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STATE OF HAWAII

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Attorneys for Successor Petitioner (To Parcel 52)
HO'OHANA SOLAR 1, LLC

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAI'I

In the Matter of the Petition of

HALEKUA DEVELOPMENT
CORPORATION, a Hawai'i corporation

To Amend the Agricultural Land Use District
Boundary into the Urban Land Use District for
Approximately 503.886 Acres at Waikele and
Ho'ae'ae, 'Ewa, O'ahu, City and County of
Honolulu, State of Hawai'i, Tax Map Key No.
9-4-02: 1, portion of 52, 70 and 71

DOCKET NO. A92-683

SUCCESSOR PETITIONER (TO PARCEL
52), HO'OHANA SOLAR 1, LLC'S
THIRD LIST OF EXHIBITS;
SUCCESSOR PETITIONER'S THIRD
LIST OF WITNESSES; SUCCESSOR
PETITIONER'S EXHIBITS 34A – 34I;
CERTIFICATE OF SERVICE

**SUCCESSOR PETITIONER'S THIRD LIST OF EXHIBITS;
SUCCESSOR PETITIONER'S THIRD LIST OF WITNESSES;
SUCCESSOR PETITIONER'S EXHIBITS 34A – 34I**


Successor Petitioner to the portion of the Petition Area identified as Tax Map Key No. (1)
9-4-02: 052 ("**Parcel 52**"), HO'OHANA SOLAR 1, LLC, by and through its legal counsel,
CARLSMITH BALL LLP, hereby respectfully submits to the State of Hawai'i Land Use
Commission (the "**Commission**"), *Successor Petitioner's Third List of Exhibits; Successor
Petitioner's Third List of Witnesses; Successor Petitioner's Exhibits 34A – 34I; Certificate of*

Service. This document amends, restates, and incorporates in a single list all of the prior exhibit lists and witness lists filed by Successor Petitioner in Docket No. A92-683.

Successor Petitioner's List of Exhibits filed with the Commission on October 22, 2014 was mistakenly labeled as "SUCCESSOR PETITIONER HO'OHANA SOLAR 1, LLC'S *FIRST* LIST OF EXHIBITS LAND USE COMMISSION DOCKET NO. A92-683" but should have read "SUCCESSOR PETITIONER HO'OHANA SOLAR 1, LLC'S *SECOND* LIST OF EXHIBITS LAND USE COMMISSION DOCKET NO. A92-683".

Successor Petitioner incorporates the exhibits filed by the parties to the Motion to Amend, and reserves the right to call the witnesses listed by the parties to the Motion to Amend.

DATED: Honolulu, Hawai'i, November 18, 2014.



STEVEN S.C. LIM
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Attorneys for Successor Petitioner to Parcel 52
HO'OHANA SOLAR 1, LLC

**SUCCESSOR PETITIONER HO'OHANA SOLAR 1, LLC'S
THIRD LIST OF EXHIBITS
LAND USE COMMISSION DOCKET NO. A92-683**

Successor Petitioner's Exhibits 1-16 were filed with the Commission on August 11, 2014 as a part of Ho'ohana's *Motion for Order Amending the Findings of Fact, Conclusions of Law, and Decision and Order filed on October 1, 1996* in Docket No. A92-683.

Successor Petitioner's Exhibits 17-22 were filed with the Commission on October 8, 2014 as part of Ho'ohana's *Motion for Order Amending the Findings of Fact, Conclusions of Law, and Decision and Order filed on October 1, 1996* in Docket No. A92-683.

Successor Petitioner's Exhibits 13D, 23-33 were filed with the Commission on October 22, 2014 as part of Ho'ohana's *Motion for Order Amending the Findings of Fact, Conclusions of Law, and Decision and Order filed on October 1, 1996* in Docket No. A92-683.

Successor Petitioner's Exhibits 34A-34I were filed with the Commission on November 18, 2014 as part of Ho'ohana's *Motion for Order Amending the Findings of Fact, Conclusions of Law, and Decision and Order filed on October 1, 1996* in Docket No. A92-683.

EX. NO.	DESCRIPTION	PARTY OBJECTIONS	ADMIT
1.	Map of the Petition Area in Docket No. A92-683, TMK Nos. (1) 9-4-002: 001 (por.), 052, 070, 071, 078 and 079 superimposed of the current tax map; GIS map showing the existing development southeast of and adjacent to the Petition Area		
2A.	Graphic showing the State Land Use District classifications of the Petition Area and surrounding properties		
2B.	Map of the Petition Area with an overlay of the current zoning		
2C.	Map of the regions covered by the Central O'ahu Sustainable Communities Plan		
2D.	Portions of the City and County of Honolulu Land Use Ordinances Master Use Table 21-3		
3.	Excerpts from the Findings of Fact, Conclusions of Law, and Decision and Order filed on October 1, 1996 in Docket No. A92-683 (" 1996 Order ")		

4.	Excerpts from the Development Plan and Final Environmental Assessment for Royal Kunia, Phase II, Increment 3, dated May 1996	WITHDRAWN/ CORRECTED	
4.	(Errata) Excerpts from the Development Plan and Final Environmental Assessment for Royal Kunia, Phase II, Increment 3, dated May 1996, filed on October 17, 2014		
5.	Memorandum of Option Agreement between Robinson Kunia Land, LLC and Forest City Sustainable Resources, LLC, dated August 2, 2012		
6.	Ho'ohana team fact sheet		
7.	Robinson Kunia Land, LLC's consent to the Motion to Amend		
8.	Graphic explaining the Project's interconnection to the HECO electric grid vs. residential interconnection to the grid		
9.	Electrical site plan		
10.	Photograph of the photovoltaic ("PV") modules		
11.	Schematics of the PV modules racking and tracker systems, Project substations, inverters, concrete pads, and fencing		
12.	Archaeological Inventory Survey for Parcel 52 and Plantation Road		
13A.	Letter from Senator Mike Gabbard in support of the Ho'ohana Solar Project		
13B.	Letter from Blue Planet Hawai'i in support of the Ho'ohana Solar Project		
13C.	Letter from the Royal Kunia Country Club in support of the Ho'ohana Solar Project		
13D.	Letter from Senator Michelle Kidani in support of the Ho'ohana Solar Project		
14.	View study of the Ho'ohana Solar Project from surrounding neighborhoods		

15.	Title reports for the Petition Area		
16.	Letter from Steven S.C. Lim to Daniel Orodener, dated July 31, 2014		
17.	Revised Preliminary Solar Farm Layout		
18.	Natural Resources Survey for the Ho'ohana Solar Farm site in Kunia, O'ahu		
19.	Construction Traffic Assessment for the Proposed Ho'ohana Solar Farm		
20A.	Letter from Clifford Smith, Meridian 158, LLC, to Larry Greene, Director of Public Policy and Business Development, Hanwha Solar Energy America, dated October 8, 2014		
20B.	Federal Aviation Administration ("FAA") Determination of No Hazard to Air Navigation, dated October 8, 2014 (Because the FAA Determinations for each of the 20 points studied are identical in substance, only one determination is filed herein.)		
20C.	FAA Project Submission Success sheet, submitted August 10, 2014		
20D.	Summary Solar Glare Hazard Analysis Report Table for Honolulu International Airport; Project Coordinate Summary Table ("Exhibit A")		
21.	Letter from Sanford S.C. Yuen, P.E., Department of the Navy, to Mr. Clarence K. Tanonaka, Assistant to the President ParEn. Inc. dba Park Engineering, dated January 11, 1996		
22.	Sample lighting cut-off standards		
23.	Resume of Jeffrey H. Overton, AICP, LEED AP, Principal, Group 70 International, Inc.		
24.	Resume of Laurence Greene, Director of Public Policy and Business Development, Hanwha Solar Energy America		

25.	Resume of Robert L. Spear, Ph.D., Principal Investigator, Scientific Consultant Services, Inc.		
26.	Resume of Jon Wallenstrom, President, Forest City Hawaii		
27.	Curriculum Vitae of Ann Bouslog, Development Manager, Forest City Hawaii		
28.	Resume of Clifford Smith, Principal, Meridian 158, LLC		
29.	Resume of Sohrab Rashid T.E., Principal, Fehr & Peers		
30.	Resume of Eric B. Guinther, Senior Ecologist, AECOS Inc.		
31.	Resume of Joanne (Nonie) Toledo Hamm, President & CEO, Nonie Toledo & Associates, Inc.		
32.	Royal Kunia – Phase II Drainage Master Plan		
33.	Royal Kunia Phase II: Increment III Engineering Study		
34A.	Written direct testimony of Jeffrey H. Overton		
34B.	Written direct testimony of Clifford Smith		
34C.	Written direct testimony of Laurence Greene		
34D.	Written direct testimony of Jon Wallenstrom		
34E.	Written direct testimony of Robert L. Spear		
34F.	Written direct testimony of Eric B. Guinther		
34G.	Written direct testimony of Sohrab Rashid		
34H.	Written direct testimony of Joanne (Nonie) Toledo Hamm		
34I.	Written direct testimony of Ann Bouslog		

**SUCCESSOR PETITIONER HO'OHANA SOLAR 1, LLC'S
THIRD LIST OF WITNESSES - LAND USE COMMISSION DOCKET NO. A92-683**

Name, Position, Organization	To be qualified as a witness in:	Subject Matter	Exhibit Nos.	Written Testimony	Length of Direct
Jeffrey H. Overton, AICP, LEED AP, Principal, Group 70 International, Inc.	Land use and environmental planning	Land use and environmental planning	1-4,8-12-15, 17, 19, 23, 32, 34A	Yes	30
Clifford Smith, Principal, Meridian 158, LLC	Utility-scale renewable energy development	Project management	8-11, 17, 20A-20D, 28, 34B	Yes	20
Laurence Greene, Director of Public Policy and Business Development, Hanwha Solar Energy America	Utility scale solar development projects	Overall project analysis	6, 17, 22, 24, 34C	Yes	20
Jon Wallenstrom, President, Forest City Hawaii	Large-scale project development	Project development	5, 6, 26, 34D	Yes	15
Joanne (Nonie) Toledo Hamm, President & CEO, Nonie Toledo & Associates, Inc.	N/A	Community outreach	13A-13D, 31	Yes	10
Robert L. Spear, Ph.D., Principal Investigator, Scientific Consultant Services, Inc.	Archaeology	Archaeological, cultural and historic resources	12, 25	Yes	10
Eric B. Guinther, Senior Ecologist, AECOS Inc.	Ecology, natural resources, environmental survey reports	Natural resources	18, 30	Yes	10

Sohrab Rashid T.E., Principal, Fehr & Peers	Transportation planning and traffic engineering	Traffic Management	19, 29	Yes	N/A
Ann Bouslog, Development Manager, Forest City Hawaii	N/A	Project development and renewable energy sector	16, 27	Yes	10
Allan Zawtocky, Co-Trustee under the Will and of the Estate of Mark Alexander Robinson, and Co-Trustee under that Certain Deed of Trust executed by Mark Alexander Robinson and Mary Kapuahaulani Hart Robinson, Members, Robinson Kunia Land LLC	N/A	Landowner representative	7	No	10

1 **HO‘OHANA SOLAR 1, LLC – MOTION TO AMEND DOCKET NO. A92-683**

2 **WRITTEN DIRECT TESTIMONY OF JEFFREY H. OVERTON**

3 I, Jeffrey H. Overton, have personal knowledge of the matters set forth herein and am qualified
4 and competent to make these statements:

5
6 **Please state your name and business address for the record.**

7 Jeffrey H. Overton 925 Bethel Street, 5th Floor, Honolulu, Hawai‘i 96813

8 **Was your résumé provided for these proceedings?**

9 Yes. My résumé was filed with the Commission as **Successor Petitioner's Exhibit 23.**

10 **Please identify the studies you prepared for Parcel 52.**

11 Group 70 has coordinated the necessary studies for this Project. Group 70 engaged Mr.
12 Eric Guinther of AECOS Inc. to conduct the natural resources survey of Parcel 52 and Plantation
13 Road, and Dr. Robert Spear of Scientific Consultant Services, Inc., to conduct the archaeological
14 inventory survey for Parcel 52 and Plantation Road. Ho‘ohana also engaged Sohrab Rashid of
15 Fehr & Peers to conduct a construction traffic assessment for the Project. Group 70 also
16 conducted view studies from various neighborhoods surrounding Parcel 52 which were filed as
17 **Successor Petitioner's Exhibit 14.**

18
19 **What is your current occupation?**

20 I am a Principal at Group 70 International, Inc.

21
22 **How long have you worked in that capacity?**

23 I have worked as a land use and environmental planner for over 31 years.

24 **Please briefly describe your educational background.**

25 I have a Bachelor's degree in Zoology/Biological Oceanography from Duke University
26 and a Master's degree in Environmental Sciences from the State University of New York.

1 **To what professional organizations do you belong?**

2 I am a U.S. Green Building Council LEED accredited professional. I am a member of the
3 American Institute of Certified Planners (AICP) and the Urban Land Institute, Hawai'i Chapter. I
4 also sit on the Board of Directors for Enterprise Honolulu.
5

6 **Do you specialize in any particular areas?**

7 For the past 31 years, I have specialized in urban design planning, watershed analysis and
8 coastal environmental planning. I lead the preparation of master plans, sustainable development
9 plans, environmental impact documents, land use permitting and community involvement for
10 private developments, renewable energy projects, and government projects.
11

12 **Have you been qualified as an expert witness as a land use and environmental planner**
13 **before the Land Use Commission?**

14 Yes. I have been qualified as an expert before this Commission for the following projects:
15 Maniniowali (1990), Lihilani Pupukea (1992), Upcountry Town Center (2002), Keauhou Master
16 Plan (2005), and Forest City Keahuolu (2009).

