

State of Hawaii Land Use Commission
P.O. Box 2359
Honolulu, Hawaii
96804

LAND USE COMMISSION
STATE OF HAWAII

2020 JAN -7 A 7:47

Testimony in support of Waiawa Solar Power Project (Docket No. A87-610)

I write as an individual Hawaii resident in support of the LUC approving the proposal by Kamehameha Schools to avail its land to house a solar/storage project on its Oahu land.

My support for this project is based on Hawaii's need to reduce its paralytic reliance on fossil fuel-based power generation. While I recognize that the commission's focus is electric power rates, my bigger concern is the effects of global warming. The issue is one that affects and puts at risk both Hawaii residents and the state's future.

That Hawaiian Electric can continue to rely so heavily on antiquated, non-renewable, and overpriced means to generate electricity is unfortunate. The project before the commission provides an important opportunity to address this situation, one I hope you will approve with great haste.

Sincerely,

Paul Migliorato

Paul Migliorato
1015 Wilder Avenue, #904
Honolulu, Hawaii 96822



LAND USE COMMISSION
STATE OF HAWAII

2020 JAN -7 A 7:47

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State of Hawai'i Land Use Commission
Department of Business, Economic Development & Tourism
P.O. Box 2359
Honolulu, Hawai'i 96804-2359

Re: Kamehameha Schools – Motion for Modification and Time Extension

Dear Chair and Commissioners:

I am Jeff Overton, a principal planner at G70, and I am testifying in support of KS's Motion for Modification and Extension of Time ("Motion") that will allow Waiawa Solar Power, LLC's ("WSP") solar project to go forward.

As background, my career as a land use planner and environmental consultant spans 36 years, including planning and permitting for eight commercial solar projects since 2014. G70 has assisted and continues to assist Clearway and its subsidiaries, like WSP, with their land use planning and permitting requirements on its solar projects in Hawai'i, including the one at Waiawa. Given our past work with Clearway on its solar projects, I am familiar with the land use permitting and time requirements for solar projects such as the one before you.

Background Regarding the Solar Project

The Waiawa solar farm project consists of a 36 megawatt/144 megawatt-hour battery energy storage solar farm with related electrical improvements and overhead utility tie-ins ("**Project**"). The Project is proposed to be installed within an approximately 200-acre area (the "**Project Site**") in the central eastern portion of the 1,395-acre KS property that is within the State Urban District Property at Waiawa, 'Ewa, O'ahu ("**KS Property**" or "**Petition Area**"), with the utility tie-in, or gen-tie, route running from the Project site west and within the Petition Area, across the gulch near the Ka Uka Boulevard exit of the H-2 Freeway, to reach the point of interconnection on the existing HECO 46kV Waiau-Mililani line. The actual lot coverage footprint of the Project elements will be only 83 acres.

Location of Project

The Project is located on KS's petition area in Waiawa and Waipio, 'Ewa, O'ahu, Hawai'i, and is designated by Tax Map Key Nos. (1) 9-4-006:034(por.), 035(por.), 036, 037(por.); 9-6-004:024 (por.); 025, 026; 9-6-005:003 (por.). KS Exhibit 1. The KS Property is located east of the H-2 Freeway/Ka Uka Boulevard interchange, and west of Pearl City. The Petition Area is in the SLU Urban District. KS Exhibit 2.

The Petition Area is designated for urban type uses (e.g., residential, commercial, recreational, and industrial) under both the current (2002) and proposed Central O'ahu Sustainable Communities Plan land use maps. KS Exhibits 4 and 5, respectively.

There is a mixture of County zoning within the Petition Area. It includes Neighborhood Business District (B-1), Community Business District (B-2), Low Density Apartment District (A-1), Medium Density Apartment District (A-2), Industrial-Commercial Mixed Use District (IMX1), Residential District (R-5) and General Preservation (P-2). KS Exhibit 3. The Project Site is zoned AG-1.

Permits Required:

WSP will need to get a Conditional Use Permit – Minor to allow the construction on lands zoned as Restricted Agricultural (AG-1). In addition, other ministerial construction site permits, such as a grading, grubbing, stockpiling, NPDES construction stormwater and building permits will also be required.

Following the Commission's approval of the Motion for Modification, a Conditional Use Permit application will be submitted, followed by a number of building, electrical and civil permits, as well as grading permits. It will take approximately 4-6 months for the approval of the CUP application and approximately 8 to 9 months for approval of the ministerial permits. These timelines do not include internal preparation of the permits or consultations with the county prior to filing. Construction will take approximately a year.

