BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of

HAWAII ELECTRIC LIGHT COMPANY, INC.)          DOCKET NO. 2018-0430

For Approval of Power Purchase
Agreement for Renewable
Dispatchable Generation with AES
Waikoloa Solar, LLC.

DECISION AND ORDER NO. 36233
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BEFORE THE PUBLIC UTILITIES COMMISSION
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In the Matter of the Application of
HAWAII ELECTRIC LIGHT COMPANY, INC. Docket No. 2018-0430

For Approval of Power Purchase Agreement for Renewable Dispatchable Generation with AES Waikoloa Solar, LLC. Decision and Order No. 36233

DECISION AND ORDER

By this Decision and Order, the Public Utilities Commission ("commission") approves, subject to the conditions set forth herein: (A) the Power Purchase Agreement ("PPA") between HELCO and AES Waikoloa, dated December 28, 2018, for a 30-megawatt ("MW") photovoltaic ("PV") project coupled with a battery energy storage system ("BESS") to be located near Waikoloa Village on the island of Hawaii (the "Project"); and (B) HELCO's request to include all non-energy payments under the

3The Parties to this proceeding are HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO") and the DIVISION OF CONSUMER ADVOCACY ("Consumer Advocate"), an ex officio party to this proceeding pursuant to Hawaii Revised Statutes ("HRS") § 269-51 and Hawaii Administrative Rules ("HAR") § 16-601-62(a). AES WAIKOLOA SOLAR, LLC ("AES Waikoloa") and TAWHIRI POWER LLC ("Tawhiri") were granted limited participant status by Order No. 36144, filed February 4, 2019. See Order No. 36144, "(1) Granting Participant Status to AES Waikoloa Solar, LLC and Tawhiri Power LLC; and (2) Amending the Procedural Schedule," filed February 4, 2019 ("Order No. 36144").
PPA, including the Lump Sum Payments (as defined in the PPA) and related revenue taxes, through the Purchased Power Adjustment Clause ("PPAC"), to the extent such costs are not included in base rates. The commission's rulings and conditions are discussed herein.

I.

BACKGROUND

A.

Procedural History

On December 31, 2018, HELCO filed its Application requesting approval of, among other things, the subject PPA.²

On January 14, 2019, consistent with its intent to review the PPAs resulting from the Hawaiian Electric Companies'³ Phase 1 competitive procurement on an accelerated timeline, the commission filed Order No. 36067, "(1) Approving [HELCO's] Request to Bifurcate its [PPA]-Related Requests from its Above-ground 69 Kilovolt Line Extension-related Requests; and (2) Adopting a Procedural Order to Govern the PPA-Related Requests" ("Order

² "[HELCO's] Application; Exhibit 1-10; Verification; and Certificate of Service," filed on December 31, 2018 ("Application").

³ The "Hawaiian Electric Companies" (or "HECO Companies") are Hawaiian Electric Company, Inc., Maui Electric Company, Limited, and HELCO.
No. 36067"), which set forth a statement of issues for this proceeding, as follows:

1. Whether HELCO has met its burden of proof in support of its request for approval of the PPA between HELCO and AES Waikoloa, dated December 28, 2018, for a 30-MW photovoltaic project coupled with a BESS proposed to be located near Waikoloa Village, on the island of Hawaii.

   a. Whether HELCO's purchased power arrangements under the PPA, pursuant to which HELCO will dispatch energy on an availability basis from AES Waikoloa, including the Lump Sum Payments to be paid to AES Waikoloa, are prudent and in the public interest with explicit consideration, if required by law under HRS § 269-6, of the effect of the State's reliance on fossil fuels on price volatility, export of funds for fuel imports, fuel supply reliability risk, and greenhouse gas emissions.

2. Whether HELCO has met its burden of proof in support of its request to include all non-energy payments under the PPA, including the Lump Sum Payment (as defined in the PPA), and related revenue taxes, through the PPAC, to the extent such costs are not included in base rates.

3. Whether it is in the public interest for the 69 kV line extension, required to interconnect the Project to HELCO's system, to be constructed above the surface of the ground pursuant to HRS § 269-27.6(a) & (b).\(^4\)

\(^4\)Order No. 36067, "(1) Approving [HELCO's] Request to Bifurcate its [PPA]-Related Requests from its Above-Ground 69 Kilovolt Line Extension-Related Requests; and (2) Adopting a Procedural Order to Govern the PPA-related Requests," filed on January 14, 2019 ("Order No. 36067"), at 7-8. Order No. 36067 had originally included a sub-issue 1.b. ("Whether the purchased energy charges based on the Energy Price to be paid by HELCO pursuant to the PPA are just and reasonable"), but the commission notes that this sub-issue was included in error, as there are no
Order No. 36067 also bifurcated HELCO’s PPA-related requests (Issues 1 and 2) from its above-ground 69 kilovolt ("KV") line extension-related requests (Issue 3) and established a procedural schedule governing HELCO’s PPA-related requests.5

On January 22, 2019, AES Waikoloa filed a Motion to Participate in this proceeding and Tawhiri filed a Motion to Intervene.6

On February 4, 2019, the commission granted both AES Waikoloa and Tawhiri participant status and amended the procedural schedule for this docket.7

During the discovery period established by the amended procedural schedule, the Parties and Participants exchanged purchased energy charges based on an Energy Price at issue in this docket. This sub-issue was never discussed by the Parties or Participants, and thus has been removed from the Statement of Issues set forth above.

5Order No. 36067 at 6, 8-9. As mentioned in Order No. 36067, the commission intends to issue a separate procedural order to govern HELCO’s above-ground 69 kV line extension-related requests. Id. at 7.

6“[AES Waikoloa’s] Motion to Participate; Affidavit of Woody Rubin; and Certificate of Service,” filed January 22, 2019; “[Tawhiri’s] Motion to Intervene; Verification; Exhibit ‘A’; and Certificate of Service,” filed January 22, 2019 (“Tawhiri’s Motion to Intervene”).

7See generally Order No. 36144, “(1) Granting Participant Status to AES Waikoloa Solar, LLC and Tawhiri Power LLC; and (2) Amending the Procedural Schedule,” filed on February 4, 2019.
information requests ("IRs"), and the commission also submitted IRs to HELCO and AES Waikoloa.

On February 21, 2019, the commission issued Order No. 36171, compelling AES Waikoloa to respond to certain IRs issued by the Consumer Advocate to which AES Waikoloa had objected as irrelevant.®

On February 25, 2019, AES Waikoloa submitted a letter request stating that it understood that the Consumer Advocate “has filed or intends to file” a request for extensions to the deadlines for the Consumer Advocate’s Statement of Position and HELCO’s Reply Statement of Position (“SOPs”).® AES Waikoloa stated it believed that its SOP, “to the extent necessary, would be more useful to the Commission if filed after the Consumer Advocate’s [Statement of Position].”® Accordingly, AES Waikoloa requested that “if changes are made to the procedural schedule, the Commission adjust [the] deadline for [AES Waikoloa’s Statement of Position] to [a]

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10AES Waikoloa Letter at 1.
date[] midway between the deadlines for the Consumer Advocate’s [SOP] and the deadline[] for [HELCO’s Reply SOP].”¹¹

On February 26, 2019, the Consumer Advocate submitted a motion for enlargement of time, seeking an extension of time for it and AES Waikoloa to file their SOPs and for HELCO to file its Reply SOP.¹² In support of its Motion, the Consumer Advocate referenced Order No. 36171 and noted that the deadline by which AES Waikoloa was required to respond to the Consumer Advocate’s IRs was February 27, 2019, one week before the date the Consumer Advocate’s SOP was due.¹³

On February 28, 2019, the commission issued Order No. 36190, in which the commission denied the Consumer Advocate’s Motion, but amended the procedural schedule to provide AES Waikoloa until March 8, 2019 to file its SOP.¹⁴

On March 6, 2019, the Consumer Advocate and Tawhiri filed their SOPs.

¹¹AES Waikoloa Letter at 1.

¹²“Division of Consumer Advocacy’s Motion for Enlargement of Time; and Certificate of Service,” filed February 26, 2019 (“CA Motion”).

¹³CA Motion at 2.

¹⁴Order No. 36190, “(1) Denying the Division of Consumer Advocacy’s Motion for Enlargement of Time; and (2) Enlarging the Time for AES Waikoloa Solar, LLC to File its Statement of Position,” filed February 28, 2019 (“Order No. 36190”).
On March 8, 2019, AES Waikoloa filed its SOP.

On March 13, 2019, HELCO filed its Reply SOP to the SOPs filed by the Consumer Advocate, Tawhiri, and AES Waikoloa.

Pursuant to the deadlines set forth in Order No. 36190, no further briefing is contemplated and the PPA-Related Requests are ready for decision-making.\(^\text{15}\)

B.

Parties to the PPA

HELCO is an operating public utility engaged in the production, transmission, distribution, purchase and sale of electricity on the island of Hawaii. AES Waikoloa is a Limited Liability Company formed in Delaware and registered to do business in Hawaii, and is a wholly-owned subsidiary of AES Distributed Energy, Inc., which is a wholly-owned subsidiary of The AES Corporation, a Fortune 500 Global Power Company that owns

\(^{15}\text{See Order No. 36190 at 10.}\)
and manages approximately $33 billion in total assets and generated approximately $11 billion in 2017 revenues.16

C.

The Project

The Project will be located on approximately 300 acres of agricultural land classified with soil rating D and E near Waikoloa Village on the island of Hawaii, identified by Tax Map Key ("TMK") No. (3) 6-8-002-050.17 The PV component of the Project consists of PV panels mounted on a single-axis tracker that will rotate on a fixed axis from east to west as the sun moves across the sky.18 The BESS will consist of multiple lithium-ion battery containers, with a combined energy storage capacity of 120 megawatt-hours ("MWh") and output of 30 MWac that will connect directly to and be charged by the PV component of the Project.19

The allowed capacity for the Project is limited to 30 MW, and the Project will interconnect with HELCO's system via the existing 69 kV L8100 transmission line running through the site.20

16Application at 12-13, & Exhibit 1, at 5, 183.
17Application at 14.
18Application at 13.
19Application at 13.
20Application at 14.
HELCO states that the Project will be capable of generating power for an estimated 13,600 homes.\textsuperscript{21}

According to the PPA, the Guaranteed Commercial Operations Date of the Project is July 20, 2021, but the date "will be revised to reflect the results of [Interconnection Requirements Study ("IRS")]."\textsuperscript{22} AES Waikoloa "represents and warrants that, as of the Commercial Operations Date ('COD') of the [Project], the [Project] will be a qualified renewable resource under the [Renewable Portfolio Standards ("RPS")\textsuperscript{23}] in effect as of the effective date of the PPA ('Effective Date'),\textsuperscript{24} and that, absent a change in RPS law, all energy delivered by Seller to [HELCO] from

\textsuperscript{21}Application at 13.

\textsuperscript{22}Application at Exhibit 1, p. 274. Comparatively, the "Commercial Operations Date" is defined by the PPA as the "date on which [the] Facility first achieves Commercial Operations." Id. at Exhibit 1, p. 147. "Commercial Operations" is further defined by the PPA as "satisfaction" of certain "conditions," which includes passage of the "Acceptance Test[.]" Id. at Exhibit 1, p. 146. The "Acceptance Test" is defined in part as a "test" conducted by AES Waikoloa and witnessed by HELCO "within thirty (30) Days of completion of all Interconnection Facilities[.]" Id., Exhibit 1 at 143.

\textsuperscript{23}See HRS §§ 269-91, -92, -93, -94, -95, and -96.

\textsuperscript{24}Application at 15. The "Effective Date" is defined by the PPA as "the last to occur of (i) the Non-appealable PUC Approval Order Date and (ii) the date that the Interconnection Requirements Amendment . . . is executed and delivered as such date is set forth in the Interconnection Requirements Amendment." Id., Exhibit 1 at 150.
or through the [Project] will meet the definition of 'renewable electrical energy' or 'renewable energy' as defined under HRS § 269-91."25

D. Material Terms of the PPA

The salient terms of the PPA are summarized below.26 HELCO states that "[t]he PPA contains commercial and technical terms that are fair to both Parties while also serving to protect [HELCO] and its customers from certain risks associated with the Seller's development, interconnection, and operation of the [Project]."27

Term: The subject PPA, dated December 28, 2018, is for a term of twenty-five (25) years following the "Commercial Operations Date,"28 and AES Waikoloa will build, own, and operate the proposed Project.29 Unless declared null and void or

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25Application at 15.

