

LAND USE COMMISSION
STATE OF HAWAII
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CARLSMITH BALL LLP

JENNIFER A. LIM 8357
PUANANIONAONA P. THOENE 10005
CARLSMITH BALL LLP
ASB TOWER, SUITE 2100
1001 BISHOP STREET
HONOLULU, HAWAII 96813
TEL. NO.: (808) 523-2500
FAX NO.: (808) 523-0842

Attorneys for Applicant
WAIAWA PV, LLC (now known as WAIPIO PV, LLC)

BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of

WAIAWA PV, LLC

For a New Special Use Permit To Allow
Development of a 47-megawatt photovoltaic
(PV) Energy Generation Facility and
Accessory Uses and Structures On
Approximately 308.8 Acres of Land Within the
State Land Use Agricultural District at Waipio,
Ewa, Oahu, Hawaii Tax Map Key No. (1) 9-5-
003: Portion of Parcel 004


DOCKET NO. SP15-405

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;
CERTIFICATE OF SERVICE

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

Applicant Waiawa PV, LLC (now known as Waipio PV, LLC) submits the following
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.

Applicant Waiawa PV, LLC respectfully submits this proposal to assist the State of Hawaii Land Use Commission in its review of the Planning Commission record in this matter.



JENNIFER A. LIM
PUANANIONAONA P. THOENE
Attorneys for Applicant
WAIAWA PV, LLC
(now known as WAIPIO PV, LLC)

Dated: Honolulu, Hawaii, February 19, 2015

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OF THE STATE OF HAWAII

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**PROPOSED FINDINGS OF FACT,
CONCLUSIONS OF LAW, AND DECISION AND ORDER**

On or about September 5, 2014, applicant Waiawa PV, LLC ("**Applicant**") filed an Application for a State Special Use Permit, Waiawa Solar Farm Project, Oahu, Hawaii ("**Application**"), with the Department of Planning and Permitting, City and County of Honolulu ("**DPP**"). [DPP Ex. 1, 2¹] Applicant is a wholly owned subsidiary of First Wind Holdings, LLC.² [DPP Ex. 1 (Application), Attch 1] On December 17, 2014, the City and County of

¹ Throughout this document references to the record will be based on the Index of the Record (revised February 11, 2015), filed by DPP with the Land Use Commission on February 13, 2015.

² In January 2015, SunEdison, Inc. acquired First Wind Holdings, LLC. As of January 26, 2015, Waiawa PV, LLC changed its name to Waipio PV, LLC. Therefore, all future references to Applicant should be understood to mean Waipio PV, LLC. Applicant respectfully asks that the Commission take official notice of this name change under HAR §15-15-63(k), which provides:

(k) The commission may take official notice of **matters as may be judicially noticed by the courts of the State of Hawai'i**. Official notice may also be taken of generally recognized technical or scientific facts within the commission's specialized knowledge when parties are given notice either before or during the hearing of the material so noticed and afforded the opportunity to contest the facts so noticed. (emphasis added).

Hawaii Rules of Evidence, Rule 201 sets forth the standards for judicial notice of adjudicative facts, and provides in relevant part:

Honolulu Planning Commission ("**Planning Commission**") met at the Mission Memorial Conference Room in Honolulu, Hawaii to consider the Application. On January 7, 2015, the Planning Commission again met at the Mission Memorial Conference Room in Honolulu, Hawaii, 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. [DPP Ex. 24, Tr. 1/7/15, 85:5 - 86:3]

The Planning Commission issued its Findings of Fact, Conclusions of Law, and Decision and Order in DPP File No. 2014/SUP-3 on January 21, 2015 ("**City D&O**"), approving the State Special Use Permit ("**SUP**"), subject to review and approval of the State of Hawaii Land Use Commission ("**LUC**"). The City D&O and the record in this matter was transmitted to the LUC on January 26, 2015.

On March 5, 2015, the LUC conducted a meeting on the Application at State Office Tower, Leiopapa A Kamehameha Building, Honolulu, Hawaii. Entering appearances were Jennifer A. Lim, Esq., and Puananionaona P. Thoene, Esq., of Carlsmith Ball LLP for Applicant. Raymond Young was present for DPP. Deputy Attorney General Bryan Yee, Esq. and Rodney Funakoshi were present on behalf of the State Office of Planning.

Commissioners Chad McDonald, Edmund Aczon, Jonathan Likeke Scheuer, Kent Hiranaga, Brandon Ahakuelo, Neil Clendeninn, Aaron D. Mahi, and Sandra Song were in attendance. The Commission provided an opportunity for public testimony. At the meeting the Applicant provided oral argument in support of its position on the Application and the City D&O.

(b) Kinds of facts. A judicially noticed fact must be one not subject to reasonable dispute in that it is either (1) generally known within the territorial jurisdiction of the trial court, or (2) capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned.

* * *

(f) Time of taking notice. Judicial notice may be taken at any stage of the proceeding.

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 Hawaii Revised Statutes ("**HRS**") Sections 205-2 and 205-4.5(a)(20), and added HRS Section 205-4.5(a)(21). [DPP Ex. 22 (DPP Findings of Fact, Conclusions of Law, and Recommendation, Nov. 3, 2014, enclosing ltr from Office of Planning, State of Hawaii with copy of Act 55)]

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 Use 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.

[Act 55; *see also* HRS §205-4.5(a)(21)]

3. The subject property is an approximately 308.8 acre portion of Tax Map Key No. (1) 9-5-003:004, and is located east of H-2 and approximately 1,000 feet north of Mililani Memorial Park ("**Petition Area**"). [City D&O at p.1]

4. The Applicant filed the Application, which included twelve Attachments, with DPP on September 5, 2014. [DPP Ex. 2]

5. DPP accepted the Application for processing as of October 2, 2014. [DPP Ex. 9]

6. DPP circulated the Application for comments to various City, State and Federal agencies, Hawaiian Electric Company, and various Islandwide organizations. [DPP Ex. 5]

7. By letters dated October 2, 2014, with copies of the Application enclosed, DPP solicited comments on the Application from various City, State, Federal agencies and community organizations. [DPP Ex. 8]

8. DPP mailed notice of the Application to numerous individuals and agencies. [DPP Ex. 6, 7]

9. In October and November, 2014, DPP received comments on the Application from the City and County of Honolulu Police Department ("**HPD**"), Department of Environmental Services ("**DES**"), Fire Department ("**HFD**") and Board of Water Supply ("**BWS**"); the State Public Utilities Commission ("**PUC**"), Department of Agriculture ("**DOA**"), Office of Planning ("**OP**"), Land Use Commission ("**LUC**") and Department of Transportation ("**DOT**"); and from the U.S. Department of the Interior, Fish and Wildlife Service ("**FWS**"). [DPP Ex. 14]