Based on this timetable and past experience with similar projects, WSP is already significantly constrained on its overall permitting and construction timeline and needs approval of the Motion for Modification this month in order to make its operational deadline of Fourth Quarter 2021 as required by the Purchase Power Agreement with HECO.

With respect to decommissioning of the project, about 6 months will be set aside for permitting based on current requirements. This does not take into consideration any environmental studies or consultations that may need to be completed to ensure compliance with state and federal regulations. It is my understanding that construction activities associated with decommissioning could take a year.

In conclusion, I strongly support WSP's solar project and urge this Commission to approve KS' Motion today to allow the project to move forward and meet its PPA requirements.

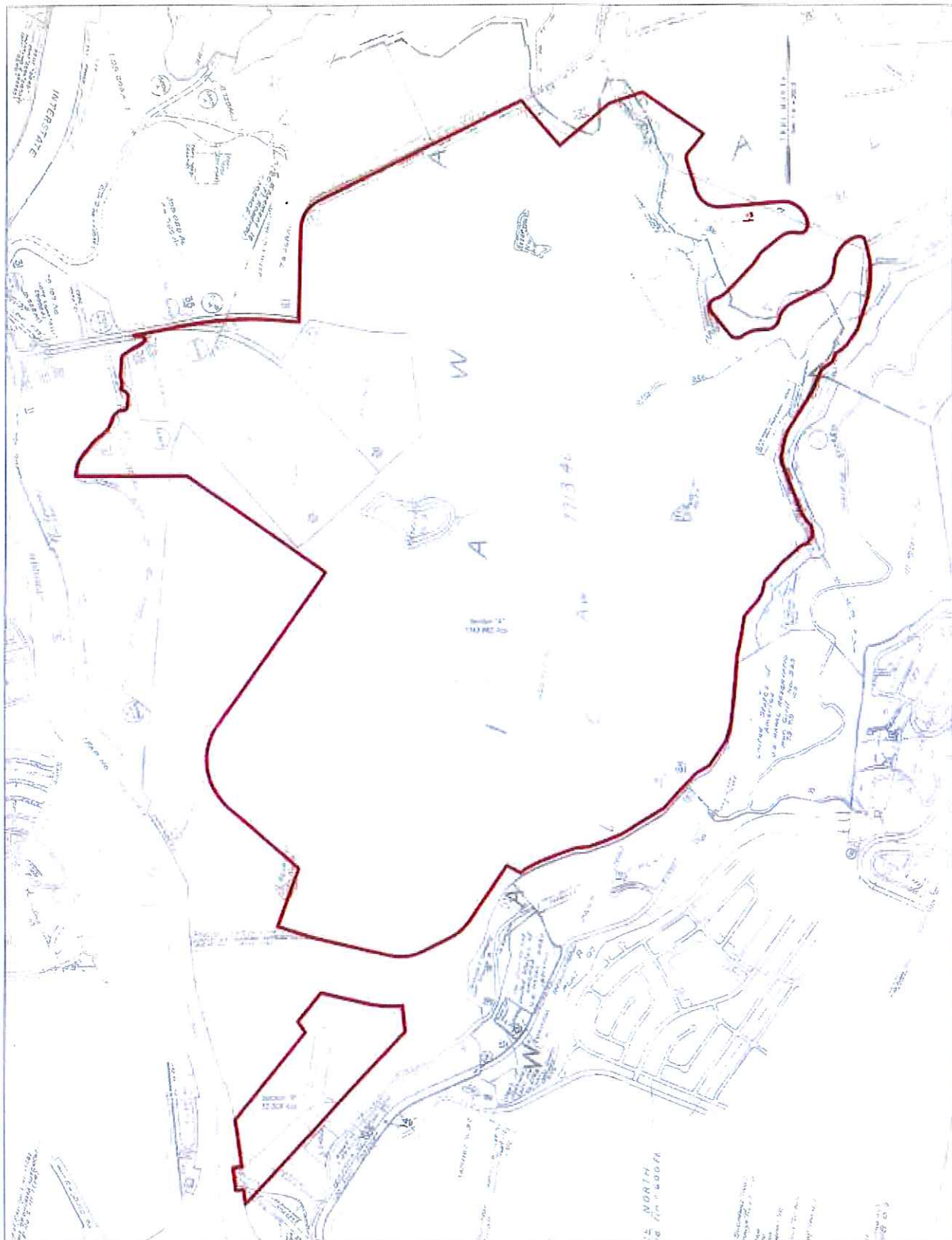
Sincerely,

GROUP 70 INTERNATIONAL, INC., dba G70



Jeffrey H. Overton, AICP, LEED AP
Principal

Enclosures



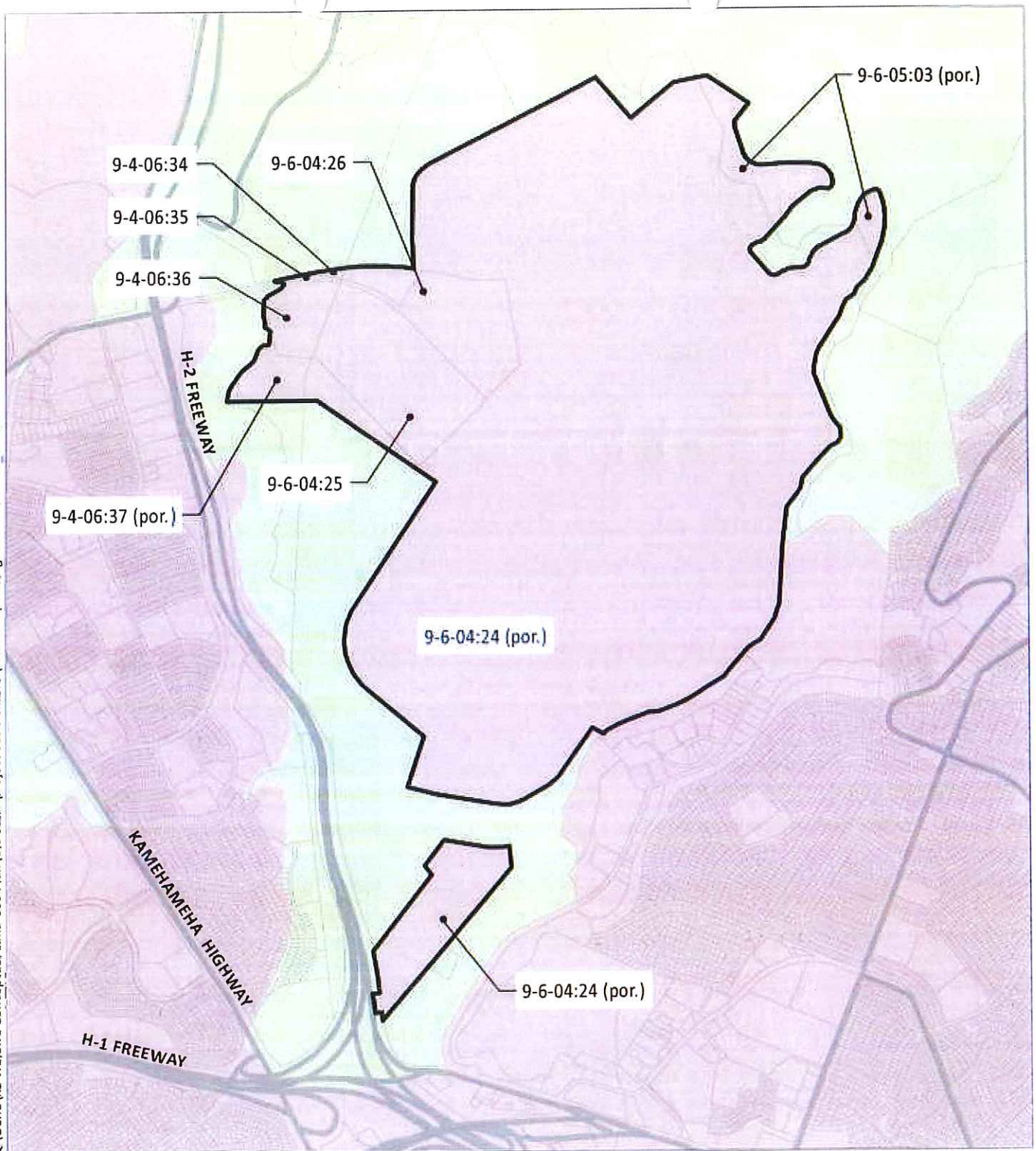
**SURVEY SHOWING
SECTIONS "A" & "B"**
described in Liber 22151 Pg 250
overlayed on Tax Map Keys:
9-4-06, 9-6-04, and 9-6-05

