have importance.

The proposed Solar Project will be located on a relatively level portion of the Subject Property. With current screening vegetation, the Solar Project will not be visible from any public roads. If necessary, the Solar Project will be landscaped so as to minimize visual impacts.

SECTION 7. SLUC CONSIDERATIONS.

7.1 SLUC Agricultural District. The area of the Subject Property in which the Solar Project will occur is located within the SLUC Agricultural District. Permitted uses in the SLUC Agricultural District are set forth in HRS Section 205-4.5(a), which provides in relevant part as follows:

"§205-2. Districting and classification of lands.

(d) Agricultural districts shall include:

(6) Solar energy facilities; provided that:

(A) This paragraph shall apply only to land with soil classified by the land study bureau's detailed land classification as overall (master) productivity rating class B, C, D or E; and

(B) Solar energy facilities placed within land with soil classified as overall productivity rating class B or C shall not occupy more than ten per cent of the acreage of the parcel, or twenty acres of land, whichever is lesser, unless a special use permit is granted pursuant to Section 205-6;"

"§205-4.5 Permissible uses within the agricultural districts.

(a) Within the agricultural district all lands with soil classified by the land study bureau's detailed land

classification as overall (master) productivity rating class A or B, and for solar energy facilities, class B or C shall be restricted to the following permitted uses:

(7) Public, private, and quasi-public utility lines and roadways, transformer stations, communications equipment buildings, solid waste transfer stations, major water storage tanks, and appurtenant small buildings such as booster pumping stations, but not including offices or yards for equipment, material, vehicle storage, repair or maintenance, or treatment plants, or corporation yards, or other like structures;

(21) Solar energy facilities on lands with soil classified by the land study bureau's detailed land classification as overall (master) productivity rating B or C for which a special use permit is granted pursuant to Section 205-6; 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 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.

For the purposes of this paragraph, "agricultural activities" means the activities described in paragraphs (1) to (3); or..."

7.2 Special Permit. The requirements for the issuance of a Special Permit are contained in HRS Section 205-6, which provides in relevant part as follows:

"§205-6 **Special Permit.** (a) Subject to this section, the county planning commission may permit certain unusual and reasonable uses within agricultural and rural districts other than those for which the district is classified. Any person who desires to use the person's land within an agricultural or rural district other than for an agricultural or rural use, as the case may be, may petition the planning commission of the county within which the person's land is located for permission to use the person's land in the manner desired...Copies of the special permit petition shall be forwarded to the land use commission, the office of planning, and the department of agriculture for their review and comment.

(c) The county planning commission may, under such protective restrictions as may be deemed necessary, permit the desired use, but only when the use would promote the effectiveness and objectives of this chapter;...

(d) Special permits for land the area of which is greater than fifteen acres...shall be subject to approval by the land use commission. The land use commission may impose additional restrictions as may be necessary or appropriate in granting the approval, including the adherence to representations made by the applicant."

7.3 Compliance with SLUC Agricultural District Standards. The proposed uses include the development of: solar energy facilities (within B rated lands); and utilities. Both of these proposed uses are recognized as uses under HRS Sections 205-2(d)(6)(B) and 205-4.5(a)(21)

are uses which may be permitted, subject to the issuance of a Special Permit pursuant to HRS Section 205-6. The Applicant will satisfy the special provisions applicable to solar energy facilities as follows:

a. Agricultural Activities. As discussed in the Agricultural Plan attached hereto as Exhibit "E-8", the Applicant will lease the usable portions of the Subject Property for the pasturing of sheep at rates which are at least 50% below the fair market rental value.

b. Decommissioning. The Applicant will provide such security as required by the GOE to insure the decommissioning and removal of the Solar Project improvements at the end of the lease term.

7.4 State Planning Act. The State Planning Act contains Objectives and Policies to assist the State in attaining its long-range planning Goals. Included in the Objectives and Policies are the following:

a. **"§226-18 Objectives and policies for facility systems—energy.**

(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 call:

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

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

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

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

...

(c) To further achieve the energy objectives, it shall be the policy of this State to:

(1) Support research and development as well as promote the use of renewable energy sources;

...