26The terms and conditions of the PPA are also summarized in Exhibit 4 to the Application. In addition, the complete PPA is attached as Exhibit 1 to the Application. Citations to the PPA will be by the Application's "Exhibit 1" numbers, rather than the PPA's internal page numbering.

27Application at 17.

28Application, Exhibit 1 at 67.

29Application at 14.
terminated prior to the end of the term period,\textsuperscript{30} the PPA "automatically terminate[s]" upon expiration of the twenty-five year term.\textsuperscript{31}

Commission Approval and Associated Termination Rights: HELCO and AES Waikoloa are required to use "good faith efforts to obtain, as soon as practicable," a satisfactory commission order approving the PPA within twelve (12) months of the execution date of the PPA.\textsuperscript{32} If a satisfactory commission order is not issued within twelve (12) months, or within a longer period as agreed to by HELCO and AES Waikoloa, either HELCO or AES Waikoloa may, within one hundred eighty (180) days of such date, issue written notice declaring the PPA null and void.\textsuperscript{33} Similarly, if a commission approval order is issued but is appealed, and a non-appealable commission order approving the PPA is not obtained within twenty four (24) months from the date the Application was filed, either HELCO or AES Waikoloa may, within ninety (90) days of such date, by written notice declare the PPA null and void.\textsuperscript{34}

\textsuperscript{30}Application, Exhibit 4 at 3-4.
\textsuperscript{31}Application, Exhibit 1 at 67.
\textsuperscript{32}Application, Exhibit 4 at 2 (citing Exhibit 1 at § 12.3).
\textsuperscript{33} Application, Exhibit 4 at 3 (citing Exhibit 1 at 3 § 12.6(b)).
\textsuperscript{34}Application, Exhibit 4 at 3 (citing Exhibit 1 at § 12.6(b)).
HELCO clarifies that "[t]imeframes for [commission] approval were set based on the Project’s need to move forward as expeditiously as possible to safe harbor the federal Business Energy Investment Tax Credit ('ITC') at 18% for 2019." However, HELCO also clarifies that "in the event Seller is unable to safe harbor the ITC and the PPA is not declared null and void pursuant to the terms of the PPA, the contract price negotiated in the PPA will not be increased or subject to adjustment."  

Company Right to Declare PPA Null and Void Prior to Effective Date: HELCO may declare the PPA null and void prior to the Effective Date for the following reasons:  

(A) Seller makes a material change to the Project without following the requirements of the PPA;  

(B) Seller is in breach of Section 22.2(c) and 22.2(d) requiring Seller to have obtained certain Land Rights and Governmental Approvals, or the provisions of Attachment G (Company-Owned Interconnection Facilities);  

(C) Seller, after making payment for the interconnection facilities, requests in writing that [HELCO] stop or otherwise delay the performance of work for which [HELCO] received such payment; and  

(D) Seller notifies [HELCO] in writing that it desires to modify the PPA and/or the  

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35Application, Exhibit 4 at 3.  

36Application, Exhibit 4 at 3.
[Project], except as expressly provided for in sections 12.4 of the PPA and section 5(f) of Attachment A of the PPA.37

Pricing – Lump Sum Payment: As described by the PPA, the "essence" of the PPA is that HELCO will be paying to AES Waikoloa, on a monthly basis, a "Lump Sum Payment in exchange for [HELCO’s] right to dispatch, subject to Renewable Resource Variability, the [Project’s] Net Energy Potential."38 In other words, HELCO states that the PPA will provide HELCO with the "contractual and operational discretion to dispatch the [Project], which includes the PV system and [BESS], in [HELCO’s] preferred manner[,]" which will give HELCO flexibility to dispatch the Project as needed, "offset night-time customer demand, and assist in grid stabilization subject to discharge limits."39 HELCO states that this flexibility is "critically important over the 25-year term of the PPA due to the increasingly dynamic nature of the grid as

37Application, Exhibit 4 at 3-4 (citing Exhibit 1 at § 12.5).

38Application at 2, & Exhibit 1 at 336. "Renewable Resource Variability" is defined by the PPA in part as the "variations, above and below the Renewable Resource Baseline, of the renewable resource actually available at the Site on a moment-to-moment basis." Id. at Exhibit 1, p. 170. "Renewable Resource Baseline" is defined in part as the "estimated renewable resource potential of the Site for a typical meteorological year." Id.

39Application, Exhibit 4 at 10.
Hawai‘i rapidly progresses toward its goal of reaching 100% renewables by 2045.”

Comparatively, HELCO states that its “previous as-available [PPAs] required that the energy produced by the associated facility be accepted by [HELCO] based on the seniority of the project[,]” which not only “limited the contribution that as-available resources could provide in relation to grid operations[,]” but also “hindered [HELCO’s] ability to plan effectively for future renewable energy opportunities.”

Pursuant to the terms of the PPA, the monthly Lump Sum Payment paid to AES Waikoloa is derived from multiplying the Unit Price with the Net Energy Potential ("NEP"), and then dividing that result by twelve months. Liquidated damages could reduce the Lump Sum Payment to zero if the Project is "completely unavailable" or if the Project is "available but underperforming in other aspects as measured by the Performance Metrics.”

The Unit Price and NEP. The Unit Price for the subject PPA is fixed at $0.07945508 per kilowatt hour ("kWh") of NEP for

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40 Application, Exhibit 4 at 2.
41 Application, Exhibit 4 at 1.
42 Application, Exhibit 1 at 268-72.
43 Application, Exhibit 4 at 4-5.
the duration of the PPA. In its RFP, AES Waikoloa projected that the Project would have a NEP of 81,406 MWh per year. However, the NEP "is subject to adjustment from time to time" and, "as so adjusted, provides a basis for calculating and adjusting the Lump Sum Payment[.]

Pricing – Other Adjustment: According to HELCO, a "NEP estimate" will be provided to the "financing parties" through an "independent engineer" report ("IE Report") "as part of their standard due diligence prior to financial closing[.]

If the NEP estimate in the IE Report is equal to or greater than the NEP estimate provided in AES Waikoloa’s Request for Proposal ("RFP") Response, the Lump Sum Payment specified in the Application will apply for the first fifteen months following the Commercial Operations Date.

If the NEP estimate in the IE Report is less than the NEP estimate in AES Waikoloa’s RFP Response, AES Waikoloa may either declare the PPA null and void or accept the IE Report’s NEP

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44Application at 8, & Exhibit 1 at 5, 177.
45Application at 2, & Exhibit 1 at 337.
46Application, Exhibit 1 at 268-72, 336.
47Application, Exhibit 4 at 7.
48Application, Exhibit 1 at 268, & Exhibit 4 at 7.
estimate.\(^4\) If accepted, the NEP estimate will be used to reduce the Lump Sum Payment during the first fifteen months following the Commercial Operations Date, and AES Waikoloa will pay a one-time liquidated damage calculated on the basis of $10/MWh of the differential between the two NEP estimates.\(^5\)

After the fifteen-month period, a reassessment of the NEP will be performed and another adjustment of the Lump Sum Payment will be made using the same Unit Price; however, any upward adjustment to the Lump Sum Payment will be capped at the Lump Sum Payment from AES Waikoloa's best and final offer in response to the RFP.\(^6\) This Lump Sum Payment will apply until another NEP estimate is performed.\(^7\)

**Pricing - Liquidated Damages:** Again, liquidated damages have the potential to reduce the Lump Sum Payment to zero if the Project is completely unavailable or if the Project is available but underperforming in other aspects as measured by the Performance Metrics. Although the Project is treated as a single resource, liquidated damages are allocated to the performance of the

\(^4\) Application, Exhibit 4 at 7.

\(^5\) Application, Exhibit 4 at 7.

\(^6\) Application, Exhibit 4 at 8.

\(^7\) Application, Exhibit 4 at 8.
PV system and BESS separately to assess the availability and performance of each component.\(^\text{53}\) As stated in the PPA, to provide HELCO with reasonable assurance that the Project will be available and perform as required, the following metrics are utilized:

1. The Equivalent Availability Factor ("EAF") Performance Metric, which is used to evaluate the availability of the PV System for dispatch by HELCO;

2. The Guaranteed Performance Ratio ("GPR") Performance Metric, which is used to evaluate the efficiency of the PV system;

3. The BESS Capacity Performance Metric, which is used to confirm the capability of the BESS to discharge as required by the terms of the PPA;

4. The BESS EAF Performance Metric, which is used to determine whether the BESS is meeting its expected availability; and

5. The BESS Equivalent Forced Outage Factor ("EFOF") Performance Metric, which is used to evaluate whether the BESS is experiencing excessive unplanned outages.\(^\text{54}\)

In the event that AES Waikoloa fails to achieve one or more of the Performance Metrics, there is a liquidated damage

\(^\text{53}\)Application, Exhibit 4 at 5.

\(^\text{54}\)Application, Exhibit 4 at 5.
amount that is associated with such failure.\textsuperscript{55} Liquidated damages relating to the PV system are calculated on the basis of the full Lump Sum Payment.\textsuperscript{56} Liquidated damages relating to the BESS are calculated on the basis of the BESS Allocated Portion of the Lump Sum Payment for an applicable three-month period (which is referred to in the PPA as a "BESS Measurement Period").\textsuperscript{57}

Company's Right of First Negotiation to Purchase the Project: In the event AES Waikoloa wishes to assign its interest in the Project or effect a change of control, HELCO has the first right to negotiate for purchase of the Project.\textsuperscript{58} Additionally, "in the event that [HELCO] is subject to consolidation treatment under [Financial Accounting Standards Board Accounting Standards Codification ("FASB ASC")] 810 and/or lease treatment under FASB ASC 842 . . . with respect to Seller and the [Project], . . . [HELCO and Seller] may effectuate a sale of the [Project] to [HELCO] [(upon commercially reasonable terms at a fair market

\textsuperscript{55}Application, Exhibit 4 at 5.

\textsuperscript{56}Application, Exhibit 4 at 5.

\textsuperscript{57}Application, Exhibit 4 at 5.

\textsuperscript{58}Application, Exhibit 4 at 8 (citing Exhibit 1 at § 19.1; and Attachment P). The PPA also provides for limited instances of "exempt sales" to which HELCO's right of first negotiation does not apply. See Exhibit 1 at Attachment P, § 1(c).
HELCO clarifies that any such purchase of the Project by HELCO "shall be subject to application to the Commission for approval, and, prior to consummation, formal Commission approval of such purchase." 60

Similarly, at the end of the PPA Term, HELCO has the right of first negotiation to purchase the Project. 61

Compliance with Laws and Regulations: Under the PPA, AES Waikoloa is responsible for:

(A) obtaining any and all necessary permits, governmental approvals, and land rights for the construction and operation of the Project;

(B) installing, operating, and maintaining the Project safely and in compliance with all applicable laws; and

(C) Prior to commencement of construction of the Company-owned Interconnection Facilities, providing the necessary permits, governmental approvals, and land rights for construction, ownership, operation, and maintenance of the Company-Owned Interconnection Facilities. 62

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59 Application, Exhibit 4 at 8 (citing Exhibit 1 at § 24.5; and Exhibit 1 at Attachment P, § 5).

