

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Application of )  
 )  
KAUAI ISLAND UTILITY COOPERATIVE )  
 )  
For Approval of Power Purchase Agreement )  
with AES Kekaha Solar, LLC and to Include )  
Costs in Kauai Island Utility Cooperative's )  
Energy Rate Adjustment Clause, for )  
Commitment and Expenditure of Funds in )  
Excess of \$2,500,000 for the PMRF )  
Substation Project, and Related Matters. )  
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Docket No. 2017-0443

APPLICATION  
EXHIBITS 1 THROUGH 5  
VERIFICATION  
AND  
CERTIFICATE OF SERVICE

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COMMISSION

MORIHARA LAU & FONG LLP

KENT D. MORIHARA, ESQ.  
KRIS N. NAKAGAWA, ESQ.  
LAUREN M. IMADA, ESQ.  
KATHERINE N. LAU, ESQ.  
Davies Pacific Center  
841 Bishop Street  
Suite 400  
Honolulu, Hawaii 96813  
Telephone: (808) 526-2888

Attorneys for Kauai Island Utility  
Cooperative

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**APPLICATION**

KAUAI ISLAND UTILITY COOPERATIVE ("Applicant" or "KIUC"), by and through its attorneys, Morihara Lau & Fong LLP, and pursuant to Hawaii Administrative Rules ("HAR") Chapter 6-61 and the statutes and rules cited below, hereby submits this application ("Application")<sup>1</sup> requesting that to the extent required and applicable, the Hawaii Public Utilities Commission ("Commission") issue a decision and order, by no later than June 30, 2018 to the extent possible:<sup>2</sup>

1. Approving, pursuant to Hawaii Revised Statutes ("HRS") § 269-27.2, the Power Purchase Agreement (Solar Generating and BESS Facility) ("PPA") between

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<sup>1</sup> Consistent with the requirements set forth in HAR § 6-61-18 and concurrent with the filing of this Application, KIUC will serve two copies of this Application on the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs ("Consumer Advocate"), an *ex officio* party to this proceeding pursuant to HAR § 6-61-62.

<sup>2</sup> See *infra* Section VI (Requested Decision and Order By June 30, 2018).



KIUC and AES Kekaha Solar, LLC ("AES"), as further described below<sup>3</sup> and attached hereto as Exhibit 1;<sup>4 5</sup>

2. Finding that the "Contract Price"<sup>6</sup> of \$108.50 per megawatt hour ("MWh") to be paid by KIUC pursuant to the PPA is just and reasonable;<sup>7</sup>

3. Finding that the purchased energy arrangements (e.g., terms and conditions) under the PPA are prudent and in the public interest;<sup>8</sup>

4. Authorizing, pursuant to HAR § 6-60-6(2), 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 ("ERAC"), to the extent that such costs are not recovered in KIUC's base rates, except for any costs related to curtailed energy;<sup>9 10</sup>

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<sup>3</sup> See infra Section III.A (Background of the PPA, AES and PV/BESS Facility), Section III.B (Salient Terms and Conditions of the PPA), and Section V.A (PPA, Contract Price and Purchased Energy Arrangements).

<sup>4</sup> The related Interconnection Agreement between KIUC and AES ("Interconnection Agreement") is attached hereto as Exhibit 2.

<sup>5</sup> Portions of this Application, including portions of the PPA (Exhibit 1 of this Application) and the Interconnection Agreement (Exhibit 2 of this Application), have been redacted as confidential subject to the terms of a Protective Order to be issued in the subject docket. Subsequent to filing this Application, KIUC will request that the Commission issue a Protective Order in this docket. Once the Commission issues a Protective Order for this docket, all confidential pages will be filed pursuant and subject to the terms of that Protective Order.

<sup>6</sup> See PPA § 3.2.2.

<sup>7</sup> See infra Section V.A (PPA, Contract Price and Purchased Energy Arrangements).

<sup>8</sup> See id.

<sup>9</sup> Consistent with (1) Section III.4 of Decision and Order No. 30267, issued on March 16, 2012, in Docket No. 2011-0180, (2) Section IV.2.A of Decision and Order No. 33557, issued on February 26, 2016, in Docket No. 2015-0331 ("Decision and Order No. 33557"), and (3) KIUC's Application, filed on January 25, 2017, in Docket No. 2017-0018, at 2, n.7, KIUC is not requesting authorization at this time to include any payments for curtailed energy under the PPA in KIUC's ERAC. Also consistent with Section IV.2.B of Decision and Order No. 33557, as amended by Order No. 33578, issued on March 10, 2016, in Docket No. 2015-0331 ("Order No. 33578"), KIUC understands that "[t]his does not preclude KIUC from seeking recovery of curtailment payments, if any, incurred under the PPA through an alternative mechanism."

5. Approving, pursuant to Section 2.3.g.2 of the Commission's General Order No. 7, the commitment and expenditure of funds to undertake, construct, and complete the "PMRF Substation Project" as further described below and in KIUC's Report and Analysis attached hereto as Exhibit 3, which includes, among other things, a new substation ("PMRF Substation") to be located within the Pacific Missile Range Facility ("PMRF") and a new approximately 0.3 mile 69 kilovolt ("kV") rated overhead transmission line ("New Transmission Line"), which will together provide the means to connect the PPA's solar generating and BESS facility ("PV/BESS Facility") to KIUC's system;<sup>11</sup>

6. Determining, pursuant to HRS § 269-27.6, that the approximately 0.3 mile New Transmission Line that is planned to be undertaken, constructed, and completed as part of the PMRF Substation Project should be placed, constructed, erected, and built above the surface of the ground;<sup>12</sup>

7. To the extent the Commission determines that its approval under HRS § 269-19 is required for KIUC to enter into the sublease with AES for the PV/BESS Facility, waiving or exempting KIUC, as an electric cooperative and pursuant to HRS § 269-31, from the need to obtain such approval, or in the alternative, granting such approval;<sup>13</sup> and

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<sup>10</sup> See infra Section V.B (Authorization to Include Costs in ERAC).

<sup>11</sup> See infra Section IV (The PMRF Substation Project) and Section V.C (Approval of Commitment of Funds for the PMRF Substation Project).

<sup>12</sup> See infra Section IV (The PMRF Substation Project) and Section V.D (Determination Under HRS § 269-27.6 Regarding New Transmission Line).

<sup>13</sup> See infra Section V.E (Waiver or Exemption Regarding Sublease).



8. Granting such other relief as 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 or the Interconnection Agreement and to undertake, construct, and complete the PMRF Substation Project, including, if applicable and if not otherwise waived or exempted by the Commission pursuant to HRS § 269-31, any approval that may be required under HRS § 269-19 with respect to the planned interconnection facilities that will be owned and maintained by AES and located within the PMRF Substation property.<sup>14 15</sup>

In support of this Application, KIUC provides the following information:

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<sup>14</sup> See Appendix C of the PPA (Exhibit 1 of this Application) and Exhibit 3 of the Interconnection Agreement (Exhibit 2 of this Application) for a preliminary single line diagram showing the planned PMRF Substation and New Transmission Line and how they will connect the PV/BESS Facility to KIUC's system, as well as those portions of AES's interconnection facilities that will be located within the PMRF Substation property. See also KIUC's Report and Analysis (Exhibit 3 of this Application), Figure 2-7 (page 11) and Figure 2-8 (page 12).

KIUC notes that in its Application filed on January 25, 2017, in Docket No. 2017-0018, at 2-3, KIUC made a similar request regarding the line and facility equipment that would be installed, owned, and maintained by AES Lawai Solar, LLC within KIUC's to-be-constructed Aepe Substation, but the Commission did not address or rule on said request in its Decision and Order No. 34723, issued on July 28, 2017, in said docket ("Decision and Order No. 34723"). Therefore, KIUC is under the assumption that the Commission determined that approval was not required in that situation for KIUC to perform and fulfill its obligation under that power purchase agreement or interconnection agreement. However, if KIUC's assumption is incorrect or the Commission determines that HRS § 269-19 is triggered in this situation with respect to the planned interconnection facilities that will be owned and maintained by AES and located within the PMRF Substation property, then see infra n.15.

<sup>15</sup> To the extent the Commission determines that its approval is required under this or any other statutory or other provision or requirement and/or in order for KIUC to perform and fulfill its obligations under the PPA or the Interconnection Agreement and/or to undertake, construct, and complete the PMRF Substation Project, including any approval that may be required under HRS § 269-19 with respect to the planned interconnection facilities that will be owned and maintained by AES and located within the PMRF Substation property, then KIUC respectfully requests: (a) such approval to the extent not otherwise waived or exempted pursuant to HRS § 269-31(b), and (b) a waiver of any information or filing requirements that may be triggered by any such provisions or requirements. In support thereof, KIUC contends that such requests are reasonable and in the public interest for the reasons provided in Section V (Requests for Approvals, Findings, Authorizations, and Determinations) of this Application below.

**I. COMMUNICATIONS REGARDING THIS APPLICATION**

Pleadings, correspondence, and notices regarding this Application should be directed to the following:

KENT D. MORIHARA, ESQ.  
KRIS N. NAKAGAWA, ESQ.  
LAUREN M. IMADA, ESQ.  
KATHERINE N. LAU, ESQ.  
Moriwara Lau & Fong LLP  
841 Bishop Street, Suite 400  
Honolulu, HI 96813

Attorneys for Kauai Island Utility Cooperative

**II. DESCRIPTION OF APPLICANT**

Applicant is a Hawaii not-for-profit electric cooperative, whose principal place of business is 4463 Pahe'e Street, Suite 1, Lihue, Kauai, Hawaii 96766-2000. Applicant 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. Applicant has been an operating public utility since November 1, 2002, when it purchased substantially all of the assets and assumed the operations of the Kauai Electric division of Citizens Communications Company ("Citizens"), and in connection therewith, was assigned the legislatively-granted franchise<sup>16</sup> previously held by Citizens to manufacture, sell, furnish, and supply electric light, current, and power on the island of Kauai. Said transaction was approved by the Commission in Decision and Order No. 19658 issued on September 17, 2002, as amended by Decision and Order No. 19755 issued on October 30, 2002, both in Docket No. 02-0060.

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<sup>16</sup> KIUC's legislatively-granted franchise reads as is provided in Act 165 (Session Laws of Hawaii 1967).



Applicant is duly incorporated, validly existing, and in good standing under the laws of the State of Hawaii.

### **III. THE PPA, AES AND PV/BESS FACILITY**

#### **III.A Background of the PPA, AES and PV/BESS Facility.**

In January 2016, following the extension of the Federal Investment Tax Credit (ITC), KIUC began analyzing the potential for additional solar energy projects similar to the SolarCity power purchase arrangement that was approved in Docket No. 2015-0331 (i.e., solar generating facilities tied with battery energy storage that could provide firm-like<sup>17</sup> power to KIUC, whereby KIUC could utilize stored energy from the battery to help with ramping toward KIUC's afternoon/evening peak and to assist in shaving the evening peak).<sup>18</sup> In doing so, KIUC reached out to eight (8) major Kauai landowners and forty (40) potential project developers for indicative pricing based upon a rough project size and a 2018 equipment delivery, construction, and completion schedule. The indicative pricing received showed the potential for KIUC to obtain from multiple developers similar or improved pricing to that obtained in the SolarCity arrangement. KIUC thereafter selected a site location in Lawai, negotiated lease terms with the landowner, and entered into a power purchase agreement with AES Lawai Solar, LLC, which agreement became the subject of Docket No. 2017-0018 and was approved by the Commission in Decision and Order No. 34723.

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<sup>17</sup> The term "firm-like" is utilized by KIUC to refer to a special characteristic whereby KIUC has dispatch control of a stored energy resource that, from a utility operations perspective, looks and acts on the utility grid like a firm, fossil fuel fired generation resource.

<sup>18</sup> The SolarCity power purchase arrangement was approved in Decision and Order No. 33557, as amended by Order No. 33578.

During this process, and as noted in KIUC's response to CA-IR-1(d), filed on March 30, 2017 in Docket No. 2017-0018, KIUC became aware that the Department of the Navy ("Navy") Naval Facilities Engineering Command (NAVFAC) was preparing to issue a lease solicitation for vacant land at PMRF. Based on this, KIUC provided updated project assumptions to the list of potential developers that included the PMRF site (along with the Lawai site that became the subject of Docket No. 2017-0018). Twenty (20) responses were received. Seven (7) developers were then selected for a short-list, and KIUC then requested final offers from those developers. From that short-list, AES was selected as the winning bidder.

In early October 2016, the Navy issued the lease solicitation for the PMRF site. The Navy eventually selected KIUC as the lead bidder and began negotiating a lease with KIUC for up to 140 acres within PMRF, which negotiations lasted from January through September 2017.

Thereafter, KIUC executed the subject PPA and the Interconnection Agreement with AES. AES (i.e., AES Kekaha Solar, LLC) is 100% owned by AES Distributed Energy, Inc. AES Distributed Energy, Inc. is 100% owned by AES US Distributed Solar Holdings, LLC, which is in turn 100% owned by The AES Corporation.<sup>19</sup>

Pursuant to the PPA, AES will construct the PV/BESS Facility, which will consist of a 19.278 MW direct current ("MW<sub>dc</sub>") / 14.0 MW alternating current ("MW<sub>ac</sub>") solar photovoltaic system with single-axis trackers together with related auxiliary, controls,

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<sup>19</sup> Information regarding The AES Corporation and its business operations was provided by KIUC in its Application, filed on January 25, 2017, in Docket No. 2017-0018, which information is hereby incorporated herein by reference.



and interconnection facilities<sup>20</sup> ("PV System") and a 70.0 MWh battery energy storage system ("BESS"), DC-coupled<sup>21</sup> to a 14 MW<sub>ac</sub> power conversion system, capable of reaching 14 MW<sub>ac</sub> of capacity from the PV System, the BESS or both sources, and delivering 70 MWh alternating current ("MWh<sub>ac</sub>") from the BESS<sup>22</sup> in the first full contract year.<sup>23</sup>

Of the approximately 140 acres within PMRF that KIUC will be leasing from the Navy, approximately 138 acres is intended to be used for the PV/BESS Facility (which

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<sup>20</sup> The interconnection facilities (which will be owned and maintained by AES) are described and shown in the Interconnection Agreement (Exhibit 2 of this Application). See, in particular, Exhibits 2 and 3 of the Interconnection Agreement. As shown in Exhibit 3 of the Interconnection Agreement, these AES-owned and maintained facilities will connect to KIUC's existing transmission system via the to-be-constructed PMRF Substation, and the Point of Interconnection will be located within the PMRF Substation just prior to the revenue metering package. Additional communication connections and equipment will be installed to interface with KIUC's supervisory control and data acquisition (aka, SCADA) system so that the energy generated by the PV/BESS Facility can be remotely controlled and dispatched by KIUC pursuant to the PPA and the Interconnection Agreement.

<sup>21</sup> DC-coupled means that the PV System and the BESS will share a common DC bus, inverters, and transformers.

<sup>22</sup> The BESS will be an Advancion system. While AES does not manufacture BESS, it has developed a package of storage solutions that have been branded as "Advancion." Advancion systems are engineered to accommodate interchangeable supplier components. These suppliers build to meet Advancion design specifications to avoid costly, per project system integration and are pre-qualified through AES's Advancion Supplier Certification Program. A select group of high quality component suppliers have already been certified and the group represents more than half of the global advanced battery production. Initial certified suppliers include LG Chem Ltd. ("LG Chem") and Parker Hannifin. The modular architecture enables replacement and augmentation over the system life using the then best new technologies at the then best price.

The specific details for the LG Chem components are: JH4 cells, 14S 2P modules. LG Chem is one of the world's largest lithium-ion battery manufacturers with significant market share in consumer, automotive, and stationary applications. LG Chem is a globally diversified chemical company operating three main business units: Petrochemicals, IT & Electronic Materials, and Energy Solutions. The company manufactures a wide range of products, from petrochemical goods to high-value added plastics, and extends its chemical expertise into high-tech areas such as electronic materials and rechargeable batteries. LG Chem has achieved market leadership in the highly competitive market for HEV and EV battery systems, where product performance, quality, durability and cost are prerequisites. Battery cells for automotive and stationary storage systems are manufactured to the same exacting quality standards at facilities in Korea and the United States.

<sup>23</sup> For a further description and preliminary layout of the PV/BESS Facility, see Appendix B of the PPA (Exhibit 1 of this Application). For a preliminary single line diagram showing the PV/BESS Facility's interconnection to KIUC's system, see Appendix C of the PPA (Exhibit 1 of this Application) and Exhibit 3 of the Interconnection Agreement (Exhibit 2 of this Application).

will be subleased by KIUC to AES) and the remaining approximately 2 acres is intended to be used for the PMRF Substation.<sup>24</sup>

Per the terms of the PPA, AES will build, operate, maintain, and repair the PV/BESS Facility in accordance with certain standards specified in the PPA,<sup>25</sup> and KIUC will dispatch the PV/BESS Facility in KIUC's preferred manner and in compliance with certain standards, as specified in the PPA.<sup>26</sup>

The key benefit of this PV/BESS Facility is that the BESS will enable the facility to be firm-like<sup>27</sup> due to KIUC's dispatch control and ability to store energy into the BESS for KIUC's later use. The BESS has been sized to provide about five (5) hours of energy dispatch each day, which will assist in meeting the needs of KIUC by accommodating a wide variety of dispatch schedules. Specifically, KIUC intends to use, on average, approximately 73%<sup>28</sup> of the output from the PV System to charge the BESS, with the remainder being delivered to the KIUC grid during morning and afternoon shoulder periods, or any other time that oil-fired generation can be displaced. Through this ability to store and control the release of solar energy onsite each day, the

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<sup>24</sup> See id. regarding the PV/BESS Facility. For a description and discussion of the PMRF Substation, see Section IV (The PMRF Substation Project), Section V.C (Approval of Commitment of Funds for the PMRF Substation Project), and KIUC's Report and Analysis (Exhibit 3 of this Application).

<sup>25</sup> See, e.g., PPA §§ 6.1 and 6.2.

<sup>26</sup> Id. at § 6.1.2.

<sup>27</sup> See supra n.17.

<sup>28</sup> KIUC notes that the PV/BESS facility associated with the AES Lawai PPA (which was approved by the Commission in Decision and Order No. 34723) was designed to use approximately 71% of the output from the PV facility to charge its BESS, with the remainder being delivered to the KIUC grid during morning and afternoon shoulder periods, or any other time that oil-fired generation can be displaced. See KIUC's response to CA-IR-9, filed on March 30, 2017, in Docket No. 2017-0018, explaining why KIUC believes that a 71%/29% allocation is the best solution from an operational, reliability and cost-effective standpoint for the AES Lawai PPA facility. KIUC contends that this rationale also applies to the subject PV/BESS Facility's approximately 73%/27% allocation and resulting size of its PV System and BESS.



PV/BESS Facility will provide for a zero-emissions displacement for oil-based generation on the island. KIUC will dispatch the BESS's stored energy (which equates to a firm generation resource from a utility operations perspective) to the KIUC grid to: (a) help with ramping towards KIUC's afternoon/evening peak (rather than ramping up KIUC's conventional oil-fueled units), (b) shave the evening peak by displacing fossil fuel fired generation during that period (rather than dispatching KIUC's most inefficient conventional oil-fueled unit), (c) offset night-time oil-fired generation, and (d) subject to discharge limits, assist in grid stabilization. See Exhibit 4, attached hereto and incorporated herein by reference, for the anticipated impact the PV/BESS Facility will have on KIUC's average future dispatch of its conventional oil-fueled units.

Construction of the PV/BESS Facility is currently expected to commence around or after July 2018 following the receipt of Commission approval, and the PV/BESS Facility is projected to reach full-scale commercial operation by no later than September 1, 2019. However, these dates are contingent upon, among other things, the receipt of Commission approval as discussed in Section VI (Requested Decision and Order By June 30, 2018) of this Application below. Through negotiations with AES, KIUC understands that the commissioning of the PV/BESS Facility by no later than September 1, 2019 is critical to AES's financing plan and monetization of the tax incentives that have been assumed and monetized by KIUC in the PPA's contract price.

### **III.B Salient Terms and Conditions of the PPA.**

Pursuant to the PPA,<sup>29</sup> KIUC shall purchase from AES all available “Energy Product”<sup>30</sup> from the PV/BESS Facility, under and subject to the terms of the PPA. The salient terms and conditions of the PPA are described as follows:

**1. Term:** Subject to Sections 2.1 and 2.3 of the PPA, the term of the PPA is 25 years,<sup>31</sup> commencing on the “Commercial Operation Date.”<sup>32</sup>

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<sup>29</sup> KIUC notes that the subject PPA is very similar to the Power Purchase Agreement (Solar Generating and BESS Facility) between KIUC and AES Lawai Solar, LLC dated as of December 30, 2016 (“AES Lawai PPA”) that was approved by the Commission in Decision and Order No. 34723. The subject PPA essentially involves the same parties that were involved in the AES Lawai PPA (i.e., both AES and AES Lawai Solar, LLC are in effect wholly-owned subsidiaries of The AES Corporation) and, in negotiating the subject arrangement, AES and KIUC agreed to utilize the AES Lawai PPA as a starting point. As such, except for changes to reflect or address facility-specific information, including the Contract Price, the provisions of the subject PPA and the AES Lawai PPA approved by the Commission are essentially identical. In Decision and Order No. 34723, the Commission, among other things, (1) approved the AES Lawai PPA, (2) found the contract price of \$110.80 per MWh to be paid by KIUC pursuant to the AES Lawai PPA just and reasonable, (3) found that the purchased energy arrangements under the AES Lawai PPA were prudent and in the public interest, and (4) approved KIUC’s request to include the purchased energy charges and related revenue taxes that it incurs under the AES Lawai PPA, in its ERAC, to the extent that those costs are not already included in base rates, except for any costs related to curtailed energy. For a copy of the AES Lawai PPA, see Exhibit 1 of the Application, filed on January 25, 2017, in Docket No. 2017-0018.

<sup>30</sup> “Energy Product” means “Net Output,” “Green Tags,” “Capacity Rights,” and “Ancillary Services” produced by the PV/BESS Facility (as those terms are defined in Appendix A of the PPA).

<sup>31</sup> Pursuant to Section 2.2 of the PPA, KIUC, at its discretion, may offer to extend the 25-year term for an additional term of 10 years; provided that, among other things, the effectiveness of such 10-year extension is subject to KIUC obtaining Commission approval of such extension.

KIUC notes that the AES Lawai PPA as approved by the Commission in Decision and Order No. 34723 contains the same initial 25-year term with possible 10-year extension as the subject PPA. A discussion regarding the 25-year initial term length in the AES Lawai PPA is found in KIUC’s response to CA-IR-5, filed on March 30, 2017, in Docket No. 2017-0018.

<sup>32</sup> “Commercial Operation Date” is defined in Appendix A of the PPA as the date that “Commercial Operation” is achieved for the PV/BESS Facility. As defined in Appendix A of the PPA, “Commercial Operation” means when the PV/BESS Facility is (a) capable of generating electric energy and delivering “Net Output” to the “Point of Delivery” (as those terms are defined in Appendix A of the PPA), (b) fully interconnected at the Point of Delivery in accordance with the Interconnection Agreement, and (c) capable of satisfying the “Initial Commercial Operation Test” as set forth in Appendix I of the PPA and complying with the “BESS Capacity Obligations” (as that term is defined in Appendix A and explained in Section 6.2.1 of the PPA).

**2. Purchase of Energy Product at Contract Price:** During the term of the PPA, AES will sell and deliver to KIUC, and KIUC will purchase and receive from AES, all Energy Product associated with the PV/BESS Facility, at the “Contract Price” of \$108.50 per MWh of “Net Output” delivered to the “Point of Delivery”.<sup>33 34</sup> Such Net Output shall be delivered to KIUC free and clear of all liens, claims, and encumbrances, and title to and risk of loss of the Net Output will only transfer from AES to KIUC upon its delivery to KIUC at the Point of Delivery.<sup>35</sup>

**3. Standard of Facility Operation:** AES is required to build, operate, maintain, and repair the PV/BESS Facility in accordance with (a) the applicable standards, criteria, requirements, and orders of the Commission, any other “Governmental Authority” (as that term is defined in Appendix A of the PPA) with jurisdiction over the PV/BESS Facility, any “Electric System Authority” (as that term is

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<sup>33</sup> PPA §§ 3.1 and 3.2.2. See PPA at Appendix A for the definitions of “Net Output” and “Point of Delivery.”

<sup>34</sup> See PPA § 3.2.1 regarding the payment provisions governing “Test Energy” provided to KIUC between the “Effective Date” and the “Commercial Operation Date” (as those terms are defined in Appendix A of the PPA). See also PPA § 3.6 regarding the payment provisions governing any “Excess Energy” and “Additional Energy” (as those terms are defined in Appendix A of the PPA).

As provided in Section 3.2.3 of the PPA, the Contract Price includes “Net Output,” “Green Tags,” “Ancillary Services,” and “Capacity Rights” (as those terms are defined in Appendix A of the PPA). In other words, the Contract Price and the price for Test Energy include the consideration to be paid by KIUC to AES for all Net Output, Green Tags, Ancillary Services, and Capacity Rights associated with KIUC’s purchase of Net Output and Test Energy, respectively, and AES shall not be entitled to any compensation over and above the Contract Price or the Test Energy price for the Green Tags, Ancillary Services, or Capacity Rights associated therewith.

As provided in Section 3.2.4 of the PPA, if, as a result of a change in Hawaii state law that occurs prior to the “Commercial Operation Date” (as that term is defined in Appendix A of the PPA), the Facility qualifies for increased Hawaii state tax credits or other tax incentives that accrue to the benefit of AES, net of any reductions in existing tax incentives, the Parties will negotiate in good faith an amendment to the PPA to reflect a reduction in the Contract Price (expressed in dollars per MWh) by 50% of the net benefit to the economics of the Facility of such increased Hawaii state tax credits or other tax incentives.

<sup>35</sup> PPA § 3.3.



defined in Appendix A of the PPA) with jurisdiction over the PV/BESS Facility, and any successors to the functions thereof, (b) the “Required Facility Documents” (as that term is defined in Appendix A of the PPA), (c) the Interconnection Agreement, (d) all “Requirements of Law” (as that term is defined in Appendix A of the PPA), (e) the requirements set forth in the PPA, and (f) “Prudent Electrical Practices” (as that term is defined in Appendix A of the PPA).<sup>36</sup>

**4. Dispatch:** Pursuant to Section 6.1.2(a) of the PPA, KIUC will have the discretion to dispatch the PV/BESS Facility in KIUC’s preferred manner. This will enable KIUC to maximize the benefits of the PV/BESS Facility by giving KIUC control over how to dispatch the stored energy (which equates to a firm generation resource from a utility operations perspective, and is carbon emissions free as compared to fossil fuel fired generation) to: (a) help with ramping towards KIUC’s afternoon/evening peak (rather than ramping up KIUC’s conventional oil-fueled units), (b) shave the evening peak by displacing fossil fuel fired generation during that period (rather than dispatching KIUC’s most inefficient conventional oil-fueled unit), (c) offset night-time oil-fired generation, and (d) subject to discharge limits, assist in grid stabilization.

**5. BESS Capacity Obligations:** Pursuant to Section 6.2.1 of the PPA, AES will be required to comply with each of the “BESS Capacity Obligations” (as that term is defined in Appendix A and explained in Section 6.2.1 of the PPA). The BESS Capacity Obligations are intended to provide KIUC assurance that the BESS will function as intended by KIUC. As described in Section III.B.6 (Curtailment and Curtailment Credits)

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<sup>36</sup> Id. at § 6.1.1.

of this Application, immediately below, the PPA provides additional protections to KIUC in the event AES is not in compliance with the BESS Capacity Obligations.

6. **Curtailment and Curtailment Credits**: As specified in Section 6.5.1 of the PPA, KIUC will have the right, in KIUC's sole discretion and without payment to AES, to cause a "Curtailment" (as that term is defined in Appendix A of the PPA) of the PV/BESS Facility for [REDACTED] per "Contract Year" (as that term is defined in Appendix A of the PPA). The [REDACTED] Curtailment limit is called the "Planned Outage Curtailment Cap."<sup>37</sup> KIUC will also have the right to cause a Curtailment without payment to AES where the Curtailment [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]; any such Curtailment

shall not be counted towards the Planned Outage Curtailment Cap.<sup>38 39</sup>

In addition, as indicated in Section III.B.5 (BESS Capacity Obligations) of this Application, immediately above, the PPA provides certain protections to KIUC in the event AES is unable to comply with the BESS Capacity Obligations. Pursuant to Section 6.5.2 of the PPA, for any given day that AES is not in compliance with the

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<sup>37</sup> Id. at § 6.5.1.

<sup>38</sup> Id. at §§ 6.5.1 and 6.5.3.

<sup>39</sup> In establishing the Planned Outage Curtailment Cap, KIUC's objective was to provide itself with the ability to curtail the PV/BESS Facility without payment, and in doing so, provide AES with some level of comfort by agreeing to a cap mechanism beyond which payment would be required. KIUC believes that it will be able to minimize the risk of the cap amount being exceeded by conducting any interconnection maintenance during periods that will not require curtailment (such as by performing maintenance on the interconnection facilities while the PV System is charging the BESS).

BESS Capacity Obligations, KIUC will receive curtailment credits (i.e., an increase to the Planned Outage Curtailment Cap). The details of how this curtailment credit provision is intended to work are set forth in Section 6.5.2 of the PPA. Examples are set forth in said Section 6.5.2 and are also provided here:

- If the BESS is not capable of [REDACTED], then KIUC shall accrue a [REDACTED] increase toward the Planned Outage Curtailment Cap [REDACTED]. An example follows: The BESS is only capable of [REDACTED]. On a given day, the [REDACTED]. The Planned Outage Curtailment Cap would be increased by [REDACTED].<sup>40</sup>
- If the BESS reached 100% state of charge ("SOC") and was later dis-charged to 0% SOC but in doing so did not [REDACTED], then KIUC shall accrue a [REDACTED] increase to the Planned Outage Curtailment Cap [REDACTED]. An example follows: On a given day when dispatched from 100% SOC to 0% SOC the battery [REDACTED]. In this instance, KIUC would accrue [REDACTED] to the Planned Outage Curtailment Cap.<sup>41 42</sup>

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<sup>40</sup> PPA § 6.5.2(a).

<sup>41</sup> Id. at § 6.5.2(b).

<sup>42</sup> As a result of the PPA provisions summarized above, KIUC will only be required to pay for Curtailment in the situation where (1) the Curtailment is in excess of the Planned Outage Curtailment Cap (which cap includes any curtailment credits accrued by KIUC, as described above and in Section 6.5.2 of the PPA), and (2) the exceptions [REDACTED], as described above and in Section 6.5.3 of the PPA, do not apply. In the event that KIUC does have to make any payments for Curtailment under the PPA, KIUC notes that it is not requesting authorization at this time to include any payments for curtailed energy under the PPA in KIUC's ERAC. See supra n.9.

Having said this, KIUC notes that the PV/BESS Facility is not expected to cause any increase in the curtailment of existing renewable resources. The reason is that the curtailment of existing renewable resources occurs during the mid-day hours, and the PV/BESS Facility is designed to have enough BESS capacity to store all of the facility's mid-day solar production. However, KIUC notes that the PV/BESS Facility's BESS operational requirements were developed to provide KIUC with additional spinning reserve and grid response capabilities, which could translate into less need for curtailment than would otherwise be necessary.

**7. Indemnification, Insurance, and Performance Assurance:**

Section 12.1 of the PPA sets forth mutual indemnification provisions that KIUC believes adequately protect KIUC, its affiliates, directors, officers, members/customers, agents, and employees, from and against loss, damage, expense, liability, and other claims resulting from actions by AES or its contractors, agents, or employees relating to, arising out of, or in any way connected with, the PPA or the Interconnection Agreement.

Section 13.1 of the PPA requires AES to secure and continuously carry, at its expense, certain insurance coverage, as specified in Appendix G of the PPA.

Section 13.2 of the PPA requires AES to provide KIUC with certificates of insurance and any applicable required endorsements upon KIUC's request.

Section 13.4 of the PPA requires AES to provide KIUC with security in the amount of [REDACTED] to secure and assure AES's performance of all of its obligations prior to the PV/BESS Facility reaching "Commercial Operation" (as that term is defined in Appendix A of the PPA).

**8. Interconnection:** As set forth in Section 5.1.1 of the PPA, AES is responsible for paying or satisfying when due all costs and expenses associated with the interconnection of the PV/BESS Facility up to and at the Point of Delivery in accordance with the separately executed Interconnection Agreement, which is attached hereto as Exhibit 2. The specific provisions governing the responsibilities of AES for the interconnection and operation of the PV/BESS Facility and the "Interconnection Facilities" (as that term is defined in Appendix A of the PPA),<sup>43</sup> including AES's

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<sup>43</sup> See supra n.20 for a general description of the Interconnection Facilities.

obligation to pay all amounts required under the Interconnection Agreement,<sup>44</sup> are set forth in the Interconnection Agreement.

**9. Conditions Precedent and Termination Rights:** KIUC and AES agreed to a number of conditions precedent, as set forth in Section 2.3 of the PPA, including, without limitation, a provision for KIUC to expeditiously and in good faith receive a “Final PUC Approval Order” from the Commission.<sup>45</sup> Rights to terminate the PPA are contained in Section 2.4 and Section 11 of the PPA.<sup>46</sup>

#### **IV. THE PMRF SUBSTATION PROJECT**

##### **IV.A Description of the PMRF Substation Project.**

The PMRF Substation Project primarily involves constructing the PMRF Substation and the addition of the approximately 0.3 mile New Transmission Line, which will together provide the means to interconnect the PV/BESS Facility to KIUC’s system, as described in KIUC’s Report and Analysis (Exhibit 3 of this Application). A general description of the PMRF Substation and the New Transmission Line are each separately discussed below.

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<sup>44</sup> See Interconnection Agreement (Exhibit 2 of this Application) at Article 4 (Cost Responsibility for Interconnection Facilities and Distribution Upgrades) and Article 5 (Cost Responsibility for Network Upgrades).

<sup>45</sup> Pursuant to Appendix A of the PPA, a “Final PUC Approval Order” is a “PUC Approval Order” (as defined in Appendix A of the PPA) for which the applicable time periods for the taking of any exception or bringing of any appeal has passed without the taking of any exception or the bringing of any appeal; or, if an exception or an appeal is brought, the final resolution of such exception or appeal has occurred such that no further exception or appeal may be taken or brought (as determined by KIUC in its reasonable discretion).

<sup>46</sup> A discussion regarding the Termination Payment found in Section 11.3 of the AES Lawai PPA, which is almost completely identical to Section 11.3 of the subject PPA, with the exception of the specific liquidated damage amounts, is found in KIUC’s response to CA-IR-6, filed on March 30, 2017, in Docket No. 2017-0018.

1. **PMRF Substation.** As mentioned in Section III.A (Background of the PPA, AES and PV/BESS Facility) of this Application above and Section II (Project Description) of KIUC's Report and Analysis (Exhibit 3 of this Application), the PMRF Substation and the PV/BESS Facility will be located physically adjacent to one another on approximately 140 acres within PMRF. The PV/BESS Facility will interconnect to KIUC's system over two new 12.47kV distribution underground feeders that will terminate in the PMRF Substation, with 50% of the total solar PV and BESS from the PV/BESS Facility on each feeder. The PMRF Substation will include five dedicated transmission bays, the addition of a control enclosure (which will house the 12.47kV metalclad switchgear lineup, transmission and distribution protection and control equipment, SCADA and communication racks, and metering for the PV/BESS Facility interconnection), and other facilities as described in KIUC's Report and Analysis, including two (2) new 10 MVA power transformers that will feed the control enclosure 12.47kV metalclad switchgear lineup via underground cables.