17 **Before we get into the particulars of the proposed solar farm project (the "Project"), can**
18 **you briefly describe the history of the Petition Area?**

19 The original petitioner of this Docket No. A2-683 was Halekua Development Corporation
20 ("Halekua"), who at that time had control, through a development agreement with the fee owner,
21 Robinson Estate, of the entire Petition Area. In 1992, Halekua filed a petition to reclassify
22 approximately 504.865 acres identified by Tax Map Key ("TMK") Nos. 9-4-002: 001, 052
23 (por.), 070, and 071 from the State Land Use ("SLU") Agricultural District to the SLU Urban
24 District. By this petition, Halekua proposed to develop the Petition Area as Royal Kunia Phase II,
25 which is planned to be developed in three parts, identified as Increments 1, 2, and 3, which can be
26 seen on Successor Petitioner's Exhibit 32. At full build out, the Royal Kunia Phase II project will
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1 consist of approximately 2,000 residential units, 123 acres dedicated to light industrial uses, a 6
2 acre elementary school, and an 11.1 acre public park. The Commission granted the petition for
3 district boundary amendment by Findings of Fact, Conclusions of Law, and Decision and Order
4 dated December 9, 1993 ("**1993 Order**").

5
6 Increment 1 will include light industrial uses, a park, a school, low-density apartments,
7 and single-family residences. Increment 2 will be developed with low-density apartments and
8 single-family residences. As provided in the 1996 Development Plan Amendment Application
9 and Final Environmental Assessment, filed as **Successor Petitioner's Exhibit 4 (Errata)**, Parcel
10 52 will be developed as Royal Kunia Phase II, Increment 3, which is planned for approximately
11 580 residential units. As we understand, the individual owners of properties that make up the
12 Petition Area still plan to develop the Petition Area as Royal Kunia Phase II.

13
14 Increment 2 received a Planned Development Housing ("**PDH**") permit from the City and
15 County in 2009 for development of single-family and multi-family units, along with recreational
16 amenities and parks. The actual build out will be subject to market conditions at that time.

17 In 1996, Halekua filed a motion to amend the 1993 Order to delete the proposed golf
18 course, change the ownership interest in the Petition Area, and to correct the metes and bounds of
19 the Petition to 503.886 acres. The Commission approved the motion to amend by Findings of
20 Fact, Conclusions of Law, and Decision and Order dated October 1, 1996 ("**1996 Order**").
21 Various legal proceedings in the 2000s (including a bankruptcy proceeding for the original
22 Petitioner) resulted in Halekua losing control of the Petition Area.

23
24 The Petition Area is identified today by TMK Nos. 9-4-002: 001, 052, 070, 071, 078, and
25 079, which can be seen on Successor Petitioner's Exhibit 1, and is owned by six (6) different
26 entities. Parcel 52, the portion of the Petition Area which Ho'ohana's Motion to Amend applies
27 to, is owned by Robinson Kunia Land LLC ("**RKL**"). HRT Realty, LLC is the owner of a portion
28

1 of Parcel 001, Parcel 070, and Parcel 078. Canpartners Royal Kunia Property LLC
2 ("Canpartners") owns a portion of Parcels 071 and 079. RKES, LLC owns a portion of Parcels
3 071 and 079. 300 Corporation and Honolulu Limited each own a portion of Parcel 001.

4 **Were any conditions of approval imposed on the Petition Area in the 1996 Order by the**
5 **Commission? How do those Conditions apply to the proposed solar farm?**
6

7 Yes. Although the Commission imposed 25 conditions of approval on the Petition Area,
8 however, the minimal impacts of the proposed solar farm will not trigger compliance with most
9 of these Conditions.

10 Condition No. 1 requires the Petitioner to provide affordable housing. Because the
11 proposed solar farm Project will not include the construction of any residential units, this
12 Condition is not applicable at this time.

13 Condition Nos. 2, 3, and 4 require Petitioner to fund, design, and construct its pro rata
14 share of the local and regional transportation improvements driven by the proposed development
15 of Royal Kunia Phase II, to appoint a transportation manager, and to monitor traffic attributable to
16 the Royal Kunia Phase II project. Because the proposed solar farm will have only negligible
17 traffic impacts, these Conditions are not applicable at this time.

18 Condition No. 5 requires Petitioner to work with the City and County of Honolulu (the
19 "County") Department of Public Works and the State of Hawai'i Department of Health ("DOH")
20 to conform to the program goals of the Integrated Solid Waste Management Act. Because the
21 proposed solar farm will not require a solid waste management system, this Condition is not
22 applicable at this time.

23 Condition No. 6 requires the Petitioner to contribute its pro rata share to fund, develop,
24 and/or construct school facilities. Because the proposed use does not include the construction of
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1 any residential units which cause the demand for school facilities, this Condition is not applicable
2 at this time.

3 Condition No. 7 requires coordination with the Board of Water Supply and DLNR to
4 obtain the required water for the project, or, if sufficient water is not available, requiring
5 petitioner to fund and develop its own source, transmission, and storage facilities. As will be
6 discussed, Ho'ohana will truck water onto Parcel 52 and store the water in three (3) 4,000 gallon
7 water tanks, so this Condition is not applicable at this time.

8
9 Condition No. 8 requires Petitioner to fund its pro rata share of civil defense measures.
10 Because the proposed use does not include the construction of any residential units, this
11 Condition is not applicable at this time.

12 Condition Nos. 9 and 10 require Petitioner to erect a chain link fence along the eastern
13 boundary of the Petition Area and to maintain the land within 20 feet of the eastern boundary free
14 of vegetation taller than eight inches high. Conditions 9 and 10 were imposed in the original
15 1993 D&O as a safety measure and buffer for the proposed residential units from the former
16 Waikele Branch of Naval Magazine, Lualualei. Subsequently, a Department of the Navy
17 communication dated 1/24/96 stated that "all explosives have been removed from all Waikele
18 Branch facilities and no need exists for any future storage of explosives, this location is
19 disestablished as an ordnance storage location." Therefore, Conditions 9 and 10 should no longer
20 be applicable to the Royal Kunia Phase II project, including Parcel 52. In any event, for security
21 reasons, Ho'ohana will erect an 8 feet tall fence around the 124 acre perimeter of the proposed
22 solar farm. Vegetative buffers will be planted where needed, as required by the Conditional Use
23 Permit ("CUP").
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1 Condition No. 11 requires Petitioner to coordinate with the DOH and the County to
2 establish a system to prevent and contain spills of chemicals. No hazardous chemicals will be
3 used as a part of the proposed solar farm, so this Condition is not applicable at this time.

4 Condition No. 12 requires Petitioner to fund and construct adequate wastewater treatment,
5 transmission, and disposal facilities. Because no residential units will be constructed as a part of
6 the proposed use, this Condition is not applicable at this time. The security watchman residence
7 will, however, be equipped with a septic system.

8 Condition No. 13 requires Petition to implement effective soil erosion and dust control
9 measures both during and after construction. To the extent applicable, Ho'ohana will use best
10 management practices to control dust and erosion during construction of the proposed solar farm.
11 Erosion and dust will be minimal after construction of the solar farm is completed, during
12 operation of the solar farm.

13 Condition No. 14 requires Petitioner to participate in an air quality monitoring program.
14 There will be no emissions from the proposed solar farm and the operational phase of the solar
15 farm will produce only minimal vehicle trips/emissions, so this Condition is not applicable at this
16 time.

17 Condition No. 15 requires Petitioner to notify owners and occupants within the Petition
18 Area of the potential odor or other nuisances caused by surrounding agricultural activities.
19 Because there will be no construction of residential units as a part of this Project, this Condition is
20 not applicable at this time.

21 Condition No. 16 requires Petitioner to provide drainage improvements. The Project is
22 located outside of any floodplain or drainage areas. Ho'ohana will comply with all applicable
23 drainage requirements of the City.

1 Condition No. 17 requires Petitioner to cease construction if any archaeological resources
2 are discovered on the property. Parcel 52 has been farmed for over 100 years. Ho‘ohana has
3 performed a full Archaeological Inventory Survey as part of its Project studies, and will comply
4 with this Condition and coordinate with SHPD should any archaeological resources be found
5 during construction of the proposed solar farm.
6

7 Condition No. 18 requires Petitioner to obtain development plan approvals within five
8 years from the date of the 1996 Order. According to the Status Report dated January 14, 2014
9 submitted to the Commission by Halekua-Kunia, LLC, Halekua obtained all Development Plan
10 approvals for Royal Kunia, Phase II. Therefore this Condition has been fully satisfied.
11

12 Condition No. 19 requires Petitioner to convey lands to the State of Hawai‘i and to
13 provide certain off-site infrastructure to the State Agricultural Park. In 2004, title to 150 acres of
14 land now identified by TMK No. 9-4-002-080 was transferred to the State of Hawai‘i for use as
15 the State Agricultural Park. Therefore, this condition has been partially satisfied. Condition No.
16 19 is applicable to Parcel 52 because it is part of the Petition Area. However, Condition No. 19
17 has always been governed according to the terms of the Memorandum of Understanding
18 ("MOU") and RKL has never been a party to the MOU.
19

20 Condition No. 20 requires Petitioner to develop the property in substantial compliance
21 with the representations made to the Commission. This condition remains applicable, and this
22 Motion to Amend seeks the Commission's approval that the proposed interim solar farm
23 development on Parcel 52 is in substantial compliance with the representations made by the
24 Petitioner in this Docket.

25 Condition No. 21 requires the Commission's prior approval before the Petitioner can
26 change the ownership interest in the Petition Area. This Motion to Amend seeks to modify this
27 condition to require only notice to the Commission of the Petition Area landowners' intent to
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1 change the ownership interest. As part of its Response to Successor Petitioner's Motion to
2 Amend, OP has no objection to the proposed amendment of this Condition No. 21 and such
3 language is consistent with the standard condition imposed by the Commission.

4 Condition No. 22 requires Petitioner to provide annual status reports to the Commission.

5 Condition No. 23 provides that any conditions imposed by the Commission may be fully
6 or partially released by the Commission upon a motion for release.

7 Condition Nos. 24 and 25 require Petitioner to record the conditions imposed by the
8 Commission with the Bureau of Conveyances. To date, these conditions have been fully met and
9 will continue to be met should any additional conditions of approval imposed by the Commission.

10 **Did the Commission's 1996 Order impose a deadline for completion of the residential**
11 **development of Increment 3 on Parcel 52?**

12
13
14 No, there is no completion deadline, but the former Petitioner's estimated deadline for the
15 Royal Kunia Phase II build out has already passed.

16 **Turning to the present, are you familiar with the proposed development of the interim solar**
17 **farm ("Project") and the Petition Area?**

18 Yes. Group 70 was retained by Ho'ohana in February 2014 as the land use planner for
19 this Project. If approved by the Commission, Parcel 52 of the Petition Area will be developed as
20 an approximately 20 MW solar farm. Parcel 52 is approximately 161 acres in size, of which 75%
21 or 124 acres will be used for the solar farm development.

22
23 Ho'ohana Solar 1, LLC is a joint venture between Forest City Sustainable Resources LLC
24 and Hanwha Q CELLS. Ho'ohana is among the largest solar developers in the state, with
25 experience developing more than 10 MW of solar energy between Forest City and Hanwha. The
26 Kalaeloa Renewable Energy Park ("**KREP**"), developed by Hanwha, is approximately 6 MW,
27 and is the largest solar farm on O'ahu.

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Please describe the scope of your involvement in the Project?

I am the lead on land use and environmental planning for this Project. Group 70 is preparing the CUP application for this Project, which is ready to be filed with the City and County of Honolulu.

Why is Parcel 52 appropriate for development of a solar farm?

Parcel 52 is designated in the SLU Urban District by the Commission. The land is currently zoned by the County as AG-1 (restricted agriculture) and is located within the Urban Community Boundary established under the 2002 Central O'ahu Sustainable Communities Plan. Parcel 52 abuts current and planned urban development. In the 1996 Order, the Commission made specific findings that Urban designation of the Petition Area and the Royal Kunia Phase II project is consistent with the Hawai'i State Plan because the Royal Kunia Phase II project will: (i) provide a significant inventory of affordable housing to moderate income groups; (ii) preserve a supply of high quality and well-located agricultural land that will be available to small farmers; and (iii) provide necessary support facilities and infrastructure to existing and surrounding communities. 1996 Order, FOF 220, 223, 224, and 230, at 57-59. These findings are still relevant today.

Under the County's Land Use Ordinances, the proposed 20 MW solar farm is a Type B utility installation, permissible by Conditional Use Permit-minor in all zoning districts. Parcel 52 is ideal for solar energy generation development because the area receives ample natural sunlight and is relatively level.

1 Solar farms are also consistent with the Hawai'i State Plan, the Hawai'i Clean Energy
2 Initiative, and the Department of Business, Economic Development and Tourism's ("DBEDT")
3 renewable energy goals. The solar farm Project will help to satisfy some of the State's goals under
4 the Hawai'i State Plan, which are set out in HRS Section 226-18. These objectives and policies
5 include (1) helping the state to obtain greater energy security and self-sufficiency by providing an
6 independent and renewable source of energy; (2) reducing greenhouse gas emissions; (3)
7 promoting the use of renewable energy sources; (4) ensuring that the combination of energy are
8 sufficient to support the demands of growth; and (5) promoting a cost-effective method of energy.

9
10 Development of the solar farm will not substantially impair agricultural production in the
11 area.

12 **Will the Project generate glare to air traffic, motor vehicle traffic, or neighborhoods in the**
13 **area?**

14
15 In general, the PV modules that will be used for this Project are similar to residential
16 rooftop solar panels and are designed to absorb as much solar energy as possible. Beginning in
17 the summer of 2013, the FAA has requested utility-scale solar projects or solar projects at the
18 airports to submit glare studies to the FAA. The FAA indicated that there may be navigational
19 equipment in the area.

20
21 In August of this year, Ho'ohana conducted a Solar Glare Hazard Analysis Report using
22 the Sandia National Labs web-based tool for the Honolulu Airport Traffic Control Tower and
23 Runways. The report identified two (2) runway approaches with a low potential for temporary
24 after-image caused from glare. The report addressing the potential glare was submitted by
25 Ho'ohana's consultant to the Federal Aviation Administration ("FAA") for review on August 10,
26 2014. On October 8, 2014, the FAA issued Determinations of No Hazard to Air Navigation for
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1 the Project, which were filed with the Commission as **Successor Petitioner's Exhibit 20B**.

