

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Application of )  
 )  
KAUAI ISLAND UTILITY COOPERATIVE ) DOCKET NO. 2020-0218  
 )  
For Approval of Power Purchase )  
Agreement with AES West Kauai )  
Energy Project, LLC and to Include )  
Costs in Kauai Island Utility )  
Cooperative's Energy Rate Adjustment )  
Clause, and Other Matters Related to )  
the West Kauai Energy Project. )  
\_\_\_\_\_ )

DECISION AND ORDER NO. 38095

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\_\_\_\_\_ )

DECISION AND ORDER

By this Decision and Order,<sup>1</sup> the Commission, subject to the conditions outlined herein:

1. Approves the Power Purchase Agreement ("PPA") between KIUC and AES West Kauai Energy Project, LLC ("AES") dated

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<sup>1</sup>The Parties to this proceeding are KAUAI ISLAND UTILITY COOPERATIVE ("KIUC") and the DIVISION OF CONSUMER ADVOCACY ("Consumer Advocate"), an ex officio party, pursuant to Hawaii Revised Statutes ("HRS") § 269-51 and Hawaii Administrative Rules ("HAR") § 16-601-62(a). In addition, the Hawaii State Energy Office ("SEO") and Pō`Ai Wai Ola/West Kauai Watershed Alliance ("Alliance") were granted Participant status by the Commission's Order No. 37691, "Denying The Hawaii State Energy Office's Motion to Intervene; (2) Denying Pō`Ai Wai Ola/West Kauai Watershed Alliance's Motion to Intervene; (3) Dismissing Pō`Ai Wai Ola/West Kauai Watershed Alliance's Motion for Leave to File Reply Brief; (4) Granting Participant Status to The Hawaii State Energy Office and to Pō`Ai Wai Ola/West Kauai Watershed Alliance; and (5) Instructing the Parties to Submit a Proposed Procedural Order," filed on March 22, 2021 at 1-3, 37 ("Order No. 37691").

December 30, 2020, for the "West Kauai Energy Project" ("WKEP" or "Project"), which consists of, among other things, two hydropower electric generation facilities, a pumping station, a solar photovoltaic ("PV") array with a battery energy storage system ("BESS"), a 69 kilovolt ("kV") rated/12.47 kV substation, approximately 1.5 miles of new transmission line ("New Overhead Circuit"), and reconductoring approximately 1.0 miles of existing transmission line and installing approximately 2.65 miles of single mode fiber optic line along KIUC's existing transmission system ("Conductor Work");

2. Approves KIUC's request to include costs to be incurred by KIUC under the PPA in KIUC's Energy Rate Adjustment Clause ("ERAC"), to the extent that such costs are not recovered in KIUC's base rates, except for any costs related to curtailed energy;

3. Approves KIUC's request for the commitment of funds to effectuate the New Overhead Circuit and the Conductor Work;

4. Approves KIUC's request to place, construct, erect, and build the New Overhead Circuit above the surface of the ground pursuant to HRS § 269-27.6; and

5. Approves KIUC's request to:

a. Transfer certain development assets pertaining to the West Kauai Energy Project; and

b. Convey, sublet, sublicense, assign or otherwise transfer, in whole or in part, any rights

that KIUC may have with respect to the West Kauai Energy Project under any lease, license, contract, easement, right of entry, permit, authorization and/or other agreement or document, including without limitation the Project Subleases and Subeasement(s), to AES in furtherance of AES' efforts toward the development and construction of the West Kauai Energy Project, under the terms set forth in the Development Agreement.

I.

BACKGROUND

A.

Procedural History

On December 31, 2020, KIUC filed an application requesting a number of Commission approvals relating to the PPA.<sup>2</sup>

On January 8, 2021, KIUC filed a motion seeking a protective order.<sup>3</sup>

On January 15, 2021, KIUC submitted the interconnection agreement related to the PPA ("Interconnection Agreement").<sup>4</sup>

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<sup>2</sup>See "Application; Exhibit List; Verification; Exhibits 1 through 6; and Certificate of Service," filed on December 30, 2021 ("Application"). The PPA and Development Agreement are attached as "Exhibit 1" and "Exhibit 2" to the Application, respectively.

<sup>3</sup>"Kauai Island Utility Cooperative's Motion for Protective Order; and Certificate of Service," filed on January 8, 2021.

<sup>4</sup>Letter From: K. Morihara To: Commission Re: Docket No. 2020-0218: In the Matter of the Application of Kauai Island Utility Cooperative for Approval of Power Purchase Agreement with AES West Kauai Energy Project, LLC and to Include Costs in Kauai Island Utility Cooperative's Energy Rate Adjustment Clause, and Other Matters Related to the

On January 20, 2021, SEO filed a Motion to Intervene.<sup>5</sup>  
Also on January 20, 2021, the Alliance filed a Motion to Intervene.<sup>6</sup>

On February 4, 2021, the Commission issued Protective Order No. 37605.<sup>7</sup>

On March 22, 2021, the Commission issued Order No. 37691 which, among other things: (a) denied SEO's Motion to Intervene; (b) denied the Alliance's Motion to Intervene; (c) granted Participant status to SEO and the Alliance; and (d) instructed the Parties to submit a proposed procedural order.<sup>8</sup>

The Parties submitted a proposed procedural order on April 7, 2021.<sup>9</sup>

On April 15, 2021, the Commission issued Order No. 37733 which adopted a statement of issues and procedural order to govern

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West Kauai Energy Project - Submission of Interconnection Agreement, filed on January 15, 2021.

<sup>5</sup>"The Hawaii State Energy Office's Motion to Intervene; and Certificate of Service," filed January 20, 2021 ("SEO Motion to Intervene").

<sup>6</sup>"Po'ai Wai Ola/West Kaua'i Watershed Alliance's Motion to Intervene; Memorandum in Support; Affidavit of Isaac H. Moriwake, Exhibits 'A' & 'B'"; and Certificate of Service," filed January 20, 2021 ("Alliance Motion to Intervene").

<sup>7</sup>Protective Order No. 37605, filed on February 4, 2021 ("Protective Order No. 37605").

<sup>8</sup>Order No. 37691 at 1-2, 37-38.

<sup>9</sup>"Kauai Island Utility Cooperative and the Division of Consumer Advocacy's Proposed Stipulated Procedural Order," filed on April 7, 2021.

the proceedings in the Docket.<sup>10</sup> Order No. 37733 set forth the following Statement of Issues:

1. Whether the Commission should approve, pursuant to HRS § 269-27.2, the [PPA] between KIUC and AES . . . . In analyzing this issue, the following sub-issues shall be considered:
  - a. Whether the energy charges, capacity charges, and other payments to be made by KIUC under the PPA are just and reasonable; and
  - b. Whether the purchased power arrangements (e.g., terms and conditions) under the PPA are prudent and in the public interest;
2. Whether, pursuant to HAR § 6-60-6(2), the Commission should authorize the inclusion of the costs (including applicable taxes and assessments) to be incurred by KIUC under the PPA in KIUC's Energy Rate Adjustment Clause, to the extent that such costs are not recovered in KIUC's base rates, except for any costs related to curtailed energy;
3. Whether the Commission should approve, pursuant to Section 2.3.g.2 of the Commission's General Order No. 7 [("G.O.7")], the commitment and expenditure of funds to: (a) undertake, construct and complete . . . [the] New Overhead Circuit[]; and (b) reconductor approximately 1.0 mile of existing transmission line and install approximately 2.65 miles of single mode fiber optic line along KIUC's existing transmission system, so that all electrical output from the West Kauai Energy Project can be delivered to KIUC's system and in a dispatchable manner through the existing 57.1 kV transmission line [(i.e., the Conductor Work)];

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<sup>10</sup>Order No. 37733, "Adopting Statement of Issues and Procedural Order," filed on April 15, 2021 ("Order No. 37733").



4. Whether, pursuant to HRS § 269-27.6, the New Overhead Circuit should be placed, constructed, erected, and built above the surface of the ground;
5. Whether, to the extent the Commission determines that its approval under HRS § 269-19 or otherwise is required, the Commission should grant approval for KIUC to: (a) transfer the Development Assets<sup>[11]</sup> pertaining to the West Kauai Energy Project; and (b) convey, sublet, sublicense, assign or otherwise transfer, in whole or in part, any rights that KIUC may have with respect to the West Kauai Energy Project under any lease, license, contract, easement, right of entry, permit, authorization and/or other agreement or document, including without limitation the Project Subleases and Subeasement(s) [(collectively the "Associated Rights")], to AES in furtherance of AES' [s] efforts toward the development and construction of the West Kauai Energy Project, under the terms set forth in the Development Agreement; and
6. Whether the Commission should grant any other relief that the Commission may deem applicable, required, just and/or reasonable under the circumstances and/or in order for KIUC to perform and fulfill its obligations under the PPA, the Interconnection Agreement and/or the Development Agreement.

The Parties and Participants exchanged information requests ("IRs") consistent with the scope of discovery

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<sup>11</sup>"Development Assets" is defined in Section 1.01 (Definitions) of the Development Agreement as any and all information in written or electronic form that has been developed or obtained by KIUC, its "Affiliates" (as the term "Affiliate" is defined in said Section 1.01) or "Joule Group" (as defined in said Section 1.01) in connection with the West Kauai Energy Project which KIUC or its Affiliates own, or hold and have a right to rely upon, necessary or useful to the development, construction or design of the Project, including the "Reports" and "Books and Records" (as those terms are also defined in said Section 1.01).

established by the procedural schedule.<sup>12</sup> The Commission also submitted IRs to KIUC.

On July 2, 2021, SEO, the Consumer Advocate, and the Alliance each filed their respective statements of position.<sup>13</sup>

On August 19, 2021, KIUC filed its reply statement of position in response to the Consumer Advocate.<sup>14</sup> Also on

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<sup>12</sup>See Order No. 37733. IRs and responses to IRs are referenced in this Order as follows: IRs from the Consumer Advocate to KIUC: "CA/KIUC-IR-\_\_"; IRs from the Alliance to KIUC: "Alliance/KIUC-IR-\_\_"; IRs from the Commission to KIUC: "PUC-KIUC-IR-\_\_"; IRs from the Consumer Advocate to the Alliance: "CA/Alliance-IR\_\_". Responses filed by KIUC or the Alliance for any of the above IRs are referenced as "Response to" followed by the same naming paradigm.

<sup>13</sup>"The Hawai'i State Energy Office's Statement of Position; and Certificate of Service," filed on July 2, 2021 ("SEO's SOP"); Division of Consumer Advocacy's Statement of Position, filed on July 2, 2021 ("CA's SOP"); "Pō'ai Wai Ola/West Kaua'i Watershed Alliance's Statement of Position; Exhibits A & B; Declaration of John A'ana; and Certificate of Service," filed on July 2, 2021 ("Alliance's SOP").

The Consumer Advocate's SOP inadvertently contained unredacted confidential information resulting in a motion to seal by the Consumer Advocate, which the Commission granted. See "Division of Consumer Advocacy's Motion to Seal the Division of Consumer Advocacy's Statement of Position, Filed July 2, 2021; Declaration of Scott Boone; Exhibits 'A' and 'B;' and Certificate of Service," filed on July 6, 2021; and Order No. 37938, "Granting the Division of Consumer Advocacy's Motion to Seal," filed on August 27, 2021. References to the "CA's SOP" in this Decision and Order shall refer to the redacted version of the Consumer Advocate's SOP attached as Exhibit A to the Consumer Advocate's Motion to Seal.

<sup>14</sup>"Kauai Island Utility Cooperative's Reply Statement of Position to Division of Consumer Advocacy's Statement of Position; and Certificate of Service," filed on August 19, 2021 ("KIUC's Reply SOP to CA").

August 19, 2021, KIUC filed a letter request to extend the deadline for it to file a rebuttal / reply statement of position, in which KIUC indicated that had "had certain communications with the Participants on the issues raised by the Participants in their respective Statements of Positions" and believed that additional time may lead to resolution of some of the issues raised by the Participants.<sup>15</sup>

The Commission approved KIUC's request to extend the time for it to submit rebuttal/reply information,<sup>16</sup> and, consistent with the new deadline imposed by the Commission, KIUC submitted its reply statement of position to the Participants' positions on September 30, 2021.<sup>17</sup>

Pursuant to the schedule set forth in Order Nos. 37733 and 37939, no further procedural steps are contemplated and KIUC's Application is ready for decision-making.

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<sup>15</sup>Letter From: K. Morihara To: Commission Re: Docket No. 2020-0218: In the Matter of the Application of Kauai Island Utility Cooperative for Approval of Power Purchase Agreement with AES West Kauai Energy Project, LLC and to Include Costs in Kauai Island Utility Cooperative's Energy Rate Adjustment Clause, and Other Matters Related to the West Kauai Energy Project - Request to Amend Procedural Schedule, filed on August 19, 2021 ("KIUC's Request for Extension").

<sup>16</sup>Order No. 37939, "Approving Kauai Island Utility Cooperative's Letter Request to Amend Procedural Schedule," filed on August 27, 2021.

<sup>17</sup>"Kauai Island Utility Cooperative's Rebuttal/Reply Statement of Position to Po'ai Wai Ola/West Kaua'i Watershed Alliance's Statement of Position and The Hawaii State Energy Office's Statement of Position; Exhibit 1," filed on September 30, 2021 ("KIUC's Reply SOP to Participants").

B.

Parties to the PPA

KIUC is a Hawaii non-profit electric cooperative with its principal place of business in Lihue, on the island of Kauai, that has been in operation as a public utility since November 1, 2002.<sup>18</sup> KIUC states that it "is an operating public utility engaged in the production, transmission, distribution, purchase, and sale of electric energy on the island of Kauai, State of Hawaii."<sup>19</sup>

AES is 100% owned by AES Distributed Energy, Inc., which, in turn, is 100% owned by AES US Distributed Solar Holdings, LLC, which, in turn, is 100% owned by The AES Corporation ("AES Corporation").<sup>20</sup>

Regarding AES Corporation's renewable energy development experience, AES Corporation -- whether directly or through its wholly owned subsidiaries -- has teams in solar, wind, and energy storage, employing approximately 500 people, and has 3 gigawatts ("GW") of operational projects, and an additional 2.6 GW capacity of projects in development.<sup>21</sup> AES Corporation has experience

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<sup>18</sup>Application at 4-5.

<sup>19</sup>Application at 5.

<sup>20</sup>Application at 2, n.3.

<sup>21</sup>KIUC's Response to CA/KIUC-IR-27.

developing and operating large-scale hydroelectric projects globally, including 6.4 GW of hydroelectricity capacity in Central and South America.<sup>22</sup> In Hawaii specifically, AES is involved in several renewable energy projects totaling over 200 megawatts (“MW”) in operation or development, including two solar and energy storage projects on Kauai,<sup>23</sup> which comprise 47 MW of solar plus 170 MWh of battery storage.<sup>24</sup> Additionally, AES has participated in both rounds of the Hawaiian Electric Companies’<sup>25</sup> competitive procurement for solar plus storage, during which three of AES’s projects were selected and approved by the Commission in the first round (Docket No. 2018-0436 on Maui; Docket No. 2018-0430 on Hawaii Island; and Docket No. 2019-0050 on Oahu), and two additional projects were selected and approved during the second round (Docket No. 2020-0137 and Docket No. 2020-0139), all of which are being developed by wholly-owned subsidiaries of AES Corporation.

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<sup>22</sup>KIUC’s Response to CA/KIUC-IR-27.

<sup>23</sup>See KIUC’s Response to CA/KIUC-IR-28 (citing Docket Nos. 2017-0018 and 2017-0443).

<sup>24</sup>KIUC’s Response to CA/KIUC-IR-27.

<sup>25</sup>The “Hawaiian Electric Companies” refers to Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited, which provide electric services to the islands of Oahu, Hawaii island, Maui, Lanai, and Molokai. The Hawaiian Electric Companies’ competitive procurement of renewable energy projects is the subject of Docket No. 2017-0352.

C.

The Project

The Project is a solar-powered pumped hydro storage project on the island of Kauai.<sup>26</sup> KIUC states that the Project is designed to serve five primary functions:

- (1) [r]enewable energy production via hydropower electric generation;
- (2) renewable energy production via solar . . . PV[] generation;
- (3) pumped [hydro] and battery storage to shift most of the Project's solar PV energy production for use in the evening peak, nighttime, and morning peak hours (as well as during periods of cloudy/rainy weather) via the controlled release of water and hydropower electric energy generation;
- (4) irrigation delivery to support diversified agriculture on lands adjacent to the Project site (i.e. mauka lands managed by both Department of Hawaiian Home Lands ("DHHL") and Agribusiness Development Corporation ("ADC"), and the agricultural fields on the Mana Plains that are managed by Kekaha Agriculture Association ("KAA"[])); and
- (5) rehabilitation of the existing Puu Opae, Puu Lua, and Mana Reservoirs and related ditch system infrastructure to relieve the burden of such rehabilitation and maintenance responsibilities on State agencies while also increasing public access and recreational opportunities associated with the Puu Lula Reservoir.<sup>27</sup>

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<sup>26</sup>Application at 5-8.

<sup>27</sup>Application at 5-6 (footnote omitted; paragraph breaks added).

The Project is located on State-owned lands, and its facilities include two hydropower electric generation facilities (the "Puu Opae Powerhouse" on the Puu Opae Reservoir and the "Mana Powerhouse" on the Mana Reservoir), a solar PV plus battery energy storage system ("PV/BESS Facility"), a 69 kV rated / 12.47 kV substation ("WKEP Substation"), and the New Overhead Circuit and Conductor Work.<sup>28</sup> AES will develop, complete, and pay for all of the Project's facilities and infrastructure work, upgrades, and additions and rehabilitation efforts, except for the New Overhead Circuit and Conductor work, which will be constructed and paid for by KIUC.<sup>29</sup> In addition, after the WKEP Substation has been commissioned, KIUC will assume ownership, operation, and maintenance of the WKEP Substation.<sup>30</sup>

The Project site is located approximately four miles north of Kekaha and six miles northwest of Waimea on the island of Kauai.<sup>31</sup> The Project proposes to use the existing Kokee Ditch Irrigation System ("Kokee Ditch") and the Puu Lua, Puu Opae,

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<sup>28</sup>Application at 5-7.

<sup>29</sup>Application at 6-7.

<sup>30</sup>Application at 6.

<sup>31</sup>Application at 6-7.

and Mana Reservoirs, and effectively comprises two segments, as described below.<sup>32</sup>

The first segment is a traditional hydroelectric project in which water that flows downhill along the Kokee Ditch will be delivered to and stored in the Puu Lua Reservoir, from which the water will be released for hydropower electric generation and irrigation purposes, and eventually delivered downhill to the 4 MW Puu Opae Powerhouse and the Puu Opae Reservoir.<sup>33</sup> This first segment is referred to as the "Upper Segment."

The second segment is a pumped hydropower storage project (referred to in the industry as "PSH") in which water is pumped uphill from the Mana Reservoir using energy generated by the PV/BESS Facility to the Puu Opae Reservoir where that water will then combine with the water delivered from the Upper Segment before returning downhill to the 20 MW Mana Powerhouse.<sup>34</sup> This second segment is referred to as the "Lower Segment."