10. In November and December 2014, DPP also received comments on the Application from Tin Roof Ranch, Blue Planet Foundation, Pacific Resource Partnership and Castle & Cooke Hawaii. [DPP Ex. 12]

11. On November 17, 2014, notice of the public hearing on the Application was published in the Honolulu Star-Advertiser. [DPP Ex. 18]

12. On November 21, 2014, the planning firm for the Applicant, CH2M Hill provided to DPP the Applicant's written responses to the comments received by HFD, DOA OP, LUC and FWS. [DPP Ex. 17]

13. On November 25, 2014, the Pearl City Neighborhood Board No. 21 passed a Resolution in Support of the Application. [DPP Ex. 13]. In January 2014 Applicant presented the SEF to the Mililani Mauka/Laulani Valley neighborhood board and also to the Mililani/Waipio/Melemanu neighborhood board. The Mililani/Waipio/Melemanu neighborhood board unanimously passed a resolution in support of the Application. [DPP Recommendation at p. 6; DPP Ex. 19 (Applicant's Ex. 20 (Written Direct Testimony of C. Kua))]

14. By letter dated December 10, 2014, Applicant notified the DPP Director George Atta that the preferred term of the SUP is 35 years, rather than the timeframe of approximately 27 years as described in the Application. [DPP Ex. 21]

15. By letter dated December 10, 2014, Applicant notified the Planning Commission of Applicant's intent to file additional exhibits and materials, including written direct testimony, with the Planning Commission on December 15, 2014. [DPP Ex. 21]

16. On December 15, 2014, Applicant filed with the Planning Commission Applicant's First List of Witnesses; First List of Exhibits; Exhibits "1" - "23." [DPP Ex. 19, 26]

17. On December 17, 2014, the Planning Commission held a hearing on the Application. Entering appearances were Planning Director George Atta, Planner Raymond

Young and Kathy Sokugawa for DPP, and Jennifer A. Lim, Esq. and Puananionaona P. Thoene, Esq. for Applicant. [DPP Ex. 20, Tr. 12/17/15]

18. Applicant presented written and oral testimony of the following witnesses: Wren Wescoatt, development director with First Wind, Jed Dailey, vice president of construction for First Wind, Tom Siegel, vice president of transmission for First Wind, Dave Cowan, director of environmental affairs for First Wind, Robert "Bob" Rechtman, vice president of ASM Affiliates (oral testimony only), Paul Luersen, senior land use and environmental planner for CH2M Hill, Paul Matsuda, director of civil engineering at Group 70 International, and Crystal Kua, director of external affairs for First Wind. [DPP Ex. 20, Tr. 12/17/15]

19. Copies of the resumes of Applicant's witnesses demonstrating their respective areas of expertise were filed with the Planning Commission on December 15, 2015. [DPP Ex. 19 (Applicant's Ex. 1 - 4, 21)]

20. The Planning Commission heard public testimony in support of the Application from Cruz Vina, chairperson for the Pearl City Neighborhood Board. [DPP Ex. 20, Tr. 12/17/14, 57:18 - 58:9]

21. The Planning Commission continued the hearing to January 7, 2015, so that the DPP could prepare its report on the Application and submit it to the Planning Commission for review prior to decision-making. [DPP Ex. 20, Tr. 12/17/14, 59:23 - 67:4]

22. On December 29, 2014, Applicant filed with the Planning Commission Applicant's List of Witnesses; Second List of Exhibits; Exhibits "24" - "26." [DPP Ex. 27, 19].

23. Also on December 29, 2014, Applicant filed with the Planning Commission a copy of the transcript of the December 17, 2014, Planning Commission hearing. [DPP Ex. 20]

24. On December 30, 2014, 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 nine conditions. [DPP Ex. 22³]

25. On January 6, 2015, Applicant filed with the Planning Commission Applicant's Exceptions to the Department of Planning and Permitting of the City and County of Honolulu's Findings of Fact, Conclusions of Law, and Recommendation Dated December 30, 2014 ("**Applicant's Exceptions**"). [DPP Ex. 25⁴] Applicant indicated that it believed that the findings, conclusions and conditions in the DPP Recommendation were overwhelmingly correct, but that clarifications were appropriate to supplement the DPP Recommendation and more fully and clearly reflect the record. [*Id.*]

26. The deadline for filing petitions to intervene before the Planning Commission was December 1, 2014, and no applications were filed. [Applicant's Exceptions, FOF 1]

27. On January 7, 2015, the Planning Commission held the continued hearing on the Application. Entering appearances were Planning Director George Atta and Planner Raymond Young, and Jennifer A. Lim, Esq. and Puananionaona P. Thoene, Esq. for Applicant. [DPP Ex. 24 (Tr. 12/17/15)]

28. Director Atta presented DPP's position on the Applicant's Exceptions, indicating that DPP did not object to most of the changes, which he characterized as additional details and clarifications, and that DPP approved Applicant's additional conclusions of law. [DPP Ex. 23 (G. Atta, Tr. 1/7/15, 75:18 - 76:16)]

³ A copy of the DPP Recommendation was made part of the record as DPP Exhibit 22. Due to the numerous references to the DPP Recommendation in this document, for ease of reference the citations will be to "DPP Recommendation" rather than to "DPP Ex. 22 (DPP Recommendation)."

⁴ A copy of Applicant's Exceptions was made part of the record as DPP Exhibit 25. Due to the numerous references to Applicant's Exceptions in this document, for ease of reference the citations will be to "Applicant's Exceptions" rather than "DPP Ex. 25 (Applicant's Exceptions)."

29. Director Atta presented DPP's position to further clarify Applicant's revisions to proposed Condition No. 3, and DPP's position against Applicant's proposed Condition No. 10. [DPP Ex. 23 (G.Atta, Tr. 1/7/15, 76:16 - 77:23)]

30. A motion was made, seconded and passed unanimously to approve the Application, subject to the DPP Recommendation, as further amended by the Applicant's Exceptions, as further amended by the discussion before the Planning Commission at the January 7, 2015, hearing. [DPP Ex. 24 (Tr. 1/7/15, 85:5 - 86:3)]

31. On January 13, 2015, Applicant filed with the Planning Commission the transcript of the January 7, 2015 proceedings. [DPP Ex. 23]

32. On January 26, 2014, DPP transmitted to the LUC the City D&O, on original, one hardcopy and one digital copy of the record, and an index of the record.