AT WAIKAWA AND WAIPIO, EWA, OAHU, HAWAII

KS Exhibit 1







Revised July 10, 2015



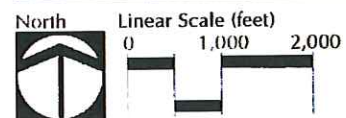
DATE: 3/21/2019

LEGEND

	Agricultural District		Rural District
	Conservation District		Urban District

Source: SunEdison (2014), State Land Use Commission (2019)
 Disclaimer: This Graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

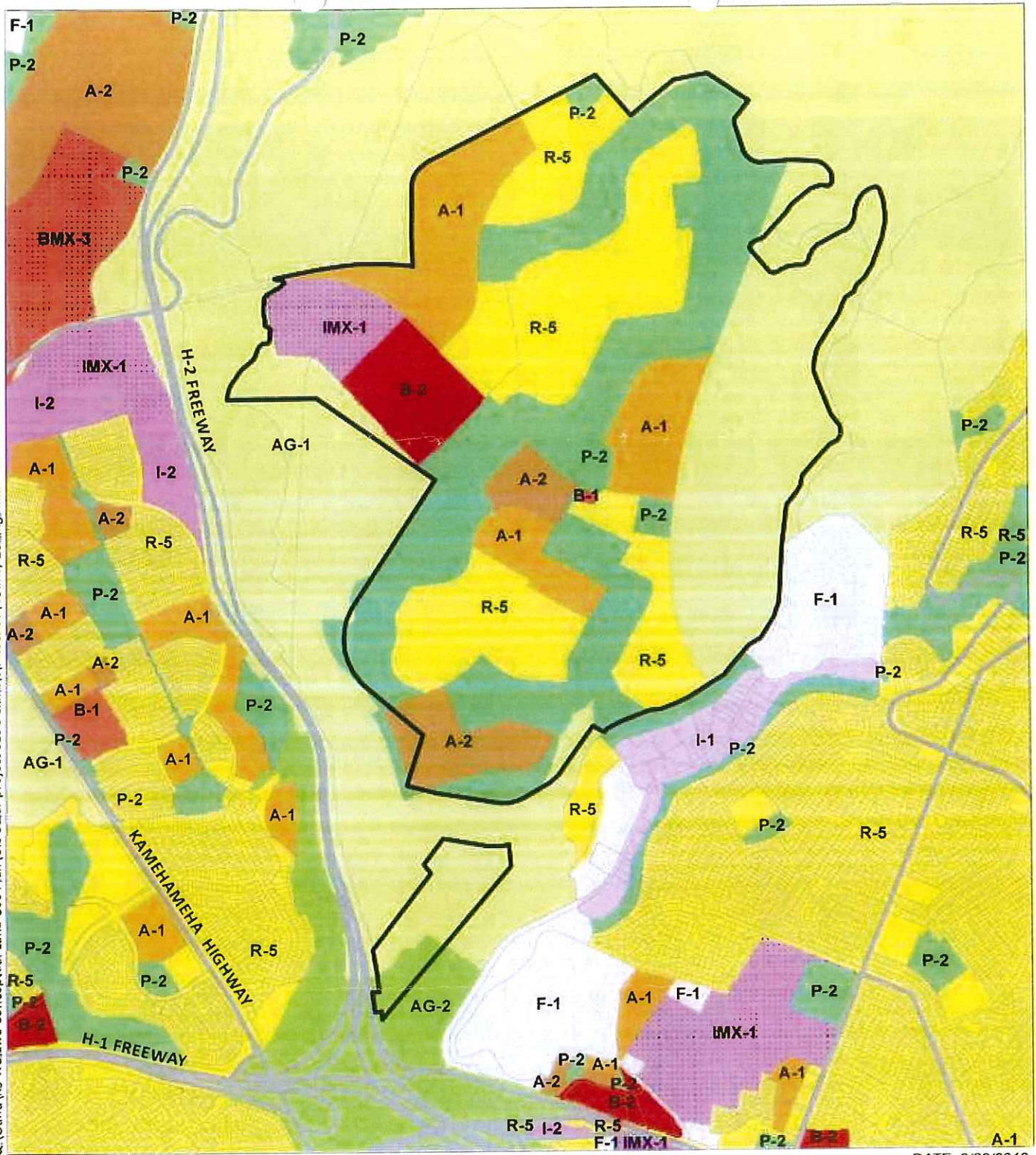
KS Exhibit Urban District Boundary KAMEHAMEHA SCHOOLS WAIAWA MOTION TO AMEND



Island of O'ahu



Q:\Oahu\KS Waiawa Conceptual Land Use Plan\GIS Solar project SLUC exhibit\PROJECT\County Zoning.mxd