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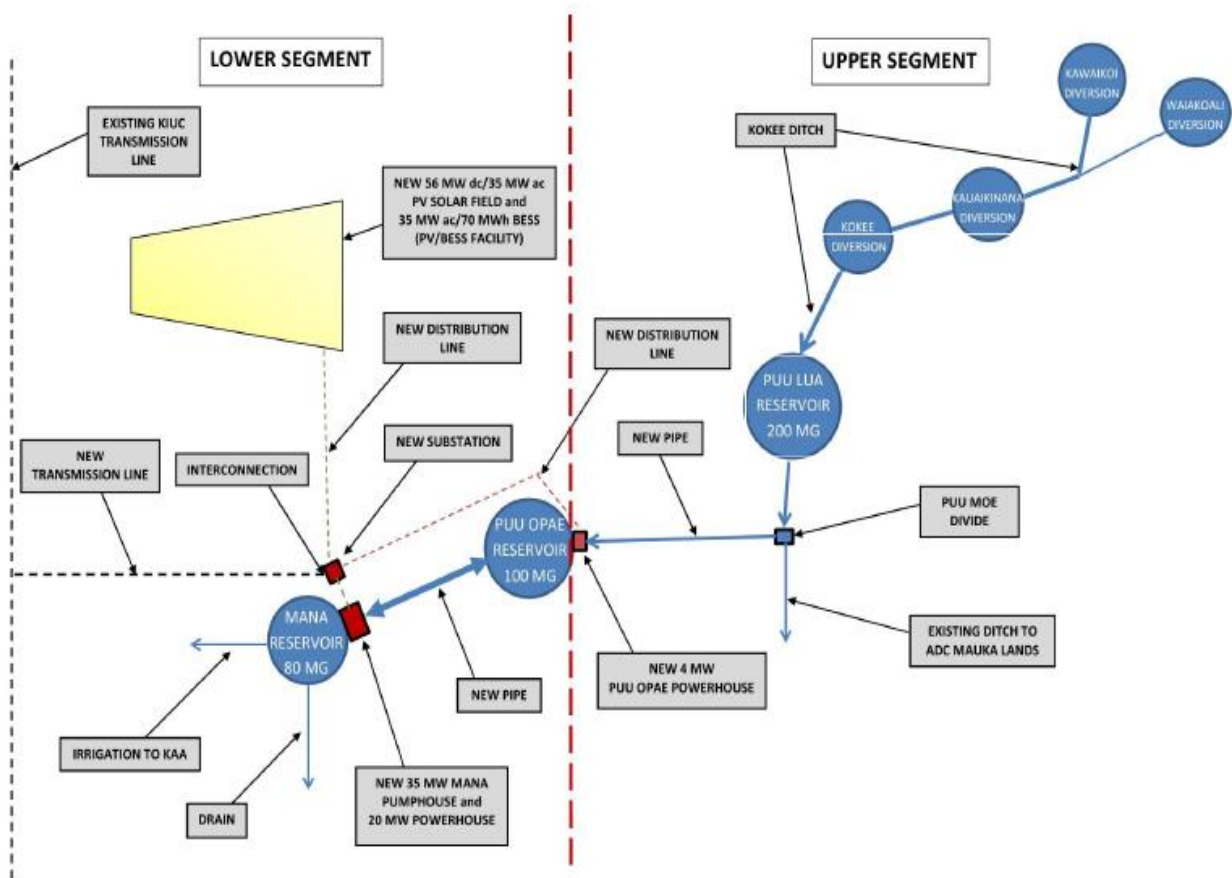
<sup>32</sup>Application at 7.

<sup>33</sup>Application at 7.

<sup>34</sup>Application at 7.



For a visual reference, KIUC presents the following simple diagram to describe the Upper and Lower Segments of the Project:<sup>35</sup>



The Upper and Lower Segments are more specifically described in the following subsections.

<sup>35</sup>Application at 8, Diagram 1.

1.

The Upper Segment

KIUC states that the Upper Segment will generate an average of 26 GW-hours ("GWh") of energy annually.<sup>36</sup> Water is first collected from four diversions on the Kokee Ditch located on the Waiakoali, Kawaikoi, Kauaikinana, and Kokee streams, respectively, and is delivered to the existing Puu Lua Reservoir, which can store the water and release it for both hydropower generation and for irrigation.<sup>37</sup> Collected water released for hydropower electric generation will then travel first to a proposed structure to be located at the Puu Moe Divide ("Puu Moe Regulating Structure"), from which the released water will travel via a new Upper Penstock<sup>38</sup> to the proposed 4 MW Puu Opae Powerhouse, where it will produce an estimated 13 GWh annually.<sup>39</sup> The water will then be delivered to the Puu Opae Reservoir where it will travel via a new Lower Penstock<sup>40</sup> to the proposed 20 MW Mana Powerhouse,

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<sup>36</sup>Application at 9.

<sup>37</sup>Application at 8-9, n.12.

<sup>38</sup>The new Upper Penstock will be a new steel pressurized pipe from 32-36 inches in diameter which will be buried and will "generally follow the alignment of the existing open ditch and road." Application at 9, n.14.

<sup>39</sup>Application at 9.

<sup>40</sup>The new Lower Penstock will consist of a new steel pressurized pipe that is expected to be buried, varying in diameter from about 54 to 60 inches, and will follow a "relatively direct path from

which will use the water to generate an additional annual average of 13 GWh of energy.<sup>41</sup> KIUC states that the Puu Lua Reservoir will hold enough water to fully power the Puu Opae Powerhouse for approximately 166 hours, and, through the water's second use, to fully power the Mana Powerhouse for approximately 33 hours. After generating energy, the Mana Powerhouse will deliver the water to the Mana Reservoir. KIUC states that the ability to store water in the Puu Lua and Puu Opae Reservoirs will result in "firm, dispatchable renewable energy, averaging 26 GWh annually, that can be delivered to the grid mainly during the evening peak, nighttime, and morning peak hours but also during periods of cloudy/rainy weather, thereby displacing fossil fuel energy."<sup>42</sup>

## 2.

### The Lower Segment

The PV/BESS Facility comprises "a 35 MW alternating current ('MW<sub>ac</sub>') / 56 MW direct current ('MW<sub>dc</sub>') PV array that will produce approximately 115.7 GWh of energy annually together with a BESS with a capacity of 35 MW<sub>ac</sub> and an initial energy storage

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the Puu Opae Reservoir to Mana Reservoir primarily across agricultural fields." Application at 11, n.16.

<sup>41</sup>Application at 8-9.

<sup>42</sup>Application at 9-10.

capacity of 70 [MWh].”<sup>43</sup> The BESS “will be DC-coupled to the PV array and thus will be able to follow the variability of the PV array’s energy production caused by passing cloud cover to ensure constant PV power for pumping while also harvesting otherwise clipped / lost energy.”<sup>44</sup>

The PV/BESS Facility will connect to the proposed WKEP Substation through a proposed distribution line that is expected to be buried underground along existing farm roads.<sup>45</sup> The WKEP Substation will transmit the energy from the PV/BESS Facility “either directly to KIUC’s grid or to the proposed 35 MW Mana Pumhouse with 35 MWac of pumping capacity to assist with pumping the water uphill.”<sup>46</sup> The water will then be pumped uphill from the Mana Pumhouse through the Lower Penstock to the Puu Opae Reservoir, and from there the water will be stored with the water delivered from the Upper Segment.<sup>47</sup> KIUC states that the Puu Opae Reservoir “will be capable of holding enough water to fully power the Mana Powerhouse for about twelve (12) hours,

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<sup>43</sup>Application at 10-11.

<sup>44</sup>Application at 10-11.

<sup>45</sup>Application at 11.

<sup>46</sup>Application at 11.

<sup>47</sup>Application at 11.

which is significantly more than any existing BESS on the KIUC system.”<sup>48</sup>

KIUC states that it anticipates the following on average:

- (1) approximately 31% of the annual PV energy from the solar PV array (i.e., approximately 36 GWh) will be supplied direct to the KIUC grid, mostly during the first three and last three sunlight hours of each day, but also whenever higher-cost fossil generation can be displaced;
- (2) approximately 48% of the annual PV energy (i.e., approximately 55 GWh) will be used to pump water uphill through the Mana Pumphouse; and
- (3) the remaining approximately 21% of the annual PV energy (i.e., approximately 24 GWh) will be sent to the BESS).<sup>49</sup>

KIUC states that the Mana Powerhouse is expected to produce an annual average of approximately 47 GWh of energy -- about 34 GWh from the water pumped uphill and an additional 13 GWh of energy from run-of-river hydropower electric generation from the Upper Segment.<sup>50</sup> According to KIUC, the Lower Segment design allows “the 115.7 GWh annual average PV energy from the solar PV array [to] take three separate paths to KIUC’s grid as

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<sup>48</sup>Application at 12.

<sup>49</sup>Application at 11 (paragraph breaks added).

<sup>50</sup>Application at 12.

reflected [in Diagram 1]: direct to grid, through the BESS, and via PSH.”<sup>51</sup>

KIUC expects that the Project, as a whole, will yield a conservative annual average output estimate of 110 GWh, which KIUC states amounts to about 22.72% of its projected Renewable Portfolio Standard (“RPS”).<sup>52</sup>

D.

Material Terms of the PPA

The PPA is included as Exhibit 1 to KIUC’s Application.<sup>53</sup> The material terms of the PPA are set forth below. In general, KIUC states that the “specific terms and conditions of the PPA were negotiated by KIUC and AES at arms-length and contain indemnification, insurance, and other provisions that will serve to protect KIUC and its members/customers from certain risks associated with interconnecting with the Project.”<sup>54</sup>

Term: The PPA provides for three distinct terms: (1) the “Solar Term,” which applies to the PV/BESS Facility and

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<sup>51</sup>Application at 12.

<sup>52</sup>Application at 12-13, Exhibit 4.

<sup>53</sup>Application at 2, Exhibit 1.

<sup>54</sup>Application at 24.

lasts 25 Contract Years<sup>55</sup> from the PV System/BESS Pumped Storage Hydropower Commercial Operations Date<sup>56</sup> ("Facility COD"); (2) the "PSH Term," which applies to the PSH component of the Project and lasts 40 Contract Years from the Facility COD; and (3) the "Hydropower-only Term," which applies exclusively to the hydropower component of the Project and last 50 years after the Hydropower-only Commercial Operations Date ("Hydropower COD").<sup>57, 58</sup> The overall term of the PPA itself commences "when it is executed and delivered by both Parties ('the **Effective Date**')," and lasts until 50 Contract Years after the Hydropower COD; however, if the

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<sup>55</sup>The PPA defines "Contract Year" as "the 12-month period beginning on the first day of the month immediately following the month in which the first to occur of the PV System/BESS Pumped Storage Hydropower Commercial Operations Date or the Hydropower-only Commercial Operations Date occurs, and each subsequent 12-month period." PPA, Appendix A ("Definitions").

<sup>56</sup>The PPA defines "PV System/BESS Pumped Storage Hydropower Commercial Operations Date" as "the date that the PV System/BESS Pumped Storage Hydropower Commercial Operation is achieved[;]" i.e., when "each of the PV System, BESS and PSH components of the Project are capable of generating electric energy to the point of delivery to KIUC and meeting all tests for commercial operations. PPA, Appendix A ("Definitions").

<sup>57</sup>The PPA defines "Hydropower-only Commercial Operations Date" as "the date that Hydropower-only Commercial Operation is achieved[;]" i.e., the hydropower component of the Project is capable of generating electric energy to the point of delivery to KIUC and has satisfied all tests for commercial operations. PPA, Appendix A ("Definitions").

<sup>58</sup>PPA at § 2.1.

Hydropower COD does not occur, then the PPA Term ends 40 years after the Facility COD.<sup>59</sup>

Costs of Ownership and Operation. AES is responsible for all costs and expenses associated with the interconnection of the Project up to and at the Point of Delivery in accordance with the Interconnection Agreement, as well as "all costs of developing, constructing, owning and operating the [Project] in compliance with existing and future Requirements of Law and the terms and conditions hereof."<sup>60</sup>

Regulatory Approvals. AES, at its own expense, is responsible for acquiring and maintaining in effect all permits and governmental approvals necessary for the development and operation of the Project, with the exception of rights to use water for purposes of generating electricity.<sup>61</sup>

KIUC Purchase Options. The PPA provides KIUC an option to purchase the Facility at the end of each of the sixth, fifteenth, twenty-fifth, fortieth, and fiftieth years of the PPA.<sup>62</sup> KIUC's purchase of the Facility would be determined by the fair market value thereof following good faith negotiations,

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<sup>59</sup>PPA at § 2.1.

<sup>60</sup>PPA at § 5.1.

<sup>61</sup>See PPA at §§ 6.1 and 6.2

<sup>62</sup>PPA at § 2.6.1.



with certain provisions in place in the event such negotiations are unsuccessful.<sup>63</sup>

Pricing. The PPA provides for two pricing components: (1) monthly capacity charges; and a monthly energy price (MWh), as metered at the PV/BESS Facility metering points.<sup>64</sup>

The PPA establishes a monthly capacity charge for the PSH Facility of the Project (i.e., the Mana Pumphouse, Lower Penstock, Puu Opaе Reservoir, Puu Opaе Intake, Mana Reservoir, and Mana Powerhouse) at a rate of \$538,649.25 per month ("PSH Monthly Capacity Charge"), or \$6,463,791.00 per year of the PPA ("PSH Annual Charges").<sup>65</sup> The PPA also establishes a monthly capacity charge for the Hydropower-only Facility of the Project (i.e., Puu Opaе Powerhouse, Upper Penstock, Puu Moe Regulatory Structure, and Kokee Ditch) at a rate of \$2,460,096.00 per year of the PPA ("Hydropower Only Annual Charges").<sup>66</sup> For both components,

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<sup>63</sup>PPA at § 2.6.2.

<sup>64</sup>See PPA at § 3.2.2(a) and (b).

<sup>65</sup>PPA at Appendix F (Monthly Charges) at 1-2; see also, PPA, Appendix B (Description of Facility and Premises).

<sup>66</sup>PPA at Appendix F (Monthly Charges) at 2-3; see also, PPA, Appendix B (Description of Facilitate and Premises).

the respective capacity charge will be adjusted on a prorated basis if the Equivalent Availability Factor ("EAF") falls below 97.50%.<sup>67</sup>

The PPA specifies that the contract price for energy is \$71.60 per MWh of Net Solar and BESS Output as metered at each of the PV System and BESS Revenue Metering Points during each calendar month ("Solar Price").<sup>68</sup> If the full value of the State of Hawaii Refundable Tax Credit is not available, the energy contract price changes to \$81.00 per MWh of Net Solar and BESS Output ("Revised Solar Price").<sup>69</sup> Energy dispatch of the Project is discussed below.

In addition, the PPA states that for each MWh of energy produced in connection with commissioning and testing and delivered during the period between the Effective Date and the respective Facility or Hydropower-only CODs, KIUC shall pay 50% of the Solar Price or Revised Solar Price (whichever is applicable).<sup>70</sup>

Project Dispatch. KIUC will have the sole right to schedule and direct the dispatch of all components of the Facility (excluding the production of Test Energy) in its discretion,

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<sup>67</sup>PPA at Appendix F (Monthly Charges) at 2-7. The EAF is calculated by dividing difference between the available hours and the equivalent derated hours by the period hours. PPA, Appendix F at 1.

<sup>68</sup>PPA at § 3.2.2(b).

<sup>69</sup>PPA at § 3.2.2(b).

<sup>70</sup>PPA at § 3.2.1.

provided KIUC complies with the operating restrictions described in Appendix G of the PPA.<sup>71</sup> KIUC's dispatch of the Project is also subject to curtailment provisions, which are discussed below.

BESS and PSH Charging Requirements for Federal Investment Tax Purposes. In order to qualify for the Federal Investment Tax Credit ("ITC"), the PPA provides that, during the first five years of the PPA's term, the BESS shall not be charged from KIUC's system, and the pumps shall not be powered using any energy from KIUC's system.<sup>72</sup> After the first five years of the PPA's term, KIUC may charge the BESS with energy from its system and may power the pumps with energy from its system at KIUC's reasonable discretion.<sup>73</sup>

Curtailment. KIUC must pay AES for each MWh of energy curtailed from the PV/BESS Facility that occurs during any period of reduced Facility storage capacity caused by KIUC, including dispatch that results in the BESS component reaching 100% state of charge ("SOC"), lack of sufficient water in the Mana Reservoir available to be pumped, or the water level in the Puu Opaе Reservoir being such that the addition of water would

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<sup>71</sup>PPA at § 6.3.

<sup>72</sup>PPA at Appendix G.

<sup>73</sup>PPA at Appendix G.

exceed the capacity thereof.<sup>74</sup> KIUC shall also be obligated to pay AES for PV System and BESS Curtailment that occurs during any period when the PV System is producing less energy than the available Facility Storage Capacity.<sup>75</sup> Any such curtailment payments must be made by KIUC pursuant to the calculation methodology set forth in the PPA.<sup>76</sup> In the event AES is responsible for a curtailment event, an alternative, lesser curtailment calculation is applied to KIUC.<sup>77</sup> KIUC is not obligated to pay AES for curtailment associated with KIUC's curtailment of the interconnection of the Facility to maintain the safety and reliability of the Project.<sup>78</sup>

Indemnification, Insurance, and Performance Assurance.

The PPA obligates AES and KIUC to mutually indemnify one another against loss, damage, expense liability, and other claims connected to the PPA or Interconnection Agreement.<sup>79</sup> The PPA requires AES to secure and continuously carry certain insurance

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<sup>74</sup>See PPA at §§ 6.8.1 - 6.8.3.

<sup>75</sup>See PPA at § 6.8.2.

<sup>76</sup>See PPA at § 6.8.4.

<sup>77</sup>See PPA at § 6.8.3.

<sup>78</sup>PPA at § 6.8.1.

<sup>79</sup>PPA at § 12.1.

coverages, specified in Appendix H of the PPA.<sup>80</sup> AES must also provide KIUC with certificates of insurance and any applicable endorsements at KIUC's request.<sup>81</sup> The PPA further requires AES to provide KIUC with security to assure AES's performance of its obligations.<sup>82</sup>

Termination Rights. KIUC and AES have agreed to certain conditions that would trigger PPA termination rights that are set forth in PPA Articles 10 and 11 ("Force Majeure" and "Defaults and Remedies," respectively). Upon the occurrence of such conditions, the non-defaulting party is entitled to a number of remedies up to and including termination of the PPA by notice to the other party with ten-days' notice.<sup>83</sup> In the event of force majeure, the parties shall attempt in good faith to negotiate an amendment to the PPA; if unsuccessful after 30 days, the party not affected by the force majeure event may terminate the PPA upon ten days' notice to the other party.<sup>84</sup>

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<sup>80</sup>PPA at § 13.1.

<sup>81</sup>PPA at § 13.2.

<sup>82</sup>PPA at § 13.4.

<sup>83</sup>PPA at § 11.2.

<sup>84</sup>PPA at § 10.3.

II.

PARTIES' AND PARTICIPANTS' POSITIONS

A.

KIUC

KIUC provides information in support of its Application, as summarized below.

The PPA. In support of its request for Commission approval of the PPA with AES, KIUC represents:

1. The renewable energy KIUC will purchase under the PPA will assist it in achieving the RPS set forth in HRS § 269-91 et seq., and specifically, KIUC estimates the renewable energy purchased under the PPA will contribute about 22.72% to KIUC's 2024 RPS.<sup>85</sup>

2. The renewable energy purchased will assist KIUC in achieving its goal of moving toward energy independence and decreased reliance on foreign imported oil by meeting "at least 70% of KIUC's annual electricity sales with energy generated by renewable resources by the year 2030."<sup>86</sup>

3. The energy rate and capacity charges under the PPA "are advantageous because they will not increase and are intended to remain fixed or stable for their applicable terms" (25 years

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<sup>85</sup>Application at 18.

