

McCORRISTON MILLER MUKAI MacKINNON LLP

LAND USE COMMISSION  
STATE OF HAWAII

RANDALL F. SAKUMOTO 4848-0  
MARGUERITE S. NOZAKI 8599-0

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Sakumoto@m4law.com

Nozaki@m4law.com

500 Ala Moana Boulevard  
Five Waterfront Plaza, 4<sup>th</sup> Floor  
Honolulu, Hawai'i 96813  
Telephone: (808) 529-7300

Attorneys for Applicant  
KAWAIILOA SOLAR, LLC

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAI'I

In the Matter of the Application of	)	DOCKET NO. SP15-406
	)	
	)	
KAWAIILOA SOLAR, LLC	)	APPLICANT'S PROPOSED ORDER
For a New Special Use Permit To Allow	)	ADOPTING THE CITY AND COUNTY
Development of a 50-megawatt photovoltaic	)	OF HONOLULU PLANNING
(PV) Energy Generation Facility and	)	COMMISSION'S FINDINGS OF FACT,
Accessory Uses and Structures On Lands	)	CONCLUSIONS OF LAW, AND
Rated Class A, B and C by the Land Study	)	DECISION AND ORDER; CERTIFICATE
Bureau, Ashley Road, Kawaiiloa Ahupua'a,	)	OF SERVICE
Waialua District, Oahu, Hawai'i, Portions of	)	
Tax Map Key Nos.: (1) 6-1-005:001 and (1)	)	
6-1-006:001, Part of Kamehameha School's	)	
Kawaiiloa Plantation	)	

APPLICANT'S PROPOSED ORDER ADOPTING THE  
CITY AND COUNTY OF HONOLULU PLANNING COMMISSION'S  
FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER

Applicant Kawaiiloa Solar, LLC respectfully submits the following Proposed Order

Adopting the City and County of Honolulu Planning Commission's Findings of Fact,

Conclusions of Law, and Decision and Order, to assist the State of Hawai'i Land Use Commission in its review of the Planning Commission record in this matter.

DATED: Honolulu, Hawai'i, June 5, 2015.

A handwritten signature in black ink, appearing to read 'R. Sakumoto', is written over a horizontal line.

RANDALL F. SAKUMOTO  
MARGUERITE S. NOZAKI

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APPLICANT'S PROPOSED ORDER ADOPTING THE  
CITY AND COUNTY OF HONOLULU PLANNING COMMISSION'S  
FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER

In or around November 2014, applicant Kawaiiloa Solar, LLC ("**Applicant**") filed an Application for a State Special Permit, Kawaiiloa Solar Project, O'ahu, Hawai'i ("**Application**"), with the Department of Planning and Permitting, City and County of Honolulu ("**DPP**"). Applicant is a wholly owned subsidiary of SunEdison, Inc.<sup>1</sup> On April 1, 2015 and April 15, 2015, the City and County of Honolulu Planning Commission ("**Planning Commission**") met at the Mission Memorial Conference Room in Honolulu, Hawai'i, to consider the Application. After due deliberation and consideration of the record in this matter, the Planning Commission recommended by unanimous vote to approve the Application, subject to conditions of approval.

The Planning Commission issued its Findings of Fact, Conclusions of Law, and Decision and Order in DPP File No. 2014/SUP-6 on May 8, 2015 ("**City D&O**"), approving the State Special Permit ("**SP**"), subject to review and approval of the State of Hawai'i Land Use Commission ("**LUC**"). The City D&O and the record in this matter were transmitted to the LUC on May 8, 2015.

<sup>1</sup> In January 2015, SunEdison, Inc. acquired First Wind Holdings, LLC.

The LUC, having examined the testimony, evidence and arguments of counsel presented during the hearings, along with the pleadings filed herein, hereby makes the following findings of fact, conclusions of law, and decision and order:

**I. FINDINGS OF FACT**

1. On April 30, 2014, Act 55 was signed into law ("**Act 55**"). Act 55 amended certain provisions of Hawai'i Revised Statutes ("**HRS**") Sections 205-2 and 205-4.5(a)(20), and added HRS Section 205-4.5(a)(21).
2. Pursuant to Act 55, the previous acreage limitations for solar energy facilities on land with soil classified under the Land Study Bureau's ("**LSB**") detailed land classification system with an overall productivity rating class of B or C are no longer applicable if a Special Permit is issued under HRS 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.*
3. The Subject Property is approximately 382.2 acres and is a portion of Tax Map Key No. 6-1-005: Parcel 1 and 6-1-006: Parcel 1 ("Petition Area," and is located in Kawaihoa, North Shore, Oahu, in the vicinity of Ashley Road, approximately 6,000 feet south of Waimea Beach Park and 4 miles northeast of Haleiwa Town).

4. In or around November 2014, Applicant filed the Application, which included twelve attachments, with DPP.
5. As of November 2014, DPP accepted the Application for processing.
6. By letter dated January 22, 2015, with copies of the Application enclosed, DPP solicited comments on the application from various City, State, and Federal agencies and community organizations.
7. In January and February 2015, DPP received comments on the Application from the Department of Land and Natural Resources Land Division, Department of Aquatic Resources, Engineering Division, State Historic Preservation Division, Division of Forestry and Wildlife, and Commission on Water Resource management (collectively, "**DLNR**"), Department of Environmental Services ("**DES**"), City and County of Honolulu Police Department ("**HPD**"), Department of Transportation Services ("**DTS**"), Board of Water Supply ("**BWS**"), City and County of Honolulu Fire Department ("**HFD**"), Environmental Planning Office ("**EPO**"), U.S. Department of the Interior, Fish and Wildlife Service ("**FWS**"), Department of Transportation ("**DTS**"), Department of Agriculture ("**DOA**"), Office of Planning ("**OP**"), and Land Use Commission ("**LUC**").
8. In November 2014 and March 2015, DPP also received comments on the Application from Blue Planet and Tin Roof Ranch, respectively.
9. On March 2, 2015, notice of the public hearing on the Application was published in the Honolulu Star-Advertiser.
10. On March 10, 2015 and March 17, 2015, the planning firm for Applicant, CH2M Hill provided to DPP Applicant's written responses to the comments received from DLNR, HFD, EPO, FWS, OP, and DOA.
11. In January 2014 and January 2015, Applicant presented the Solar Energy Facility ("**SEF**") to the North Shore Neighborhood Board No. 27, which considered the Kawaihoa Solar Farm Project ("**Project**") but did not take a vote on the Project.

