



**Hawaiian  
Electric**

*Draft*  
*Mid-Tier Standard Form Contract*  
*For*  
*Renewable Dispatchable Generation*

*Project Type: PV + BESS Community Based Renewable Energy*

*Contract Capacity: \_\_\_\_\_MW of Generation*

*BESS Contract Capacity: \_\_\_\_\_MW of Storage*

*Are the PV System and the BESS DC-Coupled? No ☐ Yes ☐*

*CBRE Facility Location: \_\_\_\_\_*

*Execution Date: \_\_\_\_\_*

## **PREFATORY NOTES**

- **This Contract is non-negotiable. The Mid-Tier Standard Form Contract has been pre-approved by the PUC and its terms and conditions shall not be negotiable. Required Attachments (as noted below), blanks and noted provisions requiring completion shall be filled in based on the CBRE Facility's project specific details prior to execution.**
- **This Contract document assumes that the proposed generation facility will be paired with a battery energy storage system ("BESS"), and therefore contains terms and conditions with respect to the BESS. If a generation only proposal is selected for the CBRE Mid-Tier Project RFP's final award group, the BESS specific provisions will be removed from this Contract for such project proposal.**
- **The document evidencing the complete contract for this Project consists of this Mid-Tier Standard Form Contract for the CBRE Facility, and all Attachments, Exhibits and related documents attached to such Mid-Tier Standard Form Contract, together with the Project Specific Addendum for the CBRE Facility, and all Attachments, Exhibits and related documents attached to such Project Specific Addendum.**
- **This Contract document assumes that the Project will be constructed on and operated from a site under the ownership and control of the Subscriber Organization. Should the Parties elect to utilize a Company-owned Site, the Contract Document titled Attachment 1 - "COMPANY-OWNED SITE", which contains the terms and conditions required of a Subscriber Organization when utilizing a Company-Owned site shall be attached to the Project Specific Addendum and applied to this Contract.**
- **This Contract is for Projects that are AC Coupled. For DC Coupled projects, the changes shown in the Contract Document titled Attachment 2 – "DC-COUPLED STORAGE" shall be attached to the Project Specific Addendum and applied to this Contract.**

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**MID-TIER STANDARD FORM CONTRACT  
FOR  
RENEWABLE DISPATCHABLE GENERATION**

**THIS MID-TIER STANDARD FORM CONTRACT FOR RENEWABLE DISPATCHABLE GENERATION** is entered into as of \_\_\_\_\_, 20\_\_ (the “Effective Date”), by [Hawaiian Electric Company, Inc., Maui Electric Company, Ltd., Hawai‘i Electric Light Company, Inc.], a Hawai‘i corporation (“Company”) and \_\_\_\_\_ (“Subscriber Organization”). Together, the Company and Subscriber Organization are the “Parties” and may singularly each be referred to as a “Party”.

**RECITALS**

**WHEREAS**, Company is an operating electric public utility engaged in the generation, transmission, distribution, storage, regulation, or physical control of electricity (“Company System”) on the Island of [Hawai‘i, Maui, Moloka‘i, O‘ahu], subject to the Hawai‘i Public Utilities Law (Hawai‘i Revised Statutes, Chapter 269) and the rules and regulations of the Hawai‘i Public Utilities Commission (“PUC” or the “Commission”); and

**WHEREAS**, the Company System is operated as an independent power grid and must both maximize system reliability for its customers by ensuring that sufficient generation is available that meets the Company’s requirements for voltage stability, frequency stability, and reliability standards; and

**WHEREAS**, Company desires to minimize fluctuations in its purchased energy costs by acquiring renewable dispatchable generation at a fixed Unit Price; and

**WHEREAS**, Subscriber Organization understands the need to use all commercially reasonable efforts to maximize the overall reliability of the Company System; and

**WHEREAS**, Subscriber Organization is an “approved Subscriber Organization” for Phase 2 of the State of Hawai‘i Community-Based Renewable Energy (“CBRE”) Program, and desires to construct and operate a dispatchable generation renewable energy system (“CBRE Facility” or “Facility”) that is classified as an eligible resource under Hawai‘i’s Renewable Portfolio Standards Statute (codified as Hawai‘i Revised Statutes (“HRS”) 269-91 through 269-95) and qualifies for the CBRE Program together with a safe, reliable and operationally flexible battery energy storage system (“BESS”) so as to provide the Company System with those benefits and services associated with renewable energy generation and energy storage services, as defined herein; and

**WHEREAS**, this Contract applies to CBRE Facilities which provide at least 250 kW up to and including [O‘ahu: 5 MW; Maui, Hawai‘i, Moloka‘i: 2.5 MW] of renewable dispatchable generation and is entered into in accordance with the terms and conditions contained herein, the CBRE Tariff and Tariff Rule 14H (Interconnection of Distributed Generating Facilities Operating in Parallel With The Company’s Electric System) (“Rule 14H”); and

**WHEREAS**, the Parties agree to allow Subscriber Organization to interconnect and operate the CBRE Facility in parallel with the Company System so long as all applicable requirements and conditions of this Contract, the CBRE Tariff and Rule 14H have been satisfied; and

**WHEREAS**, the PV System to be developed by the Subscriber Organization will be a planned electrical energy generation system with a nameplate capacity of \_\_\_\_\_ kilowatts of alternating current (AC) (“PV System”); and

**WHEREAS**, the BESS to be installed by the Subscriber Organization will be an electrical energy battery storage system with a nameplate capacity in kilowatts of \_\_\_\_\_ and in kilowatt-hours [kWh] of \_\_\_\_\_; and

**WHEREAS**, the CBRE Facility will be installed and operated on property located at \_\_\_\_\_, Island of \_\_\_\_\_, State of Hawai'i and more fully described in Attachment F (Facility Owned by Subscriber Organization), Exhibit F-1 (Description of Generation and Battery Storage Facilities) to the Contract; and

**WHEREAS**, Subscriber Organization desires to sell to Company, and Company agrees to purchase, subject to the terms and conditions set forth herein, (i) the Actual Output produced by the Facility and delivered to the Point of Interconnection; (ii) the availability of the BESS; and (iii) the availability of the Facility's Net Energy Potential for Company Dispatch in accordance with this Contract;

**NOW, THEREFORE**, in consideration of the premises and the respective promises herein, Company and Subscriber Organization hereby agree as follows:

## **AGREEMENT**

1. **DEFINITIONS.** Capitalized terms in this Contract shall have the meanings set forth in the Schedule of Defined Terms in Attachment A hereto.
2. **PARALLEL OPERATION.** Company agrees to allow Subscriber Organization to interconnect and operate the Facility to provide renewable dispatchable generation and energy in parallel with the Company System; provided, however, that such interconnection and operation shall not: (i) adversely affect Company's property or the operations of its customers and customers' property; (ii) present safety hazards to the Company System, Company's property or employees or Company's customers or the customers' property or employees; or (iii) otherwise fail to comply with this Contract. Such parallel operation shall be contingent upon the satisfactory completion, as determined solely by Company, of the Acceptance Test and, to the extent applicable, the Control System Acceptance Test, in accordance with Good Engineering and Operating Practices.
3. **TERM.**
  - A. The Term of this Contract shall begin when signed by the Parties and end twenty (20) years after the Commercial Operations Date unless otherwise provided for in this Contract.
  - B. This Contract shall continue in full force and effect as set forth above, until the earliest date that one of the following events occurs:
    1. The Parties agree in writing to terminate the Contract; or
    2. The Contract is declared null and void pursuant to the terms of Section 3.E (Contract Null and Void). Upon receipt of such notice, the Parties shall take reasonable steps to minimize additional costs to the other Party, where reasonably possible; or
    3. The Contract is terminated under Section 10.I.4 (Project Completion) if Subscriber Organization fails to interconnect and operate the CBRE Facility pursuant to the terms of this Contract or;
    4. The Contract is terminated pursuant to an Event of Default under the Contract.
  - C. Interconnection Requirements Study. If this Contract is executed prior to completion of the Interconnection Requirements Study, then following the completion of the IRS:

1. The Parties shall, no later than the IRS Amendment Deadline, execute a formal amendment to this Contract substituting new versions of appropriate attachments to this Contract, including but not limited to, Attachment F (Facility Owned by Subscriber Organization) and Exhibits attached thereto, Attachment G (Company-Owned Interconnection Facilities) (the "IRS Amendment") solely to reflect the results of the IRS. If the IRS Amendment is not executed by the IRS Amendment Deadline, either Party may, by written notice delivered to the other Party, declare this Contract null and void.
  2. If Subscriber Organization is dissatisfied with the results of the IRS, Subscriber Organization shall have the option, by written notice delivered to Company no later than the IRS Termination Deadline, to declare the Contract null and void.
- D. Prior to IRS Amendment Deadline. Company may, by written notice delivered prior to the IRS Amendment Deadline, declare the Contract null and void if any one or more of the following conditions applies:
1. Subscriber Organization implements a material change to the Facility without following the requirements of Section 5(g) of Exhibit F-1 (Description of Generation and Battery Storage Facilities).
  2. Subscriber Organization, subsequent to making any payment to Company required under Attachment G (Company-Owned Interconnection Facilities), or subsequent to making the payment to Company to pay for the IRS under the IRS Amendment(s), requests in writing that Company stop or otherwise delay the performance of the work for which Company received such payment.
  3. The IRS Letter Agreement(s) is/are terminated pursuant to the terms thereof prior to the completion of the IRS.
- E. Contract Null and Void. If the Contract is declared null and void pursuant to Section 3.C (Interconnection Requirements Study), Section 3.D (Prior to IRS Amendment Deadline), or Section 1.D (NEP IE Estimate, Liquidated Damages and Subscriber Organization's Null and Void Right) of said Attachment D (Calculation and Adjustment of Net Energy Potential) (the "Null and Void Rights"), the Parties hereto shall thereafter be free of all obligations hereunder except as set forth in this Section 3.E (Contract Null and Void) and Section 11.F.2 (Return of Development Period Security), and shall pursue no further remedies against one another. A declaration that this Contract is null and void pursuant to the Null and Void Rights, shall not affect the following provisions, which shall remain in full force and effect: this Section 3.E (Contract Null and Void), Section 8.F.2 (Confidentiality), Section 17 (Dispute Resolution), Section 26.A (Disconnection and Survival of Obligations), Section 26.L (Survival), and such provisions of Section 26 (Miscellaneous) which, by their terms, should survive termination of this Contract, and Section 6 (Land Restoration) of Attachment G (Company-Owned Interconnection Facilities).
- F. Termination Rights. Notwithstanding any of the foregoing, the right of Company to terminate the Contract at any time upon the occurrence of any Event of Default described in Section 13 (Events of Default by Subscriber Organization) shall remain in full force and effect.

#### **4. BILLING AND PAYMENT PROVISIONS.**

- A. Purchase and Sale of Renewable Energy, Dispatchability of CBRE Facility and Availability of the BESS. Subject to the other provisions of this Contract, Company shall, through a combination of Bill Credits allocated among CBRE Facility Subscribers and payments to Subscriber Organization, pay for: (i) the Actual Output produced by the CBRE Facility and delivered to the Point of Interconnection in response to Company Dispatch of the CBRE Facility; (ii) the availability of the

CBRE Facility's Net Energy Potential for Company Dispatch in accordance with this Contract; and (iii) the availability of the BESS. Included in such purchase are all of the Environmental Credits associated with the renewable energy. Company will not reimburse Subscriber Organization for any taxes or fees imposed on Subscriber Organization including, but not limited to, State of Hawai'i general excise tax.