33. On February 13, 2015, the LUC received from DPP, DPP Exhibits 14 and 21, which had been unintentionally omitted from the digital copy of the record previously submitted, and a revised index of the record dated February 11, 2015.

A. PROPOSAL FOR SPECIAL USE PERMIT

34. The Applicant is wholly owned by Waiawa PV Holdings, LLC, which is in turn 100% owned by First Wind Solar Portfolio, LLC, which is owned by First Wind Holdings, LLC. First Wind is an independent renewable energy company focused on the development, financing, construction, ownership and operation of utility-scale renewable energy projects in the United States. Based in Boston, First Wind is operating or building renewable energy projects in the Northeast, the West and Hawaii, with combined capacity of nearly 1,300 MW, which is enough to power more than 375,000 homes each year. In November 2014, SunEdison announced that it would be acquiring First Wind. As a wholly owned subsidiary of First Wind, the Applicant is part of that transaction. [DPP Ex. 19 (Applicant's Ex. 14 (Written Direct Testimony of W.Wescoatt))]

35. The SUP is sought so that Applicant may establish a solar energy facility ("SEF" or "Project") within the Petition Area. The SEF is planned to be a 47 megawatt ("MW") utility-scale, solar farm on approximately 308.8 acres of land in central 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 13.75 cents per kWh. The Project will generate enough energy in a year to power the equivalent of 13,000 average Oahu households. Each year of operation, the Project will save roughly 7 million gallons of imported oil. The approximately 95,000 MWh of clean, renewable, locally grown energy from the Project will prevent the addition of 75 tons of carbon dioxide annually into the environment. [DPP Ex. 19 (Applicant's Ex. 14 (Written Direct Testimony of W.Wescoatt))]

36. 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.

37. The SEF will include 47 1.0 MW_{AC} fixed-tilt blocks of panels with heights of approximately four feet, six inches, to nine feet, six inches, off the ground. Energy will be transported from the panels to combiner boxes and inverters, then to a central substation through collector lines that will be buried a few inches underground. The SEF will include a substation that will be enclosed by an eight foot high, chain-link, fence. Adjacent to the substation will be a switchyard that will have 138 kilovolt ("kV") line extensions that connect the solar project to an existing HECO transmission line and the O'ahu electrical grid. The substation and switchyard are located near HECO's Kahe-Wahiawa transmission line. [DPP Ex. 19 (Applicant's Ex. 14 (Written Direct Testimony of W.Wescoatt))]

38. The area for the substation and switchyard is approximately 2.3 acres. The substation will be approximately 200 feet by 220 feet. The switchyard will be approximately 205 feet by 265 feet. These components will be located adjacent to an existing overhead transmission line. The substation will be owned and operated by First Wind's operations

department. The switchyard will be constructed and owned by HECO. [DPP Ex. 19 (Applicant's Ex. 15 (Written Direct Testimony of J.Dailey))]

39. The area used for the switchyard and substation will be separately fenced, and that fairly small fenced will be topped with barbed security wire, which is a standard security requirement for fencing that protects high-voltage substations and switchyards. Proper signage warning of the risks of entry into an electrical switchyard will be prominently placed. Once energized, entry to the substation and switchyard will be limited to employees trained in high voltage environments, or will require mandatory escorts for those who are not so trained. This fenced area will have a bed of crushed gravel in accordance with the final design documents (crushed gravel utilized for electrical step-touch potential). The only high voltage equipment will be at the substation and switchyard. The PV array contains only medium and low voltage equipment. [DPP Ex. 19 (Applicant's Ex. 15 (Written Direct Testimony of J.Dailey))]

40. Communication services will be needed at the substation and switchyard, which may involve overhead construction. The communication infrastructure will not extend out to the individual PV panels. There may also be local HECO distribution lines that will be needed for backup low voltage power at the yards and for the agricultural tenant(s) within the Petition Area. With respect to the adjacent HECO 138 kV transmission line, there will be a short segment that will enter and exit the HECO switchyard. However, all electrical lines that collect the energy from the PV panels and bring the power to the substation will be routed underground. [DPP Ex. 19 (Applicant's Ex. 15 (Written Direct Testimony of J.Dailey))]

41. The Project does not include utility-scale batteries or batteries used for energy storage. As with any substation or switchyard (or server room, etc.), there is a need for a limited number of batteries to keep vital equipment running during power outages. The batteries will be contained in the substation control enclosures, and are roughly the size of twenty (20) to thirty (30) car batteries. These batteries will likely be lead acid with containment, and will have a battery charger and monitoring equipment. These batteries are identical to other substation and switchyard control enclosures that have been constructed recently. [DPP Ex. 19 (Applicant's Ex. 15 (Written Direct Testimony of J.Dailey))]

42. A fixed-tilt solar project has few, if any, moving parts, so lubricants are not required. However, similar to residential electrical service, the Project will have pad-mounted transformers that will convert power from low to medium voltage. These pad-mounted transformers typically contain biodegradable oil. These are standard utility transformers that are very common to all renewable energy projects (and commercial shopping centers, etc.). Within the substation, there is oil-filled equipment, the largest source being the main power transformer. Per Code, and best practice, the main power transformer is designed with 100% secondary containment. Any other materials deemed hazardous will be stored pursuant to best practice and the Project's spill prevention plan. [DPP Ex. 19 (Applicant's Ex. 15 (Written Direct Testimony of J.Dailey))]

43. Another aspect of the SEF is that the 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 Tin Roof Ranch, 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 Tin Roof Ranch not lease the property, or not lease it for the full term of the SUP, Applicant is committed to finding one or more agricultural tenants to lease and use the property for agriculture. [DPP Recommendation at p.2; DPP Ex. 19 (Applicant's Ex. 14 (Written Direct Testimony of W.Wescoatt))]

44. The heights of the PV panels will be approximately four and one half to nine and one half feet, 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. [DPP Ex. 19 (Applicant's Ex. 14 (Written Direct Testimony of W.Wescoatt))]

45. 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 Kaua'i, a rancher

grazers a herd twenty to thirty sheep under about 3 acres of PV panels. [DPP Ex. 19 (Applicant's Ex. 14 (Written Direct Testimony of W.Wescoatt))]

46. Applicant commissioned a study called Sheep and Solar Panels in Hawaii, 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 Hawai'i for the sale of lamb to local stores and restaurants. O'ahu has almost no local sheep farms, while Maui, Kauai and Hawai'i Island together have nearly \$1 million in annual sheep sales. The study includes several recommendations for best practices in the ranching of sheep. [DPP Ex. 1 (Application, Atch 6 (Sheep and Solar Panels in Hawaii - A Report); DPP Ex. 19 (Applicant's Ex. 14 (Written Direct Testimony of W.Wescoatt)))]