2. **New Transmission Line.** As discussed in Section II (Project Description) of KIUC's Report and Analysis (Exhibit 3 of this Application), the New Transmission Line will consist of a new approximately 0.3 mile overhead, double-circuit construction to be added to the existing 7.3 mile Kekaha to Mana 57.1kV transmission line. The PMRF Substation will connect to KIUC's existing 57.1kV transmission system through the New Transmission Line. The New Transmission Line does not run through a residential area, and the nearest residential area outside of PMRF is located approximately 2.9 miles away.



See KIUC's Report and Analysis (Exhibit 3 of this Application) (and the figures/drawings referenced therein) for a further description of the work involved in the PMRF Substation Project, including the site location, facility description, proposed site plan/layout, how the PMRF Substation and New Transmission Line will be used to interconnect the PV/BESS Facility to KIUC's system, and other information.

#### **IV.B Schedule for Construction and Completion of the PMRF Substation Project.**

The PMRF Substation Project is currently planned to be completed by the end of August 2019. A preliminary schedule for the PMRF Substation Project is found in Section V (Project Schedule) of KIUC's Report and Analysis (Exhibit 3 of this Application), at Table 5-1, page 19.

#### **IV.C Estimated Cost of the PMRF Substation Project.**

As noted in Section IV (Cost) of KIUC's Report and Analysis (Exhibit 3 of this Application), at Table 4-1, page 18, the total cost of the PMRF Substation Project is currently estimated at approximately \$9.22 million. (As shown below, the \$9.22 million is comprised of the \$8,681,490 cost of the PMRF Substation, plus the \$170,000 cost of the New Transmission Line, plus the \$370,000 cost of the 12.47kV Distribution Extension.) Of this amount, AES (the developer of the PV/BESS Facility) will be paying KIUC to cover the incremental equipment, material, and construction necessary to interconnect the PV/BESS Facility to KIUC's system through the PMRF Substation, the cost of which is currently estimated to be \$350,000, leaving a total net cost to KIUC of approximately \$8.87 million. The blue shaded area on Figure 2-8 of KIUC's Report and Analysis (Exhibit 3 of this Application), at page 12, shows the portions that will be paid for by AES.

The following sets forth a breakdown of the current \$9.22 million estimated cost of the PMRF Substation Project, which information is taken from Table 4-1 of KIUC's Report and Analysis (Exhibit 3 of this Application), at page 18.

<b>PMRF Substation Estimate</b>	
Group A: Structures	\$399,292
Group B: Switching	\$180,339
Group C: Circuits and Buswork	\$454,224
Group E: Circuit Breakers	\$338,150
Group F: Foundations	\$877,793
Group G: Transformers	\$1,028,072
Group K: Conduit and Cable	\$640,506
Group M: Site Work	\$273,574
Group N: Fence and Signs	\$179,016
Group O: Grounding	\$315,819
Group Q: Switchgear	\$2,031,180
<u>Group S: Station Yard Lights</u>	<u>\$42,013</u>
<b>Group Total</b>	<b>\$6,759,979</b>
Insurance	\$202,799
Mobilization/Demobilization	\$138,772
Project Management	\$83,263
Construction Management	\$168,999
Engineering	\$503,000
Survey	\$11,250

<u>Geotechnical Engineering</u>	<u>\$24,200</u>
<b>Subtotal</b>	<b>\$7,892,263</b>
Contingency (10%)	<u>\$789,226</u>
<b>Total Estimated PMRF Substation Cost</b>	<b>\$8,681,490</b>
Less Estimated Amount from AES Kekaha Solar	<u>\$350,000</u>
<b>Total Estimated PMRF Substation Cost to be Funded by KIUC</b>	<b>\$8,331,490</b>
New Transmission Line	\$170,000
12.47kV Distribution Extension	<u>\$370,000</u>
<b>Total Estimated PMRF Substation Project Cost to be Funded by KIUC</b>	<b>\$8,871,490</b>

## V. REQUESTS FOR APPROVALS, FINDINGS, AUTHORIZATIONS, AND DETERMINATIONS

### V.A PPA, Contract Price and Purchased Energy Arrangements.

HRS § 269-27.2(c) provides, in relevant part, that 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 public utilities commission.” As indicated above, KIUC and AES have agreed to the Contract Price of \$108.50 per MWh for the sale of Energy Product to KIUC, as described in Section III.B.2 (Purchase of Energy Product at Contract Price) of this Application above. The Contract Price is in compliance with HRS § 269-27.2(c) by removing any linkage between the Contract Price and the price of fossil fuels.<sup>47</sup> KIUC

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<sup>47</sup> HRS § 269-27.2(c) states the following, in relevant part:

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

contends that the Contract Price is just and reasonable and is consistent with HRS § 269-27.2 and the applicable provisions of HAR Chapter 6-74. Accordingly, KIUC requests approval of the PPA, and also requests that the Commission find that the Contract Price to be paid by KIUC pursuant to the PPA is just and reasonable and that the purchased energy arrangements (e.g., terms and conditions) under the PPA, pursuant to which KIUC will purchase Energy Product from AES, are prudent and in the public interest. As support for such requests, KIUC states the following:<sup>48</sup>

1. The Contract Price is at a materially lower cost than the cost that KIUC could expect to incur through purchases from other third-party developers. This is supported by KIUC's efforts as discussed in Section III.A (Background of the PPA, AES and PV/BESS Facility) of this Application above that resulted in AES being selected as the winning bidder for this project.

2. The Contract Price is advantageous because it is fixed during the 25-year term of the PPA (which provides stability for KIUC's members) and because it 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 as further described below.

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rate for the nonfossil fuel generated electricity to potentially enable utility customers to share in the benefits of fuel cost savings resulting from the use of nonfossil fuel generated electricity. As the [C]ommission deems appropriate, the just and reasonable rate for nonfossil fuel generated electricity supplied to the public utility by the producer may include mechanisms for reasonable and appropriate incremental adjustments, such as adjustments linked to consumer price indices for inflation or other acceptable adjustment mechanisms.

<sup>48</sup> A discussion of the benefits of the AES Lawai PPA and its associated PV/BESS facility and contract price (which was approved by the Commission in Decision and Order No. 34723 and which benefits also apply to the subject arrangement that utilizes the same technology), as compared to other alternative strategies and/or technologies, is found in KIUC's response to CA-IR-8(g), filed on March 30, 2017, in Docket No. 2017-0018.

3. This advantageous pricing becomes even more attractive after considering the firm-like<sup>49</sup> nature of this energy resource, whereby KIUC will have dispatch control of the stored energy resource that, from a utility operations perspective, looks and acts on the utility grid like a firm, fossil fuel fired generation resource (while also being carbon emissions free as compared to fossil fuel fired generation). As discussed in Section III.A (Background of the PPA, AES and PV/BESS Facility) of this Application above, KIUC will be able to dispatch stored energy from the BESS to (a) help with ramping towards KIUC's afternoon/evening peak (rather than ramping up KIUC's conventional oil-fueled units), (b) shave the evening peak by displacing fossil fuel fired generation during that period (rather than dispatching KIUC's most inefficient conventional oil-fueled unit), (c) offset night-time oil-fired generation, and (d) subject to discharge limits, assist in grid stabilization.<sup>50</sup> As shown in Exhibit 4, attached hereto, the PV/BESS Facility is anticipated to have a substantial positive impact by decreasing KIUC's average future dispatch of its conventional oil-fueled units.

4. As a result of the above, the PPA will reduce KIUC's fuel use and is expected to result in significant cost savings for KIUC and its members/customers. KIUC anticipates that once the PV/BESS Facility is placed into service, KIUC will use an average of approximately 2.6 million fewer gallons of fuel annually. KIUC estimates that

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<sup>49</sup> See supra n.17.

<sup>50</sup> Exhibit 5 of the Interconnection Agreement (Exhibit 2 of this Application) lists the Additional Operating Requirements for the PV/BESS Facility to support KIUC's needs. Among other things, the PV & BESS Inverter Over/Under Frequency Ride Through Settings (Item 12 of Exhibit 5), the PV & BESS Inverter Over/Under Voltage Ride Through Settings (Item 13 of Exhibit 5), and the required maximum frequency response time (Item 16 of Exhibit 5) will assist grid stabilization by supporting the KIUC grid during faults and unit trips, subject to the capacity of the BESS at the time of such faults or trips. These Additional Operating Requirements were developed based upon the findings and recommendations contained in KIUC's 2016 System Study Final Report, dated September 7, 2016, and filed in Docket No. 2014-0203, as well as on KIUC's past operating experience, and root cause analysis of historical faults and unit trips.

this will save KIUC and its members/customers over \$76 million (net present value using a 5% discount rate) over the 25-year term of the PPA.<sup>51</sup>

5. The renewable energy to be purchased pursuant to the PPA will assist KIUC in achieving the State of Hawaii's Renewable Portfolio Standard, as set forth in HRS §§ 269-91 et seq., as amended ("RPS").<sup>52</sup> As shown in Exhibit 5, attached hereto and incorporated herein by reference, KIUC estimates that the PV/BESS Facility will contribute approximately 7.64% to KIUC's 2020 RPS.

6. The interconnection and operation of the PV/BESS Facility is not anticipated to negatively impact the amount of future distributed energy resources ("DER") that can be interconnected to KIUC's system, and is also not anticipated to exacerbate the existing minimum daytime load conditions on KIUC's system. This is due to the fact that (1) the bulk of the energy produced by the PV/BESS Facility will go directly to charge the BESS instead of being immediately delivered directly to the KIUC grid, and (2) for the energy that is delivered directly to the KIUC grid, none of it is expected to be delivered to KIUC's grid during the mid-day solar saturation period when excess solar energy production from DER is likely available. This stored energy will then be delivered to the KIUC grid at a later time during the evening peak, when there is little to no DER on KIUC's system.

7. The energy to be purchased under the PPA will assist KIUC in achieving the goal set forth in KIUC's Strategic Plan to move towards energy independence and

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<sup>51</sup> Based on KIUC's estimates, the PPA will provide savings to KIUC and its members/customers as long as the price of oil averages above \$30 per barrel.

<sup>52</sup> Act 97, Session Laws of Hawaii 2015 (which took effect on July 1, 2015), amended, among other provisions, HRS § 269-92(a) by: (1) increasing the RPS for 2020, from 25% to 30%; and (2) adopting a new RPS of 70% by 2040 and 100% by 2045. In doing so, Act 97 maintained the existing RPS of 40% by 2030.



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>53</sup>

With flat sales growth, KIUC's current renewable energy projects (not including the subject PPA) will achieve about 61% supply side renewable energy by 2030. With 1% sales growth (not including the subject PPA), KIUC's current renewable energy projects will achieve about 57% supply side renewable energy by 2030. The subject PPA will add approximately 7.64% supply side renewable energy, which would bring KIUC to 68% (assuming flat sales growth) and 64% (assuming 1% sales growth) by 2030, thus furthering KIUC's efforts to meet this Strategic Plan goal.

8. The specific terms and conditions of the PPA (together with the Interconnection Agreement) as summarized above, were negotiated by KIUC and AES at arms-length and contain indemnification, insurance, and other provisions which will serve to protect KIUC and its members/customers from certain risks associated with interconnecting with the PV/BESS Facility.

9. The terms and conditions of the PPA and the Interconnection Agreement 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>54</sup>

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<sup>53</sup> On January 31, 2017, KIUC's Board of Directors adopted a new Strategic Plan that sets a goal that by the year 2030, KIUC will meet 70% of its annual electricity sales with energy generated by renewable resources. This was an update and expansion of KIUC's prior Strategic Plan 2008-2023, which set an initial goal of reaching 50% renewable by the year 2023.

<sup>54</sup> On page 48 of Decision and Order No. 31305, filed on June 19, 2013, in Docket No. 2012-0383, the Commission stated, in relevant part, that the approvals in that proceeding were subject to the following:

KIUC shall conduct a study or assessment to determine the amount of PV generation that can be interconnected to its system, while still

## **V.B Authorization to Include Costs in ERAC.**

HAR § 6-60-6(2) provides that “[n]o changes in fuel and purchased energy costs may be included in the fuel adjustment clause unless the contracts or prices for the purchase of such fuel or energy have been previously approved or filed with the [C]ommission.” KIUC presently implements a fuel adjustment clause (i.e., KIUC’s ERAC) through its applicable rate schedules set forth in Tariff No. 1 to recover fuel and purchased energy costs approved by the Commission. For the same reasons discussed above, KIUC requests Commission approval to include the costs (including applicable taxes and assessments) to be incurred by KIUC under the PPA in KIUC’s ERAC, to the extent that such costs are not recovered in KIUC’s base rates, except for any costs related to curtailed energy.<sup>55</sup>

## **V.C Approval of Commitment of Funds for the PMRF Substation Project.**

Section 2.3.g.2 of the Commission’s General Order No. 7 provides, in relevant part, the following:

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maintaining system reliability. Such study should be submitted prior to or as part of any application submitted by KIUC for its next utility scale PV project following the KRS Two PV Facility. For any third-party purchase power agreements for intermittent generation that are submitted by KIUC for [C]ommission approval prior to the completion of the study, KIUC should demonstrate that the addition of that purchased power arrangement will not unduly impact the reliability of KIUC’s system. (Emphasis added).

As discussed in this Application, the key benefit of the PV/BESS Facility is that the BESS will enable the facility to be firm-like (vs. true intermittent power) (see supra n.17) and KIUC will utilize stored energy from the BESS to, among other things, help with ramping toward KIUC’s afternoon/evening peak. KIUC contends that the PV/BESS Facility will not unduly impact the reliability of KIUC’s system. A discussion of how the PV/BESS facility that was the subject of the AES Lawai PPA (which is similar to the subject PV/BESS Facility with the exception of the reference to KIUC’s Kapaia Power Station) will not unduly impact the reliability of KIUC’s system, is found in KIUC’s response to CA-IR-7, filed on March 30, 2017, in Docket No. 2017-0018.

<sup>55</sup> See supra nn.9 and 42.

Proposed capital expenditures for any single project related to plant replacement, expansion or modernization, in excess of [\$2,500,000, excluding customer contributions,]<sup>56</sup> or 10 percent 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.

Regarding the PMRF Substation Project, KIUC is submitting this Application pursuant to said Section 2.3.g.2 of General Order No. 7, as amended, to allow KIUC to commit and expend the necessary funds to undertake, construct and complete the PMRF Substation Project.

In support of this request, KIUC hereby states the following:

1. As discussed in Section II (Project Description) of KIUC's Report and Analysis (Exhibit 3 of this Application), at pages 3 to 4, the PMRF Substation Project will be used as the means to interconnect the PV/BESS Facility to KIUC's system, through which KIUC will receive renewable, cost-effective energy and the benefits discussed in Section V.A (PPA, Contract Price and Purchased Energy Arrangements) of this Application above.

2. As discussed in Sections II and III of KIUC's Report and Analysis (Exhibit 3 of this Application), at pages 1 to 2 and 17, the PMRF Substation Project will provide increased energy security and resiliency for the Navy, which will be provided as in-kind consideration instead of KIUC having to pay monetary lease payments to the

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<sup>56</sup> In lieu of the original "\$500,000" threshold, Section 2.3.g.2 was modified in 2004 by Decision and Order No. 21001, issued on May 27, 2004, in Docket No. 03-0256 (ordering, among other things, the following: "Effective July 1, 2004 and no sooner, as applied to KIUC, GO No. 7, paragraph 2.3(g)2, is modified by inserting the phrase '\$2.5 million, excluding customer contributions,' in place of the '\$500,000' threshold").

Navy. This increased energy security and resiliency will be accomplished through the following means:

- The PMRF Substation and the PV/BESS Facility will be located within PMRF, which is a secure military facility. This will further national security efforts and objectives by placing the primary facilities that PMRF will rely upon for electrical service on land that is directly secured by the Navy.

- The express feeder and islanding arrangement described in Section II (Project Description) of KIUC's Report and Analysis (Exhibit 3 of this Application), at pages 1 to 2, will allow PMRF loads to be directly fed from the PV/BESS Facility without being electrically coupled to KIUC's transmission system in the event of a grid event/outage and during PMRF mission critical operations. In other words, through the PMRF Substation Project, the PV/BESS Facility will have the ability to support Navy interests by providing emergency backup power in the event of a KIUC grid event/outage such as an infrastructure failure from the Kekaha Substation to the PMRF Substation, as well as during times when PMRF runs mission critical operations.

Based on the foregoing, KIUC contends that the PMRF Substation Project is necessary/useful for KIUC's system operations and is reasonable and in the public interest.

#### **V.D Determination Under HRS § 269-27.6 Regarding New Transmission Line.**

HRS § 269-27.6(a) provides, in relevant part:

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 forty-six 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.

HRS § 269-27.6(a).<sup>57 58</sup>

KIUC hereby respectfully requests that the Commission determine that the New Transmission Line (i.e., the new approximately 0.3 mile overhead double-circuit 57.1kV transmission line) as described above and in KIUC's Report and Analysis (Exhibit 3 of

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<sup>57</sup> Subsections (b) and (c) of HRS § 269-27.6, which apply to 138kV and greater lines, do not apply to the New Transmission Line because the New Transmission Line involves a 69kV transmission line that will be operated at 57.1kV, which is lower than the above 138kV threshold.

<sup>58</sup> KIUC notes that HRS § 269-27.5 provides:

Whenever a public utility plans to place, construct, erect, or otherwise build a new 46 kilovolt or greater high-voltage electric transmission system above the surface of the ground through any residential area, the public utilities commission shall conduct a public hearing prior to its issuance of approval thereof. Notice of the hearing shall be given in the manner provided in section 269-16 for notice of public hearings. (underlined emphasis added)

The above provision is not applicable to the New Transmission Line because the new transmission line does not go "through a residential area." As mentioned in Section IV.A (Description of the PMRF Substation Project) of this Application, the nearest residence outside PMRF is located approximately 2.9 miles away from the PMRF Substation Project.

this Application) be placed, constructed, erected, and built above the surface of the ground (i.e., overhead). In support of this and in satisfaction of the requirements of HRS §269-27.6(a), KIUC hereby provides the following:<sup>59</sup>

1. Benefits of Overhead Versus Underground. Benefits exist that outweigh the costs of placing the New Transmission Line underground. KIUC estimates that the costs to underground the approximately 0.3 mile of planned overhead line would be substantially more than an overhead construction. As an electric cooperative, KIUC has an obligation to its member/owners to ensure safe and reliable delivery of electricity in the most economic manner possible. KIUC is extremely cognizant of the high costs of generating and supplying electricity on the island of Kauai and strives to construct and maintain its facilities as economically as possible. As such, every dollar that is saved by building a line overhead instead of underground results in savings to KIUC that can be passed on to its member/owners through the form of patronage capital refunds and rebates.

In this situation, there would be no material benefit in KIUC incurring the additional costs to construct the New Transmission Line underground instead of overhead. While KIUC acknowledges that constructing a line underground may provide some level of additional reliability by being less subject to human effects (such as automobile accidents) and natural events (such as high winds, rains, contact with trees, etc.), KIUC notes the additional difficulty in repairing damaged underground lines and facilities because of the added complexity involved in locating, accessing and then

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<sup>59</sup> With respect to HRS § 269-27.6(a)(4), the recommendation of the Division of Consumer Advocacy (Consumer Advocate) as to whether the New Transmission Line should be constructed overhead versus underground will be stated upon its completion of its investigation.



repairing the specific damaged portion or portions, which often requires the use of special equipment. As a result, the time needed and costs involved to repair a damaged portion of an underground line are often significantly greater than repairing an overhead line. KIUC also notes that the New Transmission Line, even if constructed underground, would still be connected to many miles of overhead transmission line between the PMRF Substation and Port Allen, making any potential reliability gains somewhat negligible. In addition, any possible aesthetic gains in constructing the New Transmission Line underground would also be negligible, because the same corridor already contains overhead distribution lines. Because of these reasons, the substantially higher costs to construct the New Transmission Line underground are not justified.

2. Governmental Public Policies. No governmental public policy exists that requires the New Transmission Line to be placed, constructed, erected, or built underground, and no governmental agency has established any policy that commits funds to KIUC to pay for additional costs of undergrounding the New Transmission Line.

3. Governmental Agency/Third Party Willingness to Pay for Additional Costs of Undergrounding. No governmental agency or other third party has indicated any willingness to pay for the additional costs to underground the New Transmission Line, and it is KIUC's understanding and belief that no such agency or party is or would be willing to do so.

4. Other Relevant Factors.

(a) Distance from Residential Areas. As mentioned in Section IV.A (Description of the PMRF Substation Project) of this Application above, the New

Transmission Line will not run through a residential area, and the closest the planned overhead transmission line will come to any existing residentially zoned area is approximately 2.9 miles and the closest the line will come to any existing residence outside PMRF is approximately 2.9 miles.

(b) Critical to the PMRF Substation Project. The addition of the New Transmission Line is a critical part of the PMRF Substation Project, which will:

(1) provide the means to interconnect the PV/BESS Facility to KIUC's system, through which KIUC will receive renewable, cost-effective energy, and (2) provide increased energy security and resiliency to the Navy (i.e., one of KIUC's largest customers) without unduly impacting any of KIUC's other customers.

**V.E Waiver or Exemption Regarding Sublease.**

As mentioned in Section III.A (Background of the PPA, AES and PV/BESS Facility) of this Application above, the PV/BESS Facility will be located on approximately 138 acres of vacant land located on PMRF that KIUC will lease from the Navy, and that KIUC will in turn sublease to AES to govern AES's installation and operation of the PV/BESS Facility. Under HRS § 269-19<sup>60</sup>, the sublease could be construed as KIUC encumbering "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," which requires prior Commission approval.

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<sup>60</sup> HRS § 269-19 states the following, 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 so to do. 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.

However, even if the Commission determined that HRS § 269-19 is triggered as it pertains to the sublease, Act 57, Session Laws of Hawai'i 2013 ("Act 57") gives the Commission the authority to waive or exempt an electric cooperative from any or all requirements of HRS Chapter 269 or any applicable franchise, charter, decision, order, rule, or other law, upon a determination or demonstration that the requirement(s) should not be applied to an electric cooperative or are otherwise unjust, unreasonable, or not in the public interest.<sup>61</sup> In enacting Act 57, the legislature recognized that Hawaii's public

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<sup>61</sup> Act 57 amended HRS § 269-31 by adding new subparagraphs (b) and (c), which read as follows:

(b) Notwithstanding any provision of this chapter or any franchise, charter, law, decision, order, or rule to the contrary, the public utilities commission, sua sponte or upon the application of an electric cooperative, may waive or exempt an electric cooperative from any or all requirements of this chapter or any applicable franchise, charter, decision, order, rule, or other law upon a determination or demonstration that such requirement or requirements should not be applied to an electric cooperative or are otherwise unjust, unreasonable, or not in the public interest. Notwithstanding the above, the public utilities commission and the consumer advocate shall at all times consider the ownership structure and interests of an electric cooperative in determining the scope and need for any regulatory oversight or requirements over such electric cooperative. To the extent any other provision of this chapter [i.e., HRS Chapter 269] or any franchise, charter, law, decision, order, or rule is contrary to or otherwise conflicts with this section in any manner, the provisions of this section shall govern and apply.

(c) For purposes of this chapter [i.e., HRS Chapter 269], an "electric cooperative" is a cooperative association or entity that is:

- (1) Owned by its members;
- (2) Formed pursuant to [HRS] chapter 421C;
- (3) Operated on a not-for-profit basis;
- (4) Authorized pursuant to a legislatively granted franchise or other legislative authority to manufacture, sell, furnish, and supply electric light, electric current, or electric power to its members or a designated service area; and
- (5) Governed by a board of directors who are members of the electric cooperative and who are democratically elected by

utilities regulation laws (e.g., HRS Chapter 269) are largely aimed at attempting to “balance the tension between an investor-owned utility’s profit motive and the interest of its customer.”<sup>62</sup> Recognizing that an electric cooperative is a not-for-profit, customer-owned organization, and as such, this tension does not exist in the cooperative model, the legislature determined that the differences between an electric cooperative and an investor-owned utility must be recognized. In doing so, rather than enact a separate utilities law to govern electric cooperatives, the legislature enacted Act 57.

Through Act 57, the legislature requires that the Commission and the Consumer Advocate “shall at all times consider the ownership structure and interests of an electric cooperative in determining the scope and need for any regulatory oversight or requirements over such electric cooperative.”<sup>63</sup> The legislature also found that the Commission should be given “the flexibility and discretion to determine the applicability of existing regulatory requirements to electric cooperatives in furtherance of the public interest.”<sup>64</sup> To provide the Commission with this flexibility, the legislature granted the Commission the power and authority to waive or exempt an electric cooperative from any or all laws or requirements upon a determination or demonstration that they “should not be applied to an electric cooperative or are otherwise unjust, unreasonable, or not in

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members of the electric cooperative pursuant to applicable bylaws.

<sup>62</sup> Act 57, § 1.

<sup>63</sup> See supra n.61.

<sup>64</sup> Act 57, § 1.

the public interest.”<sup>65</sup> In determining whether to exercise its authority to waive or exempt an electric cooperative from a requirement, certain factors as specifically noted in Act 57 should be considered, including without limitation: (1) the ownership structure and interests of the electric cooperative, including the differences between an electric cooperative and the tensions inherent for investor-owned utilities; and (2) the scope and need for the regulatory oversight/requirement under the circumstances.

In light of the above, to the extent the Commission determines that its approval under HRS § 269-19 is required for KIUC to enter into the sublease with AES, KIUC seeks a waiver or exemption, as an electric cooperative and pursuant to HRS § 269-31(b), from the need to obtain such approval. KIUC contends that Commission approval of the sublease is not necessary and would not be in the public interest. In support of the above, KIUC hereby states the following:

1. The sublease is necessary to effectuate the PPA arrangement between KIUC and AES, through which KIUC will purchase the renewable energy generated by the PV/BESS Facility that will be built, operated, maintained, and repaired by AES, but through which KIUC will have the ability to dispatch in its preferred manner.<sup>66</sup> The various benefits of this PPA arrangement are discussed in Section V.A (PPA, Contract Price and Purchased Energy Arrangements) of this Application above.

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<sup>65</sup> Id. at §§ 1 and 2. See also supra n.61.

<sup>66</sup> The Navy requires that KIUC, rather than AES, lease the land directly from the Navy. Consequently, the sublease from KIUC to AES is necessary to effectuate the PPA arrangement as well as to provide the means through which AES will be assuming the obligations of the lessee with respect to the construction, operation, maintenance, and repair of the PV/BESS Facility under the lease between KIUC and the Navy.

2. The sublease is the legal instrument through which AES will be assuming the obligations of the lessee with respect to the construction, operation, maintenance, and repair of the PV/BESS Facility under the lease between KIUC and the Navy.

3. Granting a waiver or exemption in this situation is consistent with Decision and Order No. 32833, filed on May 7, 2015, in Docket No. 2014-0060 ("Decision and Order No. 32833"), which involved KIUC entering into a sublease with its wholly-owned affiliate, KIUC Renewable Solutions One, LLC ("KRS One"), through which KRS One would construct, own, and operate a renewable facility for the purpose of providing the renewable energy produced by the facility to KIUC. In Decision and Order No. 32833, the Commission granted KIUC a waiver from any requirement that KIUC obtain Commission approval to enter into and effectuate the sublease with KRS One.<sup>67</sup> The Commission granted the waiver upon finding that the waiver was in the public interest and should be granted.<sup>68 69</sup>

For the reasons set forth above, in the event the Commission determines that its approval under HRS § 269-19 is required for KIUC to enter into the sublease with AES,

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<sup>67</sup> See Section V of Decision and Order No. 32833, at 16.

<sup>68</sup> See id. at 13-15.

<sup>69</sup> Notable factors that distinguish the KIUC/KRS One sublease from the subject sublease are as follows:

- (1) The KIUC/KRS One sublease involved affiliated entities. Thus, in addition to potentially triggering HRS § 269-19, the fact that KRS One was an affiliate of KIUC specifically required prior Commission approval under HRS § 269-19.5.
- (2) The sublease was required to effectuate the KRS One PV Facility arrangement that had already been reviewed and approved by the Commission in Docket No. 2011-0323, while in this situation, the sublease is required to effectuate the PPA arrangement that is also a subject of this Application.

See Section III of Application, filed on March 25, 2014, in Docket No. 2014-0060, at 4 to 9.

then (1) KIUC contends that a waiver or exemption from such approval requirement is an appropriate exercise of the Commission's authority pursuant to Act 57, or (2) in the alternative, KIUC requests such approval.

## **VI. REQUESTED DECISION AND ORDER BY JUNE 30, 2018**

KIUC respectfully requests that the Commission issue its decision and order on this Application by no later than June 30, 2018. As noted in Appendix E of the PPA, the project milestones are tied to KIUC receiving Commission approval of this Application by June 30, 2018.

Commission approval of this Application by June 30, 2018 would minimize the risk of changes to federal and state tax incentives applicable to the PV/BESS Facility. This would also further AES's efforts to expeditiously construct and place the PV/BESS Facility into service by the projected milestone date of September 1, 2019. Even though AES will be conducting site control and permitting efforts in parallel with the review of this Application, as noted in Section III.A (Background of the PPA, AES and PV/BESS Facility) of this Application above, construction of the PV/BESS Facility is currently estimated to commence in or after July 2018 following the receipt of Commission approval. Obtaining a favorable Commission decision and order by June 30, 2018 should provide AES with sufficient comfort to commence the physical construction of the PV/BESS Facility and meet the projected in-service milestone date of September 1, 2019. This would, in turn, allow KIUC to begin achieving, as expeditiously as reasonably and prudently possible, the various benefits that will be derived from the PPA, including significant cost savings and reduced oil use for KIUC and its members/customers. For example, as discussed in Section V.A (PPA, Contract Price



and Purchased Energy Arrangements) of this Application above, KIUC anticipates that once the PV/BESS Facility is placed into service, (1) KIUC will use an average of approximately 2.6 million fewer gallons of fuel annually; (2) KIUC and its members/customers will as a result save over \$76 million (net present value using a 5% discount rate) over the 25-year term of the PPA; and (3) the PV/BESS Facility will contribute approximately 7.64% to KIUC's 2020 RPS. As also discussed in said Section V.A, due to the firm-like<sup>70</sup> nature of the PV/BESS Facility, KIUC will be able to dispatch stored energy from the BESS to (a) help with ramping towards KIUC's afternoon/evening peak (rather than ramping up KIUC's conventional oil-fueled units), (b) shave the evening peak by displacing fossil fuel fired generation during that period (rather than dispatching KIUC's most inefficient conventional oil-fueled unit), (c) offset night-time oil-fired generation, and (d) subject to discharge limits, assist in grid stabilization.<sup>71</sup>

## **VII. CONCLUSION**

For the reasons set forth above, KIUC hereby respectfully requests that to the extent required and applicable, the Commission issue a decision and order, by no later than June 30, 2018 to the extent possible:<sup>72</sup>

1. Approving, pursuant to HRS § 269-27.2, the PPA;<sup>73</sup>

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<sup>70</sup> See supra n.17.

<sup>71</sup> See also supra n.29. As noted therein, the subject PPA is very similar to the AES Lawai PPA that was approved by the Commission in Decision and Order No. 34723, filed in Docket No. 2017-0018. Because of these similarities (as well as the fact that the subject PPA has a lower Contract Price than the AES Lawai PPA), KIUC believes that many of the Commission's and Consumer Advocate's findings in Docket No. 2017-0018 will also be applicable to this Application.

<sup>72</sup> See supra Section VI (Requested Decision and Order By June 30, 2018).

2. Finding that the Contract Price of \$108.50 per MWh to be paid by KIUC pursuant to the PPA is just and reasonable;<sup>74</sup>
3. Finding that the purchased energy arrangements (e.g., terms and conditions) under the PPA are prudent and in the public interest;<sup>75</sup>
4. Authorizing, pursuant to HAR § 6-60-6(2), the inclusion of the costs (including applicable taxes and assessments) to be incurred by KIUC under the PPA in KIUC's ERAC, to the extent that such costs are not recovered in KIUC's base rates, except for any costs related to curtailed energy;<sup>76</sup>
5. Approving, pursuant to Section 2.3.g.2 of the Commission's General Order No. 7, the commitment and expenditure of funds to undertake, construct, and complete the PMRF Substation Project;<sup>77</sup>
6. Determining, pursuant to HRS § 269-27.6, that the New Transmission Line that is planned to be undertaken, constructed, and completed as part of the PMRF Substation Project should be placed, constructed, erected, and built above the surface of the ground;<sup>78</sup>

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<sup>73</sup> See supra Section III.A (Background of the PPA, AES and PV/BESS Facility), Section III.B (Salient Terms and Conditions of the PPA), and Section V.A (PPA, Contract Price and Purchased Energy Arrangements).

<sup>74</sup> See supra Section V.A (PPA, Contract Price and Purchased Energy Arrangements).

<sup>75</sup> See id.

<sup>76</sup> See supra Section V.B (Authorization to Include Costs in ERAC). See also supra nn.9 and 42.

<sup>77</sup> See supra Section IV (The PMRF Substation Project) and Section V.C (Approval of Commitment of Funds for the PMRF Substation Project).

<sup>78</sup> See supra Section IV (The PMRF Substation Project) and Section V.D (Determination Under HRS § 269-27.6 Regarding New Transmission Line).

7. To the extent the Commission determines that its approval under HRS § 269-19 is required for KIUC to enter into the sublease with AES for the PV/BESS Facility, waiving or exempting KIUC, as an electric cooperative and pursuant to HRS § 269-31(b), from the need to obtain such approval, or in the alternative, granting such approval;<sup>79</sup> and

8. Granting such other relief as 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 or the Interconnection Agreement and to undertake, construct, and complete the PMRF Substation Project, including, if applicable and if not otherwise waived or exempted by the Commission pursuant to HRS § 269-31, any approval that may be required under HRS § 269-19 with respect to the planned interconnection facilities that will be owned and maintained by AES and located within the PMRF Substation property.<sup>80</sup>

DATED: Honolulu, Hawaii, December 22, 2017.



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KENT D. MORIHARA  
KRIS N. NAKAGAWA  
LAUREN M. IMADA  
KATHERINE N. LAU

Morihara Lau & Fong LLP  
Attorneys for Kauai Island Utility Cooperative

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<sup>79</sup> See supra Section V.E (Waiver or Exemption Regarding Sublease).

<sup>80</sup> See supra nn. 14, 15, and 60.