2 Basically, the FAA did not object to or raise concerns for the Project.

3 The Project should not generate glare that will affect surrounding neighborhoods. Group
4 70 conducted view studies from various neighborhoods and locations surrounding Parcel 52.
5 These view studies were filed as **Successor Petitioner's Exhibit 14**. Such viewpoints were from:
6 (1) the H-1 Freeway 'Ewa bound, looking across of Waikele Gulch toward Parcel 52; (2) Kunia
7 Road looking East at Parcel 52; (3) the intersection of Anoiki Street and Anonui Street looking
8 north toward Parcel 52; (4) Royal Kunia Country Club; (5) Central O'ahu Regional Park Tennis
9 Courts; (6) Pakela Street in Waikele; (7) Waipahu Elementary School; (8) Halekapio Street in
10 Waipahu; and (9) Nui Street in Mililani. Due to the topography and tall grasses surrounding
11 Parcel 52 and the distance from communities or roadways, the solar farm will not be visible from
12 neighborhoods or streets from most of these viewpoints. We found that the backside of the solar
13 farm may be visible from the Mililani, however, this will be mitigated by landscaping and
14 planting trees along those borders, as necessary. Therefore, the Project should not generate glare
15 that will affect motor vehicle traffic or neighboring views in the area.

16 If any glare is found to be generated by the Project once it is constructed, Ho'ohana will
17 implement mitigation measures to ensure that glare is reduced as much as possible. Such
18 measures may include additional fencing and vegetation planting around the Project to minimize
19 visual impacts.

20 **Is there any concern that the solar panels will "fry" birds?**

21 There has been concern about this on the U.S. mainland, with one particular type of
22 installation that is not contemplated here. Specifically, there have been reports that the tail
23 feathers of birds flying over a 377 MW solar farm in California have ignited. This is not a
24 concern for the Ho'ohana Project because the Ho'ohana Project and the California solar farm use
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1 very different technologies. The California solar farm consists of 300,000 *mirrors* that reflect
2 sunlight to boilers that sit atop three (3) 459 foot tall towers. When the concentrated sunlight
3 strikes the boiler pipes, it heats the water to create steam which is then piped to a standard turbine
4 where electricity is generated.

5
6 In contrast, the PV panels that will be used in the Ho‘ohana Project are designed to *absorb*
7 as much solar energy as possible and will therefore create minimum or no glare, and will not
8 generate heat. These panels will not be reflecting sunlight back into the atmosphere. The PV
9 panels used for this Project are basically the same as those used for the rooftop solar installations
10 on private homes.

11 **Will the Project incorporate any compatible agricultural uses into its design?**

12
13 Early in the planning process, the Ho‘ohana team explored the possibilities of potentially
14 raising sheep on Parcel 52 as a compatible agricultural use. Another option that the team
15 considered was to plant cover crops for pollinators. At this time, Ho‘ohana does not plan to
16 implement either of these options.

17
18 After conducting community outreach and consulting with the current farmers in the area
19 of Parcel 52, neither of these options have the support from the current tenants of the land. An
20 animal husbandry program appears difficult to integrate with the solar farm design and was not
21 encouraged by our neighboring users. All of the neighboring agricultural uses consist of crop
22 farming. If Ho‘ohana was to integrate livestock into its design, the crops on the neighboring
23 agricultural sites would be at risk of destruction if any livestock were to enter the neighboring
24 farms. Furthermore, the Department of Health prohibits the sale of produce for public
25 consumption that may be contaminated by livestock waste, which could be triggered by any
26 runoff from the site. We also note that the State's environmental assessment for the Kunia State
27

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1 Agricultural Park specifically prohibits the keeping of livestock on the Agricultural Park because
2 of the close proximity to residential uses.

3 Our neighboring farm operators have expressed concern about any proposed pollinator
4 cover crop on the solar farm site due to the negative factors of attracting bugs, introducing alien
5 species and viruses and pests to the area, and/or "distracting" existing pollinators away from the
6 farmers' current crops. In any case, Ho'ohana does not want to implement any plan that detracts
7 from the operations of our neighboring farms. Consequently, Ho'ohana does not plan to
8 implement any animal grazing or cover crops for pollinators into the Project.
9

10 **Have you taken into consideration the effects of the Project on the public trust resources?**

11 Yes. Based on our studies, there will be no adverse impacts from development of the
12 solar farm to the public trust resources at Parcel 52.
13

14 **Are you familiar with the *Kaua'i Springs v. Planning Comm'n of County of Kaua'i* case?**

15 Yes. Water is considered a public trust resource in the State of Hawai'i. In the *Kaua'i*
16 *Springs* case, the Hawai'i Supreme Court found that the public trust creates an affirmative duty
17 on the State and its political subdivisions to take the public trust into account in the planning and
18 allocation of water resources. If a project requires the use of groundwater or surface water
19 resources, the permit applicant is required to: (1) demonstrate that it has an actual need for the
20 water to satisfy the project needs; (2) show that the proposed use will not adversely affect a
21 protected use; (3) demonstrate the absence of a practicable alternative water source; and (4) if the
22 impact is found to be reasonable and beneficial, then in light of the cumulative impact of existing
23 and proposed diversions on trust purposes, the applicant must implement reasonable measures to
24 mitigate the impact.
25

26 **Will there be any significant use of groundwater or surface water by the solar farm?**
27

28

1 No. There will be no significant use of groundwater or surface water by the solar farm
2 Project, and thus no impairment to the public trust relating to water resources. The Project does
3 not require approval by the Water Commission nor does it require a water allocation. As
4 discussed, water for the solar farm Project will be trucked onto Parcel 52 and will be used to clean
5 the solar panels and for landscaping purposes.

6
7 **Are you familiar with the analysis required by *Ka Pa'akai O Ka 'Āina v. Land Use***
8 **Commission?**

9 Yes. That analysis requires the Commission to make specific findings of fact and
10 conclusions of law related to cultural, historical, and natural resources and the associated
11 traditional and customary practices of a site prior to granting a reclassification.

12 Specifically, the Commission must have information on (1) the identity and scope of
13 "valued, cultural, historical, or natural resources" in the Petition Area, including the extent to
14 which traditional and customary native Hawaiian rights are exercised in the Petition Area; (2) the
15 extent to which those resources, including traditional and customary native Hawaiian rights, will
16 be affected or impaired by the proposed action; and (3) the feasible action, if any, to be taken by
17 the Commission to reasonably protect native Hawaiian rights if they are found to exist.

18
19 **In light of the *Ka Pa'akai* analysis, do you feel that the studies done for the Project area are**
20 **sufficiently detailed to identify the cultural, historical and archaeological resources in the**
21 **Project area?**

22
23 Yes. Although we did not prepare a formal cultural impact analysis as typically required
24 in an environmental impact study document, in light of the nearly 100 years of sugar can farming
25 over nearly all of Parcel 52 and all of the area for the proposed solar farm, the absence of finding
26 any cultural practices in the archaeological survey, and our contact with kupuna from this area,
27

1 we found no traditional and customary practices were or are being practiced in the area of the
2 Project.

3 **Were any burials or cultural resources identified in the Project area?**

4 No burials or cultural resources were identified in the Project area. Parcel 52, along with
5 the surrounding parcels, have been actively farmed since the early 1900s.

6
7 **In your professional opinion, will the Project adversely affect any cultural, historical, or**
8 **natural resources in the Project area?**

9 No. No significant cultural, historical, archaeological, or natural resources have been
10 identified within Parcel 52 or Plantation Road. Therefore, the Project will not have an adverse
11 effect on any such significant resources. If any such resources are discovered during construction
12 of the proposed solar farm, Ho'ohana will take steps to mitigate such effects and work with the
13 appropriate state and county agencies.

14
15 **Has an environmental assessment ("EA") been prepared for the proposed solar project?**

16 No. Whether or not an EA needs to be prepared depends on whether or not the proposed
17 Project triggers that requirement under HRS Chapter 343. HRS Section 343-5 and HAR Section
18 11-200-6 set out nine (9) triggers for environmental review. The solar farm use does not meet
19 any EA/EIS triggers. The Successor Petitioner has completed supplemental environmental
20 studies (i.e., traffic, biological, and archaeological) to address the solar farm use. The Project is
21 ultimately a low-impact, environmentally-friendly use of the land and will not generate adverse
22 impacts to the environment.

23
24 **Were any market studies done for the Royal Kunia Phase II project?**

25 Yes. A Market Study and a report on the Impact on City and State Revenues and
26 Expenditures were conducted as a part of the 1996 Environmental Assessment for Increment 3
27 and Development Plan amendment for the Royal Kunia Phase II project.

1 **What were the results of these studies?**

2 The studies supported the need for the Royal Kunia Phase II project, which is envisioned
3 to serve the Central O'ahu, 'Ewa, and Kapolei regions. At the time that the study was conducted
4 in 1996, approximately 54,000 new housing units were projected to be needed by the year 2010.
5 The 1993 Order projected that approximately 430 construction jobs would be generated by the
6 Royal Kunia Phase II project. 1993 Order, FOF 74, at 20; 1996 Order, FOF 86, at 24. At full
7 build-out of all three Increments, approximately 1,450 jobs would be generated by the industrial
8 park activities. 1993 Order, FOF 75, at 20; 1996 Order, FOF 87, at 24-25. Additional
9 employment opportunities were projected to be generated by the school and agricultural park. *Id.*

10 Total payroll for the construction jobs was estimated to be \$19.4 million per year; total
11 payroll for the permanent jobs generated at full-build out was estimated at \$36.2 million per year.
12

13 City and state net revenues (i.e., revenues after expenditures to support the Royal Kunia
14 Phase II project such as park and school maintenance, infrastructure maintenance, etc.) derived
15 from the Royal Kunia Phase II project were estimated to be \$1.5 million per year and \$7.8 million
16 per year respectively.
17

18 **What are the socio-economic effects of the proposed solar farm Project?**

19 Overall, the Project will benefit the residents of O'ahu and reduce HECO's cost of
20 providing electricity to O'ahu. The Project will produce electricity at a cost approximately 31%
21 lower than HECO's October 2013 on-peak avoided cost of 22.697 cents per kWh. Over the 30
22 year operational life of the Project, roughly 4.7 million gallons of imported oil and 46,000 tons of
23 carbon dioxide annually will be replaced by approximately 46,000 MWh of clean, renewable
24 energy. The carbon reduction is equivalent to removing approximately 8,100 cars per year, or
25 243,000 cars over a 30-year period, from O'ahu's roadways. The electricity generated by the
26 Project will be enough to support approximately 7,000 homes.
27
28

1 **Are these benefits equal to those that would have been provided by the Royal Kunia Phase**
2 **II project?**

3 These benefits are different than the benefits which will eventually be provided by the
4 Royal Kunia Phase II project.

5 The housing units and jobs projected to be generated by the Royal Kunia Phase II project
6 will not be lost if the Commission approves the proposed interim solar farm, only delayed. As we
7 have discussed, Increment 3 cannot feasibly be developed until Increments 1 and 2 are built
8 because Increment 3 needs to connect to the infrastructure developed by those Increments.
9 Therefore approving this Motion to Amend will allow Parcel 52 to be utilized for an interim use
10 that will be beneficial not just to the Central O'ahu, 'Ewa, and Kapolei communities, but to the
11 island of O'ahu as a whole while Parcel 52 waits to be developed as Royal Kunia Phase II,
12 Increment 3. The City and State will also receive revenue from this Project through taxes.


13 **In your professional opinion as a land use planner, is the proposed solar farm on Parcel 52**
14 **consistent with the relevant provisions of the Hawai'i State Plan, the Land Use Laws (HRS**
15 **Chapter 205), the City's Central Oahu Sustainable Communities Plan, and the**
16 **Commission's Rules and its Decision and Order in this Docket?**

17 Yes. The proposed solar farm Project is an interim use of Parcel 52 which is consistent
18 with all of those land use criteria. The solar farm Project will preserve future development of
19 Parcel 52 for the residential units proposed as Royal Kunia Phase II, Increment 3.
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DATED: Honolulu, Hawai'i, November 7, 2014.

Respectfully submitted,


JEFFREY OVERTON

1 **HO'OHANA SOLAR 1, LLC – MOTION TO AMEND DOCKET NO. A92-683**

2 **WRITTEN DIRECT TESTIMONY OF CLIFFORD SMITH**

3 I, Clifford Smith, have personal knowledge of the matters set forth herein and am qualified and
4 competent to make these statements:

5 **Please state your name and business address for the record.**

6 Clifford Smith 857 Anapuni Loop, Lahaina, Hawaii 96761

7 **Was your résumé submitted as a part of these proceedings?**

8 Yes, my résumé was filed as **Successor Petitioner's Exhibit 28.**

9 **What is your current occupation?**

10 I am a Principal of Meridian 158, LLC.

11 **How long have you worked in that capacity?**

12 For five (5) years.

13 **Please briefly describe your educational background.**

14 I have a Bachelor's degree in Mechanical Engineering from Georgia Institute of
15 Technology, a Master's degree in Mechanical Engineering and an MBA from the Massachusetts
16 Institute of Technology. I am a registered Professional Engineer in California.
17
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20 **Do you specialize in any particular areas?**

21 I specialize in utility-scale renewable energy development.

22 **Have you ever been qualified as an expert witness before the Land Use Commission?**

23 No, I have never technically been qualified as an expert in any proceedings. However, I
24 have made public presentations on behalf of developments for special management area permits
25 and other permits of that nature before the Maui Planning Commission.
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1 **Are you familiar with the proposed development of the interim solar farm ("Project") and**
2 **the Petition Area?**

3 Yes. I have been working on this Project since November 2013. If approved by the
4 Commission, Parcel 52 of the Petition Area will be developed as an approximately 20 MW solar
5 farm.
6

7 **Please describe the scope of your involvement in the Project?**

8 With regards to this Project, I was retained by Hanwha to provide consulting services on
9 the development of the utility-scale solar farm. I was particularly engaged to assist with
10 permitting, design coordination and local representation. I also took the lead on evaluating
11 whether or not the Project would generate glare. I completed the Solar Glare Hazard Analysis
12 Report for the Project and submitted that report to the Federal Aviation Administration ("FAA").
13

14 **Please describe the details of the Project.**

15 Parcel 52 is 161.023 acres in size but the photovoltaic ("PV") panels for the Project will
16 be sited on approximately 124 acres, outside of any known floodplain or drainage areas.
17 Approximately 80,000 PV modules will be installed as a part of this project. The modules will be
18 mounted on a single axis tracking system that rotates throughout the day to follow the position of
19 the sun. The PV modules will be positioned between 4 and 9 feet off the ground and will be
20 mounted into the ground with earth screw or vibratory driven foundation piles to a depth of
21 approximately 7 feet below grade. Each PV panel measures approximately 39 inches wide and
22 77 inches long.
23

24 The Project will include sixteen (16) main concrete pads and twelve (12) minor pads in
25 the Substation Area. Twelve (12) of the sixteen (16) main pads will be inverter and medium
26 voltage pads measuring approximately 24 feet by 12 feet. There are three small buildings
27 proposed with the Project: a Control Building, an Operations and Maintenance Building, and a
28

1 Security Building. The Control Building pad will measure approximately 35 feet by 12 feet, the
2 Operations and Maintenance Building pad will measure approximately 30 feet by 30 feet, and the
3 security building pad will measure no larger than 1,000 square feet.