- B. Lump Sum Payment. Commencing on the Commercial Operations Date, Company shall pay a monthly lump sum payment ("Lump Sum Payment"), to be apportioned between Subscribed and Unsubscribed RDG, as provided in Section 2. (Lump Sum Payment) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract. As more fully set forth in Section 3. (Calculation of Lump Sum Payment) of Attachment B, the monthly Lump Sum Payment shall be calculated and adjusted to reflect changes in the estimate of the CBRE Facility's Net Energy Potential as such estimate is revised from time to time as more fully set forth in Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract. For purposes of calculating the monthly Lump Sum Payment, the monthly Lump Sum Payment shall be adjusted downward to account for the time the Facility or any portion of the Facility is not available for Company Dispatch because of a Force Majeure condition (i) at the CBRE Facility, whether the PV System, the BESS or both, or (ii) that otherwise delays or prevents the Subscriber Organization from making the Facility or any portion of the Facility in question available for Company Dispatch, as more fully set forth in Section 3.D (Lump Sum Payment Pro-Rata Adjustments) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract.
- C. Assurance of Capability of CBRE Facility to Deliver Net Energy Potential and Availability of BESS. In order to provide Company with reasonable assurance that, subject to the Renewable Resource Variability, the CBRE Facility's Net Energy Potential will be available for Company Dispatch: (i) the PV System Equivalent Availability Factor Performance Metric shall be used to evaluate the availability of the PV System for dispatch by Company; (ii) the Guaranteed Performance Ratio ("GPR") Performance Metric shall be used to evaluate the efficiency of the PV System; (iii) the BESS Capacity Performance Metric shall be used to confirm the capability of the BESS to discharge continuously for four (4) hours at Maximum Rated Output or to discharge continuously for a total energy (MWh) equal to the BESS Contract Capacity if the test is conducted at less than Maximum Rated Output; (iv) the BESS EAF Performance Metric shall be used to determine whether the BESS is meeting its expected availability; (v) the BESS EFOF Performance Metric shall be used to evaluate whether the BESS is experiencing excessive unplanned outages; and (vi) the RTE Performance Metric shall be used to evaluate the storage efficiency of the BESS. Whenever the PV System potential output is in excess of the Company Dispatch, the excess energy from the PV System shall be used to maximize the BESS State of Charge so long as this does not conflict with the operating parameters of the BESS set forth in Section 9.D (Battery Energy Storage System) of Attachment F (Facility Owned by Subscriber Organization) to this Contract. Subscriber Organization shall design, operate and maintain the CBRE Facility in a manner consistent with the standard of care reasonably expected of an experienced owner/operator with the desire and financial resources necessary to design, operate and maintain the CBRE Facility to achieve the Performance Metrics. The foregoing is without limitation to Subscriber Organization's other obligations under this Contract, including the obligation to operate the CBRE Facility in accordance with Good Engineering and Operating Practices. The Performance Metrics are set forth in Attachment C (Required Performance Metrics; Liquidated Damages) of this Contract and shall be interpreted consistent with the North American Electric Reliability Corporation Generating Availability Data System ("NERC GADS") Data Reporting Instructions. In the event of a conflict between NERC GADS and the terms of this Contract, the terms of this Contract will control.



- D. No Payments Prior to Commercial Operations Date. CBRE Facilities shall be subject to an Acceptance Test and a Control System Acceptance Test prior to initial parallel operation. Company may accept test energy delivered by Subscriber Organization as provided in Section 6. (Test Energy) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract. The procedures for such tests will be provided to Subscriber Organization by the Company prior to executing this Contract. Company shall not compensate Subscriber Organization for such test energy.
- E. Sale of Energy to Third Parties. Subscriber Organization shall not sell the renewable energy produced, stored or associated with the CBRE Facility, to any person or entity other than the Company during the Term of this Contract.
- F. Subscriber Organization's Preparation of the Monthly Invoice. By the tenth (10th) Business Day of each calendar month, Subscriber Organization shall submit to Company an invoice that separately states the following for the preceding calendar month: (i) the Actual Output during the preceding calendar month; (ii) the monthly Lump Sum Payment for the preceding calendar month; (iii) a computation, based on the updated Monthly Subscriber Information for such preceding calendar month as provided pursuant to Section 4. (Updating Monthly Subscriber Information Used to Calculate Bill Credits and Other Matters) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract, of each Subscriber's Subscriber Allocation for the preceding month stated as a percentage of Contract Capacity; (iv) the Unsubscribed RDG for the preceding calendar month stated as a percentage of Contract Capacity; (v) a computation, based on each Subscriber's Subscriber Allocation, of the dollar amount of the Bill Credit to which each Subscriber is entitled for the monthly Lump Sum Payment for the preceding calendar month; (vi) the dollar amount owing to Subscriber Organization for its share of the monthly Lump Sum Payment for the preceding calendar month; and (vii) as a credit against the amount owing to the Subscriber Organization, the amounts payable by Subscriber Organization under Section 8.D (Subscriber Organization Fees) of this Contract. The dollar amount payable to the Subscriber Organization shall be subject to adjustment as provided in Section 5 (Payment to Subscriber Organization; Payment Reductions-Liquidated Damages for Failure to Achieve CBRE Subscriber Thresholds) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract.
- G. Payment Procedures.
1. Payments to Subscriber Organization. By the twentieth (20th) Business Day of each calendar month following the month during which the invoice was submitted (i.e., by the twentieth (20th) Business Day of the second calendar month following the calendar month covered by the invoice in question), and not later than the last Business Day of that month if there are less than twenty (20) Business Days in that month, Company shall, make payment to Subscriber Organization of the amount payable for the Unsubscribed RDG shown on such invoice, or provide to Subscriber Organization an itemized statement of its objections to all or any portion of such invoice and pay Subscriber Organization its share of any undisputed amount. Any such payment to the Subscriber Organization shall be subject to Company's right to set-off payment reductions-liquidated damages and/or to draw liquidated damages from Operating Period Security as provided in Section 5 (Payment To Subscriber Organization; Payment Reductions-Liquidated Damages for Failure to Achieve CBRE Subscriber Thresholds) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract. The foregoing is without limitation to Company's rights under Section 8 (Payment of Liquidated Damages for Failure to Achieve Performance Metrics; Limitation on Liquidated Damages) of Attachment C (Required Performance Metrics; Liquidated Damages) to this Contract.

2. Time Extensions. Notwithstanding the foregoing, the Day by which the Company shall make payment to Subscriber Organization hereunder shall be increased by one (1) Day for each Day that Subscriber Organization is delinquent in providing to the Company either: (i) the Monthly Report for the calendar month in question pursuant to Section 1. (Monthly Report) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract; or (ii) the information required under Section 4.F (Subscriber Organization's Preparation of the Monthly Invoice) of this Contract.

#### H. Bill Credits.

1. The sole means of payment for each Subscriber Allocation for the calendar month covered by the invoice shall be by a Bill Credit on such Subscriber's retail electric bill. The Bill Credit shall be calculated on the undisputed amount of Subscriber Organization's invoice as set forth in Section 4.F. (Subscriber Organization's Preparation of the Monthly Invoice) of this Contract. Because not all of Company's customers have the same billing cycle, the timing of the appearance of the Bill Credit will vary with the Subscriber's billing cycle, but Company shall cause the Bill Credit to appear on each Subscriber's retail electric bill no later than the next billing cycle for such Subscriber following the due date for Company's payment to Subscriber Organization for the Unsubscribed RDG on the corresponding invoice. The calendar month upon which the Bill Credit is based shall not necessarily match the billing period for the retail electric service bill in which the Bill Credit is applied.
  2. For purposes of applying the Bill Credit to each Subscriber's retail electric bill, the Company shall be entitled to rely exclusively on the Monthly Subscription Information as timely entered by the Subscriber Organization via the CBRE Online Portal as set forth in Section 4. (Updating Monthly Subscriber Information Used to Calculate Bill Credits and Other Matters) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract.
  3. If there is a breach, error or changed circumstances resulting in some portion of the monthly Lump Sum Payment being assigned to a Subscriber in excess of such Subscriber's allowable Subscriber Allocation under the CBRE Tariff, then the Company may treat this excess as an "overpayment" of the Subscriber Allocation and reduce the Bill Credit(s) to such Subscriber for the following calendar month for overpayment in proportion to the excess allocation received in error. Payment to the Subscriber Organization for such Unsubscribed RDG shall only occur if no corresponding Bill Credit is made to a Subscriber, or if already allocated, if such allocation is corrected and withdrawn from such Subscriber. The intent of the Parties is to ensure that no production from the CBRE Facility is double-counted to any Subscriber and/or Subscriber Organization.
- I. Late Payments. Notwithstanding all or any portion of such invoice in dispute, and subject to the provisions of Section 8. (Payment of Liquidated Damages for Failure to Achieve Performance Metrics; Limitation on Liquidated Damage) of Attachment C (Required Performance Metrics; Liquidated Damages) to this Contract (to the extent applicable), interest shall accrue on any invoiced amount that remains unpaid following the twentieth (20th) Business Day of each calendar month (or the last Business Day of that month if there are less than twenty Business Days in that month), or following the due date for such payment if extended pursuant to Section 4.G.2. (Time Extensions) to this Contract, at the average daily Prime Rate for the period commencing on the Day following the Day such payment is due until the invoiced amounts (or amounts due to Subscriber Organization if determined to be less than the invoiced amounts) are paid in full. Partial payments shall be applied first to outstanding interest and then to outstanding invoice amounts.

- J. Adjustments to Invoices After Payment. In the event adjustments are required to correct inaccuracies in an invoice after payment, the Party requesting adjustment shall recompute and include in the Party's request the principal amounts due during the period of the inaccuracy together with the amount of interest from the date that such invoice was payable until the date that such recomputed amount is paid at the average daily Prime Rate for the period. The difference between the amount paid and that recomputed for the invoice, along with the allowable amount of interest, shall either be (i) paid to Subscriber Organization or set-off by Company, as appropriate, in the next invoice payment to Subscriber Organization, or (ii) objected to by the Party responsible for such payment within thirty (30) Days following its receipt of such request. If the Party responsible for such payment objects to the request, then the Parties shall work together in good faith to resolve the objection. If the Parties are unable to resolve the objection, the matter shall be resolved pursuant to Section 17. (Dispute Resolution) of the Contract. All claims for adjustments shall be waived for any amounts that were paid or should have been payable more than thirty-six (36) months preceding the date of receipt of any such request.
- K. Limitations Period. All Subscriber Organization claims for adjustments shall be submitted to the Company within three years of the end of the calendar month covered by the invoice on which the adjustment amount in question was invoiced or should have been invoiced. Claims not submitted to the Company by the end of such three-year period shall be deemed to have been waived.
- L. Company's Billing Records. Subscriber Organization, after giving reasonable advance written notice to Company, shall have the right during Company's normal working hours on Business Days to review all billing, metering and related records necessary to verify the accuracy of the data provided by Company regarding payments and credits.
- M. Subscriber Organization Responsibility for Billing Inaccuracies. The correction of any allocation of previously-applied Bill Credits among Subscribers or payments to the Subscriber Organization for Unsubscribed RDG, pertaining to a particular month due to any inaccuracy reflected in such Monthly Subscription Information with regard to a Subscriber's subscription in the CBRE Facility and the beneficial share of (RDG / NEP) exported by the CBRE Facility, or the share of Unsubscribed RDG, shall be the full responsibility of the Subscriber Organization, unless such inaccuracies are shown to have been caused by the Company.