## EXHIBIT 1

**POWER PURCHASE AGREEMENT  
(SOLAR GENERATING AND BESS FACILITY)**

**BETWEEN**

**KAUAI ISLAND UTILITY COOPERATIVE**

**AND**

**AES KEKAHA SOLAR, LLC**

**Dated as of September 29, 2017**

THIS POWER PURCHASE AGREEMENT (SOLAR GENERATING AND BATTERY ENERGY STORAGE SYSTEM FACILITY) (“**Agreement**”), entered into as of September 29, 2017, is between KAUAI ISLAND UTILITY COOPERATIVE, a Hawaii cooperative association formed pursuant to Chapter 421C of the Hawaii Revised Statutes (“**Buyer**”), and AES KEKAHA SOLAR, LLC, a Delaware limited liability company (“**Seller**”). Seller and Buyer are sometimes hereinafter referred to collectively as the “**Parties**” and individually as a “**Party**.” In consideration of the mutual promises set forth in this Agreement and its appendices, the Parties, intending to be legally bound, mutually agree as follows:

## SECTION 1 DOCUMENTS INCLUDED; DEFINED TERMS

1.1 Included Documents. This Agreement includes the following appendices and schedules which are specifically incorporated herein and made a part of this Agreement:

- Appendix A – Definitions
- Appendix B – Description of Facility and Premises
- Appendix C – Single Line Diagram
- Appendix D – Controls System Capabilities
- Appendix E – Milestones
- Appendix F – Notice
- Appendix G – Required Insurance
- Appendix H – Dispute Resolution
- Appendix I – Initial and Annual BESS Capacity Test
- Appendix J – Estimated Annual Output
- Appendix K – Minimum Annual Total Energy Output
- Schedule 6.2.1 – BESS Capacity
- Schedule 6.2.3 – Annual BESS Maximum Cycling

1.2 Defined Terms. Unless otherwise required by the context in which any term appears, initially capitalized terms used herein shall have the meanings set forth in **Appendix A**.

## SECTION 2 TERM; FACILITY DESCRIPTION; COMMERCIAL OPERATION

2.1 Initial Term. This Agreement shall become effective when it is executed and delivered by both Parties (the “**Effective Date**”) and, unless earlier terminated as provided herein, the

initial term of the Agreement shall be twenty-five (25) Contract Years commencing on the Commercial Operation Date (the “**Initial Term**”).

2.2 Additional Term. At Buyer’s discretion, Buyer may give Seller written notice of its desire to extend this Agreement on the terms and conditions set forth herein for one additional ten (10) Contract Years (the “**Additional Term**” and, together with the Initial Term, the “**Term**”). Such notice shall be given, if at all, not less than one hundred eighty (180) and not more than three hundred sixty-five (365) days before the last day of the Initial Term. Seller shall accept or reject Buyer’s offer to extend set forth in such notice, in writing, within thirty (30) days after receipt of such notice; *provided, however*, that, if Seller fails to respond within such thirty (30) day period, it shall be deemed to have rejected Buyer’s offer to extend for the Additional Term. If both Parties agree to the Additional Term, the Additional Term shall begin immediately upon the conclusion of the Initial Term on the same terms and conditions as set forth in this Agreement and at a mutually determined Contract Price; *provided*, that in connection with any such Additional Term, the Parties shall also agree on other mutually satisfactory modifications to this Agreement, including (without limitation) to (i) the limitations on Facility Output in Section 3.6 and the defined terms and appendices related thereto to take into account the expected incremental Output of the Facility during any such Additional Term and (ii) the schedules related to [REDACTED] the Facility. Notwithstanding the foregoing, if the Parties are unable to agree on a Contract Price and/or the foregoing modifications, then this Agreement shall terminate at the end of the Initial Term (if the same has not otherwise been extended by written agreement of both Parties). If Seller rejects or is deemed to reject Buyer’s offer to extend for the Additional Term, this Agreement shall terminate at the end of the Initial Term. Notwithstanding the foregoing, the effectiveness of any extension of this Agreement for the Additional Term shall be subject to the receipt by Buyer from the PUC of a Final PUC Approval Order with respect thereto.

2.3 Conditions Precedent. Each Party shall expeditiously and in good faith undertake to satisfy the conditions specified in this Section 2.3 applicable to such Party and which such Party is responsible for pursuing.

2.3.1 Mutual Conditions Precedent. Notwithstanding Section 2.1, above, Buyer’s and Seller’s obligations under this Agreement shall be subject to the fulfillment, or waiver by each Party, of each of the conditions set forth below:

- (a) The execution of the Interconnection Agreement by Interconnection Provider and Seller;
- (b) The receipt by Buyer from the PUC of a Final PUC Approval Order;
- (c) Seller shall have received from its suppliers, and will have provided such information to Buyer, reasonable evidence to prove that the Facility is able to comply with Exhibit 5 of the Interconnection Agreement; and
- (d) Receipt of an executed copy of (i) a lease agreement between Buyer and the United States Department of the Navy for the Premises and (ii) a sublease agreement for the Premises between Buyer and Seller; *provided*, that (A) Buyer shall coordinate with Seller in connection with the negotiation of the lease agreement with the United States Department of the Navy and (B) the Parties shall each use commercially reasonable efforts to enter into such agreements as soon as practicable after Effective Date.

2.3.2 Seller's Conditions Precedent. Seller's obligations under this Agreement shall be subject to the fulfillment to Seller's reasonable satisfaction, or waiver by Seller, of each of the following conditions:

(a) The receipt by Seller of approval by the Seller Financing Parties of this Agreement and Buyer's credit;

(b) Receipt of all necessary zoning, land use and building permits, including all approvals to commence construction from the United States Department of the Navy; and

2.3.3 Buyer's Conditions Precedent. Buyer's obligations under this Agreement shall be subject to the fulfillment to Buyer's reasonable satisfaction, or waiver by Buyer, of each of the following conditions:

(a) Buyer's receipt of RUS approval for Buyer's participation in this Agreement; provided that Buyer shall use commercially reasonable efforts to obtain the RUS approval simultaneously with the Final PUC Approval Order.

2.4 Conditions Satisfaction Date. If any of the conditions specified in (a) subsections 2.3.1 through 2.3.2 have not occurred by July 31, 2018, or (b) subsection 2.3.3 have not occurred by August 31, 2018, and were not waived by the applicable Party or Parties in writing, either Party (in the case of conditions in subsection 2.3.1), Seller (in the case of conditions in subsection 2.3.2), and Buyer (in the case of conditions in subsection 2.3.3), as applicable, may terminate this Agreement by giving written notice to the other Party within seven (7) days after such date (as applicable). Upon the giving of such notice of termination by either Party, this Agreement shall terminate effective as of the date of such notice and be of no further force or effect, and neither Seller nor Buyer shall have any further obligation or liability to the other hereunder; *provided, however*, that this Agreement will remain in effect to the extent necessary to facilitate the settlement of any obligations or liabilities arising hereunder before the effective date of such notice. Notwithstanding anything to the contrary in this Agreement, if no termination notice is given within the foregoing seven (7) day period, all conditions listed in Section 2.3 shall be deemed automatically satisfied effective as of the expiration of such period and each party's respective termination rights under this Section 2.4 shall automatically terminate and have no further force or effect as of such expiration.

2.5 Description of Facility. A description of the Facility and Premises is attached hereto and incorporated as Appendix B. A preliminary electrical diagram for the Facility is attached hereto and incorporated as Appendix C.

2.6 Contract Capacity. The Facility shall have a Contract Capacity no greater than 14 MW (AC) (the "**Maximum Facility Capacity**"). Seller shall not modify the Facility to alter the Contract Capacity to be more than the Maximum Facility Capacity without the prior written consent of Buyer, which consent may be withheld in Buyer's sole discretion. Seller agrees to perform an initial commercial operation test and annual capacity tests of the BESS in accordance with Appendix I attached hereto.



SECTION 3  
**PURCHASES, SALES AND DELIVERIES; CONTRACT PRICE**

3.1 Purchase and Sale; No Sales to Third Parties. Except as otherwise expressly provided herein, during the Term, Seller shall sell and deliver to Buyer, and Buyer shall purchase and receive from Seller, all Energy Product associated with the Facility. During the Term, Seller shall not provide and/or sell any Energy Product from the Facility to any party other than Buyer, *provided, however*, Seller shall, to the extent permitted pursuant to the then-existing regulatory framework and Requirements of Law, be permitted to provide and/or make sales of Energy Product from the Facility to third parties during periods when Buyer is in default hereof because Buyer has, without excuse, failed to accept or purchase Net Output if required to hereunder.

3.2 Contract Price.

3.2.1 Test Energy. Subject to Section 2.3, between the Effective Date and the Commercial Operation Date, Buyer shall pay Seller for Test Energy delivered at the Point of Delivery an amount per MWh equal to 50% of the Contract Price during the billing period(s) when such Test Energy is delivered.

3.2.2 Commercial Operation. Subject to Section 2.3, for the period beginning on the Commercial Operation Date and thereafter during the Term, Buyer shall pay to Seller \$108.50 per MWh of Net Output delivered to the Point of Delivery (the “**Contract Price**”).

3.2.3 Contract Price Includes Net Output, Green Tags, Ancillary Services and Capacity Rights. The Contract Price provided for in Section 3.2.2 and the price for Test Energy provided for in Section 3.2.1 include the consideration to be paid by Buyer to Seller for all Net Output, Green Tags, Ancillary Services and Capacity Rights associated with Buyer’s purchase of Net Output and Test Energy, respectively, and Seller shall not be entitled to any compensation over and above the Contract Price or the Test Energy price, as the case may be, for the Green Tags, Ancillary Services or Capacity Rights associated therewith.

3.2.4 Changes to Contract Price due to Change in Law. If, as a result of change in Hawaii state law that occurs prior to the Commercial Operation Date, the Facility qualifies for increased Hawaii state tax credits or other tax incentives that accrue to the benefit of the Seller, net of any other reductions in existing tax incentives, the Parties will negotiate in good faith an amendment of this Agreement to reflect a reduction in the Contract Price (expressed as dollars per MWh) by 50% of the net benefit to the economics of the Facility of such increased Hawaii state tax credits or other tax incentives.

3.3 Title and Risk of Loss of Net Output. Seller shall deliver Net Output and associated Green Tags, Ancillary Services and Capacity Rights free and clear of all liens, claims and encumbrances. Title to and risk of loss of Net Output shall transfer from Seller to Buyer upon its delivery to Buyer at the Point of Delivery.

3.3.1 Seller shall be deemed to be in exclusive control of, and responsible for, any damage or injury caused by all Output up to and at the Point of Delivery. Buyer shall be deemed to be in exclusive control of, and responsible for, any damage or injury caused by Net Output from the Point of Delivery.

3.4 Capacity Rights. During the Term, Seller shall not report to any person or entity that the Capacity Rights, if any, belong to anyone other than Buyer, and Buyer may at its own risk and expense report to any person or entity that the Capacity Rights exclusively belong to it. At Buyer's request, the Parties shall execute such documents and instruments as may be reasonably required to effect recognition and/or transfer of the Capacity Rights, if any, to Buyer.

3.5 Rates to Remain in Effect. The rates for and terms of service specified herein for the Initial Term and the Additional Term shall remain in effect until expiration of the applicable Term, and may be amended only upon the written agreement of both Parties in accordance with the terms hereof. Neither Party shall petition either the PUC or any other Governmental Authority with jurisdiction to amend such rates or terms, or support a petition by any other person seeking to amend such rates or terms, absent the agreement in writing of the other Party. Further, absent the agreement in writing by both Parties, the standard of review for changes hereto proposed to a Governmental Authority with jurisdiction over the rates, terms and conditions of this Agreement by a Party, a non-party, or such Governmental Authority acting *sua sponte* shall be the strictest standard available under applicable law.

3.6 Facility Output.

3.6.1 Annual Output. For any given Contract Year, all Excess Energy for such Contract Year shall be priced at 50% of the Contract Price.

3.6.2 Total Output. If (x) the cumulative total of all Additional Energy for all Contract Years minus (y) the cumulative total of all Excess Energy for all Contract Years exceeds 12,839 MWh, then all subsequent Net Output of the Facility (and without double discounting through the application of Section 3.6.1 with respect to such Net Output) shall be priced at 50% of the Contract Price.

SECTION 4  
**GREEN TAGS; DOCUMENTATION;  
PARTICIPATION IN RENEWABLE PROGRAMS**

4.1 Title to Green Tags. Title to Green Tags shall pass from Seller to Buyer immediately upon the generation of the Output at the Facility that gives rise to such Green Tags.

4.2 Generation Information System. If applicable, Seller shall register with, pay all fees required by, and comply with, all reporting and other requirements of the GIS relating to the Facility or Green Tags. Should the GIS associated fees, plus any fees incurred under Section 4.3.2, exceed in the aggregate \$10,000 on an annual basis then Buyer shall reimburse Seller for GIS fees above that value, except to the extent such fees are attributable to a negligent act or omission of Seller.

4.3 Participation in Verification Programs.

4.3.1 Upon Buyer's request, Seller shall use commercially reasonable efforts to cause the Facility to qualify and maintain its registration in good standing with a GIS, a Governmental Authority with jurisdiction over a renewable portfolio standard or equivalent program or with a voluntary compliance program such as the Center for Resource Solutions Green-e program. If applicable, Seller shall use the GIS specified by Buyer pursuant to the GIS Operating Procedures to effectuate the transfer of GIS Certificates to Buyer, and shall transfer

such GIS Certificates to Buyer in accordance with GIS Operating Procedures. The Parties shall execute all documents and instruments reasonably requested by Buyer in order to further document the transfer of the Green Tags to Buyer or its designees.

4.3.2 After the Effective Date, if any Governmental Authority issues an order or public notice implementing the regulation or certification of any Environmental Attribute associated with the Output, including without limitation any greenhouse gas, that results in the creation of a market or separate regulatory treatment for such Environmental Attribute (any program, scheme or standard for implementing such regulation, the **"Greenhouse Gas Program"**), upon Buyer's request, the Parties will in good faith amend the terms of this Agreement solely to effect the transfer, with no change in the Price (but subject to expense reimbursement in accordance with Section 4.2), to Buyer of such Environmental Attribute (**"Environmental Attribute Transfer"**) through any commercially reasonable mechanism, which may include without limitation delivery of attestations or registrations with any applicable certification authority. Notwithstanding the foregoing, any such requirement to amend this Agreement to effect any Environmental Attribute Transfer shall not apply to the extent that it is otherwise prohibited by Requirements of Law.

4.3.3 Notwithstanding anything herein to the contrary, Buyer and Seller acknowledge and agree that a change in Requirements of Law or other action by a Governmental Authority may (i) adversely affect the eligibility of the Facility or its characteristics to meet the requirements, standards, regulations or protocols issued by one or more Governmental Authorities or other third parties involved in (x) the certification of generation or delivery of Green Tags, (y) the qualification of renewable energy sources under an applicable renewable portfolio standard, or (z) such other verification or tracking system that accounts for the generation and sale of renewable energy or other Environmental Attributes; or (ii) materially diminish or increase the value of any Energy Product associated with the Facility. Buyer agrees that it shall bear the risk that the Facility and its characteristics will qualify and remain in compliance with any such applicable program, system or protocol during the Term; *provided* that, in the event a change in Requirements of Law or other action by a Governmental Authority has any of the effects described in (i) or (ii) above, Buyer may, in its sole discretion, require Seller to make such modifications and improvements to the Facility at Buyer's sole cost and expense such that the Facility and its characteristics would qualify or remain in compliance with any applicable program, system or protocol during the Term.

## SECTION 5 COSTS AND CHARGES

### 5.1 Costs of Ownership and Operation.

5.1.1 Seller Responsibility. Seller shall be responsible for paying or satisfying when due (a) all costs and expenses associated with the interconnection of the Facility up to and at the Point of Delivery in accordance with the Interconnection Agreement, and (b) all costs of owning and operating the Facility in compliance with existing and future Requirements of Law and the terms and conditions hereof. Other provisions governing the responsibilities of Seller for the interconnection and operation of the Facility and the Interconnection Facilities are set forth in the Interconnection Agreement entered into between the Parties and incorporated herein by reference.

5.1.2 Buyer Responsibility. Buyer shall be responsible for all costs or charges imposed in connection with the delivery and receipt of Net Output from the Point of Delivery in accordance with the terms of this Agreement. Other provisions governing the responsibilities of Buyer for the interconnection of the Facility and the Interconnection Facilities are set forth in the Interconnection Agreement entered into between the Parties and incorporated herein by reference.

5.2 Taxes.

5.2.1 Seller shall pay or cause to be paid when due, (a) all existing and any new sales, use, excise, ad valorem, and any other similar taxes imposed or levied by any Governmental Authority up to and including the Point of Delivery, on the generation and sale of Energy Product hereunder (subject to Section 5.2.2), regardless of whether such taxes are imposed on Buyer or Seller under Requirements of Law and (b) all taxes and charges (however characterized) now existing or hereinafter imposed on or with respect to the Facility, its operation, or on or with respect to emissions or other environmental impacts of the Facility, including any such tax or charge (however characterized) to the extent payable by a generator of such energy or environmental impacts.

5.2.2 Buyer shall pay or cause to be paid when due all such taxes levied beyond the Point of Delivery upon a purchaser of Energy Product, regardless of whether such taxes are imposed on Buyer or Seller under Requirements of Law.

5.2.3 If taxes are imposed or levied by a Governmental Authority on a Party in error or incorrectly, or on the wrong Party, the Parties shall work in good faith to cause such Governmental Authority to correct such error and levy or impose such taxes correctly. Notwithstanding anything herein to the contrary, the Contract Price shall not be adjusted on the basis of any action of any Governmental Authority with respect to changes to or revocations of sales and use tax benefits, rebates, exception or give back.

5.2.4 Seller is entitled to the benefit of all Tax Credits, including any ITCs or PTCs, and Buyer's purchase of electricity under this Agreement does not include the right to Tax Credits or any other attributes of ownership of the Facility, all of which shall be retained by Seller. Buyer shall reasonably cooperate with Seller in obtaining, securing and transferring the benefit of all Tax Credits; *provided, however*, that any reasonable out-of-pocket, third-party costs or expenses incurred by Buyer in connection with such actions shall be reimbursed by Seller.

5.3 Fines and Penalties. If fines, penalties, or legal costs are assessed against or incurred by either Party or by any Governmental Authority due to noncompliance by the other Party with any Requirements of Law or the provisions hereof, or if the performance of a Party is delayed or stopped by order of any Governmental Authority due to the other Party's noncompliance with any Requirements of Law, the non-complying Party shall indemnify and hold harmless the other Party against any and all losses, liabilities, damages, and claims suffered or incurred by the indemnified Party directly as a result. Without limiting the generality of the foregoing, the indemnifying Party shall reimburse the indemnified Party for all fees, damages, or penalties imposed on the indemnified Party by any Governmental Authority, other person or to other utilities for violations to the extent caused by a failure by the indemnifying Party to perform any of its obligations hereunder.



SECTION 6  
**OPERATION AND CONTROL**

6.1 Standard of Facility Operation.

6.1.1 General. Seller shall build, operate, maintain and repair the Facility in accordance with (a) the applicable standards, criteria, requirements and orders of the PUC, any other Governmental Authority with jurisdiction over the Facility, any Electric System Authority with jurisdiction over the Facility, and any successors to the functions thereof (including to the extent applicable the NERC reliability standards); (b) the Required Facility Documents; (c) the Interconnection Agreement; (d) all Requirements of Law; (e) the requirements hereof; and (f) Prudent Electrical Practices.

6.1.2 Throughout the Term and any Additional Term, Buyer shall use the Controls System to:

(a) Dispatch the Facility in Buyer's preferred manner, but in all cases in compliance with Seller's operations manual provided to Buyer prior to the Commercial Operation Date (the "**Operations Manual**"). The Operations Manual will not conflict with the Specific Requirements for BESS Operation outlined in Section 6.2,

(b) manage delivery of the Energy Product from the Facility to the Point of Delivery, and

(c) for the first six (6) years of the Term, Buyer shall operate the Facility in compliance with Section 6.2.2.

6.1.3 Subject to the Operations Manual and BESS Capacity Obligations, Seller shall meet the Buyer's dispatch signal within +/- 0.5 MW at all times.

6.2 Specific Requirements for BESS Operation.

6.2.1 BESS Capacity Obligations. During the Term, Seller shall comply with each of the following obligations for the BESS (collectively, the "**BESS Capacity Obligations**"). All values listed in Section 6.2 are meant to represent obligations [REDACTED]

[REDACTED] the total discharging capacity in Section 6.2.1(a) shall be in accordance with the corresponding values provided on Schedule 6.2.1.

(a) The BESS shall maintain a total of no less than 70 MWh of discharging capacity (as calculated by measuring AC kWh output at the Point of Delivery when dispatched from 100% SOC to 0% SOC as displayed by the Controls System).

(b) The BESS shall respond to both manual and automatic control commands from the Controls System.

(c) The BESS shall be capable of [REDACTED], on a daily average basis, during any given contract month [REDACTED] as displayed by the Controls System).

(i) On any given day when the charging capacity to the BESS does not reach [REDACTED]

(d) The BESS shall be capable of [REDACTED]

(e) The BESS shall be capable of [REDACTED]  
as follows:

(i) At between [REDACTED] SOC, the BESS shall be capable of [REDACTED].

(ii) At between [REDACTED] SOC, the BESS shall respond to all [REDACTED] from the Controls System [REDACTED]

(iii) Upon reaching [REDACTED] SOC, the [REDACTED]

(f) The BESS shall be capable of [REDACTED]

6.2.2 BESS Charging Requirements for ITC Purposes. During the first six (6) years of Term, Buyer shall not utilize the BESS to charge any energy from the System to the BESS. After the conclusion of the sixth (6th) year of the Term, Buyer shall have the option, in its reasonable discretion, to charge energy from the System to the BESS so long as Buyer is and remains in compliance with Section 6.2.3.

6.2.3 Annual BESS Maximum Cycling. During the Term, Buyer shall operate the BESS in a manner such that energy cycled through the BESS, in any given Contract Year, shall not exceed the corresponding amount provided on Schedule 6.2.3. For this purpose, the annual energy cycled through the BESS shall be calculated as the discharge from the BESS for the Contract Year in question.

(a) For the first Contract Year immediately following COD, Buyer shall be entitled to cycle the pro-rata number of MWh based on the number of additional days in the first Contract Year. An example follows:

Commercial Operation is achieved on July 5, 2019, for a total of 26 additional days in the first Contract Year. Buyer shall be allowed a maximum of 1820 MWh of additional BESS cycling for the first Contract Year  $[(26 / 365) * 25,550 = 1,820]$

6.3 Forecasting; Scheduling.

6.3.1 Forecasting. Seller shall, at Buyer's request, provide long-range and such other forecasts of energy production from the Facility as may be reasonably required for Buyer's operations.

6.3.2 Daily Scheduling. Buyer shall be solely responsible for the scheduling of all Net Output during the Term.

6.3.3 Cooperation and Standards. With respect to any and all scheduling requirements hereunder, (a) Seller shall cooperate with Buyer's reasonable requirements with respect to Buyer's scheduling of Net Output, and (b) each Party shall designate authorized representatives to communicate with regard to scheduling and related matters arising hereunder. Each Party shall comply with the applicable intermittent resource standards and criteria of any applicable Electric System Authority.

6.3.4 Construction Progress Reports. Beginning on the Effective Date, Seller shall provide Buyer a monthly progress report documenting all major activities toward achieving Commercial Operation. The requirement to provide such reports shall cease once Seller has achieved Commercial Operation.

6.3.5 Operations and Engineering Committee. Beginning on the Commercial Operation Date, representatives from Seller and Buyer shall meet monthly to discuss any items related to the Agreement.

#### 6.4 Output Delivery Conditions.

6.4.1 General. During the Term, Buyer shall accept delivery of all Output delivered at the Point of Delivery as measured by the Revenue Grade Meter (the "**Metered Output**"), subject to adjustment for Station Use made pursuant to Section 6.4.2, respectively, to determine the Net Output to be purchased by Buyer hereunder.

##### 6.4.2 Station Use.

(a) Seller shall utilize the Interconnection Facilities to obtain electrical service for operation of the Facility and the various electrical loads at the Premises, such as lighting, fans, auxiliary loads, and other supporting equipment and activities occurring on the Premises (the service of these loads by Buyer hereinafter referred to, collectively, as "**Station Use**"). Under no circumstances shall Seller utilize the Interconnection Facilities, nor the Station Use, to provide Energy Product or Output to any other party besides Buyer.

(b) For each month of the Term, Buyer shall calculate the total electrical energy provided by Buyer utilized for Station Use (the "**Station Usage**") and shall invoice Seller for such Output per the applicable tariff in effect at the time. Buyer shall calculate the Station Usage utilizing the Revenue Grade Meter and the Controls System as follows:

(i) At any time in the Term, if there was not a command from the Controls System to charge from the System to the BESS at the time of Station Use, then the Station Usage shall be calculated as the number of MWh of reverse power flow across the Revenue Grade Meter during the prior month; or



(ii) After the conclusion of the sixth (6<sup>th</sup>) year of the Term, if there was a command from the Controls System to charge from the System to the BESS at the time of the Station Use, then the Station Usage shall be calculated as (x) the number of MWh of reverse power flow across the Revenue Grade Meter minus (y) the amount of Output Buyer commanded the Controls System to charge to the BESS from the System.

#### 6.5 Buyer Planned Outages.

6.5.1 General. Subject to the limitations set forth in this Section, Buyer shall have the right for [REDACTED] per Contract Year without payment to Seller, to cause a Curtailment in Buyer's sole discretion, whether for Buyer convenience or in order to perform maintenance on the System (such [REDACTED] limit being the **"Planned Outage Curtailment Cap"**). For the avoidance of doubt, any Curtailment that is reasonably necessary under Section 3.4 of the Interconnection Agreement as a result of the failure of the Facility to operate in accordance with the requirements set forth herein and in the Interconnection Agreement shall not be counted towards the Planned Outage Curtailment Cap.

6.5.2 Curtailment Credits for BESS Capacity Obligations Non-Compliance. For any given day that Seller is not in compliance with the BESS Capacity Obligations outlined in Section 6.2.1 [REDACTED], Buyer shall receive a [REDACTED] increase to the Planned Outage Curtailment Cap as follows:

(a) If the BESS is not capable of [REDACTED], then Buyer shall accrue a [REDACTED] increase toward the Planned Outage Curtailment Cap [REDACTED]. An example follows:

(i) The BESS is only capable of [REDACTED]. On a given day, the [REDACTED]. The Planned Outage Curtailment Cap would be increased by [REDACTED].

(b) If the BESS reached 100% SOC and was later dis-charged to 0% SOC but in doing so did not [REDACTED], then Buyer shall accrue a [REDACTED] increase to the Planned Outage Curtailment Cap [REDACTED]. An example follows:

(i) On a given day when dispatched from 100% SOC to 0% SOC the battery [REDACTED]. In this instance, Buyer would accrue [REDACTED] to the Planned Outage Curtailment Cap.

(c) [REDACTED]

(d) Increases to the Planned Outage Curtailment Cap remain in effect until the occurrence of the next annual capacity test of the BESS pursuant to Section 2.6 (or until such time as Buyer has waived the annual capacity test for such year).



6.5.3 Excess Curtailment. During each Contract Year, at any time after the Planned Outage Curtailment Cap (including any increase to same pursuant to Section 6.5.2) has been met, Buyer shall be responsible for paying for any Curtailment, except [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- [REDACTED]
  - [REDACTED]
  - [REDACTED]
- [REDACTED]

6.6 Production Model. Prior to the Commercial Operation date, Buyer and Seller shall agree to a standardized PV production model (the "**Production Model**") using PVSyst or other models mutually agreed to by Buyer and Seller. In the event of a dispute regarding the Output produced by the PV System, the Parties shall use the Production Model and the MET Data to determine the Output that would have been produced by the PV System during a given timeframe.

## 6.7 Outages.

6.7.1 General. Seller shall use good faith efforts in accordance with Prudent Electrical Practices to (a) maximize the Output from the Facility and (b) minimize the extent and frequency of Seller's outages.

6.7.2 Forced Outages. Upon the occurrence of a Forced Outage, Seller shall notify Buyer of the existence, nature, and expected duration of the Forced Outage as soon as practicable following such Forced Outage. Seller shall keep Buyer reasonably informed of changes in the expected duration of the Forced Outage unless relieved of this obligation by Buyer for the duration of the Forced Outage.

6.7.3 Planned Outages for Maintenance. Seller shall notify Buyer not less than thirty (30) days prior to the occurrence of each Planned Outage.

## 6.8 Access; Audits and Information.

6.8.1 Access Rights. Buyer shall have rights of access to have its representatives and other guests go upon the Premises and inspect and observe operation of the Facility, subject to such conditions as Seller may impose for safety, security and operating reasons.

6.8.2 Information Rights. At Buyer's sole expense, Buyer shall have the right from time to time to conduct audits of the books, financial statements, operating records, reports, applications and statements filed with any Governmental Authority or Electric System Authority by Seller relating to the Facility, documents produced to Seller from any third parties responsible for the development, construction, operation and/or maintenance of the Facility, and such other non-privileged information regarding the financing, development, construction, operation, maintenance, modification, replacement or decommissioning of the Facility as Buyer reasonably requests. Seller shall reasonably cooperate with Buyer in the conduct of any such inspection, which shall include the responsibility to furnish requested records and make requested copies in a timely manner, and to retain custody and care of the records pertinent to the Facility and this Agreement in an orderly and accessible fashion.

6.8.3 Adverse Events. Seller shall promptly notify Buyer of receipt of written notice or actual knowledge by Seller of (a) the occurrence of any event of default under any material agreement to which Seller is a party which would materially and adversely affect Seller's ability to perform under this Agreement; (b) the commencement of any action, suit, and proceeding against Seller before any court or Governmental Authority which would, if adversely determined, materially and adversely affect Seller's ability to perform under this Agreement, the Premises or the Facility; and (d) any other development, financial or otherwise, which would have a material adverse effect on Seller's ability to perform under this Agreement, the Facility or Seller's ability to develop, construct, operate, maintain or own the Facility as provided herein.

6.8.4 Confidential Treatment. The reports and other information provided to Buyer under this Section 6.8 and the pricing information contained in Section 3.2.2 shall be treated as Confidential Business Information, subject to Buyer's obligation to disclose such information pursuant to any Requirements of Law. Seller shall have the right to seek confidential

treatment of any such information from the Governmental Authority entitled to receive such information.

6.9 Publicity. Neither Party shall use any name, trade name, service mark or trademark of the other Party in any promotional or advertising material without the prior written consent of such other Party. The Parties shall coordinate and cooperate with each other when making voluntary written public announcements related to the execution and existence of this Agreement, and each Party shall have the right to promptly review, comment upon and approve any voluntary written public statements by the other Party that refer to, or that describe any aspect of, this Agreement. For all other written public statements that refer to, or that describe any aspect of, this Agreement, the Parties shall use reasonable efforts to coordinate and cooperate regarding same. Neither Party shall make any press release or public announcement of the specific terms of this Agreement (except for filings or other statements or releases as may be required by Requirements of Law) without the specific prior written consent of the other Party. Without limiting the generality of the foregoing, all public statements must accurately reflect the rights and obligations of the Parties under this Agreement, including the ownership of commodities and any related reporting rights.

## SECTION 7 METERING

7.1 Metering. Metering equipment shall be designed, furnished, installed, owned, inspected, tested, maintained and replaced as provided in the Interconnection Agreement. To the extent not otherwise provided in the Interconnection Agreement, Seller shall bear all costs (including Buyer's costs) relating to all metering equipment installed to accommodate Seller's Facility. All quantities of Net Output purchased hereunder shall reflect the net amount of energy flowing into the System at the Point of Delivery.

7.2 Meter Errors and Testing. The process and requirements for meter testing and adjustments for meter errors shall be governed by Rule No. 11 of Buyer's Tariff No. 1 on file with the PUC, as may be amended from time to time. Any meter or billing adjustment or correction made under said Rule No. 11 shall constitute full adjustment of any claim between Seller and Buyer arising out of any such inaccuracy of meter equipment.

7.3 GIS Metering. If applicable, Buyer shall have the right upon notice to Seller to perform the Qualified Reporting Entity (as defined by the GIS) functions for the Facility to implement all necessary *generation information communications in the GIS, and report generation information to the GIS pursuant to a GIS-approved meter that is dedicated to the Facility and only the Facility.*

## SECTION 8 BILLINGS, COMPUTATIONS AND PAYMENTS

8.1 Monthly Invoices. On or before the tenth (10th) day following the end of each calendar month, Buyer shall deliver to Seller an invoice showing Buyer's computation of Net Output delivered to Buyer during such month and the Contract Price for such Net Output. Buyer shall send to Seller, on or before the later of the twentieth (20th) day following receipt of such invoice or the thirtieth (30th) day following the end of the month in which the applicable payment obligations were incurred, payment for Seller's deliveries of Energy Product to Buyer.

8.2 Interest on Late Payments. Any amounts that are not paid when due hereunder shall bear interest at the Contract Interest Rate from the date due until paid.

8.3 Disputed Amounts. If either Party, in good faith, disputes any amount due pursuant to an invoice rendered hereunder, such Party shall notify the other Party of the specific basis for the dispute and, if the invoice shows an amount due, shall pay that portion of the statement that is undisputed, on or before the due date. Any such notice shall be provided within one (1) year after the date of the invoice in which the error first occurred. If any amount disputed by such Party is determined to be due the other Party, or if the Parties resolve the payment dispute, the amount due shall be paid within five (5) days after such determination or resolution, along with interest at the Contract Interest Rate from the date due until the date paid.

8.4 Records. Each Party shall keep and maintain all records as may be necessary or useful in performing or verifying the accuracy of all relevant data, estimates or statements of charges submitted hereunder until the later of (a) a period of at least twelve (12) months after the date an invoice was received by a Party, or (b) if there is a dispute relating to an invoice, the date that is twelve (12) months after the date on which such dispute is resolved.

8.5 Bill Adjustments. Each Party, through its authorized representatives, shall have the right, at its sole expense upon reasonable notice and during normal business hours, to examine and copy the records of the other Party to the extent reasonably necessary to verify the accuracy of any statement, charge or computation made hereunder or to verify the other Party's performance of its obligations hereunder. If any statement is found to be inaccurate, a corrected statement shall be issued and any amount due thereunder will be promptly paid and shall bear interest at the Contract Interest Rate from the date of the overpayment or underpayment to the date of receipt of the reconciling payment. Notwithstanding the foregoing, no adjustment shall be made with respect to any statement or payment hereunder unless a Party questions the accuracy of such payment or statement within one (1) year after the date of such statement or payment.

## SECTION 9 REPRESENTATIONS AND WARRANTIES

9.1 Mutual Representations and Warranties. Each Party represents, covenants and warrants to the other that:

9.1.1 Organization. It is duly organized and validly existing under the laws of its state of organization.

9.1.2 Authority. It has the requisite power and authority to enter into this Agreement and to perform according to the terms hereof.

9.1.3 Corporate Actions. It has taken all corporate actions required to be taken by it to authorize the execution, delivery and performance hereof and the consummation of the transactions contemplated hereby.

9.1.4 No Contravention. The execution, delivery and performance and observance of its obligation hereunder do not (a) contravene, conflict with or violate any provision of, or constitute a default under, (i) any indenture, mortgage, security instrument or undertaking or other material agreement to which it is a party or by which it is bound, (ii) any

valid order of any court, or any regulatory agency or other body having authority to which it is subject, or (iii) any material Requirements of Law presently in effect having applicability to it, or (b) require the consent or approval of, or material filing or registration with, any Governmental Authority or other person other than such consents or approvals that are (i) required by the RUS; (ii) required by the PUC; or (iii) not yet required but expected to be obtained in due course.