60 Application Exhibit 4 at 9.

61 Application Exhibit 4 at 10 (citing Exhibit 1 at Attachment P).

62 Application Exhibit 4 at 9 (citing Exhibit 1 at §§ 11.1 - 11.3).
Site Restoration: After termination of the PPA, or if the PPA is declared null and void, AES Waikoloa will, upon HELCO’s request, remove all Company-Owned Interconnection Facilities and Seller-Owned Interconnection Facilities from the land and restore the land to its condition prior to construction (alternatively, HELCO may elect to remove all or part of the Company-Owned Interconnection Facilities and/or Seller-Owned Interconnection Facilities, in which case AES Waikoloa will reimburse HELCO for the cost of removal). 63

Company Dispatch: HELCO will have discretion to dispatch the Project, including the PV system and BESS, in its preferred manner. 64

Credit Assurances and Security: AES Waikoloa is required to post and maintain Development Period Security and Operating Period Security. 65

Guaranteed Commercial Operations Date, Project Milestones: AES Waikoloa must meet agreed upon Guaranteed Project Milestones, including for commercial operations, as set forth in

63 Application, Exhibit 4 at 9 (citing Exhibit 1 at Attachment G, § 7).

64 Application, Exhibit 4 at 10 (citing Exhibit 1 at Article 8; and Exhibit 1 at Attachment B, § 9(d)).

65 Application, Exhibit 4 at 10 (citing Exhibit 1 at Article 14).
Article 13. "Failure to meet Guaranteed Project Milestones subjects the Seller to daily delay damages and eventual termination for failure to cure."66

II. PARTIES' AND PARTICIPANTS' POSITIONS

A. HELCO

According to HELCO, the Project as a whole will "provide grid services and additional capabilities to the [HELCO] system[,]" and the BESS in particular will allow HELCO to "shift the delivery to the grid of the energy generated by the [Project] to times when the need is greater."67 HELCO states the subject PPA is reasonable and in the public interest because:

The Project was selected as a result of a competitive procurement process that has resulted in a reasonable Lump Sum Payment price for the PPA. The Project is advantageous due to the ability to dispatch energy from the Project's PV system or BESS as needed rather than only relying on conventional generation units, offset night-time customer demand, assist in grid stabilization subject to discharge limits, and is anticipated to

66 Application, Exhibit 4 at 10 (citing Exhibit 1 at Article 13).

67 Application at 3.
have a substantial positive impact by decreasing HELCO’s future dispatch of oil-fueled units.

**Competitive Bidding Process.** HELCO states that the PPA is the result of the Stage 1 RFP process established in Docket No. 2017-0352. Briefly, Docket No. 2017-0352 was established to "receive[] filings, review[] approval requests, and resolv[e] disputes relating to the [HELCO] Companies’ plans to acquire new renewable energy generation." HELCO, along with the other HECO Companies, submitted a draft RFP for variable RDG, which was then reviewed and vetted by stakeholders and the commission and ultimately approved by the commission on February 20, 2018. Stage 1 of the RFP required proposals with GCODs no later than December 31, 2022, in order to take advantage of the 2019 ITC, and "represents the largest energy procurement undertaking in Hawai‘i’s history."

HELCO states that the RFP “was specifically designed to include the following characteristics: technology agnostic, not specifying a maximum size requirement, allowing projects to be sited at developer-defined sites, and allowing for variations within proposals (including the option to pair storage with

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68 Application, Exhibit 2 at 1.

69 See Application, Exhibit 2 at 1-2.

70 Application, Exhibit 2 at 3.
generation), which provided the benefits of encouraging broader developer participation as well as allowing the market to dictate technology and price."\(^{71}\) "In order to maintain a competitive and fair process, the [HECO] Companies followed the Commission's Framework for Competitive Bidding . . . . with only minor modifications."\(^{72}\)

HELCO first divided the RFP proposals into separate technology "buckets" to ensure that proposals of "like" technology would be evaluated against each other. Proposals within each bucket were evaluated using both price-related and non-price related criteria. The highest-ranking proposals from each bucket were then placed on a "short list" and invited to update their proposals to reach their best and final offer ("BAFO"). The short-listed BAFOs were then evaluated by assessing the proposed costs of the delivered energy and operating characteristics of each proposed project to reach a Final Award Group of eight proposals, which were then allowed to proceed with contract negotiations with the HECO Companies. The subject PPA is one of the results of these negotiations.\(^{73}\) In addition, Bates White LLC

\(^{71}\)Application, Exhibit 2 at 3.

\(^{72}\)Application, Exhibit 2 at 4. The commission's Framework for Competitive Bidding was established in Docket No. 03-0372 by Decision and Order 23121, filed December 8, 2006.

\(^{73}\)Application, Exhibit 2 at 5-6.
served as the commission-appointed Independent Observer ("IO") throughout the entire evaluation process.74

Project Dispatchability. According to HELCO:

A key benefit of the [Project], contracted through the RDG PPA, is that the Company will be able to utilize attributes of the [Project] to best meet the needs of the system. Having the [PV] system paired with a [BESS] adds significant value to the [Project] by allowing the energy produced during the day that cannot be readily accepted by the Company to be stored and dispatched to the Company's system at future times of higher customer demand, which is more beneficial to the Company's system than past projects that required instantaneous use of energy produced. [HELCO] anticipates that it will dispatch the [BESS'] stored energy to the [HELCO] grid to, among other things, help with ramping towards [HELCO's] periods of peak energy demand (rather than ramping up conventional generation), offset night-time fossil fuel generation, and assist in grid stabilization subject to discharge limits.75

Pricing. The Unit Price ($0.07945508 per kWh of NEP), as defined in the PPA, is advantageous because it is fixed for the duration of the PPA and is anticipated to result in lower effective rates for customers.

Bill Savings. It is anticipated that the Project will provide bill savings to customers over the Term of the PPA.

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74Application, Exhibit 2 at 4.
75Application at 15.
Curtailment. The Project is not expected to increase curtailment of existing as-available renewable resources or impede consideration of additional renewable resources to HELCO's system.


HELCO estimates that the renewable energy supplied by the Project will result in avoiding approximately 511,086 barrels of fuel over the initial term of the PPA. Specifically, HELCO anticipates avoiding 133,131 barrels of diesel fuel, 52,735 barrels of biodiesel, and 332,897 barrels of naphtha fuel, but also experiencing increases of approximately 7,677 barrels of ultra-low sulfur diesel. HELCO also estimates that the Project will avoid approximately 185,258 tons of GHG emissions over the PPA term.

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76 Application, Exhibit 3, Attachment 3 (confidential).
77 Application, Exhibit 3, Attachment 3 (confidential).
78 Application at Exhibit 5.
HELCO asserts that these estimated results are consistent with objectives identified in HRS § 226-18(a), including: "(1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people; (2) Increased energy self-sufficiency where the ratio of indigenous to imported energy use is increased; (3) Greater energy security and diversification in the face of threats to Hawaii’s energy supplies and systems; and (4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use." 79

Similarly, HELCO maintains that the PPA and Project are relevant to the considerations listed in HRS § 269-6(b), which require the commission to "explicitly consider, quantitatively or qualitatively, the effect of the State’s reliance on fossil fuels on price volatility, export of funds for fuel imports, fuel supply reliability risk, and greenhouse gas emissions." 80

HELCO further states that the Project will help to meet Hawaii’s energy policy objectives and Renewable Portfolio Standard (“RPS”) goals -- according to HELCO, the Project has the potential to contribute up to 7.4% of HELCO’s RPS in 2022.

79Application at 10 (citing HRS § 226-18(a)).

80Application at 11 (citing HRS § 269-6(b)).
The PPA incorporates the recently-developed Renewable Dispatchable Generation contracting mechanism that will improve on HELCO's ability to plan for this and subsequent renewable resources.\textsuperscript{81}

\section*{B. The Consumer Advocate}

The Consumer Advocate recommends approving HELCO's PPA-related requests, subject to certain conditions.\textsuperscript{82}

The Consumer Advocate notes the history behind the procurement of the PPA, including the RFP process established and conducted in Docket No. 2017-0352.\textsuperscript{83} While not appearing to object to the process itself, the Consumer Advocate does raise concerns over the fact that "all four developers associated with the seven projects with PPAs currently before the Commission\textsuperscript{84} are represented by the same counsel: Yamamoto Caliboso, a Limited Liability Law Company ('Yamamoto Caliboso')."\textsuperscript{85}

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\textsuperscript{81}Application at 3-4, 7-9.
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\textsuperscript{82}"[Consumer Advocate's] Statement of Position," filed March 6, 2019 ("Consumer Advocate SOP"), at 1.
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\textsuperscript{83}See Consumer Advocate SOP at 11-12, & Attachment 1.
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\textsuperscript{85}Consumer Advocate SOP at 12.
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The Consumer Advocate notes that the HECO Companies have stated that they "did not discuss concerns [with the IO] during the evaluation and selection process that multiple projects were represented by the same legal counsel[,]" but that "the issue was considered and discussed by the Company and the [IO] during contract negotiations."\(^{86}\) Additionally, after reviewing the IO's report on the procurement process, the Consumer Advocate observes that the IO "focus[ed] on whether the [HECO] Companies' evaluations were transparent and reasonable and done 'on a fair and consistent basis[,]'" and "do not appear to have raised any issues regarding the process or with the terms that were ultimately negotiated."\(^{87}\)

"As such, the Consumer Advocate notes that there is no evidence of collusion thus far between developers, that developers were required to agree to a 'Certificate of Non-Collusion acknowledgement,' and that the IOs did not identify terms that appeared unreasonable resulting from the PPA negotiations."\(^{88}\)

That being said, the Consumer Advocate is still "concerned that having one attorney lead negotiations for all four developers' PPAs gives rise to, at a minimum, the appearance of

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\(^{86}\)Consumer Advocate SOP at 14-15 (citing HELCO Response to CA/HELCO-IR-25.a, filed March 1, 2019).

\(^{87}\)Consumer Advocate SOP at 15.

\(^{88}\)Consumer Advocate SOP at 16-17.
impropriety[,]" and contends "that this issue should be addressed in future competitive procurements to mitigate the possibility of similar circumstances." 89

However, the Consumer Advocate recommends, subject to certain conditions, (1) approving the PPA between AES Waikoloa and HELCO, dated December 28, 2018; (2) finding that the purchased power arrangements in the PPA are reasonable; and (3) authorizing HELCO to include all non-energy payments made under the PPA, including the Lump Sum Payments and related revenue taxes, in HELCO's PPAC to the extent such costs are not included in HELCO's base rates. 90

With regard to price, the Consumer Advocate asserts that, "[n]otwithstanding that the selected projects were the result of an RFP process and that the prices do reflect a downward trend from PPA prices approved in the past," the information provided by AES Waikoloa was "inadequate to support a definitive determination as to whether the Lump Sum Payments appear reasonable . . . based on project costs." 91 According to the

89Consumer Advocate SOP at 16-17.
90Consumer Advocate SOP at 1-2, 29.
91Consumer Advocate SOP at 21-22. The Consumer Advocate notes that, at the time it filed its Statement of Position on March 6, 2019, instead of providing the native excel file of AES Waikoloa's pro forma, a PDF copy of the table was provided,
Consumer Advocate, "it is important to assess whether the selected projects reflect reasonable prices with reasonable returns instead of reflecting 'sticky' prices."  

However, the Consumer Advocate observes that the "nature of the projects" are such that "there is an upfront cost to build the project and little or no cost associated with the energy and other services to be delivered to the grid[,]" and states that the "fixed pricing" provided for in the PPA "significantly reduces price volatility, which can be detrimental to customers, especially those on a fixed income or with limited means to deal with volatility that . . . has been observed with fossil fuel prices." The Consumer Advocate also states that the commission "may still find the PPA pricing reasonable based on other measures such as projected system and bill savings, recent PV plus BESS project pricing, and national or regional cost studies."  

which did not allow the Consumer Advocate to view the calculations behind cells. Consumer Advocate’s SOP at 19-20. 

AES Waikoloa indicated it provided the Consumer Advocate with a copy of the native Excel file of the pro forma on March 7, 2019. See Letter from D. Morris to commission, filed March 11, 2019.

92 Consumer Advocate SOP at 21.

93 Consumer Advocate SOP at 23.

94 Consumer Advocate SOP at 22.
With regard to the terms and conditions of the PPA, the Consumer Advocate observed that the subject PPA "represents an evolution from earlier contracts," including those based on "seniority curtailment provisions," and "supports the underlying reasons why the proposed [Renewable Dispatchable Generation ("RDG")] PPA is being used for these contracts as it eliminates some of the terms and conditions that were not in the best interest of the public." 95

However, the Consumer Advocate observes that the duration of the PPA is "very long[,]" and "during times of declining price trends and improvements in technology," the Consumer Advocate asserts that "such long terms arguably stifle innovation" because, "as technology improves and prices decline, customers are not able to receive the benefits . . . if the utility is locked into long-term contracts for available capacity." 96 The Consumer Advocate also states that the nature of the PPA "represents a significant transference of risk to customers" because, "regardless of whether there is a need for a project’s capacity, customers will bear the cost of the project." 97

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95 Consumer Advocate SOP at 22-23.