<sup>86</sup>Application at 18.

for Solar Term; 40 years for PSH Term; and 50 years for the Hydropower-only Term).<sup>87</sup> KIUC states that this “provides stability for KIUC’s members and is materially lower than the forecasted cost of oil generation that the PPA will displace, which will result in savings and lower effective rates for KIUC’s members . . . .”<sup>88</sup>

4. The Project “will provide KIUC with firm capacity that (a) KIUC will have dispatch control over without the intermittent nature and variability associated with photovoltaic and other non-firm renewable energy sources, and (b) will assist KIUC in continuing to meet its adequacy of supply requirements.”<sup>89</sup> KIUC states that the Project “will look and act on the utility grid like a firm, fossil fuel fired generation resource, but it will not be subject to variable fuel pricing and the resulting rate instability that can occur with fossil fuel fired generation.”<sup>90</sup>

5. The Project will function as an energy source similar to a BESS, “but with meaningful and significant advantages as compared to a BESS in terms of the duration of storage

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<sup>87</sup>Application at 19.

<sup>88</sup>Application at 19.

<sup>89</sup>Application at 19-20.

<sup>90</sup>Application at 20.

capability and the use of a rotating, synchronous generator to create AC power instead of using inverters.”<sup>91</sup> This paradigm, KIUC states, provides “needed increased inertia, voltage support, and fault current to the electric grid when KIUC is operating at 100% renewable energy . . . .”<sup>92</sup>

6. The pricing structure under the PPA is also advantageous because AES bears the responsibility to construct, test, commission, and turn over the WKEP Substation to KIUC.<sup>93</sup> KIUC states that, based on its prior development-related experience, the risk associated with the construction responsibility is substantial, and AES taking on that risk maximizes its incentive to achieve tax credits and “eliminates the risk” that AES would need to recover any assumed tax attributes from KIUC.<sup>94</sup>

7. The PPA reduces KIUC’s fossil fuel use and “is expected to result in significant cost savings for KIUC and its members/customers.”<sup>95</sup> Specifically, KIUC states it will use an annual average of about 8.5 million fewer gallons of fuel,

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<sup>91</sup>Application at 20.

<sup>92</sup>Application at 20.

<sup>93</sup>Application at 20.

<sup>94</sup>Application at 21.

<sup>95</sup>Application at 21.



resulting in about 212 million gallons less fuel being consumed over the Solar Term.<sup>96</sup> KIUC estimates that it and its members/customers will save between \$157 million and \$172 million (net present value using a five percent discount rate) over the Solar Term.<sup>97</sup>

8. The PPA is expected to result "in an overall significant reduction in greenhouse gas ('GHG') emissions[,]" and will specifically result in an estimated annual reduction of about 80,000 metric tons carbon dioxide emissions ("CO<sub>2</sub>").<sup>98</sup> In support of the above, KIUC provides a GHG analysis for the Project conducted by McMillen Jacobs Associates ("McMillen"), attached as Exhibit 5 to the Application ("McMillen Analysis"). KIUC's GHG analysis for the Project, including subsequent updates to the McMillen Analysis and complementary studies, is discussed in greater detail in Section III.C.4, below.

9. The interconnection and operation of the Project "is not anticipated to negatively impact the amount of future distributed energy resources ('DER') that that can be interconnected to KIUC's system, and is also not anticipated to

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<sup>96</sup>Application at 21.

<sup>97</sup>Application at 21.

<sup>98</sup>Application at 21-22.

exacerbate the existing minimum daytime load conditions on KIUC's system."<sup>99</sup> In this regard, KIUC explains: (1) the majority of the Project's PV generation is not expected to go to KIUC's grid during the daytime, but instead is expected to be used to power the pumped storage component of the Project; and (2) the energy to be provided to KIUC's grid from hydropower electric generation is expected to occur primarily during evening peak, nighttime, and morning peak hours, as well as during periods of cloudy/rainy weather when solar PV/DER projects are generating little or no energy.<sup>100</sup>

10. The specific terms and conditions of the PPA were negotiated by KIUC and AES at arms-length and contain indemnification, insurance, and other provisions that will serve to protect KIUC and its members/customers from certain risks associated with interconnecting the Project.<sup>101</sup>

11. "The terms and conditions of the PPA are not discriminatory to other small power producers that are similarly situated and will not: (i) negatively affect KIUC's ability to provide electric service to its members/customers, or (ii) unduly impact the reliability of KIUC's system."<sup>102</sup>

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<sup>99</sup>Application at 22-23.

<sup>100</sup>Application at 22-23.

<sup>101</sup>Application at 24.

<sup>102</sup>Application at 24.

12. "The terms and conditions of the PPA are not comparable to a stand-alone solar PV PPA (with or without BESS), nor are they similar to a stand-alone hydropower PPA, both of which remain the only two viable renewable resource alternatives for near-future renewable development on Kauai."<sup>103</sup> Instead, KIUC represents, the PPA combines solar PV plus BESS and hydropower elements "so that significant PV energy can be added to KIUC's grid in a firm manner (using long-duration storage) and with increased reliability (using a rotating synchronous generator), while complementing that PV energy with environmentally-friendly hydropower," all in a way "that is designated to be as flexible as possible to allow KIUC to dispatch the energy at any time and in any manner that is most beneficial to KIUC's system."<sup>104</sup>

13. In addition to providing renewable, dispatchable energy generation during peak, nighttime, and cloudy/rainy periods, the Project will provide irrigation delivery to support agriculture on lands adjacent to the site and rehabilitation of the existing Puu Opae, Puu Lua, and Mana Reservoirs and related ditch system infrastructure while also increasing public

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<sup>103</sup>Application at 24.

<sup>104</sup>Application at 24-25.

access and recreational opportunities associated with the Puu Lua Reservoir.<sup>105</sup>

14. If the Project is not built, the following negative impacts may result:

- The practical implementation of the diversion and delivery of water, repair of roads, and installation of electrical distribution to DHHL-managed mauka lands would not occur or would be the responsibility of DHHL, which is not part of DHHL's 20-year plan, thus risking the viability of the lands for the foreseeable future.
- The rehabilitation and ongoing maintenance of the existing reservoirs and the Kokee Ditch would be the responsibility of the State, which could result in increased costs to the State or possibly lead to reservoirs being decommissioned and the ditch system falling into disrepair.
- The continued lack of maintenance and failure to bring the Puu Lua Reservoir up to current Hawaii State dam safety standards (e.g., Hawaii Dam and Reservoir Safety Act of 2007) could result in the decommissioning and draining of the reservoir. This would result in the elimination of a valued recreational trout fishing program and could jeopardize water availability between rain events to DHHL and other downstream users along the ditch system.
- The disrepair of the diversions of the Kokee Ditch would lead to reduced agriculture potential for thousands of acres of public lands on the west side of Kauai, as well as the lowering in value of a State-owned asset.

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<sup>105</sup>Application at 26.

- Several planned stream and ditch gages, which are to be completed as part of the Project, would not be added to tributaries of the Waimea River and the Kokee Ditch.
- The existing unlined ditch from the Puu Moe Divide to the Puu Moe Reservoir would remain in place. This unlined ditch is in significant disrepair and irrigation to pastoral lots is only served by a pipe that runs down the middle of the road, which is not a reliable situation and is of concern to the water user and the Division of Forestry and Wildlife ("DOFAW"), which is the agency that maintains the road that is on DLNR land.
- Necessary road repairs would not be completed.<sup>106</sup>

New Overhead Circuit and Conductor Work. KIUC indicates that the New Overhead Circuit will be approximately 1.5 miles long and is required to interconnect the Project to KIUC's grid.<sup>107</sup> KIUC further states that:

[T]he Conductor Work involves upgrading the conductors along an approximately 1.0 mile segment of KIUC's existing transmission line to support the dispatch capacity of the West Kauai Energy Project, as well as installing approximately 2.65 miles of single mode fiber optic cable between the Project's [proposed] WKEP substation and the [Pacific Missile Range Facility ("PMRF")] substation for the purpose of allowing KIUC's system to control and communicate to the West Kauai Energy Project.<sup>108</sup>

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<sup>106</sup>KIUC's Response to CA/KIUC-IR-9.b.

<sup>107</sup>Application at 26.

<sup>108</sup>Application at 26.

KIUC states that the New Overhead Circuit and Conductor Work will not run through nor near any residential area, and that the nearest residential areas are approximately 3.7 and 2.8 miles away, respectively.<sup>109</sup>

KIUC estimates that it will incur at least \$2.7 million in costs to effectuate the New Overhead Circuit and Conductor Work.<sup>110</sup> KIUC states that the expenditure of funds for the New Overhead Circuit and Conductor Work is reasonable and in the public interest because the New Overhead Circuit and Conductor Work are necessary to interconnect the Project and therefore essential to realizing the associated benefits described above.<sup>111</sup>

Overhead Determination for the New Overhead Circuit.

KIUC states that the New Overhead Circuit should be placed, constructed, erected, and built above the surface of the ground pursuant to HRS § 269-27.6.<sup>112</sup> To support this position, KIUC provides the following analysis:

1. The benefits of placing the New Overhead Circuit above ground outweigh the costs of placing it underground.

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<sup>109</sup>Application at 26.

<sup>110</sup>Application at 26.

<sup>111</sup>Application at 27.

<sup>112</sup>Application at 27-28.

KIUC estimates that an underground line would cost “substantially more” than an overhead line, and “[i]n this situation, there would be no material benefit in KIUC incurring the additional costs to construct the transmission circuit underground instead of overhead.”<sup>113</sup> Although KIUC acknowledges that an underground line otherwise provides “some level of additional reliability by being less subject to human effects . . . and natural events[,]” KIUC explains that these concerns are mitigated in this situation, as the New Overhead Circuit will be located in an area with no public access and over managed agricultural lands without trees.<sup>114</sup> KIUC also raises the increased difficulty associated with repairing underground lines versus repairing overhead lines, and concludes that “the time needed and costs involved to repair a damaged portion of an underground transmission line are often significantly greater than repairing an overhead line.”<sup>115</sup>

2. KIUC states that it is unaware of any governmental policy that requires KIUC to place the New Overhead Circuit underground.<sup>116</sup>

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<sup>113</sup>Application at 29.

<sup>114</sup>See Application at 29.

<sup>115</sup>Application at 30.

<sup>116</sup>See Application at 30.

3. KIUC states that no governmental agency or third party has indicated any willingness to pay for the additional costs associated with an underground line versus an overhead one.<sup>117</sup>

Transfer of Rights to AES. KIUC states that, to the extent the Commission believes its approval is required under HRS § 269-19 for KIUC to transfer its various Development Assets and Associated Rights to AES, such transfer is reasonable and in the public interest.<sup>118</sup> In support thereof, KIUC states that it has incurred substantial hydro development, engineering, and design costs in pursuing the Project over the past decade, and that transferring the Development Rights to AES would allow AES to take advantage of KIUC's prior work and save costs by preventing AES from having to expend those costs to start from scratch.<sup>119</sup> KIUC states that this arrangement will help effectuate all the other benefits of the PPA described above.<sup>120</sup>

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<sup>117</sup>See Application at 30.

<sup>118</sup>Application at 32-37.

<sup>119</sup>Application at 32-37.

<sup>120</sup>Application at 37-38.



B.

Consumer Advocate

The Consumer Advocate recommends approving KIUC's Application, subject to certain conditions.<sup>121</sup> In reaching this recommendation, the Consumer Advocate considered whether to approve the PPA, as well as KIUC's additional requests to: (1) recover costs associated with the PPA through KIUC's ERAC; (2) commit funds for the New Overhead Circuit and Conductor Work pursuant to the Commission's G.O. 7; (3) construct the New Overhead Circuit above the surface of the ground; and (4) transfer the Development Assets to AES.

Approval of the PPA. In reviewing whether to approve the PPA, the Consumer Advocate states that it considered: (1) KIUC's selection of AES as a third-party project developer; (2) the pricing and bill impacts associated with the proposed PPA; (3) the terms and conditions of the proposed PPA; (4) the proposed site location; (5) the community outreach and benefits; and (6) the Project's effect on the State's reliance on fossil fuels, GHG emissions and contribution to RPS goals.<sup>122</sup>

Regarding the selection of AES, the Consumer Advocate notes that KIUC is exempted from the Commission's Competitive

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<sup>121</sup>CA's SOP at 1.

<sup>122</sup>CA's SOP at 15-16.

Bidding Framework.<sup>123</sup> KIUC explains that it had considered building and operating the Project itself or through an affiliate, but after discussing with consultants and performing preliminary studies, determined that entering into a PPA with AES was more desirable.<sup>124</sup> In doing so, KIUC states that its initial efforts to develop the Project on its own involved the competitive selection of McMillen,<sup>125</sup> who then further competitively procured Project equipment, before KIUC decided to seek a partner instead of pursuing a self-build option. As a result, KIUC states that "[t]hrough these efforts, KIUC essentially competitive bid in Project design and capital cost and then searched for and selected an acceptable development partner."<sup>126</sup>

In choosing AES, KIUC notes AES' experience in hydropower electric/pumped storage construction and operation, its record with KIUC related to the Lawai and Kekaha solar plus storage projects (Docket Nos. 2017-0018 and 2017-0443), its larger

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<sup>123</sup>See CA's SOP at 16 (citing Docket No. 03-0372, Decision and Order No. 23298, filed March 14, 2007).

<sup>124</sup>See CA's SOP at 17.

<sup>125</sup>KIUC competitively selected McMillen as its Energy, Procurement, and Construction ("EPC") contractor, which "performed detailed civil, electrical, and hydropower generation engineering, equipment specifications and alternative analyses, and competitively bid those configuration and equipment specifications through procurement efforts." CA's SOP at 21 (citing KIUC's Response to CA/KIUC-IR-11.a).

<sup>126</sup>CA's SOP at 18.

record of developing and operating multiple power projects throughout the State, its size and financial resources, and "its ability to immediately and smoothly take over KIUC's development activities in furtherance of making the [Project] come to fruition."<sup>127</sup>

In light of the above, the Consumer Advocate concludes that KIUC's selection of AES "appears reasonable, considering the mitigation of various project risks."<sup>128</sup>

Regarding the estimated pricing and bill impacts of the PPA, the Consumer Advocate notes that the PPA pricing incorporates the federal ITC, despite the uncertainty and risk around its application to the Project.<sup>129</sup> The Consumer Advocate further observes that this PPA's energy pricing is favorable compared to recent solar plus storage projects, and that due to the Project's unique components, may be able to provide firm capacity with increased reliability compared to the existing AES Lawai and Kekaha projects.<sup>130</sup> Additionally, the PPA places responsibility for constructing, testing, and building the Project on AES, which protects KIUC's members from the impacts of financial cost

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<sup>127</sup>CA's SOP at 17.

<sup>128</sup>CA's SOP at 19.

<sup>129</sup>See CA's SOP at 21 (citing KIUC's Response to CA/KIUC-IR-28.b).

<sup>130</sup>CA's SOP at 21-22.

overruns associated with Project development and achievement of the federal ITC.<sup>131</sup>

The Consumer Advocate further notes that according to KIUC's bill impact analysis, the PPA is expected to provide consistent savings to its members during each year of the 25-year Solar Term, and between \$157 million and \$172 million in savings to its members over the 25-year Solar Term.<sup>132</sup>

Based on the above, and taking into account that the PPA pricing is not linked to fossil fuels or other variable indices, such as the Honolulu Consumer Price Index, the Consumer Advocate does not object to the PPA's pricing structure.<sup>133</sup> That being said, consistent with its recommendations in prior proceedings, the Consumer Advocate recommends that KIUC should be required "to file with the Commission and Consumer Advocate copies of all AES invoices related to the engineering, procurement, construction, and maintenance associated with the [Project] no later than sixty (60) days after the commercial operation date."<sup>134</sup> In addition, KIUC should also "provide copies of AES'[s] income statements of results of operations related to the PV/BESS

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<sup>131</sup>See CA's SOP at 23.

<sup>132</sup>CA's SOP at 25-26.

<sup>133</sup>CA's SOP at 24.

<sup>134</sup>CA's SOP at 24.

facility.”<sup>135</sup> The Consumer Advocate states that this is intended to support better understanding of Hawaii-specific project costs and evaluation of proposed pricing in future PPAs.<sup>136</sup>

As for the terms and conditions of the PPA, the Consumer Advocate acknowledges that the PPA “which combines PV/BESS, PSH, and traditional hydroelectric components . . . is fairly unique and as such, it is difficult to directly compare its provisions with those of previous standalone PV and/or PV/BESS PPAs, or standalone hydropower PPAs.”<sup>137</sup> That being said, the Consumer Advocate focuses on two provisions of the PPA: the term length and the absence of a planned outage curtailment cap.

Regarding the PPA’s term, the Consumer Advocate turns to KIUC’s explanation of the differences between the Solar Term and the PSH and Hydropower-only Terms, and notes that the longer PSH and Hydropower-only Terms allow for a lower PPA cost than if the PSH and Hydropower-only Terms attempted to match the Solar term, and takes into account the longer useful life of the PSH and Hydropower-only components, as well as conditions imposed by

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<sup>135</sup>CA’s SOP at 24.

<sup>136</sup>CA’s SOP at 24-25.

<sup>137</sup>CA’s SOP at 26.

the federal ITC.<sup>138</sup> While the Consumer Advocate reiterates prior concerns about the risks of “locking-in” longer term PPAs, the Consumer Advocate credits KIUC’s representations that it intends to use the PSH component of the Project beyond the 25-year Solar Term.<sup>139</sup> In light of the above, “the Consumer Advocate does not oppose the term length of the PPA.”<sup>140</sup>

Additionally, the Consumer Advocate notes that “[a]nother main difference between the subject PPA and other PPAs is the exclusion of the Planned Outage Curtailment Cap,” which would have allowed KIUC to curtail the Project without payment to AES, up to a certain specified amount.<sup>141</sup> The Consumer Advocate refers to KIUC’s response to CA/KIUC-IR-18, in which KIUC explains that based on its experience with the AES Lawai and AES Kekaha projects, which feature PPAs with curtailment caps, it has not found need to exercise curtailment of those projects and that its decision to remove this term during negotiations with AES has allowed it to negotiate a lower PPA price.<sup>142</sup> While the PPA does provide for curtailment payments

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<sup>138</sup>See CA’s SOP at 27.

<sup>139</sup>CA’s SOP at 27-28.

<sup>140</sup>CA’s SOP at 28.

<sup>141</sup>CA’s SOP at 28.

<sup>142</sup>CA’s SOP at 28-29 (citing KIUC’s Response to CA/KIUC-IR-18).

related to KIUC's inability to store energy from the Project, the Consumer Advocate credits KIUC's representations that such curtailment is unlikely, given the Project's large amount of storage capacity.<sup>143</sup>

Based on the above, "[w]hile the Consumer Advocate still has remaining questions about possible curtailment due to Seller's actions or caused by Seller, it appears that the customers/members' risks related to curtailment are mitigated and the Consumer Advocate does not object to these PPA terms."<sup>144</sup>

Regarding the Project's location, the Consumer Advocate observes that although portions of the Project are in a Federal Emergency Management Agency designated flood zone and a Tsunami Evacuation Zone, KIUC is designing the Project substation and PV array "to meet engineering standards for high water levels associated with both flood inundation and tsunami events."<sup>145</sup> Further, the Consumer Advocate notes that the Project itself is expected to assist in mitigating future flooding "through repairs made to the Puu Lua, Puu Opae, and Mana Reservoirs[,]" which will "bring the reservoirs into compliance with Hawaii State Dam

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<sup>143</sup>See CA's SOP at 29-30 (citing KIUC's Response to CA/KIUC-IR-19).

<sup>144</sup>CA's SOP at 30.

<sup>145</sup>CA's SOP at 31 (citing KIUC's Response to CA/KIUC-IR-5.a).