## 5. COMPANY DISPATCH.

- A. General. Company shall have the right to dispatch all available real and reactive power delivered from the CBRE Facility to the Company System and to start up and shut down Subscriber Organization's Facility, in whole or in part, as it deems appropriate in its reasonable discretion, subject only to Company Dispatch and Subscriber Organization's operations and maintenance schedule determined in accordance with Section 4. (Maintenance of Subscriber Organization-Owned Interconnection Facilities) of Attachment F (Facility Owned by Subscriber Organization) to this Contract. Because the CBRE Facility must be available to respond to Company Dispatch, the Facility may not consume any energy generated by the Facility. Company shall not pay for reactive power.
- B. Company Dispatch. Dispatch will either be by Subscriber Organization's manual control under the direction of the Company System Operator or by remote computerized control by the EMS provided in Section 1.G (Active Power Control Interface) of Attachment F (Facility Owned by Subscriber Organization) to this Contract, in each case at Company's reasonable discretion.
- C. Company Rights of Dispatch. Company may require deration or outage in response to the CBRE Facility's failure to comply with Company Dispatch or to any conditions of Subscriber Organization-Attributable Non-Generation. A deration or outage required by Company pursuant

to the preceding sentence shall be considered a Planned Deration and shall "count against" Subscriber Organization for the purpose of calculating the PV System Equivalent Availability Factor until the conditions that led to the deration or outage are resolved by Subscriber Organization and Subscriber Organization notifies Company of same. If, after such communication, Company attempts to dispatch the CBRE Facility and determines that such conditions that led to the deration or outage are not resolved, all time from the notice of resolution to actual resolution shall be revised as continuance of the deration or outage. If Subscriber Organization requests confirmation from Company that Subscriber Organization's actions to resolve such conditions that led to the deration or outage were successfully completed, then Company shall use reasonable efforts to respond to such request within three (3) Business Days in writing (with email being acceptable) to allow Subscriber Organization the opportunity to take further appropriate corrective actions if needed. An outage or deration required by Company pursuant to the first sentence of this sub-section shall not be considered a "restriction or limitation that would lower maximum output" of the CBRE Facility for purposes of filtering the 15-minute intervals used to calculate the MPR under Section 2.A. (Calculation of Measured Performance Ratio) of Attachment C (Required Performance Metrics; Liquidated Damages) to this Contract and shall, therefore, potentially "count against" Subscriber Organization for purposes of calculating MPR until the conditions that led to such outage or deration are resolved by Subscriber Organization to Company's reasonable satisfaction. Nothing in this sub-section shall relieve Subscriber Organization of its obligation under the terms of this Contract to make available the full capability of the CBRE Facility for Company Dispatch.

D. Monthly Report. Commencing with the month during which the Commercial Operations Date is achieved, and for each calendar month thereafter during the Term, Subscriber Organization shall prepare and provide to Company a Monthly Report by the tenth (10th) Business Day of the following month in accordance with Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract. Beginning with the Monthly Report for the last calendar month of the initial Contract Year, Subscriber Organization shall include calculations of, as applicable, (a) the PV System Equivalent Availability Factor for the LD Period, (b) the Measured Performance Ratio for the MPR Assessment Period, (c) any of the BESS Capacity Ratio, the BESS Annual Equivalent Availability Factor, the BESS Equivalent Forced Outage Factor or the RTE Performance Metric for the BESS Measurement Period (if any), as well as (d) any liquidated damages to be assessed, as set forth in the form of Monthly Report included in Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator). All rights and obligations of the Parties with respect to each Monthly Report and any disagreements arising out of any Monthly Report are fully set forth in Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract.

6. **HOUSE POWER.** The Company will sell House Power to the CBRE Facility under the rate schedule in force for the class of customer to which the Subscriber Organization belongs. A separate meter to record energy delivered to the CBRE Facility may be installed by the Company. The Subscriber Organization shall be solely responsible for arranging retail electric service exclusively from the Company in accordance with the Company's Electric Rate Book. If electrical service is not presently available to the Site, Subscriber Organization shall be solely responsible for obtaining access to House Power under Company's applicable Tariff Rule(s). The Subscriber Organization shall obtain House Power solely through separately metered retail service and shall not obtain House Power through any other means and waives any regulatory or other legal claim or right to the contrary. Because the Subscriber Organization must make all energy produced by the CBRE Facility available to the Company, the CBRE Facility may not use the energy it generates to be consumed by it. It may not net-out or use energy it generates for House Power. The Parties acknowledge and agree that the performance of their respective obligations with respect to House Power shall be separate from this Contract and shall be interpreted independently of the Parties' respective obligations under this

Contract. Notwithstanding any other provision in this Contract, nothing with respect to the arrangements for House Power shall alter or modify the Subscriber Organization's or the Company's rights, duties and obligations under this Contract. This Contract shall not be construed to create any rights between the Subscriber Organization and the Company with respect to the arrangements for House Power.

**7. METERING REQUIREMENTS, CHARGES AND TESTING.**

- A. Company shall install, operate and maintain for the benefit of the CBRE Facility, one or more revenue metering package(s) suitable for measuring the export of renewable energy (AC) produced by the CBRE Facility in kilowatts and kilowatt-hours on a time-of-day basis and reactive power flow in kilovars and true root mean square kilovar-hours (the "Revenue Meter"). The metering point for the Revenue Meter shall be as close as possible to the Point of Interconnection as allowed by Company.
- B. Subscriber Organization, subject to Company review and approval, shall purchase, install, and maintain the infrastructure and other related equipment ("Meter Infrastructure") including meter housing, socket replacement and rewiring as required to install the Revenue Meter and any additional service meter(s), including, but not limited to, such meters for measuring House Power. Subscriber Organization shall install the Meter Infrastructure in adherence with requirements set forth in the latest edition of the Company's Electric Service Installation Manual (ESIM). Company shall test the Production Meter prior to installation and at the request and expense of the Subscriber Organization.
- C. Subscriber Organization shall reimburse Company for the costs reasonably incurred for the purchase and installation of the Revenue Meter. Subscriber Organization shall be responsible for the ongoing costs incurred by Company to operate, maintain (including maintenance replacements) and test the Revenue Meter during the Term.
- D. Metering Charge per Month: \$25.00. Subscriber Organization shall be charged each month during the Term an administrative metering fee of a \$25.00 for the Revenue Meter. The administrative metering fee is addition to the costs associated with the purchase, installation, maintenance and testing of the Revenue Meter and Meter Infrastructure.
- E. Meter Testing. Company shall provide at least forty-eight (48) hours' notice to Subscriber Organization prior to any test it may perform on the Revenue Meter or metering equipment. Subscriber Organization may request tests in addition to the every fifth-year test and Subscriber Organization shall pay the cost of such tests. Company may perform tests in addition to the fifth-year test. If any of the revenue meters or metering equipment is found to be inaccurate at any time, as determined by testing in accordance with this section, Company shall promptly cause such equipment to be made accurate, and the period of inaccuracy, as well as an estimate for correct meter readings, shall be determined as provided in Company's Tariff Rule No.11 (Billing Error, Meter Tests and Adjustment for Meter Errors).

**8. CBRE TARIFF REQUIREMENTS.**

- A. CBRE Framework and CBRE Tariff. The Subscriber Organization shall comply with and assure that the requirements of the CBRE Framework and CBRE Tariff applicable to the CBRE Facility are met.
- B. Subscriber Agreement. Subscriber Organization shall require all prospective Subscribers to execute a Subscriber Agreement as a precondition to enrollment as a Subscriber in the CBRE Facility. The Subscriber Agreement must satisfy the requirements of the CBRE Tariff, the CBRE Framework, this Contract and any additional guidance from the PUC. Prior to executing the

Subscriber Agreement, the Subscriber Organization shall make to the Subscriber the disclosures required under the Disclosure Checklist (attached as an Appendix to the CBRE Tariff). A copy of the Disclosure Checklist signed by both the Subscriber Organization and the Subscriber shall be attached to the executed Subscriber Agreement. For each Subscriber, there must be a completed and fully executed Subscriber Agency Agreement and Consent Form (attached as an Appendix to the CBRE Tariff), which is delivered to the Company prior to the Commercial Operations Date, or prior to adding each Subscriber. The Subscriber Organization shall provide to each Subscriber a copy of the Subscriber's Bill of Rights (attached as an Appendix to the CBRE Tariff).

- C. Funds Received From Subscribers Prior to the Commercial Operations Date. Any payments made to Subscriber Organization by Subscribers prior to the Commercial Operations Date shall be deposited into an escrow account or other alternative proposed by Subscriber Organization and approved by the Company or CBRE IO ("Pre-COD Escrow"), to hold or segregate any pre-development enrollment fees or deposits from Subscribers (with appropriate mechanisms to refund such fees/deposits to Subscribers should the Subscriber Organization not complete its Facility), which shall be released to Subscriber Organization upon commercial operation of the Facility. These funds may not be withdrawn from the Pre-COD Escrow by the Subscriber Organization until the Commercial Operations Date. The Pre-COD Escrow must conform to the CBRE Tariff, the CBRE Framework, applicable Laws, and any additional guidance from the PUC or the CBRE IO.

D. Subscriber Organization Fees.

1. Subscriber Organization shall pay to Company the Subscriber Organization fees required under the CBRE Tariff.
2. If Company has not received prior payment of such fees, Company may set off the unpaid amounts against Company payments to Subscriber Organization for Unsubscribed RDG, draw from the Security Funds, or, in its sole discretion, Company shall invoice Subscriber Organization for payment to Company of the foregoing fees. Subscriber Organization shall make payment to Company within 15 Days of Subscriber Organization's receipt of such invoice.

E. Facility Compliance.

1. The Subscriber Organization shall be responsible for ensuring that the equipment installed at the CBRE Facility meets all applicable codes, standards, and regulatory requirements at the time of installation and throughout its operation.
2. Subscriber Organization shall comply with all of the rules stated in the Company's applicable electric tariff rules related to the CBRE Program, as the same may be revised from time to time, and this Contract, as may be amended from time to time, as allowed by an amendment to this Contract approved, or deemed approved, by the PUC. In the event of any conflict between the terms of this Contract and Company's electric tariff rules related to the CBRE Program, the provisions of the tariff shall control.

F. Financial Compliance.

1. If Company reasonably believes the provisions of this Section 8.F apply to the CBRE Facility, Company shall notify Subscriber Organization in writing and Subscriber Organization shall provide or cause to be provided to Company on a timely basis, all information, including but not limited to information that may be obtained in any audit referred to below (the "Financial Compliance Information"), reasonably requested by Company for purposes of permitting Company and its parent company, Hawaiian Electric Industries, Inc. ("HEI") to comply with the requirements (initial and on-going) of (i) the accounting principles of Financial Accounting

Standards Board ("FASB") Accounting Standards Codification 810, Consolidation ("FASB ASC 810"), (ii) FASB ASV 842 Leases ("FASB ASC 842"), (iii) Section 404 of the Sarbanes-Oxley Act of 2002 ("SOX 404") and (iv) all clarifications, interpretations and revisions of and regulations implementing FASB ASC 810, FASB ASC 842, and SOX 404 issued by the FASB, Securities and Exchange Commission, the Public Company Accounting Oversight Board, Emerging Issues Task Force or other Governmental Authorities. In addition, if required by Company in order to meet its compliance obligations, Subscriber Organization shall allow Company or its independent auditor to audit, to the extent reasonably required, Subscriber Organization's financial records, including its system of internal controls over financial reporting; provided, however, that Company shall be responsible for all costs associated with the foregoing, including but not limited to Subscriber Organization's reasonable internal costs. Company shall limit access to such Financial Compliance Information to Company and HEI personnel involved with such compliance matters and restrict any Company or HEI personnel involved in Company's monitoring, dispatch or scheduling of the Subscriber Organization and/or the CBRE Facility, the administration of this Contract, or in developing potential CBRE projects, from having access to such Financial Compliance Information (unless approved in writing in advance by Subscriber Organization).

2. Confidentiality. As a condition to obtaining the Financial Compliance Information, Company shall, and shall cause HEI to, maintain the confidentiality of said Financial Compliance Information pursuant to a mutually agreed to confidentiality and non-disclosure agreement to be executed among Company, HEI and Subscriber Organization.
3. Consolidation. Company does not want to be subject to consolidation as set forth in FASB ASC 810, as issued and amended from time to time by FASB. Company represents that, as of the Effective Date, it is not required to consolidate Subscriber Organization into its financial statements in accordance with FASB ASC 810. If for any reason, at any time during the Term, Company determines, in its sole but good faith discretion, that it is required to consolidate Subscriber Organization into its financial statements in accordance with FASB ASC 810, then Subscriber Organization shall immediately provide audited financial statements (including footnotes) in accordance with U.S. generally accepted accounting principles (and as of the reporting periods Company is required to report thereafter) in order for Company to consolidate and file its financial statements within the reporting deadlines of the Securities and Exchange Commission. Notwithstanding the foregoing requirement that Subscriber Organization provide audited financial statements to Company, the Parties will take all commercially reasonable steps, which may include modification of this Contract to eliminate the consolidation treatment, while preserving the economic "benefit of the bargain" to both Parties.