(7) Promote alternate fuels and transportation energy efficiency;

(8) Support actions that reduce, avoid, or sequester greenhouse gases in utility, transportation, and industrial sector applications;

...

(10) Provide priority handling and processing for all state and county permits required for renewable energy projects...

b. **§226-108 Sustainability.** Priority guidelines and principles to promote sustainability shall include:

...

(2) Encouraging planning that respects and promotes living within the natural resources and limits of the State...."

7.5 Compliance with State Plan. The proposed Solar Project complies with the State Planning Act in that it will: provide dependable, efficient and economical energy; increase energy self-sufficiency; promote energy security; reduce greenhouse gas emissions; and promote living within the natural resources and limits of the State.

SECTION 8. GENERAL PLAN CONSIDERATIONS.

8.1 Kaua'i General Plan Land Use Designation. The area of the Subject Property in which the Solar Project will occur is located in the Kaua'i General Plan Agriculture Land Use

Designation. The policies governing such lands are set forth in Section 5.4 of the Kaua'i General Plan, which provides in relevant part as follows:

"5.2.1 Policy

- (a) Lands included within the Agriculture designation shall be predominantly used for or held in reserve to be used in the future for agricultural activities. These activities include the breeding, planting, nourishing and caring for, gathering, and processing of any animal or plant organism, including aquatic animals and plants, for the purpose of producing food or material for non-food products; the commercial growing of flowers or other ornamental plants; the commercial growing of forest products; and the commercial breeding and caring for domestic animals and pets.
- (b) The primary intent of the Agriculture designation is to conserve land and water resources in order to:
 - (1) insure an excellent resource base for existing and potential agricultural uses;
 - (2) assure a sufficient supply of land available for sale or lease at a cost that is economically feasible for agricultural enterprise; and
 - (3) promote and preserve open agricultural lands as a key element of Kaua'i's rural character and lifestyle, essential to its image as "The Garden Island" and to the continued viability and development of Kaua'i's visitor industry.
- (c) In administering zoning and subdivision regulations, the County shall seek to preserve important agricultural lands. Important agricultural lands include those designated "A" or "B" by the Land Study Bureau evaluation or "Prime" or "Unique" by the Agricultural Lands of Importance State of Hawai'i evaluation; provided that these ratings shall be superseded at such time as the State of Hawai'i officially maps and designates Important Agricultural Lands, as mandated in the State Constitution.

- (d) Lands designated Agriculture shall include: important agricultural lands; lands in active agricultural use; lands with potential for agriculture, silviculture or aquaculture; and other lands not suited for urban development because of location, topography, economy of public services, or other purpose related to general health, safety and welfare.
- (e) The secondary intent of the Agriculture designation is to provide an opportunity for Kaua'i citizens to reside in an agricultural community. An "agricultural community" is an area that has both agricultural uses and residences. Typically, an agricultural community is established through subdivision of land and provision of roads and potable water service. Agricultural communities are generally located in outlying areas, do not have convenient access to County facilities, and may not receive the full range or highest level of County services such as are available to residential communities, towns, and urban centers.
- (f) The primary intent of the Agriculture designation shall take precedence over the secondary intent.
- (g) To implement the Agriculture designation, specific controls on the subdivision and alteration of designated lands shall be formulated to prevent the dissipation of agricultural potential, the loss of rural character, and the dispersal of residential and other urban uses.
- (h) The following principles shall be applied in the development of an agricultural community:
 - (1) maintain irrigation works and easements where feasible and beneficial to existing or potential agricultural uses within the site or downstream; and
 - (2) preserve wetlands and streams and provide a riparian buffer area to prevent land disturbance and to filter runoff."

8.2 Compliance with Kaua'i General Plan Standards. The proposed uses include solar energy facilities and utilities. The Solar Project itself will have no significant impact on the surrounding environment. The Solar Project will include uses that are compatible with agricultural and other uses in the area, as well as with the surrounding environment. The Solar Project will help provide a stable, independent source of energy production, which is necessary for agricultural activities on Kauai. The Solar Project complies with the Kaua'i General Plan policy for the Agricultural Designation as a use which promotes agricultural uses.

SECTION 9. CZO AGRICULTURE AND OPEN DISTRICT CONSIDERATIONS.