97 Consumer Advocate SOP at 24.
Nonetheless, the Consumer Advocate states that, in its expedited review of the PPA, there do not appear to be any "‘fatal flaws[.]"\textsuperscript{98} The Consumer Advocate recognizes that the PPA "will also provide other benefits by contributing to the State’s goals of renewable energy, providing a contribution to the [RPS] as set forth by HRS § 269-92(a), lower fossil fuel usage, reduction in greenhouse gas[] (‘GHG’) emissions and a hedge to fossil fuel prices[.]"\textsuperscript{99}

The Consumer Advocate recommends the following conditions be included in any approval granted by the commission:

1. HELCO file copies of all invoices relating to the engineering, procurement, construction, and maintenance associated with the proposed PPA no later than sixty days after the Commercial Operations Date, as well as require HELCO to file AES Waikoloa’s income statements or results of operations related to the PPA;

2. To the extent additional information is necessary in connection with the above condition, the Consumer Advocate be allowed to issue IRs to AES Waikoloa as a participant in this proceeding;

3. As it relates to future procurement processes, bidders be required to file the pro forma information related to their

\textsuperscript{98}Consumer Advocate SOP at 25.

\textsuperscript{99}Consumer Advocate SOP at 26.
project in electronic format (i.e., Excel), in addition to copies of any supporting documentation to support its bid price;

4. The procurement process should be reviewed to examine and develop guidelines, as necessary, to mitigate concerns about multiple sellers using the same representative(s) in negotiations; and

5. Further considerations and discussions should be made in Phase 2 of the competitive procurement process, as discussed on pages 15 to 17 of Attachment 1 to the Consumer Advocate's SOP.100

With regard to whether the non-energy payments under the PPA should be included in the PPAC to the extent such costs are not included in base rates, the Consumer Advocate "does not object to the inclusion of the PPA payments in the Company's PPAC . . . as such costs are not included in another cost recovery mechanism" and it "appears reasonable that the PPAC be utilized to recover the costs associated with capacity payments of the proposed PPA[,] which [i]s its intended purpose."101

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100 Consumer Advocate SOP at 27-28.

101 Consumer Advocate SOP at 28.
Tawhiri

Tawhiri has an existing PPA with HELCO to provide HELCO with energy from its Pakini Nui Wind Farm ("Wind Farm") until April 2027.\textsuperscript{102} Tawhiri states that it filed its Motion to Intervene because, among other reasons, Tawhiri contends the Project may increase curtailment of its Wind Farm and, because it has invested "tens of millions of dollars in its Wind Farm and its interconnection to the HELCO system[,]" approval of the PPA "may adversely affect [Tawhiri's] property and financial interest[]."\textsuperscript{103}

The commission, through Order No. 36144, denied Tawhiri's request for intervenor status, but, on its own motion, granted Tawhiri participant status limited to "addressing potential curtailment to its existing units on HELCO's system as a result of the addition of the proposed project, as it relates to the commission's consideration of Issue 1.a (set forth in Order No. 36067)."\textsuperscript{104}

In its SOP, Tawhiri contends that the "guiding principle for acquiring new renewable resources need to be do no harm to

\textsuperscript{102}Tawhiri's Motion to Intervene at 3.

\textsuperscript{103}Tawhiri's Motion to Intervene at 3-4.

\textsuperscript{104}Order No. 36144 at 42.
existing facilities." In other words, Tawhiri "opposes the PPA application because it fears [the Project] will likely result in significant curtailment of it and other as-available wind energy facilities, which will prove to be imprudent and not in the public interest."  

To that end, Tawhiri recommends that the commission either deny the Application, or approve the Application with the condition that HELCO "will commit to refrain from curtailing as-available generation during oversupply conditions."  

In support of its recommendation, Tawhiri contends:

1. HELCO's claim that the proposed PPA is not expected to increase curtailment of existing renewable resources "is very troublesome";

2. HELCO stated it "did not perform any assessment of potential curtailment using modeling and simulation techniques";

3. Tawhiri has "faced on-peak curtailments because of system over-supply from the large influx of [Distributed Energy Resources ("DER")]] and without appropriate protections being put in place, looks to be further curtailed during daytime operations";

\[105\] "[Tawhiri's] Statement of Position," filed March 6, 2019, ("Tawhiri SOP") at 3 (emphasis omitted).

\[106\] Tawhiri SOP at 13.

\[107\] Tawhiri SOP at 13-14.
4. There is a "high probability of increased incidence of generation oversupply in the HELCO system triggered by the projects . . . and by other expected changes in the demand/supply balance in Hawai'i County"; and

5. HELCO has curtailed "Tawhiri's Pakini Nui wind farm early during its operation before these curtailment practices were curbed by the Commission as a consequence of the Reliability Standards Working Group."108

D.

AES Waikoloa

The commission, through Order No. 36144, granted AES Waikoloa's request to participate in this proceeding. In doing so, the commission found that AES Waikoloa's "first-hand information and knowledge regarding the Project and its history, as well as its community outreach efforts, may assist the commission in the development of a sound record as to Issue No. 1 (including all sub-parts) and Issue No. 3, as set forth in the Statement of Issues in Order No. 36067."109

In its SOP, AES Waikoloa recommends that the commission find that the purchased power arrangements under the PPA are

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108Tawhiri SOP at 4.

109Order No. 36144 at 18.
prudent and in the public interest "(especially when considering HRS § 269-6)," and that the purchased energy charges "based on the Energy Price to be paid by [HELCO] pursuant to the PPA are just and reasonable." 110 In support thereto, AES Waikoloa states:

1. The PPA was the result of arms-length negotiations between AES Waikoloa and HELCO from September through December 2018;

2. Besides offering a structure that allows for lower pricing and ultimately cost savings to ratepayers, the PPA also ensures that the ratepayer is not paying for services or capacity that it is not receiving;

3. The Unit Price of approximately $0.08 per kWh of NEP is fixed for the duration of the PPA, and is not only below the benchmark set by the commission, but also is among the lowest to date for renewable electricity in the State of Hawaii and significantly lower than the current cost of fossil fuel generation, which is about $0.15 per kWh;

110"[AES Waikoloa’s] Statement of Position; Affidavit of Woody Rubin; and Certificate of Service," filed March 8, 2019 ("AES Waikoloa SOP"), at 2. AES Waikoloa also asserts, "if necessary," that the commission find that the above-ground 69 kV line extension is in the public interest. Id.
4. The purchased energy charges were "prepared independently and without fraud or collusion with any other entity";

5. The Project’s BESS will allow the Project to store energy from the PV system that cannot be readily accepted by HELCO’s grid during peak solar production; and

6. The Project is well supported by the local community.¹¹¹

In response to the Consumer Advocate’s SOP, AES Waikoloa opposes the conditions requested by the Consumer Advocate because:

1. Many conditions “relate to matters beyond the scope of this proceeding”;

2. Requiring HELCO to file the requested information from AES Waikoloa would unreasonably compel AES Waikoloa to provide its confidential commercial and financial information to HELCO;

3. It is unclear for what purpose the Consumer Advocate seeks this information; and

4. If the commission imposes conditions requiring disclosure of the information sought by the Consumer Advocate, that AES Waikoloa be allowed to file information “directly to the Consumer Advocate on a confidential basis.”¹¹²

In response to Tawhiri's SOP:

¹¹¹AES Waikoloa SOP at 7-10.

¹¹²AES Waikoloa SOP at 12-13.
1. Based on HELCO's representation, AES Waikoloa states that the "Project will not have any curtailment impact on existing independent power producers given that the Project is fully dispatchable, has no minimum dispatch limit, and does not increase the regulating reserve down requirement";

2. As characterized by AES Waikoloa, Tawhiri's concern that the "economic incentives associated with the dispatchable PPA model will motivate [HELCO] to breach existing PPA obligations relating to curtailment[,]" amounts to speculation and is a misinterpretation of the nature of the dispatchable PPA. For example, the terms of the PPA provide HELCO with the "flexibility to dispatch the Project consistent with the needs of its system" and, as HELCO stated, "the minimum dispatch limit of the proposed project is zero"; and

3. This proceeding is not the "appropriate forum for Tawhiri to demand a modification to improve the terms of its existing agreement" with HELCO.113

113AES Waikoloa SOP at 15-17.
E.

HELCO Reply

In its Reply SOP, HELCO "generally agrees with the ... recommendations made by the Consumer Advocate in its SOP," "supports the SOP filed by [AES Waikoloa], to the extent [it] recommends approval of the PPA," and objects to Tawhiri's SOP.  

HELCO reiterates its request that the commission approve the PPA, find that it has met its burden of proof with regard to Issues 1 and 2, and find that HELCO's purchased power arrangements under the PPA are prudent and in the public interest.  

With regard to the Consumer Advocate’s SOP:

1. Insofar as the commission agrees with the Consumer Advocate’s recommended condition of approval by requiring HELCO to provide AES Waikoloa’s income statements or results of operations related to the proposed PPA, HELCO states that AES Waikoloa should be required to submit such information directly to the Consumer Advocate, inasmuch as AES Waikoloa maintains the requested information and may thus deem such information confidential;

2. HELCO agrees with the Consumer Advocate’s recommendation that, for future procurement processes, bidders be required to


115HELCO Reply SOP at 10-11.
file the pro forma information related to their project, in addition to copies of any supporting documentation to support its bid price; and

3. HELCO states "to mitigate concerns with the potential appearance of impropriety, the procurement process should be reviewed to examine and develop guidelines, as necessary, to mitigate these concerns related to potential unaffiliated sellers using the same representative(s) in negotiations."\(^{116}\)

4. In connection with pages 15 to 17 of Attachment 1 to the Consumer Advocate's SOP, HELCO states it "will further consider how different metrics are utilized in the evaluation process" during "Stage 2 of the RFP[.]"\(^{117}\)

With regard to Tawhiri's SOP, HELCO asserts:

1. Tawhiri "provides no legal, contractual or technical basis to support the efficacy of its position or its recommendation to the Commission other than its unsupported 'fear' that the proposed project could result in curtailment of its as-available wind energy facility";

2. Tawhiri's position is also erroneous because:

   A. Curtailments of existing as-available renewable resources are made in accordance with the terms of their respective

\(^{116}\)HELCO Reply SOP at 5.

\(^{117}\)HELCO Reply SOP at 6-8.
PPAs, and any approved RDG PPA will not affect the existing contractual rights of Tawhiri or any other independent power producer ("IPP");

B. Historical curtailments have been due to "excess energy conditions," and when such conditions exist, HELCO "follows its Excess Generation Curtailment Procedure[,]" as provided in Docket No. 2018-0368, in connection with its must-take facilities;\(^\text{118}\)

C. "If further reductions are necessary due to such excess energy conditions, the as-available facilities on [HELCO's] system are then curtailed in reverse chronological order (excluding small generation projects that are allowed to be installed without curtailment controls, e.g., photovoltaic net energy metering projects, certain feed-in tariff projects, etc.)"; and

3. Because the Project is fully dispatchable, has no minimum dispatch limit and does not increase the regulating reserve down requirement, HELCO states the Project's "output would be reduced in accordance with the present excess energy curtailment provisions for existing must-take, as-available IPP facilities." As such, HELCO states that the Project "would have no impact on the level of excess energy curtailment of existing IPPs."\(^\text{119}\)


\(^\text{119}\)HELCO Reply SOP at 9-10.
GENERAL REFERENCES

The rates payable by the public utility to the producer for the nonfossil fuel generated electricity shall be as agreed between the public utility and the supplier and as approved by the public utilities commission; provided that in the event the public utility and the supplier fail to reach an agreement for a rate, the rate shall be as prescribed by the public utilities commission according to the powers and procedures provided in this chapter.

The commission's determination of the just and reasonable rate shall be accomplished by establishing a methodology that removes or significantly reduces any linkage between the price of fossil fuels and the rate for the nonfossil fuel generated electricity to potentially enable utility customers to share in the benefits of fuel cost savings resulting from the use of nonfossil fuel generated electricity. As the commission deems appropriate, the just and reasonable rate for nonfossil fuel generated electricity supplied to the public utility by the producer may include mechanisms for reasonable and appropriate incremental adjustments, such as adjustments linked to consumer price indices or other acceptable adjustment mechanisms.
Additionally, HAR § 6-74-22(a) states that rates for purchases shall:

(1) Be just and reasonable to the electric consumer of the electric utility and in the public interest;

(2) Not discriminate against qualifying cogeneration and small power production facilities; and

(3) Be not less than one hundred per cent of avoided cost for energy and capacity purchases to be determined as provided in 6-74-23 from qualifying facilities and not less than the minimum purchase rate.