- G. Audits. The Company reserves the right to inspect the CBRE Facility as necessary to assure the safety and reliability of the system at any time during the Term, and for an additional period of one (1) year thereafter.

**9. REQUIREMENTS APPLICABLE TO SUBSCRIBER ORGANIZATION'S RELATIONSHIP WITH ITS SUBSCRIBERS.** The Subscriber Organization must comply with all of the following:

- A. Subscriber Information. The Subscriber Organization shall issue subscriptions in the CBRE Facility only to eligible retail electric service customers of the Company and provide to the Company the name, account number and service address attributable to each subscription and the Subscriber Allocation for each Subscriber's subscription. The Subscriber Organization shall take care to preserve the privacy expectations of the Subscribers, such as not publicly providing a Subscriber's Confidential Account Information, Subscriber Energy Usage Data, or Bill Credits. The Subscriber Organization will not disclose or share such information except as permitted by the

Subscriber Agency Agreement and Consent Form executed by Subscriber in connection with Subscriber's acquisition of its subscription in the CBRE Facility or otherwise unless the Subscriber has provided explicit informed consent or if such disclosure is compelled by Law.

- B. Subscriber Exit or Transfer of Interest in CBRE Facility. The transfer, cancellation, termination and/or exit of a Subscriber's interest in the CBRE Facility shall be completed in full accordance with applicable CBRE Framework or CBRE Tariff rules, in addition to any other terms, conditions or requirements imposed by the Subscriber Organization in the Subscriber Agreement, which Subscriber Organization shall ensure is also consistent with and in compliance with applicable CBRE Framework or CBRE Tariff rules. The CBRE Framework and/or CBRE Tariff requirements shall take precedence over any inconsistent or conflicting provisions found in the Subscriber Agreement.
- C. Updating Subscriber Information. The Subscriber Organization shall provide to the Company the Monthly Subscriber Information together with any and all updates to the Monthly Subscription Information as provided in Section 4. (Updating Monthly Subscriber Information Used to Calculate Bill Credits and Other Matters) to Attachment B (Company Payments for Energy, Dispatchability and Availability of Bess) to this Contract.
- D. Responsibility for Verification.
  - 1. Subscriber Verification. If not already qualified by the CBRE Online Portal, the Subscriber Organization shall verify that each Subscriber is eligible to be a Subscriber in the CBRE Facility and that the CBRE Tariff requirements are met.
  - 2. LMI Subscriber Verification. For CBRE LMI Projects (as defined in the CBRE Tariff) or for CBRE Mid-Tier Projects or CBRE Large Projects (as defined in the CBRE Tariff) which commit to a certain percentage of LMI Subscribers, in addition to the requirements of Section 9.D.1., Subscriber Organization must comply with CBRE Tariff provisions to collect the completed the LMI certification from each LMI Subscriber.
- E. Disclosure of Production Information. The Subscriber Organization acknowledges and agrees that, in order for the Company to carry out its responsibilities in applying Bill Credits to each Subscriber's retail electric bills, the Company may be required and shall be permitted to provide access or otherwise disclose and release to any Subscriber any and all production data related to the PV System and BESS in its possession and information regarding the total Bill Credits applied by the Company with respect to the CBRE Facility and any information pertaining to a Subscriber's subscription. Any additional detailed information requested by a Subscriber shall be provided only upon the Subscriber Organization's consent in writing or email to the Company, or unless the Commission or the CBRE IO requests that the Company provide such information to the Subscriber, or as otherwise required by law.
- F. Disclosure of CBRE Facility Information. The Subscriber Organization acknowledges and agrees that the Company may publicly disclose the CBRE Facility location, Subscriber Organization, nameplate capacity and production data of the CBRE Facility. Additionally, the Company will periodically provide a bill message to Subscribers clarifying that questions or concerns related to their subscription should be directed to the Subscriber Organization, including a statement that the Subscriber Organization is solely responsible for resolving any disputes with the Company or the Subscriber about the accuracy of the CBRE Facility data and that the Company is solely responsible for resolving any disputes with the Subscriber about the applicable rate used to determine the amount of the Bill Credit.
- G. Certain Tax and Securities Law Issues. The Company makes no warranty or representation concerning the taxable consequences, if any, to Subscriber Organization or its Subscribers with



respect to its Bill Credits to the Subscribers for participation in the CBRE Facility's CBRE Program. Additionally, the Company makes no warranty or representation concerning the implication of any federal or state securities laws on how subscriptions to the CBRE Program are handled.

- H. Full Cooperation with the PUC. The Parties agree to fully cooperate with any request for information from the PUC or the CBRE IO pertaining in any way to the CBRE Facility and will provide such information upon request in a timely manner. To the extent to which any request calls for producing a specific Subscriber's Confidential Account Information, Subscriber Energy Usage Data or Bill Credits, such information shall be provided and marked as Confidential Information.
- I. New Energy Generating Systems. The PV System must not be built or previously interconnected at the time of application to the CBRE Program, except as may be permitted under the CBRE Tariff.
- J. Fair Disclosure; Disclosure Checklist. Prior to the time when any person or entity becomes a Subscriber, the Subscriber Organization will fairly disclose the future costs and benefits of the subscription and all other matters specified in the Disclosure Checklist and provide to the potential Subscriber a copy of this Contract. The Subscriber Organization shall comply with all other requirements of the PUC and applicable Laws with respect to communications with Subscribers.

#### **10. GENERAL PROVISIONS FOR CBRE FACILITY DESIGN, CONSTRUCTION AND OPERATION.**

- A. The following provisions generally set forth the minimum requirements of Subscriber Organization in designing, constructing and operating the CBRE Facility and are more fully described in Attachment F (Facility Owned by Subscriber Organization). In the event of any inconsistency or conflict between the terms and provisions of this Section 10, the terms and provisions of Attachment F shall control.
- B. Permits and Licenses. Subscriber Organization shall be responsible for the design, installation, operation, and maintenance of the CBRE Facility and shall obtain at its expense and maintain any required governmental authorizations and/or permits for the construction and operation of the CBRE Facility.
- C. Control and Protection of Equipment. Design, installation, operation and maintenance of the CBRE Facility shall include control and protection equipment as specified by the Company, including but not limited to the Telemetry and Control interface identified in Section 10.H (Telemetry and Control) below, and an automatic load-break device such as a circuit breaker or inverter and a manual disconnect that has a visible break or breaker with rack-out capability to isolate the CBRE Facility from the Company System. The manual disconnect device must be accessible by the Company and be capable of being locked by the Company in the open position, to establish working clearance for maintenance and repair work in accordance with the Company's safety rules and practices. The disconnect devices shall be furnished and installed by the Subscriber Organization and are to be connected between the CBRE Facility and the Company system. The disconnect devices shall be located in the immediate vicinity of the electric meter serving the Subscriber Organization. The manual disconnect device shall be, at a minimum, clearly labeled "Subscriber Organization System Disconnect." With permission of the Company, the disconnect devices may be located at an alternate location which is readily and safely accessible to the Company on a 24-hour basis. Such alternate location shall be clearly identified with signage placed in the immediate vicinity of the electric meter serving the Subscriber Organization.
- D. Access. The Subscriber Organization grants access to the Company to utilize the disconnect device, if needed. Subscriber Organization shall obtain the authorization from the owner and/or

occupants of the premises where the CBRE Facility is located that allows the Company to access the CBRE Facility for the purpose specified in this Contract. Company may enter premises where the CBRE Facility is located, as permitted by law or tariff, for the following purposes: (1) to inspect CBRE Facility's protective devices and read or test meter(s); and (2) to disconnect the CBRE Facility and/or service to Subscriber Organization, whenever in Company's sole opinion, a hazardous condition exists and such immediate action is necessary to protect persons, Company's facilities, or property of others from damage or interference caused by the CBRE Facility, or the absence or failure of properly operating protective device.

- E. Prior Written Approval. Under no circumstances shall a Subscriber Organization interconnect and operate the CBRE Facility in parallel with the Company's electric system without prior written approval by the Company.
- F. Equipment Modifications. Once the CBRE Facility is interconnected to the Company's system, the Company reserves the right to require the installation of, or modifications to, equipment determined by the utility to be necessary to facilitate the delivery of reliable electric service to its customers, subject to the requirement that such installation or modification be consistent with the terms of this Contract and applicable interconnection standards (e.g., Rule 14H). If any interconnection standards outside of this Contract conflict with the terms of this Contract, the provisions in this Contract shall apply. The Company shall provide a written explanation of the need for such installation or modification. Any disputes related to this provision shall be resolved according to the dispute resolution process set forth in Section 17. (Dispute Resolution) of this Contract.
- G. [Reserved]
- H. Telemetry and Control Interface. The CBRE Facility must comply with the communications and controllability requirements set forth in Section 1.B (Certain Specifications for the Facility), Subsection 3.e. of Attachment F (Facility Owned by Subscriber Organization) to this Contract.
- I. Project Completion.
  - 1. The Subscriber Organization shall achieve the Commercial Operations Date for the CBRE Facility within eighteen (18) months from the execution date of this Contract, as the same may be extended as provided herein or in the CBRE Tariff (the "Commercial Operations Date Deadline"). The Commercial Operations Date Deadline shall be extended day-for-day for a CBRE Facility that, in the Company's determination, has suffered a Force Majeure event as set forth in Section 27. (Force Majeure) of this Contract prior to the Commercial Operations Date, or for any delay caused by Company.
  - 2. Notwithstanding the foregoing, a local-government moratorium to issuing a permit may extend the 18-month Project Completion period for no more than an additional six (6) months. Failure to seek a permit, delay in seeking a permit, or permit-processing time not subject to a moratorium is not included in this 6-month extension.
  - 3. If Substantial Progress, as defined herein, has been achieved, but the Commercial Operations Date has not been achieved by the Commercial Operations Date Deadline, and Subscriber Organization still intends to complete its CBRE Facility, then the Subscriber Organization shall pay a "late fee" to Company of \$200/day/MW nameplate capacity of the PV System until the CBRE Facility achieves the Commercial Operations Date. For example, if the CBRE Facility has a nameplate capacity of 500 kW, and it achieves the Commercial Operations Date thirty (30) Days late, the "late fee" would be \$3,000. The "late fee" shall be paid to Company before the Commercial Operations Date. However, if Company fails to collect in full such amount by this date, such unpaid amount may be set off against any refund that may be due to Subscriber Organization for Total Estimated Interconnection Costs paid by Subscriber Organization that

exceeds the Actual Interconnection Costs. All “late fee” payments received by Company will be credited back through the appropriate regulatory mechanism to offset the costs to Company ratepayers for the CBRE Program. A prerequisite to showing that Substantial Progress has been achieved in a timely manner is that before the Commercial Operations Date Deadline the Subscriber Organization must submit a signed letter to Company attesting to the fact that Substantial Progress as defined in this Contract has been made, and attach photographs to that letter demonstrating this.

4. If: (i) Substantial Progress has not been achieved by the Commercial Operations Date Deadline, or (ii) Subscriber Organization does not wish to complete its CBRE Facility upon the Commercial Operations Date Deadline, or (iii) the Commercial Operations Date that is extended due to a permit issuance moratorium is not achieved within six (6) months from the originally required Commercial Operations Date Deadline, then the application for the CBRE Facility and this Contract will be terminated by Company without further notice. No additional concurrence from the CBRE IO shall be necessary for such termination. The Application Fee and any other deposits paid by the Subscriber Organization shall be forfeited.
5. After termination, the Subscriber Organization, if it still intends to proceed with the CBRE Facility, must submit a new application and pay any applicable deposit and/or fees which will be subject to the then current CBRE Tariff, Bill Credit Rate and other applicable CBRE requirements for new projects, including CBRE Program capacity availability.