Safety Standards[.]”<sup>146</sup> Based on the above, the Consumer Advocate concludes that “KIUC appears to be taking measures to protect its system from flooding and tsunami events.”<sup>147</sup>

For community outreach and benefits, the Consumer Advocate examined the Project’s potential benefits to the local community, as well as AES’ outreach efforts about the Project. Regarding community benefits, the Consumer Advocate notes that the Project is expected to “provide irrigation delivery to support agriculture on lands adjacent to the [Project] site and rehabilitation of the existing Puu Opae, Puu Lua, and Mana Reservoirs and related ditch system infrastructure while increasing public access and recreational opportunities associated with the Pua Lua Reservoir.”<sup>148</sup> In addition, the Consumer Advocate considered KIUC’s asserted negative impacts of not building the Project, including loss of infrastructure improvements to the area (roads, electrical work, reservoirs, etc.), the risk that ongoing failure to bring the Puu Lua Reservoir up to current Hawaii State dam safety standards may result in decommissioning and draining of the reservoir, and impacts that ongoing disrepair of the

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<sup>146</sup>CA’s SOP at 32 (citing KIUC’s Response to CA/KIUC-IR-5.a).

<sup>147</sup>CA’s SOP at 32.

<sup>148</sup>CA’s SOP at 33 (citing Application at 5-6).



Kokee Ditch diversions may have on agricultural opportunities on the west side of Kauai.<sup>149</sup>

Regarding AES' community outreach efforts, the Consumer Advocate observes that KIUC and AES jointly developed a community engagement plan that includes stakeholders at the county, state, and federal levels, as well as project landowners (including tenants and beneficiaries), and residents in the communities of Waimea, Kekaha, Mana, and Kokee.<sup>150</sup> The Consumer Advocate recognizes KIUC's and AES' outreach efforts, and notes that "it appears that a number of actions have been take to address certain concerns around water flow and potential impacts to farming operations."<sup>151</sup> However, the Consumer Advocate notes that "the Project must still undergo environmental review as well as meet other regulatory and permitting requirements," and recommends that "KIUC and AES provide and/or support venues for community feedback and also compile past and ongoing outreach efforts" into a "living document" that reflects ongoing dialogue to address community concerns.<sup>152</sup>

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<sup>149</sup>See CA's SOP at 33-34 (citing KIUC's Response to CA/KIUC-IR-9.b).

<sup>150</sup>See CA's SOP at 34-35.

<sup>151</sup>CA's SOP at 40.

<sup>152</sup>CA's SOP at 40-41.

Turning to the Project's environmental impacts, the Consumer Advocate examined "the Project's effect on the State's reliance on fossil fuels, its [GHG] emissions impact, and its contribution to KIUC's RPS."<sup>153</sup> In so doing, the Consumer Advocate observes that the Project is expected to displace significant amounts of fossil fuel, particularly ultra-low sulfur diesel and naphtha.<sup>154</sup> The Consumer Advocate does not challenge KIUC's calculations that the Project will result in approximately 8.5 million fewer gallons of fossil fuel and could potentially offset up to 118,361 MWh (60%) of KIUC's oil-fired dispatched generation over a 12-month period.<sup>155</sup> The Consumer Advocate also notes that this reduction in fossil fuel use is expected to reduce KIUC's members' exposure to fuel price volatility, as well as Kauai's (and the State's) fuel supply reliability risk.<sup>156</sup>

Regarding the Project's GHG emissions impact, the Consumer Advocate reflected upon the complicated series of tests and updates utilized by KIUC to reach its final GHG emissions

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<sup>153</sup>CA's SOP at 42.

<sup>154</sup>CA's SOP at 42.

<sup>155</sup>CA's SOP at 42 (citing Application at 21-22 and KIUC's Response to CA/KIUC-IR-1.a).

<sup>156</sup>CA's SOP at 43.

estimate.<sup>157</sup> The Consumer Advocate noted that there are a number of discrepancies in results across the various studies, and further commented on the “rather crude estimation methods used to provide a more complete view of the Project’s lifecycle impact.”<sup>158</sup> As a result, while concluding that the GHG emissions associated with the Project are significantly outweighed by the GHG emissions the Project is expected to avoid, the Consumer Advocate offered that “further thought, coordination, and transparency upfront should be given to presenting the Project’s GHG impact[,]”<sup>159</sup> and suggested a number of improvements.<sup>160</sup> The Consumer Advocate also emphasized the importance of developing an end-of-life management plan for the Project, and while noting that KIUC has stated that it intends to develop a plan during the PPA term, stressed that having a basic plan developed sooner rather than later would provide greater assurances “so that neither KIUC nor its members/customers will be left holding the bag when decommissioning is required.”<sup>161</sup> That being said, based on “the estimated reduction of approximately 2,018,487 [metric tons of CO<sub>2</sub> equivalents (“MT CO<sub>2</sub>e”)] for the

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<sup>157</sup>See CA’s SOP at 44-49.

<sup>158</sup>CA’s SOP at 50; see also, id. at 48 n.133

<sup>159</sup>CA’s SOP at 50.

<sup>160</sup>See CA’s SOP at 50-51.

<sup>161</sup>CA’s SOP at 51-53.

Project's operation and 2,508,877 MT CO<sub>2</sub>e for each stage of the Project's lifecycle over twenty-five years, the Consumer Advocate does not object to KIUC's GHG analysis at this time."<sup>162</sup>

Regarding the Project's impact to KIUC's RPS, the Consumer Advocate observes that the Project is expected to contribute approximately 23.6% toward this goal in 2024 and 18.1% in 2048, and "is anticipated to result in KIUC achieving 79% RPS by 2030."<sup>163</sup> While not raising any objections on this subject, the Consumer Advocate "requests that updated sales and the WKEP's contribution to KIUC's RPS during its initial twenty-five year term be provided upon completion of KIUC's updated load forecast."<sup>164</sup>

Based on the above, the Consumer Advocate recommends that the Commission approve the PPA.<sup>165</sup>

Cost recovery through the ERAC. Given that the Consumer Advocate does not object to approval of the PPA, the Consumer Advocate likewise does not object to authorizing KIUC to include payments made under the PPA into KIUC's ERAC, with the

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<sup>162</sup>CA's SOP at 51.

<sup>163</sup>CA's SOP at 53.

<sup>164</sup>CA's SOP at 54.

<sup>165</sup>See CA's SOP at 2.

exception of payments related to curtailed energy, and to the extent such costs are not recovered in KIUC's base rates.<sup>166</sup> The Consumer Advocate recommends that "[i]f, for whatever reason, there is curtailment that persists, . . . KIUC [should be required] to report the curtailed amount and the associated costs[.]"<sup>167</sup> The Consumer Advocate states that this is a "reasonable regulatory condition," since KIUC would likely be monitoring such information, and further regulatory action could be determined at a later date.<sup>168</sup>

Commitment of Funds for the New Overhead Circuit and Conductor Work. The Consumer Advocate notes that the exact cost for the New Overhead Circuit and Conductor Work has not yet been determined, as KIUC is exploring an alternative location for the Project substation due to potential water inundation in the area, but that it is expected to cost at least \$2.7 million.<sup>169</sup> Thus, "although the Consumer Advocate recognizes that the proposed New Overhead Circuit and Conductor Work is necessary to interconnect the [Project] to KIUC's system, the Consumer Advocate reserves the right to review the actual project costs at the time

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<sup>166</sup>CA's SOP at 55.

<sup>167</sup>CA's SOP at 55.

<sup>168</sup>CA's SOP at 55.

<sup>169</sup>See CA's SOP at 56-57.

of KIUC's next rate proceeding."<sup>170</sup> The Consumer Advocate further recommends that "KIUC report any changes to the location of the substation."<sup>171</sup>

Construction of the New Overhead Circuit above the surface of the ground. The Consumer Advocate reviewed this request according to the criteria set forth in HRS § 269-27.6(a) and arrived at the following conclusions summarized below.

The Consumer Advocate concluded that there is no benefit that outweighs the cost of placing the New Overhead Circuit underground. The Consumer Advocate observes that the estimated cost of placing the circuit underground is approximately \$8.74 million, compared to \$2.71 million for an overhead configuration, a difference of \$6.03 million.<sup>172</sup> The Consumer Advocate further observed that the visual impact of placing the New Overhead Circuit above ground should be minimal, as the nearest residence is approximately 3.7 miles away (the Consumer Advocate noted that this is true even if KIUC's alternate site for the Project substation is used).<sup>173</sup> In addition, while maintenance costs for an underground circuit may be slightly

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<sup>170</sup>CA's SOP at 57.

<sup>171</sup>CA's SOP at 57.

<sup>172</sup>CA's SOP at 58-59 (citing KIUC's Response to CA/KIUC-IR-22.a).

<sup>173</sup>CA's SOP at 60 (citing KIUC's Response to CA/KIUC-IR-42.b).

lower, the Consumer Advocate observed that this is outweighed by the higher costs to place the circuit underground and the difficulty in accessing an underground line for repairs.<sup>174</sup>

The Consumer Advocate states that it "is not aware of any governmental public policy or mandate requiring the underground placement of transmission systems" that would require the New Overhead Circuit to be placed underground.<sup>175</sup>

The Consumer Advocate acknowledges KIUC's representation that it is not aware of any governmental agency or third party who would be willing to pay for undergrounding the New Overhead Circuit.<sup>176</sup>

The Consumer Advocate considered the potential risk the New Overhead Circuit may have on endangered birds, but notes that KIUC has completed a short-term Habitat Conservation Plan in 2011, is currently developing a 30-year Habitat Conservation Plan, and has identified the Mana Plain area (where the New Overhead Circuit will be placed) as "a low risk area for endangered and threatened seabirds."<sup>177</sup> The Consumer Advocate also notes that

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<sup>174</sup>CA's SOP at 60.

<sup>175</sup>CA's SOP at 61.

<sup>176</sup>CA's SOP at 61.

<sup>177</sup>CA's SOP at 61-62 (the body refers to a citation designated as footnote "164;" however, no such footnote is included in the Consumer Advocate's SOP).

KIUC is taking additional measures based on past projects "(e.g., horizontal configuration used to the maximum extent practicable, line height will be as low as feasibly possible)."178

Based on the above, the Consumer Advocate "does not object at this time to the proposed New Overhead Circuit and Conductor Work."179

Transfer of the Development Assets to AES.

The Consumer Advocate notes that the transfer of Development Assets to AES is necessary to effectuate the construction of the Project and will help realize various cost savings/efficiencies "compared to AES moving forward on its own without being able to use and take advantage of various efforts KIUC has already undertaken towards the Project."180 The Consumer Advocate observes that this transfer is rooted in KIUC's assessment that having AES develop the Project is calculated to reduce risk, save costs, and leverage AES's experience in bringing the Project to fruition, compared to KIUC or one of its subsidiaries pursuing it itself.181 Under these circumstances, "the Consumer Advocate does not object to the [transfer of

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178CA's SOP at 62.

179CA's SOP at 63.

180See CA's SOP at 65.

181See CA's SOP at 65-68.



Development Assets] to effectuate the PPA arrangement between KIUC and AES[,]” but “requests that KIUC file copies of the documentation associated with the Development Assets with the Commission and Consumer Advocate at the time the Company provides the documents to AES.”<sup>182</sup>

In sum, the Consumer Advocate recommends that the Commission approve KIUC’s requests, as set forth in the Application, subject to various conditions, as summarized below:

- (1) KIUC be required to file with the Commission and the Consumer Advocate copies of all AES invoices related to the engineering, procurement, construction, and maintenance associated with the PV/BESS Facility no later than sixty (60) days after the commercial operations date;<sup>183</sup>
- (2) KIUC be required to provide copies of AES’ income statements or results of operations related to the PV/BESS Facility (with such documents being treated confidentially, as needed);<sup>184</sup>
- (3) As community engagement should be ongoing, KIUC and AES should be required to provide and/or support venues for community feedback and compile past outreach efforts into a single “living” document reflecting all community engagement;<sup>185</sup>
- (4) Updated information regarding sales and the Project’s contribution to KIUC’s RPS during

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<sup>182</sup>CA’s SOP at 68.

<sup>183</sup>CA’s SOP at 24-25.

<sup>184</sup>CA’s SOP at 24-25.

<sup>185</sup>CA’s SOP at 41.

the Solar Term should be provided upon completion of KIUC's load forecast;<sup>186</sup>

- (5) In the event that there is persistent curtailment, KIUC be required to report the curtailed amount and associated costs;<sup>187</sup>
- (6) KIUC be required to report any changes to the location of the WKEP Substation;<sup>188</sup> and
- (7) KIUC be required to file copies of the documentation associated with the Development Assets with the Commission and with the Consumer Advocate at the time KIUC provides those documents to AES.<sup>189</sup>

C.

SEO

SEO is the State's primary agency responsible for providing analysis and planning to the State regarding energy efficiency, renewable energy, and energy resiliency.<sup>190</sup> In this Docket, the Commission found that SEO is generally concerned with the effect a decision and order may have on Hawaii's energy and decarbonization.<sup>191</sup> Accordingly, the Commission limited SEO's

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<sup>186</sup>CA's SOP at 54.

<sup>187</sup>CA's SOP at 55.

<sup>188</sup>CA's SOP at 57.

<sup>189</sup>CA's SOP at 68.

<sup>190</sup>Order No. 37691 at 18.

<sup>191</sup>Order No. 37691 at 19.

participation in this Docket to fulfilling its statutory purpose of "promo[ting] energy efficiency, renewable energy, and clean transportation to help achieve a resilient clean energy economy."<sup>192</sup>

SEO recognizes this limitation and has limited its SOP to Issues 1 through 3.<sup>193</sup> On the issues in which SEO is a Participant in this proceeding, it "recommends approval of the PPA."<sup>194</sup> SEO makes this recommendation on the basis of:

- a. the [P]roject's projected lower cost of electricity to Kauai's electricity customers;
- b. the [P]roject's ability to significantly lower the emission of greenhouse gases;
- c. the contribution of the [P]roject to the State's and the Island of Kauai's energy security goals; and
- d. the contribution of the [P]roject to the State's and the island of Kauai's energy security goals[.]<sup>195</sup>

Specifically, SEO concludes that "[t]he technologies in the [P]roject [(i.e., PSH, PV, and BESS)] are diversified, reliable, and proven[,]. . . [and] [c]ombining these technologies as proposed will provide enhanced resilience for the island,

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<sup>192</sup>Order No. 37691 at 35.

<sup>193</sup>SEO's SOP at 5.

<sup>194</sup>SEO's SOP at 6.

<sup>195</sup>SEO's SOP at 5-6.

with potential for the hydropower portion in particular to continue in usefulness beyond the period of the contract.”<sup>196</sup>

On the issue of whether the Commission should authorize inclusion of the PPA costs in KIUC’s ERAC (Issue 2), SEO states that such inclusion “appears necessary and reasonable, and SEO recommends approval of such inclusion.”<sup>197</sup>

Regarding whether the Commission should approve the expenditure of funds to effectuate the New Overhead Circuit and the Conductor Work, SEO states that “approval of the transmission and fiber optic lines appears reasonable, and the expenditure appears necessary for that purpose; therefore, SEO recommends approval of such expenditure.”<sup>198</sup>

SEO notes that, while it supports approval of the PPA based on the above considerations, it “cannot provide its full support for the [P]roject before the [P]roject undergoes its environmental review requirements under Chapter 343, HRS; community outreach needs with respect to use of state-owned lands; and other regulatory and permitting requirements including use of the stream and surface waters.”<sup>199</sup> That being said, SEO offers a

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<sup>196</sup>SEO’s SOP at 6.

<sup>197</sup>SEO’s SOP at 6.

<sup>198</sup>SEO’s SOP at 7.

<sup>199</sup>SEO’s SOP at 7.

number of considerations that appear to convey its support for the Project in these pending areas, including: (1) the Project's contribution to KIUC's RPS; (2) the comparatively low cost of energy under the PPA; (3) the estimated reduction in GHG emissions; and (4) the Project's potential to provide reliable irrigation for agricultural use and "significant rehabilitation and long-term maintenance for the associated water infrastructure . . . ."200 Concomitantly, SEO states that it "will coordinate with state agencies engaged on this [P]roject, both separate from and in concert with the instant proceeding."<sup>201</sup>

D.

The Alliance

In its SOP, the Alliance notes that it "has been supportive of the concept of the [P]roject and its potential to offer a 'win-win-win' for the West Kauai community and beyond . . . ."202 However, while the Alliance is generally supportive of the Project, the Alliance asserts that the Commission's approval of KIUC's Application should not come before environmental review

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<sup>200</sup>SEO's SOP at 8-9.

<sup>201</sup>SEO's SOP at 10.

<sup>202</sup>Alliance's SOP at 1.

under HRS Chapter 343, the Hawaii Environmental Protection Act ("HEPA"), is complete.<sup>203</sup>

In support of its position that the outcome of HEPA review should inform the Commission's decision-making process in this Docket, the Alliance broadly raises the following concerns:

- (1) HEPA Review applies to the Project, and the process of reviewing environmental impacts will benefit and enhance the Commission's decision-making process;<sup>204</sup>
- (2) The Commission should consider and incorporate environmental concerns in matters that affect the environment, particularly in light of its constitutional and statutory duties;<sup>205</sup> and
- (3) There are remaining questions about the potential impacts of the Project that support waiting for HEPA Review.<sup>206</sup>

In sum, the Alliance "believes it is still very early in the [P]roject development and community engagement process, and the environmental review process should be allowed to work before the Commission issues its decisions . . . ." <sup>207</sup> While reserving the right to further modify its position, the Alliance maintains, at this time, that a Commission decision

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<sup>203</sup>Alliance's SOP at 1-2, 8-16.

<sup>204</sup>See Alliance's SOP at 9-10; and 16-21.

<sup>205</sup>See Alliance's SOP at 11-16.

<sup>206</sup>Alliance's SOP at 21-29.

<sup>207</sup>Alliance's SOP at 29.

on KIUC's Application should wait until the HEPA process has been completed.<sup>208</sup>

E.

KIUC's Replies

KIUC submitted its reply statement of position in response to the Consumer Advocate's SOP on August 19, 2021.<sup>209</sup> In its Reply SOP to the Consumer Advocate, KIUC "does not object to the Commission imposing any or all of the Consumer Advocate['s conditions] set forth" in Section II.B. above.<sup>210</sup> In addition, KIUC also addresses the Consumer Advocate's suggestions that KIUC secure a more binding plan for decommissioning and that KIUC improve the processes and assumptions used to evaluate GHG impacts in the future.<sup>211</sup> On those issues, KIUC contends that the development of a decommissioning plan in the near future would be "unduly speculative and could not reasonably be relied upon" given that decommissioning will not occur for over twenty-five years.<sup>212</sup> However, KIUC states that it

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<sup>208</sup>See Alliance's SOP at 30.

<sup>209</sup>KIUC's Reply SOP to CA.

<sup>210</sup>KIUC's Reply SOP to CA at 5.

<sup>211</sup>KIUC's Reply SOP at 10-11; see also CA's SOP at 52-53.

<sup>212</sup>KIUC's Reply SOP to CA at 11, n.28.

does intend to secure a more binding decommissioning plan "at an appropriate time" and to continue to improve its GHG analysis as estimations and evaluations evolve over time and "consistent with any requirements in effect at that time."<sup>213</sup>

On September 30, 2021, KIUC filed its reply statement of position in response to the Participants' respective statements of position.<sup>214</sup> In its reply statement of position in response to the Participants' statements of position, KIUC observes that both Participants are generally supportive of the Project, but KIUC disagrees with both Participants regarding the timing surrounding HEPA review, and asserts that that the timing of Commission approval in this Docket should not be controlled by HEPA review.<sup>215</sup> Broadly, KIUC states that the Commission is not required to wait for HEPA Review, and that the risks associated with the Commission waiting for HEPA Review to be complete before issuing a decision far outweigh the factors in support of waiting.<sup>216</sup> Specifically, KIUC raises the following:

- (1) The Commission is not required to wait until environmental review is complete before issuing a decision and order in this Docket;

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<sup>213</sup>KIUC's Reply SOP at 11.