4 The Project will include 12 Power Stations which will be located within the Solar Array
5 Field. All 12 Power Stations will be interconnected by an underground medium voltage line that
6 feeds into the Substation. The Substation is located on the northwestern portion of Parcel 52,
7 where Plantation Road intersects with Parcel 52 and HECO's utility line. The Project will connect
8 to HECO's grid via this 46kV line. This line may be relocated within the borders of Parcel 52.

9 The Substation will be approximately 120 feet by 100 feet in size, with the tallest structure
10 in the Substation area reaching approximately 25 feet in height. No utility scale batteries will be
11 used in the Project. The Project site will be surrounded by a chain link fence, approximately 8 feet
12 high, and landscaping in few select locations suitable for the area. Ho'ohana plans to have one (1)
13 foot of barbed wire on top of the chain link fence, which is necessary to ensure proper security
14 and safety for the facility.

15 The Control Building will be approximately 420 square feet and will house the PV plant
16 controls, HECO remote terminal units, and relays and meters. The Operations and Management
17 Building will measure approximately 900 square feet and will be used to store equipment and
18 spare modules. The Security Building will be no larger than 1,000 square feet and includes a
19 monitoring office and a conference room. The Security Building that will be equipped with a
20 septic system and potable water storage tanks.

21 The total building area or lot coverage of the buildings and facilities, not including the
22 solar array, at the Project site will be approximately 39.25 acres. The setbacks, heights and
23 location of the buildings and equipment accessory to the solar farm will be governed by the
24 conditions of the Conditional Use Permit-Minor issued by the City Department of Planning and
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1 Permitting ("DPP"). The Project will be setback approximately 375 feet from the southern border
2 of Parcel 52.

3 Hydroseed with low maintenance grasses will also be used in and around the solar panels
4 array. The grass will be mowed periodically. If weeds become a problem, herbicides approved
5 by the State of Hawai'i will be applied using best management practices.
6

7 **What site work must be completed for the Project to be operational?**

8 Minor site preparation will be needed, including some grading. Parcel 52 is relatively flat.
9 The slope of the land varies from 2% to 15% but the portion of the property where the solar farm
10 will be developed has a slope from 2% to 8%. Only those areas with a slope greater than 5% will
11 be leveled. The berm along the western portion of the Property will also need to be leveled. This
12 berm measures between 3 and 5 feet high, with certain sections reaching heights of ten (10) to
13 twelve (12) feet, and the total berm length is approximately 2,000 linear feet. Because the
14 majority of the Project site has been leveled and farmed in the past, the total amount of earth to be
15 displaced by the Project is not anticipated to be significant.
16

17 Grading will be done according to the grading procedures set forth by the City and County
18 of Honolulu Codes and the grading plan that will first be approved by DPP. Ho'ohana will also
19 secure any permits required for construction of the solar farm prior to construction, including a
20 National Pollutant Discharge Elimination System Permit ("NPDES") from the Department of
21 Health Clean Water Branch.
22

23 Material delivery, site preparation and installation of the solar panels will take place under
24 the supervision of a highly experienced construction management team. Cut and fill of the site
25 will impact only surface level soils. No run-off is anticipated to result from the Project, however,
26 the contractor will manage earthwork under storm water management and hydrology mitigation
27 plans.
28

1 Ho'ohana will also implement mitigation measures and best management practices during
2 construction of the Project. Potential mitigation measures include dust control with water trucks,
3 filtration tubes, stabilized construction entrance/exit, silt fences, and a monitoring program to
4 address any oil and fuel spills during construction of the Project. However, no fuel or chemical
5 sources will be utilized within the Project once construction is complete.
6

7 **Will the Project include a battery storage system?**

8 No. No utility scale batteries will be used in the Project. There will, however, be a small
9 battery system within the Control Building to serve as back-up power for data collection. This
10 battery will be very small, roughly the size of two or three car batteries.
11

12 **How long is construction expected to take?**

13 Construction of the solar farm is expected to take between 9 and 12 months. The goal is
14 to have the solar farm operational by June 2016. Assuming the Commission approves this Motion
15 and DPP approves Ho'ohana's Conditional Use Permit Application, site preparation and
16 construction is anticipated to begin in mid-2015.

17 **How long will the solar farm be operational?**

18 The solar farm is expected to operate for up to 30 years. The actual term of operation will
19 ultimately depend upon the power purchase agreement entered into between Ho'ohana and
20 HECO.
21

22 Once the Project is no longer operational, it will be decommissioned. Decommissioning
23 is expected to take approximately 4 to 6 months. Upon decommissioning, all components of the
24 solar farm will be removed and recycled as appropriate, and the land will be restored to its
25 original condition, as much as possible.
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1 **What, if any, maintenance will the Project require?**

2 The panels will be cleaned twice a year, depending upon rainfall. Water for cleaning the
3 panels and for use in the night watchman's quarters will be trucked onto the site and stored in
4 three 4,000 gallon water tanks. No other cleansers or chemicals will be used.
5

6 **Will the Project generate glare to air traffic, motor vehicle traffic, or neighborhoods in the**
7 **area?**

8 No. In general, the PV modules that will be used for this Project are designed to absorb as
9 much solar energy as possible. Beginning in the summer of 2013, the FAA has requested utility-
10 scale solar projects or solar projects at airports to submit glare studies to the FAA. For Ho'ohana,
11 the FAA indicated that there may be navigational equipment in the area.
12

13 In August of this year, Ho'ohana conducted a Solar Glare Hazard Analysis Report using
14 the Sandia National Labs web-based tool for the Honolulu Airport Traffic Control Tower and
15 Runways. The report identified two (2) runway approaches with a low potential for temporary
16 after-image caused from glare. This report was submitted to the FAA for review on August 10,
17 2014, and on October 8, 2014, the FAA issued Determinations of No Hazard to Air Navigation
18 for the Project. Basically, the FAA did not object to or raise concerns for the Project. The
19 Determinations of No Hazard were filed with the Commission as **Successor Petitioner's**
20 **Exhibits 20A through 20D.**
21

22 Group 70 conducted view studies from various neighborhoods and locations surrounding
23 Parcel 52. These view studies were filed as Successor Petitioner's Exhibit 14. Such viewpoints
24 were from: (1) the H-1 Freeway 'Ewa bound, looking across of Waikele Gulch toward Parcel 52;
25 (2) Kunia Road looking East at Parcel 52; (3) the intersection of Anoiki Street and Anonui Street
26 looking north toward Parcel 52; (4) Royal Kunia Country Club; (5) Central O'ahu Regional Park
27 Tennis Courts; (6) Pakela Street in Waikele; (7) Waipahu Elementary School; (8) Halekapio
28

1 Street in Waipahu; and (9) Nui Street in Mililani. Due to the topography and tall grasses
2 surrounding Parcel 52 and the distance from communities or roadways, the solar farm should not
3 be visible from neighborhoods or from streets from these viewpoints except for potentially a
4 community north of the Project, at Nui Street in Mililani. The distance from this area to the site is
5 over 5,000 feet and it was difficult for Ho'ohana to determine if the Project's northern fence line
6 could be visible. Ho'ohana has decided to plant selective vegetation along portions of the north
7 fence line to screen and break up the fence line from that viewpoint.
8

9 Because the Project should not be visible from nearby streets or most surrounding
10 neighborhoods, the Project should not generate glare that will affect motor vehicle traffic or
11 neighboring views in the surrounding area. If any glare is found to be generated by the Project
12 once it is constructed, Ho'ohana will implement mitigation measures to ensure that glare is
13 reduced as much as possible. Such measures may include additional fencing and vegetation
14 planting around the Project to minimize visual impacts. Areas exposed to views will be planted
15 with a vegetative buffer consisting of landscaping appropriate for the area, which may include
16 bougainvillea, native trees such as kukui and 'ōhi'a lehua, or screening plants like noni or
17 oleander, to greatly minimize the visual impact or potential glare.
18

19 **Are the PV modules that will be used in the Project the same as those used for rooftop**
20 **solar?**
21

22 Basically, yes. However, it is still common to find 60 cell count modules on rooftop solar
23 while utility scale projects use 72 cell count. This equates into a slightly larger module with
24 slightly higher voltage output. However, the technology used, and impacts generated by the
25 utility-scale modules are the largely the same as those modules used for residential or commercial
26 rooftop solar.
27
28

1 **Will any chemicals be used for the racking system for the PV panels or any other part of the**
2 **Project?**

3 No cleansers or chemicals will be used to clean the PV panels, only water. Liquid mineral
4 oil (a non-hazardous material) is a common coolant for the transformers. If weeds become a
5 problem, herbicides approved by the State of Hawai'i will be applied using best management
6 practices.
7

8 **What kind of fire protection measures do you have in place for this Project?**

9 Right now, there is no requirement for fire suppression. The solar arrays are out in the
10 open and there are no sprinkler systems or chemical sprays that are required for PV farms. The
11 primary area where high-voltage equipment will be located is the Substation. The fenced-in
12 Substation area will be completely covered with a gravel bed of approximately 12,000 square
13 feet, so that if there are sparks, no grasses and other combustible material would catch fire. This
14 is a typical design for Substations and is consistent with industry standards. In addition, the
15 perimeter maintenance road surrounding the Project will provide a buffer which allows for a
16 firebreak in the event a wildfire threatens Parcel 52.
17

18 Lastly, and very importantly, during the permitting process, the Fire Department will have
19 an opportunity to review and comment on the conditional use permit and building permit
20 applications.
21

22 **How many acres of land are needed per MW?**

23 Depending on what type of panels are used and the layout of the land, anywhere from
24 three (3) to seven (7) acres of land may be needed per MW. Because this Project proposes a
25 single-axis track system, we need more land area due to extra clearance between the panels so
26 that we do not create shadows. This Project uses about 5 acres per MW, depending on the terrain.
27
28

1 **Are there any limits on HECO's ability to absorb, and then curtail, the electricity created**
2 **by the Project? When you say curtailment, that is HECO's ability to shut down your PV**
3 **system from generating power?**

4 Correct. In August of this year, HECO released its power supply plan. HECO said that it
5 could absorb all of the waiver power projects and HECO's proposed solar PV project, which was
6 about 280 MW, and not exceed a 1% curtailment starting in 2028. Since the release of HECO's
7 report and analysis, some of the waiver projects have dropped out, thus further reducing the risks
8 of curtailment for this Project. This is supported by HECO's analysis to the Public Utilities
9 Commission.
10

11 **What is the total time that Parcel 52 will be used for a solar farm? How long will**
12 **construction take?**

13
14 If the Project is approved by this Commission, construction is anticipated to take
15 approximately 9 to 12 months. Currently, Ho'ohana plans to have the Project operational by June
16 15, 2016. After the Project's 30-year operational period, we estimate that decommissioning the
17 Project will take approximately four to six months. Allowing for unanticipated delays, the land
18 will be used as a solar farm for approximately 32 to 33 years.

19 **Upon decommissioning, will you recycle the solar farm components? What does that entail?**
20

21 The details of decommissioning have not been decided yet. The practicality is that at the
22 end of the 30-year operational period, the panels themselves will still be producing electricity at
23 approximately 82% of their rated output so they still have a useful life. The intent would be to
24 repurpose the panels in some way to continue to produce electricity, either here in Hawai'i, or to
25 salvage and recycle the solar farm components.
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Will the Project have any adverse effects on individual residential solar interconnections?

No. The Ho‘ohana solar project will interconnect to HECO's grid through a 46kV line, while individual residential and commercial PV systems connect to the HECO grid at the distributional 12 kV level. Therefore, the Project will not interfere with residential solar hookups. A diagram of this can be seen on Successor Petitioner's Exhibit 8. Furthermore, under the PUC guidelines, Rule 14H, when HECO determines circuit penetration for rooftop solar, HECO focuses on the 12kV circuit penetration, so the Project should not be a factor in the circuit penetration analysis which limits more rooftop solar being integrated.

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DATED: Lahaina, Maui, November 17th, 2014.