## **11. INTERCONNECTION REQUIREMENTS.**

- A. Rule 14H Compliance. If the CBRE Facility is interconnecting at the distribution level the Subscriber Organization must comply with all of the terms, conditions and requirements of Rule 14H (Interconnection of Distributed Generating Facilities Operating in Parallel With The Company’s Electric System), including without limitation Appendix I (Distributed Generation Facility Interconnection Standards Technical Requirements). In the event of any inconsistency or conflict between the terms and provisions of this Contract and Rule 14H, the terms and provisions of this Contract shall control.
- B. Sub-Transmission and Transmission Interconnection. If the CBRE Facility is a facility interconnecting at the Sub-Transmission and Transmission levels, the CBRE Facility shall follow the interconnection process applicable to such CBRE Facility at the time of interconnection.
- C. Subscriber Organization-Owned Interconnection Facilities.
  1. The Subscriber Organization shall furnish, install, operate and maintain, at its cost, the interconnection facilities (such as circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes identified in Exhibit F-1 (Description of Generation and Battery Storage Facilities) of Attachment F (Facility Owned by Subscriber Organization) to this Contract.
  2. The point of interconnection is shown on the single-line diagram and three-line diagram (provided by the Subscriber Organization and reviewed by the Company) which are appended to Attachment F, herein. Pursuant to Rule 14H, Appendix I (Distributed Generation Facility Interconnection Standards Technical Requirements), Section 6.c (Review of Design Drawings), the Company must review and approve Subscriber Organization’s single-line and three-line diagrams prior to Subscriber Organization constructing of the CBRE Facility interconnection.
  3. The Subscriber Organization shall not operate equipment that superimposes a voltage or current upon the Company’s system that interferes with the Company’s operations, service to the

Company's customers, or the Company's communication facilities. Such interference shall include, but not be limited to, overcurrent, voltage imbalance, and abnormal waveforms. If such interference occurs, the Subscriber Organization must diligently pursue and take corrective action at its own expense after being given notice and reasonable time to do so by the Company. If the Subscriber Organization does not take timely corrective action or continues to operate the equipment causing interference without restriction or limit, the Company may, without liability, disconnect the Subscriber Organization's equipment from the Company's system.

4. The Subscriber Organization agrees to test the CBRE Facility, to maintain operating records, and to follow such operating procedures, as may be specified by the Company to protect the Company's system from damages resulting from the parallel operation of the CBRE Facility, including such testing, records and operating procedures as more fully described Attachment F (Facility Owned by Subscriber Organization) to this Contract.
  5. The Company may inspect the CBRE Facility and Subscriber Organization's interconnection facilities.
- D. System Capacity. The CBRE Facility must have a nameplate capacity, in the aggregate, of no more than \_\_\_\_\_ (\_\_\_\_\_) kW/MW to assure that the CBRE Facility has a nameplate capacity of no more than 2.5MW (islands of Maui, Moloka'i, and Hawai'i); 5 MW (island of O'ahu, only).
- E. Company-Owned Interconnection Facilities.
1. The Company agrees to furnish, install, operate and maintain such interconnection facilities on its side of the point of interconnection with the CBRE Facility as required for the parallel operation with the CBRE Facility and more fully described in Attachment G (Company-Owned Interconnection Facilities) to this Contract.
  2. All Company-Owned Interconnection Facilities shall be the property of the Company. Where portions of the Company-Owned Interconnection Facilities are located on the Subscriber Organization's premises, the Subscriber Organization shall provide, at no expense to the Company, a suitable location for and access to all such equipment. If a 120/240 Volt power source or sources are required, the Subscriber Organization shall provide these at no expense to the Company.
  3. Subscriber Organization agrees to pay to the Company a non-refundable initial payment for the development of the Company-Owned Interconnection Facilities and to pay for all other interconnection costs (the "Total Estimated Interconnection Costs"), as more fully described in Attachment G (Company-Owned Interconnection Facilities). The Total Estimated Interconnection Costs shall not include the cost of an initial technical screening (under Rule 14H) of the impact of the CBRE Facility on the Company's system.
  4. Governmental Approvals for Company-Owned Interconnection Facilities. Subscriber Organization shall obtain at its sole cost and expense all Governmental Approvals necessary to the construction, ownership, operation and maintenance of the Company-Owned Interconnection Facilities. Subscriber Organization shall provide all Governmental Approvals necessary for the construction of such Company-Owned Interconnection Facilities prior to the commencement of construction by Company.
- F. Credit Assurance and Security. Subscriber Organization is required to post and maintain Development Security and Operating Security based on the requirements of this Section 11.F (Credit Assurance and Security).

1. Development Security. To guarantee undertaking the performance of Subscriber Organization's obligations under the Contract for the period prior to the Commercial Operations Date (including but not limited to Subscriber Organization's obligation to meet the Commercial Operations Date Deadline), Subscriber Organization shall post and maintain development period security ("Development Security") in an amount not less than twenty-five percent (25%) of the Total Estimated Interconnection Costs for the Company-Owned Interconnection Facilities within thirty (30) Days of Execution Date of the Contract.
2. Return of Development Security. The Development Security shall be returned to Subscriber Organization, subject to Company's right to draw from the Development Security as set forth in Section 11.F.6 (Company's Right to Draw from Security Funds), in the following circumstances: (i) this Contract is declared null and void under Section 3.E (Contract Null and Void) or this Contract is terminated prior to the Commercial Operations Date but, in each case, only after all amounts which may be due and owing to Company are paid in full by Subscriber Organization, including by draw upon such Development Security or (ii) following Company's receipt of Operating Security pursuant to Section F.3 (Operating Security).
3. Operating Security. To guarantee the performance of Subscriber Organization's obligations under this Contract for the period starting from the Commercial Operations Date to the expiration or termination of this Contract, Subscriber Organization shall provide satisfactory operating period security to Company in the amount of \$75/kW based on the Contract Capacity (the "Operating Security"). Subscriber Organization shall provide such Operating Security to Company within five (5) Business Days after the Commercial Operations Date, provided that, at all times, some form of Security Funds shall be in place and available to Company, whether Development Security or Operating Security.
4. Form of Security. Subscriber Organization shall supply the Development Security and Operating Security required in the form of an irrevocable standby letter of credit with no documentation requirement substantially in the form attached to this Contract as Attachment G-1 (Form of Letter of Credit) from a bank chartered in the United States with a credit rating (as measured by Standard & Poor's) of "A-" or better. If the rating of the bank issuing the standby letter of credit falls below A-, Company may require Subscriber Organization to replace, within thirty (30) Days' notice by Company, the standby letter of credit with a standby letter of credit from another bank chartered in the United States with a credit rating of "A-" or better. Such letter of credit shall be issued for a minimum term of one (1) year and shall be automatically renewed for at least an additional one (1) year term so that at the time of such renewal, the remaining term of any such security shall not be less than one (1) year. The reasonable costs and expenses of establishing, renewing, substituting, canceling, increasing, reducing, or otherwise administering the letter of credit shall be borne by Subscriber Organization.
5. Security Funds. The Development Security and Operating Security, including L/C Proceeds therefrom (collectively referred to as the "Security Funds") established, funded, and maintained by Subscriber Organization pursuant to the provisions of this Section 11.F (Credit Assurance and Security) shall provide security for the performance of Subscriber Organization's obligations under this Contract and shall be available to be drawn on by Company as provided in Section 11.F.6 (Company's Right to Draw from Security Funds). Subscriber Organization shall maintain the Security Funds at the contractually-required level throughout the Term of this Contract. Subscriber Organization shall replenish the Security Funds to such required level within fifteen (15) Business Days after any draw on the Security Funds by Company or any reduction in the value of Security Funds below the required level for any other reason. Notwithstanding the foregoing, Subscriber Organization's obligation to replenish the

Development Security shall not exceed in total four (4) times the original amount of the Development Security required under Section 11.F.1 (Development Period Security) of this Contract.

6. Company's Right to Draw from Security Funds. In addition to any other remedy available to it, Company may, before or after termination of this Contract, draw from the Security Funds such amounts as are necessary to recover amounts Company is owed pursuant to this Contract, any accompanying letter agreements associated with the Contract for other work, such as the IRS, to be paid by Subscriber Organization, including, without limitation, any damages due Company, any interconnection costs owed pursuant to Attachment G (Company-Owned Interconnection Facilities) and any amounts for which Company is entitled to indemnification under this Contract. Company may, in its sole discretion, draw all or any part of such amounts due Company from any of the Security Funds to the extent available pursuant to this Section 11.F (Credit Assurance and Security), and from all such forms, and in any sequence Company may select. Any failure to draw upon the Security Funds or other security for any damages or other amounts due Company shall not prejudice Company's rights to recover such damages or amounts in any other manner.
  7. Failure to Renew or Extend Letter of Credit. If the letter of credit is not renewed or extended at least thirty (30) Days prior to its expiration or earlier termination, Company shall have the right to draw immediately upon the full amount of the letter of credit and, at Company's sole option, to place the proceeds of such draw (the "L/C Proceeds"), at Subscriber Organization's cost, in an escrow account until and unless Subscriber Organization provides a substitute letter of credit meeting the requirements of this Section 11.F (Credit Assurance and Security). If Company elects, the L/C Proceeds shall be deposited with a reputable escrow agent acceptable to Company ("Escrow Agent"). Without limitation to the generality of the foregoing, a federally-insured bank shall be deemed to be a "reputable escrow agent." Company shall have the right to apply the L/C Proceeds as necessary to recover amounts Company is owed as specified in Section 11.F.6 (Company's Right to Draw from Security Funds). The documentation governing such escrow account shall be in form and content satisfactory to Company and shall give Company the sole authority to draw from the escrow account. Subscriber Organization shall not be a party to such documentation and shall have no rights to the L/C Proceeds. If an adequate substitute letter of credit is obtained and provided to Company, the net L/C Proceeds remaining as of the date that such substitute letter of credit is provided, shall be returned to Subscriber Organization, or as Subscriber Organization directs in writing.
  8. Release of Security Funds. Upon the end of the Term and the complete performance of all of Subscriber Organization's obligations under this Contract, including but not limited to the obligation to pay any and all amounts owed by Subscriber Organization to Company under this Contract, Company shall release the Security Funds to Subscriber Organization.
- 12. PERSONNEL AND SYSTEM SAFETY.** Notwithstanding any other provisions of this Contract, if at any time Company determines that the Facility may endanger Company's personnel, and/or the continued operation of the Facility may endanger the integrity of the Company System or have an adverse effect on Company's other customers' electric service, Company shall have the right to disconnect the Facility from the Company System, as determined in the sole discretion of the Company System Operator. The Facility shall immediately comply with the dispatch instruction, which may be initiated through remote control, and shall remain disconnected (and in Subscriber Organization-Attributable Non-Generation status if so determined), until such time as Company is satisfied that the condition(s) referred to above have been corrected. If Company disconnects the Facility from the Company System for personnel or system safety reasons, it shall as soon as practicable notify

Subscriber Organization by telephone, and thereafter make reasonable efforts to confirm, in writing (with email being acceptable), within three (3) Days of the disconnection, the reasons for the disconnection. If the reason for the disconnection constitutes Subscriber Organization-Attributable Non-Generation, Company will notify Subscriber Organization (i) whether the conditions resulting in such disconnection have been resolved (in which case no additional time after such confirmation shall count as Subscriber Organization-Attributable Non-Generation); or (ii) that conditions resulting in such disconnection have not been resolved so that Subscriber Organization can take such appropriate corrective actions. Subscriber Organization shall notify Company in writing when such corrective action has been completed; provided, however, that Subscriber Organization shall remain in Subscriber Organization-Attributable Non-Generation until Company is satisfied that the condition resulting in the disconnection has been corrected. Company shall use reasonable efforts to inspect such corrective measures (if necessary) and confirm the resolution of such condition within three (3) Business Days after Subscriber Organization's notification.

