



BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAII

In The Matter Of The Petition Of

TOM GENTRY AND GENTRY-PACIFIC,
LTD.

To Amend The Agricultural Land Use
District Boundary Into The Urban Land
Use District For Approximately 1,395
Acres At Waiawa, Ewa, O`ahu, State Of
Hawaii, Tax Map Key Nos.: 9-4-06:
Portion Of 26; 9-6-04: Portion of 1 And
Portion Of 16; And 9-6-05: Portion Of 1,
Portion Of 7 And Portion Of 14

DOCKET NO. A87-610

ORDER GRANTING MOTION FOR
ORDER AMENDING FINDINGS OF
FACT, CONCLUSIONS OF LAW AND
DECISION AND ORDER DATED MAY
17, 1988

ORDER GRANTING MOTION FOR ORDER AMENDING FINDINGS OF FACT,
CONCLUSIONS OF LAW AND DECISION AND ORDER DATED MAY 17, 1988

Successor Petitioner JANEEN-ANN AHULANI OLDS, LANCE

KEAWE WILHELM, ROBERT K.W.H. NOBRIGA, CORBETT AARON

KAMOHAIKIOKALANI KALAMA, and MICAH A. KANE, as TRUSTEES OF THE

ESTATE OF BERNICE PAUAHI BISHOP, dba KAMEHAMEHA SCHOOLS ("KS" or

"Petitioner") filed a Motion for Order Amending Findings of Fact, Conclusions of Law

and Decision and Order Dated May 17, 1988, in Docket A87-610 (In the Matter of Tom

Gentry and Gentry-Pacific, LTD.) ("Motion to Amend") on May 13, 2014. The Motion to

Amend was filed under ~~Chapter 205~~, Hawai'i Revised Statutes ("HRS") ~~chapter 205~~ and ~~§§ 15-15-70 and 15-15-94 of Title 15, Subtitle 3, Chapter 15 of the~~ Hawai'i Administrative Rules ("HAR") ~~chapter 15-15~~, and sought amendments to the Findings of Fact, Conclusions of Law and Decision and Order filed by the Land Use Commission of the State of Hawai'i ("Commission") on May 17, 1988, and as amended by Commission Order dated November 30, 1990 (the 1988 Decision and Order, as amended, shall hereinafter be referred to as the "Waiawa Order"). Specifically, KS asked that the Commission: (1) recognize KS, as the fee owner of the KS Property (as hereinafter defined), as the successor Petitioner to Tom Gentry and Gentry-Pacific, LTD; and (2) issue an order modifying the Waiawa Order to expressly authorize the use of portions of the KS Property for solar farm development for an interim period not to exceed 35 years. As the term is used herein, the "KS Property" or "Petition Area" consists of approximately 1,395 acres of land ~~situatesituated~~ at Waiawa and Waipi'o, `Ewa, O`ahu, Hawai'i, currently designated by Tax Map ~~KeyKeys ("TMKs"): Nos. (1)-9-4-006:034~~ (por.), ~~035~~ (por.), ~~036~~, ~~037~~ (por.); ~~9-6-004:024~~ (por.); ~~025~~, and 026; and 9-6-005:001 (por.).

[KS Ex 1; T.Witten, Tr. 10/29/14, 49:3 - 49:10]

The Commission, 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:

FINDINGS OF FACT

BACKGROUND & PROCEDURAL MATTERS

1. Tom Gentry and Gentry-Pacific, LTD (“Gentry”) filed a Petition for District Boundary Amendment with the Commission on April 21, 1987, and amendments to that Petition on May 14 and May 26, 1987. (PET 1)

2. At the time that the Commission approved the Petition, the KS Property was owned by KS and subject to a development agreement between Gentry and KS. [Waiawa Order, FOF 11; G.Caldarone, Tr. 10/29/14, 19:19-19:24] (PET 2)

3. Gentry envisioned developing the KS Property as a master-planned community with a mixture of residential dwellings, parks, open space, two golf courses, commercial, and light industrial uses. The Gentry plan was sometimes referred to as the Waiawa Ridge Project. [Waiawa Order, FOF 29, 30; T.Witten, Tr. 10/29/14, 52:19-53:1] (PET 3 AS MOD)

4. Approximately ~~forty~~⁵⁰ percent of the 7,906 proposed residential units were planned as retirement/leisure housing units for owner-occupants ages 55 and older. [Waiawa Order, FOF 32, 35; C.Camp, Tr. 10/29/14, 174:24 - 175:8] (PET 4 AS MOD)

5. Approximately ~~thirty~~³⁰ percent of the KS Property was planned for open space, including golf courses. [Waiawa Order, FOF 37] (PET 5 AS MOD)

6. The Gentry plan was intended to be the first increment of a 2,500-acre master-planned residential community for Waiawa. [Waiawa Order, FOF 31] (PET 6 AS MOD)

7. At the time of the Waiawa Order, Gentry proposed to develop the KS Property over a ~~twelve~~12-year period. [Waiawa Order FOF 39] (PET 7 AS MOD)

~~8. The Commission did not impose any development deadlines or timeframe for development on the KS Property under the Waiawa Order. [T.Witten, Tr. 10/29/14, 54:22-55:7]~~

~~9. The Commission did not impose a condition under the Waiawa Order requiring Gentry to substantially comply with the representations made in seeking the boundary amendment. [T.Witten, Tr. 10/29/14, 55:11-56:1; R.Funakoshi/B.Yee/J.Lim, Tr. 10/29/14, 207:22-208:6]~~

~~108.~~ The Commission received no requests to intervene in the Gentry proceedings. [Waiawa Order, FOF 4] (PET 10)

~~119.~~ The Commission granted the requested reclassification of the 1,395-acre KS Property from the State Land Use Agricultural ~~Land Use~~-District to the State Land Use Urban ~~Land Use~~-District by Findings of Fact, Conclusions of Law and Decision and Order filed May 17, 1988, subject to ten (10) conditions of approval. (PET 11 AS MOD)

~~1210.~~ On October 12, 1990, Gentry filed a Motion to Amend with the Commission, requesting modification of ~~condition~~Condition No. 6 to allow Gentry to satisfy a certain State of Hawai'i Department of Transportation ("DOT") condition

through participation in a regional program for transportation management. [Waiawa Order, condition 6] (PET 12 AS MOD)

~~13~~11. The Commission granted the Motion to Amend by Order dated November 30, 1990.¹ (PET 13 AS MOD)

~~14. —KS represents that in fulfillment of condition 6, since 2012, when it regained control of the KS Property, it has been an active participant in the Leeward Oahu Transportation Management Association. [C.Caldarone, Tr. 10/29/14, 29:4–29:9]~~

~~15~~12. In 1998, the Honolulu City Council, through Ordinance No. 98-01 (as amended by Ordinance No. 98-69), approved the rezoning of approximately 874 acres within the KS Property from Restricted Agriculture (AG-1) to Neighborhood Business District (B1), Community Business District (B2), Low Density Apartment District (A1), Industrial-Commercial Mixed Use District (IMX1), Residential (RS), and General Preservation (P-2). [KS Ex 4; T.Witten, Tr. 10/29/14, 52:9-52:13; Motion at 3] (PET 15 AS MOD)

~~16~~13. In 2003, the Honolulu City Council, through Ordinance No. 03-01, rezoned 175.43 acres within the KS Property from Restricted Agriculture (AG-1) to Residential District (R-5), Low Density Apartment District (A-1), Medium Density

¹ Condition No. 6, as amended, provides: (the 1990 amendment is shown by underscore)

6. Petitioner shall appoint and fund a transportation manager whose function is the formulation, use, and continuation of alternative transportation opportunities that would maximize the use of existing and proposed transportation systems. This will include construction and operation of a park and ride facility or other activities to encourage transit use or ridesharing. These activities and facilities shall be implemented on a schedule acceptable to and approved by the State Department of Transportation.

In the alternative, Petitioner may participate in a regional program for the transportation management with other developers and/or landowners. This program shall address the formulation, use and continuation of alternative transportation opportunities that would optimize the use of existing and proposed transportation systems.

Apartment District (A-2), and Preservation District (P-2). [KS Ex 4; T.Witten, Tr. 10/29/14, 52:9 - 52:13; Motion at 3] (PET 16 AS MOD)

[1714](#). Over time, Gentry revised downward the anticipated number of dwelling units from 7,906 units to 5,000 dwelling units within the KS Property, and entered into an agreement with A&B Waiawa, LLC, to form Waiawa Ridge Development LLC, which was a joint venture undertaken to develop the backbone infrastructure needed for the residential and golf course areas within the KS Property. [May 14, 2008 Annual Report in Docket No. A87-610; G.Caldarone, Tr. 10/29/14, 19:12-19:14; T.Witten, Tr. 10/29/14, 51:3-51:7; Motion at 3 - 4] (PET 17 AS MOD)

[1815](#). In the 2008 Annual Report to the Commission in this Docket, Gentry indicated that Waiawa Ridge Development LLC had secured construction financing for the Waiawa Ridge Project and ground breaking was scheduled for fall 2009. [May 14, 2008 Annual Report in Docket No. A87-610; Motion at 4] (PET 18)

[1916](#). Satisfaction of financing conditions proved difficult in the wake of the September 2008 worldwide financial crisis, and the process of returning the KS Property to KS' sole control began shortly thereafter. Full control returned to KS late in 2012. [G.Caldarone, Tr. 10/29/14, 20:17 - 20:23] (PET 19)

[2017](#). Prior to filing the Motion to Amend with the Commission, KS met with representatives from Castle & Cooke Homes to let them know about KS' intent to file the Motion to Amend. [C.Camp, Tr. 10/29/14, 187:23 - 188:3] (PET 20)

[2118](#). On May 13, 2014, KS filed a Motion for Order Amending Findings of Fact, Conclusions of Law and Decision and Order Dated May 17, 1988; Memorandum in Support of Motion; Verification of Giorgio Caldarone; Affidavit of Jennifer A. Benck; Exhibits 1 through 18; Certificate of Service, and provided a cashier's

check payable to the State of Hawai`i for \$1,000.00 for the filing fee, and a full sized map of the KS Property. (PET 21)

2219. Said Motion to Amend was served on the State of Hawai`i Office of Planning (“OP”); the City and County of Honolulu (“C&C”) Department of Planning and Permitting ~~of the City and County of Honolulu~~ (“DPP”); Gentry-Pacific, LTD, as an original party to the 1988 district boundary amendment proceedings (Tom Gentry, another original party, passed away in 1998, and was not served); and all persons with a recorded interest in the KS Property. [KS Ex 2]. (PET 22 AS MOD)

2320. In total, 18 individuals/entities were served with a copy of the Motion to Amend. [KS COS dated May 13, 2014] (PET 23)

2421. On June 9, 2014, KS, OP, and the DPP filed the First Stipulation of the Parties Setting Forth Filing Schedule for Motion to Amend in Docket No. A87-610. (PET 24 AS MOD)

2522. On June 16, 2014, OP filed Office of Planning List of Witnesses; Office of Planning Response to Trustees of the Estate of Bernice Pauahi Bishop, DBA Kamehameha Schools Motion for Order Amending Findings of Fact, Conclusions of Law, and Decision and Order Dated May 17, 1988, Exhibits 1-6; and Certificate of Service. (PET 25)

2623. On June 16, 2014, the DPP filed the Statement of Position of the Department of Planning and Permitting; Certificate of Service. (PET 26 AS MOD)

2724. On June 16, 2014, KS filed Successor Petitioner’s First List of Witnesses; and Certificate of Service. (PET 27 AS MOD)

2825. On June 20, 2014, OP filed Office of Planning List of Exhibits; Exhibits 7 and 8, and Certificate of Service. (PET 28 AS MOD)

~~2926.~~ On June 20, 2014, KS filed Successor Petitioner's First List of Exhibits; KS Exhibits 8 (Errata); KS Exhibits 19 - 34; Successor Petitioner's First List of Rebuttal Witnesses; and Certificate of Service. (PET 29 AS MOD)

~~3027.~~ On October 10, 2014, KS filed Successor Petitioner's List of Rebuttal Exhibits; KS Exhibits 35 - 39; Successor Petitioner's Supplemented List of Witnesses; and Certificate of Service. (PET 30 AS MOD)

~~31.—The Commission received no requests to intervene in the Motion to Amend proceedings.~~

~~3228.~~ On October 29, 2014, the Commission opened the evidentiary ~~hearings~~ hearing in this Docket at the State Office Tower, Leiopapa A Kamehameha Building, Honolulu, Hawai'i. Entering appearances were Jennifer A. Lim, Esq., Carlsmith Ball LLP (formerly known as Jennifer A. Benck); and Giorgio Caldarone for KS; Deputy Corporation Counsel Richard D. Lewallen, Esq.; and Matthew Higashida for the DPP; and Deputy Attorney General Bryan Yee, Esq.; and Rodney Funakoshi for OP. (PET 32 AS MOD)

~~3329.~~ Commissioners McDonald, Wong, Aczon, Ahakuelo, Hiranaga; and Scheuer were in attendance. (PET 33 AS MOD)

~~3430.~~ The Commission ~~provided an opportunity for~~ heard public testimony from Dan Purcell. (PET 34 AS MOD)

~~3531.~~ Commissioner Scheuer disclosed that his wife is employed by Group 70 International, which is the same firm that employees Paul Matsuda, one of the witnesses identified by KS to present testimony. Commissioner Scheuer stated that his wife had no involvement in the matter before the Commission. [J.Scheuer, Tr. 10/29/14, 9:18-10:1] (PET 35)

[3632](#). KS, [the DPP](#), and OP acknowledged this disclosure and each stated that there were no objections to Commissioner Scheuer's participation in the matter under consideration. [Tr. 10/29/14, 10:2-10:8] (PET 36 AS MOD)

[3733](#). Commissioner Ahakuelo disclosed that his mother-in-law is employed by KS, but that she had no involvement in the matter before the Commission. [B.Ahakuelo, Tr. 10/29/14, 10:9 - 10:15] (PET 37)