Respectfully submitted,



CLIFFORD SMITH

1 HO'OHANA SOLAR 1, LLC – MOTION TO AMEND DOCKET NO. A92-683

2 WRITTEN DIRECT TESTIMONY OF LAURENCE GREENE

3 I, Laurence Greene, have personal knowledge of the matters set forth herein and am qualified and
4 competent to make these statements:

5 Please state your name and business address for the record.

6 Laurence Greene 8001 Irvine Center Drive, Suite 1250, Irvine, CA 92618

7 Was your résumé submitted as a part of these proceedings?

8 Yes, my résumé was filed as Successor Petitioner's Exhibit 24.

9 What is your current occupation?

10 I am the Principal of Greene Renewable Energy Inc., a renewable energy development
11 consulting firm and I am a consultant for Hanwha Q CELLS. I am responsible for Utility Scale
12 Solar PV Development in the Western United States and also for Public Policy.
13
14

15 How long have you worked in that capacity?

16 For about three (3) years.

17 Please briefly describe your educational background.

18 I have a Bachelor's degree in Geology from the University of California, Los Angeles, a
19 Master's degree in Geology from U.C. Davis, and an MBA from the UCLA Anderson School of
20 Management.
21

22 To what professional organizations do you belong?

23 I am the current President of the California Wind Energy Association ("CalWEA") and
24 previously served on CalWEA's Board of Directors since 2006. I have previously served as a
25 Leadership Council Member for the American Council on Renewable Energy, an Advisory
26 Committee Member and Track Co-Chair for the Renewable Energy Technology Conference, a
27 Legislative Committee Member for the American Wind Energy Association, and as the Vice
28

1 President of the Coast Geological Society. I am also a Registered California Professional
2 Geologist.

3 **Have you ever been qualified as an expert witness in the areas of wind and solar energy**
4 **development before the Land Use Commission?**

5 No, but I have testified before county boards and commissions, mostly in California and
6 Nevada, primarily for wind and some solar projects. This is my first time testifying in Hawai'i.

7 **Do you specialize in any particular areas?**

8 For the past 26 years, I have specialized in energy development projects in the United
9 States, Canada, Thailand and Indonesia. For the last 13 years, I have exclusively focused on solar
10 and wind energy project development in the USA and Canada, and have been involved in
11 development totaling 698 MW of utility-scale projects.

12 **Have you been involved in the development of any other Hawai'i solar farm projects?**

13 Yes. I was involved in the development of the Kalaeloa Renewable Energy Park
14 ("KREP"), a 6.17 MW solar farm site on 20 acres located in 'Ewa that opened on in December
15 2013. I remain involved in the operation of the Kalaeloa Renewable Energy Park. To date, KREP
16 is the largest solar energy farm on O'ahu and one of the largest solar energy generation facilities
17 in the State.

18 **Are you familiar with the proposed development of the interim solar farm ("Project") and**
19 **the Petition Area?**

20 Yes. I have been working on this Project since December 2012. If approved by the
21 Commission, Parcel 52 of the Petition Area will be developed as an approximately 20 MW solar
22 farm.

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1 **Please describe the scope of your involvement in the Project?**

2 I am the lead on solar development for this Project. As such, I am primarily responsible
3 for coordinating the contractual, technical and design aspects of the Project.

4 **Why is renewable energy development important in Hawai'i?**

5 Hawai'i spends roughly \$6 billion a year to import oil. On average, Hawai'i residents pay
6 an average of 37 cents per kilowatt hour, which is almost triple the national average. Renewable
7 energy development will help to reduce and stabilize these costs. Renewable energy development
8 is also consistent with the Hawai'i Clean Energy Initiative which aims to achieve 70 percent clean
9 energy by 2030, 40 percent of which is meant to come from locally generated renewable sources.
10 Current estimates place renewable energy sources as comprising approximately 17 percent of the
11 electricity generated in Hawai'i. The Ho'ohana Project will help to contribute to the State's 40
12 percent renewable energy goal.
13
14

15 Hawaiian Electric Company ("HECO") also issued two requests for proposals for Low-
16 Cost Waiver projects in 2013 seeking renewable energy projects greater than 5 MW that could
17 provide energy under 17 cents and 16.25 cents per kilowatt hour. Ho'ohana was eventually
18 selected as a part of the second round RFP. The Public Utilities Commission ("PUC") approved
19 the second round of waiver projects in August 2014.
20

21 **When will the solar farm be operational?**

22 There is urgency to have the Project operational by June 15, 2016. It is critically
23 important for all stakeholders to move quickly to ensure that there is sufficient time to construct
24 the Project. HECO has a June 15, 2016 deadline to meet its interim goal of 40% renewable
25 sources by 2030. On December 31, 2016, the 30% Federal Investment Tax Credit expires. In
26 order for the Ratepayers of Hawai'i to take advantage of this full benefit, the project must be in
27 operation by this time. This means that HECO must move quickly to file the power purchase
28

1 agreement ("PPA") with the PUC, and that the PUC must move quickly with their approval
2 process. HECO plans to submit the PPA to the PUC no later than December 4, 2014, and we are
3 requesting that the PUC approve the Project by May 1, 2015. This timing pressure has another
4 consequence to developers—in order for HECO to make the necessary physical interconnection
5 for the Project to go operational on time, they are asking the developers to spend millions of
6 dollars upfront with no guarantee that the PUC will approve their PPA.
7

8 By December 15, 2014, we, and other developers, will be required to pay millions of
9 dollars in interconnection payments – 6 months before the PUC is expected to finalize their
10 decision on the PPA. Normally, the developer would await PUC approval of the Project before
11 paying these amounts to Hawaiian Electric, but this is not possible if we want to keep on schedule
12 and allow Project development to proceed on a schedule that maximizes value for the ratepayers.
13

14 **Is this December 15th deadline common to all waiver projects?**

15 To my knowledge, yes. If we do not meet this deadline, Ho‘ohana will have lost millions
16 of dollars it will have invested in this Project by that time, leaving that investment unrealized here
17 in Hawai‘i.

18 **What happens if the Project is not approved by this Commission and the PPA approved by**
19 **the PUC according to these deadlines?**

20 Ho‘ohana will not be able to proceed with the Project because the Project will be
21 economically infeasible. Ultimately, construction of the Project is contingent upon the PUC's
22 approval of Ho‘ohana's PPA with HECO and meeting the IRS deadlines to receive the federal tax
23 credits that will make this Project feasible.
24

25 **How did Hanwha and Forest City Hawaii become involved in this Project?**

26 Recognizing the need for renewable and affordable energy, and finding that a utility-scale
27 solar farm would contribute to the State's goals of achieving 40 percent renewable energy
28

1 portfolio by 2020, Forest City Hawaii and the landowners of Parcel 52, Robinson Kunia Land
2 LLC, began discussions about the feasibility of developing a solar farm on Parcel 52. Forest City
3 has developed six smaller-scale renewable energy projects here on O'ahu. Due to the size of this
4 Project, Forest City sought an experienced solar developer and operator, resulting in the
5 partnership with Hanwha Q CELLS USA and the eventual joint venture of Ho'ohana.
6

7 **Is this Project related to the Hanwha Hawai'i Kai condominium development?**

8 No, that is an unrelated project by a separate Hanwha entity. That entity has no
9 relationship with this Project, and I have no knowledge of the specifics of the Hawaii Kai project.

10 **How did you decide that Parcel 52 is appropriate for development of the Project?**

11 Successful siting of a utility-scale solar energy facility depends on the confluence of a
12 number of factors. It is not an easy matter to find suitable sites in the State of Hawai'i. Parcel 52,
13 however, is ideal for solar energy generation development not only because the area receives a lot
14 of natural sunlight and is relatively level. This site is particularly attractive because the
15 appropriate electrical transmission line infrastructure crosses the site, so no costly new electric
16 transmission lines need to be built. Furthermore, the Project is a low-impact, environmentally
17 friendly use of the land which will allow Parcel 52 to be used for other purposes in the future.
18 There is no traffic impact during the operational phase of the site, and there is little or no visible
19 impact to surrounding neighborhoods. The Commission reclassified the Petition Area, including
20 Parcel 52, as a State Land Use Urban District in 1993 and a solar farm is consistent with the uses
21 allowed in the Urban District.
22
23

24 **Please briefly describe the Project.**

25 Ho'ohana's consultant, Clifford Smith, will describe the Project in more detail, but here is
26 a brief summary. As detailed in the Motion to Amend that we filed with the Commission back in
27 August, the Project consists of an approximately 20 MW utility-scale solar farm. We plan for this
28

1 farm to operate for an interim period of approximately 30 years (with the total interim use period
2 not to exceed 35 years, which provides a cushion for permitting, construction and
3 decommissioning). The total operating period will ultimately be determined by the PPA that
4 Ho'ohana executes with HECO. The Project will generate approximately 46 million kilowatt
5 hours ("kWh") of electricity per year, which is enough to power approximately 7,000 homes and
6 displace close to 46,000 tons of carbon emissions annually. That roughly equates to removing
7 243,000 cars (8,100 cars per year) from Hawai'i's roads over a 30-year period.
8

9 **You mention a "30-year operational period." What is the total time that Parcel 52 will be**
10 **used for a solar farm? How long will construction take?**

11 If the Project is approved by this Commission, construction is anticipated to take
12 approximately 9 to 12 months. Ho'ohana plans to have the Project operational by June or July,
13 2016. After the Project's 30-year operational period, we estimate that decommissioning the
14 Project will take approximately four to six months. Allowing for unanticipated delays, the land
15 will be used as a solar farm for approximately 32 to 33 years.
16

17 **Is Ho'ohana putting up a financial security to ensure decommissioning?**

18 We have a contractual obligation to our landlord to properly decommission the Project.
19 As a matter of good business practice, we set aside funds in our operation budget that grow over
20 the last 10 years of the Project to cover the cost of decommissioning.
21

22 **Has an interconnection study been prepared for the solar Project?**

23 HECO is in the process of finalizing the interconnection study. HECO sent us a draft on
24 October 1, 2014 but informed us on October 2 that the draft was incorrect and needed to be
25 revised to address some technical issues. We learned a couple of weeks ago that HECO plans to
26 have this study completed shortly as it will be part of the PPA submittal to the PUC on or before
27 December 4, 2014.
28

1 **Will the Project have any artificial lighting?**

2 The Project will have minimal artificial lighting. We have not completed our lighting
3 design but are committed to using "full cut-off standard" lighting, where zero intensity light is
4 emitted at or above horizontal, and limited to a less than 10% of lamp lumens at or above 10
5 degrees above horizontal. This means that any artificial lighting fixtures used will be fitted to
6 ensure that artificial lighting does not shine straight up into the air and to minimize any
7 interference with the flight of birds.
8

9 **If the Commission approves this Motion, what are the next steps before the solar farm can**
10 **be built?**

11 Ho'ohana will continue to negotiate the PPA with HECO. Once the PPA is finalized,
12 HECO will submit the PPA to the PUC for approval. We are very close to finalizing the PPA.
13 Group 70 is also preparing the Conditional Use Permit-minor application for the Project. The
14 CUP application is almost ready for submission to the City and County Department of Planning
15 and Permitting. Once the CUP is granted, Ho'ohana will apply for grading and building permits.
16

17 **How many jobs will be created during the construction of this Project, and will these jobs**
18 **be filled by local residents?**

19 Approximately 50 jobs will be created during the construction of this Project. The Project
20 will have three (3) full-time permanent employees and will also have seven (7) to ten (10)
21 temporary positions to support the Project. We anticipate that more than 95% of the jobs will be
22 filled by local labor. In our recently completed KREP project, with the exception of some
23 management personnel and some technical specialists, more than 95% of our workforce was
24 local. We are committed to using local labor.
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For the KREP project, have you had any complaints of glare or other concerns?

No. the KREP project is a little over 6 MW and lies directly in a flight path. There is also a golf course next door, in addition to other active uses. We have not had any complaints of glare from pilots or motorists, and have had no incidents of sudden impacts or fried birds.

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DATED: Irvine, California, November 17, 2014.

Respectfully submitted,



LAURENCE GREENE

1 **HO'OHANA SOLAR 1, LLC – MOTION TO AMEND DOCKET NO. A92-683**

2 **WRITTEN DIRECT TESTIMONY OF JON WALLENSTROM**

3 I, Jon Wallenstrom, have personal knowledge of the matters set forth herein and am qualified and
4 competent to make these statements:

5
6 **Please state your name and business address for the record.**

7 Jon Wallenstrom 5173 Nimitz Road, Honolulu, HI 96818

8 **Was your résumé submitted as a part of these proceedings?**

9 Yes, my résumé was filed as Successor Petitioner's Exhibit 26.

10 **What is your current occupation?**

11 I am the Vice President of Forest City Sustainable Resources LLC and President of Forest
12 City Hawaii.

13
14 **How long have you worked in that capacity?**

15 For over 8 years.

16 **Please briefly describe your educational background.**

17 I have a Bachelor's degree in History from Princeton University and a Certificate in
18 Medieval History from Oxford University. I have also completed coursework in Urban and
19 Regional Planning at the University of Hawai'i.

20
21 **To what professional organizations do you belong?**

22 I am the former District Council Chair of the Urban Land Institute Honolulu District
23 Council and a member of the Residential Neighborhood Development Urban Land Institute
24 Product Council. I also sit on the Boards of the Hawaii Strategic Development Corporation, the
25 Catholic Charities Hawaii Housing subcommittee, and the Hawaii Business Roundtable.

1 **Do you specialize in any particular areas?**

2 I specialize in project development, development finance, public private ventures, and
3 particularly the development of income producing properties and large master planned
4 developments.

5 **Have you been involved in the development of any other Hawai'i solar farm projects?**

6
7 Yes. Forest City was one of the earliest entrants into the field and is one of the most
8 experienced solar developers in the State. To date, Forest City Hawaii has developed
9 approximately 5 megawatts ("MW") of photovoltaic energy projects across the State of Hawai'i.
10 These projects include the: Kapolei Sustainable Energy Park (1.18 MW), Pearl City Peninsula
11 Renewable Energy Park (1.28 MW), Twelker Solar Farm (Wai'anae; 0.60 MW), Olsen Solar
12 Farm (Wai'anae; 0.60 MW), Arthurs Solar (Wai'anae; 0.60 MW), and Phan Solar (Wai'anae;
13 0.57 MW). Forest City is also involved in the installation of approximately 30 MW of
14 photovoltaic panels on the roofs of our portfolio of military housing here in the State of Hawai'i.
15

16 Forest City and Hanwha are among Hawai'i's largest utility-scale solar energy developers.
17 The proposed solar farm would be the largest single installation that Forest City Hawaii has
18 developed.