### **13. EVENTS OF DEFAULT BY SUBSCRIBER ORGANIZATION.**

- A. The occurrence of any of the following shall constitute an “Event of Default” by Subscriber Organization:
1. If at any time during the Term, Subscriber Organization delivers or attempts to deliver to the Point of Interconnection for sale under this Contract renewable energy that was not produced by the CBRE Facility and Subscriber Organization fails to cease such delivery or attempt to deliver such renewable energy within ten (10) Days after Company’s written notice of such delivery or attempt.
  2. If at any time subsequent to the Commercial Operations Date, the PV System Equivalent Availability Factor is less than **84%** for each of three consecutive Contract Years.
  3. If at any time subsequent to the Commercial Operations Date, the Measured Performance Ratio for each of three consecutive Contract Years falls below the Tier 2 Bandwidth for such Contract Year.
  4. If at any time subsequent to the Commercial Operations Date, the Subscriber Organization fails to demonstrate satisfaction of the BESS Capacity Performance Metric prior to the expiration of the BESS Capacity Cure Period.
  5. If at any time subsequent to the Commercial Operations Date, the Subscriber Organization fails to achieve a BESS Annual Equivalent Availability Factor of not less than **75%** for each of six (6) consecutive BESS Measurement Periods as provided in Section 4.B (BESS Annual Equivalent Availability Factor; Liquidated Damages; Termination Rights) of Attachment C (Required Performance Metrics; Liquidated Damages) to this Contract.
  6. If at any time subsequent to the Commercial Operations Date, Subscriber Organization fails to demonstrate satisfaction of the RTE Performance Metric prior to the expiration of the RTE Cure Period.
  7. If at any time subsequent to the Commercial Operations Date, the Facility is unavailable to provide electric energy in response to dispatch by Company for a period of three hundred sixty-five (365) or more consecutive Days.
  8. If at any time during the Term, Subscriber Organization fails to satisfy the requirements of Section 11.F (Credit Assurance and Security) of this Contract.

9. If at any time subsequent to the Commercial Operations Date, Subscriber Organization fails to take all corrective actions specified by the Company's written notice that the CBRE Facility is out of compliance with the terms of this Contract, within the timeframe set forth in such notice.
10. If at any time subsequent to the Commercial Operations Date, Subscriber Organization fails to install, operate, maintain, or repair the Facility in accordance with Good Engineering and Operating Practices if such failure is not cured within thirty (30) Days after written notice of such failure from Company unless such failure cannot be cured within said thirty (30) Day period and Subscriber Organization is making commercially reasonable efforts to cure such failure, in which case Subscriber Organization shall have a cure period of three hundred sixty-five (365) Days after Company's written notice of such failure.
11. The failure to make any payment required pursuant to this Contract when due if such failure is not cured within ten (10) Business Days after written notice is received by Subscriber Agreement.
12. If any representation or warranty made to Company by Subscriber Organization herein is false and misleading in any material respect when made.
13. Subscriber Organization becomes insolvent, or makes an assignment for the benefit of creditors; or shall have an order for relief in an involuntary case under the bankruptcy Laws as now or hereafter constituted entered against it, or shall commence a voluntary case under the bankruptcy Laws as now or hereafter constituted, or shall file any petition or answer seeking for itself any arrangement, composition, adjustment, liquidation, dissolution or similar relief to which it may be entitled under any present or future Law; or seeks or consents to or acquiesces in the appointment of or taking possession by, any custodian, trustee, receiver or liquidator of it or of all or a substantial part of its properties or assets; or takes action looking to its dissolution or liquidation, and Subscriber Organization is unable to remedy such actions within one hundred eighty (180) Days of the occurrence of such breach or default.
14. Subscriber Organization fails to comply with the applicable term, conditions and minimum requirements specified in the CBRE Tariff governing Subscriber Organization's CBRE Facility, if such failure is not cured within thirty (30) Days after written notice of such failure from Company.
15. Subscriber Organization fails to comply with a decision under Section 17 (Dispute Resolution) within thirty (30) Days after such decision or, if such decision cannot be complied with within thirty (30) Days, Subscriber Organization fails to have commenced commercially reasonable efforts designed to achieve compliance within such thirty (30) Days and diligently continue such commercially reasonable efforts until compliance is attained, but no longer than one hundred twenty (120) Days;
16. Other than the events of default specified in this Section 13.A.1 through Section 13.A.15, should Subscriber Organization, by act or omission, materially breach or default on any other material covenant, condition or other provision of this Contract, and if such breach or default is not cured within thirty (30) Days after written notice of such breach or default from Company, such failure to cure shall constitute an Event of Default; provided, however, that if it is objectively impossible to cure such breach or default within said thirty (30) Day period, then, for so long as Subscriber Organization is making the same effort to cure such breach or default as would be expected of an experienced independent power producer willing and able to exert commercially reasonable efforts to achieve such cure, Subscriber Organization shall have a cure period equal to three hundred sixty-five (365) Days beginning on the date of Company's written notice of such breach or default; provided, further, that if the material breach



in question involves Subscriber Organization's failure to meet the operational and performance standards set forth in Attachment F (Facility Owned by Subscriber Organization), the provisions of Section 1.J (Demonstration of Facility) of Attachment F (Facility Owned by Subscriber Organization) for consultant's study and Subscriber Organization implementation of such study's recommendation shall apply in lieu of the extended cure period provided under the preceding proviso.

#### **14. TERMINATION FOR CAUSE.**

A. Upon an Event of Default by the Subscriber Organization:

1. Company shall provide written notice to the Subscriber Organization to remedy the Event of Default within the applicable cure period specified for such Event of Default, if any.
2. If after the cure period, if any, provided for in the Company's notice, Subscriber Organization is still not in compliance with this Contract, then the Company shall have the right to terminate the Contract, as follows:
  - a. Company shall issue a written a Notice of Intent to Terminate the Contract for just cause;
  - b. Subscriber Organization shall have five (5) Business Days in which to provide evidentiary documentation reasonably establishing that Company's decision to terminate the Contract is in error.
  - c. If the Subscriber Organization fails to provide such proof or if the Company reasonably determines that such proof is insufficient to reverse the Company's decision to terminate, Company may proceed to terminate the Contract by providing a written Notice of Termination to Subscriber Organization. A copy of such notice shall be provided to all Subscribers of the CBRE Facility, the PUC, and the CBRE IO, if applicable.
3. The termination date in the notice of termination shall not be earlier than thirty (30) Days from the date of such notice.
4. Subscriber Organization acknowledges that Company is a public utility and is relying upon Subscriber Organization's performance of its obligations under this Contract, and that Company and/or its customers may suffer irreparable injury as a result of the failure of Subscriber Organization to perform any of such obligations, whether or not such failure constitutes an Event of Default or otherwise gives rise to a termination for cause of this Contract. Accordingly, Company shall have right to seek specific performance injunctions or other available equitable remedies for Subscriber Organization's failure to perform any of its obligations under this Contract, irrespective of whether such failure constitutes an Event of Default.
5. In the event of any breach of this Contract by Company, the Subscriber Organization shall provide Company with a written notice of the breach. Company shall have up to thirty (30) Days to cure the breach. If the breach is not cured within the thirty (30) Days, the Subscriber Organization may utilize the procedures set forth in Section 17. (Dispute Resolution) of this Contract. If the breach results in Bill Credits not being issued to one or more individual Subscribers, in the absence of a cure by Company within the allowed time following the notice, the Subscriber Organization may also seek a remedy on behalf of the affected Subscribers for any past due Bill Credits pursuant to the process set forth in Section 17. (Dispute Resolution) of this Contract.

- B. Following Termination, applicable provisions shall continue in effect after termination to the extent necessary to enforce and complete the duties, obligations or responsibilities of the Parties arising prior to termination and, as applicable, to provide for final billings and adjustments related to the

period prior to termination, repayment of any money due and owing to either Party pursuant to this Contract.

**15. DAMAGES IN THE EVENT OF TERMINATION BY COMPANY.**

- A. Termination Due to an Event of Default. If the Contract is terminated by Company in accordance with this Contract due to an Event of Default, Company shall be entitled to Termination Damages calculated by multiplying the Contract Capacity by [\$75/kW].
- B. Termination Damages Appropriate. Subscriber Organization agrees and acknowledges that (i) the damages that Company would incur due to early termination of the Contract would be difficult or impossible to calculate with certainty, (ii) the Termination Damages are an appropriate approximation of such damages, and (iii) payment of Termination Damages does not relieve Subscriber Organization of liability for costs and balances incurred prior to the effective date of such termination. The Termination Damages are not intended to limit Company's rights or remedies, or Subscriber Organization's liabilities or duties, with respect to losses arising independent of the termination of this Contract for an Event of Default before the Commercial Operations Date, including, without limitation, Company's right to recover under Section 16. (Limitation of Liability).

**16. LIMITATION OF LIABILITY.**

- A. Each Party shall at all times indemnify, defend, and save the other Party harmless from any and all damages, losses, claims, including claims and actions relating to injury or death of any person or damage to property, costs and expenses, reasonable attorneys' fees and court costs, arising out of or resulting from the Party's performance of its obligations under this Contract, except to the extent that such damages, losses or claims were caused by the negligence or intentional acts of the other Party.
- B. Each Party's liability to the other Party for failure to perform its obligations under this Contract 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 punitive, incidental, indirect, special, or consequential damages of any kind whatsoever, including for loss of business opportunity or profits, regardless of whether such damages were foreseen.
- C. Notwithstanding any other provision of the Contract or this Section 16., with respect to the Company's duties or performance or lack of performance under this Contract, the Company's liability to the Subscriber Organization shall be limited as set forth in the Company's rate book and terms and conditions for electric service, which shall not be affected by the terms of this Contract. There are no third-party beneficiaries of any Company duty under this Contract other than the Company's duty to Subscribers to issue Bill Credits as set forth in this Contract.
- D. Indemnification of Company Against Third Party Claims. Subscriber Organization shall indemnify, defend, and hold harmless Company, its successors, permitted assigns, affiliates, controlling persons, directors, officers, employees, agents, contractors, subcontractors and the employees of any of them (collectively referred to as an "Indemnified Company Party"), from and against any Losses suffered, incurred or sustained by any Indemnified Company Party due to any Claim (whether or not well founded, meritorious or unmeritorious) by a third party not controlled by, or under common ownership and/or control with, Company relating to (i) the Subscriber Agreement between Subscriber Organization and its Subscribers or (ii) Subscriber Organization's development, permitting, construction, ownership, operation and/or maintenance of the CBRE Facility.

## **17. DISPUTE RESOLUTION.**

- A. Notwithstanding the provisions of this Contract allowing for early termination following an Event of Default, each Party agrees to attempt to resolve all disputes arising hereunder promptly, equitably and in a good faith manner.
- B. Before submitting any claims, controversies or disputes ("Dispute(s)") under this Contract to the Dispute Resolution Procedures set forth below in Section C., the presidents, vice presidents, or authorized delegates from both Subscriber Organization and Company having full authority to settle the Dispute(s), shall personally meet in Hawai'i and attempt in good faith to resolve the Dispute(s) (the "Management Meeting").
- C. Dispute Resolutions Procedures, Mediation. Any and all Dispute(s) arising out of or relating to this Contract, (i) which remain unresolved for a period of 20 Days after the Management Meeting takes place or (ii) for which the Parties fail to hold a Management Meeting within sixty (60) Days of the date that a Management Meeting was requested by a Party, may upon the agreement of the Parties, first be submitted to confidential mediation in Honolulu, Hawai'i pursuant to the administration by, and in accordance with the Mediation Rules, Procedures and Protocols of, Dispute Prevention & Resolution, Inc. (or its successor) or, in their absence, the American Arbitration Association ("DPR") then in effect. If the Parties agree to submit the dispute to confidential mediation, the parties shall each pay 50% of the cost of the mediation (i.e., the fees and expenses charged by the mediator and DPR) and shall otherwise each bear their own mediation costs and attorneys' fees. If the Parties do not submit the Dispute(s) to mediation, or if they do submit the Dispute(s) to mediation but settlement of the Dispute(s) is not reached within 60 Days after commencement of the mediation, either Party may initiate legal proceedings in a court of competent jurisdiction in the State of Hawai'i.