[3834](#). KS, [the DPP](#), and OP acknowledged this disclosure and each stated that there were no objections to Commissioner Ahakuelo's participation in the matter under consideration. [Tr. 10/29/14, 10:16-10:18] (PET 38 AS MOD)

[3935](#). The Commission admitted into evidence: (a) KS Exhibits 1 through 7, KS Exhibit 8 (Errata), KS Exhibits 9 through [39](#); and (b) OP's Exhibits 1-A, 1-B, 2 through 8. [Tr. 10/29/14, 10:22-13:17] (PET 39 AS MOD)

[4036](#). [The DPP](#) did not request that the Commission formally accept into evidence Attachment 1 to the Statement of Position of the Department of Planning and Permitting. [R.Lewallen, Tr. 10/29/14, 13:2 - 13:6] (PET 40 AS MOD)

[4137](#). [The DPP](#) Attachment 1 is identical to KS Exhibit 25. (PET 41 AS MOD)

[4238](#). KS provided the oral testimonies of the following witnesses: Giorgio Caldarone; Tom Witten; Nicola Doss; Paul Matsuda; Chris Monahan, Ph.D.; Jason Alapaki Jeremiah; and Catherine Camp. (PET 42 AS MOD)

[4339](#). [The DPP](#) did not provide oral testimony. (PET 43 AS MOD)

[4440](#). OP provided the oral testimony of Rodney Funakoshi. (PET

44)

[4541](#). The Commission qualified Tom Witten; [Nicola Doss](#); Paul Matsuda; [Chris Monahan, Ph.D.](#); Jason Alapaki Jeremiah; [and Rodney Funakoshi](#) as expert witnesses in their designated fields. [Tr. 10/29/14, 48:11, 70:17, 128:6, 145:3, 160:22, 200:24] (PET 45 AS MOD)

[4642](#). On October 29, 2014, following the completion of the parties' respective cases-in-chief, the Commission closed the evidentiary portion of the proceedings. (PET 46)

[4743](#). On October 29, 2014, a motion was made and seconded to grant KS's motion to recognize KS as the successor Petitioner in this Docket with standing to seek the relief sought in the Motion to Amend. ~~As such, the Commission agreed that there was no remaining reason for KS or other future parties to serve Gentry Pacific, LTD (an original party to the 1988 district boundary amendment) in any future proceedings in this Docket. There being a vote tally of 6 ayes, 0 nays, and 1 excused, the motion carried.~~ (PET 47 AS MOD)

[4844](#). On October 29, 2014, the Commission ordered the parties to file a stipulated proposed findings of fact, conclusions of law, and decision and order with the Commission on November 5, 2014. (PET 48 AS MOD)

[4945](#). On November 5, 2014, KS filed Successor Petitioner's Proposed Findings of Fact, Conclusions of Law, ~~and Decision and Order, which~~ ~~_____~~. OP also filed its Comments to Proposed Stipulated Findings of Fact, Conclusions of Law, and Decision and Order.² (PET 49 AS MOD)

[5046](#). On November 13, 2014, the Commission met at the Honolulu International Airport, Airport Conference Center, Suite 700, Room #3 to

² In its filing, OP stated that it was unable to complete a sufficiently thorough analysis of Petitioner's proposed Order by November 5, 2014, to reach a stipulation on a final Decision and Order.

conduct decision-making on the Motion to Amend. Following discussion on the findings of fact and conditions agreed to by the parties in their respective filings, a motion was made and seconded to grant the Motion to Amend and authorize the use of the identified portions of the KS property as a solar farm, to include all related utility and other infrastructure, for a period not to exceed 35 years from the date of this [Decision and](#) Order, and subject to the conditions imposed herein. (PET 50 AS MOD)

[5447](#). There being a vote tally of _____, the motion carried. (PET 51 AS MOD)

DESCRIPTION OF THE SUBJECT PROPERTY

[5248](#). The KS Property is located at Waiawa and Waipi`o, `Ewa, O`ahu, Hawai`i, and is designated by ~~Tax Map Key Nos. (1)~~ [TMKs: 9-4-006:034](#) (por.), [035](#) (por.), [036](#), [and 037](#) (por.); ~~9-6-004:024~~ (por.); [025](#), [and 026](#); [and 9-6-005:001](#) (por.). [KS Ex 1; T.Witten, Tr. 10/29/14, 49:3 - 49:10] (PET 52 AS MOD)

[5349](#). The KS Property is east of the H-2 Freeway/Ka Uka Boulevard interchange, and west of Pearl City. [KS Ex 35 at 1; T.Witten, Tr. 10/29/14, 50:3 - 50:18] (PET 53)

[5450](#). Elevation of the KS Property ranges from approximately 100 feet to 600 feet above sea level. [Waiawa Order, FOF 12] (PET 54)

[5551](#). Elevations in the area proposed for Phase 1 ranges from about 660 feet mean sea level to approximately 400 feet. Elevations in the area proposed for Phase 2 ranges from approximately 520 feet to approximately 240 feet. [P.Matsuada, Tr. 10/29/14, 129:15-129:18] (PET 55)

[5652](#). Access to the KS Property is from a driveway located on Waiawa Prison Road, which is along the northern edge of the KS Property, with

regional connections to the H-2 Freeway via Ka Uka Boulevard and Mililani Cemetery Road, and also from a driveway located on Waihona Street, mauka of Kamehameha Highway, located at the southern portion of the KS Property. [KS Ex 35 at 2] (PET 56)

5753. The KS Property was historically used for sugarcane cultivation, but has been fallow at least since 1983. [KS Ex 37 at 1; T.Witten, Tr. 10/29/14, 53:16-53:19] (PET 57 AS MOD)

5854. The KS Property is currently vacant and undeveloped. [G.Caldarone, Tr. 10/29/14, 21:19-21:21] (PET 58 AS MOD)

~~59. — Under its agreement with SunEdison, KS will allow portions of the KS Property for the solar farm. [KS Ex G.Caldarone, Tr. 10/29/14, 23:13-23:16]~~

6055. The soils on the KS Property are almost all silty clay (Helemano Silty Clay, Lahaina Silty Clay, ~~Leilehua~~ Leilehua Silty Clay, Mānana Silty Clay, Pa`aloa Silty Clay, Wahiawā Silty Clay) or silty clay loams (Mānana Silty Clay Loam, Moloka`i Silty Clay Loam). [Waiawa Order, FOF 16; KS Ex 20 at 7; T.Witten, Tr. 10/29/14, 60:17-60:22] (PET 60 AS MOD)

6156. The eastern boundary of the KS Property is bordered by Rock land, ~~and the~~ The KS Property ~~also~~ contains small amounts of Fill land. [Waiawa Order, FOF 25 - 26; T.Witten, Tr. 10/29/14, 60:23 - 61:2] (PET 61 AS MOD)

6257. The State of Hawai`i Department of Agriculture's ("DOA") Agricultural Lands of Importance to the State of Hawai`i ("ALISH") system classifies the majority of the KS Property as "Prime," with a smaller portion classified as "Other Important Agricultural Lands." [Waiawa Order, FOF 15] (PET 62 AS MOD)

[6358](#). The Land Study Bureau rates most of the KS Property as “A₂” indicating the highest agricultural productivity and “B₂” indicating only minor limitations on agricultural productivity. [Waiawa Order, FOF 16] (PET 63 AS MOD)

[6459](#). The soils on the KS Property are no longer classified by the Land Study Bureau because the KS Property is in the [State Land Use](#) Urban District. None of the KS Property is noted on the Land Study Bureau maps. [T.Witten, Tr. 10/29/14, 67:22-68:1] (PET 64 AS MOD)

[6560](#). The U. S. Federal Emergency Management Agency Flood Insurance Rate Map shows the KS Property located in Flood Zone D, which is undetermined. [P.Matsuda, Tr. 10/29/14, 129:9-129:10] (PET 65)

[6661](#). At the most southern point, the KS Property is less than one mile from both the planned Pearl Highlands rail transit station and the Leeward Community College station. ~~As the crow flies, the~~[The](#) two stations are each less than 2 miles from the center of the KS Property. [KS Ex 5; C.Camp, Tr. 10/29/14, 176:6 - 176:11; T.Witten, Tr. 10/29/14, 54:1-54:7] (PET 66 AS MOD)

~~[67](#). — There is no residential community of significant size in close proximity to the KS Property. [P.Matsuda, 10/29/14, Tr. 133:17-133:19]~~

DESCRIPTION OF THE SOLAR FARM

[10262](#). Anticipating the ultimate return of full control of the KS Property, in July ~~of~~ 2011, KS issued a request for proposal to a group of experienced solar developers to solicit proposals to develop a utility-scale solar energy project. KS selected SunEdison to develop the solar farm on the Waiawa property. [G.Caldarone, 10/29/14, Tr. 21:1-21:9] (PET 102 AS MOD)

~~10363.~~ KS is the sole landowner of the KS Property. However, KS will not be developing the solar farm. The solar farm project will be developed by a SunEdison entity. [G.Caldarone, Tr. 10/29/14, 23:13-23:16] (PET 103)

~~11164.~~ SunEdison has been developing and operating renewable energy projects since 2003. To date, SunEdison has developed more than 1,000 megawatts ("MW") of solar energy capacity globally and delivered more than 4.2 million hours of electricity. [N.Doss, Tr. 10/29/14, 76:8-76:15] (PET 111)

~~11265. SunEdison's renewable energy production has prevented the emission of over 4.6 trillion pounds of carbon dioxide.~~ SunEdison has 47 offices located throughout North America, Europe, and Asia, and over 800 operational sites worldwide. ~~SunEdison is the first solar energy provider to raise more than \$5 billion in project financing.~~ [N.Doss, Tr. 10/29/14, 76:8-76:17; Motion at 8] (PET 112 AS MOD)

~~10466.~~ KS has entered into an Agreement to Grant Easement, which includes a form Easement Agreement for the solar farm site. The Easement Agreement will be executed at the start of construction. The Agreement to Grant Easement and Easement Agreement shall hereinafter be referred to collectively as the "Development Agreement." [N.Doss, Tr. 10/29/14, 74:23-75:7] (PET 104)

~~105.—Under the Development Agreement, SunEdison is allowed to install the solar farm and related improvements within defined areas on the KS Property. SunEdison will likely subdivide the Phase 1 and Phase 2 areas to create separate lots or, more likely, easements. [Motion at 9; N.Doss, Tr. 10/29/14, 74:23-75:7]~~

~~10767.~~ Under the Development Agreement, once the Easement Agreement is executed, the easement areas will be restricted to solar farm uses for the term of the Easement Agreement. [N.Doss, Tr. 10/29/14, 103:17-103:23] (PET 107)

[10868](#). Activities outside of the areas under the Easement Agreement will not be limited under the terms of the Development Agreement, except that any structures that could cause shade to the PV array are limited, and KS would have to confer with SunEdison regarding any such structures. [N.Doss, Tr. 10/29/14 104:8-104:12] (PET 108)

[10969](#). Under the Development Agreement, SunEdison has the responsibility to obtain and comply with all permits required by the State of Hawai'i and the ~~City and County of Honolulu~~[C&C](#). [G.Caldarone, Tr. 10/29/14, 23:17-23:20] (PET 109 AS MOD)

[6870](#). ~~The solar farm will be contained within one or more utility easement areas within the KS Property.~~ The initial phase of the solar project is designed to produce 50 MW of power ("Phase 1"). The solar panels for Phase 1 will be installed within approximately 387 acres located in the north-west portion of the KS Property (the actual footprint of Phase 1 will be approximately 250 acres), [identified as TMK: 9-4-06: 34 \(por.\), 35 \(por.\), 36, and 37 \(por.\) and 9-6-04: 24 \(por.\), 25, and 26](#). [KS Ex 8 Errata; N.Doss, Tr. 10/29/14, 71:3-71:5] (PET 68 AS MOD)

[10671](#). The Development Agreement contemplates the possibility of [Phase 2a second phase](#), but it is not certain whether SunEdison will pursue [Phase 2the second phase](#) of the solar farm. [G.Caldarone, Tr. 10/29/14, 23:21-23:25] (PET 106 AS MOD)

[6972](#). The second phase of the solar farm, if pursued, will produce up to 65 MW of power ("Phase 2"). The solar panels for Phase 2 will be installed within an approximately 268-acre area in the south-west portion of the KS Property, [identified as TMK: 9-6-04: 24 \(por.\)](#). [KS Ex 8 Errata; G.Caldarone, Tr. 10/29/14, 17:18-17:21] (PET 69 AS MOD)

[73.](#) SunEdison will likely subdivide the Phase 1 and Phase 2 areas to create separate lots or, more likely, easements. [Motion at 9; N.Doss, Tr. 10/29/14, 74:23-75:7] (LUC FINDING)

[7074.](#) The Phase 2 area could be smaller than 65 MW, depending upon what [HECO](#) [Hawaiian Electric Company](#) (“HECO”) requires. [N.Doss, Tr. 10/29/14, 95:1 - 95:5] (PET 70 AS MOD)

[7475.](#) The actual footprint of the solar farm will vary depending upon existing topography and system design and layout. [KS Ex 37; N.Doss, Tr. 10/29/14, 94:15 - 94:25] (PET 71)

[7276.](#) The Phase 1 area generally slopes mauka to makai from elevations of 660 feet to approximately 400 feet. The Phase 2 area generally slopes mauka to makai from elevations of 520 feet to 240 feet. [KS Ex 37; P.Matsuda, Tr. 10/29/14, 129:15-129:18] (PET 72)

[7377.](#) Access to the utility easement areas will be provided over existing roads. [KS Ex 35; KS Ex 37] (PET 73)

[7478.](#) The operational term of the solar farm will run 20 to 30 years. [N.Doss, Tr. 10/29/14, 106:14-107:15] (PET 74)

[7579.](#) The extent of the proposed interim use of the KS Property will not exceed 35 years from the date of the Commission’s approval, which allows for 30 years of operation, and provides time for permitting, construction, and decommissioning. [G.Caldarone, Tr. 10/29/14, 24:17-25:4] (PET 75 AS MOD)