DATE: 3/20/2019

LEGEND

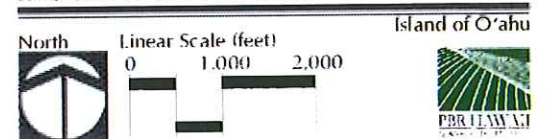
	KS Waiawa Property (SLU Urban, Docket A87-610)
	AG-1
	R-5
	B-1
	AG-2
	A-1
	B-2
	P-2
	A-2
	BMX-3
	F-1
	I-1
	I-2
	IMX-1

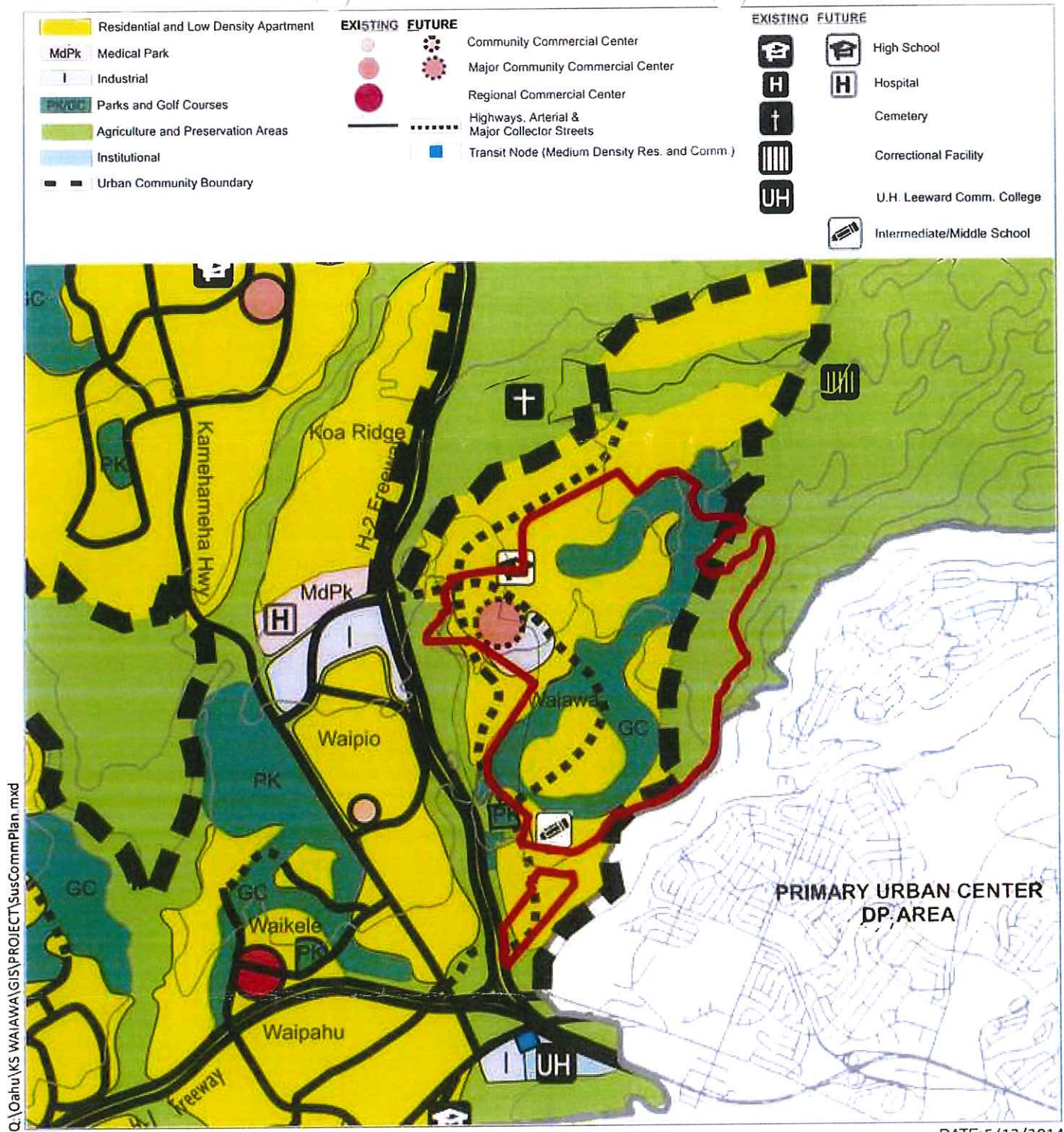
Source: City and County of Honolulu (2019)