<sup>214</sup>KIUC's Reply SOP to Participants.

<sup>215</sup>See generally KIUC's Reply SOP to Participants.

<sup>216</sup>KIUC's Reply SOP to Participants at 22-53.



- a. Such waiting is contrary to Commission precedent;<sup>217</sup>
  - b. HEPA does not require the Commission to wait until environmental review is complete in this instance;<sup>218</sup>
  - c. KIUC has provided sufficient information to the Commission for a decision and order to be issued in this Docket;<sup>219</sup>
  - d. HEPA Review is already underway with a draft environmental assessment having been issued by the Hawaii Office of Environmental Quality Control ("OEQC") with the Hawaii Department of Lands and Natural Resources ("DNLR") as the approving agency.<sup>220</sup>
- (2) Waiting for HEPA Review is likely to result in significant adverse consequences;
- a. AES has concerns regarding its substantial increased risk should the Commission wait. The PPA assumes that the Project will qualify for the 26% ITC, and any delay of a Commission decision and order in this Docket could jeopardize that credit.<sup>221</sup> KIUC asserts that this risk is so great that AES may terminate the PPA arrangement during the development period.<sup>222</sup>

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<sup>217</sup>KIUC's Reply SOP to Participants at 44-46.

<sup>218</sup>KIUC's Reply SOP to Participants at 53.

<sup>219</sup>KIUC's Reply SOP to Participants at 69-75.

<sup>220</sup>KIUC's Reply SOP to Participants at 115.

<sup>221</sup>KIUC's Reply SOP to Participants at 23-26.

<sup>222</sup>KIUC's Reply SOP to Participants at 23-26.

- b. KIUC would not pursue the Project on its own or through an affiliated structure, and there are no other feasible developers.<sup>223</sup>
- c. The Commission waiting for HEPA Review to issue a decision necessarily delays the development, which delays the benefits to KIUC and its members/customers outlined in Section II.A. above.<sup>224</sup>

KIUC is steadfast that its Application should be approved by the Commission without waiting for HEPA review, but in order to "ensure that the Commission will be able to continue to obtain updates" on KIUC's ongoing HEPA Review efforts, KIUC has, of its own volition, proposed additional conditions of approval to which it would be amenable.<sup>225</sup> KIUC's additional proposed conditions are as follows:

- 1. KIUC shall submit a quarterly report in the subject docket providing the following:
  - a. The community engagement information recommended by the Consumer Advocate on pages 40-41 of its Statement of Position (or a link to such information if voluminous) ("Consumer Advocate's recommended community engagement document").[]
  - b. An update to the chart provided in Attachment PUC-KIUC-IR-101 filed with the Commission on February 10, 2021, providing the latest status of surveys, permits and other compliance actions related to the environmental review for

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<sup>223</sup>KIUC's Reply SOP to Participants at 31, 35-36.

<sup>224</sup>KIUC's Reply SOP to Participants at 29.

<sup>225</sup>KIUC's Reply SOP to Participants at 105-110.

the Project, the list of the applicable federal and/or State agency(ies) involved with each permit/survey/other compliance action, when the permit/survey/other compliance action has been filed or completed (and if not yet filed or completed, an estimate of when the permit/survey/other compliance action is expected to be filed or completed) with the applicable agency/ies, and the latest estimate of the expected review period/timeframe with such agency(ies).

- c. The status of the HEPA review process; provided that (1) this status can be included as part of the chart referred to in Item 1.b above, and (2) the discussion of any material or significant concerns that have been raised, any mitigation measures being proposed, considered or agreed to, and any ongoing dialogue between AES/KIUC and community members as part of the HEPA process can be included as part of the Consumer Advocate's recommended community engagement document referred to in Item 1.a above.

The Commission shall have the right to review and take such action as it deems appropriate and necessary in response to the quarterly reports to meet its duties and obligations.

2. To the extent any change occurs to the energy rate and/or capacity charge amounts as set forth in the PPA and approved under HRS § 269-27.2, such change shall be submitted by KIUC for prior Commission approval. In addition, the following shall be submitted to the Commission for review (and approval as the Commission deems necessary or appropriate): (a) any material change in the New Overhead Circuit or Conductor Work for which the commitment of funds was approved under Section 2.3.g.2 of the Commission's G.O.7] and an overhead/underground determination was made by the Commission under HRS § 269-27.6; and (b) with respect to the

Commission's approval of the transfer of the Development Assets and the conveyance, sublet, sublicense, assignment or other transfer to AES of any rights KIUC may have with respect to the Project under any lease, license, contract, easement, right of entry, permit, authorization and/or other agreement or document, any material change to the arrangement governing the terms of such transfer, conveyance, sublet, sublicense or assignment.

3. Notwithstanding the above or anything to the contrary, construction at the Project site shall not commence (other than normal and customary preconstruction activities to support permitting, project engineering and design efforts) until the HEPA review process has been completed and all required permits, approvals and/or authorizations needed to proceed with the actual implementation of the construction and/or completion of the Project, especially on State lands, have been obtained. The status of these efforts will be included in the quarterly report.<sup>226</sup>

KIUC concludes by noting that "Commission approval does not in any way grant or provide KIUC or AES the approval they need to actually use the State lands that trigger HEPA or to begin to actually implement the construction of the Project."<sup>227</sup> Therefore, KIUC notes, there is no harm in the Commission issuing a decision and order prior to completion of HEPA review, as HEPA review and other various approvals must still be obtained before

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<sup>226</sup>KIUC's Reply SOP to Participants at 105-106.

<sup>227</sup>KIUC's Reply SOP to Participants at 142.

implementation of construction, even if the Commission approves the Application.<sup>228</sup>

III.

DISCUSSION

A.

Legal Authority

1.

G.O.7

Paragraph 2.3(g)(2) of G.O.7, as modified by Decision and Order No. 21002, states, in relevant part:

Capital Improvements.

. . .

2. Proposed capital expenditures for any single project related to plant replacement, expansion or modernization, in excess of \$2.5 million, excluding customer contributions, or 10 per cent of the total plant in service, whichever is less, shall be submitted to the Commission for review at least 60 days prior to the commencement of construction or commitment for expenditure, whichever is earlier . . . . Failure of the Commission to act upon the matter and render a decision and order within 90 days of filing by the utility shall allow the utility to include the project in its rate base without the determination by the Commission required by this rule. The data

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<sup>228</sup>KIUC's Reply SOP to Participants at 143.

submitted under this rule shall be in such form and detail as prescribed by the Commission.<sup>229</sup>

2.

HRS § 269-27.2

Generally, the rate agreed upon between KIUC and AES pursuant to the PPA is subject to review under HRS § 269-27.2(c), which provides:

The rate payable by the public utility to the producer for the nonfossil fuel generated electricity supplied to the public utility shall be as agreed between the public utility and the supplier and as approved by the [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 [Commission] according to the powers and procedures provided in [HRS Chapter 269].

The [C]ommission'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.

Additionally, HAR § 6-74-22 states that rates for purchases shall:

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<sup>229</sup>G.O.7, Paragraph 2.3(g)(2), as modified by Decision and Order No. 21002, Ordering Paragraph No. 2, at 15.

- (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 [HAR] § 6-74-23 from qualifying facilities and not less than the minimum purchase rate.

HAR § 6-74-15(b) (1) further 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 differs from the rate or terms or conditions which would otherwise be required by HAR § 6-74-22.

Relatedly, HRS § 269-16.22 states:

All purchase power costs, including cost 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 [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 [C]ommission. The costs shall be allowed to be recovered if incurred as a result of such agreements unless, after review by the [Commission], any such costs are determined by the [C]ommission 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 company as defined under section 269-1, for the production, conveyance, transmission, delivery, or furnishing of electric power.

Similarly, HAR § 6-60-6(2) states that “[n]o changes in the 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 [C]ommission.”

HRS § 269-6(b) further provides:

The [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 pertaining to electric or gas utility system capital improvements and operations, the [C]ommission shall explicitly consider, quantitatively or qualitatively, the effect of the State’s reliance on fossil fuels on:

- (1) Price volatility;
- (2) Export of funds for fuel imports;
- (3) Fuel supply reliability risk; and
- (4) Greenhouse gas emissions.

The [C]ommission may determine that short-term costs or direct costs of renewable energy generation that are higher than alternatives relying more heavily on fossil fuels are reasonable, considering the impacts resulting from the use of fossil fuels. The [Commission] shall determine whether such analysis is necessary for proceedings involving water, wastewater, or telecommunications providers on an individual basis.



HRS § 269-27.6

HRS § 269-27.6 provides in pertinent part:

- (a) Notwithstanding any law to the contrary, whenever a public utility applies to the public utilities commission for approval to place, construct, erect, or otherwise build a new 46 kilovolt or greater high-voltage electric transmission system, either above or below the surface of the ground, the public utilities commission shall determine whether the electric transmission system shall be placed, constructed, erected, or built above or below the surface of the ground; provided that in its determination, the public utilities commission shall consider:
  - (1) Whether a benefit exists that outweighs the costs of placing the electric transmission system underground;
  - (2) Whether there is a governmental public policy requiring the electric transmission system to be placed, constructed, erected, or built underground, and the governmental agency establishing the policy commits funds for the additional costs of undergrounding;
  - (3) Whether any governmental agency or other parties are willing to pay for the additional costs of undergrounding;
  - (4) The recommendation of the division of consumer advocacy of the department of commerce and consumer affairs, which shall be based on an evaluation of the factors set forth under this subsection; and
  - (5) Any other relevant factors.

4.

HRS § 269-19(a)

HRS § 269-19(a) states, in relevant part:

[N]o public utility shall sell, lease, assign, mortgage, or otherwise dispose of or encumber the whole or any part of its road, line, plant, system, or other property necessary or useful in the performance of its duties to the public . . . without first having secured from the [Commission] an order authorizing it to do so. Every such sale, lease, assignment, mortgage, disposition, encumbrance, merger, or consolidation, made other than in accordance with the order of the [C]ommission shall be void.

B.

Procurement of the Project

KIUC is specifically exempt from the Framework for Competitive Bidding that was approved in Docket No. 03-0372.<sup>230</sup> KIUC states that it originally intended to develop and operate the Project by itself and/or through affiliated arrangements, but that after conducting due diligence, engineering, and advance designs, KIUC determined that it would be more efficient and less risky to enter into an arrangement in which AES would develop the Project, and KIUC would transfer the Development Assets and

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<sup>230</sup>Docket No. 03-0372, Decision and Order No. 23298, filed on March 14, 2007, at 1-2.

Associated Rights to AES.<sup>231</sup> AES states that it made this determination because:

(1) AES Corporation's[] proven experience, through its subsidiaries and affiliates, in hydropower electric/pumped storage construction and operation; (2) its proven record with KIUC on the AES Lawai Solar PV/BESS project (Docket No. 2017-0018 ["AES Lawai"]) and the AES Kekaha Solar PV/BESS project (Docket No. 2017-0443 ["AES Kekaha"]) that have demonstrated AES Corporation's ability, through subsidiary and affiliate arrangements, to work closely, productively and efficiently with KIUC in making renewable projects a reality; (3) its proven ability to develop, own, operate, and maintain multiple power projects in the State; (4) its size and financial wherewithal to undertake a project of this scope and magnitude; and (5) its ability to immediately and smoothly take over KIUC's development activities in furtherance of making the West Kauai Energy Project come to fruition.<sup>232</sup>

KIUC states that it has a long and successful working relationship with AES, which KIUC states eliminates risks associated with working with a third party with no experience with KIUC or in Hawaii.<sup>233</sup> KIUC points to the successful operation of two prior projects with AES -- AES Lawai and AES Kekaha -- as evidence of its successful working relationship with AES.<sup>234</sup>

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<sup>231</sup>Application at 31-32.

<sup>232</sup>Application at 33-34 (citation omitted).

<sup>233</sup>Application at 34.

<sup>234</sup>KIUC's Response to CA/KIUC-IR-26.f.

KIUC states that because it began this endeavor intending to develop the Project itself or through an affiliated program, it "essentially competitively bid the Project design and capital cost and then searched for and selected an acceptable development partner."<sup>235</sup>

C.

Addressing the PPA

As a preliminary matter, the Commission observes that the PPA at issue -- which combines PV/BESS, PSH, and traditional hydroelectric components -- represents a first-of-its-kind project for the State. For that reason, comparisons to other existing projects in this State or KIUC's adherence to prior procedures are not as persuasive as they otherwise may have been. The Commission's analysis considers comparisons to other projects where appropriate, but also considers the novelty of the Project where comparisons to other projects do not offer a relevant parallel.

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<sup>235</sup>KIUC's Response to CA/KIUC-IR-28a.

1.

Material PPA Terms and Conditions

a.

PPA Term

As noted above, the PPA provides for a term of fifty years following the Upper Segment's COD, and the individual components of the Project each have individual terms (the Solar Term, the PSH Term, and the Upper Segment Term). The Consumer Advocate "recognizes that adopting PPAs with longer term lengths can reduce the pricing that is made available to customers (i.e., by spreading capacity payments over longer periods beyond the initial twenty-five-year Solar Term)," but notes that it has raised concerns in prior proceedings "regarding locking customers in to set rates over an extended period of time, especially where the costs for those products or services are expected to decrease in the future."<sup>236</sup> The Consumer Advocate raises an additional concern regarding the uncertainty of what could happen if, for example, the PSH component of the Project is not fully utilized.<sup>237</sup> However, notwithstanding

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<sup>236</sup>CA's SOP at 27.

<sup>237</sup>CA's SOP at 28.

these concerns, the Consumer Advocate “does not oppose the term length of the PPA.”<sup>238</sup>

The Commission recognizes the Consumer Advocate’s concern, but believes that the PPA Term is reasonable in light of the circumstances, including the comparatively lower energy pricing, as well as the significant benefits this Project offers to KIUC and its members. Further, the Commission observes that there does not appear to be any so-called “evergreen” provisions in the PPA, under which the PPA Term would automatically renew, which also helps address the Consumer Advocate’s concern with “locking in” customers. That being said, to emphasize this point, to the extent not already provided in the PPA, the Commission clarifies that KIUC must notify the Commission and seek separate approval of an extension of any of the PPA terms.

b.

Pricing Provisions

As described above, the PPA specifies that the contract price for energy is \$71.60 per MWh, or \$81.00 per MWh in the event the State of Hawaii Refundable Tax Credit is not available.

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<sup>238</sup>CA’s SOP at 28.

In addition, the PSH and Hydropower-only monthly capacity charges are \$538,649.25 and \$205,008.00, respectively.<sup>239</sup>

The Consumer Advocate “observes that that the energy charge for the proposed PPA appears favorable when compared to prior solar plus storage projects on Kauai.”<sup>240</sup> With or without the benefit of the State of Hawaii Refundable Tax Credit, the PPA at issue here provides a more favorable rate than either AES Lawai (at \$110.80 per MWh)<sup>241</sup> or AES Kekaha (at \$108.50 per MWh).<sup>242</sup> Further, and as also observed by the Consumer Advocate, “the [Project] is different from prior solar plus storage projects in its ability to provide firm capacity via longer-duration storage and with increased reliability, than provided by AES Lawai and AES Kekaha.”<sup>243</sup>

The Commission observes that the pricing in the PPA is fixed over the Term of the PPA and is therefore not linked to fossil fuels or other variable factors, which addresses concerns regarding volatility to which KIUC’s ratepayers could otherwise be

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<sup>239</sup>PPA at Appendix F, pgs. 2-3.

<sup>240</sup>CA’s SOP at 21.

<sup>241</sup>Docket No. 2017-0018, “Application; Exhibits 1 through 5; Verification,” filed on January 25, 2021, at 2.

<sup>242</sup>Docket No. 2017-0443, “Application; Exhibits 1 through 5; Verification,” filed on December 22, 2017, Exhibit 1 at 5.

<sup>243</sup>CA’s SOP at 22.

subjected. KIUC estimates that the PPA will save its members between \$157 million and \$172 million over the Solar Term.<sup>244</sup> The Consumer Advocate observes that the "Project is expected to consistently deliver savings over the 25[-]year Solar Term."<sup>245</sup>

For the above reasons, the Consumer Advocate, subject to certain reporting requirements discussed below, "does not object to the energy rate and monthly capacity payment amounts as set forth in the PPA."<sup>246</sup>

Based upon the information provided in the record, the Commission observes that the Project appears to deliver both near-term and long-term benefits to ratepayers over the course of the PPA term. The PPA provides more favorable rates when compared to existing renewable energy projects, will provide substantial savings to ratepayers over the Solar Term, and provides the benefits of firm capacity and increased reliability. Further, the Commission finds that the PPA's fixed price offers a hedge against the volatility of fossil fuel prices. Based on the above analysis, the Commission finds that the pricing provisions of the PPA are reasonable and in the public interest. That being said, as discussed below in Section III.C.5, the Commission observes

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<sup>244</sup>Application at 21.

<sup>245</sup>CA's SOP at 26.

<sup>246</sup>CA's SOP at 24.



that there are additional governmental review and Project development steps that must be completed. In the event a change in circumstances results in an adjustment to the PPA's pricing, KIUC must notify the Commission and seek renewed approval of the adjusted PPA pricing.

c.

Costs Related to Ownership and Operation of the Project

As noted above, under the PPA, AES is responsible for all costs and expenses associated with interconnecting the Project up to and at the Point of Delivery to KIUC's grid, as well as "all costs of developing, constructing, owning and operating the [Project] in compliance with existing and future Requirements of Law and the terms and conditions hereof."<sup>247</sup> Relatedly, AES is also responsible for obtaining all necessary permits and other governmental approvals to develop and operate the Project, with the exception of rights to use water for purposes of generating electricity.<sup>248</sup>

The PPA also provides KIUC with an option to purchase the Facility at the end of each of the sixth, fifteenth,

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<sup>247</sup>PPA at § 5.1.

<sup>248</sup>See PPA at §§ 6.1 and 6.2

twenty-fifth, fortieth, and fiftieth years of the PPA, and would be determined by the fair market value.<sup>249</sup>

The Commission finds these provisions reasonable, and notes that they should help protect KIUC and its members from risks related to cost overruns associated with developing the Project. Further, these provisions provide assurance that the Project will operate in compliance with all applicable regulations and permits, and provides KIUC with enforceable rights against AES if necessary governmental approvals are not obtained (other governmental approvals necessary for the Project are discussed in greater detail in Section III.C.5).

Further, to the extent KIUC may wish to exercise its right under the PPA to purchase the Project, and thus assume the above responsibilities, the Commission will require KIUC to notify the Commission of its intent to exercise such right and seek Commission approval before exercising this option.<sup>250</sup> The Commission finds that this condition balances the opportunity offered to KIUC in the PPA with reasonable assurances

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<sup>249</sup>PPA at §§ 2.6.1 and 2.6.2.

<sup>250</sup>Given the proposed scope of the Project, the Commission expects that exercising the option to purchase would exceed the G.O. 7 threshold of \$2.5 million and require an approval from the Commission for commitment of funds.

that Commission review will occur first, to ensure the exercise of such option is in the public interest.

d.