19 **What other development projects have you been involved with in Hawai'i?**

20
21 Forest City is the developer of the 271-acre Kamakana Villages, a workforce housing
22 development located in Kona, on the Island of Hawai'i. The Kamakana Villages project was
23 undertaken by Forest City and the State of Hawai'i, Housing Finance and Development
24 Corporation. Forest City has also redeveloped and owns approximately 6,500 homes in a
25 partnership with the Navy and Marine Corps. Forest City is also developing the Kapolei Lofts, a
26 499-unit market-rate rental housing development that is under construction in Kapolei, on the
27 Island of O'ahu.
28

1 **Have you ever been qualified as an expert witness in the area of project development and**
2 **finance before the Land Use Commission?**

3 Yes, approximately five years ago Forest City appeared before the Land Use Commission
4 to rezone the lands associated with the Kamakana Development in Kona.

5 **Are you familiar with the proposed development of the interim solar farm ("Project") and**
6 **the Petition Area?**

7
8 Yes. I have been working on this Project for approximately two years. If approved by the
9 Commission, Parcel 52 of the Petition Area will be developed as an approximately 20 MW solar
10 farm.

11 **Please describe the scope of your involvement in the Project?**

12 I am responsible for overseeing all aspects of development.

13
14 **How did Hanwha and Forest City Hawaii become involved in this Project? How was**
15 **Ho'ohana Solar 1, LLC formed?**

16 Recognizing the need for renewable and affordable energy, and finding that a utility-scale
17 solar farm would contribute to the State's goals of achieving 40 percent of our energy generation
18 from renewable energy by 2020, Forest City Hawaii and the landowners of Parcel 52, Robinson
19 Kunia Land LLC, began discussing the feasibility of developing a solar farm on Parcel 52, former
20 sugar cane land that has long been owned by the Robinson Trust. In light of Forest City's
21 experience with developing other projects like Kamakana Villages, the military housing, and
22 Kapolei Lofts, we also discussed with Robinson Kunia Land LLC the potential for Forest City to
23 participate in the final development of Parcel 52 as a residential project. Forest City has
24 developed six smaller-scale renewable energy projects here on O'ahu but due to the size of this
25 Project, Forest City sought a solar developer and operator with a sole focus on developing
26 photovoltaic projects, resulting in the partnership with Hanwha Q CELLS USA and the eventual
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1 joint venture of Ho'ohana.

2 **How did you decide that Parcel 52 is feasible for development of the Project?**

3 We determined Parcel 52 was a good location for a utility-scale solar energy project for a
4 number of reasons. Parcel 52 is ideal for solar energy generation development because the area
5 receives a lot of natural sunlight and is relatively level. We could site the Project in a low-impact,
6 environmentally friendly location which will still allow Parcel 52 to be developed as the
7 residential community for which it was intended in the future. Perhaps most importantly, the site
8 is very close to good points of interconnection with the HECO grid. The Property presents a
9 good opportunity for solar development since there are not equivalent sites with the same
10 attributes.
11

12 HECO issued two requests for proposals for Low-Cost Waiver projects in 2013 seeking
13 renewable energy projects greater than 5 MW that could provide energy at a price under 17 cents
14 and ultimately at a price under 16.25 cents per kilowatt hour. Ho'ohana was selected as a part of
15 the second round RFP. The Public Utilities Commission ("PUC") approved the second round of
16 waiver projects in August 2014.
17

18 **Describe Ho'ohana's relationship with Robinson Kunia Land LLC and Ho'ohana's interest**
19 **in Parcel 52.**

20 Robinson Kunia Land LLC ("RKL") is the fee owner of Parcel 52. In August 2012, RKL
21 and Ho'ohana entered into an Option Agreement giving Forest City an exclusive and irrevocable
22 option to develop, construct and operate a solar power generating project on Parcel 52. The
23 Memorandum of Option Agreement was filed with the Commission as Successor Petitioner's
24 Exhibit 5. If this Project is approved by the Commission, RKL and Ho'ohana will enter into a
25 Land Lease and Solar Easement for the Project Area.
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What is the status of the Ho'ohana PPA with HECO?

Ho'ohana is still in the process of negotiating the PPA with HECO. However, we are at a stage in our discussions where there are very few outstanding issues that need closure.

Will Forest City be involved with the future residential development of Parcel 52 as Royal Kunia Phase II, Increment 3?

Forest City has extensive experience in residential development and would be interested in being considered as the developer of Parcel 52 as Increment 3. This would have to be discussed at a later date with RKL.

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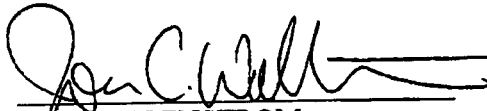
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DATED: Honolulu, Hawai'i, November 17, 2014.

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Respectfully submitted,

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JON WALLENSTROM

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1 HO‘OHANA SOLAR 1, LLC – MOTION TO AMEND DOCKET A92-683

2 WRITTEN DIRECT TESTIMONY OF ROBERT L. SPEAR, PH.D.

3 I, Robert L. Spear, have personal knowledge of the matters set forth herein and am qualified and
4 competent to make these statements:

5 Please state your name and business address for the record.

6 Robert L. Spear, Ph.D. 1347 Kapiolani Boulevard #408, Honolulu, HI 96814

7 Did you provide a copy of your resume for these proceedings?

8 Yes, my resume was provided as **Successor Petitioner's Exhibit 25.**

9 Please identify the studies you prepared for the Petition Area.

10 The archaeological inventory survey ("AIS") that I prepared was filed with the
11 Commission as **Successor Petitioner's Exhibit 12.**

12 What is your current occupation?

13 I am the President and Principal Investigator of Scientific Consultant Services, Inc.
14 ("SCS").

15 How long have you worked in that capacity?

16 For over 22 years, since late 1991.

17 How long have you specialized in archaeology?

18 I have worked in the Pacific archaeology field for 36 years, since 1978. I have
19 specifically worked in the Hawaiian Islands for 28 years, since 1986.

20 Please briefly describe your educational background.

21 I have a Bachelor's degree and Master's degree in Anthropology from Western
22 Washington University, and a Ph.D. in Anthropology from the University of Oregon.

23 Do you specialize in any particular areas?

24 I specialize in conducting archaeological assessments, archaeological inventory surveys,
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1 data recovery, emergency burial treatment, and construction monitoring. SCS is on SHPD's list
2 of approved archaeological consultants.

3 **What does an archaeology and historic preservation specialist do?**

4 Study the past and address historic preservation laws. I also investigate the
5 presence/absence of archaeological features and traditional and cultural practices, if any, on the
6 subject area, and if found, assess future function, construction methods, associated cultural
7 deposits, and site significance.
8

9 **Please describe the type of work you perform at SCS.**

10 As the President and Principal Archaeologist, I oversee much of the field and laboratory
11 work conducted by SCS employees for SCS archaeological projects, which include
12 archaeological assessments, inventory surveys, data recovery, burial treatment, traditional cultural
13 properties studies, cultural resources management, and general archaeological consultations.
14

15 **Have you ever been qualified as an expert witness in the areas of archaeology and historic**
16 **preservation before the Land Use Commission?**

17 No, but I have testified and been qualified as an expert witness in archaeology in the Third
18 Circuit Court before Judge Ibarra in Kona for the archaeological aspects of the Hokuli'a project.
19

20 **Are you familiar with the proposed development of the interim solar farm (the "Project")**
21 **and the Petition Area?**

22 Yes. I understand that if Ho'ohana's Motion to Amend is granted by the Commission, the
23 portion of the Petition Area identified as Parcel 52 will be developed as an approximate 20 MW
24 solar farm. These areas are shown on Successor Petitioner's Exhibit 1.

25 **Are you familiar with the archaeological, historical and cultural resources within and**
26 **around the proposed Project and the Petition Area?**

27 Yes. SCS was retained by Group 70 International, Inc. to prepare an AIS report related to
28

1 the historic, cultural, and archaeological resources in Parcel 52, the site for the proposed solar
2 farm. The AIS covered the entire 161.023 acres that comprises Parcel 52, along with that portion
3 of Plantation Road proposed to be used to access Parcel 52.

4 **Has SHPD issued a concurrence letter or otherwise responded?**

5
6 Not yet. The AIS was submitted to SHPD on July 30, 2014, and received by SHPD on
7 August 1, 2014. In early October 2014, SHPD requested additional historic background on
8 military uses of Parcel 52. SCS submitted this information to SHPD in the form of a
9 supplemental report on November 5, 2014.

10 **What are the historical uses of Parcel 52?**

11 Parcel 52 has historically been used for agricultural uses for over 100 years. Parcel 52 has
12 been used to farm sugar cane since about 1913. The land in that area is believed to have been
13 used for cattle ranching and grazing prior to sugar farming.

14 **How did you prepare your study?**

15
16 I began my review by looking at the historical uses of Parcel 52 and past archaeological
17 surveys done in the area. Then a pedestrian survey of Parcel 52 was conducted in order to identify
18 archaeological sites in the Project area as well as any geographical/physiographical features. We
19 also conducted limited excavation of the site in the form of six (6) Shovel Probes. Samples and
20 photographs collected during the pedestrian survey were then analyzed in or lab.

21
22 **Did you rely on any other studies or consultations in drawing your conclusions and making**
23 **your assessment of the Project?**

24 Yes. Several archaeological surveys have been conducted near the Project Area since
25 1933. The last archaeological survey conducted within the Project Area was in 1988 by
26 Archaeological Consultants of Hawaii. The 1988 survey concluded that due to the history of
27 intensive sugarcane cultivation, the prospect of identifying archaeological sites above ground was
28

1 remote. The list of and map identifying the past archaeological surveys done are provided in
2 Successor Petitioner's Exhibit 12, pages 10-15.

3 **Are there any regulatory guidelines applicable to the AIS?**

4 Yes. The AIS for this Project was prepared according to the historic preservation review
5 procedures outlined by Hawai'i Revised Statutes ("HRS") Chapter 6E-8 and Hawai'i
6 Administrative Rules ("HAR") Chapter 13-276.

7 **Please describe your findings.**

8
9 Based on the available physiographic and archaeological research for the Project Area, the
10 Parcel 52 has undergone extensive disturbance from commercial sugarcane cultivation, as well as
11 possible railroad and military activity. Therefore, we did not expect to, and we did not, identify
12 any evidence of use pre-dating the Plantation-Era above grade. In our review, we did, however,
13 identify two (2) new archaeological sites that have not been previously identified by other
14 surveys. We identified the first site as SCS TS-1 ("Site 1"), which was later determined by SHPD
15 to lack sufficient site integrity to be assigned a State Site number. This site consisted of artifact
16 scatter and was likely a habitation structure. These materials are man-made, from the historic era,
17 and included porcelain insulators, ceramic dish sherds, colored bottle and vessel glass, and a
18 metal buckle. Site 1 also included modern materials such as quarried basalt, sparse limestone
19 gravel, chunks of broken concrete, black plastic erosion protection sheeting, irrigation tubing, and
20 PVC fragments.
21

22
23 We identified the second site as SCS TS-2, which has been designated by SHPD as State
24 Site 50-80-08-7671 ("Site 2"). Site 2 is a historic road complex consisting of three features:
25 Feature 1 – alignment; Feature 2 – wall; and Feature 3 – paved segments of a road and railroad
26 alignment. This site also contained modern cultural material, such as thin, black plastic for
27 agriculture. Marine detritus was also observed. These features were evaluated for significance
28

1 under criteria

2 Most of Parcel 52 is currently being actively farmed and has been consistently farmed for
3 the past 100 years. The six (6) Shovel Probes determined that the Project Area consists of mixed
4 fill.

5 Both sites identified within the Project area are significant under Criteria "d" as "having
6 yielded, or is likely to yield, information important for research on prehistory or history," and
7 both sites are attributable to historic land usage.

8
9 **What were the final recommendations of the AIS?**

10 Consistent with the two (2) archaeological studies that were previously conducted in the
11 Project area, as well as the historic and recent agricultural use of the Project area, SCS
12 recommended that no further archaeological work be done. If any archaeological, historical, or
13 cultural artifacts, or burials are found during construction, we recommend that Ho'ohana stop
14 work and coordinate with SHPD on how to proceed.

15
16 **Are you familiar with the requirements related to the Commission's duty to review**
17 **traditional and customary practices for the land in question imposed by the Hawai'i**
18 **Supreme Court in *Ka Pa'akai O Ka 'Aina v. Land Use Commission*?**

19 Yes. The *Ka Pa'akai* analysis requires the Commission to make specific findings of fact
20 and conclusions of law related to cultural, historical, and natural resources and the associated
21 traditional and customary practices of a site prior to granting a reclassification.

22 Specifically, the Commission must have information on (1) the identity and scope of
23 "valued, cultural, historical, or natural resources" in the Petition Area, including the extent to
24 which traditional and customary native Hawaiian rights are exercised in the Petition Area; (2) the
25 extent to which those resources, including traditional and customary native Hawaiian rights, will
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1 be affected or impaired by the proposed action; and (3) the feasible action, if any, to be taken by
2 the Commission to reasonably protect native Hawaiian rights if they are found to exist.

3 **In light of *Ka Pa'akai*, do you feel that the AIS was sufficiently detailed to identify the**
4 **cultural, historical and archaeological resources in the Petition Area?**

5 Yes. Although we did not prepare a formal cultural impact analysis as typically required
6 in an environmental impact study document, in light of the nearly 100 years of sugar cane
7 farming over nearly all of Parcel 52 and all of the area for the proposed solar farm, the absence of
8 finding any cultural practices in the archaeological survey, and our contact with kupuna from this
9 area, we found no traditional and customary practices were or are being practiced in the area of
10 the Project.

11 **Were any burials or cultural resources identified in the Project Area?**

12 No burial sites were identified within Parcel 52 and no culturally significant sites were
13 identified within Parcel 52. As such SCS does not recommend that any data recovery,
14 preservation, or burial treatment plans be prepared for Parcel 52.

15 **Were any Native Hawaiian traditional and customary practices identified as being exercised**
16 **on Parcel 52?**

17 We consulted with Shad Kane, a kupuna for the area of this Project and he confirmed that
18 no Native Hawaiian traditional and customary practices have been identified as being exercised
19 on Parcel 52, or in the Petition Area generally.