12. On March 13, 2015, the Director of DPP submitted to the Planning Commission DPP's Findings of Fact, Conclusions of Law, and Recommendation ("DPP Recommendation"), recommending approval of the Application, subject to ten conditions.
13. On March 27, 2015, Applicant filed with the Planning Commission, Applicant's First List of Witnesses; First List of Exhibits; Exhibits "1" – "20"; and, copies of the resumes of Applicant's witnesses demonstrating their respective areas of expertise.
14. On March 31, 2015, Applicant filed with the Planning Commission, Applicant's Supplemental First List of Witnesses; First List of Exhibits; Exhibits "1" – "22", including the additional Exhibits "21" – "22".
15. On April 1, 2015, the Planning Commission held a hearing on the Application. Entering appearances were Chief/Architect Bonnie Arakawa for DPP; and Randall F. Sakumoto, Esq. and Marguerite S. Nozaki, Esq. for Applicant.
16. On April 1, 2015, the Planning Commission did not receive any public testimony. Applicant presented written and oral testimonies of the following witnesses: Wren Wescoatt, Development Director for SunEdison; and Crystal Kua, Director of External Affairs for SunEdison.
17. Due to the recent designation of the Petition Area as IAL, the Planning Commission requested that Applicant submit an agricultural plan for the proposed agricultural component to the Project, and continued the hearing to April 15, 2015.
18. On April 8, 2015, Applicant filed with the Planning Commission the transcript of the April 1, 2015 proceedings.
19. On April 13, 2015, Applicant filed with the Planning Commission, Applicant's Second Supplemental First List of Witnesses; First List of Exhibits; Exhibits "1" – "23", including its Preliminary Agricultural Plan as Exhibit "23".

20. At the continued public hearing of April 15, 2015, the Planning Commission approved and adopted the transcripts from the April 1, 2015 proceedings and Applicant presented its Preliminary Agricultural Plan and presented testimony of Daryl Kaneshiro or Oma`o Ranch Lands on Kaua`i. The Commission accepted the Preliminary Agricultural Plan into the record.
21. A motion was made, seconded and passed unanimously to approve the Application, subject to the DPP Recommendation, as further amended by the discussion before the Planning Commission.
22. The deadline for filing petitions to intervene before the Planning Commission was March 16, 2015, and no applications were filed.
23. On April 23, 2015, Applicant filed with the Planning Commission the transcript of the April 15, 2015 proceedings.
24. On May 8, 2015, DPP transmitted to the LUC the City D&O, one original, one hardcopy and one digital copy of the record, and an index of the record.
25. On May 27, 2015, the Planning Commission approved and adopted the transcripts of the April 15, 2015 proceedings.
26. On June 1, 2015, the LUC mailed out an Agenda and Notice of Hearing for the June 9, 2015 LUC hearing in Honolulu to all the parties and the Statewide and O`ahu mailing lists.
27. On June 6, 2015, the LUC received Applicant's Proposed Findings of Fact, Conclusions of Law, and Decision and Order Based on the Record of the Planning Commission of the City and County of Honolulu.
28. On June 9, 2015, the LUC conducted a meeting on the Application at the Airport Conference Center, 400 Rodgers Blvd. Suite 700, Room #3, Honolulu, Hawai`i, 96819. Entering appearances were Randall F. Sakumoto, Esq., and Marguerite S. Nozaki, Esq., of McCorrison Miller Mukai MacKinnon, LLP, for Applicant.

**A. PROPOSAL FOR SPECIAL PERMIT**

29. Applicant is wholly owned by Kawaihoa Solar Holdings, LLC, which is in turn 100% owned by SunEdison Hawaii, LLC ("**SunEdison**"). SunEdison is the state's largest renewable energy generator, including the company's very first wind project, Kaheawa Wind Power, which began operating in 2006.
30. The SP is sought so that Applicant may establish a SEF within the Petition Area. The SEF is planned to be a 50-megawatt ("MW") utility-scale, solar farm on approximately 382.2 acres of land on the North Shore of O`ahu. The energy that will be produced by the Project will be sold to Hawaiian Electric Company ("**HECO**") under a power purchase agreement that was executed in December 2014. Applicant will sell clean energy to HECO for 13.475 cents per kWh. The Project will generate enough energy in a year to power the equivalent of 15,000 average Oahu households, will save consumers \$200 million compared to HECO's typical avoided cost over the past five years, and will prevent the burning of millions of barrels of oil and millions of tons of carbon dioxide from entering the atmosphere.
31. In order to qualify for the 30% Federal investment tax credits for solar energy projects, which credits make the Project financially feasible, Applicant must have the Project in commercial operations before the end of 2016.
32. The SEF will include 50-MW, horizontal single-axis tracking, ground-mounted photovoltaic ("PV") panels, generally facing south, that will be constructed about 4 ½ to 9 ½ feet above existing grade on Sites 1 through 7. Power generated by the western portion of the SEF would be connected to the HECO electrical grid via the existing Makai Switchyard which connects to the existing overhead Waialua-Kahuku 46 kilovolt ("kV") sub-transmission line. Power generated by the eastern portion of the SEF would be connected to the grid via the existing Mauka Switchyard which connects to the Waialua-Kuilima 46 kV sub-transmission line.