9.2 Valid and Enforceable Agreement. This Agreement is a valid and legally binding obligation of each of the Parties, enforceable against the Parties in accordance with its terms, except as the enforceability hereof may be limited by general principles of equity or bankruptcy, insolvency, bank moratorium or similar laws affecting creditors' rights generally and laws restricting the availability of equitable remedies.

9.3 No Other Representations or Warranties. Each Party acknowledges that it has entered into this Agreement in reliance upon only the representations and warranties set forth in this Agreement, and that no other representations or warranties have been made by the other Party with respect to the subject matter hereof.

9.4 Continuing Nature of Representations and Warranties; Notice. The representations and warranties set forth in this Section are made as of the Effective Date and deemed made continually throughout the Term. If at any time during the Term, any Party obtains actual knowledge of any event or information which causes any of the representations and warranties in this Section to be materially untrue or misleading, such Party shall provide the other Party with written notice of the event or information, the representations and warranties affected, and the action, if any, which such Party intends to take to make the representations and warranties true and correct. The notice required pursuant to this Section shall be given as soon as practicable after the occurrence of each such event.

## SECTION 10 FORCE MAJEURE

10.1 Suspension of Performance. To the extent either Party is rendered wholly or in part unable to perform its obligations hereunder because of an event of Force Majeure, such Party shall be excused from the performance affected by the event of Force Majeure; *provided, however*, that (a) the Party affected by the Force Majeure, shall, provide prompt (in all events within five (5) days after the occurrence of the event of Force Majeure), written notice to the other Party describing the particulars of the event; (b) the suspension of performance shall be of no greater scope and of no longer duration than is required to remedy the effect of the Force Majeure; and (c) the affected Party shall use diligent efforts to remedy its inability to perform.

10.2 Force Majeure Does Not Affect Other Obligations. No obligations of either Party that arose before the Force Majeure causing the suspension of performance or that arise after the cessation of the Force Majeure shall be excused by the Force Majeure.

10.3 Right to Terminate. If a Force Majeure event prevents a Party from substantially performing its material obligations hereunder for a period exceeding 180 consecutive days (thirty days in the instance of a Change in Law that is a Force Majeure event) despite the affected Party's effort to take all reasonable steps to remedy the effects of the Force Majeure with all reasonable dispatch, then the Parties shall, within thirty (30) days following receipt by the other Party of notice of such Force Majeure event, meet and attempt in good faith to negotiate amendments to this Agreement. If the Parties are unable to agree upon such amendments within such thirty (30) day



period, the Party not affected by the Force Majeure event with respect to its obligations hereunder, (except to the extent that the Force Majeure event is a Change in Law, under which circumstances, Seller) may terminate this Agreement by giving ten (10) days prior notice to the other Party. Upon such termination, neither Party will have any liability to the other with respect to the period following the effective date of such termination (but will remain liable for matters accruing prior to such termination); *provided, however*, that this Agreement will remain in effect to the extent necessary to facilitate the settlement of all liabilities and obligations arising hereunder before the effective date of such termination.

## SECTION 11 DEFAULTS AND REMEDIES

11.1 Termination and Remedies. Upon the occurrence of, and during the continuation of, an Event of Default, the non-defaulting Party shall be entitled to all remedies available under this Agreement or at law or in equity, and may terminate this Agreement by notice to the other Party designating the date of termination and delivered to the defaulting Party no less than ten (10) days before such termination date. In the event of a termination hereof:

11.1.1 Each Party shall pay to the other all amounts due the other hereunder for all periods prior to termination, subject to offset by the non-defaulting Party against damages incurred by such Party.

11.1.2 Any amounts due from one Party to another Party shall be calculated and paid within thirty (30) days after the billing date for such charges and shall bear interest thereon at the Contract Interest Rate from the date of termination until the date paid. The foregoing does not extend the due date of, or provide an interest holiday for, any payments otherwise due hereunder.

11.1.3 Without limiting the generality of the foregoing, the provisions of this Article 11 shall survive the termination of this Agreement.

11.1.4 If a payment Event of Default occurs, the non-defaulting Party may suspend performance of its obligations under this Agreement.

11.2 Duty to Mitigate. Each Party agrees that it has a duty to mitigate damages and covenants that it will use commercially reasonable efforts to minimize any damages it may incur as a result of the other Party's performance or non-performance hereof.

### 11.3 Termination Payment.

11.3.1 If, as a result of an Event of Default by Buyer, Seller terminates this Agreement in accordance with Section 11.1, Buyer shall make a termination payment to Seller (the "Termination Payment") equal to the positive difference (discounted to present value [REDACTED]), if any, between (i) the sum of (a) Seller's Losses and Costs, incurred as a result of the termination of this Agreement, and (b) without duplication, any and all other amounts previously accrued under this Agreement and then owed by Buyer to Seller, and (ii) Seller's Gains (excluding, for the avoidance of doubt, any purported Gains relating to selling power produced by the PV System post-termination to third parties) as a result of termination of

this Agreement. If the Termination Payment calculation results in a number less than or equal to zero dollars (\$0), the Termination Payment shall be zero dollars (\$0).

11.3.2 If Seller is the party experiencing the Event of Default and Buyer terminates this Agreement, the Termination Payment to Buyer from Seller shall be equal to [REDACTED]

11.3.3 If Seller terminates this agreement prior to reaching Commercial Operation Date for reasons other than those listed in Section 2.3 (Conditions Precedent), Section 2.4 (Conditions Satisfaction Date), Section 10.3 (Force Majeure; Right to Terminate) or Section 11.1 (Defaults and Remedies; Termination and Remedies) resulting from an Event of Default by Buyer, then Seller shall pay Buyer [REDACTED]

11.3.4 If Seller terminates this agreement after all of the conditions specified in Sections 2.3.1 and 2.3.3 have been met (or waived by the Party entitled to waive same) and prior to reaching Commercial Operation Date for any of the reasons listed in Section 2.3.2, the Seller shall [REDACTED]

11.3.5 If Seller has not reached Commercial Operation by the later of:

[REDACTED], then Seller shall pay Buyer [REDACTED]

11.3.6 Seller shall be allowed [REDACTED] Trip events within each Contract Year during which the Facility is in operation. If more than the allowed number of Trip events occurs within each Contract Year, Seller shall not be in breach of this Agreement if Seller pays Buyer [REDACTED]

[REDACTED]. Nothing in this provision shall limit the rights of the Buyer under Section 3.4.4 of the Interconnection Agreement.

11.4 Cumulative Remedies. Except in circumstances in which a remedy provided for in this Agreement is described as a Party's sole or exclusive remedy, the Parties' rights and remedies provided hereunder are cumulative and the non-defaulting Party may pursue any and all legal or equitable remedies provided by law, equity or this Agreement.

## SECTION 12 *INDEMNIFICATION; LIMITED LIABILITY*

12.1 General. Each Party (the "**Indemnifying Party**") shall defend, indemnify and hold harmless the other Party, its affiliates and the other Party's and its affiliates' respective directors, officers, shareholders, partners, members, agents and employees of such other Party, and the

respective affiliates of each thereof (collectively, the “**Indemnified Parties**”), from and against all loss, damage, expense, liability and other claims, including court costs and reasonable attorneys’ fees (collectively, “**Liabilities**”) resulting from any third party actions relating to, or arising out of, or in any way connected with, the performance by the Indemnifying Party of its obligations under this Agreement and from injury to or death of persons, and damage to or loss of property to the extent caused by or arising out of the negligent acts or omissions of, or the willful misconduct of, the Indemnifying Party (or its contractors, agents or employees) in connection with this Agreement or the Interconnection Agreement; *provided, however*, that nothing herein shall require the Indemnifying Party to indemnify the Indemnified Party for any Liabilities to the extent caused by or arising out of the negligent acts or omissions of, or the willful misconduct of, the Indemnified Party.

12.2 Notice and Participation in Third Party Claims. The Indemnified Party shall give the Indemnifying Party written notice with respect to any Liability asserted by a third party (a “**Claim**”), as soon as possible upon the receipt of information of any possible Claim or of the commencement of such Claim. The Indemnifying Party may assume the defense of any Claim, at its sole cost and expense, with counsel designated by the Indemnifying Party and reasonably satisfactory to the Indemnified Party. The Indemnified Party may, however, select separate counsel if both Parties are defendants in the Claim and such defense or other form of participation is not reasonably available to the Indemnifying Party. The Indemnifying Party shall pay the reasonable attorneys’ fees incurred by such separate counsel until such time as the need for separate counsel expires. The Indemnified Party may also, at the sole cost and expense of the Indemnifying Party, assume the defense of any Claim if the Indemnifying Party fails to assume the defense of the Claim within a reasonable time. Neither Party shall settle any Claim covered by this Section 12.2 unless it has obtained the prior written consent of the other Party, which consent shall not be unreasonably withheld or delayed. The Indemnifying Party shall have no liability under this Section 12.2 for any Claim for which such notice is not provided to the extent that the failure to give notice prejudices the Indemnifying Party.

### 12.3 Limitations on Liability.

12.3.1 No Consequential Damages. Except with respect to indemnification of third party claims pursuant to this Section 12, neither Party nor its directors, officers, shareholders, partners, members, agents and employees, subcontractors or suppliers shall be liable for any indirect, special, incidental, exemplary, or consequential loss or damage of any nature arising out of their performance or non-performance hereunder or under the Interconnection Agreement even if advised of such.

12.3.2 Actual Damages. Except with respect to indemnification of third party claims pursuant to this Section 12, Seller’s aggregate liability under this Agreement and the Interconnection Agreement arising out of or in connection with the performance or non-performance of this Agreement or the Interconnection Agreement shall not exceed the total payments made (or, as applicable, projected to be made) by Buyer under this Agreement and the Interconnection Agreement. The provisions of this Section 12.3.2 shall apply whether such liability arises in contract, tort (including negligence), strict liability or otherwise.

12.3.3 Comparative Negligence. It is the intent of the Parties that where negligence is determined to have been joint, contributory or concurrent, each Party shall bear its proportionate cost of any liability, loss or damage.



SECTION 13  
**INSURANCE; PERFORMANCE ASSURANCE**

13.1 Required Policies and Coverages. Without limiting any liabilities or any other obligations of Seller hereunder, Seller shall secure and continuously carry at its expense with an insurance company or companies rated not lower than "A-" by the A.M. Best Company the insurance coverage specified on Appendix G from and after delivery of full notice to proceed to the balance of plant contractor for the Facility and during the remainder of the Term of this Agreement.

13.2 Certificates of Policies. Seller shall provide Buyer with certificates of insurance and any applicable required endorsements as contemplated by Appendix G upon Buyer's request.

13.3 Modification of Insurance. If any insurance required to be maintained by Seller hereunder ceases to be reasonably available and commercially feasible in the commercial insurance market, Seller shall provide written notice to Buyer. Upon receipt of such notice, in consultation with Buyer, Seller shall use commercially reasonable efforts to obtain other insurance that will provide comparable protection against the risk to be insured.

13.4 Performance Assurance. Seller shall deliver to Buyer security ("**Seller Performance Assurance**"), which shall secure all obligations of the Seller under this Agreement, in the form of (x) from and after the date that occurs thirty (30) days after the Effective Date and until replaced by the Seller Performance Assurance provided pursuant to the following clause (y), a guaranty from AES Distributed Energy, Inc. in the amount of [REDACTED] and in a form to be proposed by Seller that is reasonably acceptable to the Buyer and (y) within three (3) Business Days after the date on which all Conditions Precedent in Section 2.3 hereof have been satisfied or otherwise waived, a Letter of Credit in the amount of [REDACTED]. Such Letter of Credit shall be returned by Buyer to Seller for cancellation or destruction within two (2) Business Days after the Facility achieves Commercial Operation.

13.4.1 Each Letter of Credit shall be maintained for the benefit of Buyer. Seller shall cause the renewal of each outstanding Letter of Credit on a timely basis as provided in the relevant Letter of Credit and as provided in accordance with this Agreement, and in no event less than thirty (30) days prior to the expiration of the outstanding Letter of Credit. If Seller fails to renew or cause the renewal of any outstanding Letter of Credit on a timely basis as provided in this Section 13.4.1, Buyer shall have the right to draw the entire amount of such Letter of Credit.

13.4.2 Upon, or at any time after, the occurrence and continuation of an Event of Default by Seller, then Buyer may draw on the entire undrawn portion of any outstanding Letter of Credit upon submission to the bank issuing such Letter of Credit of one or more certificates specifying that such Event of Default has occurred and is continuing. Cash proceeds received by Buyer from drawing upon the Letter of Credit shall be used to offset Buyer's damages and to the extent in excess of Buyer's damages shall be deemed Performance Assurance as security for the Seller's obligations to Buyer and Buyer shall at all times have the exclusive dominion and control of, and at no time shall Seller have any rights or powers to direct

or control such cash proceeds. Notwithstanding Buyer's receipt of cash proceeds of a drawing under the Letter of Credit, Seller shall remain liable (i) for any failure to provide sufficient Performance Assurance or (ii) for any amounts owing to Buyer and remaining unpaid after the application of the amounts so drawn by Buyer. For the avoidance of doubt, Seller shall not be obligated to replace or replenish the Letter of Credit once it has been drawn.

#### SECTION 14 **DISPUTE RESOLUTION**

14.1 Any dispute or difference arising out of this Agreement or concerning the performance or the non-performance by either Party of its obligations under this Agreement shall be resolved only pursuant to the dispute resolution procedures set forth in Appendix H.

#### SECTION 15 **MISCELLANEOUS**

##### 15.1 Rules of Interpretation.

15.1.1 Construction. The descriptive headings of the various sections of this Agreement have been inserted for convenience of reference only and shall not be construed as to define, expand, or restrict the rights and obligations of the Parties. Wherever the term "including" is used in this Agreement, such term shall not be construed as limiting the generality of any statement, clause, phrase or term. References to any statute or regulation shall refer to such statute or regulation as amended from time to time, or any succeeding statute or regulation.

15.1.2 Terms Not to be Construed For or Against Either Party. Each term hereof shall be construed simply according to its fair meaning and not strictly for or against either Party. The Parties have jointly prepared this Agreement, and no term hereof shall be construed against a Party on the ground that the Party is the author of that provision.

15.1.3 Headings. The headings used herein are for convenience and reference purposes only and shall in no way affect the meaning or interpretation of the provisions hereof.

## 15.2 Notices.

15.2.1 Addresses and Delivery Methods. All notices, requests or, statements under this Agreement shall be made to the addresses set out in Appendix F. All notices must be in writing. All such notices, requests and statements shall be given by hand delivery, facsimile transmission, electronic mail, overnight mail or courier, or regular, certified, or registered mail, return receipt requested. Notice by hand delivery shall be deemed to have been given when received or hand delivered. Notice by facsimile transmission shall be deemed to have been given upon receipt of confirmation of successful transmission if made during regular business hours and otherwise on the following Business Day. Notice given by electronic mail shall be deemed to have been given upon acknowledgment of receipt. Notice by overnight mail or courier shall be deemed to have been given on the date and time evidenced by the delivery receipt. Notice by mail shall be deemed to be given five (5) days after deposit in the mail. Each party shall deem a document faxed, emailed or electronically sent in PDF form to it as an original document.

15.2.2 Changes of Address. The Parties may change any of the persons to whom notices are addressed, or their addresses, by providing written notice in accordance with this Section.

## 15.3 Assignment and Change of Control.

15.3.1 Restriction on Assignments. Except as expressly provided in this Section 15.3, neither Party may assign this Agreement or any of its rights or obligations hereunder without the prior written consent of the other Party, which consent shall not be unreasonably conditioned, withheld or delayed. If Buyer has been provided with reasonable proof that the proposed assignee has comparable experience in owning and maintaining solar photovoltaic systems and the financial capability to do the same, Buyer's withholding of consent shall be deemed unreasonable.

15.3.2 Binding Nature. This Agreement shall be binding upon and inure to the benefit of the permitted successors and assigns of the Parties hereto.

15.3.3 Assignment to RUS or Other Lenders. Either Party, without the approval of the other Party, may assign, transfer, mortgage or pledge this Agreement to create a security interest for the benefit of its lenders or other secured parties, directly or through an indenture trustee or other collateral agent, including without limitation the United States of America (the "**Government**"), acting through the Administrator of the RUS (the "**Administrator**") and, in the case of Seller, any Seller Financing Party (each such assignee, include any such indenture trustee or collateral agent, a "**Secured Party**"). Thereafter, the Administrator or any Secured Party, without the approval of either Party, may (1) cause this Agreement to be sold, assigned, transferred, or otherwise disposed of to a third party pursuant to the remedies with respect to such security interest or in lieu of the exercise of such remedies in connection with a debt settlement, or (2) if the Government or any other Secured Party first acquires this Agreement, sell, assign, transfer or otherwise dispose of this Agreement to a third party; *provided, however*, that in either case at the time of such initial disposition (a) a Party is in default of its obligations to the Government or such other Secured Party that are secured by such security interest and the Administrator or such other Secured Party has given such defaulting Party notice of such default; and (b) the Administrator or such other Secured Party has given thirty (30) days' prior notice of its intention to sell, assign, transfer or otherwise dispose of this

Agreement indicating the identity of the intended third party assignee or purchaser. No permitted sale, assignment, transfer, mortgage, pledge or other disposition shall release or discharge either Party from its obligations under this Agreement. In the event of any security interest being made or given by a Party hereunder for the benefit of its lenders, including without limitation the Administrator and, in the case of Seller, any Seller Financing Party, the non-financing Party shall, upon the request of the financing Party, enter into an agreement with any Seller Financing Party or any other Secured Party on commercially reasonable terms which shall, at the minimum, provide for the following terms:

- (i) consent by the non-financing Party to the collateral assignment of this Agreement and any subsequent transfer of rights that complies with the terms of this Agreement upon exercise by the financier, including a Seller Financing Party or other Secured Party, of its remedies;
- (ii) entitlement of the Seller Financing Party or other Secured Party to exercise the rights of the financing Party under this Agreement, to enforce this Agreement and to exercise the remedies hereunder;
- (iii) limitations on the exercise by the non-financing Party of any right to terminate this Agreement without first giving the Seller Financing Party or other Secured Party notice and opportunity to cure any breach;
- (iv) limitations on the non-financing Party agreeing to amend this Agreement; and
- (v) requirement on the non-financing Party to provide copies of all material notices under this Agreement to the lender(s).

15.3.4 Change of Control; Sale of Facility. Any (i) direct or indirect Change of Control of Seller (whether voluntary or by operation of law, but excluding any Change of Control in connection with the exercise of remedies by any lender (including the Administrator, any Seller Financing Party or any other Secured Party) permitted to have a lien over this Agreement pursuant to Section 15.3.3), or (ii) lease, sale, conveyance or other transfer or disposition of (in one or a series of related transactions) any of Seller's interest or title in any material portion of Seller's assets, now owned or hereafter acquired (other than in connection with the exercise of remedies by any Secured Party (including the Administrator or any Seller Financing Party) permitted to have a lien over this Agreement pursuant to Section 15.3.3), shall require the prior written consent of Buyer, which shall not be unreasonably withheld, conditioned or delayed; provided, however, that if the person acquiring a material portion of Seller's assets pursuant to clause (ii) is a Qualified Substitute Owner, then Buyer's consent shall not be required. Seller shall provide written notice to Buyer regarding any proposed event described in clauses (i) and (ii), which shall include all information and documentation reasonably necessary to demonstrate to Buyer that the person acquiring the ownership interests pursuant to clause (i), or the Person acquiring interest or title in a material portion of Seller's assets pursuant to clause (ii), is a Qualified Substitute Owner, or otherwise as reasonably requested by Buyer. To the extent Buyer's consent is required pursuant this Section 15.3.4, Buyer shall notify Seller of its determination no later than thirty (30) days following receipt of such notice and information from Seller.



Notwithstanding the foregoing, Seller may issue or sell equity interests in the Seller to a Seller Financing Party pursuant to any tax equity investment, and, in connection with any such tax equity investment transaction, Buyer shall execute and deliver an estoppel certificate with such Seller Financing Parties, on customary terms and conditions, as reasonably requested by such Seller Financing Parties and as reasonably acceptable to Buyer.

15.4 Other Assignments. In addition to the rights set forth in Section 15.3, Seller has the right, without the need for the approval of Buyer, to assign, transfer, and otherwise dispose of (in one or a series of related transactions) all or any portion of this Agreement or Seller's interests or title in this Agreement, provided Seller provides Buyer with reasonable evidence that the assignee is a Qualified Substitute Owner and Seller notifies Buyer of such assignment promptly after such assignment occurs.

15.5 Choice of Forum. Subject to Section 14, each Party irrevocably consents and agrees that any legal action or proceeding arising out of this Agreement or the actions of the Parties (and not otherwise subject to resolution by arbitration under Section 14) leading up to the Agreement shall be brought exclusively in the judicial circuit in which the Facility is located. By execution and delivery hereof, each Party (a) accepts the exclusive jurisdiction of such courts and waives any objection that it may now or hereafter have to the exercise of personal jurisdiction by such courts over each Party for the purpose of any proceeding related to this Agreement and not otherwise subject to resolution by arbitration under Section 14, (b) irrevocably agrees to be bound by any final judgment (after any and all appeals) of any such courts arising out of such documents or actions, (c) irrevocably waives, to the fullest extent permitted by law, any objection that it may now or hereafter have to the laying of venue of any suit, action or proceedings arising out of such documents brought in such courts (including any claim that any such suit, action or proceeding has been brought in an inconvenient forum) in connection herewith, (d) agrees that service of process in any such action may be effected by mailing a copy thereof by registered or certified mail, postage prepaid, to such Party at its address as set forth herein and (e) agrees that nothing herein shall affect the right to effect service of process in any other manner permitted by law.

15.6 Waiver of Jury Trial. EACH PARTY KNOWINGLY, VOLUNTARILY, INTENTIONALLY AND IRREVOCABLY WAIVES THE RIGHT TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION BASED ON THIS AGREEMENT, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT AND ANY AGREEMENT EXECUTED OR CONTEMPLATED TO BE EXECUTED IN CONJUNCTION WITH THIS AGREEMENT, OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER VERBAL OR WRITTEN) OR ACTIONS OF ANY PARTY HERETO. THIS PROVISION IS A MATERIAL INDUCEMENT TO EACH OF THE PARTIES FOR ENTERING HEREINTO. EACH PARTY HEREBY WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR ANY OTHER AGREEMENT EXECUTED OR CONTEMPLATED TO BE EXECUTED IN CONJUNCTION WITH THIS AGREEMENT, OR ANY MATTER ARISING HEREUNDER OR THEREUNDER, WITH ANY PROCEEDING IN WHICH A JURY TRIAL HAS NOT OR CANNOT BE WAIVED.

15.7 Specific Performance. Each Party shall be entitled to seek and obtain a decree compelling specific performance or granting injunctive relief with respect to, and shall be entitled, to enjoin any actual or threatened breach of any obligation of the other Party under Section 6.8 (Access; Audits and Information), Section 6.9 (Publicity), Section 15.3 (Assignment and Change of Control),

Section 15.4 (Other Assignments) or Appendix H (Dispute Resolution). The Parties agree that specific performance (including temporary and preliminary relief) and injunctive relief are proper in such event, and that any liability limits contained herein shall not operate to limit the exercise of a Party's remedies in equity to cause the other Party to perform such obligations.

15.8 No Partnership; No Dedication. Nothing contained herein shall be construed to create an association, trust, partnership or joint venture or to impose a trust, partnership or fiduciary duty, obligation or liability on or between the Parties or to create any duty to, any standard of care with reference to, or any liability to any person not a Party hereto. No undertaking by one Party to the other under any provision hereof shall constitute the dedication of Buyer's facilities or any portion thereof to Seller or to the public, nor affect the status of Buyer or Seller as an independent individual or entity.

15.9 Governing Law. This Agreement shall be interpreted and enforced in accordance with the laws of the state of Hawaii, excluding any choice of law rules that may direct the application of the laws of another jurisdiction.

15.10 Severability. The Parties do not intend to violate any laws governing the subject matter hereof. If any of the terms hereof are held or determined to be invalid, illegal or void as being contrary to any Requirements of Law or public policy, all other terms hereof shall remain in effect. The Parties shall use reasonable efforts to amend this Agreement to reform or replace any terms determined to be invalid, illegal or void, such that the amended terms (a) comply with and are enforceable under Requirements of Law, (b) give effect to the intent of the Parties in entering hereinto, and (c) preserve the balance of the economics and equities contemplated by this Agreement in all material respects.

15.11 No Third Party Beneficiaries. This Agreement is solely for the benefit of the Parties and their respective successors and permitted assigns, and this Agreement shall not be deemed to confer upon or give to any third party any remedy, claim of liability or reimbursement, cause of action or other right.

15.12 Non-Waiver. No waiver of any provision hereof shall be effective unless the waiver is set forth in a writing that (a) expressly identifies the provision being waived, and (b) is executed by the Party waiving the provision. A Party's waiver of one or more failures by the other Party in the performance of any of the provisions hereof shall not be construed as a waiver of any other failure, whether of a like kind or different nature.

15.13 Entire Agreement. This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding the subject matter hereof. No modification hereof shall be effective unless it is in writing and executed by both Parties.

15.14 Forward Contract. The transaction contemplated under this Agreement constitutes a "forward contract" within the meaning of the United States Bankruptcy Code, and the Parties further acknowledge and agree that each Party is a "forward contract merchant" within the meaning of the United States Bankruptcy Code.

15.15 Non-Dedication of Facilities. Nothing herein shall be construed as the dedication by either Party of its facilities or equipment to the public or any part thereof.


15.16 Service Contract. The Parties intend this Agreement to be a “service contract” within the meaning of Section 7701(e)(3) of the Internal Revenue Code of 1986. Purchaser will not take the position on any tax return or in any other filings suggesting that it is anything other than a purchase of electricity from the System.

*[Signatures on Following Page]*

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed in their respective names as of the date first above written.

**SELLER:**

**AES KEKAHA SOLAR, LLC**

By:   
Name: Wesley Rubin  
Title: President



**BUYER:**

**KAUAI ISLAND UTILITY COOPERATIVE**

By: David J. Bissell  
Name: David J. Bissell  
Title: CEO

**APPENDIX A**  
**DEFINITIONS**

**“Abandonment”** means (a) the relinquishment of all possession and control of the Facility by Seller, other than pursuant to a transfer permitted under this Agreement; (b) if, after commencement of the construction of the Facility, and prior to the Commercial Operation Date, there is a complete cessation of the construction, testing, or inspection of the Facility for ninety (90) consecutive days by Seller and Seller's contractors, but only if such relinquishment or cessation is not caused by or attributable to a Buyer default, or request by Buyer, or an event of Force Majeure; or (c) following the Commercial Operation Date, Seller has not sold or delivered Energy from the Facility to Buyer for a period of twelve (12) consecutive months regardless of the occurrence of an event of Force Majeure during this time period.

**“AC”** means alternating electric current.

**“Additional Energy”** means, for any given Contract Year, the amount, if any, by which the Net Output of the Facility for such Contract Year exceeds the Estimated Annual Output for such Contract Year.

**“Additional Term”** shall have the meaning given to such term in Section 2.1 of the Agreement.

**“Administrator”** shall have the meaning given to such term in Section 15.3.3 of the Agreement.

**“Affiliate”** means for any entity, any other entity directly or indirectly controlling or controlled by or under direct or indirect common control with such specified entity. For purposes of this Agreement, “control” when used with respect to any entity means the power to direct the management and policies of such entity, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise. For purposes of this Agreement, it shall be assumed that the direct or indirect owner of fifty percent (50%) of the outstanding stock or other equity interest of an entity has “control” of such entity; and the terms “controlling” and “controlled” have meanings correlative to the foregoing.

**“Agreement”** shall have the meaning given to such term in the preamble of the Agreement.

**“Ancillary Services”** means regulation and frequency response services, energy imbalance services, automatic generation control, spinning reserve, non-spinning reserve, replacement reserve, reactive power, voltage support and any other services that support the transmission of capacity and energy.

**“BESS”** means the 14 MW (AC rating), Battery Energy Storage System described in **Appendix B** with a capacity of 70 MWhs [REDACTED] in accordance with the corresponding values provided on **Schedule 6.2.1**.

**“BESS Capacity Obligations”** has the meaning given to such term in Section 6.2.1 of the Agreement.

**“Billable Curtailment MWh”** has the meaning given to such term in Section 6.5.3 of the Agreement.

**“Business Day”** means any calendar day that is not a Saturday, a Sunday or a NERC recognized holiday.

**“Buyer”** shall have the meaning given to such term in the preamble of the Agreement.

**“Capacity Rights”** means any current or future defined characteristic, certificate, benefit, product, tag (but not Green Tags), credit, attribute, or accounting construct, including any of the same counted towards any current or future resource adequacy or reserve requirements, associated with the electric generation capability and capacity of the Facility or the Facility’s capability and ability to produce energy. Capacity Rights do not include Ancillary Services, PTCs, ITCs or any Tax Credits.

**“Change in Law”** means (a) the enactment, adoption, promulgation, modification or repeal after the Effective Date of any Requirement of Law or other action of a Governmental Authority; (b) the imposition of any material conditions on the issuance or renewal of any applicable permit after the Effective Date of this Agreement (notwithstanding the general requirements contained in any applicable Permit at the time of application or issue to comply with future laws, ordinances, codes, rules, regulations or similar legislation), or (c) a change in any utility rate schedule or tariff approved by any Governmental Authority which in the case of any of (a), (b) or (c), establishes requirements affecting owning, supplying, constructing, installing, operating or maintaining the Facility, or other performance of the Seller’s obligations hereunder and which has a material adverse effect on the cost to Seller of performing such obligations.

**“Change of Control”** means the consummation of any transaction or series of transactions pursuant to which The AES Corporation or a Qualified Substitute Owner does not directly or indirectly control Seller.

**“Claim”** shall have the meaning given such term in Section 12.2 of the Agreement.

**“Commercial Operation”** means the Facility is (a) capable of generating electric energy and delivering Net Output to the Point of Delivery, (b) is fully interconnected at the Point of Delivery in accordance with the Interconnection Agreement and (c) is capable of satisfying the Initial Commercial Operation Test set forth at **Appendix I** and complying with the BESS Capacity Obligations set forth in Section 6.2.1.

**“Commercial Operation Date”** means the date that Commercial Operation is achieved for the Facility.

**“Confidential Business Information”** means the following (whether oral or written): (a) the Parties’ proposals and negotiations concerning this Agreement, made or conducted prior to the Effective Date, (b) information provided under Section 6.8.1-6.8.3 and Section 8.5 of the Agreement, (c) any information delivered by Buyer to Seller prior to the Effective Date relating to the market prices of energy or Green Tags and methodologies for their determination or estimation, and (d) any other information that a party deems as being confidential or proprietary.

**“Contract Capacity”** means the maximum rated electrical generating output that the Facility is capable of continuously producing at any given time, expressed in MW (AC), when operated in compliance with the Interconnection Agreement and consistent with the generation equipment manufacturer’s recommended power factor and operating parameters.

**“Contract Interest Rate”** means the lesser of (a) the highest rate permitted under Requirements of Law and (b) 200 basis points per annum plus the rate per annum equal to the publicly announced prime rate or reference rate for commercial loans to large businesses in effect from time to time quoted by Citibank, N.A. as its “prime rate”. If a Citibank, N.A. prime rate is not available, the applicable prime rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, New York, selected by the Party to whom interest is being paid.

**“Contract Price”** shall have the meaning given to such term in Section 3.2.2 of the Agreement.

**“Contract Year”** means the 12-month period beginning on the first day of the month immediately following the month when Commercial Operation is achieved, and each subsequent 12-month period. As an example, if the Facility achieves Commercial Operation on June 15, 2019, the first Contract Year shall begin on July 1, 2019 and end on June 30, 2020. In this example, the first Contract Year would include the period from June 15-30, 2019, plus the 12-month period July 1, 2019 – June 30, 2020.

**“Controls System”** means a computer based control platform capable of controlling the delivery of Output of the Facility to the BESS or the Delivery Point, as further outlined in Appendix D.

**“Costs”** means, with respect to a non-defaulting Party, brokerage fees, commissions and other similar third party transaction costs and expenses (including costs incurred in connection with transmission services that would otherwise not have been incurred hereunder) reasonably incurred by such Party in entering into new arrangements which replace this Agreement, and all reasonable attorneys’ fees and expenses incurred by the non-defaulting Party in connection with remedies initiated pursuant to the provisions of this Agreement.

**“Credit Rating”** means, with respect to any entity, on the relevant date of determination, the respective ratings then assigned to such entity’s unsecured, senior long-term debt or deposit obligations (not supported by third party credit enhancement) by S&P or Moody’s. If a party has outstanding multiple debt or deposit obligations meeting such criteria and differing ratings have been assigned by a single rating agency to such multiple obligations, the lowest of such ratings shall apply. If no rating is assigned to such entity’s unsecured, senior long-term debt or deposit obligations by either S&P or Moody’s, then “Credit Rating” shall mean the general corporate credit rating or long-term issuer rating assigned by S&P or Moody’s, as the case may be.

**“Curtailement”** means an order from Buyer to Seller to reduce or stop the delivery of Output to the Delivery Point for any reason.

**“Curtailement Actual Delivered Energy”** has the meaning given to such term in Section 6.5.3 of the Agreement.

**“Curtailement Predicted Delivered Energy”** has the meaning given to such term in Section 6.5.3 of the Agreement.

**“Effective Date”** shall have the meaning given to such term in Section 2.1 of the Agreement.



**“Electric System Authority”** means each of NERC, the GIS, a System Operator, RE, a regional or sub-regional reliability council or authority, and any other similar council, corporation, organization or body of recognized standing with respect to the operations of the electric system in the geographic area in which the Facility is located.

**“Energy Product”** means Net Output, Green Tags, Capacity Rights and Ancillary Services produced by the Facility.

**“Environmental Attributes”** means any and all rights, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance to the air, soil or water, which are deemed of value by Buyer, in each case now or hereafter created or recognized by any Governmental Authority or independent certification association or entity generally recognized in the electric power generation industry and generated by or associated with the Facility. Environmental Attributes include but are not limited to: (a) any avoided emissions of pollutants to the air, soil, or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (b) any avoided emissions of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth’s climate by trapping heat in the atmosphere. Environmental Attributes do not include PTCs, ITCs, or other Tax Credits existing now or in the future associated with the construction, ownership or operation of the Facility.

**“Environmental Attribute Transfer”** shall have the meaning given to such term in Section 4.3.2 of the Agreement.

**“Estimated Annual Output”** means [REDACTED], in accordance with Appendix J.

**“Event of Default”** means the following events (each a “default” before the passing of applicable notice and cure periods, and an “Event of Default” thereafter):

(a) Either Party fails to make a payment when due hereunder if the failure is not cured within ten (10) days after the non-defaulting Party gives the defaulting Party a notice of the default.

(b) Either Party (i) makes an assignment for the benefit of its creditors; (ii) files a petition or otherwise commences, authorizes or acquiesces in the commencement of a proceeding or cause of action under any bankruptcy or similar law for the protection of creditors, or has such a petition filed against it and such petition is not withdrawn or dismissed within sixty (60) days after such filing; (iii) becomes insolvent; or (iv) is unable to pay its debts when due.

(c) Either Party breaches a representation or warranty made by it herein if the breach is not cured within thirty (30) days after the non-defaulting Party gives the defaulting Party a notice of the default.