[7680.](#) Should KS wish to retain the solar farm longer than 35 years, KS will return to the Commission to seek approval. [G.Caldarone, Tr. 10/29/14, 37:16-37:21] (PET 76)

[7781](#). The solar farm improvements may consist of substation(s), battery storage system(s), PV panels, pad mounted inverters and electrical equipment, and substations. [G.Caldarone, Tr. 10/29/14, 17:22-17:25] (PET 77 AS MOD)

[7882](#). The PV modules will be installed as a fixed tilt racking system. [N.Doss, Tr. 10/29/14, 71:21-71:13] (PET 78)

[7983](#). Anticipated improvements also include access driveways, perimeter fencing, security systems, drainage, and vegetation improvements. [KS Ex 37] (PET 79 AS MOD)

[8084](#). It is not certain that battery storage will be included within the Phase 1 or Phase 2 areas. [KS Ex 37; N.Doss, Tr. 10/29/14, 71:14-71:20] (PET 80)

[8185](#). No caretaker or security guard residence will be part of Phase 1 or Phase 2 of the solar project. [G.Caldarone, Tr. 10/29/14, 34:2-34:10] (PET 81)

[8286](#). The improvements, such as the substation(s) and battery storage, would be located within the area noted as Utility Improvements on KS Ex 24. [N.Doss, Tr. 10/29/14, 72:2-72:8] (PET 82 AS MOD)

[8387](#). The physical size of the substation for Phase 1 will be similar to those seen in residential neighborhoods. It is projected to be between 15 to 20 feet in height. [N.Doss, Tr. 10/29/14, 109:12-109:23] (PET 83)

[8488](#). The solar farm will be constructed as a fixed tilt racking system. [N.Doss, Tr. 10/29/14, 71:12-71:13] (PET 84)

[8589](#). After site grading, the photovoltaic modules will be mounted on pile-driven metal piers with limited concrete pads for the inverters, and will passively collect solar energy. The solar modules will use fixed-tilt racking, and therefore will not have any moving parts or bearings that will require lubricants or oil.

filled transformers. [KS Ex 28; KS Ex 37; P.Matsuda, Tr. 10/29/14, 138:19-139:1] (PET 85 AS MOD)

[8690](#). The rack system will be designed in accordance with the building permit structural requirements. They are designed to withstand hurricane-type winds. [P.Matsuda, Tr. 10/29/14, 139:5-139:16] (PET 86 AS MOD)

[8791](#). The energy from the Phase 1 solar panels will likely be transported to a project substation and battery storage area, or areas, which will be sited within the Phase 1 easement area, close to the western side of the KS Property, and ~~about~~[approximately](#) 1,000 feet from the H-2 freeway. [KS Ex 24; N.Doss, Tr. 10/29/14, 72:2-2:8] (PET 87 AS MOD)

[8892](#). In no event will any substations or battery storage areas be installed within the Waiawa Shaft Zone of Contribution ("ZOC"). [N.Doss, Tr. 10/29/14, 72:16-72:18] (PET 88)

[8993](#). From the Utility Improvements area located within the Phase 1 easement, as shown on KS Ex. 24, the solar energy will most likely connect to existing 46kV transmission lines that run along the H-2 Freeway, across and within the KS Property. [KS Ex 24; N.Doss, Tr. 10/29/14, 72:9-72:12] (PET 89 AS MOD)

[9094](#). The final connection points will be determined by HECO. [N.Doss, Tr. 10/29/14, 73:9-73:12] (PET 90)

[9195](#). Energy from the Phase 2 solar panels may be transported to the project substation(s) and battery storage area(s) within the Phase 1 easement area, or similar improvements will be constructed within the Phase 2 easement area. [N.Doss, Tr. 10/29/14, 107:24-108:21] (PET 91)

[9296](#). The PV modules are designed to absorb as much solar energy as possible, and therefore [will](#) create no glare. [N.Doss, Tr. 10/29/14, 85:6-85:8] (PET 92 AS MOD)

[9397](#). The type of PV modules proposed for the solar farm reflect back approximately 1 ½ percent light, whereas typical window glass reflects approximately [4% percent](#) light. The PV modules are less reflective than water. [N.Doss, Tr. 10/29/14, 85:8-85:16] (PET 93 AS MOD)

[11998](#). SunEdison also manufactures PV panels and components used in the modules. [N.Doss, Tr. 10/29/14, 76:18-76:24] (PET 119)

[9899](#). The entire construction period for Phase 1 could take approximately 12 months. [N.Doss, Tr. 10/29/14, 80:12-80:17] (PET 98)

[179100](#). In Hawai`i, the costs of land development for solar projects [isare](#) higher than elsewhere. [N.Doss, Tr. 10/29/14, 114:13-114:18] (PET 179 AS MOD)

[117101](#). Rough order of magnitude construction costs for Phase 1 of the solar farm is between \$150 to 200 million. Rough order of magnitude construction costs for Phase 2 of the solar farm is between \$180 to \$200 million. [N.Doss, Tr. 10/29/14 114:1-114:7] (PET 117)

[180102](#). It is essential to put Phase 1 into commercial operations no later than the third quarter of 2016 in order to access and monetize the available [30% percent Federal](#)~~federal~~ investment tax credits. The tax credits allow SunEdison to offer its power to HECO at the currently proposed low price. [N.Doss, Tr. 10/29/14, 82:2-82:7] (PET 180 AS MOD)

~~181~~103. If Phase 1 is delayed, the price that ~~SunEdision~~SunEdison will be able to offer to HECO for the power will need to increase by at least 20% percent to reflect the lowered ~~Federal~~federal tax credits of only 10% percent starting in 2017. [N.Doss, Tr. 10/29/14, 82:8-82:12] (PET 181 AS MOD)

~~99~~104. SunEdison anticipates that decommissioning activities will take approximately 12 months. [N.Doss, Tr. 10/29/14, 80:18-80:19] (PET 99)

~~400~~105. When decommissioning, SunEdison will completely remove the foundational piers and modules and all associated components. To the fullest extent possible, SunEdison will seek to recycle the metal components utilized in the solar farm. SunEdison will not dispose of any solar farm components in a Hawai'i landfill. [N.Doss, Tr. 10/29/14, 81:5-81:13; 100:18-~~199~~100:21; Motion at 10] (PET 100)

~~110~~106. Under the Development Agreement, decommissioning security is put in place by SunEdison upon commercial operations of the facility such that if SunEdison and its financing partners default on the project and do not cooperate with the terms of decommissioning, KS may step in and draw on the decommissioning security to decommission the solar farm project. [N.Doss, Tr. 10/29/14, 105:19-106:3] (PET 110)

~~94~~107. An ~~interconnection study~~Interconnection Requirements Study for Phase 1 commenced under an Interconnection Requirements Study Letter Agreement between SunEdison and HECO, executed in October 2013. Initial feedback from HECO was that interconnection for the Phase 1 project is feasible, and requires re-conductoring of 2 to 4 miles of 46kV lines. Under a more recent analysis, HECO indicated an intention to connect the Phase 1 project through two interconnections of 25 MW each. Under this scenario, re-conductoring line work is not needed. [KS Ex 36] (PET 94 AS MOD)

~~95108.~~ The Interconnection Requirements Study is required to be part of the Power Purchase Agreement with HECO, which is scheduled to be submitted to the Public Utilities Commission ("PUC") in December. [N.Doss, Tr. 10/29/14, 73:20-74:11] (PET 95 AS MOD)

~~96109.~~ The scope of interconnection upgrade work needed and associated performance and controls requirements arising out of the ~~interconnection requirements study~~ findings of the Interconnection Requirements Study will be incorporated into an ~~interconnection agreement~~Interconnection Agreement, which will be part of the ~~power purchase~~Power Purchase Agreement between HECO and SunEdison. [N.Doss, Tr. 10/29/14, 74:7-74:11] (PET 96 AS MOD)

~~97110.~~ The draft ~~interconnection requirements study report~~Interconnection Requirements Study is under review by SunEdison. The ~~interconnection study requirements~~Interconnection Requirements Study ~~are~~is part of the ongoing negotiations between SunEdison and HECO. [N.Doss, Tr. 10/29/14, 73:20-73:23] (PET 97 AS MOD)

~~101111.~~ The development and operation of the solar farm is consistent with the prior conditions of approval imposed under the Waiawa Order. ~~The development and operation of the solar farm does not violate any of the existing conditions of approval under the Waiawa Order.~~ (PET 101 AS MOD)

PETITIONER'S FINANCIAL CAPABILITY TO UNDERTAKE THE PROJECT

~~113.—The six members of the SunEdison Hawai'i team have more than 40 years of experience doing renewable energy projects, including solar projects, and have been responsible for more than 300 MW of renewable energy production. [KS Ex 6; Motion at 8]~~

~~114.— Nicola Doss is the Senior Manager of the solar farm project proposed for the KS Property. Ms. Doss has experience in the United States and overseas doing environmental consulting, land use planning and utility scale solar developments. [KS Ex 7; N.Doss, Tr. 10/29/14 68:23-69:7]~~

~~115.— Ms. Doss is SunEdison's primarily liaison with HECO for the negotiations of the power purchase agreement. [KS Ex 6]~~

~~116.— Ms. Doss represented that the power purchase agreement is anticipated to be filed with the Public Utilities Commission in December of this year. [N.Doss, Tr. 10/29/14 93:16-93:20]~~

~~118~~112. As a publicly traded company, SunEdison has audited annual financial statements available to the general public. The market capitalization of SunEdison is approximately \$5 ~~Billion~~billion. SunEdison has the development capital needed to develop the solar farm project through to the start of construction, and ~~has~~the access to construction financing funds in place to complete the project. [N.Doss, Tr. 10/29/14, 76:2-76:10] (PET 118 AS MOD)

~~120~~113. SunEdison and its affiliates have the necessary economic ability to carry out its representations and commitments relating to the solar farm. [N.Doss, Tr. 10/29/14, 75:11-75:20] (PET 120)

~~STATE AND COUNTY~~C&C PLAN~~PLANS AND SMA DESIGNATIONS~~PROGRAMS

~~121~~114. The KS Property is currently designated in the State Land Use Urban District. [Waiawa Order; KS Ex 2; T.Witten, Tr. 10/29/14, 51:20-51:23] (PET 121)

[122115](#). Solar farm development is fully consistent with the State Land Use Urban District, and fully permissible in the Urban District.

[R.Funakoshi, Tr. 10/29/14, 203:8 - 203:11] (PET 122 AS MOD)

[123116](#). The KS Property is designated for urban-type uses (e.g., residential, commercial, golf course, and industrial) under the Central O`ahu Sustainable Communities Plan land use map. [KS Ex 16; T.Witten, Tr. 10/29/14, 51:24-52:8] (PET 123 AS MOD)

[124117](#). The KS Property is subject to a mixture of zoning by the ~~City and County of Honolulu~~ C&C, including Neighborhood Business District (B1), Community Business District (B2), Low Density Apartment District (A1), Medium Density Apartment District (A-2), Industrial-Commercial Mixed Use District (IMX1), Residential District (RS), and General Preservation (P-2). [KS Ex 4] (PET 124 AS MOD)

[125118](#). The KS Property is not located within the ~~City and County of Honolulu's~~ C&C's Special Management Area. [Waiawa Order, FOF 45; T.Witten, Tr. 10/29/14, 53:4-53:5] (PET 125 AS MOD)

[126119](#). The solar farm project could not be developed on the KS Property ~~is~~if the KS Property was in the State Land Use Agricultural District.

[C.Camp, Tr. 10/29/14, 198:10-198:14] (PET 126 AS MOD)

[127120](#). The proposed solar farm is a "utility installation" as defined under the Honolulu Land Use Ordinance, Revised Ordinances of Honolulu, ~~Chapter~~chapter 21. A "utility installation" is defined as "uses or structures, including all facilities, devices, equipment, or transmission lines, used directly in the distribution of utility services, such as water, gas, electricity, telecommunications other than broadcasting antennas, and refuse collection other than facilities included under waste disposal and processing." Utility installations also include accessory uses and

structures directly associated with the distribution of the utility service. [Motion at 15] (PET 127 AS MOD)

128121. The proposed solar farm falls under the category of Utility Installation, Type B, which is a permitted use within any zoning district, subject to approval of a Conditional Use Permit-Minor by the DPP. [DPP Statement of Position at 2; KS Ex 11; T.Witten, Tr. 10/29/14, 59:8-59:21] (PET 128)

NEED FOR THE PROPOSED DEVELOPMENT

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154122. KS has evolved since the 1980s, when the Waiawa Ridge Project was first envisioned, and KS has an obligation to evaluate uses of the ~~Waiawa property~~ KS Property in a way that is consistent with its mission and obligations to beneficiaries. As a perpetual charitable trust, KS must be particularly cautious about taking any actions that may reduce its limited trust assets. [C.Camp, Tr. 10/29/14, 181:15-181:21] (PET 154 AS MOD)

137123. Allowing the use of portions of the KS Property for the solar farm project will allow KS to receive a financial return on the KS Property, which is essential for promoting KS' education mission, which currently provides education for more than 47,000 learners and caregivers annually. [Motion at 5] (PET 137 AS MOD)

138124. Making use of this vacant KS Property will provide financial support to KS, which spent over \$360 ~~Million~~ million in fiscal year 2012/2013 on educational programs, services, and support. [G.Caldarone, Tr. 10/29/14, 22:20-22:22] (PET 138 AS MOD)

139125. KS represents that using portions of the KS Property for a solar farm project, will provide KS with the time and opportunity to assess

potential development options for the entire KS Property. [C.Camp, Tr. 10/29/14, 175:20-176:2] (PET 139 AS MOD)

[140126](#). KS believes that the Waiawa Ridge Project (i.e., the Gentry plan), which was conceptualized over 25 year ago, needs to be re-assessed to be more reflective of current market conditions and other changes. [G.Caldarone, Tr. 10/29/14, 41:15 - 41:21] (PET 140)