9.1 CZO Agriculture District. The Solar Project is located primarily within the CZO Agriculture District. The purposes of the CZO Agriculture District are set forth in CZO Article 8, which provides in relevant part as follows:

"Sec. 8-8.1 Purpose.

The Agriculture District establishes means by which land needs for existing and potential agriculture can be both protected and accommodated, while providing the opportunity for a wider range of the population to become involved in agriculture by allowing the creation of a reasonable supply of various sized parcels.

(a) To protect the agriculture potential of lands within the County of Kaua'i to insure a resource base adequate to meet the needs and activities of the present and future.

(b) To assure a reasonable relationship between the availability of agriculture lands for various agriculture uses and the feasibility of those uses.

(c) To limit and control the dispersal of residential and urban use within agriculture lands."

9.2 Generally Permitted Uses And Structures. CZO Section 8-2.4(q) contains the Permitted Uses in the CZO Agriculture District, which include the following:

"(16) Solar energy facilities placed within land with soil classified by the State of Hawaii Land Study Bureau's detailed land classification as overall (master) productivity rating B, C, D or E; those facilities placed within land with soil classified as overall productivity rating class B and C shall not occupy more than ten percent (10%) of the acreage of the parcel, or twenty (20) acres of land, whichever is less."

9.3 Uses And Structures That Require A Use Permit. CZO Section 8-2.4(r) contains the Uses in the CZO Agriculture District which require a Use Permit and include the following:

"(12) Private and public utility facilities.

(14) Any other use or structure which the Planning Director finds to be similar in nature to those listed in this section and appropriate to the District."

9.4 Compliance with CZO Agriculture District Standards. The proposed Solar Energy Facilities will require a Use Permit pursuant to CZO Sections 8-2.4(q)(16) and 8-2.4(r)(12) and (14). The Solar Project itself will have no significant impact on the surrounding environment. The Solar Project will include uses that are compatible with other uses in the area, as well as with the surrounding environment. As such, the Solar Project complies with CZO Section 8-8.1 in that it: assure a reasonable relationship between the availability of agricultural lands for various agricultural uses and the feasibility of those uses; and will be incidental to the agricultural uses and the agricultural character of the surrounding lands.

9.5 CZO Open District. A small portion of the Subject Property is located within the CZO Open District. The purposes of the CZO Open District are set forth in CZO Article 9, which provides in relevant part as follows:

"Sec. 8-9.1 Purpose.

The Open District is established and regulated to create and maintain an adequate and functional amount of predominantly open land to provide for the recreational and aesthetic needs of the community or to provide for the effective functioning of land, air, water, plant and animal systems or communities.

(a) To preserve, maintain or improve the essential characteristics of land and water areas that are:

(1) of significant value to the public as scenic or recreational sources;

(2) important to the overall structure and organization of urban areas and which provide accessible and usable open areas for recreational and aesthetic purposes;

(3) necessary to insulate or buffer the public and places of residence from undesirable environmental factors caused by, or related to, particular uses such as noise, dust, and visually offensive elements.

(b) To preserve, maintain or improve the essential functions of physical and ecological systems, forms or forces which significantly affect the general health, safety and welfare.

(c) To define and regulate use and development within areas which may be potentially hazardous.

(d) To include areas indicated on the County General Plan as open or as parks.

(e) To include areas clearly indicated on the County General Plan or on Zoning maps as "Special Treatment - Open Space" if an applicant represents to government authorities that any properties or areas within a development proposal or subdivision application will remain in either permanent open space or private park areas, or if the Council in the exercise of its zoning power requires as a condition of rezoning that an area be designated for permanent open space or private park. This does not preclude the Council from exercising its zoning authority as provided in Sec. 46-4, Hawai'i Revised Statutes. Within areas so designated, no uses, structures, or development

inconsistent with such designation shall be generally permitted or permitted by use permit without express provision to the contrary. The Council is hereby authorized to make such factual determinations as necessary incident to this section.

(f) To provide for other areas which because of more detailed analysis, or because of changing settlement characteristics, are determined to be of significant value to the public."