Disclaimer: This Graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

KS Exhibit County Zoning

KAMEHAMEHA SCHOOLS WAIAWA MOTION TO AMEND





LEGEND

KS Waiawa Property (SLU Urban, Docket A87-610)

Source: City and County of Honolulu (2002)

Disclaimer: This Graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

KS Exhibit 4

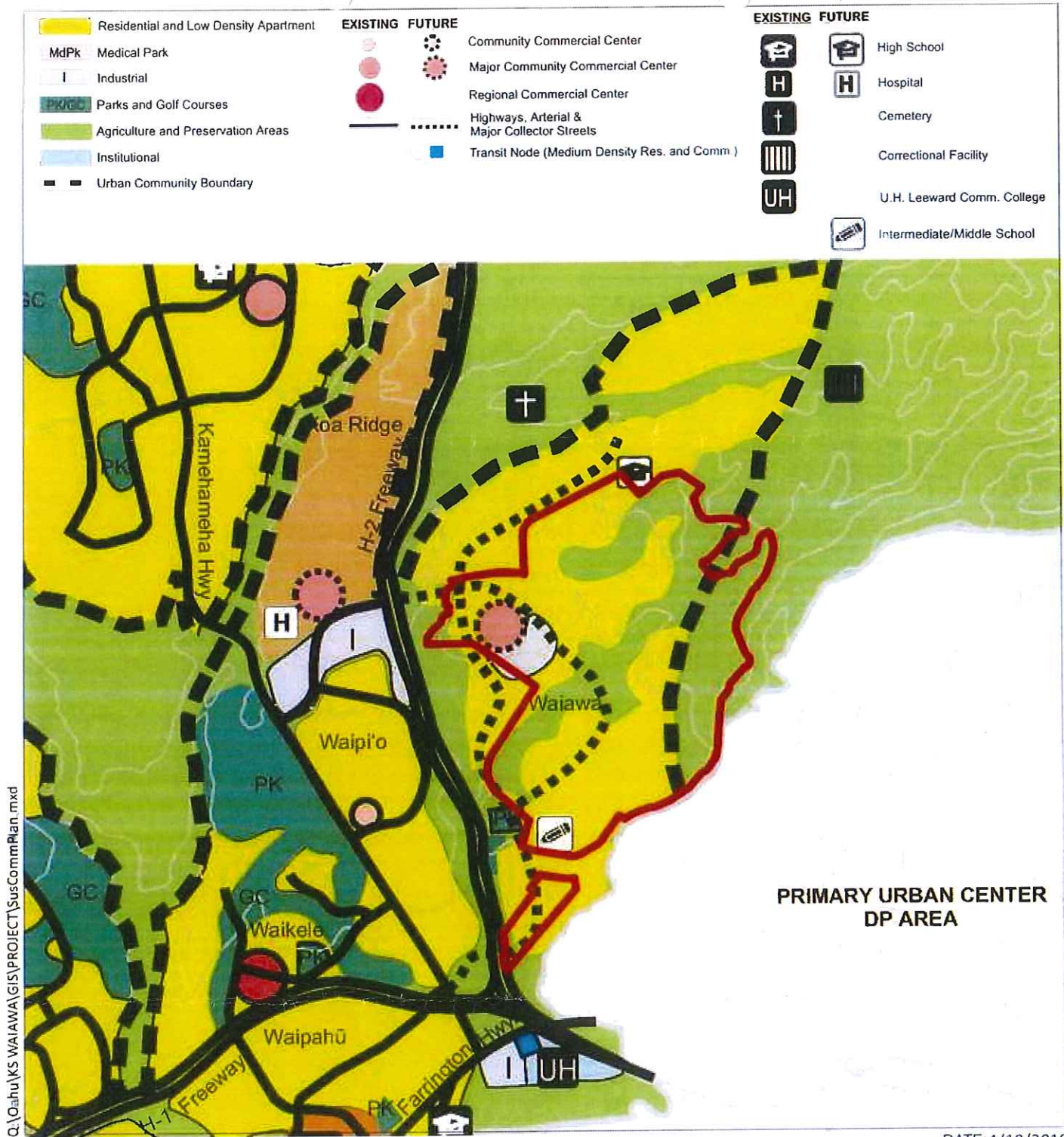
KS Exhibit Central Oahu Sustainable Communities Plan KAMEHAMEHA SCHOOLS WAIAWA MOTION TO AMEND