33. Another aspect of the SEF is that Applicant shall make the Petition Area available for compatible agricultural activities at a lease rate that is at least fifty percent (50%) below the fair market rent for compatible properties. Applicant plans to lease the property for the pasturage of sheep. The lease would commence after the energy producing portion of the Project is operational. The current proposed lessee is Kualoa Ranch Hawaii, Inc., who has signed a Letter of Intent stating that the lease rent shall not exceed 50% of the market rent for comparable agricultural properties. Should Kualoa Ranch not lease the property, or not lease it for the full term of the SP, Applicant is committed to finding one or more agricultural tenants to lease and use the property for agriculture.
34. The heights of the PV panels will be approximately 4 ½ to 9 ½ feet above existing grade, which provides sufficient space for sheep to graze underneath the panels. At full growth, sheep are approximately 24-30 inches in height and will have no trouble grazing under the panels.
35. Sheep grazing on solar farms has been done in Europe and parts of the United States. One example is the OCI Solar Power farm in San Antonio, Texas, which is a 4.4 MW solar farm with approximately ninety sheep grazing on the property. A sheep rancher in England has 500 ewes grazing on a pasture sited with 20,000 PV panels. On Kauaʻi, a rancher grazes a herd of twenty to thirty sheep under about 3 acres of PV panels.
36. Applicant commissioned a study called Sheep and Solar Panels in Hawaiʻi, prepared by a Ph.D. and a Master's of Science candidate at the Department of Human Nutrition, Food and Animal Sciences, College of Tropical Agriculture and Human Resources, U.H. Manoa. The study determined that there is a viable market in Hawaiʻi for the sale of lamb to local stores and restaurants. Oʻahu has almost no local sheep farms, while Maui, Kauaʻi and Hawaiʻi Islands together have nearly \$1 million in annual sheep sales. The study includes several recommendations for best practices in the ranching of sheep.

37. Applicant also submitted a Preliminary Agricultural Plan that sets forth in more detail the sheep grazing operation, including market assessment, operation components, and a contingency plan for a beekeeping operation should the sheep grazing operation not prove viable.

**B. DESCRIPTION OF THE PETITION AREA & SURROUNDING AREA**

38. The Petition Area is located in Kawaiiloa, North Shore, Oahu, in the vicinity of Ashley Road, approximately 6,000 feet south of Waimea Beach Park and 4 miles northeast of Haleiwa Town.
39. Access to the site is via Ashley Road, a gated, private roadway which is maintained for the existing wind farm, and connects to Kamehameha Highway. There is no public access to the Petition Area.
40. The 382.2 acre Petition Area is in the State Land Use Agricultural District and has recently been designated as Important Agricultural Lands by the State Land Use Commission. The North Shore Sustainable Communities Plan designates the Petition area as Agriculture. The Petition Area is zoned AG-1 Restricted Agricultural District under the City and County of Honolulu, Land Use Ordinance.
41. The soils within the Petition Area are rated as Class B, C, and E soils, according to the LSB overall master productivity rating system. The soils are classified as Prime and Unique under the Agricultural Lands of Importance to the State of Hawai'i rating system.
42. The Petition Area is presently fallow. It was formerly used for sugar cane cultivation. The Kawaiiloa wind energy generation system (wind turbines) is located between and around the Petition Area. Surrounding lands to the east, west, north, and south are owned by Bernice Pauahi Bishop Trust Estate and are either fallow or in diversified agriculture. Beyond these lands to the north is Waimea Valley, managed by Hi`ipaka, LLC, and to the east is land used for military training.

43. The Petition Area is located outside of the Special Management Area, and no Special Management Area permits are required for the SEF.

C. **CONSISTENCY WITH OBJECTIVES UNDER CHAPTER 205, HAWAII REVISED STATUTES**

44. The SEF is not contrary to the objectives sought to be accomplished under Hawai'i Revised Statutes Chapter 205 and the related regulations. The Project may be considered an unusual but reasonable use of State Land Use Agricultural District lands. Utility scale PV facilities require large amounts of relatively gentle terrain, sited in close proximity to an existing electrical grid. The Petition Area was formerly used for sugar can cultivation, is the site of the Kawailoa wind energy generation system, and is currently fallow. Applicant proposes to incorporate agricultural use within the Petition Area by making available the areas under the PV panels for sheep pasturage or other compatible agricultural activities as defined in HRS § 205-4.5(a)(1)-(3). Applicant submitted to DPP a Letter of Intent between Applicant and Kualoa Ranch to pasture sheep on the property. The sheep will be beneficial to the SEF for vegetation control and will provide a food source in compliance with the intent of Act 55.
45. Act 55 sets forth requirements related to decommissioning, such as a requirement for Applicant to provide proof to the Planning Commission before the date of commencement of commercial energy generation of financial security to decommission the SEF. Decommissioning means removal of all equipment related to the solar energy facility within twelve months of the conclusion of operation or useful life, and restoration of the disturbed earth to substantially the same physical condition as existed prior to the development of the solar energy facility. The Application includes a Decommissioning Plan.
46. The Decommissioning Plan provides a conservative estimate that the costs of decommissioning a SEF of this proposed size and returning the land to substantially the same condition will run approximately four million dollars.

47. Applicant committed to decommission and remove all of the PV panels, racks, foundational piles and underground collector lines following the useful life of those components. Applicant also committed to return the Petition Area to substantially the same condition as it was in prior to the SEF.
48. Applicant will provide proof of the financial security in the form of a letter of credit or similar mechanism from a creditworthy financial institution, in favor of the landowner, which letter of credit will be renewable and kept in place during the term of the Project.
49. DPP determined that Applicant should provide documentation to DPP of the financial security for decommissioning prior to the close of the building permit for the Project. DPP will provide proof of the financial security to the Planning Commission upon request.