HAR § 6-74-15(b)(1) provides that HAR § 6-74-22 does not prohibit an electric utility or any qualifying facility from agreeing to a rate for any purchase, or terms or conditions relating to any purchase, which differ from the rate or terms or conditions which would otherwise be required by HAR § 6-74-22.

HRS § 269-6(b) further provides:

The public utilities commission shall consider the need to reduce the State's reliance on fossil fuels through energy efficiency and increased renewable energy generation in exercising its authority and duties under this chapter. In making determinations of the reasonableness of the costs of utility system capital improvements and operations, the commission shall explicitly consider, quantitatively or qualitatively, the effect of the State's reliance on fossil fuels on price volatility, export of funds for fuel imports, fuel supply reliability risk, and greenhouse gas emissions. The commission may determine that short-term costs or direct costs that are
higher than alternatives relying more heavily on fossil fuels are reasonable, considering the impacts resulting from the use of fossil fuels.

With regard to HELCO’s request to include all non-energy payments under the PPA through the PPAC, HAR § 6-60-6(2) states:

No changes in fuel and purchased energy costs may be included in the fuel adjustment clause unless the contracts or prices for the purchase of such fuel or energy have been previously approved or filed with the commission.

Additionally, HRS § 269-16.22 provides:

All power purchase costs, including costs related to capacity, operations and maintenance, and other costs that are incurred by an electric utility company, arising out of power purchase agreements that have been approved by the public utilities commission and are binding obligations on the electric utility company, shall be allowed to be recovered by the utility from the customer base of the electric utility company through one or more adjustable surcharges, which shall be established by the public utilities commission. The costs shall be allowed to be recovered if incurred as a result of such agreements unless, after review by the public utilities commission, any such costs are determined by the commission to have been incurred in bad faith, out of waste, out of an abuse of discretion, or in violation of law. For purposes of this section, an “electric utility company” means a public utility as defined under section 269-1, for the production, conveyance, transmission, delivery, or furnishing of electric power.
B. Procurement of the PPA

1. The PPA filed in this docket is the result of Phase 1 of the Hawaiian Electric Companies' competitive procurement process to acquire new, dispatchable and renewable energy resources for Oahu, Maui, and Hawaii Island, which is the subject of Docket No. 2017-0352.\(^{120}\) The commission stated its intent to ensure that each competitive bidding process is fair in its design and implementation so that selection is based on the merits; that projects selected through a competitive bidding process are consistent with the utility's PSIPs; that the utility's actions represent prudent practices; and that throughout the process, the utility's interests are aligned with the public interest\(^{121}\)

2. Moreover, the commission stated it "believes the overall RFP timeline should be accelerated to enable finalized PPAs to be submitted to the commission for approval by the end of 2018[,]" and this "accelerated timeline will allow the commission to review and approve PPAs in early 2019, providing the maximum

\(^{120}\)See generally In re Hawaiian Elec. Co., Inc., Docket No. 2017-0352.

amount of time for developers to safe harbor materials and receive available tax credits."

3. Notwithstanding the foregoing, the commission also said that, "[w]hile the existence of a competitive bidding process helps to provide assurances that a bid is selected ‘fairly,’ this does not act as a substitute for the commission’s, or the Consumer Advocate’s, independent review of the evidence in determining whether to approve, or recommend approval of, a proposed PPA."^{123}

4. In this proceeding, the Consumer Advocate expressed its concern "that all four developers associated with the seven projects with PPAs currently before the [c]ommission are represented by the same counsel: Yamamoto Caliboso, a Limited Liability Law Company."^{124} The Consumer Advocate is "concerned that having one attorney lead negotiations for all four developers’ PPAs gives rise to, at a minimum, the appearance of impropriety[,]" and "raises the question, ‘Would the terms have been more favorable

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^{123}Order No. 36171 at 10.

^{124}Consumer Advocate SOP at 12.
to consumers (rather than developers) if information regarding utility concessions had not been shared?"}'

5. However, the Consumer Advocate notes there "is no evidence of collusion thus far between developers, that developers were required to agree to a 'Certificate of Non-Collusion acknowledgment,'[] and that the [Independent Observers ("IOs")]] did not identify terms that appeared unreasonable resulting from the PPA negotiations." The Consumer Advocate also states it "will not object to the proposed PPA on the basis of the possible appearance of impropriety" due to the "potential savings from the proposed PPA" that "could yield benefits to consumers and further certain State goals[.]" The Consumer Advocate adds that this issue "should be addressed in future competitive procurements to mitigate the possibility of similar circumstances."

6. In response to the Consumer Advocate's concerns, AES Waikoloa asserts that the Consumer Advocate's suggestion of a possible appearance of impropriety is unsupported and unjustified. AES Waikoloa states it

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125Consumer Advocate SOP at 16-17.
126Consumer Advocate SOP at 16.
127Consumer Advocate SOP at 17.
128Consumer Advocate SOP at 17.
129AES Waikoloa SOP at 13.
did not engage any outside counsel in the preparation of its initial response to the RFP (including the submission of proposed contract terms, storage durations, and commercial operations dates), in its review of the form PPA during its initial evaluation of the RFP documents, in its preparation of the pricing it included in its initial response to the RFP response and best and final offer (BAFO), nor in any other aspect of its response to the RFP.

It was only after [AES Waikoloa] had been notified it was in the Final Award Group by the Company did [AES Waikoloa] engage outside counsel for the purpose of assisting [AES Waikoloa] in negotiating the PPA with the Company to ensure the commercial terms were fair, financeable, and would allow for a successful Project. Any concerns that Company has with respect to multiple bidders possibly utilizing the same legal counsel during their bid preparation are entirely unfounded and inaccurate with respect to [AES Waikoloa], given that [AES Waikoloa] did not engage outside counsel until well after [AES Waikoloa’s] initial response to the RFP and BAFO were submitted to the Company and after [AES Waikoloa] was notified by the Company, in accordance with RFP procedures, that it had been selected for the Final Award Group.130

7. With regard to the negotiations of the PPA, AES Waikoloa states it is “not aware of any concessions gained because other developers received such concessions” and, to the extent that other developers received similar guidance from outside counsel related to negotiation of the PPA, “such guidance was not the result of information sharing by [AES Waikoloa] or its counsel but rather the result of experienced counsel providing

130AES Waikoloa SOP at 13-14.
legal advice of the kind that should be expected by any developer counsel from an experienced law firm with respect to the negotiation of a power purchase agreement."  

AES Waikoloa further states that, although it retained outside counsel, AES Waikoloa was "very active in the negotiation process and corresponded directly with the Company's counsel and the business team on many outstanding issues."  

8. Attached to AES Waikoloa's SOP is a signed affidavit from Woody Rubin, President of AES Distributed Energy, Inc., that attests that, among other things, AES Distributed Energy, Inc. is the "parent" of AES Waikoloa, and "the factual statements and representations made [in its SOP] with respect to [AES Waikoloa] are true and accurate based on my present knowledge, information, and belief."  

9. HELCO states that, together with the IO, they "considered and discussed" the "issue" that "multiple projects were represented by the same legal counsel" "during contract negotiations."

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131AES Waikoloa SOP at 13-14.
132AES Waikoloa SOP at 14.
133AES Waikoloa at Affidavit of Woody Rubin.
134HELCO's Response to CA/HELCO-IR-25.a, filed March 1, 2019.
10. However, in its Reply SOP, HELCO states it "takes no position" as to AES Waikoloa's "other positions and arguments" (e.g., AES Waikoloa's response to the Consumer Advocate's suggestion of a possible appearance of impropriety), and states in response to the Consumer Advocate's suggested recommendation that the procurement process should be reviewed to examine and develop guidelines, as necessary, to mitigate concerns about sellers using the same representative(s) in negotiations:

The Consumer Advocate does not contend that the stated concerns actually affected the integrity of this current procurement process. As such, this appears to be a recommendation for prospective action and not any basis to deny approval of the present Application. Nevertheless, the Company agrees with the recommendation to consider process improvements and intends to specifically address these concerns in Stage 2 of the RFPs.135

11. The commission appreciates the Consumer Advocate's concern and acknowledges the accelerated procedural timeline established for this proceeding. For purposes of Phase 1 of the competitive procurement process and in light of the accelerated timeline established for this proceeding, the commission finds the statements made by AES Waikoloa in its SOP, which were attested to by Woody Rubin, President of AES Distributed Energy, Inc., through his signed affidavit attached to AES Waikoloa's SOP, provides

135HELCO Reply SOP at 2, 8.
assurance to the commission that the subject PPA was negotiated in good faith and without collusion.

12. Moreover, based on this record as reflected by the discussion below, the commission finds it does not appear that AES Waikoloa's choice of outside counsel had any adverse impact on the pricing terms of the PPA.

13. However, to the extent necessary, the commission may address issues relating to the appearance of impropriety during Phase 2 of the competitive procurement process in Docket No. 2017-0352.

C. Approving the PPA

1. Material PPA Terms and Conditions


1. Lump Sum Payment. As described above, the Lump Sum Payment is payable to AES Waikoloa on a monthly basis and calculated by multiplying the Unit Price by the NEP, which is then offset by liquidated damages, if applicable. The commission has recently reviewed and approved several power purchase agreements for PV paired with BESS systems and notices a declining trend in
contract pricing.\textsuperscript{136} In Docket No. 2017-0018, the commission approved a PV plus BESS power purchase agreement between Kauai Island Utility Cooperative ("KIUC") and AES Kekaha Solar, LLC with a contract price of $0.10850/kWh.\textsuperscript{137} The commission observes that, at approximately $0.08/kWh, the Unit Price is below the commission's most recent PV plus BESS PPA, and continues the declining pricing trend in procurement of utility-scale renewable generation.

2. Unit Price. The Unit Price is fixed over the entire term at $0.07945508 per kWh of NEP, or approximately $0.08 per kWh of NEP.\textsuperscript{138}

3. The commission finds that a fixed Unit Price throughout the PPA term is reasonable and in the public interest.

\textsuperscript{136}See In re Kauai Island Util. Coop., Docket No. 2017-0443, Decision and Order No. 35538, filed June 20, 2018 (approving contract price of $0.10850/kWh); In re Kauai Island Util. Coop., Docket No. 2017-0018, Decision and Order No. 34723, filed July 28, 2017 (approving contact price of $0.1108/kWh); and In re Kauai Island Util. Coop., Docket No. 2015-0331, Decision and Order No. 33557, filed February 26, 2016 (approving contract price of $0.145/kWh).

\textsuperscript{137}See Decision and Order No. 35538 at 9. The commission recognizes that the material terms of the PPA in this proceeding are not identical to those in Docket No. 2017-0443, or any of the other identified KIUC dockets. Nevertheless, the contract pricing in those dockets is demonstrative of the declining costs of utility-scale PV plus BESS technology and provides general market context for the PPA’s Unit Price of $0.08/kWh.

\textsuperscript{138}Application at 8, & Exhibit 1 at 5, 177.
because the fixed price provides more certainty and comparatively less price volatility to fossil fuel prices.\textsuperscript{139}

4. **NEP.** The NEP is defined by the PPA as:

The estimated single number with a P-Value of 95 for the annual Net Energy that could be produced by the Facility based on the estimated long-term monthly and annual total of such production over a ten-year period. The Net Energy Potential is subject to adjustment . . . , but in no circumstances shall the Net Energy Potential exceed the NEP RFP Projection.\textsuperscript{140}

5. In its RFP, AES Waikoloa projected that the Project would have a NEP of 81,406 MWh per year.\textsuperscript{141}

6. Based on the above, the commission finds that, although the NEP will be adjusted at certain intervals specified by the PPA, the NEP is reasonable and in the public interest because the PPA caps the NEP at the amount specified by the AES Waikoloa RFP, or at 81,406 MWh per year, and thus provides a

\textsuperscript{139}See HRS § 269-6(b); HELCO's Response to PUC-HELCO-IR-11, filed March 7, 2019 (describing the fluctuations in diesel fuel prices over the past ten years).