47. Should sheep farming not prove viable, other permitted compatible "agricultural activities" include (1) cultivation of crops, including crops for bioenergy, flowers, vegetables, foliage, fruits, forage, and timber; (2) game and fish propagation; and (3) raising of livestock, including poultry, bees, fish, or other animal or aquatic life that are propagated for economic or personal use. Having solar panels on the property does restrict some types of agriculture, but it may be possible to integrate bees, aquaculture, poultry or other types of livestock. [DPP Ex. 19 (Applicant's Ex. 14 (Written Direct Testimony of W.Wescoatt))]

B. DESCRIPTION OF THE SUBJECT PROPERTY & SURROUNDING AREA

48. The Petition Area is on the east side of the H-2 Freeway, approximately 0.25 miles north of Mililani Memorial Park and Mortuary. The southernmost point of the Mililani Mauka subdivision is approximately 0.5 miles to the north. [DPP Ex. 19 (Applicant's Ex. 19 (written direct testimony of P.Matsuda, P.E.))]

49. Access to the site is via Plantation Road, an existing, unpaved, private access road that connects to Ka Uka Boulevard. Plantation Road later transitions to Pineapple Road, which crosses H-2 via an overpass. This is no public access to the Petition Area. [DPP

Recommendation at FOF A; Applicant's Exceptions at FOF 2; DPP Ex. 19 (Applicant's Ex. 19 (written direct testimony of P.Matsuda, P.E.))]

50. The 308.8 acre Petition Area is in the State Land Use Agricultural District and has not been designated as Important Agricultural Lands. [DPP Recommendation at p.1; City D&O at FOF 9]

51. The soils within the Petition Area are rated as Class B soils according to the LSB overall master productivity rating system. The soils are also classified as Prime and Unique under the Agricultural Lands of Importance to the State of Hawaii rating system. [DPP Recommendation at p. 4; City D&O at FOF 9]

52. The Petition Area is relatively flat, with an average slope of less than 3%. It generally slopes mauka to makai from an elevation of 940 feet above sea level on the east side of the Petition Area, to 720 feet above sea level on the west side, by the H-2 Freeway. [DPP Ex. 19 (Applicant's Ex. 11 (Preliminary Civil Considerations) and Applicant's Ex. 19 (written direct testimony of P.Matsuda, P.E.))]

53. The U.S. Federal Emergency Management Agency Flood Insurance Rate Map shows the Petition Area located in Flood Zone D, where flood hazards are undetermined. [DPP Ex. 19 (Applicant's Ex. 11 (Preliminary Civil Considerations) and Applicant's Ex. 19 (written direct testimony of P.Matsuda, P.E.))]

54. The Petition Area is comprised of former agricultural fields previously cultivated with pineapple and sugarcane. The Property was used for commercial pineapple production since the early 1900s through the 1970s. [DPP Ex. 19 (Applicant's Ex. 19 (written direct testimony of P.Matsuda, P.E.))]

55. The Petition Area is currently used as a pasture. Land mauka of the Petition Area is being used as a horse farm. [City D&O at FOF 6; DPP Ex. 24 (W.Wescoatt, Tr. 12/17/14, 14:18 - 14:25)]

56. The Petition Area is surrounded by vacant agricultural land and overgrown terrain. Small farms occupy certain parcels north and south of the site. The nearest residential areas are the southernmost portion of Mililani Mauka (approximately 0.5 mile to the north, across Kipapa Gulch) and the eastern most portion of Mililani Town (approximately 0.6 mile to the west, across the H-2 Freeway). [DPP Recommendation at p.10]

57. The Petition Area is owned by Renewables Land Holdings, LLC, which acquired the property from Castle & Cooke Homes Hawaii, Inc. on December 23, 2014. Renewables Land Holdings, LLC provided a fee owner's letter of authorization dated December 23, 2014 consistent with Hawaii Administrative Rules ("HAR") Section 15-15-95(a). [DPP Ex. 19 (Applicant's Ex. 25 (Fee Owner Authorization), 26 (Deeds))]

58. Renewables Land Holdings, LLC will lease the Petition Area to the Applicant, which is the developer of the SEF. [DPP Ex. 20 (W.Wescoatt, Tr. 12/17/14, 22:18 - 22:25)]

59. Prior to the conveyance to Renewables Land Holdings, LLC, Castle & Cooke Homes Hawaii, Inc. provided fee owner authorization for the filing of the Application. [DPP Ex. 2]

60. The Petition Area is designated Agricultural and Preservation under the Central Oahu Sustainable Communities Plan. [DPP Recommendation at p.15]

61. The Petition Area is zoned in the AG-1 Restricted Agricultural District. The SEF is considered a utility installation, which is allowed within the AG-1 District subject to obtaining a conditional use permit from the DPP. [DPP Recommendation at p. 16]

62. The Petition Area is located outside of the Special Management Area, and no Special Management Area permits are required for the SEF. [DPP Recommendation at p. 16]

63. A land area of approximately 4.2 acres, as shown on Applicant's Ex. 24, within the boundaries of the Petition Area is not part of the Project. That land area is excluded from coverage under the SUP as approved by the Planning Commission. The area is set aside for the possible construction of a reservoir to support the Koa Ridge project. Applicant does not propose to construct a reservoir or do any construction within the set aside area. [DPP Ex. 19 (Applicant's Ex 24 (Waiawa Solar Farm Location Map); DPP Ex. 20 (W.Wescoatt, Tr. 12/17/14, 23:16 - 24:15); DPP Ex. 24 (R.Young, Tr. 1/7/15, 72:19 - 73:6)]

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

64. The SEF is not contrary to the objectives sought to be accomplished under Hawaii 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. Under current technology, utility scale PV facilities utilize solar panels to collect and distribute generated energy require large amounts of relatively gentle terrain, sited in close proximity to an existing electrical grid. The Petition Area was formally used for pineapple cultivation and is currently in pasture use. The Applicant proposes to continue 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). The Applicant submitted to DPP a Letter of Intent between the Applicant and Tin Roof Ranch to pasture sheep on the property. The sheep will be beneficial to the SEF for vegetation control and provide a food source in compliance with the intent of Act 55. [DPP Recommendation at p. 8; Applicant's Exceptions at p. 5]

65. Act 55 sets forth requirements related to decommissioning, such as a requirement for the 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. [Act 55; DPP Ex. 1, Attach 9 (Decommissioning Plan)]

66. 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. [DPP Ex. 1, Atch 9 (Decommissioning Plan); DPP Ex 20 (W.Wescoatt, Tr. 12/17/14, 17:23-18:7)]

67. 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. [DPP Ex 20 (W.Wescoatt, Tr. 12/17/14, 16:17-17:14)]

68. 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. [DPP Ex. 19 (Applicant's Ex. 14 (Written Direct Testimony of W.Wescoatt))]

69. 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. [DPP Ex. 24 (Tr. 1/7/15, 79:21-80:7)]

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

70. 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 space resources.
- (A) *Identify valued scenic resources in the CZM area;*
 - (B) *Ensure that new developments are compatible with their visual environment by designing 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 Oahu's central plain, far away from the shoreline. Landscaping will screen the Project from views along the H-2. [DPP Recommendation at p. 16]

HRS §§205A-2(b)(8); (c)(8) Public participation.
(A) Promote public involvement in CZM 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.