**D. CONSISTENCY WITH OBJECTIVES UNDER CHAPTER 205A, HAWAII REVISED STATUTES**

50. The SEF is consistent with the objectives and policies of HRS Chapter 205A, the Coastal Zone Management Act in the following ways:

HRS §§ 205A-2(b)(3); (c)(3) Scenic and open spaces resources.

*(A) Identify valued scenic resources in the CZM area;*

*(B) Ensure that new developments are compatible with their visual environment by designating and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;*

*(C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and*

*(D) Encourage those developments that are not coastal dependent to locate in inland areas.*

The site is located on the Kawailoa Plantation, far away from the shoreline. Landscaping will screen the Project from views along Kamehameha Highway.

HRS §§ 205A-2(b)(8) Public participation.

*(A) Promote public involvement in CAM processes;*

*(B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and*

*(C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.*

51. Applicant made presentations about its proposal to the area's neighborhood board. The Application was also made available online at the DPP webpage.
52. Applicant began community outreach on the SEF in October 2013. Representatives from the Applicant held more than 100 meetings or presentations with stakeholders in the following categories:

**Government** – Gov. Neil Abercrombie's staff; state Senate and House Energy, Agriculture, and Water/Land Committee chairs and members; individual members of the Hawai'i State Legislature; individual members of the Honolulu City Council, State Department of Business, Economic Development and Tourism; Land Use Commission staff; Office of State Planning, City Department of Planning and Permitting, Hawai'i County Research and Development Department.

**Community and Business** - North Shore Chamber of Commerce, individual members of the North Shore Neighborhood Board, chairs and members of the Mililani Mauka-Launani Valley Neighborhood Board, Mililani-Waipio Neighborhood Board, Pearl City Neighborhood Board, Sunset Beach Community Associations, Waialua High and Intermediate Foundation, Mililani Middle School community during STEM Night 2014, Pacific Resource Partnership, North Shore Economic Vitality Partnership.

**Native Hawaiian Organizations**- Office of Hawaiian Affairs, state Department of Hawaiian Home Lands, Waialua Hawaiian Civic Club, Waimea Valley.

**Agriculture** - Director and staff of the State Department of Agriculture, Dean and faculty of the University of Hawai'i College of Tropical Agriculture, Hawai'i Farm Bureau, North Shore Chamber of Commerce Agriculture Committee, North Shore Neighborhood Board Agriculture Committee.

**Media** - Reporters and editors representing the Honolulu Star-Advertiser, Pacific Business News and Hawai'i News Now.

**E. EFFECTS ON SURROUNDING PROPERTY**

53. Short-term noise impacts may result from supplemental grass trimming by mechanical means.
54. The SEF is a passive operation. The racking systems are horizontal single-axis tracking, ground-mounted PV panels, and will make noise that is barely audible. During the site preparation and construction of the Project, noise will be generated. All construction noise must be in compliance with HAR Chapter 11-46 (regulations for community noise control).
55. Operation of the SEF will not create direct air emissions. It is not anticipated that operations at the SEF will adversely affect air quality. During the construction there are expected to be short-term impacts as a result of construction activities. These impacts can be addressed through the use of temporary Best Management Practices ("BMPs") such as dust fences, windbreaks, watering and other soil management measures, and in compliance with the fugitive dust measures required under HAR § 11-60.1.
56. Applicant submitted a view study with simulations that demonstrated minimal impacts on public roadways, residential areas and other public spaces.
57. Applicant prepared a Reflectivity (or Glare) Study for the Project.
58. PV panels are typically designed with anti-reflective glass front surfaces to capture and retain as much of the solar spectrum as possible. In general, solar module glass has less reflectivity than water or window glass. The Reflectivity Study indicates that some adjacent areas may experience some degree of glare, but this would only occur during a portion of the year and for very short durations (e.g., 15-45 minutes per day). The Study concludes that while glare may be visible during these short periods, the effects would be mitigated by the distance of the project from publically accessible areas, intervening structures, and

vegetation (including the proposed landscaping that would be installed as part of the Project). Potential effects on aircraft approaching Dillingham and Wheeler Army Airfield are expected to be barely perceptible, and it is generally unlikely that there will be any significant glare impacts to aviators at the Tactical Flight Training Area, which is located to the East of the Petition Area.

59. Applicant had SWCA prepare a Preliminary Natural Resources Assessment for the Petition Area. SWCA Environmental Consultants were instructed to: (i) provide a description of flora and fauna communities at the property; (ii) provide a description of wetlands, streams or waterways, if any, at the property; (iii) identify the presence of any State or Federally listed candidate, threatened or endangered plant or animal species, and any species of concern within the property; and (iv) provide recommendations to prevent “take” should any species listed be identified within the property. After conducting the assessment, SWCA concluded that no threatened or endangered plant or animal species or candidate species were located within the Petition Area, and no wetlands or streams were observed within the Petition Area.
60. In response to the Application, FWS raised concerns that the Project may adversely impact breeding Hawaiian hoary bats and endangered or migratory birds. FWS indicated that bats and their young may forage in the site and surrounding area and recommends suspending any disturbance of trees over 15 feet in height until after breeding and pup-rearing season which runs from June 1 through September 15. FWS stated that barbed wire fencing may snag hoary bats and recommends avoiding barbed wire fencing.
61. Applicant met with representatives of FWS and DLNR Division of Forestry and Wildlife ("**DOFAW**") on November 5, 2014, to discuss the Project and potential impacts to species. FWS acknowledged that there is no proposed or designated critical habitat located within or near the Petition Area. FWS and DOFAW noted

that the Hawaiian hoary bat could use the Petition Area to forage and roost, and therefore recommended that Applicant not disturb trees or plants greater than fifteen (15) feet in height during the bat birthing and pup rearing season, which spans from June 1 through September 15. Applicant also agreed not to use barbed wire on the perimeter fencing that will surround the entire Petition Area. The only use of barbed wire will be as security wire on top of the fence surrounding the high-voltage substation and switchyard.