- 18. ENVIRONMENTAL CREDITS.** Included in the purchase and sale of renewable energy are all of the Environmental Credits associated with the renewable energy. Company will not reimburse Subscriber Organization for any taxes or fees imposed on Subscriber Organization including, but not limited to, State of Hawai'i general excise tax. To the extent not prohibited by law, Company shall have the sole and exclusive right to use the renewable energy purchased hereunder to meet RPS and any Environmental Credit shall be the property of Company; provided, however, that such Environmental Credits shall be to the benefit of Company's ratepayers in that the value must be credited "above the line." Subscriber Organization shall use all commercially reasonable efforts to ensure such Environmental Credits are vested in Company, and shall execute all documents, including, but not limited to, documents transferring such Environmental Credits, without further compensation; provided, however, that Company agrees to pay for all reasonable costs associated with such efforts and/or documentation.

## **19. REPRESENTATIONS AND WARRANTIES.**

- A. Company and Subscriber Organization represent and warrant, respectively, that:
  - 1. Each respective Party has all necessary right, power and authority to execute, deliver and perform this Contract.
  - 2. The execution, delivery and performance of this Contract by each respective Party will not result in a violation of any Laws, or conflict with, or result in a breach of, or cause a default under, any agreement or instrument to which such Party is also a party or by which it is bound. No consent of any person or entity not a Party to this Contract, other than governmental agencies whose approval is necessary for construction of the CBRE Facility and interconnection facilities, is required for such execution, delivery and performance by either Party.

B. Subscriber Organization represents, warrants and covenants that:

1. Subscriber Organization has obtained all Land Rights necessary for the construction, ownership, operation and maintenance of the CBRE Facility during the Term, and Subscriber Organization shall maintain such Land Rights in effect throughout the Term.
2. As of the commencement of construction, Subscriber Organization shall have obtained all permits or approvals from any applicable governmental agency necessary for the construction, ownership, operation and maintenance of the CBRE Facility and all interconnection facilities.
3. Subscriber Organization warrants that the CBRE Facility complies with all applicable federal and state Laws, including but not limited to (a) all applicable securities Laws and shall continue to be in compliance for the duration of the Term; (b) complies with all applicable Laws concerning the dissemination of personally identifiable information, and shall continue to be in compliance for the longer of (i) the Term and (ii) for as long as Subscriber Organization continues to hold or otherwise have access to any personally identifiable information of Subscribers or customers of Company; (c) complies with all applicable Laws concerning consumer protection, and shall continue to be in compliance for the duration of the Term; (d) complies with all applicable Laws and regulations concerning renewable energy grid interconnections, and shall continue to be in compliance for the duration of the Term.

**20. SUBSCRIBER ORGANIZATION AND CBRE FACILITY INFORMATION.** By signing this Contract, the Subscriber Organization expressly agrees and authorizes the Company to request and obtain from Subscriber Organization and its contractors, vendors, subcontractors, installers, suppliers or agents (collectively “Subscriber Organization Agents”), at no cost to Company, information related to the CBRE Facility, including but not limited to Watts, Vars, Watt Hours, current and voltage, status of the CBRE Facility, inverter settings, any and all recorded event or alarm logs recorded, (collectively “CBRE Facility Data”) that Company reasonably determines are needed to ensure the safe and reliable operation of the CBRE Facility or the Company’s system. Subscriber Organization expressly agrees and irrevocably authorizes Subscriber Organization Agents to disclose such Subscriber Organization Data to Company upon request by Company.

**21. ADDITIONAL INFORMATION.** The Company reserves the right to request additional information from Subscriber Organization relating to the CBRE Facility, where reasonably necessary, to serve the Subscriber Organization under this Contract or to ensure reliability, safety of operation, and power quality of the Company’s system.

**22. NO MATERIAL CHANGES TO CBRE FACILITY.** The Subscriber Organization agrees that no material changes or additions to the CBRE Facility shall be made without having obtained prior written consent from the Company, which consent shall not be unreasonably withheld. In no event may the Total Rated Capacity of the CBRE Facility exceed \_\_\_\_\_ kW. If the CBRE Facility changes ownership, the Company may require the new Subscriber Organization to complete and execute an amended Contract or new Contract, as may be applicable.

**23. CERTIFICATION BY LICENSED ELECTRICAL CONTRACTOR.** The CBRE Facility and all interconnection systems must comply with all applicable safety and performance standards of the National Electrical Code (NEC), Institute of Electrical and Electronic Engineers (IEEE), and accredited testing laboratories such as the Underwriters Laboratories (UL), and where applicable, the rules of the Commission, or other applicable governmental laws and regulations, and the Company's interconnection requirements, in effect at the time of signing this Contract. This requirement shall include, but not be limited to, the interconnection standards and procedures of the Company’s Rule 14H, as well as any other requirements as may be specified in this Contract, its Attachments, Exhibits,

and as authorized by the Commission. Upon request by Company, Subscriber Organization shall cause a Licensed Electrical Contractor, as agent for Subscriber Organization, to certify that once approved by the Company, the proposed CBRE Facility will be installed to meet all preceding requirement(s).

**24. GOOD ENGINEERING PRACTICE.**

- A. Each Party agrees to install, operate and maintain its respective equipment and facilities and to perform all obligations required to be performed by such Party under this Contract in accordance with good engineering practice in the electric industry and with applicable laws, rules, orders and tariffs.
- B. Wherever in this Contract and its Attachments and Exhibits the Company has the right to give specifications, determinations or approvals, such specifications, determinations and/or approvals shall be given in accordance with the Company's standard practices, policies and procedures, which may include the Company's Electric Service Installation Manual, the Company's Engineering Standard Practice Manual and the IEEE Guides and Standards for Protective Relaying Systems.

**25. INSURANCE.** The following insurance provisions are only applicable to CBRE Facilities with a Total Rated Capacity 250 kW or greater but not exceeding 2.5 MW:

- A. The Subscriber Organization shall, at its own expense and during the term of the Contract and any other time that the CBRE Facility is interconnected with the Company's system, maintain in effect with a responsible insurance company authorized to do insurance business in Hawai'i and with a rating by A.M. Best Company, Inc. of "A-VII" or better, the following insurance or its equivalent at Company's discretion that will protect the Subscriber Organization and the Company with respect to the CBRE Facility, the CBRE Facility's operations, and the CBRE Facility's interconnection with the Company's system:
  1. A Commercial General Liability policy covering bodily injury and property damage with combined single limit of liability of at least the following amounts based on the Total Rated Capacity of the generator (for solar systems—Total Rated Capacity of the generator or inverter, whichever is lower, can be used with appropriate technical documentation on inverter, if not higher Total Rated Capacity will be used), for any occurrence. The limits below may be satisfied through the use of umbrella or excess liability insurance sufficient to meet these requirements:

COMMERCIAL GENERAL LIABILITY LIABILITY COVERAGE AMOUNT	TOTAL RATED CAPACITY OF THE CBRE FACILITY
\$5,000,000	Greater than 1 MW and less than or equal to 5 MW
\$2,000,000	250 kW and less than or equal to 1 MW

2. Said insurance by endorsement to the policy or policies shall: name the Company, its directors, officers, agents, and employees as additional insured; include contractual liability coverage for written agreements; include provisions stating that the insurance will respond to claims or suits by additional insureds against the Subscriber Organization or any other insured thereunder; provide that the insurance is primary with respect to the Subscriber Organization and the Company; and provide that the insurance company waives all rights of subrogation which Subscriber Organization or the insurance company may have against Company, its directors,

officers, agents, and employees. Any insurance carried by Company will be excess only and not contribute with this insurance.

- B. Said insurance by endorsement to the policy or policies shall provide written notice within thirty (30) Days to the Company should the required insurance be cancelled, limited in scope, or not renewed upon expiration. "Claims made" policies are not acceptable, unless the Subscriber Organization agrees to maintain coverage in full effect at all times during the term of this Contract and for three (3) years thereafter. The adequacy of the coverage afforded by the required insurance shall be subject to review by the Company from time to time, and if it appears in such review that risk exposures require an increase in the coverages and/or limits of this insurance, the Subscriber Organization shall make such increase to that extent and any increased costs shall be borne by the Subscriber Organization. The Subscriber Organization has the responsibility to determine if higher limits are desired and purchased. The Subscriber Organization shall provide certificates of insurance to the Company prior to executing the Contract and any parallel interconnection. Receipt of any certificate showing less coverage than required shall not operate as a waiver by the Company of the Subscriber Organization's obligation to fulfill the applicable requirements of this Section 25. The Subscriber Organization's indemnity and other obligations shall not be limited by the foregoing insurance requirements. Any deductible shall be the responsibility of the Subscriber Organization.
- C. Alternatively, where the Subscriber Organization is a governmental entity, Subscriber Organization may elect to be self-insured for the amounts set forth above in lieu of obtaining insurance coverage to those levels from an insurance company.

## **26. MISCELLANEOUS.**

- A. Disconnection and Survival of Obligations. Upon termination of this Contract, the CBRE Facility shall be disconnected from the Company's system. The termination of this Contract shall not relieve the Parties of their respective liabilities and obligations, owed or continuing at the time of termination.
- B. Governing Law and Regulatory Authority. This Contract was executed in the State of Hawai'i and must in all respects be interpreted, governed, and construed under the laws of the State of Hawai'i. This Contract is subject to, and the Parties' obligations hereunder include, operating in full compliance with all valid, applicable federal, state, and local laws or ordinances, and all applicable rules, regulations, orders of, and tariffs approved by, duly constituted regulatory authorities having jurisdiction.
- C. Amendment, Modifications, or Waiver; Entire Agreement. This Contract may not be altered or modified by either of the Parties, except by an instrument in writing executed by each of them. None of the provisions of this Contract shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Contract or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect. This Contract contains the entire agreement and understanding between the Parties, their agents, and employees as to the subject matter of this Contract. Each Party also represents that in entering into this Contract, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Contract.
- D. Notices. Any notice required under this Contract shall be in writing and mailed at any United States Post Office with postage prepaid and addressed to the Party, or personally delivered to the Party at the address identified on the last page of the Contract. Changes in such designation may be made

by notice similarly given. Notice sent by mail shall be deemed to have been given on the date of actual delivery or at the expiration of the fifth day after the date of mailing, whichever is earlier.