[141127](#). KS represents that the jobs and revenues projected to result from the Waiawa Ridge Project within the KS Property are likely not realistic in the current environment. [C.Camp, Tr. 10/29/14, 175:17-175:19] (PET 141)

[142128](#). Market demand for the commercial-industrial zoned areas within the KS Property is not high. [C.Camp, Tr. 10/29/14, 175:14 - 175:17] (PET 142)

[143129](#). There are significant infrastructure challenges to developing the Gentry plan, such as building a land bridge [across Pānakauahi Gulch](#). [G.Caldarone, Tr. 10/29/14, 20:8-20:12] (PET 143 AS MOD)

[144130](#). No estimated costs were provided, but it is assumed that building a land bridge across [Panawai-Pānakauahi](#) Gulch, as envisioned by the Gentry Plan, is a challenge because it requires a large upfront investment. [T.Witten, Tr. 10/29/14, 65:12 - 66:11] (PET 144 AS MOD)

[145131](#). KS has no immediate plans to construct the land bridge, and intends to analyze creating access from the south of the KS Property, which would not require construction of the land bridge. [C.Camp, Tr. 10/29/14, 190:1-190:4] (PET 145)

[163132](#). The Waiawa portion of the Koa Ridge development planned by Castle & Cooke [Homes Hawai'i, Inc. \("Castle & Cooke"\)](#), is adjacent to the KS Property. [R.Funakoshi, Tr. 10/29/14, 202:12-202:14] (PET 163 AS MOD)

[162133](#). ~~The Petition Area has not been developed subsequent to the original Waiawa Order in 1988.~~ The Commission previously found, under ~~another~~ Docket [No. A11-793](#), that the development of certain infrastructure, including ~~at the~~ land bridge, contemplated as part of the Waiawa Ridge Project is integral to the Commission's incremental districting of the Castle & Cooke Waiawa project as proposed, and that the Castle & Cooke incremental redistricting requires Castle & Cooke to have an executed cost-sharing agreement for all shared infrastructure between Castle & Cooke ~~Homes, LLC~~ and the developer of this Petition Area by 2032. *See* Docket No. A11-793. [R.Funakoshi, Tr. 10/29/14, 202:15 - 202:24] (PET 162 AS MOD)

[146134](#). At this time, KS has no plans to build the land bridge, and is not in discussions with Castle & Cooke ~~Homes, LLC~~ for a cost-sharing agreement for traffic improvements. [C. Camp, Tr. 10/29/14, 189:12-192:9] (PET 146 AS MOD)

[147135](#). Rather than letting the land remain vacant and unproductive during this re-assessment, KS sought out solar development within a portion of the KS Property as a means of making good use of the land in a manner that benefits the State, and ~~that~~ has ~~little~~ minimal to no adverse environmental impacts. [KS Ex 38; C.Camp, Tr. 10/29/14, 197:14-197:22] (PET 147 AS MOD)

[148136](#). ~~An additional benefit to the solar farm is that solar~~ Solar farms uses are not incompatible with other urban-type development. ~~Therefore, the~~ The solar farm development will not preclude KS from pursuing other development options on the remainder of the KS Property. [KS Ex 38; G.Caldarone, Tr. 10/29/14, 26:4] (PET 148 AS MOD)

[149137](#). Given the length of inactivity in the Petition Area, the importance of the Petition Area's development to the incremental districting in Docket No. A11-793, and the plan changes necessitated by the ~~thirty five~~[35](#)-year use of approximately 655 acres for solar farms, OP believes ~~the~~ Petitioner needs to move forward with its planning for the Petition Area. (PET 149 AS MOD)

[150138](#). Petitioner is willing to accept a condition requiring the submission of a Master Plan and schedule for development of the Petition Area within five years of this Order. (PET 150)

ECONOMIC IMPACTS

[129139](#). It is anticipated that the energy generated from Phase 1 of the solar farm will be enough to power approximately 9,800 homes each year for the term of the project, which will result in a savings of approximately ~~\$145,000,000~~ [\\$145 million](#) in electrical costs for the term of the project. [N.Doss, Tr. 10/29/14, 77:20-78:4, 78:10-78:11] (PET 129 AS MOD)

[130140](#). It is anticipated that the energy generated from Phase 2 of the solar farm, ~~if pursued~~, will be enough to power approximately 12,740 homes each year for the term of the project, which will result in a savings of approximately ~~\$188,000,000~~ [\\$188 million](#) in electrical costs for the term of the project. [N.Doss, Tr. 10/29/14, 78:9-78:17] (PET 130 AS MOD)

[131141](#). The savings in electrical costs are estimates based on current avoided costs of power generation versus the average cost of energy proposed by waiver projects collectively, and may vary with the price of fuel over time. [N.Doss, Tr. 10/29/14, 77:21-78:4] (PET 131)

~~132~~142. Development of the solar farm is not anticipated to generate significant changes in employment. During some portion of the construction period, there will be ~~about~~approximately 150 workers on-site. [N.Doss, Tr. 10/29/14, 78:23-79:6] (PET 132 AS MOD)

~~133~~143. Site work for Phase 1 of the solar farm is expected to take approximately 12 to 18 months. [N.Doss, Tr. 10/29/14, 78:23-79:1] (PET 133)

~~134~~144. Employment estimates have not been determined for Phase 2, but because Phase 2 is substantially larger than Phase 1, it is anticipated that the employment figures may be higher. (PET 134)

~~135~~145. Once construction is complete, the solar farm will require minimal security personnel and a few workers for operation and maintenance purposes. [N.Doss, Tr. 10/29/14 79:2-79:6] (PET 135)

~~136.—On an order of magnitude basis, the overall construction costs for Phase 1 are in the range of \$150 million to \$200 million. Phase 2 is estimated to cost upwards of \$180 million to \$200 million. [N.Doss, Tr. 10/29/14 114:1 114:7]~~

SOCIAL IMPACTS

~~151.—The State Land Use Urban District designation remains appropriate for the KS Property and environs. [T.Witten, Tr. 10/29/14, 53:11 53:22]~~

~~152.—The market for housing has changed since the Waiawa Ridge Project was first conceptualized, and a better diversion in housing product mixes is preferred. [C.Camp, Tr. 10/29/14, 175:8 175:11; KS Ex 38 at 1]~~

~~153.—Greater changes are planned for the near future in the form of rail and transit oriented development. [KS Ex 5; T.Witten, Tr. 10/29/14, 54:1 54:17]~~

[155146](#). ~~In order to~~To fulfill its educational mission, KS must engage in a strategic planning process to address its educational goals and financial support for those goals. Strategic plans are prepared to set KS' course for the future. The Strategic Plan sets the overall goals for KS with respect to its educational mission, identifies issues, formulates strategies for addressing those issues, and results in goals and priorities to be pursued by KS. [KS Ex 38; C.Camp, Tr. 10/29/14, 181:22-182:3] (PET 155 AS MOD)

[156147](#). The current plan, Kamehameha Schools Strategic Plan 2000 - 2015, is coming to a close, and KS has recently embarked on an organizational-wide Strategic Planning Processes for the 2015-2040 time horizon. [KS Ex 38; C.Camp, Tr. 10/29/14, 182:4-182:7] (PET 156 AS MOD)

[157148](#). For the current Strategic Plan update, KS has orchestrated over 100 internal and external input-gathering sessions statewide. [C.Camp, Tr. 10/29/14, 182:7-182:10] (PET 157)

[158149](#). Future uses of the ~~Waiawa property~~KS Property will have to be evaluated against the goals and priorities to be set forth in the 2015 - 2040 Strategic Plan. [C.Camp, Tr. 10/29/14, 182:11-182:17] (PET 158 AS MOD)

[159150](#). In addition to the 2015 - 2040 Strategic Plan process, KS is embarking on a regional planning effort for various regions, including the Waiawa area. The regional planning effort will look at how learning opportunities can be established in conjunction with commercial development. [C.Camp, Tr. 10/29/14, 182:18-183:8] (PET 159)

[160151](#). Preliminary ideas for the ~~Waiawa~~KS Property under such a concept include land stewardship opportunities (āina-based learning), and collaborations with Leeward Community College. The Waiawa Ridge Project

envisioned by Gentry did not lead with education first. [KS Ex 38; C.Camp, Tr. 10/29/14, 184:2:184:10] (PET 160 AS MOD)

~~161~~152. Petitioner is preparing a Master Plan for the Petition Area, and anticipates that substantial changes may be made to the original Waiawa Ridge Project proposal. If substantial changes are made, Petitioner represented that it will return to the Commission through a motion to amend that examines the new uses and impacts and to amend the original Waiawa Order and to possibly add or change the original conditions. (PET 161)

~~164.—Given the length of inactivity in the Petition Area, the importance of the development of the land bridge to the incremental districting in Docket No. A11-793, and the plan changes necessitated by the thirty five year use of approximately 655 acres for solar farms, the Office of Planning believes the Petitioner needs to move forward with its planning for the Petition Area.~~

~~165.—Petitioner is willing to accept a condition requiring the submission of a Master Plan and schedule for development of the Petition Area within five years of this Order.~~

~~166.—At this time, Kamehameha Schools has no plans to build the land bridge, and is not in discussions with Castle & Cooke Homes, LLC for a cost-sharing agreement for traffic improvements. [C. Camp, Tr. 10/29/14, 189:12—192:9].~~

~~167~~153. Consistent with KS' educational mission, the Development Agreement between KS and SunEdison calls on SunEdison to cooperate with KS in supporting various educational programs during the term of the solar farm project. This may include supporting internships, coordination of opportunities for hands-on experience in biological monitoring or mitigation activities, meteorological data analysis, or student-facilitated tours of the solar farm site, including providing

students access to non-proprietary and public data to support classroom/student projects. [Motion at 6; N.Doss, Tr. 10/29/14, 79:11-79:15] (PET 167)

~~168~~154. SunEdison may offer presentations on the technical, environmental, logistic, and economic aspects of commercial solar energy generation. The final determination of the educational program(s) to be offered will be determined by KS and SunEdison. [N.Doss, Tr. 10/29/14, 80:1-80:3] (PET 168 AS MOD)

~~169. SunEdison has been involved in schools in other communities. In 2008, SunEdison conducted the City Tour for Solar, an educational campaign promoting solar energy that visited 50 cities in 100 days. SunEdison visited Montgomery County Public Schools, Harford County Public Schools and Howard County Public Schools. As a part of that initiative SunEdison prepared sample curricula and teacher guides geared toward Science and Earth and Physical Science courses for middle schools students (grades 6–8) and high school students (grades 9–12). [KS Ex 17; N.Doss, Tr. 10/29/14, 79:16–79:24]~~

~~170. KS has no immediate plans to develop the KS Property. Therefore the development of the solar farm project is not preventing or delaying the development of the KS Property. [G.Caldarone, Tr. 10/29/14,]~~

~~171. Today, imported oil supplies nearly all of Hawai'i's energy, making it the most dependent state in the U.S. Hawai'i imports approximately ninety percent of the oil needed. The high cost of electricity exports a lot of money from the Hawai'i economy. [G.Caldarone, Tr. 10/29/14, 18:9–18:19]~~

~~185. KS and SunEdison have engaged in extensive community outreach regarding the proposed solar farm. In February of this year representatives from KS and SunEdison met with various elected officials to alert them to the proposed solar project. Meetings were held with Rep. Gregg Takayama (H. Dist. 34, Pearl City,~~

~~Waimalu, Pacific Palisades), Sen. Clarence Nishihara (S. Dist. 17, Waipahu, Crestview, Manana, Pearl City, Pacific Palisades), Rep. Beth Fukumoto (H. Dist. 36, Mililani Mauka, Mililani), Sen. Michelle Kidani (S. Dist. 18, Mililani Town, portion of Waipi'o Gentry, Waikele, Village Park, Royal Kunia) and Rep. Ryan Yamane (H. Dist. 37, Mililani, Waipi'o Gentry, Waikele). All meetings about the interim use of portions of the KS Property as a solar farm were positive and supportive. [C.Camp, Tr. 10/29/14, 172:24—173:10; Motion at 20]~~

~~186.—SunEdison made a presentation to the Pearl City Neighborhood Board (NB No. 21) in March, and in April the Neighborhood Board passed a resolution in support of the solar farm project. [KS Ex 12; C.Camp, Tr. 10/29/14, 173:11—173:17; Motion at 20—21]~~

~~187.—SunEdison made a presentation to the Mililani/Waipi'o/Melemanu Neighborhood Board (NB No. 25) in March, and the Board passed a resolution in support of the solar farm project. [KS Ex 13; C.Camp, Tr. 10/29/14, 173:11—173:17; Motion at 20—21]~~

~~188.—SunEdison made a presentation to Waipahu Neighborhood Board (NB No. 22) in April. The Waipahu Board did not pass a resolution in support of the solar farm project, but the presentation provided the Waipahu community with information about the proposed solar farm. [C.Camp, Tr. 10/29/14, 173:11—173:17; Motion at 21]~~

~~189.—The area proposed for Phase 2 is largely within the Zone of Contribution, and is among the few types of development that could be done over a recharge area without the potential of generating significant impacts to the recharge area. [N.Doss, Tr. 111:19—111:24]~~

IMPACTS UPON RESOURCES OF THE AREA

~~190~~155. A ~~final environmental impact statement~~Final Environmental Impact Statement for ~~the~~ originally proposed “Waiawa Development” within the KS Property was accepted by the ~~City and County of Honolulu~~C&C Department of General Planning (now known as ~~the~~ DPP) on March 6, 1987. [KS Ex 14; T.Witten, Tr. 10/29/14, 56:24-57:7] (PET 190 AS MOD)

~~191~~156. The DPP determined that the proposed solar farm does not trigger the requirements to prepare an ~~environmental assessment~~Environmental Assessment under ~~Chapter 343~~, HRS chapter 343. [KS Ex 14; T.Witten, Tr. 10/29/14, 57:8-57:16] (PET 191 AS MOD)