62. FWS commented that some birds on the U.S. mainland were confusing solar systems for water, resulting in injuries to the birds. However, FWS acknowledged that this has not been an issue documented in Hawai'i. Because there are a number of water birds and shorebirds in Hawai'i, FWS recommended that Applicant's personnel be educated about the potential for birds to be attracted to and injured by the solar array and to contact FWS if any such incidents occur.
63. In response to FWS's comments, Applicant responded that operations personnel at the site will be trained to document and report any downed wildlife, including birds and bats, encountered during routine site inspections, which will include contacting FWS and DOFAW if protected species are found to determine appropriate measures for avoiding and minimizing future impacts.

**F. IMPACTS ON PUBLIC AGENCIES**

64. The approval of the SP and the development of the SEF does not trigger any requirements under HRS Chapter 343.
65. The SEF will not unreasonably burden public agencies to provide roads, sewers, drainage, schools, police or fire protection.
66. The OP did not have any objections to the Application. However, the OP commented that statewide concerns remain with regards to seeking a balance in maintaining the availability of high quality agricultural lands while promoting renewable energy resources on lands within the State Land Use Agricultural District, and recommended that Applicant meet the requirements of HRS § 205-



4.5(a)(21)(A), (B), and (C), relating to (1) compatible agricultural activities, (2) proof of financial security for decommissioning, and (3) decommissioning requirements, be included as conditions for approval.

67. The DOA did not have any objections to the Application. However, the DOA recommended that a condition be imposed to the effect that Applicant shall have established a sheep pasture operation or other agricultural enterprise on the property in compliance with Act 55.
68. Access to the site is via Ashley Road, a gated, private roadway which is maintained for the existing wind farm, and connects to Kamehameha Highway.
69. Within the Petition Area, Applicant will install a series of new interior service roads. These will be gravel roads approximately 20 to 40 feet wide.
70. Periodic maintenance and inspection of the solar facilities (including supplemental mowing, landscaping, panel cleaning, and electrical maintenance) would occur irregularly where employees would drive to various locations throughout the site on a network of internal gravel roads. No centralized parking facilities are planned.
71. DTS did not provide any comments on the Application, and DOT responded that if glint or glare were to create a hazard condition for pilots, that Applicant be prepared to immediately mitigate the hazard.
72. Normal operation of the SEF will not require onsite personnel. Therefore, the site will not be permanently manned and no permanent wastewater facilities will be required related to the SEF. DES stated that the proposed SEF would not impact its services or facilities.
73. The Petition Area appears well drained and the development of a SEF is not anticipated to change existing drainage patterns which generally sheet flow into surrounding gullies. Existing runoff from the site follows the natural topography

of the property. The Project design will not significantly alter the existing drainage patterns.

74. The Project will create minimal additional impervious area from concrete equipment pads, control structures, substation and switchyard, and micropile/pier foundations, and any impervious area created will be evenly distributed throughout the solar farm. There will not be a significant pre-development to post-development increase in storm water flows. The PV panels will be elevated, so the existing ground will remain as is, which is highly pervious. Rainwater will hit the panel, run to the edge and fall to the ground, which will be left in a pervious state. The only increase in impervious area would be from the concrete pads under some of the electrical equipment, and possible small footings for racks, if required. That is an insignificant amount of land coverage.
75. Temporary and permanent BMPs will be required through the grading and erosion control regulations and permits required by the State and City and County of Honolulu. Temporary BMPs are required during construction activities and will remain in place until permanent BMPs are established.
76. Temporary BMPs may include things like preservation of natural vegetation, minimization of areas of clearing and grubbing, vegetated buffers, temporary soil stabilization with grass and/or mulch, silt fences/fiber filtration tubes, gravel bag berms/check dams, stabilized construction entrances and exits, sediment traps and basins, temporary diversion swales and ditches, and water application and/or dust screens of control. Permanent BMPs may include things like permanent soil stabilization with landscaping, pavement, or gravel, infiltration trenches, dry wells and sumps, grass swales and ditches, filter strips and sediment traps and basins.
77. No residential uses are proposed within the Petition Area, so there will be no additional burdens placed on schools.

78. No residential use is being proposed and the Project will be completely fenced on its perimeter. As the Petition Area is only accessible via a private and gated agricultural road, additional police protection services are not anticipated. HPD commented that it had no concerns regarding the Project.
79. HFD provided standard comments with respect to the provision of fire protection infrastructure. In a telephone conversation between the DPP and the HFD Fire Prevention Bureau, the HFD recognized that the SEF did not contain buildings or facilities that would normally be subject to the provision of firefighting infrastructure. Building permits for the SEF will be circulated to the HFD for review. Any firefighting infrastructure required by the HFD may be imposed at that time.
80. Sheep pasturing and other compatible agricultural areas in the Petition Area should minimize brush fire potential. Applicant plans to establish roadways or setbacks between the PV panels and the SEF's fence line to minimize impacts from wildfires beyond the Petition Area. Applicant's licensed civil engineer and vice president of construction both opined that the construction of the SEF will reduce the chance of naturally occurring or arson related wildfires because the Petition Area will be fenced and the vegetation that could be fuel for wildfire will be controlled by animal grazing and/or mowing.
81. Fire control measures will be implemented into the Project design and operation. Fire extinguishers will be located close to and within the substation and switchyard areas. A fire alarm system will also be installed in the control enclosures.
82. The Petition Area is not currently serviced by BWS.
83. No new water systems are proposed as part of the Project. Small amounts of water would be required for occasional irrigation of landscaping, as well as occasional cleaning of the solar panels. Water would be available either from

rainwater catchment equipment or transported in via truck. No hook-up to the municipal water system is planned.