\textsuperscript{140}Application, Exhibit 1 at 163 (emphasis added). "Net Energy" is further defined as the "total quantity of electric energy (measured in kilowatt hours) produced by the Facility over a given time period and delivered to the Point of Interconnection, as measured by the revenue meter. 'Net Energy' the equivalent of 'Actual Output.'" Id.

\textsuperscript{141}Application at 2, & Exhibit 1 at 337.
cap to the NEP portion of the Lump Sum Payment specified by the PPA.\textsuperscript{142}

7. As such, based on the publicly-available information in the Application, the commission finds that the maximum Lump Sum Payment under the PPA is $6,468,120 per year, or $539,010 per month.\textsuperscript{143}

8. Together with the fixed Unit Price, the commission further finds that the Lump Sum Payment is reasonable and in the public interest, in part, because placing a maximum amount payable on the Lump Sum Payment provides more certainty and comparatively less price volatility to fossil fuel prices.\textsuperscript{144}

9. Moreover, it is anticipated that a HELCO ratepayer using 500 kWh per month will save an estimated $6.91 on electricity payments in 2022, $3.34 in 2031, and $11.21 in 2046,\textsuperscript{145} and, according to HELCO, the net present value of the savings for the Project is $121,331,975.\textsuperscript{146}

\begin{itemize}
  \item \textsuperscript{142}See HRS § 269-6(b).
  \item \textsuperscript{143}Expressed as a mathematical equation: ($0.07945508 \text{ per kWh} \times 1,000) \times 81,406 \text{ MWh per year} = $6,468,120 \text{ per year.} \quad $6,468,120 \text{ per year/12 months} = $539,010 \text{ per month.}$
  \item \textsuperscript{144}See HRS § 269-6(b).
  \item \textsuperscript{145}Consumer Advocate SOP, Attachment 2 at 5.
  \item \textsuperscript{146}Application, Exhibit 3 at 4 & Attachment 2.
\end{itemize}
10. **Liquidated damages.** As stated above, liquidated damages have the potential to reduce the Lump Sum Payment to zero if the Project is completely unavailable or if the Project is available but underperforming in other aspects as measured by the Performance Metrics.

11. These Performance Metrics include (a) the EAF Performance Metric, which is used to evaluate the availability of the PV System for dispatch by HELCO, (b) the GPR Performance Metric, which is used to evaluate the efficiency of the PV system, (c) the BESS Capacity Performance Metric, which is used to confirm the capability of the BESS to discharge as required by the terms of the PPA, (d) the BESS EAF Performance Metric, which is used to determine whether the BESS is meeting its expected availability, and (e) the BESS EFOF Performance Metric, which is used to evaluate whether the BESS is experiencing excessive unplanned outages.\(^\text{147}\)

The commission finds that the liquidated damages provision is reasonable in that it will ensure that the Project will deliver the value it purports to deliver to ratepayers.

\(^{147}\)Application, Exhibit 1 at 9 & Exhibit 4 at 5-6.
b.

Nature of the PPA

1. Again, pursuant to the terms of the PPA, HELCO is agreeing to pay AES Waikoloa a monthly Lump Sum Payment in exchange for "the right to dispatch, subject to Renewable Resource Variability, the [Project's NEP]."\(^{146}\)

2. The Project is fully dispatchable and does not have a minimum dispatch limit.\(^{149}\)

3. As such, although subject to Force Majeure adjustments\(^{150}\) and offset by liquidated damages, the monthly Lump Sum Payment must be paid to AES Waikoloa regardless if the Project is dispatched at all or in part due to excess capacity.\(^{151}\)

4. However, the commission finds that having additional capacity is beneficial because the additional capacity increases HELCO's system reliability and grid stability in the event, for example, of an unforeseen shutdown of one or more other units on HELCO's system.

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\(^{146}\) Application at 2 & Exhibit 1 at 336 (emphasis added).

\(^{149}\) HELCO Response to Tawhiri/HELCO-IR-1.A, filed February 20, 2019.

\(^{150}\) Force Majeure is discussed in Article 21 of the PPA, which begins at Application, Exhibit 1 at 104.

\(^{151}\) See Application at 2 & Exhibit 1 at 336; HELCO Response to Tawhiri/HELCO-IR-1.A, filed February 20, 2019.
5. Nonetheless, the commission agrees with the Consumer Advocate that the nature of the PPA places risk on HELCO's ratepayers because HELCO's ratepayers may be paying for unused capacity during periods of time throughout the PPA's term. To that end, the commission agrees with the Consumer Advocate's suggestion that HELCO should be "ready to show that resources are being used to maximize the customers' benefit and not result in adverse impacts including, but not limited to, underutilized or excess capacity resources."\(^{152}\)

6. As such, although the commission finds that the nature of the PPA is reasonable and in the public interest when balanced against other pricing terms of the PPA, as discussed above, and considerations of grid stability and increased system reliability, the commission finds it reasonable and in the public interest to require HELCO to report on Project operations for purposes of accountability, to inform other projects, and to inform related dockets.\(^{153}\) The reporting requirements are as follows:

(a) **Monthly reporting.** Beginning with the first full calendar month following the in-service date of the Project, HELCO

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\(^{152}\)Consumer Advocate SOP at 26.

\(^{153}\)See *In re Hawaiian Elec. Co., Inc.*, Docket No. 2017-0213, Decision and Order No. 35556, filed June 27, 2018, at 63-64.
shall file hourly commitment, dispatch, and curtailment data for the Project and all other HELCO and IPP units on the system.

(b) The above-described monthly report shall be filed in Docket No. 2011-0206, and may be consolidated with other curtailment reports therein. ¹⁵⁴

7. The commission finds that the above-reporting requirements represent a step toward increasing transparency in the use of HELCO's renewable resources for the benefit of its customers. Additional reporting requirements may be required in other docket to the extent the commission finds them to be reasonable and in the public interest.

c.

PPA Duration

1. Again, the subject PPA is for a duration of twenty-five (25) years following the "Commercial Operations Date." ¹⁵⁵

2. The Consumer Advocate notes that the PPA is for a "very long term[ ]" and, "during times of declining price trends and improvements in technology, such long terms arguably stifle

¹⁵⁴HECO shall work with commission staff to ensure the content of the monthly reports is consistent with this Decision and Order and adequately provides the transparency required herein.

¹⁵⁵Application, Exhibit 1 at 67.
innovation" because, if HELCO's system capacity is already met with "long-term contracts," HELCO's ratepayers will not be able to receive the benefits of "such market improvements[.]")

3. However, as the Consumer Advocate also notes, the IOs in Docket No. 2017-0352 concluded that the non-price terms of the PPA are "reasonable" and the negotiation of the PPAs was "performed on a fair and consistent basis among the Finalists."

4. Moreover, the PPA duration should not be viewed in isolation from the rest of the terms of the PPA. Most notably, as discussed above, the Lump Sum Payment is capped pursuant to the terms of the PPA, the Performance Metrics could offset the amount of the Lump Sum Payment, a HELCO ratepayer using 500 kWh per month is projected to save money on electric bills over the Project's duration, and the net present value of the savings resulting from the Project is positive.

5. The commission thus finds that the subject PPA overall represents a significant step not only towards Hawaii's renewable energy goals consistent with HRS §§ 269-6 and 269-92 (RPS), but also towards lower energy prices.

156Consumer Advocate SOP at 23-24.

157Consumer Advocate SOP at 24-25.
6. As such, subject to the reporting requirements set forth above, in Section III.C.1.b, the commission finds that the term of the PPA is reasonable and in the public interest.

d.

Curtailment

1. In response to Tawhiri's IRs, HELCO states that curtailment of existing as-available renewable resources are made in accordance with the terms of their respective PPAs. The majority of historical curtailments were made due to excess energy conditions, and others were made due to locational or project-specific conditions that required reduction of the specific facility and are not dependent on other resources.  

2. HELCO further states that the Project will not have any impact on the "level of excess energy curtailment of existing [IPPs]" because the Project is "fully dispatchable, has no minimum dispatch limit and does not increase the regulating reserve down requirement." As such, the Project's "output would be reduced in accordance with the present excess energy


curtailment provisions for existing must-take, as-available [IPP] facilities.\textsuperscript{160}

3. To that end, HELCO's Application states that the Project is not expected to increase curtailment of existing as-available renewable resources or impede consideration of additional renewable resources on HELCO's system.\textsuperscript{161}

4. HELCO states that, to the extent that an excess energy condition exists, the "inability of [HELCO] to dispatch [AES Waikoloa's] facility . . . would not 'count against' [AES Waikoloa] 'for purposes of calculating the project's PV system availability."\textsuperscript{162}

5. However, HELCO states that there "could conceivably be circumstances that would require acceptance of energy" from the Project that might require curtailment of must-take-as-available generation. For example, HELCO states there might be a need to operate the Project "near maximum output for purposes of testing, during which time the Tawhiri project may need to be curtailed to

\textsuperscript{160} HELCO Response to Tawhiri/HELCO-IR-2.C, filed February 20, 2019.

\textsuperscript{161} Application at 3.

\textsuperscript{162} HELCO Response to Tawhiri/HELCO-IR-2.C, filed February 20, 2019.
accept the generation from AES Waikoloa." HELCO states that this action would be in accordance with its agreement with Tawhiri.

6. In Docket No. 04-0346, the commission recognized that the PPA between Tawhiri and HELCO allowed HELCO to curtail Tawhiri's wind farm because of, among other reasons, seniority curtailment; or, "to the extent possible in reverse chronological order of the chronological seniority dates determined by [HELCO] for the [applicable power purchase] contracts, with deliveries under the contract with the most recent chronological seniority date being the first curtailed, and deliveries under the contract with the earliest chronological seniority date being the last curtailed." 

7. The Consumer Advocate supports the subject PPA because the PPA "represents an evolution from earlier contracts[.]" For example, the Consumer Advocate states that

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165 In re Hawaii Elec. Light Co., Inc., Docket No. 04-0346, Decision and Order No. 21693, filed March 10, 2005, at 11. By letter filed July 24, 2006, in Docket No. 04-0346, the commission was informed that Tawhiri, as a wholly-owned subsidiary of Apollo Energy Corporation, was assigned the rights, interests, and obligations under the PPA between HELCO and Apollo Energy Corporation.
"seniority curtailment, which offered developers some certainty about where their project stood in the likely dispatch queue only served to place ever increasing curtailment risk to new projects[,]" and that "increasing risk ostensibly served to stifle innovation and new projects even while there was [sic] declining price trends and improvements in renewable energy technology since developers would be hesitant to enter into a contract with uncertainty surrounding the amount of energy that would be purchased on a regular basis."166

8. HELCO similarly states that its "previous as-available [PPAs] required that the energy produced by the associated facility be accepted by [HELCO] based on the seniority of the project[,]" which not only "limited the contribution that as-available resources could provide in relation to grid operations[,]" but also "hindered [HELCO's] ability to plan effectively for future renewable energy opportunities."167

9. Although the commission appreciates Tawhiri's concern about Wind Farm curtailment due to the subject PPA, the commission finds, based on this record, that the subject PPA between HELCO and AES Waikoloa will not result in curtailment that is inconsistent with HELCO's obligations under its existing PPAs.

166Consumer Advocate SOP at 22-23.

167Application, Exhibit 4 at 1.
10. However, in Decision and Order No. 30088, filed in Docket No. 2011-0040 on December 30, 2011, the commission stated with regard to the Puna Geothermal Venture ("PGV") plant that it "expects HELCO to make every effort to ensure that the PGV Expansion Project, which is firm, dispatchable renewable power, will offset fossil fuel generation as opposed to any renewable facilities."\(^{168}\) The commission further stated that it "expects that any contractual commitment by HELCO to purchase an annual minimum quantity of on-peak energy from the Expansion Project . . . would be fulfilled by displacing fossil generation, not existing renewable energy."\(^{169}\)

11. HELCO's Application filed in this docket similarly states:

A. "The Project will help [HELCO] meet the State's energy policy goals by reducing [HELCO's] reliance on fossil fuels and implementing renewable energy resources."\(^ {170}\)

B. "Accordingly, [c]ommission approval of the PPA for the Project: . . . (3) advances the need to reduce the State's

\(^{168}\)In re Hawaii Elec. Light Co., Inc., Docket No. 2011-0040, Decision and Order No. 30088, filed December 30, 2011 ("Decision and Order No. 30088"), at 42.