~~192~~157. KS anticipates that prior to embarking on a new development proposal for the KS Property, an Environmental Assessment or Environmental Impact Statement ~~would~~will likely be needed. [C.Camp, Tr. 10/29/14, 184:20-184:25] (PET 192 AS MOD)

~~193~~158. Development of the proposed solar farm ~~does~~is not ~~anticipated to~~ generate significant environmental impacts. The conditions proposed by OP are intended to address the limited impacts that are anticipated. [B.Yee, Tr. 10/29/14, 229:6-229:13] (PET 193 AS MOD)

AGRICULTURAL RESOURCES

~~195~~159. The KS Property was previously used for sugarcane cultivation by the O`ahu Sugar Company, and as pasture for cattle grazing. [Waiawa Order, FOF 65] (PET 195)

~~196~~160. The cane fields were fallowed when operations became economically infeasible due to the high cost of pumping irrigation water, the

overall high cost of production, and the distance between the [Waiawa KS](#) Property and the sugar mill. [Waiawa Order, FOF 65] (PET 196 AS MOD)

[197161](#). The KS Property was placed into the State Land Use Urban District in 1988. [R.Funakoshi, Tr. 10/29/14, 201:22-201:25] (PET 197)

[198162](#). The KS Property is presently vacant and except for internal cane haul roads, essentially undeveloped. [G.Caldarone, Tr., 10/29/14, 21:19-21:21; KS Ex 37] (PET 198)

[199163](#). No agricultural activities have taken place on the KS Property since 1983. [G.Caldarone, Tr., 10/29/14, 21:20-21:21] (PET 199)

[200164](#). The KS Property is not used for grazing. [T.Witten, Tr., 10/29/14, 67:9-67:12] (PET 200)

[201165](#). Development of the solar farm will have no effect on agricultural production in light of the fact that no portion of the KS Property has been used for agricultural production in over ~~thirty~~[30](#) years. [T.Witten, Tr. 10/29/14, 60:13-60:16] (PET 201 AS MOD)

[202166](#). The [State Department of AgricultureDOA](#) has no objections to the solar farm. However, the [DepartmentDOA](#) recommended that KS consider the use of livestock or other compatible agricultural uses for vegetation control. [OP Ex 6] (PET 202 AS MOD)

[203167](#). Livestock is generally not an allowed use under the [City and County of HonoluluC&C](#) Land Use Ordinance within the zoning districts effective within the KS Property. [KS Ex 4; T.Witten, Tr., 10/29/14, 59:24 - 60:4] (PET 203 AS MOD)

FLORA AND FAUNA

[204168](#). The Commission previously determined that the development of the Waiawa Ridge Project would have no adverse effect on any endemic Hawaiian animal or ecosystem within the KS Property. [Waiawa Order, FOF 74, 75] (PET 204)

[205169](#). The development of the solar farm is not anticipated to generate any significant hazards to fauna. The PV modules are similar to those used on rooftops. [N.Doss, Tr. 10/29/14, 123:24-124:9] (PET 205)

[206170](#). The development of the solar farm is far less intensive than the previously proposed Waiawa Ridge Project. [G.Caldarone, Tr. 10/29/14, 17:5-18:5, 19:1-19:14] (PET 206)

ARCHAEOLOGICAL AND HISTORICAL RESOURCES

[207171](#). An archaeological reconnaissance and inventory survey of a 3,600-acre area, which included the KS Property, was approved by ~~SHPD~~ [the State Historic Preservation Division \("SHPD"\)](#) on July 7, 1992. [KS Ex 19; C.Monahan, Tr. 10/29/14, 147:1-147:6, 148:4-148:7] (PET 207 AS MOD)

[208172](#). In April 2014, [the](#) SHPD determined that an archaeological inventory survey ("[AIS](#)") [should](#) be conducted within the entire KS Property. [KS Ex 23; C.Monahan] (PET 208 AS MOD)

[209173](#). In 2014, TCP Hawai'i, LLC, completed the fieldwork for an ~~archaeological inventory survey AIS~~ of the entire KS Property, as well as the two existing access roads into the KS Property and two linear transects representing utility tie-ins for the proposed solar farm. [C.Monahan, Tr., 10/29/14, 145:25-146:11] (PET 209 AS MOD)

[210174](#). TCP Hawai'i, LLC, submitted an [archaeological inventory survey-AIS](#) of the entire KS Property, as well as the two existing access roads into the KS Property and two linear transects representing utility tie-ins for the proposed solar farm (the "2014 AIS") to [the](#) SHPD in September 2014. [C.Monahan, Tr. 10/29/14, 145:25-146:11] (PET 210 AS MOD)

[211175](#). ~~The 2014 AIS determined that the~~[The](#) entire KS Property had been completely altered by plantation-era activities and construction. There was evidence of extensive bulldozing and road construction in all three gulches, and evidence that some of the gulches were used as reservoirs. [C.Monahan, Tr., 10/29/14, 149:15-149:22] (PET 211 AS MOD)

[212176](#). The gulches have all been modified and cleaned up. No Hawaiian sites, no Hawaiian skeletal remains, no heiau, no habitation sites, and no agricultural sites were found in the gulches. [C.Monahan, Tr., 10/29/14, 150:2-150:8] (PET 212 AS MOD)

[213177](#). The 2014 AIS documents three historic properties, all plantation-era sites dating from the early to middle 20th century, consisting of 55 component features: (a) SIHP # 50-80-09-2270, a network of roads and railroad rights-of-way consisting of 28 features; (b) SIHP # 50-80-09-2273, an irrigation system consisting of 25 features; and (c) SIHP # 50-80-09-2271, the remains of workers' camps consisting of two features. [C.Monahan, Tr. 10/29/14, 151:12-151:17, 151:5-151:11, 151:24-152:5] (PET 213)

[214178](#). TCP Hawai'i, LLC, located SIHP # 50-80-09-2270, which is a series of roads, many of which appear on maps from the 1920's, 1930's, and 1940's. The military used some of the roads during World War ~~Two~~[II](#). They are essentially dirt roads. [C.Monahan, Tr., 10/29/14, 151:12-151:17] (PET 214 AS MOD)

[215179](#). SIHP # 50-80-09-2271 consists of two features. Feature 1 is the structural remains of a pineapple cannery. Feature 2 is camp debris, which TCP Hawai'i, LLC, evaluated as not a significant historic property. [C.Monahan, Tr., 10/29/14, 152:1-152:5] (PET 215 AS MOD)

[216180](#). TCP Hawai'i, LLC, located SIHP # 50-80-09-2273. It is part of the plantation irrigation infrastructure (a system of ditches, syphons, and water retention features). [C.Monahan, Tr., 10/29/14, 151:5-151:11] (PET 216 AS MOD)

[217181](#). No petroglyph sites were found within the KS Property. [C.Monahan, Tr. 10/29/14, 152:14 - 153:6] (PET 217)

[218182](#). TCP Hawai'i, LLC, recommends an effect determination of "effect, with proposed mitigation commitments" for the solar farm areas. No further archaeological or historic preservation work is needed at any of the sites or their component features within the solar farm areas (SIHP #s 50-80-09-2270, 50-80-09-2271 and 50-80-09-2273). [C.Monahan, Tr., 10/29/14, 154:7-154:20] (PET 218 AS MOD)

[219183](#). TCP Hawai'i, LLC, recommended that no formal effect determination or proposed mitigation be made on the remaining portions of the KS Property until those portions of the KS Property are proposed for development. [C.Monahan, Tr., 10/29/14, 154:20-154:25] (PET 219 AS MOD)

[220184](#). SHPD approval of the TCP Hawai'i, LLC, ~~archaeological inventory survey AIS~~ is pending, and TCP Hawai'i, LLC's, conclusions will have to be approved by [the](#) SHPD. [C.Monahan, Tr. 10/29/14, 153:16-154:6] (PET 220 AS MOD)

221185. TCP Hawai'i, LLC acknowledged that Petitioner will revise the AIS if SHPD requests revisions to the pending archaeological inventory survey. ~~AIS, the archaeological inventory survey will have to be revised and resubmitted to SHPD.~~ Petitioner will comply with any mitigation measures in the approved AIS or protection plan as may be required by the AIS. [C.Monahan, Tr. 10/29/14, 157:3-157:12] (PET 221 AS MOD)

CULTURAL RESOURCES

222186. A Cultural Impact Assessment ("CIA") for 3,600 acres of land, which included the KS Property, was prepared by Cultural Surveys Hawai'i, Inc., in 2003 in anticipation of the Waiawa Ridge Project. [KS Ex 20; J.Jeremiah, Tr. 10/29/14, 161:25-162:8] (PET 222 AS MOD)

223187. A Cultural Resources Preservation Plan ("CRPP") was prepared in 2005 by Aki Sinoto Consulting. The sites identified for preservation are not within the KS Property. [KS Ex 21; J.Jeremiah, Tr. 10/29/14, 164:19-164:22] (PET 223 AS MOD)

224188. The preparers of the Cultural Impact Assessment CIA reached out to over 66 people to gather information. People contacted included people that were associated with the plantation, people that grew up specifically in Waiawa, and also included consultation with the Wahiawā Hawaiian Civic Club ~~also~~. [J.Jeremiah, Tr. 10/29/14, 163:10-163:18] (PET 224 AS MOD)

225189. The SHPD approved the Cultural Resources Preservation Plan CRPP in 2007. [KS Ex 22] (PET 225 AS MOD)

226190. In 2010, KS initiated an ethno-historical study for KS's lands within the region of `Ewa. That study included Waiawa, ~~but also included and~~

the lands owned by KS in Kalawao and [the](#) Waiiau ahupua`a. [J.Jeremiah, Tr. 10/29/14, 162:9 - 162:13] (PET 226 AS MOD)

[227191](#). ~~The ethno-historical study concluded that there~~[There](#) were no traditional or customary practices that occurred within the KS Property. [J.Jeremiah, Tr. 10/29/14, 164:9 - 164:12] (PET 227 AS MOD)

[228192](#). No cultural practices or cultural resources have been identified within the KS Property. [J.Jeremiah, Tr., 10/29/14, 165:9-165:17] (PET 228)

[229193](#). No active traditional and customary practices have been documented within the KS Property. Therefore, development of the solar farm will not have any adverse effect upon Native Hawaiian traditional and customary rights. [J.Jeremiah, Tr., 10/29/14, 166:9-166:15] (PET 229)

[230194](#). The KS Property was part of the large ahupua`a that was awarded to Victoria Kamamalu, and then passed to Ruth K. Ke`eliokalani, and then to Princess Pauahi, and then to Bishop Estate. No families have claimed prior ownership of the KS Property. [J.Jeremiah, Tr., 10/29/14, 167:2-167:7] (PET 230)

GROUNDWATER AND SURFACE WATER RESOURCES

[231195](#). The Waiawa Shaft entrance is situated adjacent to the KS Property, along the western wall of Waiawa Stream. [Waiawa Order, FOF 56] (PET 231)

[232196](#). The Waiawa Shaft is the primary source of [potable drinking](#) water for military and civilian users in the Pearl Harbor area. [Waiawa Order, FOF 55] (PET 232 AS MOD)

[233197](#). The ~~hydrologic zone of contribution~~ZOC is the area that contributes or replenishes groundwater within the Waiawa Shaft. [G.Caldarone, Tr., 10/29/14, 34:22-35:16] (PET 233 AS MOD)

[234198](#). In 1990, the State of Hawai`i Department of Health (“DOH”) prepared a study titled “Report to the Office of State Planning by the Department of Health Safe Drinking Water Branch on the Delineation of the Hydrologic Zone of Contribution for the U.S. Navy Waiawa Shaft” (Revised Dec. 1990)) (“ZOC Study”). The ZOC Study was undertaken to identify the ~~zone of contribution~~ZOC of the Waiawa Shaft. The Navy concurred with the methodology of the ZOC Study and the location of the Zone of Contribution. [KS Ex 15; G.Caldarone, Tr. 10/29/14, 26:16-27:18]. (PET 234 AS MOD)

[235199](#). Portions of the Zone of ~~Contribution~~ZOC are located within the eastern portion of the KS Property. The area proposed for Phase 2 is largely within the ZOC. [KS Ex 24; KS Ex 28; P.Matsuda, Tr. 10/29/14, 137:7-137:12] (PET 235 AS MOD)

~~236.—Condition 1 of the Waiawa Order provides as follows:~~

~~1. A study funded by the U.S. Department of the Navy to review the potential for groundwater contamination resulting from the urbanization of the Property shall be completed prior to any site development and construction unless the Department of Health after consultation with the United States Navy and after review of the proposed study scope makes a determination that development and construction within a specified area will not cause groundwater contamination to wells in the area. Petitioner shall not proceed with the project until the study shows to the satisfaction of the Department of Health that groundwater contamination will not occur as a result of the proposed project, or until the Department of Health makes a determination that development or partial development may be allowed.~~

~~237.—Condition 2 of the Waiawa Order provides as follows:~~

~~2. Any urban development within the Property shall be subject to further review and subsequent approval by the Department of Health. The Department of Health may require appropriate mitigative measures and conditions relating to the proposed development's impact on the groundwater resources in the area.~~

~~238.—With respect to the solar farm, the requirements under Conditions 1 and 2 of the Waiawa Order have been met. [G.Caldarone, Tr. 10/29/14, 26:16-27:21; R.Funakoshi, Tr. 10/29/14, 203:14-203:21]~~

~~239~~200. The solar panels will need to be cleaned once or twice a year (depending upon rainfall) with water that it will truck onto the KS Property. No cleansers or other additives will be added to the water, or used to clean the panels. [P.Matsuda, Tr. 10/29/14, 135:2-135:16] (PET 239 AS MOD)

~~240~~201. SunEdison plans to use grasses as a vegetated groundcover. Typically, SunEdison uses ~~an EPA~~ a U. S. Environmental Protection Agency-certified herbicide to help control the growth of the vegetation. [N.Doss, Tr. 10/29/14, 110:12-110:16; Motion at 13] (PET 240 AS MOD)