**G. ARCHAEOLOGICAL, HISTORICAL, AND CULTURAL RESOURCES**

84. An Archaeological Inventory Survey of 360 acres of land, which includes nearly the entire Petition Area, was prepared and submitted as part of the Application ("AIS"). The AIS was submitted to the State Historic Preservation Division ("SHPD") on February 2, 2015.
85. The analysis was prepared by Robert B. Rechtman, Ph.D., an archaeologist and anthropologist, and is based on historical archival information and previous cultural studies, including a Cultural Impact Assessment ("CIS") that was done in 2011 (Hammett et. A. 2011).
86. As a result of the AIS, two archaeological sites were identified; one new archaeological site (SIHP Site 7716) and one previously recorded site (SIHP Site 7171). Site 7171 was recorded and investigated during an earlier study and further documented during this study. It is suggested that a reasonable and adequate amount of information has been collected from and about this site as a result to warrant a continued no further work recommendation. Like Site 7171, it is suggested that a reasonable amount of information has been collected from and about Site 7716 to warrant a no further work recommendation. Thus, it was determined that there are no historic properties affected for the Project site. In the unlikely event that any unanticipated archaeological resources are unearthed during development activities, in compliance with HAR Title 13, Subtitle 13, Chapter 280, work in the immediate vicinity of the finds should be halted and DLNR-SHPD contacted.
87. As a result of the CIS, there was evidence of cultivation, fishing, and gathering in the Petition Area, and later, for the cultivation of sugarcane. Since those fields were left fallow after the termination of the Waialua Sugar Company in 1998,

there does not appear to have been any recent use of the land for cultivation or gathering.

88. Community consultation, historic documentation, previous archaeological research, and the AIS, (Rechtman et al. 2011) have not identified any burials within the Petition Area, but located in proximity to the Petition Area.

## **H. GROUNDWATER AND SURFACE WATER RESOURCES**

89. The Project will not involve any significant use of ground water and will not generate any impacts to groundwater or surface water. The PV panels do not generate pollution and no cleaning solutions or chemical materials will be used to clean the PV panels. No new drainage infrastructure will need to be constructed as the Project will utilize the existing drain system.
90. No new water sources will be required for the development of the Project. To the extent necessary, water for landscaping and cleaning the solar panels will primarily be through rainfall. Any additional water needed for the sheep grazing operation would be available either from rainwater catchment equipment or transported via truck.
91. It is not anticipated that the Project will have any impact on groundwater resources; it does not create a new water demand and it does not generate pollutants which could be discharged to groundwater.

## **I. CONFORMANCE WITH THE GOALS, OBJECTIVES AND POLICIES OF THE HAWAII STATE PLAN**

92. HRS § 205-16 provides that "No amendment to any land use district boundary **nor any other action by the land use commission** shall be adopted unless such amendment or other action conforms to the Hawaii State Plan." (Emphasis added). Issuance of the SP is consistent with applicable goals, objectives and policies of the Hawai'i State Plan, HRS Chapter 226.

93. The Project is consistent with the following objectives and policies of the Hawai'i State Plan:

- HRS §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 all:*

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

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

*(a)(3) Greater energy security and diversification in the face of threats to Hawai'i's energy supplies and systems; and*

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

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

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

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

- HRS §226-7: Objectives and Policies for the economy – agriculture

*(a) Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:*

*(2) Growth and development of diversified agriculture throughout the State.*

*(3) An agriculture industry that continues to constitute a dynamic and essential component of Hawai'i's strategic, economic, and social well-being.*

*(b) To achieve the agriculture objectives, it shall be the policy of this State to:*

*(2) Encourage agriculture by making best use of natural resources.*

94. The Project supports the energy goals of the State Planning Act, Chapter 226, HRS, by providing alternative fuel-sourced energy that is capable of contributing to the needs of the people and support energy self-sufficiency. Operation of the Project also contributes to the reduction of greenhouse gases by offering a "clean" energy alternative to fossil fuel based energy production.
95. The Project proposes to incorporate compatible agricultural uses within the same site as the PV panels by pasturing sheep around and under the panels which has the dual purpose of providing food in the form of lamb meat, and by limiting vegetation growth from pasturing sheep. The dual use of the Project site would contribute to the growth of diversified agriculture and make best use of the underlying natural resource.

### **RULINGS ON PROPOSED FINDINGS OF FACT**

Any of the findings of fact submitted by the Applicant or other parties not already ruled upon by the Commission by adoption herein, or rejected by clearly contrary findings of fact herein, are hereby denied and rejected.

Any conclusion of law herein improperly designated as a finding of fact should be deemed or construed as a conclusion of law; any finding of fact herein improperly designated as a conclusion of law should be deemed or construed as a finding of fact.

### **CONCLUSIONS OF LAW**

1. The Planning Commission and the Land Use Commission have jurisdiction to permit unusual and reasonable uses within the State Land Use Agricultural District pursuant to HRS § 205-6.
2. Pursuant to HRS Section 205-6, the Planning Commission concluded that the Project is an "unusual and reasonable" use as set forth in HRS 205-6 and the five guidelines established by the Planning Commission under Section 2-45 of the Rules of the Planning Commission.