Project Dispatch and Curtailment

Under the PPA, KIUC will have the sole right to schedule and direct the dispatch of all components of the Facility (excluding the production of Test Energy) in its discretion, provided KIUC complies with the operating restrictions described in Appendix G of the PPA. Relatedly, in order to qualify for the ITC, the PPA provides that, during the first five years of the PPA's term, the BESS shall not be charged from KIUC's system, and the pumps shall not be powered using any energy from KIUC's system.<sup>251</sup> Thereafter, KIUC may charge the BESS with energy from its system and may power the pumps with energy from its system at KIUC's reasonable discretion.<sup>252</sup>

The Commission observes that this will provide KIUC with the flexibility to utilize the Project's electrical energy to best serve KIUC's grid needs and should complement the PPA's other provisions that reduce the risk of curtailment, as discussed below. Regarding the limitations imposed on charging the BESS during the

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<sup>251</sup>PPA at Appendix G.

<sup>252</sup>PPA at Appendix G.

first five years of the PPA, the Commission finds this provision reasonable, as it is necessary to make the Project eligible for the ITC, which is expected to help lower the cost of the Project. Further, this provision will ensure that during the early years of the PPA, the BESS will be charged with renewable energy generated by the Project.

Unlike other projects involving power purchase agreements, the PPA at issue here does not provide a planned outage curtailment cap or provide for curtailment credits.<sup>253</sup> KIUC states that it has such curtailment caps in its PPAs with AES Lawai and AES Kekaha, but that it has “never actually needed to curtail either of [those] facilities, and, as such, the Planned Outage Curtailment Cap in those PPAs” has resulted in KIUC paying a higher PPA price.<sup>254</sup> KIUC explains that by not negotiating for a planned outage curtailment cap in the PPA at issue here, KIUC was better able to and did negotiate a lower PPA price.<sup>255</sup>

While the PPA provides for curtailment in certain instances<sup>256</sup> (e.g., for reduced Facility storage capacity caused by KIUC), KIUC states that it does not expect to incur any curtailment

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<sup>253</sup>See PPA.

<sup>254</sup>KIUC’s Response to CA/KIUC-IR-18.

<sup>255</sup>KIUC’s Response to CA/KIUC-IR-17.c.

<sup>256</sup>See Section I.D., supra.

payments.<sup>257</sup> KIUC explains that curtailment payments are determined by reduced Facility storage, but that it does not expect the Facility's storage capacity to be exceeded, based on its experience with its existing solar plus storage projects. KIUC notes that these projects offer between 4-5 hours of storage and have never been curtailed (nor does KIUC expect to curtail them); in comparison, the Facility has a storage capacity of approximately 446 MWh, making it "extremely unlikely" that its capacity will be exceeded.<sup>258</sup>

Noting the above, while the Consumer Advocate "still has questions" regarding possible curtailment, it acknowledges that "customers/members' risks related to curtailment are mitigated" and "does not object to these PPA terms."<sup>259</sup>

Upon review, the Commission finds the above dispatch and curtailment provisions reasonable and that the removal of a planned outage curtailment cap and curtailment credits in particular represents improvement over prior PPAs and reduces the risk of curtailment payments that may be borne by KIUC's members. Further, the unique structure of the Project, and in particular its BESS and PSH components and their significant storage capacity,

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<sup>257</sup>See KIUC's Response to CA/KIUC-IR-19.

<sup>258</sup>See KIUC's Response to CA/KIUC-IR-19.

<sup>259</sup>CA's SOP at 30.

reduces curtailment risks under the PPA, as explained by KIUC, based on KIUC's experience with its existing solar plus storage facilities, which have a much smaller storage capacity than the Project.

Based on the above, the Commission is satisfied that the Project does not provide an increased risk of curtailment, and in fact may reduce that risk. That being said, the Commission appreciates the Consumer Advocate's concern that curtailment may yet occur, despite the PPA's provisions. Accordingly, the Commission will require KIUC to submit a report to the Commission in the event of persistent curtailment, at which time the Commission may take further action based on the circumstances. In addition to providing additional protection against the risk of curtailment, the Commission observes that this reporting requirement provides transparency and accountability for KIUC's dispatch decisions.

Based on the above, the Commission therefore finds that the provisions of the PPA related to dispatch and curtailment are reasonable and in the public interest.

e.

#### Miscellaneous Provisions

The Commission finds other miscellaneous provisions such as those pertaining to indemnification, insurance, and performance

assurance to be reasonable, and should offer protections to KIUC and its members. For example, under the PPA, AES is required to maintain insurance coverage, as well as a security to assure AES' performance.<sup>260</sup>

Similarly, the Commission finds the provisions related to termination rights reasonable. However, in the event a party exercises its right to declare force majeure, KIUC shall provide written notice to the Commission and Consumer Advocate, including an explanation of the underlying circumstances, and steps to address the force majeure.

## 2.

### Land Use

According to KIUC, the Project will be located on State-owned land approximately four miles north of Kekaha and six miles northwest of Waimea on the island of Kauai, and, at its closest, will be approximately 2.8 miles away from any residential area.<sup>261</sup> Under the PPA, AES is responsible for obtaining, at its expense, any and all necessary permits, government approvals, and land rights for the construction and operation of the Project

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<sup>260</sup>See PPA at §§ 13.1 - 13.4

<sup>261</sup>Application at 6-7, 26.

(excepting certain water rights).<sup>262</sup> The outstanding permits required for the construction of the Project are further discussed in Section III.C.5., below.

While KIUC has indicated that it is considering an alternative location for the WKEP Substation due to concerns surrounding possible flooding,<sup>263</sup> KIUC states that, regardless of whether an alternative location is chosen, the Project is designed to meet engineering standards for both flood and tsunami events.<sup>264</sup> Further, KIUC states that the Project "should assist in mitigating future flooding risks" as "the repairs to the Puu Lua Reservoir, Puu Opaie Reservoir, and Mana Reservoir will bring the reservoirs into compliance with Hawaii State Dam Safety Standards, which [will] provide some protection from flooding for downstream lands and greatly decrease the risk of a dam breach."<sup>265</sup> The Consumer Advocate states that it is satisfied that "KIUC appears to be taking measures to protect its system from flooding and tsunami events."<sup>266</sup>

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<sup>262</sup>PPA at § 6.2

<sup>263</sup>KIUC's Response to CA/KIUC-IR-5.a.

<sup>264</sup>KIUC's Response to CA/KIUC-IR-5.a.

<sup>265</sup>KIUC's Response to CA/KIUC-IR-5.a.

<sup>266</sup>CA's SOP at 32.



In light of the above, the Commission finds the Project's proposed land use to be reasonable, but clarifies that this finding is independent of the review and findings of other applicable government agencies, for which KIUC must obtain other governmental approvals, as noted in Section III.C.5, below. The Commission clarifies that its approval provided in this Decision and Order is limited to the requests set forth in the Application and as bounded by the regulatory authority under HRS Chapter 269. To the extent other agencies may reach different conclusions about the Project's land use pursuant to their own review, the Commission defers to the respective jurisdiction and expertise of those agencies.

3.

Greenhouse Gas Emissions Analysis

a.

Avoidance of Fossil Fuels

In the Application, KIUC estimates that the Project will displace "an average of 8.5 million fewer gallons of fuel annually, . . . resulting in approximately 212 million gallons less fuel being used over the 25-year [Solar Term.]"<sup>267</sup> Based on KIUC's modeling, "the Project could offset up to 118,361 MWh of oil-fired dispatch during the 12-month projection period[,]" which would

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<sup>267</sup>Application at 21-22.

represent more than 60% of KIUC's oil-fired dispatched generation.<sup>268</sup> In addition, KIUC states that the Project as a whole will contribute about 22.72% of KIUC's RPS.<sup>269</sup>

The Consumer Advocate "observes that that the Project is expected to act as a firm resource while reducing fossil fuel consumption, and in turn, customer's exposure to fuel price volatility as well as Kauai's (and the State's) fuel supply reliability risk."<sup>270</sup>

b.

Avoided GHG Emissions

Initially, KIUC submitted the McMillen Analysis, which estimated the CO<sub>2</sub> impacts from the Project.<sup>271</sup> Subsequently, KIUC updated the McMillen Analysis in response to CA/KIUC-IR-32, which concluded that the Project would result in approximately 79,587.744 MT CO<sub>2</sub>, of which a vast majority (99.482%) were associated with construction of the Project.<sup>272</sup>

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<sup>268</sup>KIUC's Response to CA/KIUC-IR-1.a.

<sup>269</sup>Application at 12-13, Exhibit 4.

<sup>270</sup>CA's SOP at 43.

<sup>271</sup>See CA's SOP at 44; see also, Application, Exhibit 5.

<sup>272</sup>See KIUC's Response to CA/KIUC-IR-32, Attachment at 6.

KIUC later supplemented these results to include lifecycle GHG emissions associated with transmission and distribution ("T&D"), extraction of raw materials, and off-island transportation, using estimates from a study prepared by Ramboll US Corporation for another AES solar plus storage project on the island of Oahu ("Ramboll Study").<sup>273</sup> KIUC maintains that the use of the Ramboll Study is reasonable here, as "the T&D equipment used by HECO and KIUC are very similar" "the isolated stand-alone nature of the HECO and KIUC systems due to their geographic island locations are very similar with respect to lifecycle GHG emissions," and both HECO and KIUC face similar decommissioning challenges, "leading to a reasonable assumption that the lifecycle GHG emissions HECO would expect for its T&D projects would be similar to those that KIUC would expect

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<sup>273</sup>See KIUC's Responses to PUC-KIUC-IR-107, -109, and -110. The Ramboll Study was submitted in support of the PPA between Hawaiian Electric Company, Inc. ("HECO") and Waiawa Phase 2 Solar, LLC in Docket No. 2020-0137.

KIUC explained that the McMillen Analysis did not include a lifecycle GHG analysis for T&D components because "such an analysis would [have] require[d] KIUC to engage an additional consultant that would be unduly time consuming and costly, due to the relatively small amount of lifecycle GHG emissions that could reasonably be expected to occur from the T&D portion of the Project especially in comparison to the substantial amount of lifecycle GHG emissions that the Project will avoid . . . ." KIUC's Response to PUC-KIUC-IR-107. See also, KIUC's Response to PUC-KIUC-IR-109 and -110 for similar explanations regarding raw materials extraction and off-island transportation.

[for the Project].”<sup>274</sup> Relatedly, KIUC states that off-island transportation was not modeled in the McMillen Analysis “because the suppliers have not yet been selected[,]” but that the Ramboll Study can be used as a proxy, and that these associated GHG emissions, even when added to the Project total, are dwarfed by the estimated avoided GHG emissions associated with the Project.<sup>275</sup> KIUC also adjusted the study’s metrics to reflect GHG emissions in the form of CO<sub>2</sub>e, rather than just CO<sub>2</sub>.<sup>276</sup>

Based on the updated analysis performed in response to PUC-KIUC-IR-107, KIUC estimates that the Project will result in the following GHG emissions:<sup>277</sup>

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<sup>274</sup>KIUC’s Response to PUC-KIUC-IR-107. See also, KIUC’s Response to PUC-KIUC-IR-109 for an explanation regarding the similarities between raw materials extraction between the Waiawa Solar 2 project and the Project, and the reasonableness of utilizing the Ramboll Study.

<sup>275</sup>KIUC’s Response to PUC-KIUC-IR-110.

<sup>276</sup>See KIUC’s Response to CA/KIUC-IR-46.b; and KIUC’s Response to PUC-KIUC-IR-107 n.3. KIUC explained that the McMillen Analysis had only reported CO<sub>2</sub> emissions due to the fact that CO<sub>2</sub> constitutes approximately 99.5% of mobile on/off road sources and 99% of stationary sources, rendering other CO<sub>2</sub>e emissions (CH<sub>4</sub> and N<sub>2</sub>O), insignificant. However, KIUC updated the metric to reflect CO<sub>2</sub>e to provide an “apples to apples” comparison between the GHG analysis for this Project and the data utilized from the Ramboll Study, which is reported in CO<sub>2</sub>e. See id.

<sup>277</sup>KIUC’s Response to PUC/KIUC-IR-107 (Part 1), Attachment at 1.

Project Stage		GHG Emissions (MT CO <sub>2</sub> e)		
		Full Project	T&D Infrastructure	Solar, Storage, PSH, and Hydro
Upstream	Raw Materials Extraction and Manufacturing	168,235	7,996	160,239
	Transportation	840	346	494
	Construction	7,914	2,104	5,810
Project Operations	Operations and Maintenance	1,225	1,225	
Downstream	Transportation	233	64	169
	Decommissioning and Disposal	3,861	472	3,389
Total Project Operations		1,225		
Total Project Lifecycle		182,308		

KIUC commissioned an additional study by Stillwater Associates ("Stillwater"), which estimated the lifecycle GHG emissions that would be avoided by operation of the Project; i.e., those emissions associated with continued fossil fuel use if the Project were not built ("Stillwater Analysis").<sup>278</sup> According to KIUC, the avoided emissions associated with the Project's operation are approximately 2 million MT CO<sub>2</sub>e and avoided emissions for the Project's lifecycle are approximately 2,729,375 MT CO<sub>2</sub>e

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<sup>278</sup>See KIUC's Response to CA/KIUC-IR-31, Attachment.

over the first 25 years of the Project.<sup>279</sup> KIUC states these estimates are “conservative” as they only account for the first 25 years of the Project, and “any additional years beyond 25 would further increase the beneficial Net GHG emissions of the Project” due to the “significant GHG emissions” saved during each year of operation.<sup>280</sup>

Based on the updated McMillen Analysis and the Stillwater Analysis, KIUC concludes that the Project will result in a net avoidance of approximately 2,018,487 MT CO<sub>2</sub>e from a Project operations standpoint and approximately 2,508,877 MT CO<sub>2</sub>e from a Project lifecycle standpoint.<sup>281</sup>

As noted above, although the Consumer Advocate does not object to KIUC’s GHG analysis, the Consumer Advocate raised a number of concerns with the methodology and presentation of results, and suggested how KIUC could improve its GHG analysis for future projects.<sup>282</sup>

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<sup>279</sup>See KIUC’s Response to CA/KIUC-IR-31.

<sup>280</sup>KIUC’s Response to CA/KIUC-IR-31. C.f., Application at 22 (KIUC stating that attempting to model GHG emissions beyond the initial 25-year Solar Term “would be unreliable and unduly speculative.”).

<sup>281</sup>See KIUC’s Response to PUC-KIUC-IR-107 (Part 1), Attachment at 3.

<sup>282</sup>See CA’s SOP At 50-53.

The Commission agrees that there are a number of discrepancies across KIUC's various GHG studies. For example, as noted by the Consumer Advocate, KIUC's estimated avoided GHG emissions for the Project lifecycle inexplicably changed from 2,729,375 MT CO<sub>2</sub>e in KIUC's Response to CA/KIUC-IR-31 (filed May 12, 2021) to 2,691,195 MT CO<sub>2</sub>e in KIUC's response to PUC-KIUC-IR-107 (filed May 27, 2021).<sup>283</sup> Similarly, KIUC's estimate of avoided GHG emissions for Project Operations varied from 2 million MT CO<sub>2</sub>e in KIUC's Response to CA/KIUC-IR-31 and 2,019,712 MT CO<sub>2</sub>e in its Response to PUC-KIUC-IR-107.<sup>284</sup>

Notwithstanding these concerns, the Commission still finds KIUC's GHG analysis for the Project reasonable, when taking into account all the evidence in the record. For example, even using KIUC's more conservative estimates (i.e., those which provide for lower amounts of avoided GHG emissions resulting from the Project), it is still evident that the Project will result

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<sup>283</sup>Compare KIUC's Response to CA/KIUC-IR-31 with KIUC's Response to PUC-KIUC-IR-107 (Part 1), Attachment at 2. See also, CA's SOP at 48 n.133 (noting the same). KIUC does not address this matter in its Reply to the CA's SOP.

<sup>284</sup>Compare KIUC's Response to CA/KIUC-IR-31 with KIUC's Response to PUC-KIUC-IR-107 (Part 1), Attachment at 2. It is unclear if this discrepancy arises from KIUC's use of the original McMillen Analysis, which only measured CO<sub>2</sub> emissions, and KIUC's updated analysis, which included other CO<sub>2</sub>e, such as CH<sub>4</sub> and N<sub>2</sub>O), or if KIUC had used a rounded figure.

in a significant net reduction in GHG emissions.<sup>285</sup> In addition, KIUC has acknowledged the Consumer Advocate's suggested improvements to its GHG analysis and stated that it intends to "(1) secure a more binding decommissioning plan at the appropriate time in the future, and (2) adapt and improve its processes and assumptions used to evaluate and present GHG impacts associated with future projects and operations in a consistent, objective and transparent manner . . . ." <sup>286</sup>

Based on the above, and after a review of the record and the Parties' and Participants' positions, the Commission finds that KIUC's various analyses sufficiently reflect that the Project will result in a significant net decrease in GHG emissions. In particular, the Commission notes the magnitude of avoided GHG emissions associated with Project, arising largely from the significant amount of fossil fuel dispatch that will be avoided through the operation of the Project, which dwarfs the estimated GHG emissions associated with the Project and helps alleviate

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<sup>285</sup>For example, even with avoided lifecycle emissions of 2,691,185 MT CO<sub>2</sub>e and avoided operations emissions of 2,000,000, MT CO<sub>2</sub>e, the Project would still result in net avoided GHG emissions of 2,508,877 MT CO<sub>2</sub>e (lifecycle) and 1,998,775 MT CO<sub>2</sub>e (operations), based on the updated McMillen Analysis' conclusion of Project emissions of 182,308 MT CO<sub>2</sub>e (lifecycle) and 1,225 MT CO<sub>2</sub>e (operations).

<sup>286</sup>KIUC's Reply at 11 (internal footnotes omitted).



concerns with discrepancies on the margins.<sup>287</sup> CO<sub>2</sub>e emissions associated with operating the Project are vastly outweighed by the estimated 2,019,712 MT CO<sub>2</sub>e that will be avoided by operating the Project. This appears to be the conclusion also reached by the Consumer Advocate. Thus, notwithstanding the above noted concerns, the Commission finds that approval and completion of the Project would result in a significant reduction in GHG emissions on KIUC's system.

4.

Community Outreach

The Consumer Advocate notes that "the Development Agreement requires that KIUC and AES jointly draft a community engagement plan that identifies all of the stakeholders at the federal, state and county levels, including individual Kauai residents and community planning groups and a plan to generate community support for the Project, including how the Project will deliver positive and effective outcomes for the community."<sup>288</sup>

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<sup>287</sup>See KIUC's Response to PUC-KIUC-IR-107, Attachment (Part 1) at 1-3 (calculating net Project operations GHG emissions and net Project lifecycle GHG emissions); and KIUC's Response to PUC-KIUC-IR-108 (calculating avoided operational GHG emissions). See also, n.277, *supra*, noting that even using the most conservative estimates, a significant reduction in GHG emissions is expected to occur.

<sup>288</sup>CA's SOP at 34.

KIUC and AES have engaged in community engagement efforts including:

- Informal community and public outreach by KIUC dating as far back as 2013;
- Soliciting public comment in connection with a "Beneficiary Consultation Report" generated by DHHL which resulted in twenty-seven comments including twenty in support, and none in opposition;
- Holding a virtual open house on March 31, 2021, followed by a 30-day comment period which was attended by 170 individuals and which resulted in dozens of questions being asked both orally and in the chat function of the meeting forum, and in which no one expressed that the Project should not be pursued;
- Offering a 30-day comment period following the March 31, 2021 public meeting, which resulted in six comments being submitted, only one of which questioned whether the Project should be pursued.<sup>289</sup>

In addition, KIUC states that there have been multiple social media posts about the Project as well as several published newspaper articles, and that KIUC is not aware of any individuals or groups who oppose the Project.<sup>290</sup>

Notwithstanding the above, the Consumer Advocate maintains that "[a]s community engagement should be ongoing, the Consumer Advocate recommends that KIUC and AES provide and/or support venues for community feedback and also compile past and

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<sup>289</sup>KIUC's Response to CA/KIUC-IR-24.a and -25.b.