(d) Either Party otherwise fails to perform any material obligation hereunder if the failure is not cured within thirty (30) days after the non-defaulting Party gives the defaulting Party notice of the default; *provided, however*, that, upon written notice from the defaulting Party, this thirty (30) day period shall be extended by an additional sixty (60) days if (i) the failure cannot

reasonably be cured within the thirty (30) day period despite diligent efforts, (ii) the default is capable of being cured within the additional sixty (60) day period, and (iii) the defaulting Party commences the cure within the original thirty (30) day period and is at all times thereafter diligently and continuously proceeding to cure the failure.

(e) Abandonment of the Facility.

(f) Seller sells any Energy Product from the Facility to a Party other than Buyer in breach hereof.

(g) Seller makes a public statement or, if applicable pursuant to the terms of Section 4.3 of the Agreement, Seller takes an action that a Governmental Authority or voluntary compliance program determines is a retirement, double counting, double sale, double use or double claim of Green Tags, if Seller does not permanently cease such sale and compensate Buyer for the damages arising from the breach within ten (10) days after Buyer gives Seller a notice of default.

(h) [Intentionally Omitted].

(i) After the Commercial Operation Date, Seller fails to maintain in effect with the applicable Governmental Authority or third party any Required Facility Document, land right, interconnection right or other material right necessary to own or operate the Facility, after the expiration of any applicable notice, cure and waiver periods and such failure materially adversely effects the Seller's ability to own or operate the Facility.

(j) Buyer prevents Seller from installing the Facility or otherwise prevents the delivery of Energy Product from the Facility except as permitted by this Agreement. Such Event of Default shall not excuse Buyer's obligations to make payments that otherwise would have been due under this Agreement.

(k) Except as may be excused by a Force Majeure event, Seller suspends delivery of electricity from the Facility to the Point of Delivery for a continuous period of [REDACTED], if the suspension is not cured within [REDACTED] thereafter; [REDACTED]

(l) [Intentionally omitted.]

(m) In any Contract Year, Seller fails to deliver the Minimum Annual Total Energy Output to the Point of Delivery, except as may be excused by a Force Majeure event.

(n) If the Seller Performance Assurance is not delivered, maintained, or ceases to be in full force and effect, in accordance with Section 13.4, or if AES Distributed Energy, Inc. or the issuing bank, as applicable, defaults under, repudiates, or disaffirms the Seller Performance Assurance.

(o) Seller assigns this Agreement, the occurrence of any Change of Control of Seller, or Seller sells or transfers its interest, or any part thereof, in the Facility, except, in each case, as permitted in accordance with Sections 15.3 and 15.4.



**“Excess Energy”** means, for any given Contract Year, the amount, if any, by which the Net Output of the Facility is greater than the Maximum Annual Output in such Contract Year.

**“Facility”** means the electrical generating facility described in Appendix B, including the PV System and the BESS.

**“Final PUC Approval Order”** means a PUC Approval Order for the Facility for which the applicable time periods for the taking of any exception or bringing of any appeal has passed without the taking of any exception or the bringing of any appeal; or, if an exception or an appeal is brought, the final resolution of such exception or appeal has occurred such that no further exception or appeal may be taken or brought (as determined by Buyer in its reasonable discretion).

**“Force Majeure”** or “an event of Force Majeure” means an event that (a) is not within the reasonable control of the Party affected by the event, (b) is not the result of such Party’s negligence or failure to act, and (c) could not be overcome by the affected Party’s use of reasonable due diligence in the circumstances. Force Majeure includes, but is not restricted to, events of the following types (but only to the extent that such an event, in consideration of the circumstances, satisfies the tests set forth in the preceding sentence): acts of God; fire; explosion; civil disturbance; sabotage; changes in weather; or action or restraint by court order or Government Authority (as long as the affected Party has not applied for or assisted in the application for, and has opposed to the extent reasonable, such court or government action) and Changes in Law that make it unlawful, impossible or materially impracticable for Seller to perform under this Agreement. Notwithstanding the foregoing, none of the following constitute Force Majeure: (i) Seller’s ability to sell, or Buyer’s ability to purchase, any Energy Product at a more advantageous price than is provided hereunder; (ii) the cost or availability or unavailability of solar radiation to operate the Facility; (iii) economic hardship, including lack of money; (iv) any breakdown or malfunction of Facility equipment (including any serial equipment defect) that is not directly caused by an independent event of Force Majeure; (v) the imposition upon a Party of costs or taxes allocated to such Party; (vi) delay or failure of Seller to obtain or perform any Required Facility Document not directly caused by an independent event of Force Majeure; (vii) the affected Party’s breach of the Interconnection Agreement; or (viii) violation of law resulting from the affected Party’s failure to take any action, or refrain from taking any action, in accordance with all applicable Permits, including any required environmental mitigation measures. Notwithstanding anything to the contrary herein, (x) in no event will the increased cost of electricity, steel, labor, or transportation constitute an event of Force Majeure; and (y) neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party’s best interests.

**“Forced Outage”** means any condition at the Facility or the Premises that requires immediate removal of the Facility, or some component thereof, from service, another outage state, or a reserve shutdown state that results in the reduction of, or cessation in the delivery of, or inability to deliver, Net Output from the Facility that is not the result of a Planned Outage or an event of Force Majeure.

**“Gains”** means, with respect to a non-defaulting Party, an amount equal to the present value of the economic benefit to it, if any (exclusive of Costs), resulting from the termination of this Agreement, determined in a commercially reasonable manner, including without limitation the value of all Tax Credits. Gains shall be measured with respect to the Estimated Annual Output over the remainder of the Term (ignoring any early termination of this Agreement pursuant to Section 11.1).

**“Generation Information System”** or **“GIS”** means a present or future applicable system for accounting for and transferring Green Tags with respect to generation from the Facility.

**“GIS Certificate”** means the certificate representing the Green Tag created and accounted for by the GIS.

**“GIS Operating Procedures”** means the reporting protocols and operating rules and requirements adopted by the GIS.

**“Government”** shall have the meaning given to such term in Section 15.3.3 of the Agreement.

**“Governmental Authority”** means any supranational, federal or state authority or other political subdivision thereof, having jurisdiction over Seller, Buyer, the Facility, or this Agreement, including any municipality, township or county, and any entity or body exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government, including any corporation or other entity owned or controlled by any of the foregoing.

**“Greenhouse Gas Program”** shall have the meaning given to such term in Section 4.3.2 of the Agreement.

**“Green Tag Reporting Rights”** means the exclusive right of a purchaser of Environmental Attributes to report ownership of Environmental Attributes in compliance with federal or state law, if applicable, and to federal or state agencies or other parties at such purchaser’s discretion, and includes reporting under Section 1605(b) of the Energy Policy Act of 1992, or under any present or future domestic, international, or foreign emissions trading program or renewable portfolio standard.

**“Green Tags”** means (a) the Environmental Attributes associated with all Output, together with (b) the Green Tag Reporting Rights associated with such energy and Environmental Attributes, however commercially transferred or traded under any of these or other product names, such as “Renewable Energy Credits,” “Green-e Certified”, or otherwise. One (1) Green Tag represents the Environmental Attributes made available by the generation of one (1) MWh of Net Output from the Facility.

**“Initial Term”** shall have the meaning given to such term in Section 2.1 of the Agreement.

**“Interconnection Agreement”** means the Kauai Island Utility Cooperative Interconnection Agreement (For Distributed Generation Facilities No Larger Than 20 MW) to be entered into separately between Seller and Interconnection Provider concerning the Interconnection Facilities.

**“Interconnection Facilities”** means all the facilities installed, or to be installed, for the purpose of interconnecting the Facility to the System and transmitting Output from the Point of Delivery, including electrical transmission lines, line upgrades, transformers, capacitor banks, inductor banks, and associated equipment, substations, relay and switching equipment, and safety equipment.

**“Interconnection Provider”** means Kauai Island Utility Cooperative, acting in its capacity under the Interconnection Agreement.



**“ITCs”** means the investment tax credits established pursuant to Section 48 of the Internal Revenue Code, as such law may be amended or superseded.

**“Lease Agreements”** means one or more lease agreements that will govern the Parties’ ongoing occupancy at the Premises.

**“Letter of Credit”** means an irrevocable, nontransferable standby letter of credit issued by a U.S. commercial bank or a U.S. branch of a foreign bank with such bank having a Credit Rating of at least “A-” from S&P and “A3” from Moody’s, and in form reasonably acceptable to Buyer.

**“Liabilities”** shall have the meaning given such term in Section 12.1 of the Agreement.

**“Losses”** means, with respect to a non-defaulting Party, an amount equal to the present value of the economic loss to it, if any (exclusive of Costs and any costs incurred by such Party in terminating any arrangement pursuant to which such Party has hedged its obligations), resulting from termination of this Agreement, determined in a commercially reasonable manner, including without limitation the value of all Tax Credits and lost revenue that would have been earned under this Agreement. Losses shall be measured with respect to the Estimated Annual Output over the remainder of the Term (ignoring any early termination of this Agreement pursuant to Section 11.1).

**“Maximum Facility Capacity”** shall have the meaning given to such term in Section 2.6 of the Agreement.

**“Maximum Annual Output”** shall mean the applicable Estimated Annual Output multiplied by 1.05, for the purposes of calculating Excess Energy in Section 3.6, in accordance with Appendix L.

**“MET Data”** means the weather related data collected by up to three (3) Seller provided weather station(s) located at the Facility.

**“Metered Output”** shall have the meaning given to such term in Section 6.4.1 of the Agreement.

**“Minimum Annual Total Energy Output”** means, for any given Contract Year, the corresponding amount of energy provided on Appendix K.

**“Moody’s”** means Moody’s Investor Services, Inc. or its successor.

**“MW”** means megawatt.

**“MWh”** means megawatt hour.

**“NERC”** means the North American Electric Reliability Corporation.

**“Net Output”** means all Output, exclusive of Station Usage calculated in accordance with Section 6.4, and delivered at the Point of Delivery.

**“Operations Manual”** has the meaning set forth in Section 6.1.2(a).

**“Output”** means all energy produced by the Facility.

**“Party” or “Parties”** shall have the meaning given to such terms in the preamble of the Agreement.

**“Permits”** means all of the permits, licenses, approvals, certificates, entitlements and other authorizations required by Governmental Authorities for the construction, ownership or operation of the Facility and occupancy of the Premises, and all amendments, modifications, supplements, general conditions and addenda thereto.

**“Planned Outage”** means a planned interruption of the Facility’s electric generation or the Interconnection Facilities that is required for inspection, preventative maintenance or corrective maintenance, and specifically excludes any Forced Outage.

**“Planned Outage Curtailment Cap”** shall have the meaning given to such term in Section 6.5.1 of the Agreement.

**“Point of Delivery”** means the “Point of Interconnection” between the Facility and the System, as specified in the Interconnection Agreement and as shown in Appendix C.

**“Premises”** means the real property on which the Facility is or will be located, as more fully described in Appendix B.

**“Production Model”** shall have the meaning given to such term in Section 6.6 of the Agreement.

**“Prudent Electrical Practices”** means any of the practices, methods and acts engaged in or approved by a significant portion of the electrical utility industry or any of the practices, methods or acts, which, in the exercise of reasonable judgment in the light of the facts known or that should reasonably have been known at the time a decision is made, could have been expected to accomplish the desired result at the lowest reasonable cost consistent with law, regulation, permits, codes, standards, equipment manufacturer's recommendations, reliability, safety, environmental protection, economy, and expedition. Prudent Electrical Practices is not intended to be limited to the optimum practice, method or act to the exclusion of all others, but rather to be a spectrum of possible practices, methods or acts.

**“PTCs”** means production tax credits under Section 45 of the Internal Revenue Code as such law may be amended or superseded.

**“PUC”** means the Hawaii Public Utilities Commission or any successor thereto.

**“PUC Approval Order”** means a decision and order of the PUC (1) approving the application or motion filed with the PUC by Buyer and seeking approval of, among other things, this Agreement (or, solely for purposes of Section 2.2, any extension of this Agreement for the Additional Term), and (2) that does not contain any term or condition deemed to be unacceptable to either Party and that is in a form acceptable by the Parties.

**“PV System”** means the 19.278 MWdc / 14.0 MWac solar photovoltaic system described in Appendix B.

**“Qualified Substitute Owner”** means:

(a) in the context of an assignment of this Agreement and/or the underlying assets of the Facility, any person or entity that (i) has the legal capacity and authority to enter into and perform the obligations of Seller under this Agreement and (ii) has (as evidenced by reasonable proof provided by Seller) (x) financial resources available to it, sufficient to enable it to perform the obligations of Seller under this Agreement and (y) through its own employees or through a contract with a third party operator, the technical skills and experience reasonably necessary to permit it to perform the obligations of Seller under this Agreement, or

(b) in the context of a disposition of the direct or indirect ownership interests, any person that (i) (A) has, or is controlled by an Affiliate that has, a Credit Rating of not less than "BBB-" from S&P or "Baa3" from Moody's, or (B) has a consolidated net worth of at least \$300,000,000; and (ii) (A) has (or has an Affiliate that has), Relevant Experience or (B) has contracted an entity with Relevant Experience for the operation of the Facility. In the event of a split Credit Rating, the lower Credit Rating shall apply.

"RE" means the interconnection or reliability regional entity designated by NERC as responsible for enforcing electric reliability standards for the geographic area in which the Facility is located.

"Relevant Experience" means, with respect to any given person, that for the three (3) preceding consecutive years, such person owned or operated (or had access to the expertise required in order to operate through committed management agreements with Affiliates) at least 20 MWs (on an aggregate basis) of each of utility scale solar generation and battery energy storage assets, excluding distributed generation assets or assets co-located on retail customer premises, where such MWs owned by such person (or its Affiliates) shall be determined on a net ownership basis, taking into account such person's (or its Affiliates) percentage ownership in a project.

"Required Facility Documents" means all Permits, authorizations, rights and agreements from Governmental Authorities or with third parties now or hereafter necessary for construction, operation, and maintenance of the Facility.

"Requirements of Law" means any applicable federal, state and local law, statute, regulation, rule, action, order, code or ordinance enacted, adopted, issued or promulgated by any federal, state, local or other Governmental Authority or regulatory body (including those pertaining to electrical, building, zoning, environmental and occupational safety and health requirements).

"Revenue Grade Meter" means the revenue grade meter that registers real and reactive power transmitted to and from the Facility.

"RUS" means the Rural Utilities Service of the United States Department of Agriculture or any successor thereto.

"S&P" means Standard & Poor's Rating Group (a division of McGraw-Hill, Inc.) or its successor.

"Secured Party" shall have the meaning given such term in Section 15.3.3 of the Agreement.

**“Seller”** shall have the meaning given to such term in the preamble of the Agreement.

**“Seller Condition”** shall have the meaning given to such term in Section 6.5.2 of the Agreement.

**“Seller Financing Parties”** shall mean any third party (including tax equity or similar investors) providing debt or equity financing to Seller or its Affiliates in connection with the development, installation, construction, ownership, operation or maintenance of the Facility.

**“Seller Performance Assurance”** shall have the meaning given to such term in Section 13.4 of the Agreement.

**“State of Charge”** or **“SOC”** shall mean the amount of energy stored in the BESS and made available for dispatch by Buyer, expressed as a percentage of the applicable Contract Year BESS Capacity, from 0% to 100%.

**“Station Use”** shall have the meaning give such term in Section 6.4.2 of the Agreement.

**“Station Usage”** shall have the meaning give such term in Section 6.4.2 of the Agreement.

**“System”** means Buyer’s electric distribution system on the island of Kauai onto which the Facility will deliver Output.

**“System Operator”** means any entity that becomes responsible as system operator for, or directs the operation of, the System.

**“Tax Credits”** means any state, local and/or federal production tax credit, tax deduction, and/or investment tax credit specific to the production of renewable energy and/or investments in renewable energy facilities.

**“Term”** shall have the meaning given to such term in Section 2.1 of the Agreement.

**“Termination Payment”** shall have the meaning given to such term in Section 11.3 of the Agreement.

**“Test Energy”** means any Net Output during periods prior to the Commercial Operation Date, and all other Energy Products associated with such Net Output.

**“Trip”** means an event where the Facility goes offline abruptly without otherwise receiving a command from Buyer to do so, and such event results in an automatic load shed on Buyer’s System, in each case other than as a result of Force Majeure.

## **APPENDIX B**

### **DESCRIPTION OF FACILITY AND PREMISES**

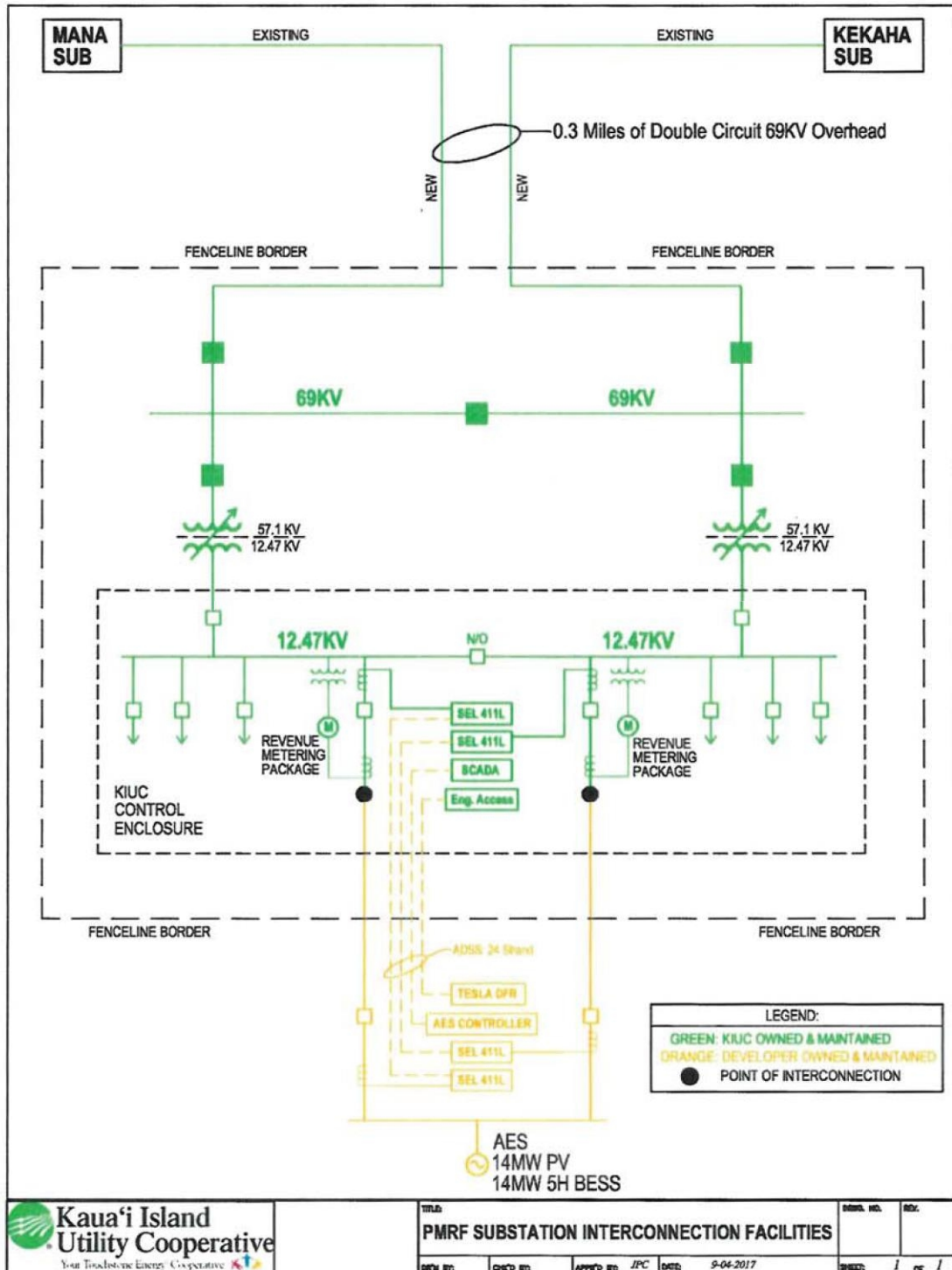
The Facility will include a 19.278 MWdc PV System and 70.0 MWh BESS, DC-coupled to a 14 MWac power conversion system, capable of reaching 14 MWac of capacity from PV, BESS or a both sources, and delivering 70 MWhac from the BESS system. The Facility includes all auxiliary, controls, and interconnection equipment up to the demarcation defined in the Single Line Diagram. The Premises will comprise up to 140 acres of land located on the Pacific Missile Range Facility on the western side of the island of Kauai, HI in the town of Kekaha. A preliminary layout of the Facility is on the following page.





## APPENDIX C

### SINGLE LINE DIAGRAM





## **APPENDIX D**

### **CONTROLS SYSTEM CAPABILITIES**

The Controls System shall be capable of performing the following functions:

- Be capable of operating the Facility in both manual and automatic modes
- Be capable of ensuring compliance with Exhibit 5 of the Interconnection Agreement
- For the BESS, display each of the following data points and also log such data points in the data historian:
  - o DC power to or from BESS
  - o DC voltage at battery terminals
  - o State of Charge (% of available capacity)
  - o System energy capacity as of last full-discharge test (MWh)
  - o Total discharge throughput, year to date (MWh)
  - o Total discharge throughput, lifetime (MWh)
  - o Ratio of energy charged from solar to total energy charged (%)
  - o Operating mode
  - o Alarm status
- For the PV System, display each of the following data points and also log such data points in the data historian:
  - o DC power from PV System
  - o DC voltage
  - o Alarm status
- For the power conversion system, display each of the following data points and also log such data points in the data historian:
  - o AC Voltage at point of interconnection
  - o AC Current at point of interconnection
  - o AC Power at point of interconnection (real, reactive and apparent)
  - o Power factor
  - o Frequency at point of interconnection
  - o Alarm status
  - o Curtailment (%)
- Utilizing the SCADA system, manually or automatically curtail the output of the PV System at the termination point at the Delivery Point
- Display the following weather data collected by three (3) Buyer supplied meteorological stations at the Site, and logging such points in the data historian:
  - o Irradiance
    - Global Horizontal Irradiance, or “GHI”
    - Plane of Array irradiance, or “POA”
  - o Ambient Air Temp
  - o Wind Speed


**APPENDIX E**

**PROJECTED MILESTONES**

June 30, 2018 – PUC Approval  
September 30, 2017 – Lease Signed with Navy  
June 30, 2018 – RUS Approval  
June 30, 2018 – All Permits received by Seller  
June 30, 2018 – Financing Party Approval  
June 30, 2018 – Construction Commencement  
April 22, 2019 – Delivery to site of Solar Modules  
May 31, 2019 – Completion of Interconnection Facilities  
September 1, 2019 – Commercial Operation

**APPENDIX F**

**NOTICE LIST**

<b><u>SELLER</u></b>	<b><u>BUYER</u></b>
<b>Contract Administration:</b>	<b>Contract Administration:</b>
AES KEKAHA SOLAR, LLC c/o AES Distributed Energy, Inc. 4875 Pearl East Circle, Suite 200 Boulder, CO, 80301 Attention: Legal Department Fax: Email: legalnotices@aes.com	Kauai Island Utility Cooperative 4463 Pahe'e Street, Suite 1 Lihue, Hawaii 96766-2000 Attention: President & CEO Fax: 808-246-4344 Email: To be provided by Buyer
<b>Payment Statements:</b>	<b>Payment Statements:</b>
AES KEKAHA SOLAR, LLC c/o AES Distributed Energy, Inc. 4875 Pearl East Circle, Suite 200 Boulder, CO, 80301 Attention: DE Accounts Fax: 303-449-3058 Email: DEAccounts@aes.com	Kauai Island Utility Cooperative 4463 Pahe'e Street, Suite 1 Lihue, Hawaii 96766-2000 Attention: Accounting Fax: 808-246-8266 Email: To be provided by Buyer
<b>Wire Transfer:</b>	<b>Wire Transfer:</b>
To be provided by Seller.	

## APPENDIX G

### REQUIRED INSURANCE

**Worker's Compensation Insurance** to the extent required by Requirements of Law, cover obligations imposed by federal and state statutes pertaining to Seller's employees, and Employer's Liability Insurance with a limit of one million Dollars (\$1,000,000).

**Commercial General Liability Insurance**, or the equivalent, with a limit of two million Dollars (\$2,000,000) per occurrence and aggregate. This policy shall include coverage for bodily injury liability, broad form property damage liability, blanket contractual, products liability and completed operations.

**Business Automobile Liability Insurance**, or the equivalent, with limit of one million Dollars (\$1,000,000) per accident with respect to Seller's vehicles whether owned, hired, or non-owned.

**Excess Liability.** Excess Liability Insurance covering claims in excess of the underlying insurance described in paragraphs (A) (with respect to only Employer's Liability Insurance), (B) and (C) with a limit per occurrence and aggregate of twenty million Dollars (\$20,000,000).

The amounts of insurance required in the foregoing paragraphs (A), (B), (C) and (D) may be satisfied by purchasing coverage in the amounts specified or by any combination of primary and excess insurance, so long as the total amount of insurance meets the requirements specified above.

**Property Insurance.** During construction and operation of Seller's Facility and the Interconnection Facilities, Seller shall provide standard form builder's risk or all-risk property insurance, as appropriate, covering 100% of the replacement cost of such facilities. Such property insurance shall cover physical loss or damage to Seller's Facility and the Interconnection Facilities including the period during construction, testing and startup. A deductible may be carried, which deductible shall be the absolute responsibility of Seller to the extent no indemnity applies. All-risk property insurance shall include: (i) coverage for fire and other perils customarily insured under an all-risk policy, but excluding flood, windstorm, and earthquake with respect to facilities similar in construction, location and occupancy to Seller's Facility; and (ii) equipment insurance covering all objects customarily subject to such insurance, including the BESS, PV modules, inverters, racking and the balance of Seller's Facility and equipment comprising the Interconnection Facilities, in an amount equal to the full replacement value.

## APPENDIX H

### **DISPUTE RESOLUTION**

1. Good Faith Negotiations

Before any dispute under this Agreement is subjected to the further provisions of this Appendix H, the presidents, vice presidents, or authorized delegates from both Seller and Buyer having full authority to settle the dispute, shall personally meet in Hawaii, or such other mutually agreeable location, and attempt in good faith to resolve the dispute within thirty (30) days of the date on which the notice of the dispute was tendered.

2. Dispute Resolution Procedures

If the Parties are unable to resolve any dispute under this Agreement under the procedures of Section 1 of this Appendix H, either Party may refer such dispute to binding arbitration in Hawaii in accordance with the requirements of this Section 2; provided that, this agreement to arbitrate shall be specifically enforceable and this Appendix H shall not preclude either Party from pursuing its equitable remedies to enforce this agreement to arbitrate, including without limitation, seeking injunctive relief; provided, that neither Party shall have the right to otherwise pursue litigation of disputes. Buyer and Seller agree that the procedures in this agreement to arbitrate shall be followed to the extent not prohibited by Hawaii Revised Statutes Chapter 658A, as may be amended from time to time ("Chapter 658A"). If any of such procedures conflict with Chapter 658A, then except as otherwise prohibited in Chapter 658A, Buyer and Seller agree to waive, or vary the effect of, the requirements of Chapter 658A.

a. Initiation of Arbitration

Either Party shall give to the other written notice in sufficient detail of the existence and nature of any dispute proposed to be arbitrated under this Section 2 of this Appendix H and the remedy sought as well as a detailed statement of its contentions of law and fact. Such notice shall be made within a reasonable time after the dispute in question arose, and in no event shall such notice be made after the date when institution of legal or equitable proceedings based on such dispute would be barred by the applicable statute of limitations but for this Appendix H. Such notice will be signed by the president of the Party issuing the notice and be delivered to the president of the other Party. The other Party shall file an answering statement within twenty (20) days of receipt of the notice. After the answering statement is filed, the Parties shall diligently negotiate in good faith for an additional period of thirty (30) days.

b. Appointment of Arbitrator

If the dispute is not resolved through the negotiations required by Section 2.a of this Appendix H, each Party shall within five (5) days, appoint one person to serve as an arbitrator and the two arbitrators thus appointed shall select a third arbitrator to serve as chairman of the panel of arbitrators; and such three arbitrators shall determine all matters by majority vote; *provided, however*, if the two arbitrators appointed by the

Parties are unable to agree upon the appointment of the third arbitrator within twenty (20) days after their appointment, both shall give written notice of such failure to agree to the Parties and, if the Parties fail to agree upon the selection of such third arbitrator within twenty (20) days thereafter, then either of the Parties upon written notice to the other may require such appointment from and pursuant to the rules for commercial arbitration of the Dispute Prevention and Resolution, Inc.

Each arbitrator appointed pursuant to this Section 2.b shall swear to conduct such arbitration in accordance with the terms of this Section 2, the laws of the State of Hawaii, and the Code of Ethics of the Dispute Prevention and Resolution, Inc. Each arbitrator who would be disqualified for any reason that would disqualify a judge under the Code of Judicial Conduct shall immediately resign or be withdrawn as an arbitrator. Copies of the notice, the statement of contentions of law and fact, the answering statement and this Agreement and the Interconnection Agreement shall promptly be furnished by the initiating Party to the arbitrator(s) selected.

c. Arbitration Procedures

- (1) The Parties shall have 120 days from the date of the formation of the arbitration panel to perform discovery and present evidence and argument to the arbitrators. During this period, the arbitrators shall be available to receive and consider all such evidence as is relevant, within reasonable limits due to the restricted time period, and to hear as much argument as is feasible, giving a fair allocation of time to each Party to the arbitration. This period may be extended for sufficient cause by the arbitration panel or by agreement of the Parties. The arbitration panel shall have the general powers of a court and may proceed in accordance with established rules of evidence and procedure, liberally construed to promote justice and expeditious resolution of the dispute. The arbitration panel shall have complete discretion over the mode and order of discovery, presentment of evidence, and the conduct of the hearing. The arbitrators shall not consider any evidence or argument not presented during such period. To the extent not prohibited by law and to the extent not in conflict with the procedures set forth in this Section 2, such arbitration shall be held in accordance with Chapter 658A, and the prevailing rules of the Dispute Prevention and Resolution, Inc. for commercial arbitration.
- (2) The arbitrators shall use all reasonable means to expedite discovery and to sanction non-compliance with reasonable discovery requests or any discovery order. Buyer and Seller agree that (i) all records of Buyer and Seller, its partners, members, or affiliates pertaining to the negotiation, administration, and enforcement of this Agreement shall be maintained in the possession of Buyer and Seller as applicable in the ordinary course of its business, and (ii) they will use their respective best efforts to ensure that each of their officers, employees, general partners, or managing members will submit to the jurisdiction of the arbitration panel appointed pursuant to this Appendix H and shall respond to all reasonable discovery requests of such arbitration panel. All documents and deponents made available in response to reasonable discovery requests shall be made available in Lihue, Hawaii.

- (3) At the conclusion of such 120-day period, the arbitrators shall have 30 days to reach a determination and to give a written decision to the Parties, stating their findings of fact, conclusions of law and final order.

d. Arbitrator Limitations

The arbitrators shall have authority to interpret and apply the terms and conditions of this Agreement and the Interconnection Agreement and to order any remedy allowed by this Agreement or the Interconnection Agreement, as applicable, but may not change any term or condition of this Agreement or the Interconnection Agreement, deprive either Party of a remedy expressly provided in such agreement, or provide any right or remedy that has been excluded in such agreement.

e. Decision Binding on the Parties

The decision of the arbitrators shall be binding on the Parties at such time as the decision is confirmed by order of a court of competent jurisdiction pursuant to Chapter 658A.

f. Cost of Arbitration

The arbitrators in rendering their decision shall also state the extent to which each Party prevailed over the other Party, or that neither Party prevailed over the other. The costs of arbitration (including attorney fees and costs of the Parties and legal counsel appointed pursuant to Section 2.b of this Appendix H) will be borne by the Party that is not the prevailing Party in proportion to the degree to which such Party did not prevail. In the event neither Party prevails, the Parties shall each pay fifty percent (50%) of the costs of the arbitration.



**APPENDIX I**

**INITIAL AND ANNUAL BESS CAPACITY TEST**

**TESTING PROTOCOLS**

**INITIAL COMMERCIAL OPERATION and  
CONTRACT CAPACITY - TESTS**

[INFORMATION REDACTED]

[INFORMATION REDACTED]

[INFORMATION REDACTED]

[INFORMATION REDACTED]

[INFORMATION REDACTED]

**Appendix J**  
**Estimated Annual Output**

[INFORMATION REDACTED]

**Appendix K**  
**Minimum Annual Total Energy Output**

[INFORMATION REDACTED]



**Appendix L**  
**Maximum Annual Output**

[INFORMATION REDACTED]

**Schedule 6.2.1**  
**BESS Capacity**

[INFORMATION REDACTED]

**Schedule 6.2.3**  
**Annual BESS Maximum Cycling**

[INFORMATION REDACTED]

## EXHIBIT 2

**KAUAI ISLAND UTILITY COOPERATIVE**

**INTERCONNECTION AGREEMENT**

**WITH**

**AES KEKAHA SOLAR, LLC**

**14 MW AC (19.278 MW DC) SOLAR PHOTOVOLTAIC GENERATING  
AND BESS FACILITY**

**(For Distributed Generation Facilities No Larger Than 20 MW)**

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Exhibit 2 – Description and Costs of the Small Generating Facility, Interconnection Facilities, and Metering Equipment

Exhibit 3 – One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades

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Exhibit 5 – Additional Operating Requirements for the Cooperative's Transmission and/or Distribution System Needed to Support the Interconnection Customer's Needs

Exhibit 6 – Cooperative's Description of its Upgrades and Best Estimate of Upgrade Costs

This INTERCONNECTION AGREEMENT (“**Agreement**”) is made and entered into this 29th day of September, 2017, by and between KAUAI ISLAND UTILITY COOPERATIVE (“**Cooperative**”), and AES KEKAHA SOLAR, LLC, a Delaware limited liability company (“**Interconnection Customer**”), each hereinafter sometimes referred to individually as “**Party**” or both hereinafter sometimes referred to collectively as the “**Parties**.”

#### **Cooperative Information**

Cooperative: Kauai Island Utility Cooperative  
Attention: President & CEO; and Chief of Operations  
Address: 4463 Pahe’e Street, Suite 1  
City: Lihue State: Hawai’i Zip: 96766-2000  
Phone: 808-246-4300 Fax: 808-246-4344

#### **Interconnection Customer Information**

Interconnection Customer: AES Kekaha Solar, LLC c/o AES Distributed Energy, Inc.  
Attention: Operations Management  
Address: 4875 Pearl East Circle, Suite 200  
City: Boulder State: CO Zip: 80301  
Phone: 303-444-3020 Fax: 303-449-3058

Interconnection Customer Application No: 2017-02 (Cooperative to Fill Out)

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

#### **Article 1. Scope and Limitations of Agreement**

- 1.1 Use. This Agreement shall be used for all Interconnection Requests submitted under the Cooperative’s Small Generator Interconnection Policies and Procedures (For Distributed Generation Facilities No Larger Than 20 MW) (“**Policies and Procedures**”), except for those submitted under the 10 kW Inverter Process contained in Attachment 5 of the Policies and Procedures.
- 1.2 Terms and Conditions. This Agreement governs the terms and conditions under which the Interconnection Customer’s Small Generating Facility will interconnect with, and operate in parallel with, the Cooperative’s Transmission and/or Distribution System.
- 1.3 Not Agreement to Purchase or Deliver Power. This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer’s power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate Power Purchase Agreements or Tariff provisions, as applicable.
- 1.4 No Affect on Other Agreements. Nothing in this Agreement is intended to affect any other agreement between the Cooperative and the Interconnection Customer.