~~241~~202. Within Phase 2, if pursued, SunEdison plans to use handheld devices to control vegetation, and to not use any weed mowers that have a lubricant. If any solar farm activities take place within the hydrologic "zone of contribution," ZOC, the vegetated groundcover will be maintained through mechanical means, by utilizing zero-turn mowers and weed trimmers. [N.Doss, Tr. 10/29/14, 111:5-111:10; Motion at 13] (PET 241 AS MOD)

~~242~~203. ~~The State Department of Health Safe Drinking Water Branch, Clean Water Branch and Solid and Hazardous Waste Branch determined that~~ the~~The~~ development of the Phase 1 and Phase 2 solar farms should have minimal or no

impact on groundwater. [KS Ex 28; OP Ex 2; G.Caldarone, Tr. 10/29/14, 27:21-28:1; R.Funakoshi, Tr. 10/29/14, 203:22-203:24] (PET 242 AS MOD)

~~243204.~~ ~~The Department of the Navy determined that the~~The solar farm is a compatible land use within the ~~Zone of Contribution~~ZOC. [KS Ex 25; G.Caldarone, Tr. 10/29/14, 28:3-28:9] (PET 243 AS MOD)

~~244.~~ ~~Development of the solar farm is not anticipated to create any impacts on groundwater.~~ [P.Matsuda, Tr. 10/29/14, 137:20-137:25; KS Ex 36]

RECREATIONAL AND SCENIC RESOURCES

~~245205.~~ The solar farm, as an almost entirely passive use of land, will not generate or increase the demand on existing recreational facilities or resources; no residences will be installed within the solar project. [G.Caldarone, Tr. 10/29/14, 34:1-34:10] (PET 245)

~~246206.~~ The solar farm will not prevent any existing recreational uses of the KS Property. There is no current recreational use of the KS Property. There are no hiking or hunting areas that require public access across the KS Property. [G.Caldarone, Tr. 10/29/14, 30:5-31:3] (PET 246)

~~247207.~~ The only feasible means of accessing nearby State Land Use Conservation District lands is via the Waiawa Correctional Facility. [G.Caldarone, Tr. 10/29/14, 30:16-30:19] (PET 247)

~~248208.~~ The solar farm is not expected to adversely impact scenic resources or view corridors. Existing views from the surrounding communities will remain intact. Views from Pacific Palisades, Ka Uka Boulevard, the Waipi`o Sports Park, and Waipi`o Uka Street will experience ~~little~~minimal change due to the

development of Phase 1 or Phase 2 of the solar farm. [KS Ex 9; N.Doss, Tr. 10/29/14, 86:13-86:25] (PET 248 AS MOD)

249209. As part of the CUP Minor process, SunEdison will be required to submit a landscape plan to the DPP. However, even without project-specific landscaping, because the areas proposed for the solar farm are naturally buffered from view, ~~very~~ minimal impacts on views are expected. To the extent required by the DPP under the CUP Minor process, a vegetation buffer will be created. [N.Doss, Tr. 10/29/14, 122:24-123:18] (PET 249 AS MOD)

250210. ~~The~~ Based on the findings of the preliminary solar glare hazard analysis for the solar farm, ~~determined that~~ the solar farm ~~would~~ will not result in glare to aircraft landing or departing from the Honolulu International Airport. [KS Ex 34; N.Doss, Tr. 10/29/14, 85:20-85:23] (PET 250 AS MOD)

251211. ~~The State Department of Transportation indicated that if~~ glint or glare from the solar farm PV array creates a hazardous condition for pilots, the facility operator must be prepared to immediately mitigate the hazard upon notification from the ~~Department of Transportation~~ DOT, Airports ~~Divisions~~ Division, or the Federal Aviation Administration ("FAA"). [OP Ex 7] (PET 251 AS MOD)

252212. SunEdison represented that it would comply with the conditions requested by the ~~State Department of Transportation~~ DOT with respect to glare and glint. [N.Doss, Tr. 10/29/14, 84:24-85:5] (PET 252 AS MOD)

253213. No visual impacts are expected from the development of the solar farm. However, a landscaping plan will be required as part of the CUP-Minor permit that SunEdison must obtain from the DPP in order to construct the solar farm. [N.Doss, Tr. 10/29/14, 122:24-123:2] (PET 253 AS MOD)

ENVIRONMENTAL QUALITY

NOISE

[254214](#). The solar farm is a relatively passive operation. The racking systems are fixed, and do not have any moving parts. The electrical equipment does not include any mechanical or motorized equipment that will generate noise. [KS Ex 37 at 4; P.Matsuda, Tr. 10/29/14, 134:3-134:9] (PET 254 AS MOD)

[255215](#). Operation and maintenance of the solar farm could generate ~~very~~ minimal vehicular noise. [KS Ex 37 at 4; P.Matsuda, Tr. 10/29/14, 133:13-134:9] (PET 255 AS MOD)

[256216](#). During site preparation and construction of the solar farm, noise will be generated. All construction noise must be in compliance with HAR ~~Chapter~~[chapter](#) 11-46 (regulations for community noise control). [KS Ex 37 at 4; P.Matsuda, Tr. 10/29/14, 133:15-133:23] (PET 256 AS MOD)

[257217](#). Due to the remote location of the KS Property, and the distance of the proposed solar farm areas from existing communities, it is anticipated that if there are any noise impacts, those impacts will be minimal. [KS Ex 37 at 4; P.Matsuda, Tr. 10/29/14, 134:3-134:9] (PET 257 AS MOD)

[258218](#). If noise from construction activities exceeds permissible sound levels, Petitioner will obtain a Community Noise Permit from the ~~Department of Health~~[DOH](#) in accordance with HAR ~~Chapter~~[chapter](#) 11-46 Community Noise Control. [KS Ex 37 at 4] (PET 258 AS MOD)

AIR QUALITY

[259219](#). There are no direct air emissions from the operations of a solar farm. [KS Ex 37 at 4; P.Matsuda, Tr. 10/29/14, 134:13-134:15] (PET 259)

[260220](#). During construction of the solar farm, there will be short-term impacts to air quality due to the emission of fugitive dust and an increase in exhaust emissions from construction vehicles. [KS Ex 37 at 4; P.Matsuda, Tr. 10/29/14, 134:13-134:19] (PET 260 AS MOD)

[261221](#). Petitioner will minimize air quality impacts through fugitive dust measures required under HAR [§section](#) 11-60.1-33 and institute temporary Best Management Practices (“BMPs”) to mitigate impacts, such as watering, dust fences, windbreaks, and other soil management measures. [KS Ex 37 at 4; P.Matsuda, Tr. 10/29/14, 134:16-134:23] (PET 261 AS MOD)

ADEQUACY OF PUBLIC SERVICES AND FACILITIES

HIGHWAY AND ROADWAY FACILITIES

[269222](#). The ~~State Department of Transportation (“DOT”)~~[DOT](#) requested that KS prepare a traffic assessment for the solar farm project for DOT review and approval. [OP Ex 7] (PET 269 AS MOD)

[270223](#). ~~DOT acknowledged that based~~[Based](#) on the information provided in the Motion to Amend, the proposed solar farm development will not adversely impact State highway facilities. [OP Ex 7] (PET 270 AS MOD)

[271224](#). [The](#) DOT recommended that the access road that connects to the Mililani Cemetery Road be located far enough away from the connection to Ka Uka Boulevard to avoid queuing onto the Boulevard. [OP Ex 7]. Petitioner agreed to comply with this recommendation. (PET 271 AS MOD)

[272225](#). ~~SunEdison~~[SunEdison](#) had Fehr & Peers prepare a Traffic Assessment for the construction phase of Phase 1 of the solar project. [KS Ex 35] (PET 272 AS MOD)

[273226](#). The Traffic Assessment focused on the construction period only, as once Phase 1 is in operations, no more than five employees are expected to be on-site at any given time. [KS Ex 35] (PET 273 AS MOD)

[274227](#). The two potential access points to the KS Property are [from](#): (1) ~~from~~ a driveway located on Waiawa Prison Road, which is along the northern edge of the KS Property, with regional connections to the H-2 Freeway via Ka Uka Boulevard and Mililani Cemetery Road; and (2) ~~from~~ a driveway located on Waihona Street, mauka of Kamehameha Highway, located at the southern portion of the KS Property. [KS Ex 35 at 2] (PET 274 AS MOD)

[275228](#). ~~Fehr & Peers determined that both~~ [Both](#) points of access are sufficient as-is for the anticipated construction traffic required to develop the solar farm project. [KS Ex 35 at 14] (PET 275 AS MOD)

[276229](#). Fehr & Peers developed two project trip generation estimates for the construction of Phase 1 of the solar project and compared those estimates to the 2016 baseline. (PET 276)

[277230](#). The most conservative, highest trip generation estimates ~~assumes~~ [assume](#) that each of the 150 construction workers ~~would~~ [will](#) drive individual vehicles to the ~~project site~~ [KS Property](#), and that the majority of trips ~~would~~ [will](#) occur during the AM and PM peak hours. The second trip estimate assumed that 95% ~~percent~~ of the construction employees ~~would~~ [will](#) drive to an off-site parking area, and be shuttled from there to the KS Property via a shuttle bus arranged by the contractor, and that the majority of the trips ~~would~~ [will](#) not occur during the AM and PM peak hours. [KS Ex 35 at 5-6] (PET 277 AS MOD)

[278231](#). The conservative analysis results in 342 trips a day (168 AM peak trips and 168 PM peak trips). The employee shuttle analysis results in 66 trips a day (19 AM peak trips and 18 PM peak trips). [KS Ex 35 at 6] (PET 278)

[279232](#). The 2016 baseline level of service is better than the acceptable level of service ("[LOS](#)") D at all but the Waihona Street PM peak, where the 2016 baseline [level of serviceLOS](#) is F during the PM peak and [level of serviceLOS](#) D during the AM peak hour. [KS Ex 35 at 11] (PET 279 AS MOD)

[280233](#). Under the conservative analysis, the projected level of service will be at the acceptable [level of serviceLOS](#) of D or better at all but two intersections. The Waihona Street intersection will remain at [LOS](#) F during the PM peak, and the Ka Uka Boulevard/H-2 northbound off-ramp will be [LOS](#) D during the PM peak. [KS Ex 35 at 11] (PET 280 AS MOD)

[281234](#). Under the employee shuttle analysis, the projected [level of serviceLOS](#) will be at the acceptable [level of serviceLOS](#) D or better at all intersections except for the ~~Waihona~~ Waihona Street intersection, which will remain at [level of serviceLOS](#) F during the PM peak. [KS Ex 35 at 11] (PET 281 AS MOD)

[282235](#). ~~The~~ Petitioner will cause SunEdison through its contractor to adopt and comply with the traffic mitigation plan recommended in the Traffic Assessment, and to meet the [levels of serviceLOS](#) of the second trip estimate through adjusted work hours of the construction workers or other mitigations and, if necessary, a shuttle service. (PET 282 AS MOD)

[283236](#). With respect to Phase 2, ~~the~~ Petitioner agreed to have a traffic assessment completed and accepted by the ~~State~~ DOT prior to construction of Phase 2. (PET 283 AS MOD)

284237. ~~The State Department of Public Safety determined that the~~The solar farm ~~would~~will have ~~little~~minimal impact on the operations of the nearby Waiawa Correctional Facility, but has ~~he~~the potential to impede access to Ka Uka Boulevard during the construction period. [OP Ex 3] (PET 284 AS MOD)

285238. The Department of Public Safety ("DPS") expressed concerns whether using Mililani Cemetery Road for construction traffic could impede access to the Waiawa Correctional Facility, and therefore requested that the developer keep the Correctional Facility informed of planned activity that could impact access to the Correctional Facility. [OP Ex 3] (PET 285 AS MOD)

286239. ~~In consultation with KS, Fehr & Peers determined that~~constructionConstruction activities related to reservoir decommissioning on the KS Property recently took place, which generated traffic along Waiawa Prison Road and Mililani Cemetery Road. No significant operational or safety issues were identified ~~by~~ KS as a result of the construction activities. [KS Ex 35 at 13; N.Doss, Tr. 10/29/14, 89:14-89:20] (PET 286 AS MOD)

287240. KS and ~~SunEdison~~SunEdison represented that management at the Waiawa Correctional Facility ~~would~~will be kept informed of any activity expected to result in a significant imposition to access along Mililani Cemetery Road. [N.Doss, Tr. 10/29/14, 89:6-89:12] (PET 287 AS MOD)

288241. ~~Construction~~KS will implement the following construction management measures recommended by Fehr & Peers ~~include~~: (a) signage between Ka Uka Boulevard interchange and the access driveway into the KS Property on Waiawa Prison Road; (b) ~~ensure~~adequate sight distance ~~is provided~~ for drivers along Waiawa Prison Road approaching the access to the KS Property; (c) vegetation management along the Mililani Cemetery Road and Waiawa Prison Road, if needed;

and (d) manual traffic control along Waiawa Prison Road to manage construction and prison traffic. [KS Ex 35 at 13] (PET 288 AS MOD)

289242. SunEdison will have its contractors put work scheduling ~~in place~~, and, if necessary, the employee shuttle measures in place. [N.Doss, Tr. 10/29/14, 118:3-118:7] (PET 289 AS MOD)

290243. Should Phase 2 go forward, a traffic assessment will be prepared for the DOT's review and acceptance prior to the construction of Phase 2. ~~and the~~The mitigation ~~measure~~measures recommended in the accepted traffic assessment will ~~inform the conditions that be implemented by~~ SunEdison ~~will put on the general contractor with respect to a~~ in any construction traffic management plan that is prepared for Phase 2. [N.Doss, Tr. 10/29/14, 100:14-100:17] (PET 290 AS MOD)

DRAINAGE AND STORMWATER

291244. Group 70 International, Inc., prepared a preliminary civil engineering assessment for the solar farm. [KS Ex 37] (PET 291)