The Applicant made presentations about its proposal to the area's neighborhood boards. The Application was also made available online at the DPP webpage. [DPP Recommendation at p. 16 - 17]

71. Applicant began community outreach on the SEF in October 2013. Representatives from First Wind/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 – the director and staff of the State Department of Agriculture, the Dean and individual faculty of the University of Hawai‘i College of Tropical Agriculture, Hawai‘i Farm Bureau, North Shore Chamber of Commerce Agriculture Committee, North Shore Land Trust (which hosts an annual food sustainability summit), North Shore Neighborhood Board Agriculture Committee, the chairs and committee members of the state Senate and House Agricultural Committees (2013 session), state Rep. Lauren Matsumoto (family owns Peterson’s Upland Farm in Wahiawa), farmer Richard Ha and officers of the Hawaii Sheep and Goat Association.

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

Environmental – Blue Planet Foundation, the Sierra Club of Hawai‘i, Mālama Pūpūkea, North Shore Land Trust. [DPP Ex. 19 (Applicant's Ex. 20 (Written Direct Testimony of C.Kua))]

E. EFFECTS ON SURROUNDING PROPERTY

72. The Applicant had a study prepared titled Waiawa and Mililani Solar Farm Projects 138-kV Interconnection Lines and Substation/Switchyard (the "**EMF Study**"). [DPP Ex. 1, Attch. 12] The EMF Study concluded that the maximum noise that could be produced by the overhead power lines for the SEF would be fifteen (15) decibels ("**dB**A") in wet weather and zero (0) in dry weather. The residence closest to the proposed substation/switchyard tap lines will experience a noise level of zero, or very close to zero dBA for both wet and dry conditions. [DPP Ex. 19 (Applicant's Ex. 18 (P.Luersen Written Direct Testimony)); DPP Ex. 1, Attch 12]

73. The EMF Study concluded that outside of the Petition Area, there will be no significant difference in the electric or magnetic fields between the overhead and the underground configuration for the transmission tap lines. At the distance to the nearest residence (approximately 1,800 feet from the substation and switchyard), the electric and magnetic fields will essentially be zero for both the tap lines and the substation/switchyard. [DPP Ex. 19 (Applicant's Ex. 18 (P.Luersen Written Direct Testimony); DPP Ex. 1, Attch 12]

74. Short-term noise impacts may result from supplemental grass trimming by mechanical means. [DPP Ex. 22 at p. 10]

75. The SEF is a passive operation. The racking systems are fixed and do not have any motors or moving parts. During 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). [DPP Ex. 19 (Applicant's Ex. 11 (Preliminary Civil Considerations))]

76. 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 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. [DPP Ex. 19 (Applicant's Ex. 11 (Preliminary Civil Considerations))]

77. The rack system will be designed in accordance with the building permit structural requirements Act 82, Session Laws of Hawaii, 2007. They are designed to withstand a wind exposure in accordance with Honolulu County Wind Maps, which at this location lists maximum winds of 120 miles per hour. All racking designs will be stamped by a licensed engineer to meet these standards for wind loading. [DPP Ex. 19 (Applicant's Ex. 15 (Written Direct Testimony of J.Dailey))]

78. The Applicant submitted a view study with simulations that demonstrated minimal impacts on public roadways, parks and other public spaces. [DPP Ex. 1(Application), Attch 10 (Visual Simulations and Representative Photos)]

79. The switchyard and substation, which is located about a mile from the H-2, will vertical structures including 20- to 30-foot high electrical racks and structures, communications and electrical equipment buildings, fencing, and an 80-foot high communications tower. There were not shown on the simulations. At this distance, the switchyard and substation would have a minimal impact on views from H-2. Naupaka and Kou plants will be planted along the western boundary of the Petition Area to screen any views. [DPP Recommendations at p. 10-11]

80. With appropriate landscaping as represented by the Applicant, the Project is consistent with relevant provisions of the Central Oahu Sustainable Communities Plan. Any unanticipated view impacts will be further reviewed by DPP under the Conditional Use Permit [DPP Recommendation at p. 16]

81. Applicant prepared a Reflectivity (or Glare) Study for the Project. [DPP Ex. 1 (Application), Attch 11]

82. 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 to 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 Wheeler Army Airfield are expected to be barely perceptible. [DPP Recommendation at p. 18]

83. The DOT Airports Division indicated in its comments on the Application that glint and glare may affect other aircraft within the vicinity of the Petition Area beyond the typical flight paths used by aircraft approaching Wheeler Army Airfield. DOT stated that the Applicant should be prepared to immediately mitigate hazardous conditions due to glint and glare upon notification by the DOT Airports Division or the FAA. [DPP Recommendation at p. 18]

84. The Project will connect to the HECO electrical grid at the 138 kV level. Residential and commercial PV systems connect to the HECO grid at a distributional level of 12 kV. HECO determines the ability to accept additional residential systems based on the existing amount of renewable energy on the 12 kV utility line, while the 138 kV line is not taken into consideration. The Project will not prevent or impair connections for residential or commercial rooftop solar. [DPP Ex 19 (Applicant's Ex. 16 (Written Direct Testimony of T. Siegel)); DPP Ex. 20 (T.Siegel, Tr. 12/17/14, 36:23-37:20); Applicant's Exceptions at p.9]

85. 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 Petition Area; (ii) provide a description of wetlands, streams or waterways, if any, within the Petition Area; (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 Petition Area; and (iv) provide recommendations to prevent "take" should any species listed species be identified within the Petition Area. 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. [DPP Ex. 19 (Applicant's Ex. 17 (Written Direct Testimony of D.Cowan)]

86. 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 avifauna and recommends avoiding barbed wire fencing. [DPP Recommendation at p.9-10]