(Not to Scale)

Island of O'ahu





LEGEND

KS Waiawa Property (SLU Urban, Docket A87-610)

Source: City and County of Honolulu (2016)

Disclaimer: This Graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

KS Exhibit Central Oahu Sustainable Communities Plan KAMEHAMEHA SCHOOLS WAIAWA MOTION TO AMEND

North



(Not to Scale)

Iland of O'ahu



[illegible]

Clearway Energy Group
100 California Street, Floor 4
San Francisco, CA 94111

clearwayenergygroup.com



January 6, 2020

VIA ELECTRONIC MAIL
<dbedt.luc.web@hawaii.gov>

State of Hawaii Land Use Commission
Department of Business, Economic Development & Tourism
P.O. Box 2359
Honolulu, Hawaii 96804-2359

Re: Docket No. A87-610, Waiawa Solar Project: Trustees of the Estate of Bernice Pauahi Bishop dba Kamehameha Schools, Motion for Modification and Time Extension ("Motion to Amend" or "Motion")

Dear Chair Scheuer, First Vice Chair Cabral, Second Vice Chair Aczon and Members of the Land Use Commission:

Thank you for the opportunity to submit written testimony for the above-referenced Motion to Amend in connection with the Commission's hearing to be held on Thursday, January 9, 2020. My name is Patrick Sullivan, Vice President and Head of Development for Clearway Energy Group LLC ("**Clearway**"), the parent company of Waiawa Solar Power, LLC ("**WSP**"). I want to share the developer's perspective as it relates to the Motion filed by Kamehameha Schools ("**KS**"), and more specifically, to relay Clearway's urgent message to the Commission: to vote today in favor of the Motion and to approve a 35-year term.

Introduction

As the Head of Development for Clearway, I am responsible for overseeing the development and expansion of a large portfolio of clean energy projects across the nation. Clearway and its affiliates own and operate 4.1 gigawatts ("**GW**") of renewable energy – 2.8 GW from wind and 1.1 GW from utility solar, and own and operate over 300 megawatts ("**MW**") of

distributed and community solar across 28 states. This makes us one of the largest developers of renewable energy in the U.S. The breadth and pace of our project development evidences our commitment to build a world powered by clean energy both on the mainland and right here in Hawaii.

As you know, Clearway has already made significant investments in Hawaii's clean energy future. We have three utility-scale projects in operation, totaling about 110 MW of generating capacity on Oahu. Among these is the Kawailoa Solar project, located on lands owned by Kamehameha Schools, and at 49 MW, is the largest solar project in the State of Hawaii. And, we do not want to stop there – we have contracted two more solar projects on Oahu, including the Waiawa solar project, for a total of five projects that will generate 185 MW of renewable energy for the State, equal to the energy consumed by about 48,075 homes on Oahu in a year. We are also participating in the ongoing Request for Proposals for additional sites across the islands.

This is an exciting time for energy project development in Hawaii, with more reliable and competitively-priced sources of clean energy than ever before. However, this is all put at risk if we cannot get these solar projects permitted in a timely fashion. Delays can create economic challenges, which in turn can derail or force developers to abandon these important projects. This is why we are asking the Commission to approve the Motion as soon as possible.

It is Imperative that the Commission Vote on KS' Motion Today

There are two interrelated factors impacting our timeline that are driving our request for a vote today – the first is the time needed to develop the project and the second is what we are contractually obligated to deliver to Hawaiian Electric Company, Inc. (“HECO”). We anticipate that our remaining development process will take about 2 – 2.5 years, but we now have less time than that to complete our solar project. Under our Power Purchase Agreement (“PPA”) with HECO, we are required to reach commercial operations by December 31, 2021. By way of illustration, if we started next month (February), we would have 23 months to develop a solar project that we know, based on our very recent development and construction experience in

Hawaii, typically takes at least 24 months to develop from its current stage through to operations. Simply put, we do not have any time to spare.

Our development process for the next two years, in general terms, will be comprised of our permitting and construction activities. We expect about a one-year process for permitting, which includes obtaining, among many other permits, a Conditional Use Permit from the City, as well as building and grading permits. Our timeline for permitting is hindered by the fact that we are unable to even apply for our Conditional Use Permit, the first step in this process, until the Commission issues its Decision and Order (“**D&O**”). This puts even more pressure on the timing of a vote today, since the timing of approving the CUP application must follow the issuance of the Commission’s D&O.