1.5 Responsibilities of the Parties.

- 1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice or Good Distributed Generation Practice (as applicable).
- 1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain the Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, and in accordance with this Agreement, Good Utility Practice or Good Distributed Generation Practice (as applicable), and any other requirements imposed by the Cooperative.
- 1.5.3 The Cooperative shall construct, operate, and maintain its Transmission and Distribution System in accordance with Good Utility Practice.
- 1.5.4 The Interconnection Customer agrees to construct and operate its facilities or systems in accordance with Good Distributed Generation Practice, and Operating Requirements and other applicable national and state codes and standards. Without limiting the foregoing, the Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to minimize the likelihood of a disturbance adversely affecting or impairing the system grid operations or physical equipment of the Cooperative.
- 1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Exhibits to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The Cooperative and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Cooperative's Transmission and/or Distribution System, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Exhibits to this Agreement.

1.6 Parallel Operation Obligations.

Once the Small Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the applicable control area, including, but not limited to: 1) the rules and procedures concerning the operation or generation set forth in the Tariff or Power Purchase Agreement for the Cooperative's Transmission and/or Distribution System; 2) the Operating Requirements set forth in Exhibit 5 of this Agreement; and 3) Good Distributed Generation Practice.

1.7 Metering.

The Interconnection Customer shall be responsible for the costs incurred for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Exhibits 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

1.8 Reactive Power.

1.8.1 The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range specified in Exhibit 5 of this Agreement.

1.9 Capitalized Terms. Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Exhibit 1 or the body of this Agreement.

**Article 2. Inspection, Testing, Authorization, and Right of Access**

2.1 Equipment Testing and Inspection.

2.1.1 The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Cooperative of such activities no fewer than five (5) Business Days (or as may be otherwise agreed to by the Parties in writing) prior to such testing and inspection. Testing and inspection shall occur on a Business Day. The Cooperative may, at its own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide to the Cooperative a written test report when such testing and inspection is completed.

2.1.2 The Cooperative shall provide to the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Cooperative of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Small Generating Facility.

2.2 Authorization Required Prior to Parallel Operation.

2.2.1 The Cooperative shall use Reasonable Efforts to list applicable parallel operation requirements and operational test criteria in Exhibit 5 of this Agreement. Additionally, the Cooperative shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Cooperative shall make Reasonable Efforts to cooperate with the Interconnection Customer in

meeting requirements necessary for the Interconnection Customer to commence parallel operations by May 31, 2019 (the “**In-Service Date**”).

- 2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the Cooperative’s Transmission System without prior written authorization of the Cooperative. The Cooperative will provide such authorization once the Cooperative receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements to ensure that said operation will be consistent with safety, reliability and power quality standards. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

2.3 Right of Access.

- 2.3.1 Upon reasonable notice, the Cooperative may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Small Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Small Generating Facility (including any required testing), startup, and operation for a period of up to three (3) Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Cooperative at least five (5) Business Days prior to conducting any on-site verification testing of the Small Generating Facility.
- 2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or potentially hazardous condition, the Cooperative shall have access to the Interconnection Customer’s premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if the Cooperative otherwise believes it necessary to meet its legal obligation to provide service to its customers.
- 2.3.3 Upon reasonable notice by Interconnection Customer, the Cooperative shall provide Interconnection Customer access to the Cooperative’s premises at reasonable hours for any reasonable purpose in connection with the performance of the obligations imposed on Interconnection Customer by this Agreement; provided, that if Interconnection Customer requires access during an emergency, then Interconnection Customer shall provide such notice as is practicable under the circumstances and shall have the right to access the Cooperative’s premises in order to address such emergency.
- 2.3.4 Each Party shall be responsible for its own costs associated with following this article.



### **Article 3. Effective Date, Term, Termination, and Disconnection**

#### **3.1 Effective Date.**

- 3.1.1 This Agreement shall become effective upon execution by the Parties. The Cooperative shall promptly file this Agreement with the Hawaii Public Utilities Commission (“**Commission**”) upon execution, if required.
- 3.1.2 If a Facility modification directly impacts Interconnection Facilities, then the Parties must mutually agree on the allocation of the costs of such impact, unless terminated by mutual agreement earlier in accordance with Article 3.2 of this Agreement. Nothing herein shall be deemed to preclude the Cooperative right to modify its operational parameters described in Exhibit 5.

#### **3.2 Term of the Agreement.**

This Agreement shall become effective on the Effective Date and shall remain in effect until the expiration or earlier termination of that certain Power Purchase Agreement (Solar Generating Facility), dated September 29, 2017, between Cooperative and Interconnection Customer (“**PPA**”).

#### **3.3 Termination.**

- 3.3.1 No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations.
- 3.3.2 The Interconnection Customer may terminate this Agreement at any time by giving the Cooperative twenty (20) Business Days written notice.
- 3.3.3 Either Party may terminate this Agreement after Default pursuant to Article 7.6.
- 3.3.4 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the Cooperative’s Transmission and/or Distribution System, as applicable. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party’s Default of this Agreement or such non-terminating Party otherwise is responsible for these costs under this Agreement.
- 3.3.5 The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.
- 3.3.6 The provisions of this Article shall survive termination or expiration of this Agreement.

#### **3.4 Temporary Disconnection or Deration.**

Temporary disconnection or Deration shall continue only for so long as reasonably necessary under Good Utility Practice and shall occur subject to and in accordance with



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this Section 3.4. Notwithstanding anything to the contrary, Cooperative shall use reasonable efforts to minimize and mitigate the impacts on Interconnection Customer and the Small Generation Facility of Cooperative's exercise of rights under this Section 3.4.

3.4.1 Emergency Conditions.

**"Emergency Condition"** shall mean a condition or situation: (1) that in the reasonable judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the Cooperative, is imminently likely (as determined in a reasonable, non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Transmission or Distribution System, the Cooperative's Interconnection Facilities; or (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a reasonable, non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. Emergency Conditions do not include economic impacts. Under Emergency Conditions, the Cooperative may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility. The Cooperative shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Small Generating Facility. The Interconnection Customer shall notify the Cooperative promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Cooperative's Transmission and/or Distribution System. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2 Routine Maintenance, Construction, and Repair.

The Cooperative may interrupt interconnection service or curtail the output of the Small Generating Facility and temporarily disconnect the Small Generating Facility from the Cooperative's Transmission or Distribution System when necessary for routine maintenance, construction, and repairs on the Cooperative's Transmission or Distribution System. The Cooperative shall provide the Interconnection Customer with five (5) Business Days' notice prior to such interruption. The Cooperative shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

3.4.3 Forced Outages.

During any forced outage on the Cooperative's system that requires suspension of transmission service to the Small Generating Facility in order to remedy such forced outage, the Cooperative may so suspend interconnection service to effect immediate repairs on the Cooperative's Transmission and/or Distribution System. The Cooperative shall use Reasonable Efforts to provide the Interconnection

Customer with prior notice. If prior notice is not given, the Cooperative shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

3.4.4 Adverse Operating Effects.

The Cooperative shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, Cooperative determines that operation of the Small Generating Facility may cause disruption or deterioration of service to other customers served from the electric system, or if operating the Small Generating Facility could cause damage to the Cooperative's Transmission and/or Distribution System. Supporting documentation used to reach the decision to disconnect or Derate shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Cooperative may disconnect or Derate the Small Generating Facility and, at its option, terminate this Agreement. The Cooperative shall provide the Interconnection Customer with five (5) Business Days' notice of such disconnection, Deration and/or termination, unless the provisions of Article 3.4.1 apply. Notwithstanding anything to the contrary, Cooperative shall not have the right to disconnect, Derate or terminate this Agreement pursuant to this Section 3.4. based on economic impacts.

3.4.5 Modification of the Small Generating Facility.

The Interconnection Customer must receive written authorization from the Cooperative before making any change to the Small Generating Facility that is reasonably likely to have a material impact on the safety or reliability of the Transmission and/or Distribution System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Distributed Generation Practice. If the Interconnection Customer makes such modification without the Cooperative's prior written authorization, the latter shall have the right to temporarily or permanently disconnect the Small Generating Facility and/or terminate this Agreement.

3.4.6 Reconnection.

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, and the Cooperative's Transmission and/or Distribution System (as applicable) to their normal operating state as soon as reasonably possible following a temporary disconnection or Deration.

**Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades**

4.1 Interconnection Facilities.

- 4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities as listed as owed by Interconnection Customer itemized in Exhibit 2 of

this Agreement, and shall contract with either the Cooperative or a qualified electrical contractor to construct the Interconnection Facilities.

- 4.1.2 The Interconnection Customer shall be responsible for all reasonable expenses, including overheads, associated with owning, operating, maintaining, repairing, and replacing the Interconnection Facilities

4.2 Distribution Upgrades.

To the extent that any Distribution Upgrades are required, the Cooperative shall design, procure, construct, install, and own the Distribution Upgrades described in Exhibit 6 of this Agreement. If the Cooperative and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned or controlled by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

4.3 Queue Position.

As provided in the Policies and Procedures, the Cooperative shall assign a Queue Position based upon the date- and time-stamp of the Interconnection Request. The Queue Position of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The Cooperative shall maintain a single queue per geographic region. At the Cooperative's option, Interconnection Requests may be studied serially or in clusters for the purpose of the system impact study.

**Article 5. Cost Responsibility for Network Upgrades**

5.1 Applicability.

No portion of this Article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades.

5.2 Network Upgrades.

To the extent that any Network Upgrades are required, the Cooperative shall design, procure, construct, install, and own the Network Upgrades described in Exhibit 6 of this Agreement. If the Cooperative and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned or controlled by the Interconnection Customer. Unless the Cooperative elects at its discretion to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer.

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**Article 6. Billing, Payment, Milestones, and Financial Security**

**6.1 Billing and Payment Procedures and Final Accounting.**

- 6.1.1 The Cooperative shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties in writing. The Interconnection Customer shall pay each bill within thirty (30) calendar days of receipt, or as otherwise agreed to by the Parties in writing.
- 6.1.2 Within three (3) months of completing the construction and installation of the Cooperative's Interconnection Facilities and/or Upgrades described in the Exhibits to this Agreement, the Cooperative shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Cooperative for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Cooperative shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Cooperative within thirty (30) calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Cooperative shall refund to the Interconnection Customer an amount equal to the difference within thirty (30) calendar days of the final accounting report.

**6.2 Milestones.**

The Parties shall agree on milestones for which each Party is responsible and list them in Exhibit 4 of this Agreement. A Party's obligations under this provision may be extended by written agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) requesting appropriate amendments to Exhibit 4. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless (1) it will suffer material uncompensated economic or operational harm from the delay, or (2) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

**6.3 Financial Security Arrangements.**

At least twenty (20) Business Days prior to the commencement of the design, procurement, installation, or construction of any discrete portion of the Cooperative's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Cooperative, at the Interconnection Customer's option, either a guarantee, a surety bond,

or a letter of credit. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Cooperative's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Cooperative under this Agreement during its term. In addition:

- 6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Cooperative, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.
- 6.3.2 The letter of credit or surety bond must be issued by a financial institution or insurer reasonably acceptable to the Cooperative and must specify a reasonable expiration date.

#### **Article 7. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default**

##### **7.1 Assignment.**

This Agreement may not be assigned in whole or in part by either Party without the prior written consent of the other Party, which consent shall not be unreasonably conditioned, withheld or delayed; provided that:

- 7.1.1 To the extent a Party and its proposed assignee have credit ratings issued by a national ratings agency, the assigning Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party with an equal or greater credit rating (evaluated relative to the credit rating of the assigning Party as of the Effective Date) and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the Cooperative of any such assignment.

- 7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Cooperative, for collateral security purposes to aid in providing financing for the Small Generating Facility, provided that the Interconnection Customer will promptly notify the Cooperative of any such assignment. In the event of any security interest being made or given by Interconnection Customer, Cooperative shall, upon the request of Interconnection Customer, enter into an agreement with the lender(s) on commercially reasonable which shall, at the minimum, provide for the following terms:

- (i) consent by Cooperative to the collateral assignment of this Agreement and any subsequent transfer of rights that complies with the terms of this Agreement upon exercise by the financier of its remedies;



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(ii) entitlement of the lender(s) to exercise the rights of the financing Party under this Agreement, to enforce this Agreement and to exercise the remedies hereunder;

(iii) limitations on the exercise by Cooperative of any right to terminate this Agreement without first giving the lender(s) notice and opportunity to cure any breach;

(iv) limitations on Cooperative agreeing to amend this Agreement;  
and

(v) requirement on the Cooperative to provide copies of all material notices under this Agreement to the lender(s).

7.1.3 In the case of Interconnection Customer only, if Cooperative has been provided with reasonable proof that the proposed assignee has comparable experience in operating and maintaining solar photovoltaic systems and the financial capability to do the same, Cooperative's withholding of consent shall be deemed unreasonable.

7.1.4 In addition to its rights under Section 7.1.2, Interconnection Customer has the right, without the need for the approval of the Cooperative, to assign, transfer, and otherwise dispose of (in one or a series of related transactions) all or any portion of this Agreement or Interconnection Customer's interests or title in this Agreement provided Interconnection Customer provides the Cooperative with reasonable evidence that the assignee is a Qualified Substitute Owner and Seller notifies Buyer of such assignment promptly after such assignment occurs.

7.1.5 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer to the extent accruing after the assignment. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

7.2 Limitation of Liability.

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

7.3 Indemnity.

- 7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in Article 7.2.
- 7.3.2 The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including third party claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, to the extent arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of negligence or intentional wrongdoing by the indemnified Party.
- 7.3.3 If an indemnified person is entitled to indemnification under this Article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this Article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.
- 7.3.4 If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this Article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.
- 7.3.5 Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this Article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

7.4 Consequential Damages.

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.



7.5 Force Majeure.

7.5.1 As used in this article, a Force Majeure Event shall mean “any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, tsunami, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party’s control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing.”

7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

7.6 Default.

7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided below, the defaulting Party shall have sixty (60) calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within sixty (60) calendar days, the defaulting Party shall commence such cure within twenty (20) calendar days after notice and continuously and diligently complete such cure within six (6) months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

7.6.2 If a Default is not cured as provided in this Article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this Article will survive termination of this Agreement.

- 7.6.3 Notwithstanding anything in this Agreement to the contrary, in the event of any Default by the Interconnection Customer that the Cooperative believes may have a material impact on the safety or reliability of the Transmission and/or Distribution System or that may otherwise cause an Emergency Condition or endanger life or property, the Cooperative shall have the immediate right to disconnect the Small Generating Facility and such disconnection shall constitute notice of such Default for purposes of calculating the cure period pursuant to Section 7.6.1 if such notice has not already been provided. In that case, the Cooperative shall have the right to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this Article will survive termination of this Agreement.

## **Article 8. Insurance**

### **8.1 Maintenance of Insurance.**

The Interconnection Customer shall, at its own expense, maintain in force general liability insurance, subject to industry-standard exclusions. The amount of such insurance shall be sufficient (as reasonably determined by Interconnection Customer) to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Cooperative, except that the Interconnection Customer shall show proof of insurance (in the form of a certificate evidencing coverage) to the Cooperative no later than ten (10) Business Days prior to the anticipated commercial operation date. An Interconnection Customer of sufficient credit-worthiness may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.

- 8.2 Cooperative Insurance. The Cooperative agrees to maintain general liability insurance or self-insurance consistent with the Cooperative's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Cooperative's liabilities undertaken pursuant to this Agreement. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Interconnection Customer.
- 8.3 Notification. The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

## **Article 9. Confidentiality**

### **9.1 Confidential Information.**

Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that the Party claiming confidentiality believes, in good faith contains trade secrets or other confidential research, development, commercial, customer usage, financial, vendor or bid information, the unpermitted disclosure or misuse of which could reasonably cause cognizable harm to the Party claiming confidentiality ("Confidential Information"). In providing the Confidential Information, the Party claiming confidentiality shall clearly mark or otherwise designate the information as "Confidential." Notwithstanding the above, all design, system or operating specifications, and metering data provided by or to the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such. In addition, as a condition to providing the Confidential Information, the Party claiming confidentiality may require the other Party to execute a confidentiality or protective agreement on terms mutually acceptable to the Parties setting forth the terms and conditions of the confidentiality arrangement.

### **9.2 Exclusion.**

Notwithstanding the above, Confidential Information does not include information in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

- 9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

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Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

**Article 10. Disputes**

- 10.1 Agreement. The Parties agree to attempt to resolve all disputes arising out of this Agreement according to the provisions of this Article 10.
- 10.2 Written Notice. In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.
- 10.3 Arbiter. If the dispute has not been resolved within ten (10) Business Days after receipt of the Notice, either Party shall have the right to request that the Commission serve as an arbiter of last resort. In such an event, the Commission will use an informal expedited process to resolve the dispute within thirty (30) days of the date of the request. In doing so, the Commission shall have the right to authorize its Chairman, or his/her designee (which designee may be another Commissioner, a member of the Commission staff, a Commission hearings officer, or a Commission hired consultant) to take any such action on behalf of the Commission, in consultation with other Commissioners and Commission staff. There shall be no right to hearing or appeal from this informal expedited dispute resolution process.
- 10.4 Informal Relief. Notwithstanding the above, each Party also has the option of availing itself of formal relief with the Commission, pursuant to the Commission's applicable Rules of Practice and Procedure, Hawaii Administrative Rules, Chapter 6-61.
- 10.5 Good Faith. Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half each of any costs paid to neutral third parties.
- 10.6 Rights. If neither Party elects to seek assistance from the Commission, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of the Cooperative's Distributed Generation Interconnection Policies and Procedures.

**Article 11. Taxes**

11.1 Laws.

The Parties agree to follow all applicable local state and federal tax laws and regulations, consistent with Internal Revenue Service requirements.

11.2 Cooperation.

Each Party shall reasonably cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect the Cooperative's tax-

exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

## **Article 12. Miscellaneous**

### **12.1 Governing Law, Regulatory Authority, and Rules.**

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the State of Hawaii (i.e., where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

### **12.2 Amendment.**

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

### **12.3 No Third-Party Beneficiaries.**

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

### **12.4 Waiver.**

12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Cooperative. Any waiver of this Agreement shall, if requested, be provided in writing and signed by the Party against whom the waiver is to operate.

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12.5 Entire Agreement.

This Agreement, including all Exhibits, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts.

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all of which shall constitute one and the same instrument.

12.7 No Partnership.

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

12.8 Severability.

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9 Security Arrangements.

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. In recognition of this, the Parties agree to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority.

12.10 Environmental Releases.

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility or the Interconnection Facilities, discovered by such notifying Party and each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as



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soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

12.11 Subcontractors.

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall a Party be liable for the actions or inactions of the other Party or its subcontractors with respect to obligations of the other Party under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

**Article 13. Notices**

13.1 General.

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by certified first class mail, postage prepaid return receipt requested, or by email to the person specified below:

If to the Interconnection Customer:

Interconnection Customer: AES Kekaha Solar, LLC c/o AES Distributed Energy, Inc.

Attention: Legal Department

Address: 4875 Pearl East Circle, Suite 200

City: Boulder

State: CO

Zip: 80301

Phone: 303-444-3020 Fax: 303-449-3058

Email: legalnotices@aes.com



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If to the Cooperative:

Cooperative: Kauai Island Utility Cooperative  
Attention: Mike Yamane  
Address: 4463 Pahe'e Street, Suite 1  
City: Lihue State: Hawaii Zip: 96766-2000  
Phone: 808-246-4300 Fax: \_\_\_\_\_

Notwithstanding the above, except as expressly provided herein, all notices, demands and other communications which are required or which may be given under or in connection with this Agreement shall be in writing and shall be deemed to have been duly given and received when delivered in person or, if mailed, three (3) Business Days after being deposited in the United States mail and postmarked, certified or registered mail, postage prepaid, or, if by facsimile, the Business Day following the facsimile.

13.2 Billing and Payment.

Billings and payments shall be sent to the addresses set out below:

Interconnection Customer: AES Kekaha Solar, LLC c/o AES Distributed Energy, Inc.  
Attention: DE Accounts  
Address: 4875 Pearl East Circle, Suite 200  
City: Boulder State: CO Zip: 80301  
Phone: 303-444-3020 Fax: 303-449-3058  
Email: DEAccounts@aes.com

Cooperative: Kauai Island Utility Cooperative  
Attention: Accounting  
Address: 4463 Pahe'e Street, Suite 1  
City: Lihue State: Hawaii Zip: 96766-2000  
Phone: 808-246-4300 Fax: 808-246-8266

13.3 Alternative Forms of Notice.

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

Interconnection Customer: AES Kekaha Solar, LLC c/o AES Distributed Energy, Inc.  
Attention: Operations Management  
Address: 4875 Pearl East Circle, Suite 200  
City: Boulder State: CO Zip: 80301  
Phone: 303-444-3020 Fax: 303-449-3058  
Email: desoc@aes.com

If to the Cooperative:

Cooperative: Kauai Island Utility Cooperative  
Attention: Mike Yamane  
Address: 4463 Pahe'e Street, Suite 1  
City: Lihue State: Hawaii Zip: 96766-2000  
Phone: 808-246-4300 Fax: 808-246-4344

13.4 Designated Operating Representative.

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

Interconnection Customer: AES Kekaha Solar, LLC c/o AES Distributed Energy, Inc.  
Attention: Operations Management  
Address: 4875 Pearl East Circle, Suite 200  
City: Boulder State: CO Zip: 80301  
Phone: 303-444-3020 Fax: 303-449-3058

Cooperative's Operating Representative:

Name: Mike Yamane  
Address: 4463 Pahe'e Street, Suite 1  
City: Lihue State: Hawaii Zip: 96766-2000  
Phone: 808-246-4300 Fax: 808-246-4344

13.5 Changes to the Notice Information.

Either Party may change this information by giving five (5) Business Days written notice prior to the effective date of the change.

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**Signatures**

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For the Cooperative: KAUAI ISLAND UTILITY COOPERATIVE

Signature: David J. Bissell

Name: David Bissell

Title: President & Chief Executive Officer

Date: 9-29-17

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For the Interconnection Customer: AES KEKAHA SOLAR, LLC

Signature: Woody Rubin

Name: Woody Rubin

Title: President

Date: 9/28/2017

## GLOSSARY OF TERMS

**Allowed Net Capacity** – The maximum electrical output of the Interconnection Customer's Small Generating Facility in Megawatts (MW), which is used by the Cooperative for establishing a maximum instantaneous MW output from the Interconnection Customer's Small Generating Facility for planning and operating the Cooperative's system.

**Applicable Laws and Regulations** – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Business Day** – Monday through Friday, excluding Federal and State Holidays.

**Commission** – the Hawai'i Public Utilities Commission.

**Cooperative** – Kauai Island Utility Cooperative, which is the member-owned electric cooperative serving the island of Kauai.

**Default** – The failure of a breaching Party to perform or comply with any provisions in the Small Generator Interconnection Agreement.

**Derate/Deration** – Reduction of Allowed Net Capacity.

**Distribution System** – The Cooperative's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Cooperative's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in intrastate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Good Distributed Generation Practice** – Any of the practices, methods and acts engaged in or approved by a significant portion of the distributed generation industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Distributed Generation Practices is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region. Without limiting the generality of the above, Good Distributed Generation Practices shall at all times mean actions in compliance with Applicable Laws and Regulations, the National Electric Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements and other applicable national and state codes, standards and requirements, as well

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as to utilize reasonably best efforts to minimize the likelihood of any disturbance or other impact adversely affecting or impairing the system or equipment of Cooperative from a safety, reliability and/or power quality standpoint.

**Good Utility Practice** – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Cooperative, or any Affiliate thereof.

**Interconnection Customer** – Any entity that proposes to interconnect its Small Generating Facility with the Cooperative's Transmission and/or Distribution System.

**Interconnection Facilities** – The Cooperative's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Cooperative's Transmission and/or Distribution System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

**Interconnection Request** – The Interconnection Customer's request, in accordance with the Policies and Procedures, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Cooperative's Transmission and/or Distribution System.

**Material Modification** – A modification that has a material impact on the cost or timing of any Interconnection Request.

**Network Upgrades** – Additions, modifications, and upgrades to the Cooperative's Transmission and/or Distribution System required at or beyond the point at which the Small Generating Facility interconnects with the Cooperative's Transmission and/or Distribution System to accommodate the interconnection of the Small Generating Facility with the Cooperative's Transmission and/or Distribution System. Network Upgrades do not include Distribution Upgrades.

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**Operating Requirements** – Any operating and technical requirements that may be applicable due to the control area, or the Cooperative's requirements, including those set forth in Kauai Island Utility Cooperative Small Generator Interconnection Agreement and/or the Policies and Procedures.

**Party or Parties** – The Cooperative and the Interconnection Customer, either individually (Party) or together (Parties).

**Point of Interconnection** – The point where the Interconnection Facilities connect with the Cooperative's Transmission and/or Distribution System.

**Policies and Procedures** – The document titled Small Generator Interconnection Policies and Procedures (For Distributed Generation Facilities No Larger Than 20 MW).

**PPA** – That certain Power Purchase Agreement (Solar Generating Facility), September 29, 2017, between Cooperative and Interconnection Customer.

**Qualified Substitute Owner** – Any person or entity that (i) has the legal capacity and authority to enter into and perform the obligations of Seller under this Agreement and (ii) has (as evidenced by reasonable proof provided by Seller) (x) financial resources available to it, sufficient to enable it to perform the obligations of Seller under this Agreement and (y) through its own employees or through a contract with a third party operator, the technical skills and experience reasonably necessary to permit it to perform the obligations of Seller under this Agreement.

**Queue Position** – The order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the Cooperative.

**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under the Small Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice or Good Distributed Generation Practice (as applicable) and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Small Generating Facility** – The Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Transmission System** – The facilities owned, controlled or operated by the Cooperative and used to transmit bulk power over longer distances at 69 kilovolts between usage points on the Distribution System. The voltage level at which Transmission System operates is 57 kilovolts nominal.

**Upgrades** – The required additions and modifications to the Cooperative's Transmission and/or Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.



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**Exhibit 2**

**DESCRIPTION AND COSTS OF THE SMALL GENERATING FACILITY,  
INTERCONNECTION FACILITIES, AND METERING EQUIPMENT**

Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer or the Cooperative. A delineation showing the Interconnection Facilities and the PMRF Substation is provided in Exhibit 3.

The Small Generating Facility will include a 19.278 MWdc PV System and 70.0 MWh BESS, DC-coupled to a 14 MWac power conversion system, capable of reaching 14 MWac of capacity from PV, BESS or at both sources, and delivering 70 MWhac from the BESS system.

The term "Interconnection Facilities" in Rule 2, Attachment 9, Exhibit 1, covers both the Cooperative Interconnection Facilities and Interconnection Customer Interconnection Facilities. Notwithstanding anything to the contrary herein, the Parties intend that the Interconnection Facilities for purposes of this Agreement shall be limited to those items marked as "Developer Owned and Maintained" in Exhibit 3. All other facilities and/or equipment identified in Exhibit 3 shall be deemed to be Network Upgrades or Distribution Upgrades, as applicable. Notwithstanding anything herein to the contrary, Interconnection Customer shall not be liable for any costs under this Agreement except in connection with the Interconnection Facilities and the specific items set forth on Exhibit 2 for which Interconnection Customer is expressly responsible.

To the extent Interconnection Customer is responsible for costs incurred by Cooperative pursuant to this Exhibit 2, Cooperative shall use reasonable efforts to minimize and mitigate all such costs and shall ensure that such costs do not to exceed the amount required to meet Good Utility Practice.

**Interconnection Facilities:**

1. Interconnection Customer shall be responsible for all its costs and work associated with the engineering, procurement and construction of the Interconnection Facilities up to the Point of Interconnection as marked on Exhibit 3.
2. Cooperative shall be responsible for all costs associated with engineering, procurement and construction of modifications to Cooperative's existing system to tie into the Interconnection Facilities (including any costs associated with upgrades or equipment located on Cooperative's side of the Point of Interconnection, and which shall be deemed to include those items marked as "KIUC Owned and Maintained" in Exhibit 3), not to exceed the amount required to meet Good Utility Practice.
3. Cooperative shall provide Interconnection Customer with specifications and guidelines for engineering design, equipment, and construction for items (1) and (2) that are consistent with Good Utility Practice, and Interconnection Customer may rely on same as being in accordance with Good Utility Practice.
4. Upon final acceptance by the Cooperative of the Interconnection Facilities, all of Interconnection Customer's costs going forward for operation and maintenance of the

Interconnection Facilities up to the point of change of ownership (as shown on Exhibit 3) shall be borne by the Interconnection Customer.

5. Interconnection Customer shall notify Cooperative prior to any work being done on Interconnection Customer equipment which lies within Cooperative's fence line that can affect the Cooperative's system.
6. Interconnection Customer shall be responsible for all costs associated with purchase and installation of any secondary or backup revenue meters and SCADA meter installations that Interconnection Customer elects to install on the Interconnection Facilities up to the Point of Interconnection, which meters Interconnection Customer may install in its sole discretion.
7. [Reserved]
8. Interconnection Customer shall be responsible for all costs associated with 12.47kV three phase line extension from Small Generating Facility to the Point of Interconnection, not to exceed the amount required to meet Good Utility Practice.
9. Interconnection Customer shall be responsible for all costs associated with ADSS 24 strand fiber implementation from Customer Delivery Point to a designated termination rack in KIUC's PMRF Substation Control House, not to exceed the amount required to meet Good Utility Practice.
10. Interconnection Customer shall be responsible for one SEL 411L per interconnection feeder to be located in the KIUC Switchyard Control House, which will be utilized together with KIUC's SEL 411L for a communications assisted line current differential scheme to ensure 'instantaneous' tripping protection from the Interconnection Facilities to the Point of Interconnection.
11. Interconnection Customer shall be responsible for providing all SCADA points as specified by Cooperative up to Remote Telemetry Unit (RTU).
12. Interconnection Customer shall be responsible for all costs associated with installation and integration of a high speed data collection device. The high speed data collection device shall be a Tesla 4000 or a KIUC approved equivalent. The device shall be accessible remotely (via comm link to KIUC Control House) and physically by Cooperative personnel at all times.
13. Interconnection Customer shall be responsible for all costs associated with installation and integration of the Small Generating Facility control system, and any equipment necessary to interface with KIUC's SCADA system to ensure KIUC is able to adequately control, dispatch, and monitor the Small Generating Facility subject to the terms and conditions of the PPA, not to exceed the amount required to meet Good Utility Practice.
14. Interconnection Customer shall be responsible for all costs associated with supporting an islanding function as described in Exhibit 5 with the exception of services and equipment located on the KIUC side of the Point of Interconnection.

The following items 15-18 shall be installed and owned by KIUC but for which the Interconnection Customer shall be responsible for the costs of installation:

15. Interconnection Customer shall be responsible for all costs associated with the implementation of a SEL 411L relay at the Point of Interconnection not to exceed the amount required to meet Good Utility Practice.

16. Interconnection Customer shall be responsible for all costs associated with the purchase and installation of the revenue meters and SCADA meter installations as reflected on Exhibit 3, not to exceed the amount required to meet Good Utility Practice.
17. Interconnection Customer shall be responsible for all costs associated with the addition of two 12.47 kV interconnection breakers with associated bay and protective relaying with the PMRF Substation / Interconnection Bay and SCADA modifications and integration required to accommodate Interconnection Facilities and Facility generator and project controls, not to exceed the amount required to meet Good Utility Practice.
18. [Reserved.]

Notwithstanding anything to the contrary herein, the costs to be paid by the Interconnection Customer for work or equipment installed by Cooperative pursuant to items 15-18 are estimated to be \$350,000.

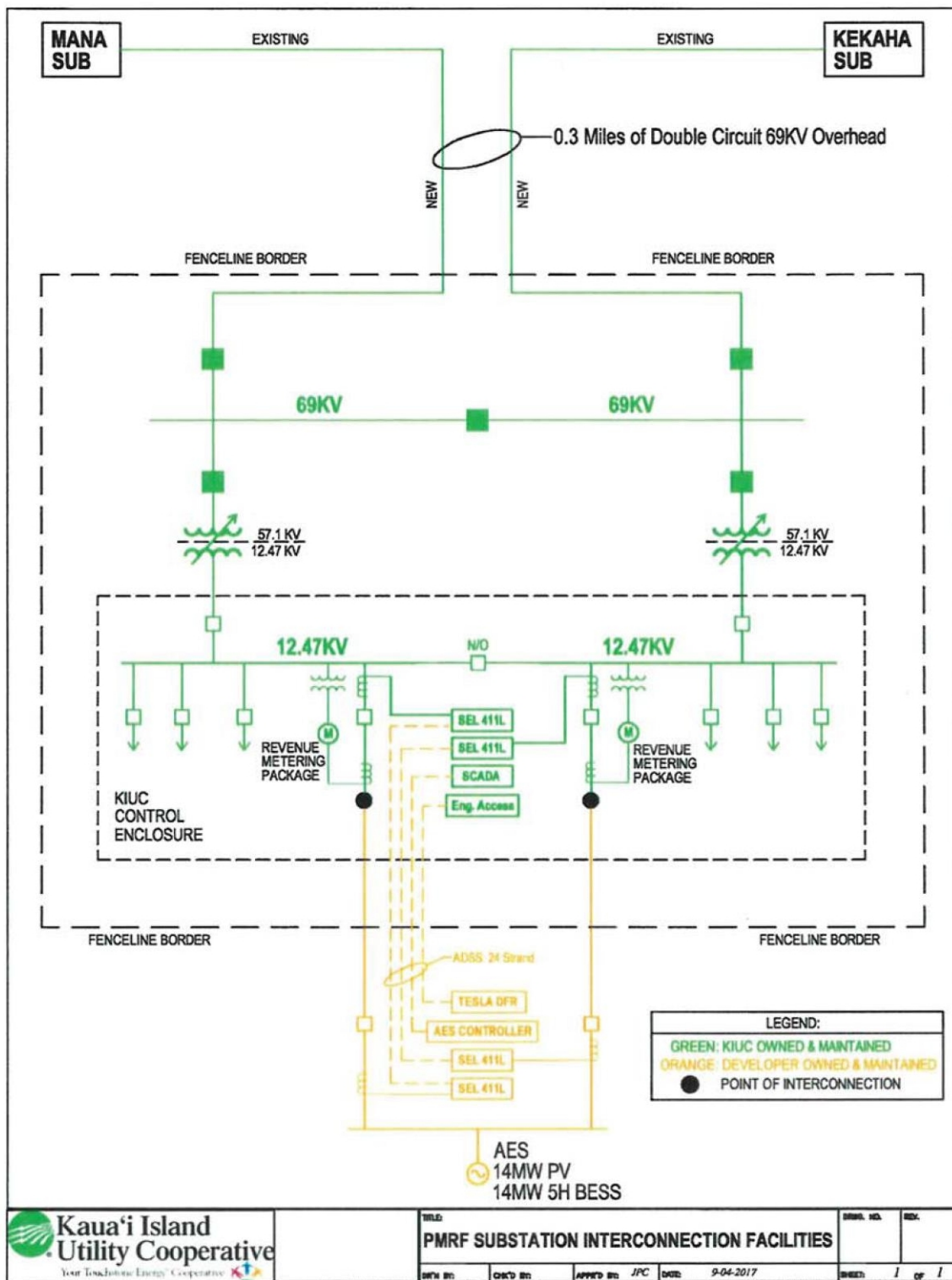
**Land Rights**

1. Cooperative shall provide, or cause to be provided to Interconnection Customer, ingress and egress to Interconnection Facilities, including a non-exclusive easement to provide ingress and egress, for the maintenance, operation, and response to safety or hazard situations, following the In-Service Date, and during the remainder of the term of this Agreement, and for such additional term as is required during which the Interconnection Customer owns and maintains the Interconnection Facilities, to the Cooperative land that Interconnection Facilities lie on, consistent with the requirements of the terms of this Agreement.
2. Cooperative is responsible for furnishing and paying all costs associated with land rights necessary for the Interconnection Facilities, including all easements reasonably required by Interconnection Customer for the Interconnection Facilities.