87. Applicant met representatives of FWS and the DLNR Division of Forestry and Wildlife 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 Hawaii hoary bat could use the Petition Area to forage and roost, and therefore recommended that the 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. The 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. [Applicant's Exceptions at p. 6; DPP Ex. 19 (Applicant's Ex. 17 (Written Direct Testimony of D.Cowan)); DPP Ex. 20 (D.Cowan, Tr. 12/17/14, 39:21-41:11)]

88. FWS commented that some birds on the U.S. mainland are confusing solar systems for water, resulting in injuries to the birds. However, FWS acknowledged that this has not been an issue documented in Hawaii. Because there are a number of water birds and shorebirds in Hawaii, 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. [Applicant's Exceptions at p. 6-7; DPP Ex. 19 (Applicant's Ex. 17 (Written Direct Testimony of D.Cowan)); DPP Ex. 20 (D.Cowan, Tr. 12/17/14, 39:21-41:11)]

F. IMPACTS ON PUBLIC AGENCIES

89. The approval of the SUP and the development of the SEF does not trigger any requirements under HRS Chapter 343. [DPP Ex. 3]

90. The SEF will not unreasonably burden public agencies to provide roads, sewers, drainage, schools, police or fire protection. [DPP Recommendation at p. 11]

91. The PUC expressed no concerns and indicated that its role and authority in this matter is limited to the review of the power purchase agreement between HECO and Applicant. [DPP Ex. 14]

92. OP did not have any objections to the Application. However, 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. [DPP Ex. 14, OP ltr dated 11/3/14]

93. Access to the Petition Area is via a private agricultural road known as Plantation Road, which connects to Ka Uka Boulevard across from the Costco Waipio complex. Plantation Road later transitions into Pineapple Road which crosses H-2 via an overpass. Applicant may make improvements to Plantation Road, such as additional road base material, widening, constructing pull offs to allow for two-way traffic, additional signage, and maintenance of shoulder vegetation for sight distance. Castle & Cooke Homes owns Plantation Road, and is aware of Applicant's proposed construction activities. [DPP Ex. 19 (Applicant's Ex. 15 (Written Direct Testimony of J.Dailey))]

94. 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. The access road will be of a sufficient size to allow an emergency vehicle to access the Petition Area if necessary. [DPP Ex. 19 (Applicant's Ex. 15 (Written Direct Testimony of J.Dailey))]

95. 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. [DPP Recommendation at p. 11]

96. The City and County Department of Transportation Services and the State DOT Highways Division did not provide any comments on the Application. [DPP Recommendation at p. 11]

97. Applicant had prepared a Construction Traffic Assessment for the SEF. The Construction Traffic Assessment concluded that during operations of the SEF, traffic impacts will be negligible. During construction there will be temporary impacts, such as short-term increases to vehicle delays and queues during evening peak hours of 4 pm to 5 pm. If warranted, these short-term temporary impacts can be addressed via modifications to work schedules and manual traffic controls at the project site. [DPP Recommendation at p. 11; Applicant's Exceptions at p. 7-8]

98. The Construction Traffic Assessment considered construction trips for the SEF, plus baseline traffic volumes and the construction trips anticipated to be generated by the proposed SunEdison Waiawa project. The peak of construction for the SEF would likely occur for a few months in 2016. SunEdison, the developer of the SunEdison Waiawa solar farm project, announced plans to acquire First Wind in November. Therefore, both construction projects will be constructed by related entities, thereby more easily allowing construction schedules and construction trips to be coordinated to further minimize impacts. [DPP Ex. 19 (Applicant's Ex. 13 (Waiawa Solar Farm Project; Construction Traffic Assessment)); Applicant's Ex. 18 (Written Direct Testimony of P.Luersen))]

99. 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. The City and County Department of Environmental Services stated that the proposed SEF would not impact its services or facilities. [DPP Recommendation at p. 11; and see DES ltr dated 10/13/14]

100. 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 the surrounding gullies. [DPP Recommendation at p. 11] Existing runoff from the site follows the

natural topography of the property. The Project design will not significantly alter the existing drainage patterns. [DPP Ex. 19 (Applicant's Ex. 19 (Written Direct Testimony of P.Matsuda, P.E.))]

101. 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 easement areas. There will not be a significant pre-development to post-development increase in stormwater 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 electrical equipment, and possibly small footings for racks, if required. That is an insignificant amount of land coverage. [DPP Ex. 19 (Applicant's Ex. 19 (Written Direct Testimony of P.Matsuda, P.E.)); (Applicant's Ex. 11 (Preliminary Civil Considerations))]

102. 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. [DPP Ex. 19 (Applicant's Ex. 19 (Written Direct Testimony of P.Matsuda, P.E.)); (Applicant's Ex. 11 (Preliminary Civil Considerations))]

103. 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 for 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. [DPP Ex. 19 (Applicant's Ex. 19 (Written Direct Testimony of P.Matsuda, P.E.)); (Applicant's Ex. 11 (Preliminary Civil Considerations))]

104. No residential uses are proposed within the Petition Area, so there will be no additional burdens placed on schools. [DPP Recommendation at p. 11]

105. 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. [DPP Recommendation at p. 11 and see HPD ltr dated 10/10/14]

106. 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 staff 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. [DPP Recommendation at p. 11]

107. Sheep pasturing and other compatible agricultural areas in the Petition Area should minimize brush fire potential. The 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. The 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 a wildfire will be controlled by animal grazing and/or mowing. [DPP Recommendation at p.11; DPP Ex. 19 (Applicant's Ex. 19 (Written Direct Testimony of P.Matsuda, P.E.), (Applicant's Ex. 15 (Written Direct Testimony of J.Dailey))]

108. 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. [DPP Ex. (Applicant's Ex. 15 (Written Direct Testimony of J.Dailey))]

109. The Petition Area is not currently serviced by the Honolulu Board of Water Supply. [DPP Ex. 14 (10/29/14 ltr from Board of Water Supply)]

110. 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. [DPP Recommendation at p. 11]

G. ARCHAEOLOGICAL AND HISTORICAL RESOURCES

111. An Archaeological Assessment Survey of 342 acres of land, which includes the entire Petition Area, was prepared and submitted as part of the Application ("AAS"). The AAS was submitted to the State Historic Preservation Division ("SHPD") in August 2014 [DPP Ex. 1 (Application), Attch. 9 (AAS); DPP Ex. 20 (R.Rechtman, Tr. 12/17/14, 44:5-44:8)]

112. The AAS covers all of the land within the Petition Area, and an additional area of approximately 34 acres. The additional acreage consists of the reservoir site aside, which is not part of the Project, and a larger land area close to H-2 and labeled on Figure 2 of the Application as "Area Reserved for Future Interchange." [DPP Ex. 1(Application), Attch. 9 (AAS); DPP Ex. 20 (R.Rechtman, Tr. 12/17/14, 44:29-45:21)]