292245. Clearing, grubbing, and grading will be needed for placement of the solar panels, equipment, facilities, access driveways, fence, and vegetated buffer. In general, the PV racks will be concentrated in areas of more gradual slopes. [KS Ex 37 at 1; P.Matsuda, Tr. 10/29/14, 130:7-130:14] (PET 292 AS MOD)

293246. It is anticipated that the earthwork volumes and related construction costs will be minimized by optimal placement of the PV racks by following the existing grades and elevations. Where possible, the existing agricultural roads will continue to be utilized for access. [KS Ex 37 at 1 -2; P.Matsuda, Tr. 10/29/14, 131:5-131:11] (PET 293)

294247. Prior to grading and grubbing of the KS ~~property~~Property, permits and approvals will be required from the State of Hawai`i and the ~~City and County of Honolulu (C&C)~~C&C to allow grading and grubbing of the site, including a ~~State of Hawai`i Department of Health~~DOH, NPDES General Permit for Construction Activities, Notice of Intent, and a ~~City and County of Honolulu~~C&C Grading, Grubbing, and Stockpiling Permit. [KS Ex 37 at 2] (PET 294 AS MOD)

295248. Issuance of these permits requires agency review of grading and erosion control construction plans, stormwater pollution prevention plans, erosion control calculations, and drainage reports. [KS Ex 37 at 2; P.Matsuda, Tr. 10/29/14, 130:12-131:1] (PET 295 AS MOD)

296249. Existing runoff at the KS Property discharges through sheet flow or shallow concentrated flow into swales onto adjacent downstream areas. The existing drainage patterns will not be altered in the development of the solar farm. [KS Ex 37 at 2; P.Matsuda, Tr. 10/29/14, 131:10-131:11] (PET 296)

297250. The solar farm will create minimal additional impervious area (from concrete equipment pads, equipment buildings, and micropile/pier foundations), and that impervious ~~area~~areas will be evenly distributed throughout the solar farm easement areas. As a result, there will not be a significant pre-development to post-development increase in stormwater flows from the construction of the solar farm. [KS Ex 37 at 2; P.Matsuda, Tr. 10/29/14, 141:20-142:5] (PET 297 AS MOD)

298251. Both temporary and permanent BMPs will be required through the grading and erosion control regulations and permits required by the State and ~~City & County of Honolulu~~the C&C. To the extent required, temporary BMPs will be ~~in place~~implemented during construction activities and will remain in

place until Permanent BMPs can be established. [KS Ex 37 at 2; P.Matsuda, Tr. 10/29/14, 131:24-132:25] (PET 298 AS MOD)

[299252](#). It is anticipated that the erosion control BMPs to be used on-site will include: 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, sediment traps and basins, temporary diversion swales and ditches, and water application and/or dust screens for dust control. [KS Ex 37 at 3; P.Matsuda, Tr. 10/29/14, 132:17-132:22] (PET 299 AS MOD)

[300253](#). The permanent BMPs anticipated to be used within the solar farm area include: 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. [KS Ex 37 at 4; P.Matsuda, Tr. 10/29/14, 132:17-132:22] (PET 300 AS MOD)

SOLID WASTE

[254](#). Upon decommissioning, SunEdison will seek to recycle the metal components utilized in the solar farm. SunEdison will not dispose of any solar farm components in a Hawai'i landfill. [N.Doss, Tr. 10/29/14, 81:5-81:13; 100:18-100:21; [Motion at 10](#)] (LUC FINDING)

POLICE AND FIRE PROTECTION

[262255](#). There will be a security fence around the solar farm area, and a second fence around the substation is likely. [N.Doss, Tr. 10/29/14, 110:3-110:7] (PET 262)

[263256](#). The solar farm will not make use of Extreme Power Batteries, such as used in other projects. [N.Doss, Tr. 10/29/14, 118:19-118:25] (PET 263)

[264257](#). The [C&C](#) Board of Water Supply does not have any lines delivering [potable drinking](#) water to the KS Property. KS has worked with the Honolulu Fire Department to give the Department access to the KS Property, and there is an agreed upon plan for addressing fires. [P.Matsuda, Tr. 10/29/14, 135:23-136:3] (PET 264 AS MOD)

[265258](#). Development of the solar farm should reduce the chances of wildfires because the project includes security, which should reduce arson, and will also control the natural vegetation, which is a fuel source for wildfires. [P.Matsuda, Tr. 10/29/14, 136:3-136:12] (PET 265)

[266259](#). The substation will have a fire protection ~~control~~[controls](#) that will shut the facility down in the event of fire. [N.Doss, Tr. 10/29/14, 116:6-116:10] (PET 266 AS MOD)

[267260](#). Water does not work to put out fires at battery storage or substation areas. Those improvements are designed with controls that shut down the components if there is a fire, and prevent the heat from moving to other components of the storage area. [P.Matsuda, Tr. 10/29/14, 136:25-137:3] (PET 267 AS MOD)

~~268. The State Department of Transportation (“DOT”) requested that KS prepare a traffic assessment for the solar farm project for DOT review and approval. [OP Ex 7]~~

[ENERGY/ELECTRICAL SERVICES](#)

[172261](#). The State of Hawai`i has adopted a goal of using clean energy to meet 70% [percent](#) of Hawai`i's energy demand, with 40% [percent](#) of that clean energy to come from locally-generated renewable sources, and 30% [percent](#) to come from efficiency measures. [OP Response at 8] (PET 172 AS MOD)

[173262](#). The State is fully supportive of the Hawai`i Clean Energy Initiative to reduce Hawai`i's reliance on fossil fuels and promote energy independence. Development of the solar farm is consistent with the State's goals. [R.Funakoshi, Tr. 10/29/14, 207:4-207:11] (PET 173)

[174263](#). The average cost for residential electricity in Hawai`i is approximately 37 cents per kilowatt hour, and HECO's current avoided cost of power from primary fossil fuel baseload generation is approximately 22 cents per kilowatt hour. That price is more than triple the national average of 12 cents per kilowatt hour. [N.Doss, Tr. 10/29/14, 77:5-77:14] (PET 174)

[175264](#). HECO issued two rounds of requests for proposals for Low-Cost Waiver projects on O`ahu. The [Public Utilities Commission](#)~~PUC~~ approved waivers from competitive bidding for both rounds of waiver projects. [N.Doss, Tr. 10/29/14, 92:21-92:25; 93:7-93:11] (PET 175 AS MOD)

[176265](#). Initially, HECO sought projects that could provide power under at a price of 17 cents per kilowatt hour. In the second round, HECO set a new threshold price of 16.25 cents per kilowatt hour. The average price of the second round waiver projects was approximately 15.9 cents per kilowatt hour. [Motion at 14] (PET 176)

[177266](#). Through a confidential process, HECO selected [nine](#) projects consisting of 240 MW. All of the power purchase agreements between HECO

and the selected renewable energy projects must be approved by the [Public Utilities Commission](#)[PUC](#). [N.Doss, Tr. 10/29/14, 92:21-93:4] (PET 177 AS MOD)

[178267](#). Some of the renewable energy projects dropped out of the HECO Low-Cost Waiver project. [N.Doss, Tr. 10/29/14, 93:1-93:2] (PET 178)

[182268](#). SunEdison represented that the solar farm should not inhibit or restrict HECO's ability to accept PV power from individual homes and businesses that also wish to use solar energy because the solar farm will connect to the grid at the 46kV level. [KS Ex 36; N.Doss, Tr. 10/29/14, 96:4-97:12] (PET 182)

[183269](#). Residential and commercial PV systems connect to the HECO grid at a distribution level of 12kV. Utility scale solar power, such as proposed by SunEdison, connects to the grid at a sub-transmission level, at 46kV. Therefore, SunEdison's connection will not directly compete with residential and commercial PV systems' connections. [N.Doss, Tr. 10/29/14, 82:18-84:7] (PET 183 AS MOD)

[184270](#). There is an upper limit to the total amount of intermittent renewable energy which can connect to the HECO grid. ~~A recent NREL study estimated that the~~[The](#) HECO grid as a whole could add an additional 300 MW of solar power and an additional 100 MW of wind power with limited updates to their current operations As explored in the recent Power Supply Improvement plan commissioned by HECO and filed with the PUC for their review and approval, this upper limit may be further increased if HECO proceeds with battery storage projects which would ameliorate some of the issues created by intermittent energy resources. (PET 184 AS MOD)

[194271](#). Unlike residential rooftop solar panels, a solar farm of the size planned for the KS Property must follow very specific protocols to ensure that there are not reliability concerns. [N.Doss, Tr. 10/29/14, 90:22-91:16] (PET 194)

COMMITMENT OF STATE FUNDS AND RESOURCES

[301272](#). The solar farm project is expecting to access federal investment tax credits. Federal investment tax credits comprise ~~thirty~~[30](#) percent of the total value of Phase 1. [N.Doss, Tr. 10/29/14, 82:2-82:12] (PET 301 AS MOD)

[302273](#). All solar farm infrastructure will be developed and financed [by](#) SunEdison. (PET 302 AS MOD)

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

[303274](#). ~~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).~~The interim use of portions of the KS Property as a solar farm is consistent with applicable goals, objectives, and policies of the Hawai`i State Plan, HRS ~~Chapter~~[chapter](#) 226. [T.Witten, Tr. 10/29/14, 61:11-63:7; R.Funakoshi, Tr. 10/29/14, 206:17-206:24] (PET 303 AS MOD)

~~304.—The interim use of portions of the KS Property as a solar farm supports the certain State goals and objectives under the Hawai`i State Plan such as a strong, viable, stable and diverse economy and the development of physical environments that are beautiful, clean and unique. [T.Witten, Tr. 10/29/14, 61:23-62:11; Motion at 16]~~

[305275](#). The solar farm 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:

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

(c)(2) Ensure that the combination of energy supplies and energy-saving systems is sufficient to support the demands of growth;

(c)(3) Base decisions of least-cost supply-side and demand-side energy resource options on a

comparison of their total costs and benefits when a least-cost is determined by a reasonably comprehensive, quantitative, and qualitative accounting of their long-term, direct and indirect economic, environmental, social, cultural, and public health costs and benefits;

(c)(4) Promote all cost-effective conservation of power and fuel supplies through measures, including:
(A) Development of cost-effective demand- side management programs;
(B) Education; and
(C) Adoption of energy-efficient practices and technologies;

(c)(5) Ensure, to the extent that new supply-side resources are needed, that the development or expansion of energy systems uses the least-cost energy supply option and maximizes efficient technologies;

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

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

[T.Witten, Tr. 10/29/14, 62:1-63:7; Motion at 16-17] (PET 305)

[306276](#). The solar farm is consistent with the following State priority guidelines under HRS [§section](#) 226-103 with respect to encouraging the development of clean industries.

Hawai`i State Plan Priority Guidelines; HRS § 226-103 - Economic Priority Guidelines

HRS §226-103(a)(8). Provide public incentives and encourage private initiative to develop and attract industries which promise long-term growth potentials and which have the following characteristics:

(A) An industry that can take advantage of Hawai`i's unique location and available physical and human resources.

(B) A clean industry that would have minimal adverse effects on Hawai`i's environment.

[Motion at 17-18] (PET 306 AS MOD)

[307277](#). The solar farm is consistent with the following State priority guidelines under HRS [§section](#) 226-103 with respect to energy use and development:

HRS §226-103(f). Priority guidelines for energy use and development:

(1) Encourage the development, demonstration, and commercialization of renewable energy sources.

(2) Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.

(3) Provide incentives to encourage the use of energy conserving technology in residential, industrial, and other buildings.

(4) Encourage the development and use of energy conserving and cost-efficient transportation systems.

[T.Witten, Tr. 10/29/14, 62:16-63:3] (PET 307 AS MOD)

CONFORMANCE WITH THE COASTAL ZONE MANAGEMENT PROGRAM

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278. The interim use of portions of the KS Property as a solar farm conforms with the objectives and policies of the Coastal Zone Management program under HRS chapter 205A. (LUC FINDING)

308.—By providing 50 MW of power in Phase 1 (enough renewable energy to power roughly 9,800 homes a year), the solar farm is a prime example of the development and commercialization of a renewable energy source.
[Motion at 18]

COMMISSION CRITERIA FOR A MOTION TO AMEND

309.—For the modification or deletion of conditions or orders, HAR § 15-15-94 provides in part as follows:

(a) If a petitioner, pursuant to this section, desires to have a . . . modification of the commission's order, the petitioner shall file a motion in accordance with section 15-15-70 and serve a copy on all parties to the boundary amendment proceeding . . . in which the order was issued, and to any person that may have a property interest in the subject property as recorded in the county's real property tax records at the time that the motion is filed.

(b) For good cause shown, the commission may act to modify or delete any of the conditions imposed or modify the commission's order.

(c) Any modification or deletion of conditions or modifications to the commission's order shall follow the procedures set forth in subchapter 11.