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**Exhibit 3**

**ONE-LINE DIAGRAM OF THE SMALL GENERATING FACILITY, EXISTING  
FACILITIES, INTERCONNECTION FACILITIES, AND METERING EQUIPMENT**



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**Exhibit 4**

**MILESTONES**

Parallel operation In-Service Date: May 31, 2019

Critical Interconnection Request milestones and responsibilities as agreed to by the Parties:

<u>Milestone</u>	<u>Date</u>	<u>Responsible Party</u>
PPA & Interconnection Agreement Executed	[X/X/2018]	Both
Estimated Parallel in-service date	5/31/2019	Cooperative



**Exhibit 5**

**ADDITIONAL OPERATING REQUIREMENTS FOR THE COOPERATIVE'S  
TRANSMISSION AND/OR DISTRIBUTION SYSTEM NEEDED TO SUPPORT  
THE INTERCONNECTION CUSTOMER'S NEEDS**

The Cooperative shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation and operations test criteria after connecting with the Cooperative's Transmission and/or Distribution System.

1. Interconnection Customer's standard operating procedures shall be subject to the Cooperative's review and approval consistent with Good Utility Practice.
2. Interconnection Customer shall not alter, modify or otherwise change any protective relay or control characteristics of the facility that may affect the Cooperative's system without Cooperative approval.
3. Testing of operational criteria before and after parallel operation will be done in accordance with Good Utility Practice.
4. Interconnection Customer shall allow KIUC to direct its generation output in both real and reactive power energy to meet the need of the KIUC system. Interconnection Customer shall not restrict the ability of KIUC to control the Small Generating Facility other than as outlined in the PPA.
5. KIUC shall have the absolute and sole right to dispatch the Small Generating Facility up to equipment nameplate capacities.
6. [REDACTED]
7. Interconnection Customer shall not alter, modify or otherwise change any protective relay or control characteristics of the facility that contribute to or impacts its response to the Cooperative's AGC/SCADA system or interconnected system response without Cooperative's approval.
8. Testing of operational criteria before and after parallel operation will be done in accordance with Good Utility Practice and guidelines and specifications set forth in Cooperative's Substation construction guidelines, specifications, and acceptance test criteria.
9. [REDACTED]



[INFORMATION REDACTED]

\_\_\_\_\_

\_\_\_\_\_

- 3 -

**COOPERATIVE'S DESCRIPTION OF ITS UPGRADES  
AND BEST ESTIMATE OF UPGRADE COSTS**

Preliminary estimate pending final design for the Distribution Upgrades and Network Upgrades is estimated to be \$0.

- Preliminary Cost Estimate: Distribution Upgrades: \$0
- Preliminary Cost Estimate: Network Upgrades: \$0

Provided, that the foregoing does not include the cost of a new substation to be known as the "PMRF substation", the costs of which shall be the responsibility of the Cooperative. Moreover, to the extent that it is later determined that other Network Upgrades or Distribution Upgrades are required in connection with the Small Generating Facility, the Cooperative shall finance, build, and pay for all such Distribution Upgrades and Network Upgrades.

**Distribution Upgrades and Network Upgrades**

With respect to the costs of the Distribution Upgrades and Network Upgrades, it is the intention of the parties for the Cooperative to finance, build, or pay for any costs associated with the Distribution Upgrades and Network Upgrades. Thus:

- Notwithstanding anything to the contrary in Section 4.2 of this Agreement, the actual cost of the Distribution Upgrades, including overheads, shall be paid for by the Cooperative;
- In accordance with Section 5.2 of this Agreement, the Cooperative has elected to pay the actual cost of the Network Upgrades, including overhead;
- Notwithstanding anything to the contrary in Section 5.2 of this Agreement, the costs of Network Upgrades shall not be borne initially by the Interconnection Customer;
- Notwithstanding anything to the contrary in Section 6.1.1 of this Agreement, the Cooperative shall not bill the Interconnection Customer for the cost of Upgrades;
- Notwithstanding anything to the contrary in Section 6.1.2 of this Agreement, the Cooperative shall not provide a final accounting for the cost of Upgrades;
- Notwithstanding anything to the contrary in Section 6.3 of this Agreement, the Interconnection Customer will not be required to post any security for Distribution Upgrades or Network Upgrades.

## EXHIBIT 3

**KAUAI ISLAND UTILITY COOPERATIVE**  
**REPORT AND ANALYSIS**  
**PMRF SUBSTATION PROJECT**  
**DECEMBER 2017**

EXHIBIT 3

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## I. Purpose

The purpose of this report is to provide information in support of Kauai Island Utility Cooperative's ("KIUC") Application pertaining to (1) the Power Purchase Agreement between KIUC and AES Kekaha Solar, LLC ("AES"), pursuant to which KIUC will purchase energy from a 19.278 MW<sub>dc</sub> /14.0 MW<sub>ac</sub> solar photovoltaic ("PV") array and 70.0 MWh BESS (Battery Energy Storage System) (together, "AES PV/BESS Facility") to be constructed and operated by AES, and (2) the construction and installation within the Pacific Missile Range Facility ("PMRF") of a new substation ("PMRF Substation") and the addition of an approximately 0.3 mile overhead 57.1kV transmission line from KIUC's existing system to PMRF Substation ("New Transmission Line"), which will provide the means to interconnect the AES PV/BESS Facility to KIUC's system, together with the related work as described herein (collectively referred to as the "PMRF Substation Project").

## II. Project Description

### *General Overview*

KIUC is a member-owned not-for-profit electric utility responsible for the generation, transmission, and distribution of electricity on the Island of Kauai. To meet these responsibilities, KIUC owns and operates a variety of electric utility property on Kauai. These currently include: (1) thermal generating stations at Port Allen and Kapaia, (2) two hydroelectric facilities formerly owned by Lihue Plantation, (3) solar/battery facilities at Anahola (KRS One) and Koloa (KRS Two), (4) five transmission switch yards that include distribution facilities, (5) seven distribution substations, (6) approximately 171 miles of 57.1kV transmission lines, and (7) approximately 1,310 miles of 12.47kV distribution lines.

PMRF Substation and the AES PV/BESS Facility will be located physically adjacent to one another on approximately 140 acres within PMRF, which KIUC intends to lease from The United States of America, acting by and through the Secretary of the Navy ("Navy"). Approximately 2 of these acres are planned for PMRF Substation, with the remaining approximately 138 acres planned for the AES PV/BESS Facility. This approximately 138-acre parcel will in turn be subleased to AES. The AES PV/BESS Facility will interconnect to KIUC's system over two new 12.47kV distribution underground feeders that will terminate in PMRF Substation, with 50% of the total solar PV and BESS from the AES PV/BESS Facility on each feeder.

The lease payments to the Navy are planned to be satisfied via in-kind consideration ("In-Kind Consideration") (i.e., in lieu of monetary lease payments) in the form of increased energy security and resiliency for the Navy. More specifically, the In-Kind-Consideration entails that KIUC will:

- Provide, furnish, install, own, operate, and maintain an express 12.47kV feeder up to 0.25 miles long from PMRF Substation to connect a future distribution line extension

constructed by the Navy to interconnect operational loads from Mana Substation feeder 1231. The scope of the express feeder is intended to include a three-phase 12.47kV underground distribution line with associated isolation and protection devices (circuit breakers, disconnect switches and associated relaying), and associated attachment and termination devices required to terminate to the 12.47kV side of Mana Substation feeder 1231. Once connected, the express feeder will supply power to PMRF's main installation loads and provide the Navy with direct access to power during normal operations, grid events, and mission critical operations. Furthermore, an immediate connection will also be made to the existing 12.47kV Mana Substation feeder 1233 which borders the proposed PMRF Substation fence line on Tartar Drive. The existing overhead 1233 feeder will transition to underground and terminate in PMRF Substation. See Figure 2-12 for an electrical representation.

- Furnish, install, own, operate, and maintain automated control capabilities, including black start capability, which will allow the PMRF installation to operate in islanded mode from the KIUC grid during KIUC grid outages and during PMRF critical missions, not to exceed 12 missions per year, with each mission comprising a maximum of two 12 hour blocks on sequential days. During operation in islanded mode, all PMRF loads that are able to be served by the AES PV/BESS Facility shall draw power from the AES PV/BESS Facility (i.e., diesel generators shall not be used as the primary source of power), as long as the AES PV/BESS Facility is available. The intent of this arrangement is to keep all government critical assets powered during a transition from KIUC grid power to islanded mode operation.

The New Transmission Line will consist of approximately 0.3 miles (1,584 feet) of new, overhead, double-circuit construction to be added to the existing 7.3 mile Kekaha to Mana 57.1kV transmission line. PMRF Substation will connect to KIUC's existing 57.1kV transmission system through the New Transmission Line. The New Transmission Line does not run through a residential area, and the nearest residential area outside of PMRF is located approximately 2.9 miles away.

### ***Site Location and Layout***

Figure 2-1 is a one-line diagram of KIUC's existing transmission system that shows the various generating stations, substations, and points at which power is provided to the KIUC system. Figure 2-2 depicts the addition and location of the PMRF Substation Project within KIUC's transmission network (identified in Figure 2-2 as the "Area of Interest").<sup>1</sup>

The location of the PMRF Substation Project is shown on Figure 2-3 and is located at County tax map key TMK (4) 1-2-002:013 (see Figure 2-4).

As noted above, the New Transmission Line (i.e., the new 0.3 miles of overhead double-circuit 57.1kV transmission line) will connect PMRF Substation to KIUC's existing 7.3 mile Kekaha to Mana transmission line. Specifically, and as shown in Figure 2-8, the New Transmission Line

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<sup>1</sup> Figure 2-1 and Figure 2-2 both include the planned Aepo Substation, which was the subject of Docket No. 2017-0098. Pursuant to Decision and Order No. 34816, issued on September 13, 2017, in Docket No. 2017-0098, the Commission approved KIUC's request to commit funds for the Aepo Substation project. Based on a preliminary project schedule, KIUC anticipates completing the Aepo Substation project by August 31, 2018.

will be located approximately 4.5 miles from existing Kekaha Substation and approximately 2.8 miles from existing Mana Substation. The existing transmission line runs parallel with Kaunualii Highway as shown on Figure 2-5, on the mauka (i.e., mountain) side of the highway. Fronting the PMRF Main Gate entrance on Tartar Drive, the New Transmission Line will cross over the highway and follow KIUC's existing 12.47kV distribution feeder run to PMRF Substation, as shown in Figure 2-6.

### ***PMRF Substation Project***

As noted above, PMRF Substation will be constructed and connected to KIUC's existing 57.1kV transmission system via the New Transmission Line. As also noted above, PMRF Substation will be used to interconnect the AES PV/BESS Facility to KIUC's system as well as to serve PMRF distribution loads.

Electrical representations of PMRF Substation, the New Transmission Line, and the AES PV/BESS Facility interconnection and configuration, are shown in Figure 2-7 and Figure 2-8.

From north to south, the layout of the PMRF Substation site (see Figure 2-9) includes the following facilities:

- An A-frame structure on the northwest side that will bring in the 57.1kV transmission line from Mana Substation.
- An A-frame structure on the northeast side that will bring in the 57.1kV transmission line from Kekaha Substation.
- A 10 MVA base rated Power Transformer to the west side that will feed half of the Control Enclosure 12.47kV metalclad switchgear lineup via underground cables.
- A second 10 MVA base rated Power Transformer to the east that will feed the other half of the Control Enclosure 12.47kV metalclad switchgear lineup via underground cables.
- To the south, a Control Enclosure that will house the 12.47kV metalclad switchgear lineup, Transmission and Distribution protection and control equipment, SCADA and communication racks, and metering for the AES PV/BESS Facility interconnection.
- No security lighting will be provided; however, flood lighting will be installed for emergency use only.

As shown in Figures 2-7 and 2-8, there will be five dedicated transmission bays, detailed as follows: (1) Breaker Bay XM1 interconnecting approximately 2.8 miles of transmission line to Mana Substation, (2) Breaker Bay XK2 interconnecting approximately 4.5 miles of transmission line to Kekaha Substation, (3) Breaker Bay XM1T interconnecting the new 10 MVA power transformer and three new 12.47kV distribution feeders, (4) Breaker Bay XK2T interconnecting the second new 10 MVA power transformer and three additional new 12.47kV distribution feeders, and (5) Breaker Bay XBT serving as a transmission bus tie. Figure 2-10 provides additional information for the transmission configuration of PMRF Substation.

The 12.47kV Switching Diagram (Figure 2-11) illustrates the planned distribution breaker lineup.

- Breakers DM1 and DK1 will serve as interconnection points for the AES PV/BESS Facility. Fifty percent (50%) of the total AES PV/BESS capacity (7 MW) and a revenue meter will reside on each feeder. The meters will be summed for revenue purposes.
- Breaker DK2 will serve as a PMRF distribution feeder and will provide the immediate connection mentioned above to existing Mana Substation feeder 1233.
- Breaker DM2 will serve as a PMRF distribution feeder. Known as the express feeder as mentioned above, Breaker DM2 will tie to Mana Substation feeder 1231 upon completion of the Navy's distribution line extension.
- Breakers DM3 and DK3 are spare feeder breakers reserved for future Navy loads.
- Breakers DMT and DKT will serve as power transformer low side breakers to be utilized for 12.47kV bus fault protection and transformer isolation purposes.
- Breaker DBT will serve as the 12.47kV bus tie, which will be normally open in standard configuration.

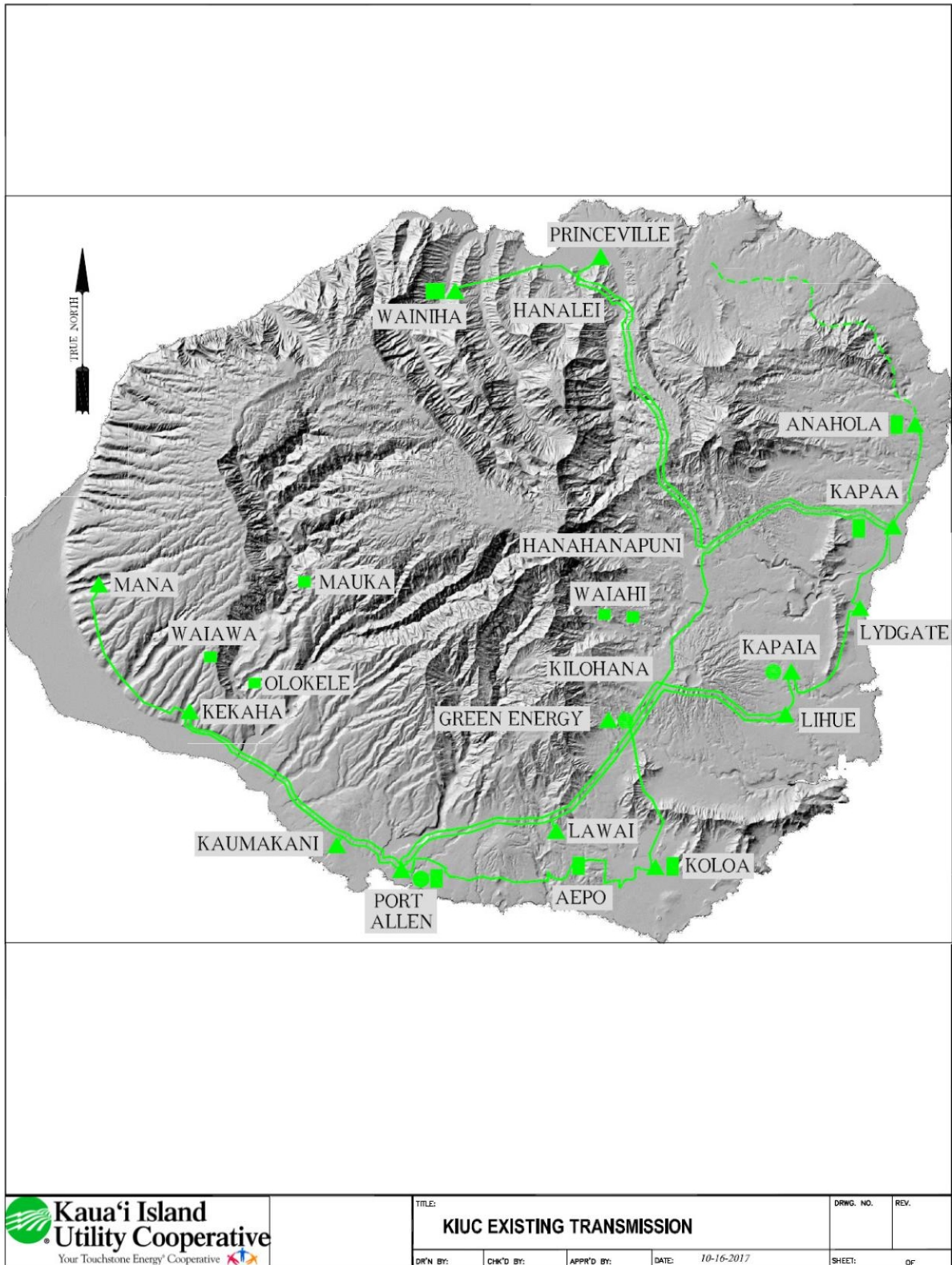
Currently, Mana Substation feeds all PMRF loads over three distribution circuits. Coincident loads from the current 2017 system peak (9/27/2017 at 7pm) are as follows.

Circuit/feeder 1231: 0.87 MVA  
Circuit/feeder 1232: 0.47 MVA  
Circuit/feeder 1233: 1.12 MVA  
Total: 2.46 MVA

### ***Other Entities Involved***

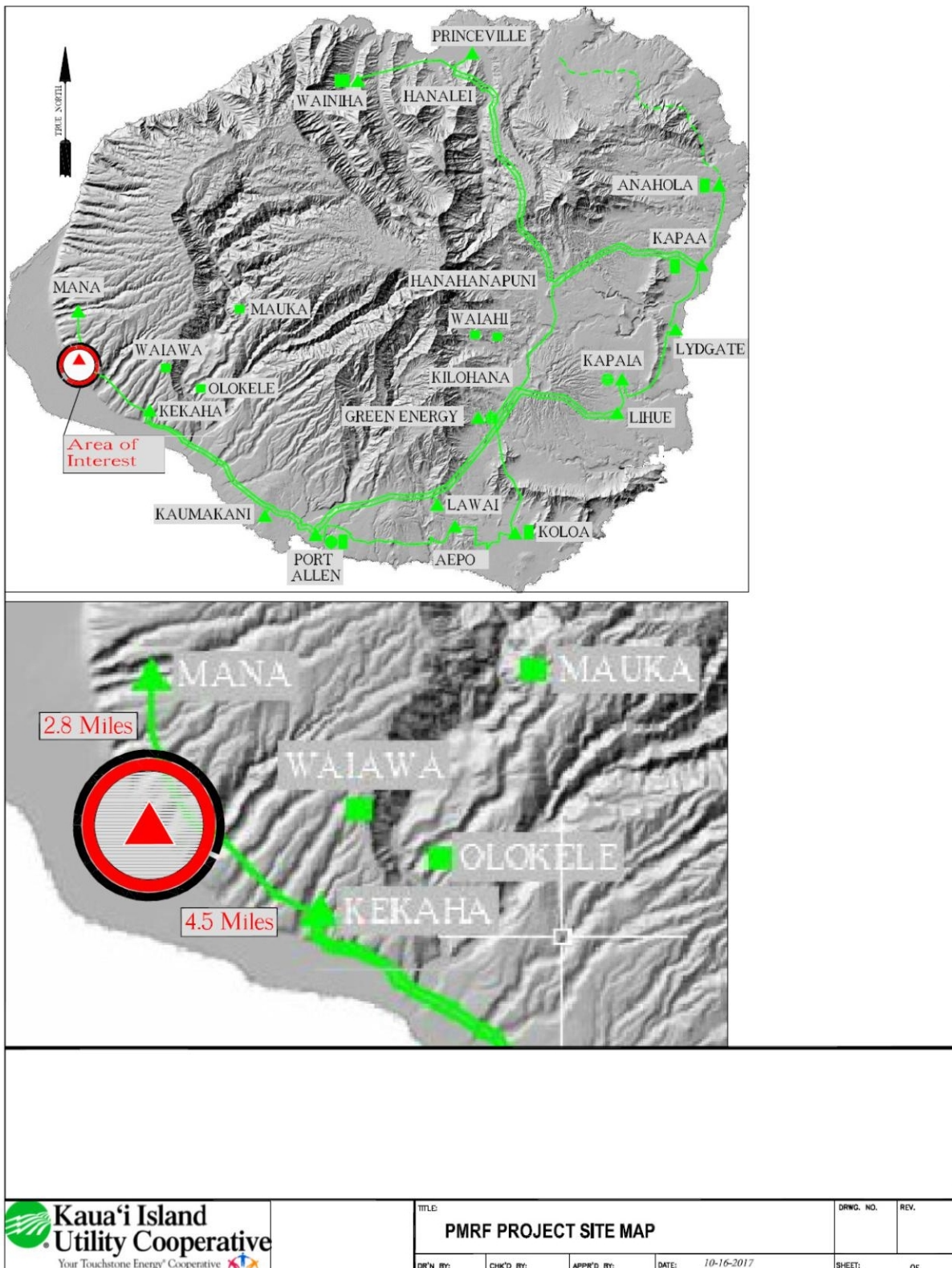
As mentioned above, the PMRF Substation Project will be used to, among other things, interconnect KIUC's system to the AES PV/BESS Facility, which will be located adjacent to PMRF Substation. As noted above, PMRF Substation and the AES PV/BESS Facility will both be located within PMRF on lands to be leased by KIUC from the Navy (with KIUC subleasing to AES the portion comprising the AES PV/BESS Facility). A description and delineation of the work to be performed by, owned and maintained, and/or paid for by KIUC versus AES are set forth in Exhibit 2 of the Interconnection Agreement between KIUC and AES. See also the blue shaded area in Figure 2-8 showing what portion of the work will be at AES's cost.

Figure 2-1: KIUC Existing Transmission System One-Line Diagram – Island Map





**Figure 2-2: KIUC Transmission System One-Line Diagram with Addition of PMRF Substation Project – Island Map**

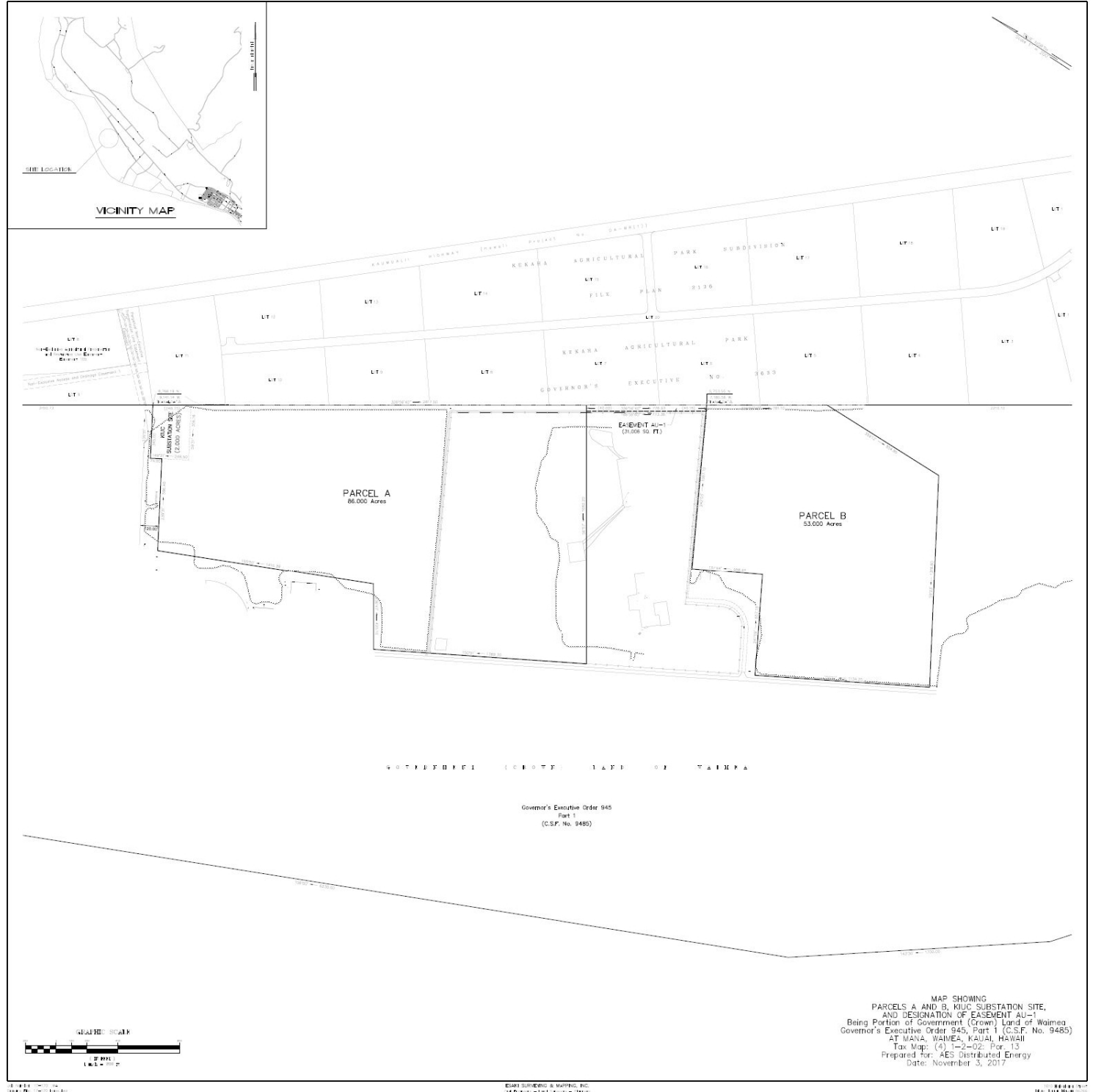


**Figure 2-3: Location of PMRF Substation Project**

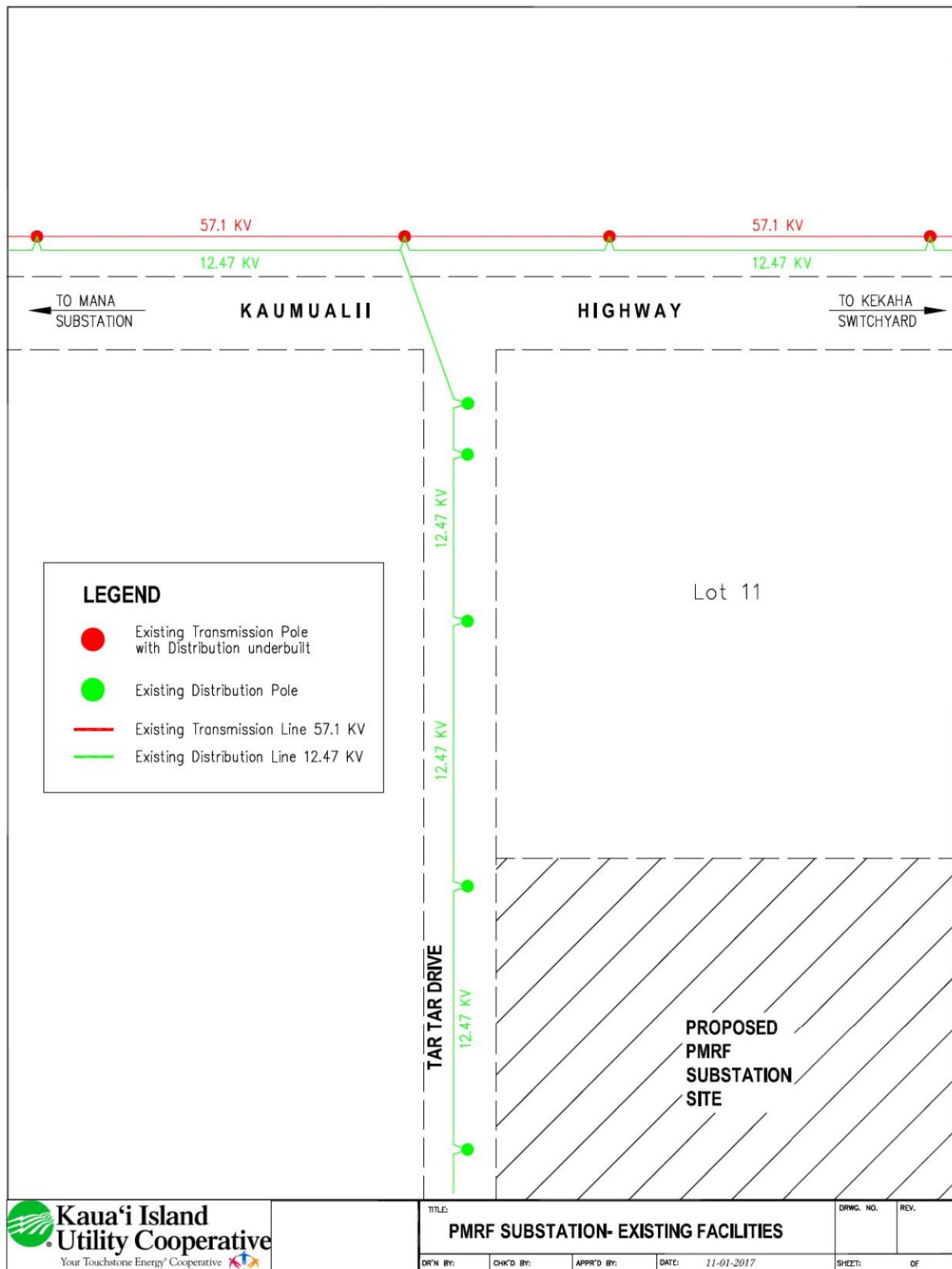




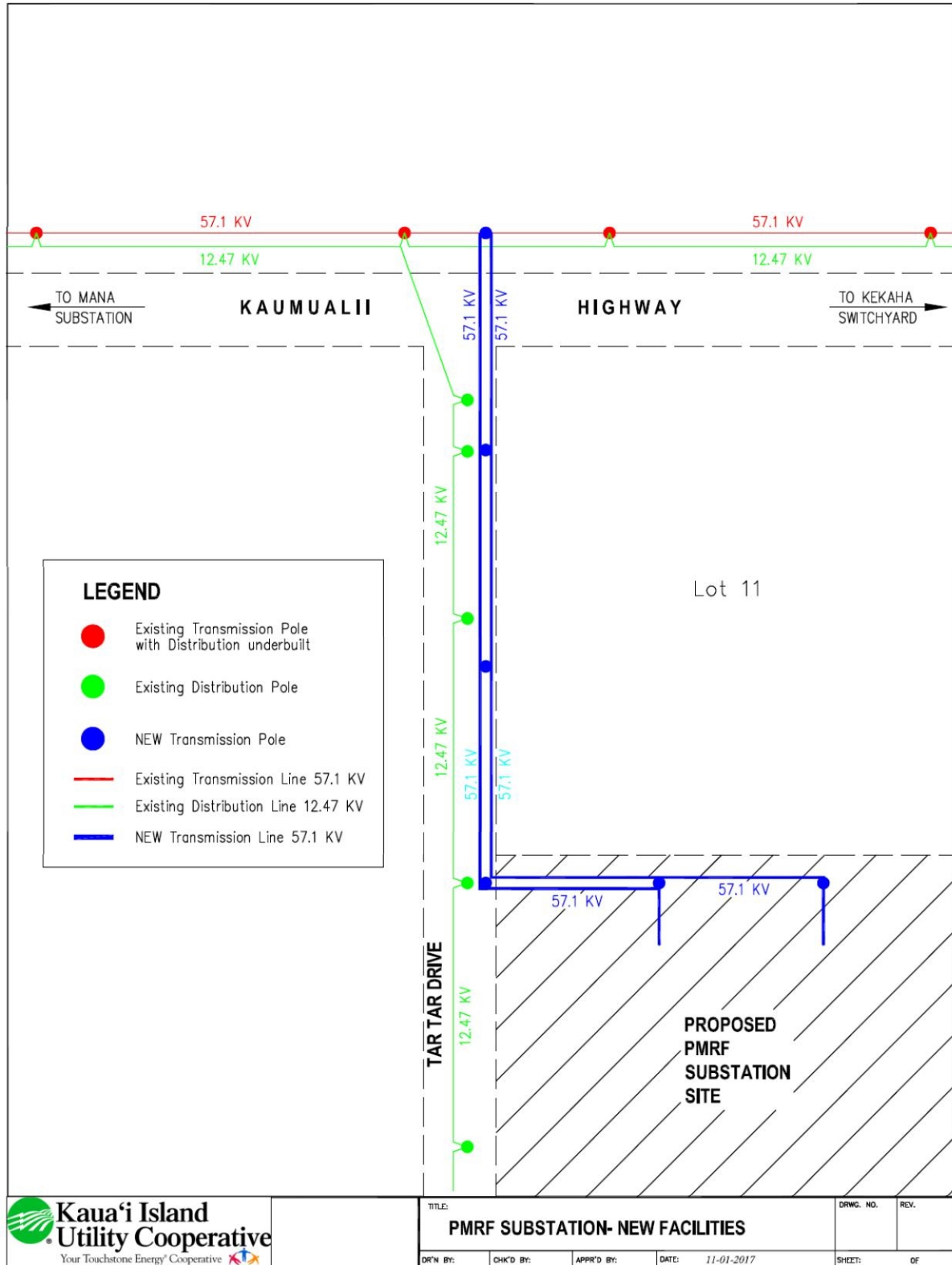
Figure 2-4: Tax Map Key (TMK) of PMRF Substation Project Site