113. Several prior studies covered all or portions of the Petition Area. As described in the AAS, the entire Petition Area was included in an AIS conducted by Cultural Surveys Hawai'i in 1996 (Hammatt et al. 1996). That fieldwork consisted of a combination of pedestrian and aerial survey. No archaeological sites were recorded within the Petition Area as part of that inventory survey. [DPP Ex. 1(Application), Attch. 9 (AAS)]

114. For the 2014 AAS, coverage was 100%, with crews walking in systematic sweeps paralleling the area spaced at intervals of no less than 40 meters, and as close as 15 meters, depending upon ground visibility. Transects were spaced as close as 10 meters in the

area shown as Waipio Camp B on the 1928 USGS Wahiawa Quadrangle historic map. [DPP Ex. 1(Application), Attch. 9 (AAS)]

115. The majority of the ground surface within the AAS area was covered with black plastic sheeting with black plastic water lines and white PVC pipe fragments evidencing the most recent episode of pineapple cultivation. The location of Waipio Camp B showed evidence of intensive pineapple cultivation and recent grazing. No evidence of the former camp buildings or the layout of roads connecting the buildings depicted on the historic maps was observed during the fieldwork, nor was any portable cultural material ceramics, metal, glass, etc.) present on the ground surface. [DPP Ex. 1(Application), Attch. 9 (AAS)]

116. Given the negative findings of the prior archaeological inventory survey (Hammatt et al. 1996) and concurrence with those findings as a result of the 2014 survey, the AAS concluded that the Project would not significantly impact any known historic properties. 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. [DPP Ex. 1(Application), Attch. 9(AAS)]

H. CULTURAL RESOURCES

117. Applicant had prepared an analysis to identify whether any valued cultural, historical or natural resources are present within the Petition Area, and to identify the extent to which any traditional and customary native Hawaii rights are being, or have been, exercised within the Petition Area. [DPP Ex. 19 (Applicant's Ex. 10 (First Wind Waiawa Solar Ka Pa'akai Discussion))]

118. The analysis was prepared by Robert B. Rechtman, Ph.D., an archaeologist and anthropologist, and is based on historical archival information and prior cultural studies and records of cultural consultation that was done in 2001 and 2008 for Castle & Cooke when it proposed to develop property in this region, and which studies included the Petition Area. [DPP Ex. 19 (Applicant's Ex. 10 (First Wind Waiawa Solar Ka Pa'akai

Discussion)); (Applicant's Ex. 21 (Resume of R.Rechtman, Ph.D.)); DPP Ex. 20 (R.Rechtman, Tr. 12/17/14, 46:15 - 47:13)]

119. In preparing the studies in 2001 and 2008 close to 50 individuals and organizations were contacted and asked to provide relevant cultural information concerning traditional places and resources, as well as former and ongoing cultural practices in the area. No valued natural or cultural resources or specific traditional cultural practices were identified within the Petition Area. [DPP Ex. 19 (Applicant's Ex. 10 (First Wind Waiawa Solar Ka Pa'akai Discussion))]

120. There was evidence of pig hunting activities in the forest areas adjacent to the Petition Area. However, pig hunting is not considered a traditional cultural practice. [DPP Ex. 19 (Applicant's Ex. 10 (First Wind Waiawa Solar Ka Pa'akai Discussion))]

121. No active traditional and customary practices have been documented within the Petition Area. Development of the Project will not have any adverse effect upon the exercise of native Hawaiian traditional and customary rights. [DPP Ex. 20 (R.Rechtman, 12/17/14 Tr. 48:9-48:14)]

I. GROUNDWATER AND SURFACE WATER RESOURCES

122. The Waiahole Ditch is located to the south of the Petition Area. It is not located within the Petition Area and will not be used as part of the Project. The Kipapa Stream is located to the north of the Petition Area is also is not part of the Project. [DPP Ex. 19 (Applicant's Ex. 19 (Written Direct Testimony of P.Matsuda, P.E.)); (Applicant's Ex. 11 (Preliminary Civil Considerations))]

123. Waiahole Ditch does provide water for some agricultural operations, but the current and proposed agricultural operations within the Petition Area do not utilize any water from Waiahole Ditch. [DPP Ex. 24 (G.Atta, Tr. 1/7/15, 76:3-76:11)]

124. No portion of the Petition Area is located within the U.S. Navy's Waiawa Hydrologic Zone of Contribution. [DPP Ex. 19 (Applicant's Ex. 19 (Written Direct Testimony of P.Matsuda, P.E.)); (Applicant's Ex. 11 (Preliminary Civil Considerations))]

125. 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. [DPP Ex. 19 (Applicant's Ex. 19 (Written Direct Testimony of P.Matsuda, P.E.)); (Applicant's Ex. 11 (Preliminary Civil Considerations))]

126. No new water sources will be required for the development of the Project. Water for the existing agricultural use of the property (cattle grazing) will continue to be available for compatible agricultural uses, e.g., sheep, once the Project is constructed. To the extent necessary, water for landscaping and cleaning the solar panels will primarily be through rainfall. If needed, additional water would be available either from rainwater catchment equipment or transported in via truck. [DPP Ex. 19 (Applicant's Ex. 19 (Written Direct Testimony of P.Matsuda, P.E.)); (Applicant's Ex. 11 (Preliminary Civil Considerations))]

127. 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. [DPP Ex. 19 (Applicant's Ex. 19 (Written Direct Testimony of P.Matsuda, P.E.)); (Applicant's Ex. 11 (Preliminary Civil Considerations))]

J. CONFORMANCE WITH THE GOALS, OBJECTIVES AND POLICIES OF THE HAWAII STATE PLAN

128. 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 SUP is consistent with applicable goals, objectives and policies of the Hawai'i State Plan, HRS Chapter 226. [DPP Recommendation at p. 13]

129. 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 Hawaii'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:

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

[DPP Recommendation at p. 14; DPP Ex. 1 (Application)]

- 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 Hawaii'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.