9.6 Uses And Structures Permitted With A Use Permit. CZO Section 8-2.4(t)

contains the Uses And Structures Permitted With A Use Permit within the CZO Open District, which includes the following:

"(13) Utility Installations"

9.7 Standards For Construction And Use Within An Open District. CZO

Section 8-9.2 regulated land coverage in the CZO Open District and provides as follows:

"(a) Land Coverage:

(1) The amount of land coverage created, including buildings and pavement, shall not exceed ten per cent (10%) of the lot or parcel area."

9.8 Compliance With CZO Open District Standards. The Solar Project is a use and structure permitted with a Use Permit within the CZO Open District pursuant to CZO Section 8-2.4(t)(13). As discussed in Section 10, the Solar Project will comply with the CZO Use Permit Standards. The Land Coverage on the Subject Property will not exceed ten percent (10%). The Solar Project itself will have no significant impact on the surrounding environment. As such, the Solar Project complies with CZO Section 8-9.1 in that it: will help to preserve, maintain and improve the natural characteristics of the area; will allow the area to remain predominantly free of development; and will be incidental to the use and open character of the surrounding lands.

SECTION 10. USE PERMIT AND ZONING PERMIT CONSIDERATIONS.

10.1 Uses. Pursuant to CZO Section 8-3.2, the Applicant has applied for a Use Permit for the proposed Solar Project. Consistent with CZO Sections 8-2.4(q)(16), 8-2.4(r)(12) and (14), and 8-2.4(t)(13), the proposed uses and structures are Solar Energy Facilities which are Uses And Structures For Which A Use Permit Is Required within the CZO Agriculture District.

10.2 Compatibility With Surrounding Uses. The Subject Property is surrounded by properties located within the SLUC Agricultural District, Urban District and Rural District, and the CZO Agriculture District, Residential District, and Open District. Uses on the surrounding lands include farm dwelling uses, residential uses, and agricultural uses. The Subject Property is similar in topography, character and nature with adjacent and surrounding properties, and the Solar Project is consistent with such surrounding uses.

10.3 Compliance with CZO Use Permit Standards. The Solar Project on the Subject Property complies with the standards for Use Permits as contained in CZO Section 8-20.5(a) in that the Solar Project will be:

- a. a compatible use;
- b. not detrimental to health of persons residing or working in the neighborhood;
- c. not detrimental to safety of persons residing or working in the neighborhood;
- d. not detrimental to peace of persons residing or working in the neighborhood;
- e. not detrimental to morals of persons residing or working in the neighborhood;

- f. not detrimental to comfort and general welfare of persons residing or working in the neighborhood;
- g. not detrimental or injurious to property or improvements in the neighborhood;
- h. not detrimental to the general welfare of the community;
- i. not a cause of substantial harmful environmental consequences to the Subject Property, or to other lands or waters;
- j. not inconsistent with the intent of Chapter 8, KCC; and
- k. not inconsistent with the General Plan.

10.4 Compliance with CZO Class IV Zoning Permit Standards. The Applicant has complied with the procedural provisions for a Class IV Zoning Permit by its filing and processing of this Application.

SECTION 11. DEVELOPMENT PLAN CONSIDERATIONS.

11.1 Development Plan Goals and Objectives. The goals and objectives of the Koloa-Poipu-Kalaheo Community Plan ("KPK Community Plan") for the area surrounding the Subject Property is for continued rural and residential uses, including agricultural activities and open space preservation. However, the KPK Community Plan, in its Goals And Objectives, contains the following:

"Public Facilities

- Encourage the development of...public facilities necessitated by existing uses and proposed growth."

11.2 Compliance with Development Plan Standards. The proposed use of the Subject Property will not conflict with any of the Goals And Objectives contained in the KPK Community Plan. The design, layout and outside appearance of the Solar Project is and will be compatible with the natural beauty of the area and will not interfere with surrounding agricultural or residential uses in the area. The proposed use will provide economic opportunity for Kauai residents. The proposed use will have no negative impact on the public safety or welfare, on any endangered species of plants or animals, on archaeological or historic sites, or on recreational opportunities on or around the Subject Property. The development of alternative energy sources will promote the policies of the KPK Community Plan for Public Facilities.