20 **In your professional opinion, will the Project adversely impact any archaeological, historic**
21 **and cultural resources?**

22 No. No significant cultural, historical, archaeological, or natural resources have been
23 identified within Parcel 52 or Plantation Road. Therefore, the Project will not have an adverse
24 effect on any such resources. If any such resources are discovered during construction of the
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proposed solar farm, Ho'ohana will take steps to mitigate such effects and work with the appropriate state and county agencies.

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DATED: Honolulu, Hawai'i, November 18, 2014.

Respectfully submitted,



ROBERT L. SPEAR

1 HO'OHANA SOLAR 1, LLC – MOTION TO AMEND DOCKET A92-683

2 WRITTEN DIRECT TESTIMONY OF ERIC B. GUNTHER

3 I, Eric Guinther, have personal knowledge of the matters set forth herein and am qualified and
4 competent to make these statements:

5 **Please state your name and business address for the record.**

6 Eric Guinther 45-939 Kamehameha Highway, Kane'ohe, Hawaii 96744

7 **Did you provide a copy of your resume for these proceedings?**

8 Yes, my resume was provided as Successor **Petitioner's Exhibit 30.**

9 **Please identify the studies you prepared for the Petition Area.**

10 I prepared the Natural Resources Survey for the Ho'ohana Solar Farm site in Kunia O'ahu
11 ("Survey"). The Survey was filed with the Commission as Successor **Petitioner's Exhibit 18.**

12 **What is your current occupation?**

13 I am the Senior Ecologist and President of *AECOS* Inc.

14 **How long have you worked in that capacity?**

15 For roughly 35 years as President of AECOS.

16 **How long have you specialized in ecology?**

17 For over 40 years.

18 **Please briefly describe your educational background.**

19 I have a Bachelor's degree in Biology from the University of the Pacific. I completed
20 graduate studies at both the University of the Pacific and the University of Hawai'i.

21 **Do you specialize in any particular areas?**

22 I specialize in conducting environmental studies, including field surveys, producing
23 environmental survey reports, and making plant and animal identifications. My work is focused
24 in the areas of ecology, encompassing zoology, botany, geology, and water quality, in marine,
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1 freshwater, and terrestrial environments. In the last 20 years, my work has involved mostly
2 surveys assessing the distribution of terrestrial plants to document presence or absence of
3 sensitive species (i.e., rare native species or those that are listed as threatened or endangered) for
4 client projects, as well as conducting wetland inventory and delineations of jurisdictional waters.

5 **Have you ever been qualified as an expert witness in the areas of botany, zoology, ecology,**
6 **and general natural environmental studies before the Land Use Commission?**
7

8 Yes. The last time that I was qualified as an expert before this Commission was on the
9 water quality impacts for the Koa Ridge project in Central O'ahu.

10 **Are you familiar with the proposed development of the interim solar farm (the "Project")**
11 **and the Petition Area?**

12 Yes. I understand that if Ho'ohana's Motion to Amend is granted by the
13 Commission, the portion of the Petition Area identified as Parcel 52 will be developed as an
14 approximate 20 MW solar farm. These areas are shown on Successor Petitioner's Exhibit 1.

15 **Are you familiar with the natural resources within and around the proposed Project Area?**
16

17 Yes. I was retained by Group 70 International, Inc. to prepare a natural resources study
18 related to the natural resources on Parcel 52, the site for the proposed solar farm. I was lead
19 author on that study.

20 **Describe the scope of the Survey.**
21

22 The Survey covered the entire 161.023 acres that comprises Parcel 52, along with that
23 portion of Plantation Road proposed to be used to access Parcel 52.

24 **How did you prepare your study?**
25

26 I conducted the Survey on May 20 and August 18, 2014. The methodology used for
27 plants entailed a wandering pedestrian transect primarily of Plantation Road and all those portions
28

1 of Parcel 52 not being actively farmed at the time. Plant species were identified as they were
2 encountered.

3 My associate, Reginald David, conducted the survey of vertebrates on the Project site.
4 For birds, twelve (12) avian count stations were sited at roughly equal distances from each other
5 within the Survey area by vertebrate biologists. A single six-minute avian point count was made
6 at each of the count stations. The Survey area was also searched for species and habitats not
7 detected during point counts.
8

9 Survey of mammals was limited to visual and auditory detection, as well as visual
10 detection of scat, tracks, and other animal signs.

11 **Did you rely on any other studies or consultations in drawing your conclusions and making**
12 **your assessment of the Project?**

13
14 Not really in this case; although we of course reference numerous texts and published
15 papers as integral to our identifying flora and fauna present, and what might be rare or otherwise
16 of natural resource value.

17 **Please describe your findings.**

18 Parcel 52 is composed of land formerly and currently used for agricultural purposes.
19 AECOS's final natural resources survey found no botanical resources of interest or concern
20 located on Parcel 52. The vegetation over most of Parcel 52 has been controlled by past and
21 present land use. The majority of Parcel 52 has little vegetation. The remaining portions of
22 Parcel 52 are covered with a weedy growth of grasses (Guinea grass), scattered trees (koa haole
23 and silk oak), shrubs, and herbaceous plants. Sixty-three (63) species of plants were identified
24 from the survey area, although only two (2) are native Hawaiian species. These are common
25 native plants: 'uhaloa and 'a'ali'i plants. No wetlands or streams are located in the Project Area.
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1 A total of 722 birds representing 24 species were observed on Parcel 52. All 24 species are non-
2 native to Hawai'i. Four mammalian species were detected on Parcel 52: dog, mongoose, cat, and
3 pig.

4 As noted at page 14 of our report, the endangered Hawaiian hoary bat was not detected
5 during the course of this Survey. Given the habitats present on the site and the lack of suitable
6 roosting trees, any usage of the area by the hoary bat would be of an incidental foraging nature.
7

8 **What were the final recommendations of the Survey?**

9 While the survey did not identify any threatened or endangered species, nor any federally-
10 declared critical habitat on or within the Parcel 52, the U.S. Fish and Wildlife Service ("FWS") in
11 its comments to the Motion to Amend noted that the Hawaiian hoary bat *may* forage or roost on
12 Parcel 52. Therefore, the FWS recommended that, if any trees greater than 15 feet tall must
13 cleared for the development of the solar farm, any clearing be done outside of the hoary bat's
14 birthing season of June through September.
15

16 Although no seabirds, shorebirds, or migratory birds were detected during the Survey, it is
17 probable that at least one of those birds will use the resources on Parcel 52, at least on a seasonal
18 basis. Furthermore, nocturnally flying seabirds may become disoriented with exterior lighting.
19 Therefore, we recommend that if any exterior lighting is used or if construction activities are
20 proposed to take place at night, some effective form of light shielding be used. Ho'ohana has
21 agreed to coordinate a staff training program to mitigate adverse impacts to endangered and
22 migratory species.
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1 **Are you familiar with the requirements imposed by the Hawai'i Supreme Court in *Ka***
2 ***Pa'akai O Ka 'Āina v. Land Use Commission?***

3 Yes. The *Ka Pa'akai* analysis requires the Commission to make specific findings of fact
4 and conclusions of law related to cultural, historical, and natural resources and the associated
5 traditional and customary practices of a site prior to granting a reclassification.
6

7 Specifically, the Commission must have information on (1) the identity and scope of
8 "valued, cultural, historical, or natural resources" in the Petition Area, including the extent to
9 which traditional and customary native Hawaiian rights are exercised in the Petition Area; (2) the
10 extent to which those resources, including traditional and customary native Hawaiian rights, will
11 be affected or impaired by the proposed action; and (3) the feasible action, if any, to be taken by
12 the Commission to reasonably protect native Hawaiian rights if they are found to exist.
13

14 **In light of *Ka Pa'akai*, do you feel that the Survey was sufficiently detailed to identify the**
15 **natural resources in the Petition Area?**

16 Yes, certainly with respect to the existence/non-existence of natural resources of cultural
17 interest or value.

18 **Were any native resources identified in the Project Area?**

19 Two native plants were located on the property: 'uhaloa and 'a'ali'i plants. Although both
20 have cultural uses, the numbers here are small and each is relatively common across the Islands.
21 Neither of these plants is listed as threatened or endangered, and we saw no evidence of cultural
22 gathering or traditional and customary native Hawaiian practices being conducted during our
23 survey. No native fauna species were identified within the Project Area.
24

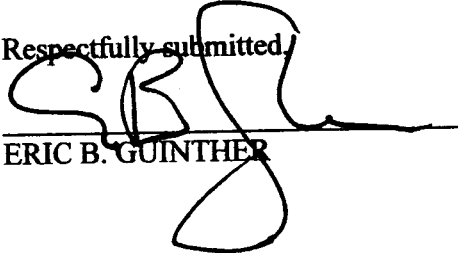
25 **In your professional opinion, will the Project adversely impact any natural resources in the**
26 **Project Area?**

27 No. Due to the historic agricultural uses of the Property, the lack of threatened or
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endangered species, and the lack of culturally significant plants or animals on the Property,
development of the solar Project will not have an adverse effect on any such resources.

DATED: Honolulu, Hawai'i, November 17, 2014.

Respectfully submitted,

ERIC B. GUINHER

WRITTEN DIRECT TESTIMONY OF SOHRAB RASHID, TE

I, Sohrab Rashid, have personal knowledge of the matters set forth herein and am qualified and competent to make these statements:

Please state your name and business address for the record.

Sohrab Rashid 401 West A Street, Ste. 900, San Diego, CA 92101

Did you provide a copy of your resume for these proceedings?

Yes, my resume was provided as **Successor Petitioner's Exhibit 29.**

Please identify the studies you prepared for the Petition Area.

I prepared the Construction Traffic Assessment for the Project which was submitted as **Successor Petitioner's Exhibit 19.**

What is your current occupation?

I am a Principal and registered Traffic Engineer with Fehr & Peers. I am currently the Office Leader and Operations Manager of the firm's San Diego office. I also oversee projects in Hawai'i on behalf of Fehr & Peers.

How long have you specialized in transportation planning and traffic engineering?

Over 25 years. My first experience was doing a four year internship with the Santa Clara Valley Transportation Authority. I next spent seven years as a consultant with Barton-Aschman Associates (subsequently absorbed by the Parsons Corporation) working in San Jose, California; Honolulu, Hawaii; and Sacramento, California. The remainder of my professional career has been as an employee and now part owner of Fehr & Peers.

Please briefly describe your educational background.

I have a Bachelor of Science in Mechanical Engineering from San Jose State University. I am also a Licensed Traffic Engineer in California.

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Do you specialize in any particular areas?

I specialize in transportation planning and engineering, primarily project management for high-profile transportation projects, including managing the preparation of traffic impact analysis reports, project development studies, regional transportation plans, and traffic operations report. I also have experience in travel demand forecasting, traffic micro-simulation, planning and design for non-automobile modes, travel surveys, transit station area planning and traffic calming.

To what professional organizations do you belong?

I am a member of the Institute of Transportation Engineers, the American Planning Association, and the Urban Land Institute.

Have you ever been qualified as an expert witness in traffic engineering and traffic management before the Land Use Commission?

Yes, in 2010 I was qualified and testified as an expert witness before the State Land Use Commission. I have also recently submitted written testimony to the LUC for the Kamehameha Schools – SunEdison solar project in Waiawa.

Are you familiar with the proposed development of the interim solar farm ("Project") and the Petition Area?

Yes. Earlier this year, Ho‘ohana Solar 1, LLC ("**Ho‘ohana**") formally retained me to prepare a traffic assessment for the Project. I understand that TMK No. 9-4-002: 052 ("Parcel 52"), a portion of the Petition Area, will be developed as a solar farm.

Please describe the scope of your studies?

The scope of my work included analyzing how the Project would impact local and regional traffic near the Petition Area and reviewing the impact of vehicle trips generated by the Project.

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How did you conduct your review?

I conducted my review by analyzing the estimated number of vehicle trips that would be made to and from the Project site via the available regional access points and interchanges identified in Attachment A to the Construction Traffic Assessment. I considered that the materials for the Project would be coming from Sand Island. I also used a trip generation analysis which is attached to the Construction Traffic Assessment as Attachment C. My review conservatively assumes that approximately 100 construction workers will be on site during construction of the Project, although Ho‘ohana estimates that on average, only approximately fifty (50) construction workers will be on site at any given time. The traffic assessment assumes that each of the 100 construction workers drives his or her own vehicle to the Project site each day during typical morning and evening commute peak hours. Once construction of the Project is completed, Ho‘ohana estimates that the Project will require only three (3) full-time permanent employees, some of which will work remotely and may not be on site on a daily basis.

Please describe your findings.

During the construction period of the Project, the additional traffic generated by Project construction may have an impact on the Plantation Road/Kunia Road intersection. However, any impacts will not be significantly adverse to either local or regional traffic near the Petition Area. The Project will generate a negligible increase in the amount of vehicle traffic in the area once the solar farm is fully constructed and operational.

In your professional opinion, will the Project adversely impact traffic in the Royal Kunia area?

No. The Project is a low-impact and environmentally friendly land use of Parcel 52. The Project will not adversely impact traffic conditions and it will add a negligible number of trips to

1 the road over the 30 year life of the Project. Additionally, adequate access and traffic
2 infrastructure to support the Project already exists and will not require additional construction of
3 any access roads.

4 **What, if any, mitigation measures do you recommend?**

5 Page 7 of the Construction Traffic Assessment details the mitigation measures and traffic
6 control devices that I recommend be implemented while the Project is being constructed. These
7 measures include:

8 1. Installing temporary standard construction signage on Kunia Road, mauka-bound,
9 between Anonui Street and Plantation Road that indicates the presence of construction vehicles
10 and that they are entering and exiting the roadway near the intersection of Kunia Road and
11 Plantation Road.

12 2. Install temporary standard construction signage on Kunia Road, makai-bound,
13 between the Hawaii Country Club and Plantation Road that indicates the presence of trucks and
14 that they are entering the roadway onto Kunia Road from Plantation Road.

15 3. Field verify available sight distance and maintain adequate sight distance for
16 drivers exiting Plantation Road and turning onto Kunia Road. Maintenance may include pruning
17 vegetation and not installing signage or other barriers that would block drivers' field of vision at
18 the intersection.