<sup>290</sup>KIUC's Response to CA/KIUC-IR-24.a and .c.

ongoing outreach efforts, to the extent possible, into a single 'living' document to reflect the concerns that have been raised, responses provided or changes made, and any ongoing dialogue between AES/KIUC and community members."<sup>291</sup>

The Commission believes effective community outreach is essential to achieving the State's clean energy goals and emphasizes the importance of community engagement for this and future PPAs. After review of KIUC's past and continuing efforts to reach out to the community, the Commission observes that KIUC has made numerous efforts to engage with the community and share information about the Project.<sup>292</sup> The Commission recognizes KIUC's efforts, especially given the circumstances presented by the COVID-19 global pandemic, and further observes that KIUC states that "it is not aware of any individuals or groups who oppose the Project[.]"<sup>293</sup>

Based on the above, the Commission finds that KIUC has fulfilled its community outreach efforts consistent with the development Agreement. That being said, the Commission agrees with the Consumer Advocate that community outreach is an ongoing

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<sup>291</sup>CA's SOP at 41.

<sup>292</sup>See CA's SOP at 35-37 (summarizing KIUC's community outreach efforts).

<sup>293</sup>See CA's SOP at 37 (citing KIUC's Response to CA/KIUC-IR-24.c and -25.b).

responsibility and that KIUC and AES should continue to provide meaningful engagement with the community throughout the remaining development stages of the Project and during the Project's operation, should the Project ultimately become operational. As part of a quarterly report to be filed in this docket, KIUC shall include the status of KIUC's work to provide and/or support venues for community feedback and compile past outreach efforts into a single "living" document reflecting all community engagement. In addition, as Project updates become available, they should be timely and transparently provided to the community, along with opportunities for interested community members to meaningfully engage with Project representatives to address any questions or concerns they may have.

5.

Permitting and Approvals Needed from Other Government Agencies

KIUC and AES are actively working on obtaining a number of required permits and/or approvals from various governmental entities.<sup>294</sup> Although KIUC and AES have not yet received all the necessary permits and/or approvals for the Project, KIUC has

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<sup>294</sup>KIUC's Response to PUC/KIUC-IR-101, Attachment.

identified the necessary permits required and the anticipated timeline for agency review and decisionmaking.<sup>295</sup>

The Commission notes that, under the PPA, AES is responsible for obtaining, at its expense, any and all necessary permits, government approvals, and land rights for the construction and operation of the Project (excepting certain water rights).<sup>296</sup> AES is further required to provide KIUC with monthly construction progress reports.<sup>297</sup> If AES fails to achieve a necessary permit or approval (i.e., breaches a warranty in the PPA), the PPA provides certain remedies, including monetary payment from AES to KIUC and, in the most severe case, termination of the PPA.<sup>298</sup> This protects KIUC's customers from potential negative effects related to permitting or other governmental approvals. KIUC further has stated its willingness to provide:

An update to the chart provided in Attachment PUC-KIUC-IR-101 filed with the Commission on February 10, 2021, providing the latest status of surveys, permits and other compliance actions related to the environmental review for the Project, the list of the applicable federal and/or State agency(ies) involved with each permit/survey/other compliance action, when the permit/survey/other compliance action has been

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<sup>295</sup>KIUC's Response to PUC/KIUC-IR-101, Attachment.

<sup>296</sup>PPA at § 6.2.

<sup>297</sup>PPA at § 6.6.3.

<sup>298</sup>See PPA at Article 11 (Defaults and Remedies).

filed or completed (and if not yet filed or completed, an estimate of when the permit/survey/other compliance action is expected to be filed or completed) with the applicable agency/ies, and the latest estimate of the expected review period/timeframe with such agency(ies).<sup>299</sup>

Specifically, regarding HEPA review, the Commission observes that waiting to issue a decision and order until HEPA review is complete risks that the PPA will be terminated. Should AES feel it is unable to capture the ITC, it may decide to terminate the PPA, which would deprive KIUC and its members of the opportunity for the benefits associated with the Project.<sup>300</sup> KIUC represents that there is a real and substantial risk of AES

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<sup>299</sup>KIUC's Reply SOP to Participants at 105-106.

<sup>300</sup>KIUC's Reply SOP to Participants at 23-24 (stating that "[e]ven though it is possible that the December 31, 2025 ITC deadline could be extended at some point in the future, such a possibility is uncertain and unduly speculative at this time, and thus, AES must make its current investment decisions now on whether to continue with the PPA arrangement based on the assumption that the ITC will be reduced from 26% to 10% if the Project is not placed in service by December 31, 2025. The PPA has been structured to provide AES with certain 'off ramps' to terminate the PPA under these circumstances. For example, pursuant to Sections 2.2.1 (a)(ii) and 2.3.1 of the PPA, if KIUC does not receive a "Final PUC Approval Order" that contains terms reasonably satisfactory to KIUC and AES by December 31, 2021, AES is allowed to terminate the PPA with no further obligations. In order to have a Final PUC Approval Order, this requires a Commission decision approving the subject Application at least thirty (30) days before December 31, 2021 (i.e., by no later than December 1, 2021) . . . ."); see also, id. at 22-41.

backing out of the PPA if the Commission delays issuing a decision and order.<sup>301</sup>

Conversely, the risks of issuing a decision and order before HEPA review is complete in this situation are comparatively lower, as this decision is not an approval to begin construction of the Project. As acknowledged by KIUC, “[the] Commission’s approval of the Application does not in any way grant or provide KIUC or AES the approval it needs to actually use any State lands or even to begin to actually implement construction of the Project.”<sup>302</sup> HEPA review of the Project is currently pending before DLNR, and completion of such review must occur before KIUC and AES can construct the Project, regardless of when Commission approval is issued.<sup>303</sup> In addition, as noted above, Commission approval at this juncture puts AES in a better position to be able to take advantage of the federal ITC should the Project be constructed.

Given the requirement that the Project be in-service by December 31, 2025 to capture the 26% federal ITC, KIUC represents that AES will use the additional time resulting from the Commission’s issuance of a decision and order prior to the completion of HEPA review to “initiate the process of sourcing in

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<sup>301</sup>KIUC’s Reply SOP to Participants at 24-26.

<sup>302</sup>KIUC’s Reply SOP to Participants at 15.

<sup>303</sup>KIUC’s Reply SOP to Participants at 9, 15.

order to coordinate the significant and diverse procurement needs for the Project.”<sup>304</sup> KIUC explains that the Project requires specific and specialized equipment, and that the ordinarily long procurement lead times for that equipment are extended further due to ongoing global supply chain issues.<sup>305</sup> AES undertakes the actions to procure this equipment for the Project at its own risk given that environmental review will not yet be complete, but the Commission acknowledges that this is a calculated risk in that starting to move forward now will better position the Project to take advantage of the federal ITC.

Further, KIUC proposes a method to additionally mitigate the risk of issuing this Decision and Order prior to the conclusion of the HEPA review process by imposing conditions on approval that would require that:

[C]onstruction at the Project site **shall not commence** (other than normal and customary preconstruction activities to support permitting, project engineering and design efforts) **until the HEPA review process has been completed** and all required permits, approvals and/or authorizations needed to proceed with the actual implementation of the construction and/or completion of the Project, especially on State lands, have been obtained.<sup>306</sup>

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<sup>304</sup>KIUC’s Reply SOP to Participants at 25.

<sup>305</sup>KIUC’s Reply SOP to Participants at 25-26.

<sup>306</sup>KIUC’s Reply SOP to Participants at 105-106 (emphasis added).



The Commission finds that the imposition of this condition, in particular, can mitigate the risk of potentially irreversible changes to the environment stemming from the Commission issuing a decision and order prior to the completion of HEPA review. While AES is not a Party to this docket, the Commission expects that KIUC has made AES aware of this proposed condition, and that AES will wait to commence construction at the Project site until the HEPA review process has been completed. Further, even the "normal and customary preconstruction activities to support permitting, project engineering and design efforts"<sup>307</sup> cannot commence until the HEPA review process has been completed and/or the required permits, approvals, and/or authorizations needed to proceed with actual implementation of the engineering, design, and construction have been obtained.

KIUC has also proposed the reporting condition listed below in Paragraph 1.c to aid in the Commission's tracking of the HEPA review process, as well as the condition below in Paragraph 2 that would require Commission review of any of the changes listed therein:

[1.c.] The status of the HEPA review process; provided that (1) this status can be included as part of the chart referred to in Item 1.b above, and (2) the discussion of any material or

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<sup>307</sup>KIUC's Reply SOP to Participants at 105-106.

significant concerns that have been raised, any mitigation measures being proposed, considered or agreed to, and any ongoing dialogue between AES/KIUC and community members as part of the HEPA process can be included as part of the Consumer Advocate's recommended community engagement document referred to in Item 1.a above.

The Commission shall have the right to review and take such action as it deems appropriate and necessary in response to the quarterly reports to meet its duties and obligations.

[2.] To the extent any change occurs to the energy rate and/or capacity charge amounts as set forth in the PPA and approved under HRS § 269-27.2, such change shall be submitted by KIUC for prior Commission approval. In addition, the following shall be submitted to the Commission for review (and approval as the Commission deems necessary or appropriate): (a) any material change in the New Overhead Circuit or Conductor Work for which the commitment of funds was approved under Section 2.3.g.2 of the Commission's G.O.7] and an overhead/underground determination was made by the Commission under HRS § 269-27.6; and (b) with respect to the Commission's approval of the transfer of the Development Assets and the conveyance, sublet, sublicense, assignment or other transfer to AES of any rights KIUC may have with respect to the Project under any lease, license, contract, easement, right of entry, permit, authorization and/or other agreement or document, any material change to the arrangement governing the terms of such transfer, conveyance, sublet, sublicense or assignment.<sup>308</sup>

In addition to the "material changes" KIUC lists in the preceding paragraph (i.e., changes to the energy rate and capacity charge amounts set forth in the PPA, material changes to the

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<sup>308</sup>KIUC's Reply SOP to Participants at 105-106. These conditions are memorialized in Section III.I, below.

New Overhead Circuit or Conductor Work, and/or material changes to the arrangement governing the terms of transfer, conveyance, sublet, sublicense or assignment under the Development Agreement), as discussed above in Section III.C.1, should HEPA review result in changes to the PPA Term, Pricing (including to the energy rate and capacity charge amounts discussed above), Ownership and Operation of the Project, Dispatch or Curtailment of the Project,<sup>309</sup> result in declaration of force majeure, or otherwise affect these identified provisions of the PPA ("Material PPA Amendments"), KIUC must notify the Commission and, depending on the circumstances, seek renewed approval from the Commission consistent with the Commission's right to review material changes to the PPA and take such action as it deems appropriate to meet its duties and obligations.

KIUC shall keep the Commission updated regarding any potential Material PPA Amendments that may result from HEPA review, or other circumstances, as soon as is possible, pursuant to the reporting mechanism that is discussed in KIUC's Paragraph 1.c., above, and required in Section III.I ("Conditions of Approval") of

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<sup>309</sup>The Commission notes that it does not anticipate changes to Dispatch or Curtailment of the Project as a result of environmental review under HEPA, but because these are Material PPA Terms, they are listed here as items that would have to be brought back to the Commission for review in the event they needed to be amended.

this Decision and Order, below. If KIUC does later seek approval for Material PPA Amendments, at that time, it would be for AES to determine whether it would like to continue moving forward with the Project, taking into consideration the nature of the Commission's review and AES' continued ability to capture the federal ITC, as discussed above.

Finally, the Commission is not convinced by the Alliance's contention that HEPA review procedures specifically control the timing of Commission review of this docket.<sup>310</sup> The Alliance argues that HEPA and associated case law "do not distinguish between agencies or approvals, nor do they allow certain agencies or approvals to be exempted or segmented from the required environmental review[,]” and, that as a result, HEPA review must be completed before the Commission can issue a decision and order.<sup>311</sup> However, the Commission is not "exempting" or "segmenting" itself from required environmental review by issuing this Decision and Order now, for the reasons set forth herein.

The rationale underlying the Alliance's argument that environmental review must be completed prior to the Commission's decision and order hinges on the potential for harmful or

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<sup>310</sup>Alliance's SOP at 11-13.

<sup>311</sup>Alliance's SOP at 11-13.

irreversible environmental consequences of construction and other physical, environmental changes before there is a complete understanding of the Project's effects.<sup>312</sup> However, in this case, no construction will commence as a result of the Commission's Decision and Order.<sup>313</sup> Instead, the Decision and Order positions AES to potentially capture the federal ITC such that KIUC may ultimately pass on savings to its customers/members, while any proposed Material PPA Amendments that result from HEPA review will have to be brought to the Commission for approval, without the risk of physical changes to the environment having already,

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<sup>312</sup>Alliance's SOP at 9-12.

<sup>313</sup>See Section III.I, below. The Alliance cites to Sierra Club v. Office of Planning, 109 Hawaii 411, 126 P.3d 1098 (2006), in support of its position, arguing that HEPA review was required before the Land Use Commission could make a decision to approve a zoning reclassification. Alliance's SOP at 12. However, the Commission sees a distinction between Sierra Club and the instant docket, in that the zoning reclassification at issue in Sierra Club directly related to the use of the State lands that triggered HEPA - while the zoning reclassification itself occurred prior to any construction or other physical activities, it was a condition precedent to the developer's use of State lands. Conversely, this Decision and Order approves the negotiated price for energy to be supplied by the Project, as well as the various other associated terms and conditions that relate to the Project's delivery of energy and capacity at that price, but it does not control the Project's ability to physically be constructed on or otherwise use State lands. As discussed above, (1) construction of the Project cannot occur until HEPA review is complete; (2) if HEPA review identifies issues that result in Material PPA Amendments they will have to be brought to the Commission for review; and (3) if AES is not able to obtain the necessary permits or approvals from other agencies, the Project cannot be constructed and/or finalized.

and perhaps irreparably, occurred. The unique protections discussed above continue the possibility of the "win-win-win" situation the Alliance identifies<sup>314</sup> without forcing the Commission to choose between the potential for critical cost savings for KIUC's customers/members and the environment. The Commission recognizes that a Commission decision prior to finalization of HEPA review may not be appropriate in all situations but sees this docket as distinct based on the specific circumstances, including the conditions imposed herein and the protections discussed above.

6.

PPA Approval

In sum, with respect to the PPA, the Commission finds and concludes as follows:

The Project represents a new type of renewable energy for the State, featuring a first-of-its-kind pumped hydro storage facility paired with a BESS.

The additional capacity of the Project is beneficial because it increases KIUC's system reliability and grid stability.

Overall, the PPA represents a significant step not only towards Hawaii's renewable energy goals consistent with HRS §§ 269-6 and 92, but also towards lower energy prices.

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<sup>314</sup>See Alliance's SOP at 1.

The fixed energy price throughout the PPA term is reasonable and in the public interest because the fixed price provides more certainty and comparatively less volatility than reliance on fossil fuel prices and contributes to customer bill savings.<sup>315</sup>

The structure of the PPA is expected to reduce curtailment risks, based on the large storage capacity offered by the Project's reservoirs and KIUC's experience with smaller-scale solar plus storage projects.

KIUC's GHG analysis, provided via attachments to the Application and various attachments to KIUC's IR Responses as detailed above, provides a satisfactory estimate of the Project's GHG emissions, from both an operational and lifecycle perspective. As demonstrated through these analyses, approval and completion of the Project is expected to result in a significant net reduction in lifecycle and operational GHG emissions.

KIUC and AES have satisfactorily effectuated community outreach to date under the PPA, as reflected by the documented outreach efforts and communications in the record.

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<sup>315</sup>HRS § 269-6(b) (stating that 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, [and] fuel supply reliability risk").

The Commission has imposed specific conditions to approval which are calculated to bring to the Commission's attention any changes to material provisions of the PPA that may affect the benefits and considerations that currently weigh in favor of the PPA, and allow for any necessary review in such situations.

Based on the foregoing, the Commission finds and concludes that KIUC has met its burden of proof in support of its request for approval of the subject PPA between KIUC and AES. The Commission finds and concludes that KIUC's purchased power arrangements under the PPA are prudent and in the public interest. Therefore, subject to the conditions discussed above and summarized below in Section III.I., the Commission approves the PPA.

D.

The ERAC

Given the Commission's overall approval of the PPA, the Commission likewise approves KIUC's request to include the costs to be incurred by KIUC under the PPA (including applicable taxes and assessments) into KIUC's ERAC, to the extent that such costs are not included in base rates. This is consistent with HAR § 6-60-6(2), which authorizes the pass through of purchased energy charges through provisions like the ERAC.



The Consumer Advocate requests that any costs related to curtailed energy be excluded from the ERAC[,]<sup>316</sup> and the Commission observes that KIUC "is not requesting authorization at this time to include any payments for curtailed energy under the PPA in KIUC's ERAC."<sup>317</sup> As such, KIUC shall not include any costs related to curtailed energy in the ERAC.<sup>318</sup>

E.

Commitment of Funds Under G.O.7 for  
New Overhead Circuit and Conductor Work

The New Overhead Circuit and the Conductor Work are necessary components of the Project. In light of the Commission's approval of the PPA, discussed above, the Commission concomitantly approves KIUC's request to commit an estimated \$2.7 million for the New Overhead Circuit and the Conductor Work. Consistent with prior Commission decisions regarding KIUC capital expenditure

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<sup>316</sup>CA's SOP at 55.

<sup>317</sup>Application at 2, n.5.

<sup>318</sup>This is consistent with decisions and orders in prior dockets, which approve recovery of purchased energy charges and related revenue taxes incurred under the PPA through the ERAC other than costs related to curtailed energy, in accordance with KIUC's requests in those dockets. See Docket No. 2017-0443, Decision and Order No. 35538, filed on June 20, 2018 at 25-26; see also Docket No. 2017-0018, Decision and Order No. 34723, filed on July 28, 2017, at 24-25.

projects, the Commission's approval is subject to the standard condition that no part of the New Overhead Circuit or the Conductor Work may be included in KIUC'S rate base unless and until the New Overhead Circuit and the Conductor Work are installed and are used and useful for public utility purposes, as determined in the rate proceeding or appropriate cost recovery mechanism proceeding following the completion of the New Overhead Circuit and the Conductor Work.<sup>319</sup>

In adopting this condition, the Commission recognizes that KIUC is a non-profit, non-investor-owned electric cooperative and does not necessarily utilize rate base in calculating its revenue requirement. Nonetheless, in a prior KIUC general rate case, In re Kauai Island Util. Coop., Docket No. 2009-0050, an average test year rate base amount was utilized to calculate KIUC's test year depreciation and amortization expense for ratemaking purposes.<sup>320</sup> Consistent with prior Commission

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<sup>319</sup>See, e.g., Docket No. 2010-0299, Decision and Order, filed on September 29, 2011, Ordering Paragraph No. 2, at 21; and Docket No. 2011-0045, Decision and Order, filed on September 2, 2011, Ordering Paragraph No. 2, at 30-31.

<sup>320</sup>See Docket No. 2009-0050, Decision and Order, filed on September 9, 2010, at 6 n.12 (as an electric cooperative, KIUC does not measure its revenue requirement using rate base) and 19 n.26 (the parties stipulated to an average test year rate base amount to calculate KIUC'S test year depreciation and amortization expense for ratemaking purposes).

decisions, KIUC must also file a final cost report following the completion of the New Overhead Circuit and Conductor Work.<sup>321</sup>

F.