SERVICE OF MOTION, HAR § 15-15-94(A)

310.—~~KS served Gentry Pacific, LTD with a copy of the Motion to Amend. KS also served OP and DPP with copies of the Motion to Amend. [KS COS, 5/13/14]~~

311.—~~KS served copies of the Motion to Amend on all persons with a recorded interest in the KS Property. In total, KS served copies of the Motion to Amend on 18 individuals or entities [KS Ex 3; KS COS, 5/13/14]~~

312.—~~Other than DPP and OP, which are parties to this proceeding, none of the other recipients of the Motion to Amend sought to become parties to this proceeding.~~

313.—~~A representative from AT&T Services, Inc. inquired as to the purpose of a copy of the Motion to Amend being sent to AT&T Services, Inc., and did not seek any involvement in these proceedings. [KS Ex 26]~~

GOOD CAUSE SHOWN TO MODIFY THE WAIAWA ORDER, HAR § 15-15-94(B)

314.—~~KS has presented the Commission with good cause to modify the Waiawa Order as requested for the following reasons:~~

315.—~~KS actively sought the concurrence of the Department of the Navy and the State Department of Health for the proposed solar farm, as described above in I.H.5 (Groundwater and Surface Water Resources). [KS Ex 15; KS Ex25]~~

316.—~~The proposed solar farm is consistent with the Urban District classification and the Commission rules for Urban District standards and permissible uses. HAR Sections 15-15-18, 15-15-24. [OP Response at 5; T.Witten, Tr. 10/29/14, 64:3-64:9]~~

~~317.—Using the KS Property as a solar farm is permitted under City and County of Honolulu law and under the State Land Use Urban District. Under HAR §15-15-24 “Any and all uses permitted by the counties either by ordinance or rules may be allowed within this [the “U” Urban] district, subject to any conditions imposed by the commission pursuant to section 205-4(g), HRS.” This is in contrast with the limited ability to utilize State Land Use Agricultural District lands for solar development. [Motion at 15]~~

~~318.—KS and SunEdison engaged in extensive community outreach to inform the community and area law makers about the solar farm, and the responses were positive. [C.Camp, Tr. 10/29/14, 172:24-173:10]~~

~~319.—Development of the solar farm will help the State of Hawai`i achieve its clean energy goals. [OP Response at 8]~~

~~320.—The energy generated from Phase 1 of the solar farm is projected to be enough to power approximately 9,800 homes each year for the term of the project, which will result in a savings of approximately \$145,000,000 in electrical costs for the term of the project. [N.Doss, Tr. 10/29/14, 77:20-78:4, 78:10-78:11]~~

~~321.—The energy generated from Phase 2 of the solar farm is projected to be enough to power approximately 12,740 homes each year for the term of the project, which will result in a savings of approximately \$188,000,000 in electrical costs for the term of the project. [N.Doss, Tr. 10/29/14, Tr. 10/29/14, 78:9-78:17]~~

~~322.—Allowing KS to use portions of the KS Property for solar farm development while KS assesses possible future development options for the KS Property will allow KS to generate a financial return on the KS Property without preventing KS from engaging in development on the remaining portions of the KS Property. [G.Caldarone, Tr. 10/29/14, 36:11-37:1]~~

~~323.—Before proceeding with a new development proposal that is different from the Gentry Plan, KS will come to the Commission with a Motion to Amend. [C.Caldarone, Tr. 10/29/14, 31:13-32:2]~~

~~324.—Petitioner is preparing a Master Plan for the Petition Area, and anticipates that substantial changes may be made to the original Waiawa Ridge Project proposal. If substantial changes are made, Petitioner represented that it will return to the Commission through a motion to amend that examines the new uses and impacts and to amend the original Waiawa Order and to possibly add or change the original conditions.~~

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. Pursuant to HRS ~~Chapter~~chapter 205, and the Commission Rules under HAR chapter 15-15, and upon consideration of the Commission decision-making criteria under HRS section 205-~~4617~~, the Commission finds upon the clear preponderance of the evidence that the use of the identified portions of the KS ~~property~~Property, situated at Waiawa and Waipi`o, `Ewa, O`ahu, Hawai`i, identified as

[TMKs: 9-4-06: 34 \(por.\), 35 \(por.\), 36, and 37 \(por.\) and 9-6-04: 24 \(por.\), 25, and 26](#), as a solar farm, to include all related utility and other infrastructure, for a period not to exceed 35 years from the date of this Order, is reasonable, not violative of HRS [§section 205-2 and part III of HRS chapter 205](#), and is consistent with the policies and criteria established pursuant to HRS [§§sections 205-16, 205-17, and 205A-2](#). (PET 1 AS MOD)

~~2. Pursuant to HRS Chapter 205, and the Commission Rules under HAR chapter 15-15, and upon consideration of the Commission decision-making criteria under HRS section 205-16 the Commission finds upon the clear preponderance of the evidence that authorizing the use of the identified portions of the KS property as a solar farm, to include all related utility and other infrastructure, for a period not to exceed 35 years from the date of this Order, and subject to the conditions imposed herein, is reasonable, not violative of HRS § 205-2 and is consistent with the policies and criteria established pursuant to HRS §§ 205-16, 205-17 and 205A-2.~~

32. Pursuant to HRS ~~Chapter~~[chapter](#) 205, and the Commission Rules under HAR chapter 15-15, and upon consideration of the Commission decision-making criteria under HRS section 205-~~16~~[17](#), the Commission finds upon the clear preponderance of the evidence that the development and operation of the solar farm ~~would not violate any of~~[is consistent with the prior](#) the conditions [of approval](#) imposed under the Waiawa Order. (PET 3 AS MOD)

43. Article XII, section 7, of the Hawai'i State Constitution requires the Commission to protect ~~native~~[Native](#) Hawaiian traditional and customary rights. The State of Hawai'i reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua'a tenants who are descendants of ~~native~~[Native](#) Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights.

The State and its agencies are obligated to protect the reasonable exercise of customarily and traditionally exercised [nativeNative](#) Hawaiian rights to the extent feasible. *Public Access Shoreline Hawai'i v. Hawai'i County Planning Commission*, 79 Haw. 425, 450, n. 43, *certiorari denied*, 517 U.S. 1163 (1996). (PET 4 AS MOD)

[54.](#) The Commission is empowered to preserve and protect customary and traditional rights of [nativeNative](#) Hawaiians. *Ka Pa`akai O Ka `Aina v. Land Use Commission*, 94 Hawai'i 31, 7 P.3d 1068 (2000). (PET 5 AS MOD)

[65.](#) Article XI, [Sectionsection](#) 1, of the Hawai'i State Constitution requires the State to conserve and protect Hawai'i's natural beauty and all natural resources, including land, water, air minerals, and energy sources, and to promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State. (PET 6 AS MOD)

[106.](#) Article XI, [Sectionsection](#) 1, of the Hawai'i State Constitution [further](#) states that all public natural resources are held in trust by the State for the public benefit. Government bodies are precluded from authorizing a proposed use that will impact the public trust in the absence of an affirmative showing that the use does not conflict with public trust principles and purposes." *Kaua'i Springs v. Planning Comm'n of the Cnty. of Kaua'i*, 2014 WL 812683 (Haw. Feb. 28, 2014). (PET 10 AS MOD)

[7.](#) Article XI, [Sectionsection](#) 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. (PET 7 AS MOD)

[8.](#) The Petition Area is not classified as Important Agricultural Land under Part III of HRS chapter 205. (PET 8)

9. Article XI, ~~Section~~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. (PET 9 AS MOD)

~~410.~~ The Commission concludes that it has observed and complied with its duties arising under Article XI, ~~Section~~section 1; Article XI, ~~Section~~section 3; Article XI, ~~Section~~section 7; and Article XII, ~~Section~~section 7, of the Hawai'i State Constitution. (PET 11 AS MOD)

DECISION AND ORDER

IT IS HEREBY ORDERED that the identified areas within the KS Property, situated at Waiawa and Waipi'o, 'Ewa, O'ahu, Hawai'i, identified as TMKS: 9-4-06: 34 (por.), 35 (por.), 36, and 37 (por.) and 9-6-04: 24 (por.), 25, and 26, and shown approximately on Exhibit "A," attached hereto and incorporated by reference herein, may be used as a solar farm, to include all related utility and other infrastructure, for a period not to exceed 35 years from the date of this Order, and subject to the conditions imposed herein, which conditions are in addition to the ~~original~~ conditions imposed under the Waiawa Order that shall remain in full force and effect:

1. Revised Master Plan. Petitioner shall submit to the Commission a revised master plan and schedule for development for the approximately 1,395-acre KS ~~Waiawa property~~Property within five (5) years from the date of the Commission's issuance of an order approving the Motion to Amend. (PET 1 AS MOD)

2. Access to the Waiawa Correctional Facility. Petitioner shall cause the solar farm operator to ensure that the construction and installation of the solar farm within the KS Property shall not prevent roadway access to the Waiawa Correctional Facility. (PET 2)

3. Previously Unidentified Burials and Archaeological/Historic Sites. A supplemental [archaeological inventory survey AIS](#) for the entire 1,395-acre Petition Area shall be prepared by a qualified archaeologist to determine potential impacts and to ensure that appropriate mitigation is implemented as needed. The supplemental [archaeological inventory survey AIS](#) shall be submitted to the [State Historic Preservation Division \(“SHPD”\) SHPD](#) and accepted prior to the start of construction.

In the event that historic resources, including human skeletal remains, are identified during construction activities, all work shall cease in the immediate vicinity of the find, the find shall be protected from additional disturbance, and the SHPD, O`ahu Island Section, shall be contacted immediately. Without any limitation to any other condition found herein, if any burials or archaeological or historic sites, such as artifacts, marine shell concentrations, charcoal deposits, stone platforms, paving, and walls not previously identified in studies referred to herein, are discovered during the course of construction of the solar farm project, all construction

activity in the vicinity of the discovery shall stop until the issuance of an archaeological clearance from the SHPD that mitigative measures have been implemented to its satisfaction. (PET 3 AS MOD)

4. Aircraft Hazard. If glint or glare from the photovoltaic array creates a hazardous condition for pilots, Petitioner shall cause the solar farm facility operator to be prepared to immediately mitigate the hazard upon notification by the [Department of Transportation DOT](#), Airports Division, or the [Federal Aviation Administration FAA](#). (PET 4 AS MOD)

5. Traffic Impacts.

a. Phase 1. Prior to the start of construction of Phase 1 of the solar project, Petitioner shall cause the solar farm operator to address any comments that may be made by the [State Department of Transportation DOT](#) regarding the August 1, 2014, "Construction Traffic Assessment for the Proposed Waiawa Solar Farm" that was prepared for the solar farm project, and to implement the mitigations recommended in the Fehr & Peers Traffic Assessment.

b. Phase 2. Petitioner shall cause the solar farm operator to prepare and submit to the [State Department of Transportation DOT](#) for review and to obtain acceptance of a Traffic Assessment for Phase 2 of the solar project prior to the start of construction of Phase 2. (PET 5 AS MOD)

6. Development Schedule. Phase 1 of the solar farm shall be substantially completed within five (5) years from the date of the Commission's issuance of an order approving the Motion to Amend. Phase 2 of the solar farm shall be substantially completed within ten (10) years from the date of the Commission's issuance of an order approving the Motion to Amend. (PET 6)

7. Interim Use of the Petition Area. The interim use of the Petition Area shall be limited to a utility-scale solar energy development, or solar farm. No other use shall be permitted without the prior written approval of the Commission.
(LUC COND)

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8. Timeframe of Interim Use. The interim use of the Petition Area for the proposed solar farm, including any and all permitting, construction, operation, and decommissioning activities associated with the solar farm, shall not exceed a period of 35 years from the date of this Decision and Order without the prior written approval of the Commission. (LUC COND)

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9. Metes and Bounds Map and Description. The proposed solar farm shall be limited to the acreage and boundaries identified in Petitioner's Phasing Plan shown in Petitioner's Errata to its Exhibit 8. Petitioner shall provide a metes and bounds map and description of both phases to the Commission within one year from the date of this Decision and Order. (LUC COND)

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10. Decommissioning of the Solar Farm. The solar farm shall be decommissioned following its operational timeframe. The decommissioning activities shall include, but not be limited to, the complete removal of the foundational piers and modules and all associated components. All metal components shall be recycled to the extent possible and no solar farm components shall be disposed of in any landfill in the State of Hawai'i. Any future use of the Petition Area following the decommissioning of the solar farm shall be subject to the environmental review process promulgated under HRS chapter 343, as applicable, and shall require the filing of a motion to amend the Decision and Order with the Commission. Such motion to amend shall include a revised master development plan of the proposed use and shall further include, but not be limited to, a revised Traffic Impact Analysis Report, Engineering Report, Socio-Economic Analysis Report, Environmental Report, and AIS. (LUC COND)

711. Compliance with Representations. Petitioner shall cause the solar farm operator to develop and operate Phase 1 and Phase 2 of the solar farm, including the implementation of measures to mitigate potential impacts of the development, in substantial compliance with the representations made to the Commission as reflected in this ~~Findings of Fact, Conclusions of Law, and~~ Decision and Order. Such mitigation measures include, but are not limited to, the use of temporary and permanent BMPs to ensure that the development and operation of the solar farm

do not result in an increase in stormwater runoff that adversely impacts downstream properties. Failure to do so may result in reversion of the Petition Area to its former classification, or change to a more appropriate classification. (PET 7 AS MOD)

12. Notice of Change of Ownership. Petitioner shall give notice to the Commission of any intent to sell, lease, assign, place in trust, or otherwise voluntarily alter the ownership interests in the Petition Area, prior to development of the Petition Area. (LUC STANDARD COND)

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13. Annual Reports. Petitioner shall timely provide without any prior notice, annual reports to the Commission, OP, and the DPP in connection with the status of the subject project and Petitioner's progress in complying with the conditions imposed herein. The annual report shall be submitted in a form prescribed by the Executive Officer of the Commission. (LUC STANDARD COND)

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14. Release of Conditions. The Commission may fully or partially release the conditions provided herein as to all or any portion of the Petition Area upon timely motion and upon the provision of adequate assurance of satisfaction of these conditions by Petitioner. (LUC STANDARD COND)

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15. Notice of Imposition of Conditions. Within seven (7) days of the issuance of the Commission's Decision and Order granting the Motion to Amend, Petitioner shall: (a) record with the Bureau of Conveyances a statement that the Petition

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Area is subject to conditions imposed herein by the Commission in the granting of the Motion to Amend; and (b) shall file a copy of such recorded statement with the Commission. (LUC STANDARD COND)

~~8. — Notice of Imposition of Conditions. Within 7 days of the issuance of the Commission's order approving the Motion to Amend Petitioner shall record the conditions imposed herein by the Commission with the Bureau of Conveyances pursuant to HAR § 15-15-92, and file a copy of such recorded notice with the Commission. All such conditions shall run with the land.~~

16. Recordation of Conditions. Petitioner shall record the conditions imposed herein by the Commission with the Bureau of Conveyances pursuant to HAR section 15-15-92. (LUC STANDARD COND)

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