[DPP Recommendation at p. 13-14; DPP Ex. 1 (Application)]

130. 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. [DPP Recommendation at p. 14]

131. 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. [DPP Recommendation at p. 14]

RULINGS ON PROPOSED FINDINGS OF FACT

Any of the findings of fact submitted by Petitioner 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. [City D&O at COL 1]

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 Section 205-6 and the five

guidelines established by the Planning Commission under Section 2-45 of the Rules of the Planning Commission. [City D&O at COL 2]

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. [Applicant's Exceptions at COL 2.a; City D&O at COL 4]

4. The SEF will not adversely affect surrounding property, the solar farm operation is a low-impact, passive land use that should have no adverse effect on surrounding property. [Applicant's Exceptions at COL 2.b; DPP Ex. 1 (Application); DPP Ex. 19 (Applicant's Ex. 18 (Written Direct Testimony of P.Luersen))]

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. [Applicant's Exceptions at COL 2.c; DPP Ex. 1 (Application); DPP Ex. 19 (Applicant's Ex. 18 (Written Direct Testimony of P.Luersen)); Applicant's Ex. 11 (Preliminary Civil Considerations); Applicant's Ex. 15 (Written Direct Testimony of J.Dailey)]

6. Unusual conditions, trends and needs have arisen since the Petition Area was put into the State Agricultural District. Hawaii's Clean Energy policy, established in 2001, includes a goal of using efficiency and renewable energy resources to meet 70% of Hawaii'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. [Applicant's Exceptions at COL 2.d; DPP Ex. 1 (Application); DPP Ex. 19 (Applicant's Ex. 18 (Written Direct Testimony of P.Luersen))]

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. [See Applicant's

Exceptions at COL 2.e; DPP Ex. 19 (Applicant's Ex. 18 (Written Direct Testimony of P.Luersen)))]

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. [City D&O at COL 3]

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 'Āina 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. [Applicant's Exceptions at COL 3; DPP Ex. 19 (Applicant's Ex. 10 (Ka Pa'akai Discussion))]

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. [Applicant's Exceptions at COL 4; DPP Ex. 19 (Applicant's Ex. 11 (Preliminary Civil Considerations), Applicant's Ex. 19 (Written Direct Testimony of P.Matsuda, P.E.))]

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 public benefit. *Kauai Springs v. Planning Comm'n of the Cnty. of Kauai*, 324 P.3d 951, 984, 133 Hawaii 141, 174 (20014).

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. [DPP Recommendation at p. 14; Applicant's Exceptions at p. 2]

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 March _____, 2015, in Honolulu, Hawaii, 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 308.8-acre portion of TMK No. (1) 9-5-003: 004, and approximately identified on Exhibit A [See DPP Ex. 19 (Applicant's Ex. 24)], 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/SUP-3 issued by the Planning Commission on January 21, 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 SUP, 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 SUP.

A change in Project ownership or a change of ownership of the land subject to the SUP, 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 U.S. Fish & Wildlife Service regarding the protection of endangered or migratory bird activity at the Petition Area.

5. The Applicant shall establish the Project within two years of the date of the State Land Use Commission's (LUC) Decision and Order approving the SUP. Requests for extension of this deadline shall be submitted to the Director of the DPP prior to the expiration of the deadline. The 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 SUP shall be valid for a period of thirty-five (35) years from the date of the State LUC's Decision and Order approving the SUP, subject to further extensions upon a timely request for extension filed with the Commission at least one-hundred twenty (120) days prior to the SUP's expiration.

6. On or before December 31 of each year that the SUP is in effect, the Applicant or its successor shall file an annual report to the DPP that demonstrates the Applicant's compliance with conditions of the SUP.

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

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

ADOPTION OF ORDER

The undersigned Commissioners, being familiar with the record and proceedings, hereby adopt and approve the foregoing ORDER this _____ day of _____, 2015. This ORDER may be executed in counterparts. This ORDER shall take effect upon the date that this ORDER was certified by the Commission.

DONE at _____, Hawai'i, this _____ day of _____, 2015, per motion on _____, 2015.

APPROVED AS TO FORM _____ Deputy Attorney General	LAND USE COMMISSION STATE OF HAWAII _____ CHAD McDONALD Chairperson and Commissioner
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Arnold Wong
Vice Chair and Commissioner

Edmund Aczon
Commissioner

Aaron D. Mahi
Commissioner

Brandon Ahakuelo
Commissioner

Kent Hiranaga
Commissioner

Jonathan Scheuer
Commissioner

Sandra Song
Commissioner

Neil Clendeninn
Commissioner

Filed and effective on: _____, 2015.

Certified by:

DANIEL ORODENKER
Executive Officer

BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of

WAIAWA PV, LLC

For a New Special Use Permit To Allow
Development of a 47-megawatt photovoltaic
(PV) Energy Generation Facility and
Accessory Uses and Structures On
Approximately 308.8 Acres of Land Within the
State Land Use Agricultural District at Waipio,
Ewa, Oahu, Hawaii Tax Map Key No. (1) 9-5-
003: Portion of Parcel 004

DOCKET NO. SP15-405

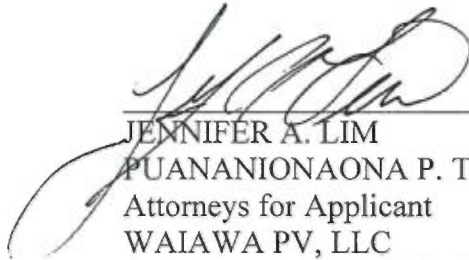
CERTIFICATE OF SERVICE

CERTIFICATE OF SERVICE

I hereby certify that due service of the foregoing was served upon the following parties
by hand delivery on February 19, 2015, addressed to:

HAND DELIVERY	LEO R. ASUNCION, JR., Acting Director Office of Planning State Office Tower, 6th Floor 235 South Beretania Street Honolulu, HI 96813
HAND DELIVERY	BRYAN YEE, Esq. Deputy Attorney General Department of the Attorney General 425 Queen Street Honolulu, Hawaii 96813
HAND DELIVERY	GEORGE I. ATTA, Director c/o Kathy Sokugawa Department of Planning and Permitting City & County of Honolulu 650 South King Street, 7th Floor Honolulu, HI 96813

HAND DELIVERY	<p>RAYMOND YOUNG Department of Planning and Permitting City & County of Honolulu 650 South King Street, 7th Floor Honolulu, HI 96813</p>
HAND DELIVERY	<p>RICHARD LEWALLEN Deputy Corporation Counsel Department of the Corporation Counsel Honolulu Hale 530 South King Street, Room 110 Honolulu, HI 96813</p>
HAND DELIVERY	<p>PLANNING COMMISSION Department of Planning and Permitting City and County of Honolulu 650 South King Street, 7th Floor Honolulu, Hawai'i 96813</p>



JENNIFER A. LIM
 PUANANIONAONA P. THOENE
 Attorneys for Applicant
 WAIAWA PV, LLC
 (now known as WAIPIO PV, LLC)

Dated: Honolulu, Hawaii, February 19, 2015