3. The SEF is not contrary to the objectives sought to be accomplished by Chapters 205 and 205A, HRS, and the Rules of the Planning Commission and the State Land Use Commission.
4. The SEF will not adversely affect surrounding property as the solar farm operation is a low-impact, passive land use that should have no adverse effect on surrounding property.
5. The SEF will not unreasonably burden public agencies to provide roads and streets, sewers, water drainage and school improvements, and police and fire protection.
6. Unusual conditions, trends and needs have arisen since the Petition Area was put into the State Agricultural District. Hawai'i's Clean Energy policy, established in 2001, includes a goal of efficiency and renewable energy resources to meet 70% of Hawai'i's energy demand by 2030 (30% from efficiency measures, and 40% from locally generated renewable sources). The Project will help the State achieve this goal, which was not on the horizon in the 1960s when the Petition Area was first put into the Agricultural District.
7. The Petition Area is not unsuited for the permitted uses within the State Land Use Agricultural District. However, in compliance with Act 55, the Petition Area is suited for both agricultural activities and utility scale solar energy facilities.
8. The SEF would make available portions of the Petition Area for compatible agriculture in accordance with Section 205-4.5(a)(21)(A), HRS.
9. Article XII, Section 7, of the Hawai'i State Constitution requires the State and its political subdivisions to protect native Hawaiian traditional and customary rights. The State and its agencies are obligated to protect the reasonable exercise of customarily and traditionally exercised native Hawaiian rights to the extent feasible. *Public Access Shoreline Hawai'i v. Hawai'i County Planning Commission*, 79 Haw. 425, 450, n. 43, cert. denied, 517 U.S. 1163 (1996); *Ka*



*Pa‘akai O Ka ‘Aina v. Land Use Commission*, 94 Hawai‘i 31, 7 P.3d 1068 (2000).

There have been no specific valued natural and cultural resources identified within the Petition Area. No evidence has been identified to demonstrate that traditional and customary cultural practices are being exercised within the Petition Area currently, nor have any such practices been documented as taking place in the past within the Petition Area. Therefore, the Project will not affect or impair any valued cultural, historical or natural resources related to customary and traditional native Hawaiian practices.

10. Article XI, Section 7, of the Hawai‘i State Constitution states that the State has an obligation to protect, control, and regulate the use of Hawai‘i’s water resources for the benefit of its people. The SEF is located outside of the Special Management Area, and is consistent with the objectives and policies of the Coastal Zone Management Act, HRS Chapter 205A. The Project will not entail any significant use of, nor generate significant impacts to, groundwater resources.
11. Article XI, Section 1, of the Hawai‘i State Constitution states that all public natural resources are held in trust by the State for the benefit of the people. When an agency is confronted with its duty to perform as a public trustee under the public trust doctrine, it must preserve the rights of present and future generations in the waters of the State. The agency’s duty and authority is to maintain the purity and flow of our waters for future generations and to assure that the waters of our land are put to reasonable and beneficial use for the public’s benefit.
12. Article XI, Section 3, of the Hawai‘i State Constitution requires the State to conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency, and assure the availability of agriculturally suitable lands. The Petition Area is not classified as Important Agricultural Land under Part III of HRS Chapter 205.

## DECISION AND ORDER

Having duly considered the complete record of the Honolulu Planning Commission's proceedings on the Application and the oral arguments presented by the parties in this proceeding, and good cause existing and upon motion duly passed by the LUC at a hearing conducted on June 9, 2015, in Honolulu, Hawai'i, and the motion having received the affirmative votes required by HAR §15-15-13, and there being good cause for the motion, the Land Use Commission hereby APPROVES the special permit granted by the Planning Commission to allow for the establishment of the solar energy facility as described herein on an approximately 382.2-acre portion of TMK No. (1) 6-1-005:001 and (1) 6-1-006:001, and approximately identified on Exhibit A, attached hereto and incorporated by reference herein, subject to the following conditions, all as stated in the Findings of Fact, Conclusions of Law, and Decision and Order in DPP File No. 2014/SP-6 issued by the Planning Commission on May 8, 2015 and as modified by the LUC on June 9, 2015:

1. Usable lands of the Petition Area, including areas under PV panels, shall be made available for compatible agricultural use at a lease rate that is at least 50 percent below the fair market rent for comparable properties, as long as the Project is in operation. Compatible agricultural operations shall be established, or Applicant shall be actively seeking to have such operations established, within one year of the start of commercial power generation. Extensions to this deadline may be granted by the Director of the DPP for unforeseen extenuating circumstances.
2. The Applicant shall submit for review and obtain the approval of the following from the Director of the DPP, prior to the issuance of a grading or building permit:
  - a. A survey map accompanied by a metes and bounds description of the approved Petition Area.
  - b. A site plan showing the area required under Condition 1, above, relating to the minimum land area to be made available for compatible agricultural use.

3. Within one year of the completion of construction or prior to the closing of the building permit for the solar energy facility, the Applicant shall submit to the DPP proof of financial security, such as a posted letter of credit or similar mechanism from a creditworthy financial institution, in favor of the owner of the land subject to the SP, in the amount of four million dollars (\$4,000,000.00), which security shall remain in place for the duration of the operation of the Project, with evidence of same provided to the Director of the DPP on an annual basis, to decommission the Project and restore the Petition Area to substantially the same physical condition as existed prior to the development of the SEF.

The Applicant shall decommission the SEF within twelve (12) months following the termination of operation of the SEF, with the exception of the HECO switchyard, which may remain within the Petition Area after termination of the SP.

A change in Project ownership or a change of ownership of the land subject to the SP, which warrants a new proof of financial security to decommission the Project, shall be submitted to the DPP for processing through the Planning Commission, within three months of the ownership change.

4. As needed, the Applicant shall work with the FWS regarding the protection of endangered or migratory bird activity at the Petition Area.
5. Applicant shall establish the Project within two years of the date of the LUC Decision and Order approving the SP. Requests for extension of this deadline shall be submitted to the Director of the DPP prior to the expiration of the deadline. The Land Use Commission may grant an extension to the deadline to establish the Project due to unforeseen circumstances that were beyond the control of the Applicant. This SP shall be valid for a period of thirty-five (35) years from the date of the Land Use Commission's Decision and Order approving the SP, subject to further extensions upon a timely request for extension filed with the Land Use Commission at least one-hundred twenty (120) days prior to the SP's expiration.