Placement of New Overhead Circuit  
Above the Surface of the Ground

1.

HRS § 269-27.5

Based on KIUC's representations and the Consumer Advocate's concurrence, there are no existing homes in the Project area. Specifically, KIUC states that "[t]he nearest residential areas to the New Overhead Circuit and Conductor Work are approximately 3.7 miles and 2.8 miles away, respectively."<sup>322</sup>

Based on the above, the Commission finds that a public hearing is not required for the New Overhead Circuit or Conductor Work pursuant to HRS § 269-27.5 because the work will not be built "through any residential area."<sup>323</sup>

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<sup>321</sup>See, e.g., Docket No. 2010-0299, Decision and Order, filed on September 29, 2011, Ordering Paragraph No. 2, at 21; and Docket No. 2011-0045, Decision and Order, filed on September 2, 2011, Ordering Paragraph No. 2, at 30-31.

<sup>322</sup>Application at 26.

<sup>323</sup>See HRS § 269-27.5.

2.

HRS § 269-27.6(a)

Pursuant to HRS § 269-27.6(a), the Commission finds that the New Overhead Circuit may be constructed above the surface of the ground. In support thereof, the Commission makes the following findings.

There is no evidence in the record that there is a benefit that outweighs the cost of placing the New Overhead Circuit underground.<sup>324</sup> The Commission observes that the Consumer Advocate states that “the visual impact of the overhead placement should be minimal” given that the New Overhead Circuit would be approximately 3.7 miles away from the nearest residential area and that there are already existing transmission lines in the area.<sup>325</sup>

The Commission further observes that the cost to underground the New Overhead Circuit is \$6.03 million greater (200% higher) than the costs for constructing it above the surface of the ground.<sup>326</sup> KIUC states that there would be “no material benefit” to incurring these additional costs, as any potential

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<sup>324</sup>See HRS § 269-27.6(a) (1).

<sup>325</sup>CA’s SOP at 59-60.

<sup>326</sup>See CA’s SOP at 58-59 (citing KIUC’s Response to CA/KIUC-IR-22.a) (which estimates the cost of undergrounding the New Overhead Circuit at approximately \$8.74 million, compared to approximately \$2.71 million for an overhead configuration).

benefit from protection from human interference and natural events are diminished by the fact that the New Overhead Circuit will be located away from public access in areas without trees.<sup>327</sup> Additionally, KIUC states that there are increased costs and difficulties with repairing damaged underground lines, due to their lack of visibility and access.<sup>328</sup>

There are no governmental policies requiring the underground placement of the New Overhead Circuit.<sup>329</sup>

The Commission observes that neither KIUC nor the Consumer Advocate are aware of any governmental policies that would require the New Overhead Circuit to be placed underground.<sup>330</sup>

No governmental agency or any other party that is willing to pay for the additional costs of placing the New Overhead Circuit underground.<sup>331</sup> The Commission observes that neither KIUC nor the Consumer Advocate are aware of any governmental agency or third party that would be willing to pay for the additional costs of undergrounding the New Overhead Circuit.<sup>332</sup>

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<sup>327</sup>Application at 29.

<sup>328</sup>Application at 29-30.

<sup>329</sup>See HRS § 269-27.6(a)(2).

<sup>330</sup>See Application at 30; and CA's SOP at 61.

<sup>331</sup>See HRS § 269-27.6(a)(3).

<sup>332</sup>See Application at 30; CA's SOP at 61; and KIUC's Response to CA/KIUC-IR-23(a) (confirming that Agribusiness Development

The Consumer Advocate does not object to the proposed overhead placement of the Transmission Line.<sup>333</sup> The Commission observes that the Consumer Advocates does not oppose placing the New Overhead Circuit above the surface of the ground.<sup>334</sup>

The Commission is not aware of any other "relevant factors" that would justify undergrounding the New Overhead Circuit.<sup>335</sup> Regarding other considerations, the Commission notes that KIUC has emphasized the critical nature of the New Overhead Circuit to the Project's operation, as well as the remoteness of the Project from residential areas.<sup>336</sup> In light of the New Overhead Circuit's critical role in helping KIUC's members realize the benefits of the Project, as well as the significant increase in costs that would result from undergrounding the Circuit, the Commission finds that these factors weigh in favor of constructing the Circuit above the surface of the ground.

In addition, KIUC does not anticipate that the New Overhead Circuit will materially increase risk to engaged and threatened seabirds, and is utilizing measures from other projects

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Corporation, a landowner of part of the Project site, is not willing to pay to underground the New Overhead Circuit).

<sup>333</sup>See HRS § 269-27.6(a)(4).

<sup>334</sup>CA's SOP at 62-63.

<sup>335</sup>See HRS § 269-27.6(a)(5).

<sup>336</sup>See Application at 30-31.

"to minimize potential risks for powerline collisions (e.g. horizontal configuration used to the maximum extent practicable, line height will be as low as feasibly possible)."<sup>337</sup>

Based on the foregoing, the Commission approves KIUC's request to place the New Overhead circuit above the surface of the ground, pursuant to HRS § 269-27.6(a).

G.

HRS § 269-19(a)

The purpose of HRS § 269-19 is to safeguard the public interest.<sup>338</sup> KIUC's transfer of the Development Assets and Associated Rights to AES appears to fall within the purview of HRS § 269-19(a). As observed by the Consumer Advocate, such transfer "will allow AES to develop the [] Project, which provides various benefits"<sup>339</sup> as discussed above in Sections II.A., III.C.1, and III.C.3. For that reason, the Consumer Advocate "does not object to allowing the transfer" of the Development Assets and Associated Rights from KIUC to AES.<sup>340</sup>

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<sup>337</sup>CA's SOP at 62.

<sup>338</sup>See In re Honolulu Rapid Transit Co., Ltd., 54 Haw. 402, 409, 507 P.2d 755, 759 (1973).

<sup>339</sup>CA's SOP at 65.

<sup>340</sup>CA's SOP at 68.

The Commission finds that KIUC's requested transfers are reasonable and in the public interest in that they will effectuate the PPA between KIUC and AES and the benefits to KIUC's members associated therewith. Therefore, to the extent that HRS § 269-19(a) is applicable, the Commission approves, pursuant to HRS § 269-19(a), KIUC's plan to transfer the Development Assets to AES, as well as transfer the Associated Rights to AES as provided in the Development Agreement. In granting this approval, the Commission finds that the Development Assets and Associated Rights are necessary for the specific purpose of the construction, maintenance, and operation of the Project.

H.

HRS § 269-6(b)

HRS § 269-6(b) requires the Commission to "consider the need to reduce the State's reliance on fossil fuels through energy efficiency and increased renewable energy generation . . . ." As noted above, the PPA will allow KIUC to reduce its annual fossil fuel consumption by an average of 8.5 million gallons.<sup>341</sup> The PPA

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<sup>341</sup>See Application at 22 (estimating that the Project "will result in KIUC using about 7,800,000 less gallons of naphtha fuel and 775,000 less gallons of ultra-low sulfur diesel fuel during a full year of production").



will achieve this reduction by displacing fossil fuel generation with new renewable energy generated by the Project.

HRS § 269-6(b) also requires the Commission to “explicitly consider, quantitatively or qualitatively, the effect of the State’s reliance on fossil fuels on: (1) Price volatility; (2) Export of funds for fuel imports; (3) Fuel supply reliability risk; and (4) Greenhouse gas emissions.”<sup>342</sup> Consistent with HRS § 269-6(b), the Commission again notes that the PPA is expected to reduce fossil fuel consumption by approximately 8.5 million gallons, annually. This reduction in fossil fuel use will, in turn, reduce the State’s overall reliance on fossil fuels and thereby reduce the risks related to the volatility of fossil fuel prices. Further, by reducing fossil fuel consumption, the PPA will reduce the amount of funds expended on importing fossil fuel, and partially mitigate the risks of interrupted fossil fuel supplies. Further, as discussed above, based on KIUC estimates, the Project will result in a net reduction of 2,018,487 MT CO<sub>2</sub>e, from a Project operations standpoint, and 2,508,877 MT CO<sub>2</sub>e on a Project lifecycle basis.<sup>343</sup>

Additionally, as noted above, KIUC estimates that the renewable energy that it purchases pursuant to the PPA will

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<sup>342</sup>HRS § 269-6(b).

<sup>343</sup>See KIUC’s Response to PUC-KIUC-IR-107, Attachment (Part 1) at 3.

contribute approximately 22.72% percent to KIUC'S 2024 RPS requirements.<sup>344</sup>

Upon explicit consideration of and weighing the four specified criteria in HRS § 269-6(b) (price volatility, export of funds for fuel imports, fuel supply reliability risk, and greenhouse gas emissions), the Commission finds the PPA to be reasonable and in the public interest because overall, the PPA advances Hawaii's goal of reducing reliance on fossil fuels through energy efficiency and increased renewable energy generation through clean energy resources, and does so at a price that is estimated to result in savings for KIUC's members during the term of the PPA. The Commission finds that the amount of fuel that the Project is projected to displace will result in a decreased reliance on imported oil, thereby reducing the potential negative economic impacts of oil price volatility, and decrease the funds exported for fuel imports.

I.

Conditions to Approval

As discussed above, the Commission is imposing a number of conditions to its approval of KIUC's requests. These largely

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<sup>344</sup>Application at 39.

reflect the recommendations proposed by the Consumer Advocate, which KIUC does not oppose,<sup>345</sup> and are summarized as follows:

1. Updated Sales Information. KIUC shall provide the Commission and the Consumer Advocate with updated information regarding sales and the Project's contribution to KIUC's RPS during the Solar Term upon completion of KIUC's load forecast.

2. Curtailment Costs. In the event that there is persistent curtailment, KIUC shall report the curtailed amount and associated costs.

3. WKEP Location. KIUC shall report any changes to the location of the WKEP Substation.

4. Development Assets. KIUC shall file copies of the documentation associated with the Development Assets with the Commission and with the Consumer Advocate at the time KIUC provides those documents to AES.<sup>346</sup>

5. Quarterly Report. KIUC shall submit quarterly reporting in this docket providing the following:

a. The status of KIUC's work to provide and/or support venues for community feedback and compile past outreach efforts into a single "living" document reflecting all community engagement.

b. An update to the chart provided in Attachment PUC-KIUC-IR-101 filed with the Commission on February 10, 2021, providing the

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<sup>345</sup>See KIUC's Reply SOP to CA at 3-5.

<sup>346</sup>CA's SOP at 68.

latest status of surveys, permits and other compliance actions related to the environmental review for the Project, the list of the applicable federal and/or State agency(ies) involved with each permit/survey/other compliance action, when the permit/survey/other compliance action has been filed or completed (and if not yet filed or completed, an estimate of when the permit/survey/other compliance action is expected to be filed or completed) with the applicable agency/ies, and the latest estimate of the expected review period/timeframe with such agency(ies).

- c. The status of the HEPA review process; provided that (1) this status can be included as part of the chart referred to in Paragraph 5.b, above, and (2) the discussion of any material or significant concerns that have been raised, any mitigation measures being proposed, considered or agreed to, and any ongoing dialogue between AES/KIUC and community members as part of the HEPA process can be included as part of the community engagement document referred to in Paragraph 5.a, above.

The Commission shall have the right to review and take such action as it deems appropriate and necessary in response to the quarterly reports to meet its duties and obligations.

In addition to the above, the Commission has imposed its own conditions to supplement those recommended by KIUC related to Material PPA Amendments, summarized as follows:

6. PPA Extension. KIUC shall be required to seek Commission approval for an extension of any of the PPA's Terms.

7. Changes to PPA Pricing. KIUC shall be required to seek Commission approval for any change in the PPA's pricing.

8. Exercise of Purchase Rights. KIUC shall be required to seek Commission approval prior to exercising its purchase rights for the Project.

9. Declaration of Force Majeure. KIUC shall notify the Commission if force majeure is declared, including a written report explaining the circumstances.

10. Change to Rate. To the extent any change occurs to the energy rate and/or capacity charge amounts as set forth in the PPA and approved under HRS § 269-27.2, such change shall be submitted by KIUC for prior Commission approval. In addition, the following shall be submitted to the Commission for review (and approval as the Commission deems necessary or appropriate):

(a) any material change in the New Overhead Circuit or Conductor Work for which the commitment of funds was approved under Section 2.3.g.2 of the Commission's General Order No. 7 and an overhead/underground determination was made by the Commission under HRS § 269-27.6; and (b) any change to the agreement between KIUC and AES regarding the transfer of the Development Assets from KIUC to AES.

11. Other Approvals. Notwithstanding the above or anything to the contrary, construction at the Project site shall not commence (other than normal and customary preconstruction activities to support permitting, project engineering and design efforts) until the HEPA review process has been completed and all

required permits, approvals and/or authorizations needed to proceed with the actual implementation of the construction and/or completion of the Project, especially on State lands, have been obtained. The status of these efforts will be included in the quarterly report discussed in Paragraph 5, above.

The quarterly reports, as well as other submittals contemplated by the conditions set forth above, shall be filed in this docket, unless otherwise modified by the Commission.

12. KIUC must seek Commission approval for Material PPA Amendments that result from HEPA review, as those are defined in Section III.C.5, above. KIUC shall keep the Commission updated regarding any potential Material PPA Amendments that may result from HEPA review as soon as is possible, pursuant to the quarterly reporting required in Condition of Approval No. 5, above.

The Commission declines to include the Consumer Advocate's recommended conditions regarding invoices and income reporting, which would have required KIUC to file with the Commission and the Consumer Advocate copies of all AES invoices related to the engineering, procurement, construction, and maintenance associated with the PV/BESS Facility and copies of AES's income statements or results of operations related to the PV/BESS Facility. The Commission did require that KIUC file invoices and income statements in past dockets involving KIUC and AES (see Docket Nos. 2017-0018 and 2017-0433), however, in recent

Hawaiian Electric PPA dockets, the Commission has moved away from requiring such invoice and income information, noting that concerns are diminished where PPA provisions otherwise address issues regarding curtailment, and upon consideration of the PPA, and its benefits, as a whole. After considering the record here, the Commission is not persuaded that the disclosure of the Project invoices and income statements is warranted under these circumstances, given that the PPA provides for curtailment of the Project only in limited situations, and is expected to provide significant benefits to KIUC's members, including bill savings and acceleration of renewable energy goals.'

#### IV.

##### FINDINGS OF FACT AND CONCLUSIONS OF LAW

Based on the foregoing, the Commission finds and concludes as follows:

1. KIUC's request to approve the PPA between KIUC and AES is granted, subject to the conditions set forth in Section III.I of this Decision and Order. In support thereof, the Commission further finds that the PPA offers numerous benefits, including:

A. A fixed pricing regime that delinks energy pricing from the price of fossil fuels;

B. Estimated bill savings for KIUC'S members/customers;

C. Firm capacity from renewable generation resources that allow KIUC to dispatch energy at any time and in any matter most beneficial to KIUC'S system (during evening peak, nighttime, and morning peak hours, but also during periods of cloudy/rainy weather where there is little to no PV energy being delivered to KIUC'S grid);

D. The fixed payment structure over the term of the PPA will help insulate KIUC'S members/customers from volatility of fossil fuel prices; and

E. The renewable energy generated by the Project will contribute towards KIUC'S RPS and achievement of the State's renewable energy goals.

2. Given the Commission's overall approval of the PPA, the Commission also approves KIUC'S request to include the purchased energy charges, including related revenue taxes, but excluding any payments for curtailed energy, incurred by KIUC under the PPA into KIUC'S ERAC, to the extent that those costs are not already included in base rates.

3. Pursuant to Paragraph 2.3(g)(2) of G.O. 7, the Commission approves KIUC'S request to commit an estimated \$2.7 million to the New Overhead Circuit and Conductor Work, provided that no part of the New Overhead Circuit or Conductor Work



may be included in KIUC's rate base unless and until the New Overhead Circuit and Conductor Work is in fact installed, and is used and useful for public utility purposes, as determined in the rate proceeding or appropriate cost recovery mechanism following the completion of the New Overhead Circuit and Conductor Work. KIUC shall file in this docket a final cost report following the completion of the New Overhead Circuit and Conductor Work.

4. KIUC's request to build the New Overhead Circuit above the surface of the ground is approved, pursuant to HRS § 269-27.6(a).

5. The Commission approves, to the extent necessary under HRS § 269-19(a), KIUC's plan to transfer the Development Assets and Associated Rights to AES, as specifically described in the Application.

V.

ORDERS

THE COMMISSION ORDERS:

1. The requests in KIUC's Application for approval of its PPA with AES, dated December 30, 2020, are approved, subject to the conditions set forth above. Specifically, the Commission:

A. Approves the PPA pursuant to HRS § 269-27.2;

B. Finds that the energy charges, capacity charges, and other payments) to be paid by KIUC to AES pursuant to the PPA are just and reasonable; and

C. Finds that the purchased energy arrangements under the PPA are prudent and in the public interest.

2. KIUC's request to include the purchased energy charges and related revenue taxes that it incurs under the PPA, pursuant to HAR § 6-60-6(2), into its ERAC, to the extent that those costs are not already included in base rates, except for any costs related to curtailed energy, is approved. In the event of persistent curtailment, KIUC shall file a report in this docket.

3. KIUC's request to commit an estimated \$2.7 million to the New Overhead Circuit and Conductor Work pursuant to Paragraph 2.3(g)(2) of the Commission's G.O. 7 is approved. KIUC shall file, in this docket, a final cost report following the completion of the New Overhead Circuit and Conductor Work.

4. KIUC's request to build the New Overhead Circuit above the surface of the ground is approved, pursuant to HRS § 269-27.6(a).

5. Pursuant to HRS § 269-19(a), KIUC's plan to transfer the Development Assets and Associated Rights to AES, for the purpose of the construction, maintenance, and operation of the Project, as specifically described in the Application, is approved. KIUC shall file copies of the documentation associated with the Development Assets in this docket at the time KIUC provides the documentation to AES.

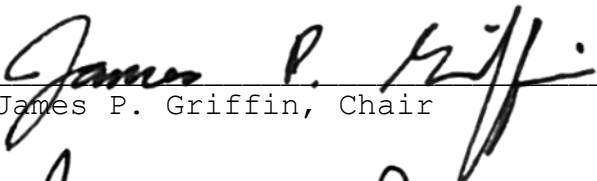
6. Construction at the Project site shall not commence until the HEPA review process has been completed and all required permits, approvals, and/or authorizations needed to proceed with the actual implementation of the construction and/or completion of the Project, especially on State lands, have been obtained. The status of these efforts will be included in the quarterly reports.

7. Regarding the filings made pursuant to the conditions of approval established herein, KIUC may seek to designate appropriate information as confidential under this docket's Protective Order, subject to review by the Commission.


8. Unless ordered otherwise by the Commission, this docket is closed. Nevertheless, the filings required pursuant to this Decision and Order shall be filed in this docket.

DONE at Honolulu, Hawaii DECEMBER 1, 2021.

PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

By   
James P. Griffin, Chair

By   
Jennifer M. Potter, Commissioner

By   
Leodoloff R. Asuncion, Jr., Commissioner

APPROVED AS TO FORM:

  
Mark Kaetsu  
Commission Counsel

2020-0218.ljk

CERTIFICATE OF SERVICE

Pursuant to Order No. 37043, the foregoing Order was served on the date it was uploaded to the Public Utilities Commission's Document Management System and served through the Document Management System's electronic Distribution List.

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PUBLIC UTILITIES  
COMMISSION

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