\(^{169}\)Decision and Order No. 30088 at 42.

\(^{170}\)Application at 10.
reliance on fossil fuels and the reduction of GHG emissions as articulated in HRS § 269-6(b)[]171

C. HELCO anticipates it will dispatch the BESS of the Project to, among other things, “offset night-time fossil fuel generation[].”172

D. “The projects sought through this RFP will assist the Company in continuing to transform the Companies’ power supply portfolio from fossil fuel-based generation to renewable-based generation with lower costs for customers.”173

E. “Reducing generation dependent on fossil fuels is one way to buffer customers from the volatility of fuel prices.”174

12. The Consumer Advocate similarly recognized that one of the Project’s benefits will be “lower fossil fuel usage[].”175

13. AES Waikoloa states the Project “will help to reduce the State’s reliance on fossil fuels[].”176

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171Application at 12.
172Application at 15.
173Application, Exhibit 2 at 2-3.
174Application, Exhibit 3 at 4.
175Consumer Advocate SOP at 26.
176AES Waikoloa SOP at 10.
14. As such, based on this record, Decision and Order No. 30088, and HRS § 269-6(b), to the extent curtailment occurs due to, for example, HELCO's need to operate the Project near maximum output for purposes of testing:

A. The commission continues to expect that HELCO's curtailment of fossil fuel generation will occur before curtailment of must-take, as-available renewable resources, including Tawhiri's Wind Farm, to the extent possible;\(^{177}\) and

B. The commission finds that the reporting requirement described above, in Section III.C.1.b, provides the commission and the must-take, as-available renewable resource facilities (including Tawhiri) with assurances by providing transparency and accountability for HELCO's dispatch decisions. If the commission determines that renewable facilities are experiencing significant curtailments as a result of the Project, the commission may investigate this issue as warranted.

\(^{177}\)See HRS § 269-6(b); Decision and Order No. 30088 at 42.
e. Land Use

1. According to HELCO, the Project will be located on approximately 300 acres of agricultural land classified with soil rating D and E near Waikoloa Village.178

2. AES Waikoloa further describes the Project site as "zoned agricultural but [with] very poor soil conditions making [the Project] an ideal alternative use of the land."179

3. Although AES Waikoloa has not yet obtained any permits or approvals, the commission is encouraged by AES Waikoloa's efforts in identifying those government permits or approvals it needs to construct the Project, and the timeline by which it expects these permits or approvals to be completed (i.e., by 2019 or 2020).180

4. However, AES Waikoloa states that, if it is "unable to procure the required permit within the anticipated timeline," this may affect AES Waikoloa's ability to meet certain Guaranteed Project Milestones under the PPA.181

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178Application at 14.

179Application, Exhibit 8 at 4.


5. Indeed, the PPA requires AES Waikoloa to "obtain all Governmental Approvals necessary for construction of the Facility prior to commencement of the construction activity for which such Governmental Approval [is] required[,]" and "[n]o later than the Commercial Operations Date." AES Waikoloa "shall obtain all other Governmental Approvals necessary for the ownership, operation and maintenance of the Facility and shall satisfy any condition or requirement set forth in any such Governmental Approvals for the ownership, operation and maintenance of the Facility (excluding on-going reporting or monitoring requirements that may continue beyond the Commercial Operations Date in accordance with such Governmental Approval)."¹⁸²

6. Pursuant to the PPA, AES Waikoloa will be required to pay "Daily Delay Damages" to HELCO if a Guaranteed Project Milestone has not been timely achieved by AES Waikoloa.¹⁸³

7. If AES Waikoloa is unable to achieve the Commercial Operations Date Milestone by the Guaranteed Commercial Operations Date as extended by the PPA, "in addition to any delay damages collected pursuant to Section 13.4(a)(1) [of the PPA]," AES Waikoloa "shall pay daily delay damages following the

¹⁸²Application, Exhibit 1 at 65.

¹⁸³Application, Exhibit 1 at 74-76; AES Waikoloa's Response to PUC-AES Waikoloa-IR-04, filed February 25, 2019.
Guaranteed Commercial Operations Date, as such date may be extended by Section 13.3[.].”

8. As such, the commission finds that the PPA contemplates situations where “Daily Delay Damages” will be paid from AES Waikoloa to HELCO prior to the Commercial Operations Date.

9. According to the PPA, the Lump Sum Payment commences on the Commercial Operations Date, and further states that HELCO “shall not, and shall not be obligated to, make any payment for the availability of the Facility prior to the Commercial Operations Date.”

10. Based on the PPA and AES Waikoloa’s response to PUC-AES Waikoloa-IR-04, filed February 25, 2019, the commission

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184AES Waikoloa’s Response to PUC-AES Waikoloa-IR-04, filed February 25, 2019. HELCO states that, in Stage 1 of its competitive procurement process, “Proposals were required to have Guaranteed Commercial Operations Dates no later than December 31, 2022, with the intent that selected Projects would take advantage of the 2019 Investment Tax Credit[.]” Application, Exhibit 2 at 3.

185See Application, Exhibit 1 at 74-76; AES Waikoloa’s Response to PUC-AES Waikoloa-IR-04, filed February 25, 2019.

186Application, Exhibit 1 at 8.

187Application, Exhibit 1 at 38.
finds that "Daily Delay Damages" could be paid from AES Waikoloa to HELCO prior to the commencement of the Lump Sum Payment.\textsuperscript{188}

11. Because the Lump Sum Payment will not be made prior to the Commercial Operations Date, the commission further finds that the "Daily Delay Damages" would not be offset by HELCO's Lump Sum Payment to AES Waikoloa prior to the Commercial Operations Date.\textsuperscript{189}

12. According to the PPA, "Daily Delay Damages" are payable on a monthly basis from the "Development Period Security." If the "Development Period Security" is at any time insufficient to pay the amount of "Daily Delay Damages" owed, then AES Waikoloa is required to "pay any such deficiency to [HELCO] upon demand."\textsuperscript{190}

13. The "Development Period Security" is intended to "guarantee undertaking of [AES Waikoloa's] obligations under the [PPA] for the period prior to the Commercial Operations Date (including but not limited to [AES Waikoloa's] obligation to meet the Guaranteed Commercial Operations Date)]."\textsuperscript{191}

\textsuperscript{188}See Application, Exhibit 1 at 74-76; AES Waikoloa's Response to PUC-AES Waikoloa-IR-04, filed February 25, 2019.

\textsuperscript{189}See Application, Exhibit 1 at 74-76; AES Waikoloa's Response to PUC-AES Waikoloa-IR-04, filed February 25, 2019.

\textsuperscript{190}Application, Exhibit 1 at 76.

\textsuperscript{191}Application, Exhibit 1 at 79.
14. As such, to the extent that "Daily Delay Damages" are paid to HELCO prior to commencement of the Lump Sum Payment, HELCO shall credit the amount of the "Daily Delay Damages" received to its ratepayers through the PPAC.

2. Community Outreach

1. Pursuant to the PPA, AES Waikoloa was required to conduct a public meeting in the community where the Project is to be located, with the intent of the meeting to gather stakeholders and other interested parties to inform the community about the Project and to allow for community concerns and questions to be raised.\textsuperscript{192} Exhibit 8 of the Application contains a summary of AES Waikoloa's community outreach efforts and public comments it received as of the time the Application was filed.\textsuperscript{193}

2. Exhibit 8 of the Application states: "If the project receives preliminary approval from the Public Utilities Commission, AES has indicated a strong commitment to continuing outreach efforts to address potential concerns and raise awareness about the benefits of the project."\textsuperscript{194}

\textsuperscript{192}Application at 18.

\textsuperscript{193}Application at 18 & Exhibit 8.

\textsuperscript{194}Application, Exhibit 8 at 9.
3. To that end, in response to PUC-AES Waikoloa-IR-03, filed February 19, 2019, AES Waikoloa stated that, although it "does not have anything concrete planned yet," it "anticipates additional community outreach efforts with some or all of the following": (a) Waikoloa Village Community Association; (b) Waikoloa Village Outdoor Circle; (c) South Kohala Hawaiian Civic Club; (d) Waimea Hawaiian Civic Club; (e) Kona-Kohala Chamber of Commerce; (f) NELHA; (g) Friends of NELHA; (h) Hawaii Island Economic Development Board; and (i) Hawaii Leeward Planning Conference.

3. Conditions to Approval

1. To reiterate, the commission finds it reasonable and in the public interest to require HELCO to report on Project operations for purposes of accountability, to inform other projects, and to inform related docket. The reporting requirements are as follows:

(a) Monthly reporting. Beginning with the first full calendar month following the in-service date of the Project, HELCO

shall file hourly commitment, dispatch, and curtailment data for the Project and all other HELCO and IPP units on the system.

(b) The above-described monthly report shall be filed in Docket No. 2011-0206, and may be consolidated with other curtailment reports therein.

2. The commission continues to expect that HELCO's curtailment of fossil fuel generation will occur before curtailment of must-take, as-available renewable resources.196

3. Regarding the Consumer Advocate's proposed conditions, the commission finds as follows:

requiring HELCO to file invoices related to the Project and AES Waikoloa's income statements or results of operations related to the PPA. The Consumer Advocate has proposed a similar condition in prior proceedings involving renewable PPAs.197 In support of its proposal in this proceeding, the Consumer Advocate states that it will allow the Consumer Advocate "to evaluate the comparability of the Project's actual results to the pro forma information consistent with prior Commission

196See HRS § 269-6(b); Decision and Order No. 30088 at 42.

decision and orders (e.g., Decision and Order No. 33541, filed on February 19, 2016, in Docket No. 2015-0224)."\(^{198}\)

While recognizing the Consumer Advocate's concerns, the commission also observes that the circumstances present in this, and the other related RDG PPA proceedings, are distinguishable from Docket No. 2015-0224 and similar dockets. First, in Docket No. 2015-0224, in support of its recommended condition, the Consumer Advocate referenced its concerns regarding the PPA's potential curtailment of renewable resources, such as the seniority curtailment provision.\(^{199}\) To the extent this underlies the Consumer Advocate's proposal in this docket, the commission notes that the new RDG PPA model does not contain a curtailment seniority provision, nor is it expected to impact curtailment of existing renewable IPPs.\(^{200}\)

Second, to the extent the Consumer Advocate desires such information to retroactively evaluate the reasonableness of

\(^{198}\)Consumer Advocate SOP at 27.


\(^{200}\)In this regard, the Consumer Advocate has acknowledged that this RDG PPA "represents an evolution from earlier contracts, such as those that contained seniority curtailment provisions, evergreen terms, and RAP pricing, . . . . [and] supports the underlying reasons why the proposed RDG PPA is being used for these contracts as it eliminates some of the terms and conditions that were not in the best interest of the public." Consumer Advocate SOP at 22-23.
AES Waikoloa's pro forma estimates, the commission observes that the nature of this procurement process has provided a number of safeguards that were not present in prior renewable PPA proceedings. For example, unlike Docket No. 2015-0224, in which a single IPP, Kuia Solar, LLC, negotiated a PPA with Maui Electric Company, Limited in isolation, the PPA with AES Waikoloa is the result of the RFP process. The RFP process itself was the subject of Docket No. 2017-0352, and was carefully reviewed and vetted by the commission and stakeholders. Additionally, unlike prior PPA negotiations that occurred in isolation, the RFP process evaluated multiple bidders concurrently, which added a competitive element to the process, providing further reassurance as to the reasonableness of bid amounts. Furthermore, the RFP process was overseen by an IO, which concluded that there was no evidence of collusion and that the PPA terms appeared reasonable.\textsuperscript{201}

Finally, the Project's costs are not the only consideration in evaluating the reasonableness of the PPA. As discussed above, the Project is expected to provide numerous benefits to HELCO's customers, including monthly bill savings, less fossil fuel consumption, reduced GHG emissions, and grid stabilizing services. Upon considering the record as a whole, the commission is not persuaded that the disclosure of the Project

\textsuperscript{201}See Consumer Advocate SOP at 16-17.
invoices and AES Waikoloa's income statements, which AES Waikoloa has characterized as highly confidential and sensitive information,\textsuperscript{202} is warranted under these circumstances and, therefore, declines to adopt the Consumer Advocate's proposed condition.