6. On or before December 31 of each year that the Special Permit is in effect, Applicant or its successor shall file an annual report to the Land Use Commission, the State Office of Planning, and the DPP that demonstrates Applicant's compliance with conditions of the SP.
7. Major modifications to: (1) the Project plans, including but not limited to significant increases in the number of PV panels; (2) amendments to the conditions of approval; (3) significant expansions of the approved area; or (4) changes in uses stated herein, shall be subject to the review and approval of the Planning Commission and the Land Use Commission. Minor modifications including minor additions to accessory uses and structures, and new incidental uses and structures in the approved area are subject to review and approval by the Director of the DPP.
8. Applicant and/or landowner shall notify the Director of DPP of:
  - a. Any change or transfer of licensee on the property;
  - b. Any change in uses on the property;
  - c. Termination of any uses on the property; and/or
  - d. Transfer in ownership of the property.

The Planning Commission, in consultation with the Director of the DPP, shall determine the disposition of this Special Permit, and the facilities permitted herein.

9. Enforcement of the conditions of the SP shall be pursuant to the Rules of the Planning Commission, including the issuance of an order to show cause as to the reason the SP should not be revoked if the Planning Commission has reason to believe that there has been a failure to perform the conditions imposed herein.

10. If the photovoltaic array creates a hazardous condition for pilots or motorists, the facility operator shall immediately mitigate the hazard upon notification by the Department of Transportation, Airports Division or the Federal Aviation Administration.
11. Applicant is required to obtain approval of an archaeological monitoring plan from SHPD prior to any ground disturbing activities.
12. In the event that historic resources, including human skeletal remains, structural remains, cultural deposits, artifacts, sand deposits, or sink holes, are identified during demolition and/or construction activities, all work shall cease in the immediate vicinity of the find, the find shall be protected from additional disturbance, and the SHPD, and O'ahu Island Burial Council, shall be contacted immediately. Without any limitation to any other condition found herein, if any burials or archaeological or historic sites are discovered during the course of construction of the Project, all construction activity in the vicinity of the discovery shall stop until the issuance of an archaeological clearance from the SHPD that mitigation measures have been implemented to its satisfaction.
13. Applicant shall develop the Property in substantial compliance with the representations made to the City and County of Honolulu Planning Commission and the State Land Use Commission in obtaining the State Special Permit. Failure to so develop the Property may result in revocation of the permit.

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ADOPTION OF ORDER

This ORDER shall take effect upon the date this ORDER is certified by this Commission.

Done at Honolulu, Hawai'i, this 6th, day of June, 2015, per motion on June 9, 2015.

STATE OF HAWAI'I  
LAND USE COMMISSION

By \_\_\_\_\_  
Chad McDonald  
Chairperson and Commissioner

APPROVED AS TO FORM

\_\_\_\_\_  
Deputy Attorney General

Filed and effective on:

\_\_\_\_\_  
Certified by:

\_\_\_\_\_  
DANIEL E. ORODENKER  
Executive Officer

BEFORE THE LAND USE COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Application of	)	DOCKET NO. SP15-406
	)	
	)	
KAWAIILOA SOLAR, LLC	)	CERTIFICATE OF SERVICE
For a New Special Use Permit To Allow	)	
Development of a 50-megawatt photovoltaic	)	
(PV) Energy Generation Facility and	)	
Accessory Uses and Structures On Lands	)	
Rated Class A, B and C by the Land Study	)	
Bureau, Ashley Road, Kawaiiloa Ahupua'a,	)	
Waialua District, Oahu, Hawai'i, Portions of	)	
Tax Map Key Nos.: (1) 6-1-005:001 and (1)	)	
6-1-006:001, Part of Kamehameha School's	)	
Kawaiiloa Plantation	)	

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CERTIFICATE OF SERVICE

THE UNDERSIGNED HEREBY CERTIFIES that I have filed and served on this date, the original and one (1) copy of the foregoing document, by hand-delivery to the Commission at the following address:

DANIEL E. ORODENKER, Executive Officer  
State of Hawai'i Land Use Commission  
Department of Business, Economic Development & Tourism  
State Office Tower  
Leiopapa A Kamehameha Building  
235 S. Beretania Street, Room 406  
Honolulu, Hawai'i 96804

THE UNDERSIGNED HEREBY FURTHER CERTIFIES that on this date, copies of the foregoing document was duly served upon the following individual(s) by hand-delivery as follows:

LEO R. ASUNCION, JR., Acting Director  
Office of Planning  
State Office Tower, 6<sup>th</sup> Floor  
235 S. Beretania Street  
Honolulu, Hawai'i 96813

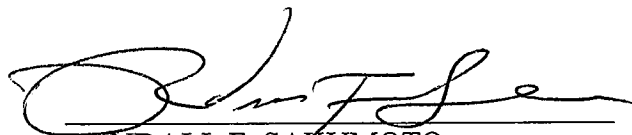
BRYAN YEE, ESQ.  
Deputy Attorney General  
Department of the Attorney General  
425 Queen Street  
Honolulu, Hawai'i 96813

GEORGE I. ATTA, Director  
c/o Kathy Sokugawa  
Department of Planning and Permitting  
City and County of Honolulu  
650 S. King Street, 7<sup>th</sup> Floor  
Honolulu, Hawai'i 96813

RAYMOND YOUNG  
Department of Planning and Permitting  
City and County of Honolulu  
650 S. King Street, 7<sup>th</sup> Floor  
Honolulu, Hawai'i 96813

PLANNING COMMISSION  
Department of Planning and Permitting  
City and County of Honolulu  
650 S. King Street, 7<sup>th</sup> Floor  
Honolulu, Hawai'i 96813

DATED: Honolulu, Hawai'i, June 5, 2015.



RANDALL F. SAKUMOTO  
MARGUERITE S. NOZAKI

Attorneys for Applicant  
KAWAILOA SOLAR, LLC