SECTION 12. COMPLIANCE WITH REQUIREMENTS FOR SLUC SPECIAL PERMIT.

12.1 Special Permit Requirements. The proposed Solar Project will meet with the requirements for an SLUC Special Permit, as contained in Hawaii Revised Statutes Section 205-6 and in Section 15-15-95 of the Land Use Commission Rules (Hawaii Administrative Rules) as set forth herein.

12.2 The use will not be contrary to the objectives sought to be accomplished by the HRS Chapter 205 and 205A, and the SLUC Rules. The proposed use will not interfere with other agricultural uses which are generally allowed within the SLUC Agricultural District. It is consistent with solar facility uses which are allowed (with a Special Permit) in the SLUC Agricultural District. It is also located so as to minimize impacts on agricultural activities in this area.

12.3 The desired use will not adversely affect surrounding property. As discussed herein, the proposed use will be compatible with the surrounding neighborhood and uses, and will not generate any significant adverse impacts. It will not prevent surrounding lands

from being used for agricultural purposes. The amount of additional traffic that will be generated as a result of this proposal will be insignificant and will not create any substantial adverse impacts.

12.4 The use will not unreasonably burden public agencies to provide roads and streets, sewers, water, drainage and school improvements, and police and fire protection. As discussed herein, no burden will be placed on public agencies to provide additional facilities, services, and utilities as a result of this proposal. Conversely, by providing an alternative green source of energy for electricity, it will promote the sustainability and availability of electrical production resources for the public.

12.5 Unusual conditions, trends and needs have arisen since the district boundaries and regulations were established. The State has recently recognized the need to promote alternative energy production, including solar energy production. Such facilities require large areas, as are available in the SLUC Agricultural District compared to the SLUC Urban District. Provided such new uses do not adversely impact surrounding agricultural activities, they are recognized as necessary and permissible in the SLUC Agricultural District.

12.6 The land on which the proposed use is sought is unsuited for the uses permitted with the District. To the extent feasible, the Applicant will continue to use the Subject Property for sheep raising purposes as described in the Agricultural Plan. In addition, although the Subject Property is suitable for agricultural uses, it is better suited at this time for the production of alternative energy production via the Solar Project proposed herein.

SECTION 13. HRS CHAPTER 343 (ENVIRONMENTAL IMPACT STATEMENTS)
CONSIDERATIONS.

13.1 HRS Chapter 343. The Solar Project is not subject to the provisions of Hawaii Revised Statutes Chapter 343. HRS Chapter 343 requires the preparation of an Environmental Assessment and/or an Environmental Impact Statement for certain activities as specified in HRS Section 343-5. The proposed Solar Project does not fall within such specified activities, in that the Solar Project does not:

- a. Propose the use of state or county lands or the use of state or county funds;
- b. Propose any use within any land classified as conservation district by the State Land Use Commission under HRS Chapter 205;
- c. Propose any use within the shoreline area as defined in HRS Section 205A-41;
- d. Propose any use within any historic site as designated in the National Register or Hawaii Register as provided for in the Historic Preservation Act of 1966, Public Law 89-665, or HRS Chapter 6E;
- e. Propose any use within the Waikiki area of Oahu, the boundaries of which are delineated in the land use ordinance as amended, establishing the "Waikiki Special District";
- f. Propose any amendments to existing county general plans where such amendment would result in designations other than agriculture, conservation, or preservation;

g. Propose any reclassification of any land classified as conservation district by the State land Use Commission under HRS Chapter 205;

h. Propose the construction of new, or the expansion or modification of existing, helicopter facilities within the state; or

i. Propose the construction of a wastewater treatment unit, waste-to-energy facility, oil refinery, or power generating facility (which use petroleum based fuels).

SECTION 14. NATIVE HAWAIIAN ISSUES.

14.1 Traditional or Cultural Practices. An analysis of the traditional or cultural practices occurring on or related to the Subject Property have been addressed in the AIS and in the Cultural Assessment Report for AES Lawai Solar and Storage Project dated June 2017 prepared by McKenzie Wildey, Nicole Ishihara, and Hallett H. Hammatt, Ph.D. ("CIA"). *[NOTE: The CIA will be submitted under separate cover.]* The conclusion contained in the CIA is that the Solar Project will have no impact on any known traditional or customary practices of native Hawaiians within the Subject Property. As noted in the AIS, no traditional cultural properties were identified as existing, and no traditional cultural practices were identified as taking place, within the Subject Property or its vicinity.