Requiring bidders to file pro forma information in future procurement processes. AES Waikoloa does not appear to oppose this condition and HELCO agrees that such information would "be[] beneficial to the [procurement] process and allow[] for a more informed evaluation of developers' projects."\textsuperscript{203}

The commission observes that this proposal is prospective in nature and does not pertain to the Consumer Advocate's finding of overall reasonableness regarding the subject PPA. Accordingly, the commission declines to adopt this as a specific condition of approval to the PPA. However, to the extent the Consumer Advocate wishes to raise this issue further in Phase 2 of the RFP docket, the Consumer Advocate may do so in Docket No. 2017-0352.

Relatedly, on the issue of submitting pro forma information, the commission notes that in this proceeding,

\textsuperscript{202}AES Waikoloa SOP at 12.

\textsuperscript{203}HELCO Reply SOP at 6.
AES Waikoloa was reluctant to provide its pro forma information when requested by the Consumer Advocate and required an order to compel from the commission to produce this information to the Consumer Advocate.\textsuperscript{204} Furthermore, even after being compelled to produce this information, AES Waikoloa provided it in an inaccessible, .pdf format, which limited the Consumer Advocate's ability to utilize this information.\textsuperscript{205} While the reasons for AES Waikoloa's conduct are unknown, they appear inconsistent with AES Waikoloa's earlier representations that it would provide "specialized, historical knowledge of the Project," and "not broaden the issues or delay the proceeding."\textsuperscript{206} Going forward, the commission emphasizes that such information should be timely provided so as to avoid the need for commission intervention and delays in proceedings.

Development of guidelines for the procurement process to mitigate concerns related to potential unaffiliated sellers using the same representative(s) in negotiations. HELCO agrees with this proposal and AES Waikoloa does not raise any objection. The commission observes that this appears to be a generalized proposal to improve the procurement process, rather than a specific proposed

\begin{footnotes}
\item[204]See Order No. 36168.
\item[205]See Consumer Advocate SOP at 19-20.
\item[206]AES Waikoloa Motion at 5-7.
\end{footnotes}
condition. The commission is open to suggestions to improve the procurement process and agrees, in principle, to review this issue in Phase 2 of the RFP docket.

The Consumer Advocate's conditions proposed in pages 15 and 17 of Attachment 1 to its Statement of Position. With regard to the Consumer Advocate's suggested condition on pages 15 through 17 of Attachment 1 to its Statement of Position, the commission observes that HELCO does not object to the condition, instead stating: "In Stage 2 of the RFPs, the Company will further consider how different metrics are utilized in the evaluation process." Likewise, AES Waikoloa does not lodge any objections. As stated above, the commission is supportive of efforts to improve the procurement process and will be open to suggestions in Phase 2 of the RFP docket.

D.

Recovery of PPA-Related Non-Energy Payments Through the PPAC

1. Given the commission's overall approval of the PPA, the commission likewise approves HELCO's request to recover the non-energy payments under the PPA, including the Lump Sum Payment (as defined in the PPA) and related revenue taxes through the PPAC, to the extent such costs are not included in base rates. This

207HELCO Reply SOP at 8.
decision is consistent with HAR § 6-60-6(2), which authorizes the pass through of purchased energy charges through an electric utility's PPAC; and with HRS § 269-16.22, which states that a utility "shall be allowed" to "recover[] ... from its customer base" and "through one or more adjustable surcharges ... established by the ... commission[,]" "[a]ll power purchase costs ... arising out of [PPAs] that have been approved by the ... commission and are binding obligations on the electric utility company."\textsuperscript{208}

2. However, the commission conditions approval of recovery of the non-energy payments under the PPA through the PPAC, as follows:

A. As discussed above, in Section.III.C.1.e, to the extent Daily Delay Damages, Termination Damages, or other revenues or benefits are paid to HELCO, such revenues or benefits paid to HELCO shall be returned to HELCO's ratepayers through the PPAC; and

B. Recovery of the Lump Sum Payment through the PPAC shall be limited to the Lump Sum Payment net of Force Majeure adjustments or any offset due to liquidated damages.

\textsuperscript{208}The PPAC was approved by the commission in Decision and Order No. 30168, filed in Docket No. 2009-0164 on February 8, 2012.
E.

Hawaii's Energy Policy Statutes

1. The State of Hawaii has expressed several energy policies requiring and/or encouraging reduction in the utilization of fossil fuels in statutes that directly pertain to the regulation of public utilities. These statutes include standards requiring minimum reductions in electric energy consumption through energy efficiency measures by specific dates; standards requiring minimum percentages of renewable energy generation by specific dates; provisions requiring preference for utility utilization and dispatch of renewable generation resources; provisions requiring consideration of factors related to impacts of fossil fuel use in the regulation of public utilities; and provisions that require consideration of specific resources and/or regulatory mechanisms.

2. In particular, HRS § 269-6(b) provides, in relevant part:

   The public utilities commission shall consider the need to reduce the State's

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209 See, e.g., HRS § 269-96.

210 See, e.g., HRS §§ 269-91 to -95.

211 See, e.g., HRS § 269-27.2.

212 See, e.g., HRS § 269-6(b).

213 See, e.g., HRS §§ 269-16.1 269-146, 269-147, 269-148, & 269-149.
reliance on fossil fuels through energy efficiency and increased renewable energy generation in exercising its authority and duties under this chapter. In making determinations of the reasonableness of the costs of utility system capital improvements and operations, the commission shall explicitly consider, quantitatively or qualitatively, the effect of the State's reliance on fossil fuels on price volatility, export of funds for fuel imports, fuel supply reliability risk, and greenhouse gas emissions.

3. As discussed above, the subject PPA is the result of Phase 1 of the Hawaiian Electric Companies' competitive procurement process to acquire new, dispatchable and renewable energy resources for Oahu, Maui, and Hawaii Island. According to HELCO and as discussed above in Section III.C.1.a, the Project will provide a hedge against fossil fuel price volatility, which has fluctuated in the past ten years from $58 per barrel of diesel fuel to approximately $161 per barrel of diesel fuel, inasmuch as "the fixed pricing structure attributable to the Project . . . isolates customers from being impacted by future fuel price fluctuations."214

4. HELCO further states that, with regard to export of funds for fuel imports, as described in HRS § 269-6(b), "the quantity of fuel consumed is forecasted to be lower with the

addition of the Project."\textsuperscript{215} As such, the amount of funds that would have been spent on fuel imports will correspondingly decrease,\textsuperscript{216} and fuel supply reliability risk will be reduced due to the "likely decline" of overall fuel supply requirements as a result of the "transition to a 100% renewable future."\textsuperscript{217}

5. More specifically, HELCO anticipates that, over the course of the Project's term of twenty-five years, the Project will result in a total avoided fuel consumption of 511,086 barrels of diesel, ultra-low sulfur diesel, biodiesel, and Naptha,\textsuperscript{218} as well as a reduction of a total 185,258 short tons of greenhouse gas emissions.\textsuperscript{219}

6. Moreover, HELCO states that the Project has the potential to contribute up to 7.4% of HELCO's RPS in 2022, with an average RPS impact of 7.1% between 2022 and 2045.\textsuperscript{220}

7. No Party or Participant disputes HELCO's statements about the Project's impact on fuel price volatility, fuel supply

\textsuperscript{215}HELCO Response to PUC-HELCO-IR-11.b, filed March 7, 2019.

\textsuperscript{216}HELCO Response to PUC-HELCO-IR-11.b, filed March 7, 2019.

\textsuperscript{217}HELCO Response to PUC-HELCO-IR-11.c, filed March 7, 2019.

\textsuperscript{218}Application, Exhibit 3, at 3-4.

\textsuperscript{219}Application, Exhibit 5.

\textsuperscript{220}Application, Exhibit 6, at 1; see HRS § 269-92.
reliability risk, export of funds for fuel imports, and reducing greenhouse gas emissions.\textsuperscript{221}

8. In reviewing the record on these matters, including the portions of the record designated confidential or restricted, the commission finds that, although the Project is anticipated to result in HELCO's forecasted avoided fuel consumption and reduction in greenhouse gas emissions over the twenty-five year term of the Project, HELCO may be able to improve upon the forecasted avoided fuel consumption and reduction in greenhouse gas emissions over the course of the Project's term. The commission intends to explore these matters further in other dockets (i.e., Docket No. 2018-0165 (Integrated Grid Planning) or a future HELCO rate case).

9. As such, upon explicit consideration of the specified criteria in HRS § 269-6(b) (price volatility, fuel supply reliability risk, export of funds for fuel imports, and greenhouse gas emissions), the commission finds HELCO's PPA to be reasonable and in the public interest because the PPA overall advances Hawaii's goal of reducing reliance on fossil fuels through energy efficiency and increased renewable energy generation, reduces greenhouse gas emissions, and does so at a price that is estimated

\textsuperscript{221}See Consumer Advocate SOP at 25-26 & Attachment 2.
to result in savings for HELCO's ratepayers between 2022 and 2046.222

F.

Remainder of the Proceeding

As noted above, HELCO requested that the commission issue two separate decisions and orders in this docket: (1) the first decision approving requests relating to the PPA, which is the subject of the commission's discussion, above, and (2) the second decision approving requests related to the proposed above-ground 69 kV line extension.223 Pursuant to Order No. 36067, the commission bifurcated HELCO's PPA-related requests from its above-ground 69 kV line extension-related requests.224

Regarding its above-ground 69 kV line extension-related requests, HELCO explained that an "IRS will be conducted to evaluate the effects of the proposed interconnection of the Facility to the Company system."225 As of the filing of the Application, the IRS was not completed;226 however, in order to

222See HRS § 269-6(b); Consumer Advocate SOP, Attachment 2, at 5.

223See Application at 4-5.

224Order No. 36067 at 5-6, 15.

225Application at 16.

226See Application at 16.
take advantage of federal investment tax credits, "the Parties agreed to execute the PPA prior to the completion of the IRS for the Project." HELCO has stated that it will file an amendment to the PPA based on the IRS results.

As such, upon HELCO's filing of an amendment to the PPA based on the IRS results, the commission will issue a procedural schedule in this docket to govern its review of HELCO's above-ground 69 kV line extension-related requests (Issue 3).

IV.

SUMMARY OF FINDINGS OF FACT AND CONCLUSIONS OF LAW

Based on the foregoing, subject to the conditions set forth in Sections III.C.3 and III.D, the commission finds:

1. HELCO has met its burden of proof in support of its request for approval of the PPA between HELCO and AES Waikoloa, dated December 28, 2018. In finding as such, the commission further finds:

A. The purchased power arrangements under the PPA, pursuant to which HELCO will dispatch energy on an availability

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227 Application at 16.
228 Application at 16.
229 See Order No. 36067 at 8 n.16 (stating that the commission intends to issue a separate procedural order to govern HELCO's above-ground 69 kV line extension-related requests).
basis from AES Waikoloa, including the Lump Sum Payment to be paid to AES Waikoloa, are prudent and in the public interest; and

2. HELCO has met its burden of proof in support of its request to include all non-energy payments under the PPA, including the Lump Sum Payment and related revenue taxes, through the PPAC, to the extent such costs are not included in base rates.

V.

ORDERS

THE COMMISSION ORDERS:

1. Subject to the conditions set forth in Sections III.C.3 and III.D, the commission approves:

   A. The PPA between HELCO and AES Waikoloa, dated December 28, 2018; and

   B. HELCO’s request to include all non-energy payments under the PPA, including the Lump Sum Payments (as defined in the PPA) and related revenue taxes, through the PPAC, to the extent such costs are not included in base rates.

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2. Upon HELCO's filing of an amendment to the PPA based on the IRS results, the commission will issue a procedural schedule in this docket to govern its review of HELCO's above-ground 69 kV line extension-related requests (Issue 3).

DONE at Honolulu, Hawaii MAR 25 2019

PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By James P. Griffin, Commissioner

By Jennifer M. Potter, Commissioner

APPROVED AS TO FORM:

Brandon H. Ito
Commission Counsel
CERTIFICATE OF SERVICE

The foregoing order was served on the date of filing by mail, postage prepaid, and properly addressed to the following parties:

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