Even if the Commission issues its decision today and we submit the Conditional Use Permit application immediately, WSP still bears significant timing risk based on the uncertainty around the building permit review and approval process. As the Commission is likely aware, this process has taken up to nine months for recent solar projects – we will now need to complete this step in no more than six months if we are to hit our required Commercial Operations Date. To summarize and re-emphasize these points, we have roughly a year of sequential permitting work that must be completed before beginning construction, and we cannot move forward with any of it until we receive the Commission’s D&O.

Once we finish navigating this permitting timeline, we expect the construction process to take about one year to complete, which means that we will need to start certain construction activities no later than this October to meet our deadline under the PPA. We have been undertaking significant work in parallel to select a contractor and negotiate and execute an EPC contract, but the material design work under this contract is inherently gated by the approval of these permits and any conditions that may be applied. And of course, no construction work of any kind can begin until the grading and building permits are approved.

We will continue to do everything we can to work on parallel tracks and reduce these timelines. We will also do all we can to help facilitate DPP’s review of our CUP application to ensure a timely approval. Time is of the essence for us. That is why we need Commission’s assistance today on a vote to grant KS’ Motion, which will allow us to avoid further delays and

stay on track with this solar project.

A 35-Year Term is Necessary

As I stated earlier, a full 35-year term is critical for this project. I'd like to highlight four factors here. First, large-scale solar facilities are universally regarded by independent engineers and the engineering community to be productive energy-generating assets for 30 – 35 years, and increasingly up to 40 years in some areas. Additionally, with measures such as preventative maintenance, battery augmentation and warranties, solar projects are ensured – and sometimes even *insured* – to be productive for decades. Consequently, the Waiawa solar facility, like others proposed in Hawaii, is expected to remain a productive and profitable energy-generating asset well beyond its initial 20-year PPA tenure for Hawaii ratepayers. A 35-year term is consistent with the life expectancy of WSP, just as would be the case for any large-scale solar project elsewhere in the U.S.

Second, the Agreement to Grant Easement between WSP and KS explicitly considers an extension to this 35-year term, so long as WSP secures a revenue contract for the post-PPA period. The Commission should provide its approval such that the project can operate for its full lease term. If the Commission agrees that this is an appropriate use of the land, and the landowner and WSP all agree to continue operations, there should be no reason to arbitrarily cut short its operations and the benefits that this project is providing to Hawaii and its ratepayers.

Third, Clearway bid this project to HECO with an expectation that it would operate for its full useful life, including the entire extended term. Simply put, post-contract revenue was assumed. Post-contract revenue is a critical element, and standard industry practice, for pricing energy projects competitively, whether a solar project, wind farm, gas plant or any other durable, proven technology. Had only contract revenue, and not post-contract revenue, been assumed, the price bid to HECO would have been significantly higher, to the disservice of Hawaii ratepayers. Hawaii ratepayers deserve the lowest energy prices possible.

Fourth, looking ahead at Hawaii's resource needs and the cost of extending an existing project versus contracting a new one, we fully expect that this project will have its PPA term extended. At the end of the current PPA term, Hawaii will still be in the final years of growth

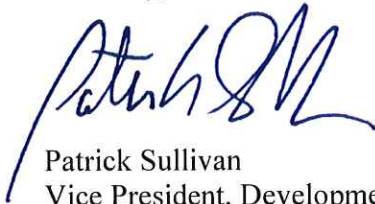
towards its 100% renewable energy mandate, and HECO will need to both maintain its existing fleet and be procuring additional renewable resources. There is no doubt that it will be more economic to continue the operations of an existing project than to develop and construct a new project to replace it. Our confidence that this project will be extended is based on our discussions with HECO, which has filed written testimony in this docket that also confirms this position. Given HECO and Clearway's expectations for an extended PPA term, the Commission's approval of a 35-year term today – the same term it approved back in 2014 – will help to avoid future PPA negotiations with HECO that would be contingent on obtaining further Commission approval.

For all these reasons, a full 35-year term is necessary to secure the solar project's success.

Conclusion

We are excited to continue the development of the Waiawa solar facility, specifically to proceed to permit this project. We are hard at work, together with our partners HECO and KS, to make this solar project a reality – to help Hawaii reach its clean energy goals. To meet the challenges of developing renewable energy projects in Hawaii, we respectfully ask for the Commission's vote today in support of KS' Motion for a 35-year term for our solar project. Thank you very much.

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrick Sullivan", with a stylized flourish at the end.

Patrick Sullivan
Vice President, Development
Clearway Energy Group LLC