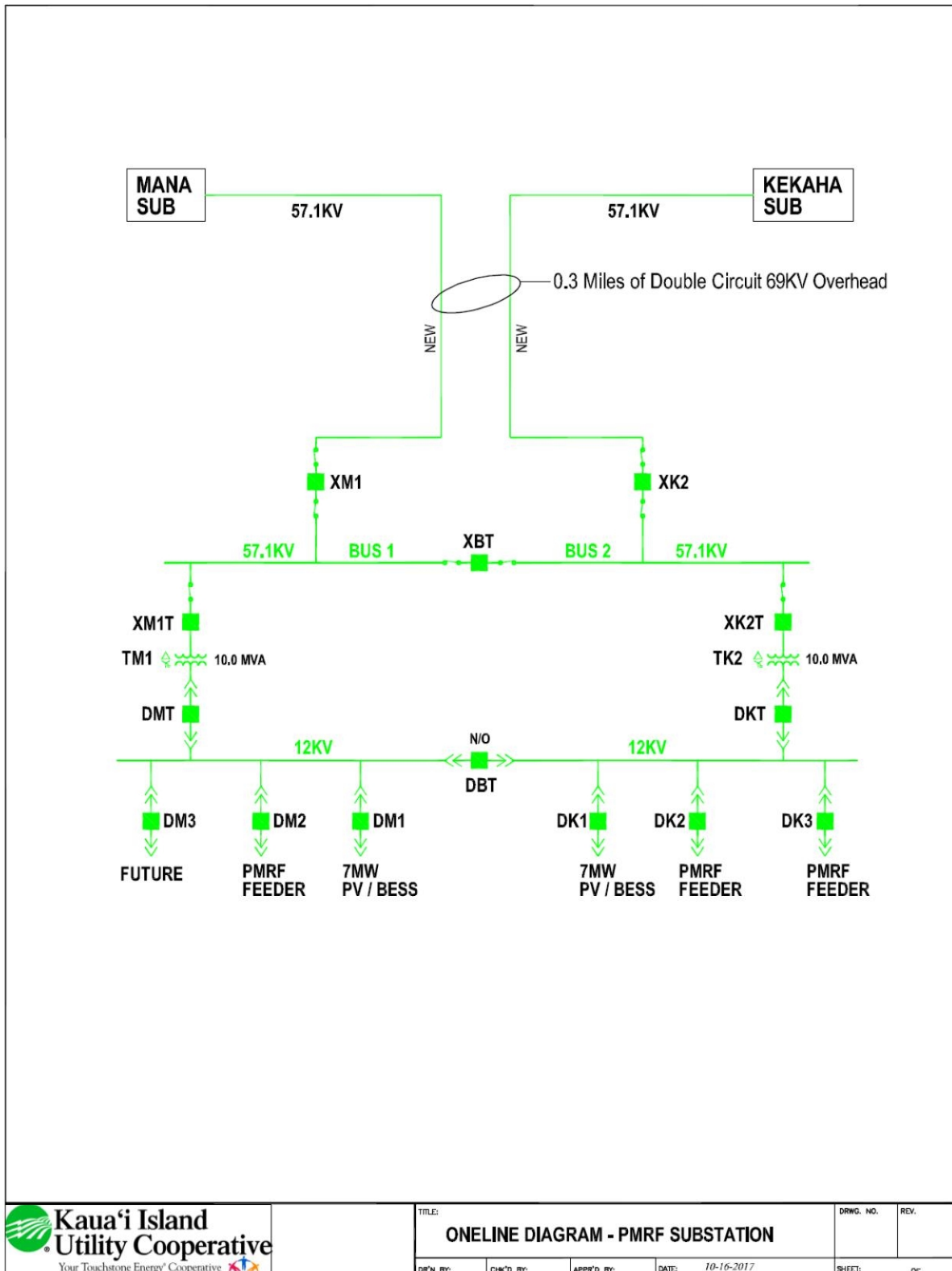
**Figure 2-5: KIUC PMRF Substation Project – Existing Facilities**



**Figure 2-6: KIUC PMRF Substation Project – New Transmission Line**



**Figure 2-7: KIUC PMRF Substation Project – One-Line Diagram**



**Figure 2-8: KIUC PMRF Substation Project – Interconnection Diagram**

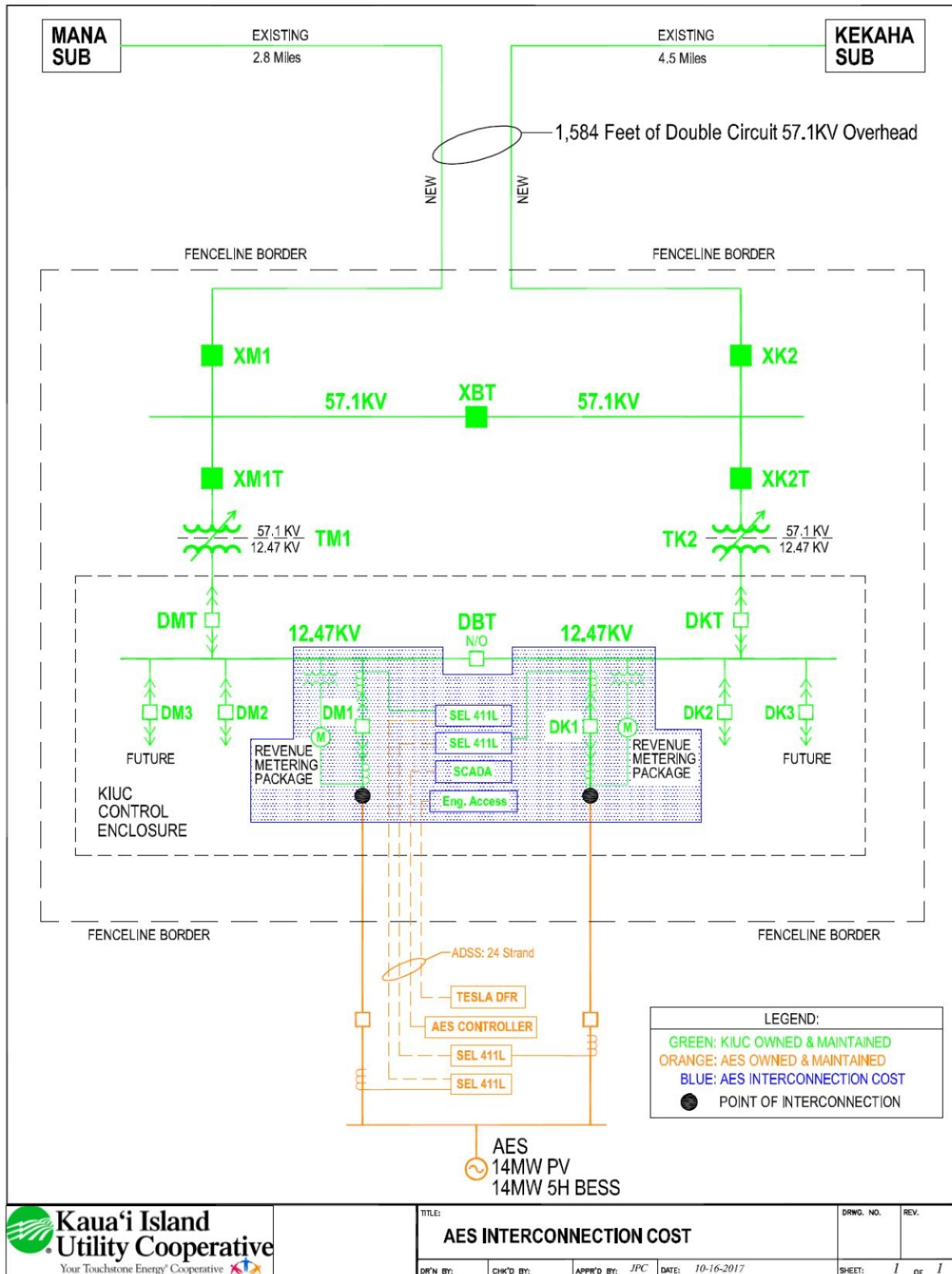
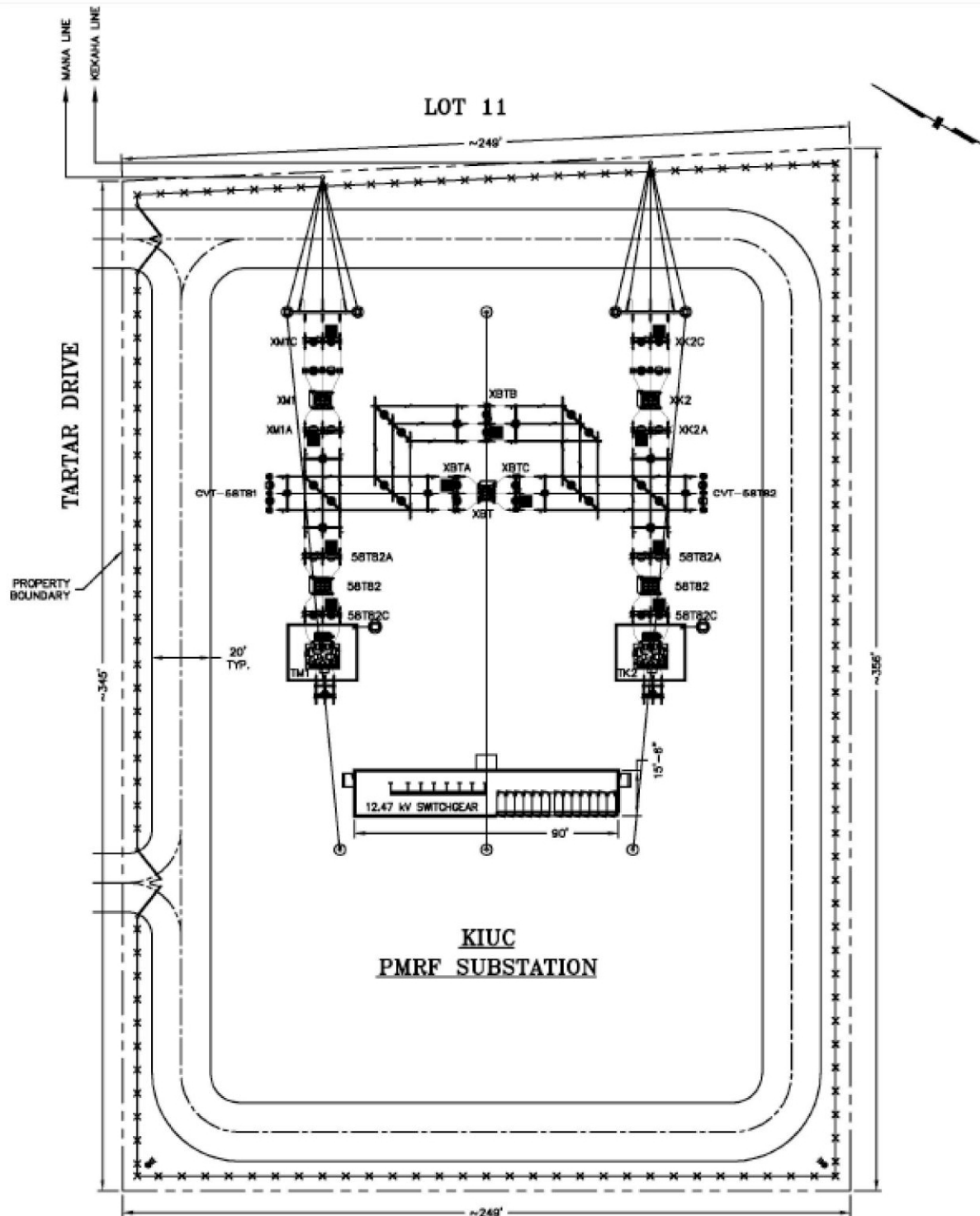


Figure 2-9: PMRF Substation Project Layout



**Figure 2-10: PMRF Substation Project – 57.1kV Switching Diagram**

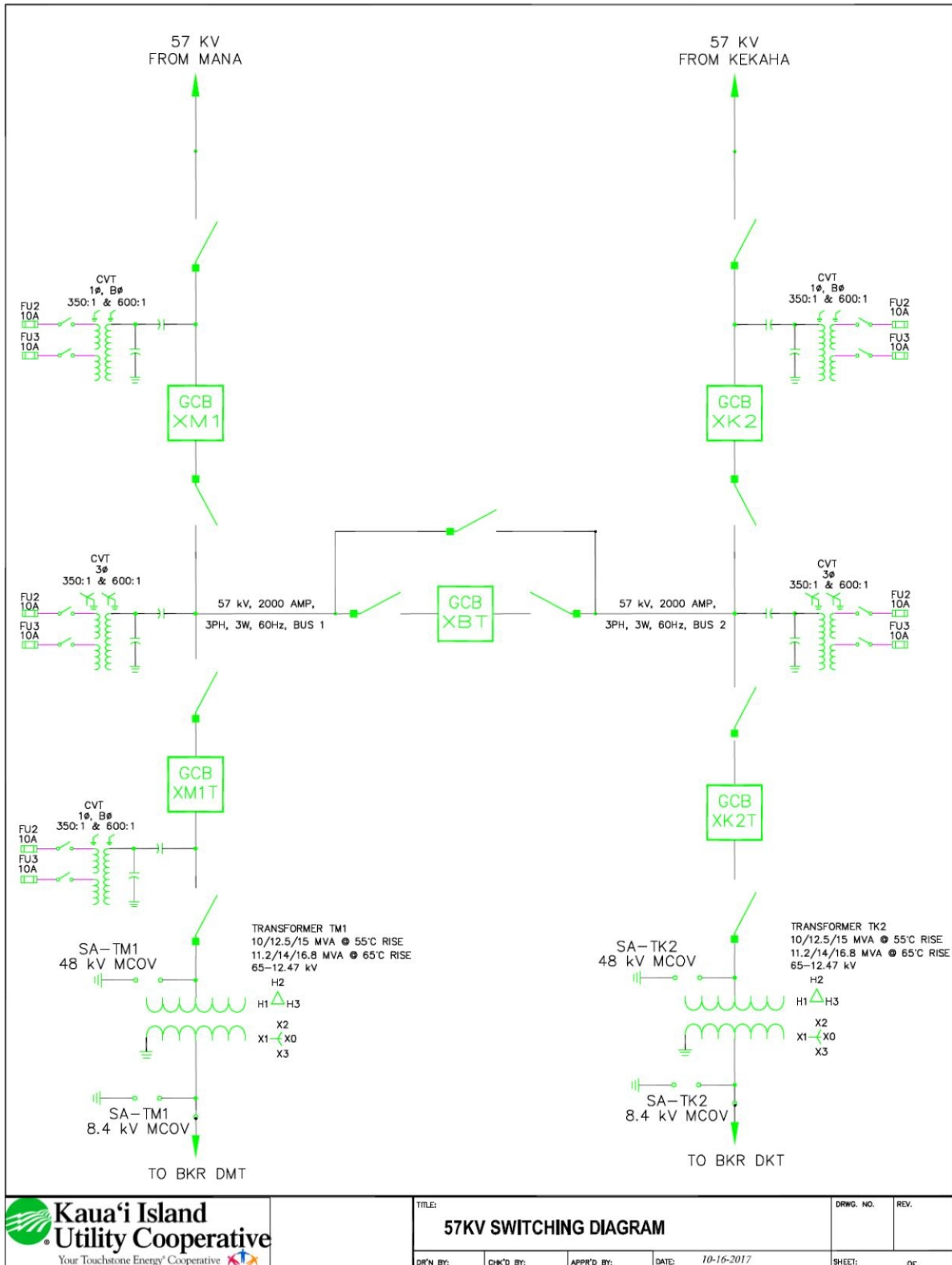
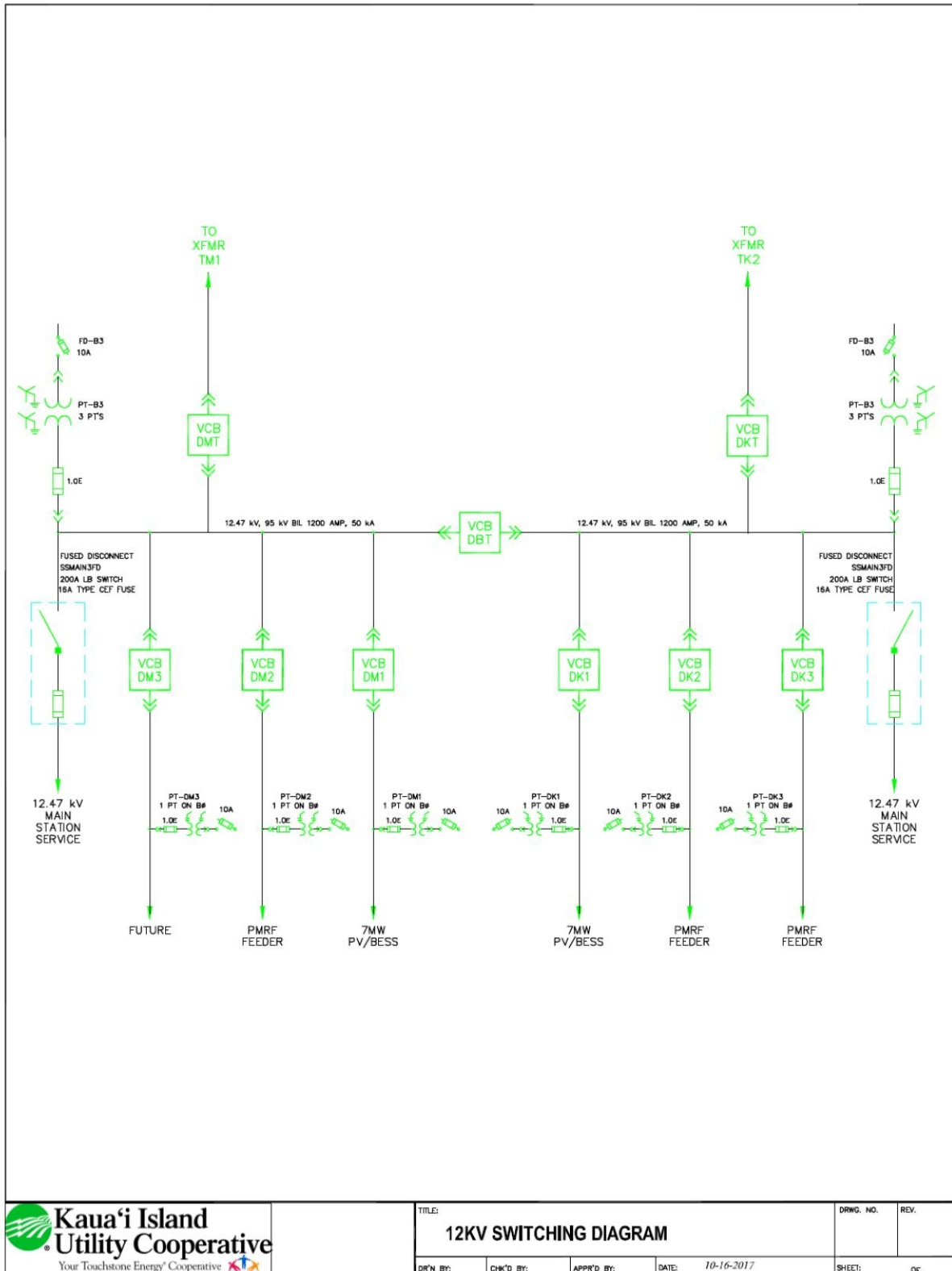
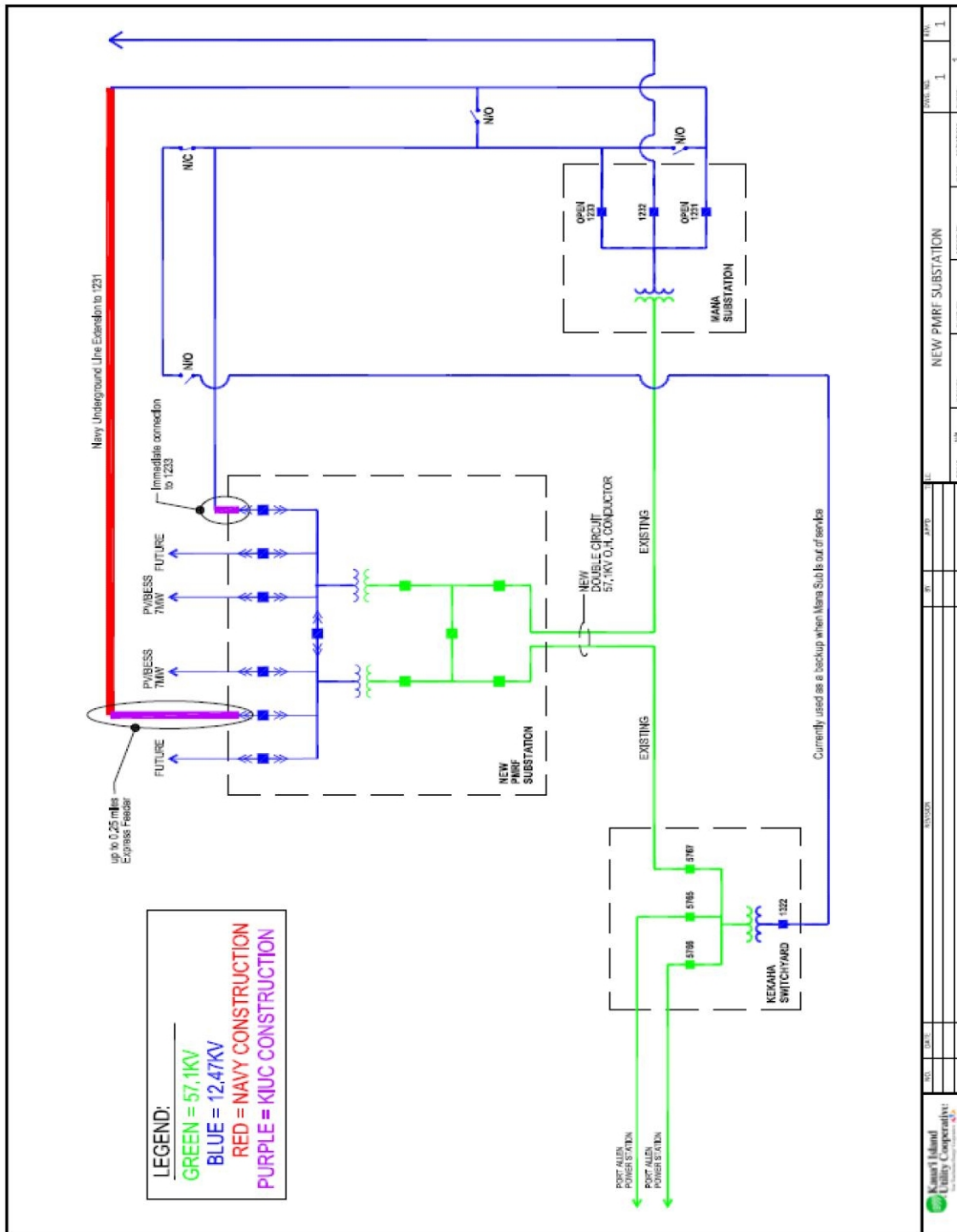




Figure 2-11: PMRF Substation Project – 12.47kV Switching Diagram



**Figure 2-12: Electrical Representation of Express Feeder and Immediate Connection to Feeder 1233 as Part of In-Kind Consideration**



### III. Objectives and Justification

As noted above, the PMRF Substation Project will provide the means to interconnect the AES PV/BESS Facility to KIUC's system. The benefits of the AES PV/BESS Facility and the power purchase arrangement between KIUC and AES are discussed in the subject Application to which this Report and Analysis is attached.


The PMRF Substation Project accomplishes the following objectives and is anticipated to provide the following benefits:

- The PMRF Substation Project will provide the means to interconnect the planned AES PV/BESS Facility to KIUC's system, as noted above, which in turn will provide the benefits as stated in the subject Application.
- As mentioned earlier in this report, instead of having to pay monetary lease payments to the Navy, KIUC will be providing In-Kind Consideration to the Navy in the form of increased energy security and resiliency for the Navy. This will be accomplished through the following means:
  - PMRF Substation and the AES PV/BESS Facility will be located within PMRF, which is a secure military facility. This will further national security efforts and objectives by placing the primary facilities that PMRF will rely upon for electrical service on land that is directly secured by the Navy.
  - The express feeder and islanding arrangement will allow PMRF loads to be directly fed from the AES PV/BESS Facility without being electrically coupled to KIUC's transmission system in the event of a grid event/outage and during PMRF mission critical operations. In other words, through the PMRF Substation Project, the AES PV/BESS Facility will have the ability to support Navy interests by providing emergency backup power in the event of a KIUC grid event/outage such as an infrastructure failure from Kekaha to PMRF Substation as well as during times when PMRF runs mission critical operations.

## IV. Cost

The preliminary project costs are shown in Table 4-1 below, which are subject to change and updates as further work progresses.

Table 4- 1

SUBSTATION ESTIMATE				
Item Description	Extended Contractor Labor	Extended Contractor Material	Extended OFM	Extended Total
GROUP A: STRUCTURES	208,600	22,968	167,728	399,296
GROUP B: SWITCHING	75,600	2,740	102,000	180,339
GROUP C: CIRCUITS AND BUSWORK	296,293	22,093	135,838	454,224
GROUP E: CIRCUIT BREAKERS	40,500	17,650	280,000	338,150
GROUP F: FOUNDATIONS	538,757	196,636	142,400	877,793
GROUP G: TRANSFORMERS	53,936	21,324	952,813	1,028,073
GROUP K: CONDUIT AND CABLE	494,296	12,110	134,100	640,506
GROUP M: SITE WORK	273,574			273,574
GROUP N: FENCE AND SIGNS	60,188	118,828		179,016
GROUP O: GROUNDING	200,893	18,262	96,664	315,819
GROUP Q: SWITCHGEAR	70,000	5,000	1,956,180	2,031,180
GROUP S: STATION YARD LIGHTS	14,850	10,349	16,815	42,013
Subtotal	2,327,488	447,957	3,884,636	6,759,978
				Insurance (3%) 202,799
				Mobilization/Demobilization (5%) 138,772
				Contractor Project Management (3%) 83,263
				Construction Management (2.5%) 168,999
				Engineering 503,000
				Survey 11,250
				Geotechnical Engineering 24,200
				Subtotal 7,882,283
				Contingency (10%) 788,228
				Total Estimate 8,681,490
KIUC LINE EXTENSION ESTIMATE				
ESTIMATE: 57.1kv Transmission Line Extension; Double Circuit Overhead (0.3 miles)				\$170,000
ESTIMATE: 12.47kv Distribution Line Extension Express Feeder; Single Circuit Underground (not to exceed 0.25 miles)				\$370,000
			TOTAL	\$540,000
 <div> <div>TABLE 4.1</div> <div>PMRF SUBSTATION BUDGETARY CONSTRUCTION SUMMARY</div> <div> <div>DATE: 01/11/2017</div> <div>BY: [signature]</div> <div>DATE: 01/11/2017</div> <div>BY: [signature]</div> <div>DATE: 01/11/2017</div> <div>BY: [signature]</div> <div>DATE: 01/11/2017</div> <div>BY: [signature]</div> </div> </div>				

## V. Project Schedule

The preliminary project schedule is shown in Table 5-1 below.

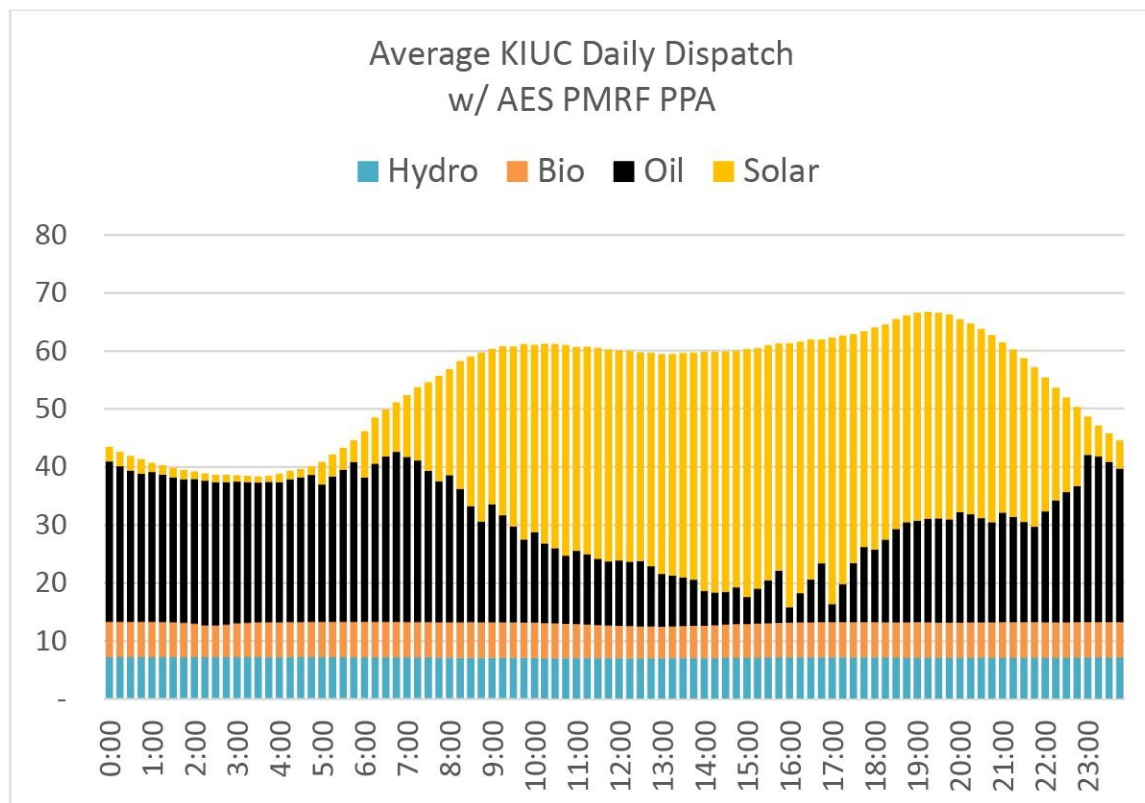
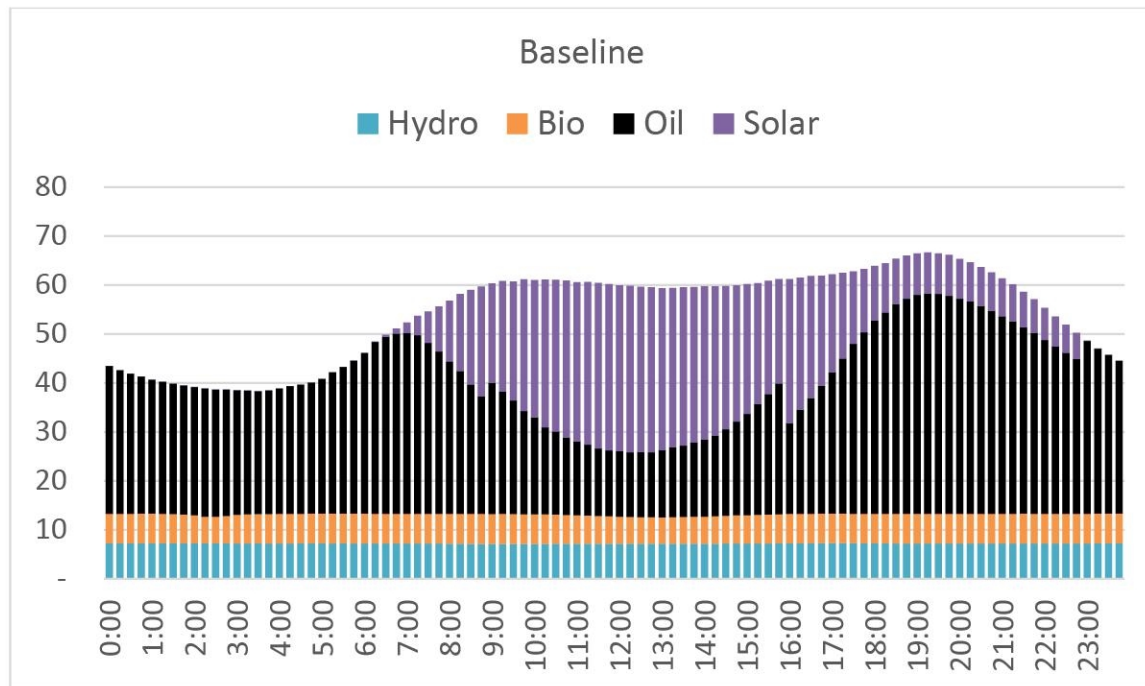
**Table 5- 1**

TASK NAME	DURATION	START	FINISH
<b>PMRF Substation</b>	596 days	1/13/2018	8/31/2019
Substation Design	372 days	1/13/2018	1/19/2019
Major Equipment Procurement	294 days	7/14/2018	5/03/2019
12.47kV Switchgear	294 days	7/14/2018	5/03/2019
Power Transformer	224 days	8/11/2018	3/22/2019
Fabricated Steel	182 days	9/29/2018	3/29/2019
57.1kV Breakers	140 days	11/24/2018	4/12/2019
57.1kV Switches	140 days	11/24/2018	4/12/2019
57.1kV Voltage Transformers	140 days	11/24/2018	4/12/2019
Substation Construction Bidding	43 days	11/24/2018	1/05/2019
Substation Construction	225 days	1/19/2019	8/31/2019
<b>0.3 mile Transmission Line Extension</b>			
Transmission Line Design	30 days	6/01/2018	6/30/2018
KIUC Line Crew to Construct	15 days	4/30/2019	5/14/2019
<b>up to 0.25 mile Distribution Line Extension</b>			
Distribution Line Design	30 days	6/01/2018	6/30/2018
KIUC Line Crew to Construct	15 days	5/11/2019	5/25/2019

	TABLE PMRF CONSTRUCTION SCHEDULE				DESIGNED BY	DATE
	CHECKED BY	DATE	APPROVED BY	DATE	12-01-2017	

## EXHIBIT 4

## 2019 Average Dispatch Impact





## EXHIBIT 5

Kauai Island Utility Cooperative  
Renewable Portfolio Standard Percentage

(A) Forecasted 2020 Sales (MWh)	452,002
(B) AC Generation Surplus from AES Lawai Solar PPA (MWh)	36,161
(C) KIUC System Losses (%)	4.49%
(D = (100% - C) * B) Net Surplus Delivered to KIUC Customers (MWh)	34,537
(E = D/A) RPS (%)	7.64%

## VERIFICATION

STATE OF HAWAII )  
 ) SS:  
CITY AND COUNTY OF HONOLULU )

KENT D. MORIHARA, being first duly sworn, deposes and says: That such person is an attorney for KIUC in the above proceeding; that the officers of KIUC are not present within the City and County of Honolulu; that such person has read the foregoing Application, and knows the contents thereof; and that the same are true of such person's own knowledge except as to those matters stated on information and belief, and that as to those matters such person believes them to be true.

Kon

KENT D. MORIHARA

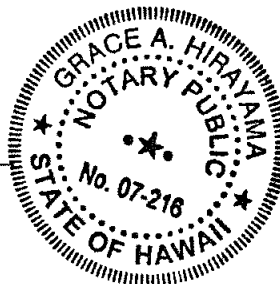
This 1 page Verification to the Application dated December 22, 2017, was subscribed and sworn to before me on December 22, 2017, in the First Circuit, State of Hawaii by Kent D. Morihara.

Grace A. Striagun

Print Name: GRACE A. HIRAYAMA

Notary Public, State of Hawaii

My commission expires: 02/10/2021



**CERTIFICATE OF SERVICE**

I (we) hereby certify that copies of the foregoing document were duly served on the following party, by having said copies delivered as set forth below:

DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS  
DIVISION OF CONSUMER ADVOCACY  
335 Merchant Street  
Room 326  
Honolulu, Hawaii 96813

2 COPIES  
VIA HAND  
DELIVERY

DATED: Honolulu, Hawaii, December 22, 2017.



---

KENT D. MORIHARA  
KRIS N. NAKAGAWA  
LAUREN M. IMADA  
KATHERINE N. LAU

Morihara Lau & Fong LLP  
Attorneys for Kauai Island Utility Cooperative