19 4. Extend the painted solid line delineating the "no passing zone" for Kunia Road
20 mauka-bound vehicles at least an additional 500 feet in the makai direction.

21 Once the Project is fully operational, because the traffic impacts and the trips generated by
22 the Project are negligible, no permanent traffic improvements are required or recommended.
23 Once Project construction is completed, the extension of the "no passing" zone at Kunia Road
24 could be maintained or eliminated at the Hawai'i Department of Transportation's discretion.
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DATED: San Diego, California, November 14, 2014.

Respectfully submitted,



SOHRAB RASHID

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1 **HO'OHANA SOLAR 1, LLC – MOTION TO AMEND DOCKET NO. A92-683**

2 **WRITTEN DIRECT TESTIMONY OF JOANNE (NONIE) TOLEDO HAMM**

3 I, Joanne (Nonie) Toledo Hamm, have personal knowledge of the matters set forth herein and am
4 qualified and competent to make these statements:

5 **Please state your name and business address for the record.**

6 Joanne (Nonie) Toledo Hamm P.O. Box 283007, Honolulu, Hawai'i 96828

7 **Was your résumé provided for these proceedings?**

8 Yes. My résumé was filed with the Commission as **Successor Petitioner's Exhibit 31.**

9 **What is your current occupation?**

10 I am the President and CEO of Nonie Toledo & Associates Incorporated.

11 **How long have you worked in that capacity?**

12 For seven (7) years.

13 **Please briefly describe your educational background.**

14 I have Bachelor of Business Administration in International Marketing and Management
15 from the University of Hawai'i at Mānoa.

16 **To what professional organizations do you belong?**

17 I was previously the Chair of the Education Task Force for the Hawai'i Business
18 Roundtable. I have also sat on the following various boards and committees: Kapiolani Medical
19 Center for Women and Children; Boy Scouts Aloha Council; American Red Cross; Aloha United
20 Way; Collaborative Action for Public Education (CAPE); Good Beginnings Alliance, Advisory
21 Council; Be My Voice, Leadership Council; P-20 Council; Catholic Charities Hawai'i; and Gear
22 UP Advisory Council.
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1 **Do you specialize in any particular areas?**

2 I specialize in strategic planning, facilitation, business development, advocacy and
3 lobbying, sales, marketing, and public relations, project management, stakeholder assessments
4 and community engagement and outreach.
5

6 **Are you familiar with the proposed development of the interim solar farm ("Project") and**
7 **the Petition Area?**

8 Yes.
9

10 **Please describe the scope of your involvement in the Project?**

11 I was retained by Hanwha Q CELLS in March of 2014 to lead the community outreach
12 efforts for Ho'ohana. I have worked closely with the Ho'ohana team during that time.

13 **What community outreach did you do for this Project?**

14 The Ho'ohana team has made a number of efforts to inform the communities and
15 businesses surrounding the Project, the relevant State, City and County agencies, and government
16 officials about the proposed solar farm.
17

18 Community outreach for this Project began in March 2014. We had over 22 meetings and
19 spoke to over 50 people. It is important to note that this outreach was to people and organizations
20 that represent about 7,500 homes, almost 40,000 residents, taxpayers and electricity ratepayers.
21 We were systematic in our approach to ensure that we spoke to the associations and business that
22 may be affected by the Project. In that time, Ho'ohana has made presentations and solicited
23 questions and feedback about the Project to members of the Royal Kunia Association, Village
24 Park Association, Waipahu Neighborhood Board, Hawai'i Agricultural Research Center and the
25 Royal Kunia Country Club. Ho'ohana has also been in contact with local farmers in the area and
26 the owners and developers of the future planned increments of Royal Kunia Phase II.
27

28 Ho'ohana has solicited feedback from members of the State and City Executive offices,

1 Senate and House representatives, Honolulu City and County Council members, the Senate
2 Energy and Environment Chair, the House Energy and Environmental Protection Chair, the
3 Department of Business, Economic Development and Tourism, the State Energy Office, the
4 Department of Agriculture, and the Department of Planning and Permitting.

5
6 **For your closest neighbors, what were the major concerns?**

7 There were no concerns, just questions about the Project related to how visible the Project
8 would be, whether it would interfere with rooftop solar, and whether or not the Project would
9 lower electricity prices for ratepayers. We provided them with our Project view studies, reassured
10 them that the Ho'ohana connection to the HECO grid did not interfere with their rooftop solar
11 projects, and that this Project could help drive down and stabilize electricity prices. The people
12 and organizations we spoke to support clean energy and this Project.

13
14 **What is the result of the community outreach? Has the feedback been positive or negative?**

15 The overall feedback received from the community is positive and supportive of the
16 Project. We were able to answer the community questions. The community supports the Project
17 for a number of reasons. They want to see more clean energy in Hawai'i and they were satisfied
18 that it would not impact their ability to install rooftop solar or existing rooftop solar systems.
19 They were also supportive because almost half of the Waipahu households are renters who will
20 most likely never get solar on their rooftops, so this Project will benefit them by helping to
21 stabilize their energy prices. They also looked forward to having a peaceful neighbor, and the
22 added security that this Project would bring to the neighborhood. To date, Ho'ohana has secured
23 letters of support for the Project from Senator Mike Gabbard, Senator Michelle Kidani, the Blue
24 Planet Foundation, and the Royal Kunia Country Club.

25
26 We spoke to all the local farmers in the area and they support the Project. One of the
27 reasons that they support the Project is to help bring more security to the area.
28

1 **What kind of compatible agricultural uses has the Project incorporated into its design?**

2 Early in the planning process, the Ho'ohana team explored the possibilities of potentially
3 raising sheep on Parcel 52 as a compatible agricultural use. Another option that the team
4 considered was to plant cover crops for pollinators. At this time, based on comments from our
5 neighbors, Ho'ohana does not plan to implement either of these options.
6

7 After conducting community outreach and consulting with the current farmers in the area
8 of Parcel 52, neither of these options have the support from the current tenants of the land. An
9 animal husbandry program appears difficult to integrate with the solar farm design and was not
10 encouraged by our neighboring users. All of the neighboring agricultural uses consist of crop
11 farming. If Ho'ohana was to integrate livestock into its design, the crops on the neighboring
12 agricultural sites would be at risk of destruction if any livestock were to enter the neighboring
13 farms. Furthermore, the Department of Health prohibits the sale of produce for public
14 consumption that may be contaminated by livestock waste. In addition, the environmental
15 assessment conducted for the State Agricultural Park provides that livestock is prohibited on the
16 State Agricultural Park due to its proximity to residential uses.
17

18 Two of our three neighboring farm owners have expressed concern about any proposed
19 pollinator cover crop on the solar farm site due to the negative factors of attracting bugs,
20 introducing alien species to the area, and/or "distracting" existing pollinators away from the
21 farmers' current crops. In any case, Ho'ohana does not want to implement any plan that detracts
22 from the operations of our neighboring farms. Consequently, Ho'ohana does not plan to
23 implement animal grazing or cover crops for pollinators into the Project.
24

25 **During construction or once the Project is constructed, will Ho'ohana continue community**
26 **outreach or do any community education projects?**

27 Yes. Once the Project is underway, Ho'ohana will provide alerts to the community of
28

1 impending construction and potential traffic impacts.

2 Ho'ohana plans to partner with the Maui Economic Development Board, a non-profit
3 entity which operates a great statewide program. They have developed a diverse renewable
4 energy curriculum, which incorporates science, technology, engineering and mathematics
5 (STEM) into hands-on, inquiry based curriculum for Hawai'i K-12 students and provides
6 professional development for Hawai'i teachers. The program is titled the Island Energy Inquiry
7 Program, a statewide program approved by the Department of Education. The curriculum for this
8 program is both place-based and culturally vetted and translated in both English and Hawaiian
9 and for grades K through 12. The program is approved under the DOE's Common Core
10 Standards to be integrated into any course curriculum. The program has been applied in schools
11 across the state. Due to the positive response, the program is also being considered in Asia.
12

13
14 If this Project is approved by the Commission, Ho'ohana has will provide funds to
15 sponsor training of a cohort of ten (10) teachers from the Waipahu Complex, including one year
16 of mentorship and course materials on alternative energy, such as photovoltaic panels and wind
17 turbines. There is currently a waitlist of teachers in Waipahu to participate in this program.
18 These Waipahu Complex teachers will have a reach of over 1,000 students per year. Ho'ohana's
19 participation in this program will move forward in conjunction with development of the Project.
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DATED: Honolulu, Hawai'i, November __, 2014.

Respectfully submitted,

Nonie Toledo

NONIE TOLEDO

1 **To what professional organizations do you belong?**

2 I currently sit on the Boards of the East-West Center Foundation and the Community
3 Housing Fund at the Hawaii Community Foundation. I previously served as the Urban Plan
4 Coordinator for the Urban Land Institute – Hawai‘i Chapter, as an outside director for four
5 different Kamehameha Schools entities, and as the President of the Aloha Chapter, Lambda
6 Alpha International, of which I have been a member since 1996. I have been a guest lecturer at
7 the Shidler School of Business and the Department of Urban & Regional Planning at the
8 University of Hawai‘i at Mānoa.

10 **Are you familiar with the proposed development of the interim solar farm ("Project") and**
11 **the Petition Area?**

12 Yes. Forest City Sustainable Resources, LLC is a member of Ho‘ohana Solar 1, LLC, the
13 Successor Petitioner in this Docket. If approved by the Commission, TMK No. 9-4-002: 052,
14 which we have been referring to as Parcel 52, a portion of the Petition Area, will be developed by
15 Ho‘ohana as an approximately 20 MW solar farm.

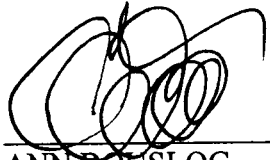
17 **Please describe the scope of your involvement in the Project?**

18 I am the lead development manager for this Project. I have been closely involved with the
19 planning of and land use entitlement efforts for this Project. I have also participated in the
20 community outreach for the Project.
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DATED: Honolulu, Hawai'i, November ^{17th} 2014.

Respectfully submitted,



ANN BOUSLOG

BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAI'I

In the Matter of the Petition of

HALEKUA DEVELOPMENT
CORPORATION, a Hawai'i corporation

DOCKET NO. A92-683

To Amend the Agricultural Land Use District
Boundary into the Urban Land Use District for
Approximately 503.886 Acres at Waikele and
Ho'ae'ae, 'Ewa, O'ahu, City and County of
Honolulu, State of Hawai'i, Tax Map Key No.
9-4-02: 1, portion of 52, 70 and 71

CERTIFICATE OF SERVICE

CERTIFICATE OF SERVICE

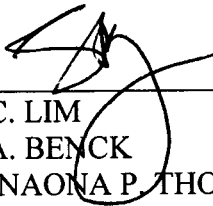
I hereby certify that due service of a copy of the foregoing was served upon the following
by hand delivery or by U.S. Mail, postage prepaid, on November 18, 2014, addressed to:

HAND DELIVERY	LEO R. ASUNCION, JR., Acting Director Office of Planning State Office Tower, 6th Floor 235 South Beretania Street Honolulu, Hawai'i 96813
HAND DELIVERY	DAVID M. LOUIE, Esq. BRYAN C. YEE, Esq. Deputy Attorney General Commerce and Economic Development Department of the Attorney General 425 Queen Street Honolulu, Hawai'i 96813
HAND DELIVERY	GEORGE I. ATTA, Director Department of Planning and Permitting City and County of Honolulu 650 South King Street, 7th Floor Honolulu, Hawai'i 96813

HAND DELIVERY	DONNA Y.L. LEONG, Esq. DON S. KITAOKA, Esq. RICHARD LEWALLEN, Esq. Deputy Corporation Counsel Department of the Corporation Counsel Honolulu Hale 530 South King Street, Room 110 Honolulu, Hawai'i 96813
U.S. MAIL	ROBINSON KUNIA LAND LLC c/o RUSH MOORE LLP ATTN: MR. STEPHEN K.C. MAU, ESQ. Pacific Guardian Center, Mauka Tower 737 Bishop Street, Suite 2400 Honolulu, HI 96813
U.S. MAIL	FOREST CITY SUSTAINABLE RESOURCES, LLC ATTN: ANN BOUSLOG 5173 Nimitz Road Honolulu, HI 96818
U.S. MAIL	HANWHA Q CELLS USA CORP. ATTN: LAURENCE GREENE 8001 Irvine Center Drive, Suite 1250 Irvine, CA 92618
U.S. MAIL	HALEKUA DEVELOPMENT CORPORATION ATTN: THE HORITA GROUP, INC. MR. JOSHUA HORITA 98-150 Kaonohi Street B128 Aiea, HI 96701
U.S. MAIL	CANPARTNERS IV ROYAL KUNIA PROPERTY LLC c/o MATSUBARA – KOTAKE ATTN: MR. WYETH M. MATSUBARA, ESQ. 888 Mililani Street, 8th Floor Honolulu, HI 96813
U.S. MAIL	HRT REALTY, LLC c/o LAW OFFICES OF REUBEN WONG ATTN: MR. DELWYN H.W. WONG 1164 Bishop Street, Suite 1006 Honolulu, HI 96813

U.S. MAIL	300 CORPORATION c/o LAW OFFICES OF REUBEN WONG ATTN: MR. DELWYN H.W. WONG 1164 Bishop Street, Suite 1006 Honolulu, HI 96813
U.S. MAIL	HONOLULU LIMITED c/o LAW OFFICES OF REUBEN WONG ATTN: MR. DELWYN H.W. WONG 1164 Bishop Street, Suite 1006 Honolulu, HI 96813
U.S. MAIL	RKES, LLC ATTN: PATRICK K. KOBAYASHI 1288 Ala Moana Boulevard, Suite 201 Honolulu, HI 96814

DATED: Honolulu, Hawai'i, November 18, 2014.



 STEVEN S.C. LIM
 JENNIFER A. BENCK
 PUANANIONAONA P. THOENE

Attorneys for Successor Petitioner to Parcel 52
HO'OHANA SOLAR 1, LLC