14.2 Impacts And Recommendations. The Applicant will implement the following recommendations contained in Section 8.2 of the CIA:

"8.2 Impacts and Recommendations

Based on information gathered from the cultural and historic background, no impacts were identified. However, in the event that any *twi kūpuna* and/or cultural finds are encountered, CSH recommends the following:

1. Project construction workers and all other personnel involved in the construction and related activities of

the project should be informed of the possibility of inadvertent cultural finds, including human remains. In the event that any potential historic properties are identified during construction activities, all activities will cease and SHPD will be notified pursuant to HAR §13-280-3. In the event that *iwi kūpuna* are identified, all earth moving activities in the area will stop, the area will be cordoned off, and the SHPD, coroner, and Police Department will be notified pursuant to HAR §13-300-40. In addition, in the event of an inadvertent discovery of human remains, the completion of a burial treatment plan, in compliance with HAR §13-300 and HRS §6E-43, is recommended.

2. In the event that *iwi kūpuna* and/or cultural finds are encountered during construction, project proponents should consult with cultural and lineal descendants of the area to develop a reinterment plan and cultural preservation plan for proper cultural protocol, curation, and long-term maintenance."

14.3 Summary of Impacts on Traditional or Cultural Practices. In summary, the Solar Project will have no impact on any known traditional or customary practices of native Hawaiians for the following reasons:

- a. There are no known traditional or customary practices of native Hawaiians that are presently occurring within the Subject Property.
- b. There are no special gathering practices taking place within any portion of the Subject Property.
- c. The Solar Project will not detrimentally affect: access to any streams; access to the shoreline or other adjacent shoreline areas; or gathering along any streams, the shoreline or in the ocean.
- d. There are no known religious practices taking place within the Subject Property.

e. There are no known pre-contact cultural or historic sites or resources located within the Subject Property.

f. There are no known burials within the Subject Property.

SECTION 15. COMMUNITY CONTACTS.

15.1 Contact with Community Associations. The Applicant intends to provide the Koloa Community Association with this Application and to meet with its Board if so requested.

SECTION 16. CONCLUSION.

The Applicant respectfully requests that the Planning Commission:

1. Find that the Solar Project complies with standards for Use Permits contained in CZO Section 8-20.5(a).

2. Find that the Solar Project meets the requirements contained in HRS Section 205-6 and HAR Section 15-15-95 for SLUC Special Permits.

3. Find that the Solar Project is consistent with uses in the SLUC Agricultural District, the Kauai General Plan, the Koloa-Poipu-Kalaheo Community Development Plan, and the CZO.

4. Find that the Solar Project is in compliance with the provisions of HRS Chapter 6E and Title 13, Subtitle 13, Chapter 284 of the Hawaii Administrative Rules.

5. Find that the Solar Project is consistent with the provisions of HRS Sections 1-1 and 7-1 and Article 12, Section 7 of the Hawaii State Constitution and will have no negative impacts on any traditional or customary practices of native Hawaiians.

6. Approve the issuance of a Use Permit for the Solar Project on the Subject Property as described herein, subject to such reasonable conditions as the Planning Commission shall impose.

7. Approve the issuance of a Class IV Zoning Permit for the Solar Project on the Subject Property.

8. Recommend approval of a Special Permit for the Solar Project.

DATED: Lihue, Kauai, Hawaii, August 17, 2017

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By 

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a Delaware limited liability company

In The Matter Of The Application Of AES LAWA'I SOLAR, LLC, a Delaware limited liability company, for a Use Permit, a Class IV Zoning Permit, and a Special Permit for real property situated at Kōloa and Lāwa'i, Kona, Kaua'i, Hawai'i, identified by Kaua'i Tax Map Key No. (4) 2-6-003:001 (por.).

EXHIBIT LIST

(AES Lawa'i Solar Application for Use Permit; Class IV Zoning Permit; and Special Permit)
(Lāwa'i Solar Project)

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