- E. Assignment. This Contract may not be assigned by either Party without the prior written consent of the other Party. Such consent shall not be unreasonably withheld. In the event of an assignment for financing, to the extent necessary, Company shall, if requested by Subscriber Organization and if its costs (including reasonable attorneys' fees of outside counsel) in responding to such request are paid by Subscriber Organization execute such Hawai'i-law-governed documents as may be reasonably requested by a lender in connection with CBRE Facility debt and reasonably acceptable to Company, to acknowledge an assignment of such debt and/or pledge/mortgage.
- F. Binding Effect. This Contract shall be binding upon and inure to the benefit of the Parties hereto and their respective successors, legal representatives, and permitted assigns.
- G. Relationship of Parties. Nothing in this Contract shall be deemed to constitute any Party hereto as partner, agent or representative of the other Party or to create any fiduciary relationship between the Parties.
- H. Limitations. Nothing in this Contract shall limit the Company's ability to exercise its rights or expand or diminish its liability with respect to the provision of electrical service pursuant to the Company's tariffs as filed with the Commission, or the Commission's Standards for Electric Utility Service in the State of Hawai'i, which currently are included in the Commission's General Order Number 7, as either may be amended from time to time.
- I. Non-Warranty. Neither by inspection, if any, or non-rejection, nor in any other way, does the Company give any warranty, express or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Subscriber Organization or leased by the Subscriber Organization from third parties, including without limitation the CBRE Facility and any structures, equipment, wires, appliances or devices appurtenant thereto.
- J. Hawai'i General Excise Tax. [See Project Specific Addendum]
- K. Execution of Contract; Multiple Counterparts. The Parties agree that this Contract, including amendments, may be executed and delivered by exchange of electronic signatures, which may be transmitted by facsimile, e-mail, or other acceptable means. A party's electronic signature shall be considered an "original" signature which is binding and effective for all purposes. This Contract may be executed in counterparts, each of which shall be deemed an original, and all of which shall together constitute one and the same instrument binding all Parties.
- L. Survival. The rights and obligations of the Parties in this Contract which, by its express terms or nature and context is intended to survive termination or expiration of this Contract, will survive any such termination or expiration.

## **27. FORCE MAJEURE.**

- A. Definition of Force Majeure. The term "Force Majeure", as used in this Contract, means any occurrence that:
  - 1. In whole or in part delays or prevents a Party's performance under this Contract;
  - 2. Is not the direct or indirect result of the fault or negligence of that Party;
  - 3. Is not within the control of that Party notwithstanding such Party having taken all reasonable precautions and measures in order to prevent or avoid such event; and

4. The Party has been unable to overcome by the exercise of due diligence.
- B. Events That Could Qualify as Force Majeure. Subject to the foregoing, events that could qualify as Force Majeure include, but are not limited to, the following: acts of God, flooding, lightning, landslide, earthquake, fire, drought, explosion, epidemic, quarantine, storm, hurricane, tornado, volcano, other natural disaster or unusual or extreme adverse weather-related events; war (declared or undeclared), riot or similar civil disturbance, acts of the public enemy (including acts of terrorism), sabotage, blockade, insurrection, revolution, expropriation or confiscation; or strikes, work stoppage or other labor disputes (in which case the affected Party shall have no obligation to settle the strike or labor dispute on terms it deems unreasonable).
- C. Exclusions From Force Majeure. Force Majeure does not include:
1. any acts or omissions of any Third Party, including, without limitation, any vendor, materialman, customer, or supplier of Subscriber Organization, unless such acts or omissions are themselves excused by reason of Force Majeure;
  2. any full or partial reduction in the electric output of Facility that is caused by or arises from (i) a mechanical or equipment breakdown or (ii) other mishap or events or conditions attributable to normal wear and tear or defects, unless such mishap is caused by Force Majeure;
  3. changes in market conditions that affect the cost of Subscriber Organization's supplies, or that affect demand or price for any of Subscriber Organization's products, or that otherwise render this Contract uneconomic or unprofitable for Subscriber Organization;
  4. Subject to Section 10. I. of this Contract, Subscriber Organization's inability to obtain Governmental Approvals or Land Rights for the construction, ownership, operation and maintenance of Facility and the Company-Owned Interconnection Facilities, or Subscriber Organization's loss of any such Governmental Approvals or Land Rights once obtained;
  5. the lack of wind, sun or any other resource of an inherently intermittent nature;
  6. Subscriber Organization's inability to obtain sufficient fuel, power or materials to operate its Facility, except if Subscriber Organization's inability to obtain sufficient fuel, power or materials is caused solely by an event of Force Majeure;
  7. Subscriber Organization's failure to obtain additional funds, including funds authorized by a state or the federal government or agencies thereof, to supplement the payments made by Company pursuant to this Contract;
  8. a Forced Outage except where such Forced Outage is caused by an event of Force Majeure;
  9. litigation or administrative or judicial action pertaining to the Contract, the Site, the Facility, the Land Rights, the acquisition, maintenance or renewal of financing or any Governmental Approvals, or the design, construction, ownership, operation or maintenance of the Facility, the Company-Owned Interconnection Facilities or the Company System;
  10. a strike, work stoppage or labor dispute limited only to any one or more of the Indemnified Subscriber Organization Parties or any other third party employed by Subscriber Organization to work on the Project; or
  11. any full or partial reduction in the availability of the Facility to produce and deliver to the Point of Interconnection electric energy in response to Company Dispatch which is caused by any Third Party including, without limitation, any vendor or supplier of Subscriber Organization or Company, except to the extent due to Force Majeure.



- D. Satisfaction of Certain Conditions. This Contract defer or limit certain liabilities of a Party for delay and/or failure in performance to the extent such delay or failure is the result of conditions or events of Force Majeure; provided, however, that a Non-performing Party is only entitled to such limitations or deferrals of liabilities as and to the extent the following conditions are satisfied:
1. the Non-performing Party gives the other Party, within five (5) Days after the Non-performing Party becomes aware or should have become aware of the Force Majeure condition or event, but in any event no later than thirty (30) Days after the Force Majeure condition or event begins, written notice (the "Force Majeure Notice") stating that the Non-performing Party considers such condition or event to constitute Force Majeure and describing the particulars of such Force Majeure condition or event, including the date the Force Majeure commenced;
  2. the Non-performing Party gives the other Party, within fourteen (14) Days after the Force Majeure Notice was or should have been provided, a written explanation of the Force Majeure condition or event and its effect on the Non-performing Party's performance, which explanation shall include evidence reasonably sufficient to establish that the occurrence constitutes Force Majeure;
  3. the suspension of performance is of no greater scope and of no longer duration than is required by the condition or event of Force Majeure;
  4. the Non-performing Party exercises commercially reasonable efforts to remedy its inability to perform and provides written weekly progress reports to the other Party describing actions taken to end the Force Majeure; and
  5. when the condition or event of Force Majeure ends and the Non-performing Party is able to resume performance of its obligations under this Contract, that Party shall give the other Party written notice to that effect.
- E. Termination for Force Majeure. If Force Majeure delays or prevents a Party's performance for more than three hundred sixty-five (365) Days from the occurrence or inception of the Force Majeure, as stated in the Force Majeure Notice, and such delay or failure of performance would have otherwise constituted an Event of Default under Section 13, (Events of Default by Subscriber Organization), the other Party shall have the right to terminate this Contract by written notice. Such notice shall designate the date such termination is to be effective, which date shall be no later than thirty (30) Days after such notice is deemed to be received by the Party whose performance has been delayed or prevented. In the event of termination pursuant to this Section 27.E (Termination for Force Majeure), neither Party shall be liable for any damages nor have any obligations to the other, except as provided in Section 26.L (Survival).
- F. Effect of Force Majeure. Other than as provided in Section 27.E, (Termination for Force Majeure), neither Party shall be responsible or liable for any delays or failures in its performance under this Contract as and to the extent (i) such delays or failures are substantially caused by conditions or events of Force Majeure, and (ii) the conditions of Section D, (Satisfaction of Certain Conditions) are satisfied.
- G. No Relief of Other Obligations. Except as otherwise expressly provided for in this Contract, the existence of a condition or event of Force Majeure shall not relieve the Parties of their obligations under this Contract (including, but not limited to, payment obligations) to the extent that performance of such obligations is not precluded by the condition or event of Force Majeure.
- H. No Extension of the Term. In no event will any delay or failure of performance caused by any conditions or events of Force Majeure extend this Contract beyond its stated Term.

## **28. COMMUNITY OUTREACH.**

- A. The Parties acknowledge that, prior to the Execution Date, Subscriber Organization provided to Company a comprehensive community outreach and communications plan to work with and inform neighboring communities and stakeholders to gain their support for the Project ("Community Outreach and Engagement Plan"). Subscriber Organization agrees to work with neighboring communities and stakeholders and provide them timely information during all phases of the Project, including but not limited to the following information: Project description, Project stakeholders, community concerns and Subscriber Organization's efforts to address such concerns, Project benefits, government approvals, Project schedule, and a Community Outreach and Engagement Plan. Subscriber Organization's Community Outreach and Engagement Plan is a public document and shall remain available to members of the community on the Subscriber Organization's website for the Term of this Contract and upon request. Subscriber Organization shall also provide Company with links to its Project website and Community Outreach and Engagement Plan.
- B. Public Meeting; Public Comment Period. The Parties also acknowledge that, prior to the Execution Date, Subscriber Organization provided reasonable advance notice and hosted a public meeting for community and neighborhood groups in and around the vicinity of the Project site that provided neighboring community, stakeholders, and the general public with: (i) a reasonable opportunity to learn about the proposed Project; (ii) an opportunity to engage in a dialogue about concerns, mitigation measures, and potential community benefits of the proposed Project; and (iii) information concerning the process and/or intent for the public's input and engagement, including advising attendees that they will have thirty (30) Days from the date of said public meeting to submit written comments to Company and/or Subscriber Organization. Subscriber Organization shall collect all public comments, and then provide Company copies of all comments received in their original, unedited form. Subscriber Organization agrees that it will post all comments with personal information redacted on its website for public review. Comments should remain on the Subscriber Organization's website for at least two years after the Commercial Operations Date.
- C. Subscriber Organization acknowledges and agrees that any written comments from the public regarding the CBRE Project it receives after the 30-day public comment period will be submitted to Company in their original, unedited form. Subscriber Organization further agrees to post these subsequent public comments, with personal information redacted, on its website for public review for at least two years after the Commercial Operations Date.
- D. The Parties acknowledge and agree that Subscriber Organization is responsible for community outreach and engagement for the Project, and that the public meeting and comment solicitation process described in this Section 28 (Community Outreach) do not represent the only community outreach and engagement activities that can or should be performed by Subscriber Organization. Without limitation to the generality of the preceding sentence, Subscriber Organization agrees to take into account the Project's potential impacts on historical and cultural resources and, at a minimum, Subscriber Organization shall describe: (i) any valued cultural, historical, or natural resources in the area in question, including the extent to which traditional and customary native Hawaiian rights are exercised in the area; (ii) the extent to which those resources – including traditional and customary native Hawaiian rights – will be affected or impaired by the Project; and (iii) the feasible action, if any, to be taken to reasonably protect native Hawaiian rights if they are found to exist. Subscriber Organization shall determine and implement such additional means as may be reasonably necessary to share information with and involve the community and neighborhood groups in and around the vicinity of the Facility during the Project planning and development process through the Term of this Contract, and shall timely inform Company of its plans and activities in this regard.

E. Upon the Execution Date and at all times during the Term of this Contract, Subscriber Organization shall designate an individual as the "Subscriber Organization's Community Representative." The Subscriber Organization's Community Representative shall be the primary contact between the community and the Subscriber Organization and shall be available during the Term of this Contract to receive and answer questions from the community. As of the Execution Date, the Subscriber Organization's Community Representative shall be:

- Name: [name of Subscriber Organization's Community Representative]
- Contact Information: [email address]
- Subscriber Organization shall notify Company in writing upon designation of any new Subscriber Organization's Community Representative.

**29. GENERATOR/EQUIPMENT CERTIFICATION.** CBRE Facilities that utilize inverter technology must be compliant with Institute of Electrical and Electronics Engineers IEEE Std 1547-2018, Underwriters Laboratories UL 1741 and the Company's Source Requirement Document Version 2.0 (though not preferred, Company will accept compliance with the Company's Source Requirement Document Version 1.1 for CBRE Projects executed prior to or on June 30, 2021) as well as the Company's Rule 14H and any additional requirements contained herein that apply to CBRE Facilities. CBRE Facilities that use a rotating machine must be compliant with applicable National Electrical Code, Underwriters Laboratories, and Institute of Electrical and Electronics Engineers standards and rules and orders of the Commission in effect at the time this Contract is executed. By signing below, the Applicant certifies that the installed generating equipment will meet the appropriate preceding requirement(s) and can supply documentation that confirms compliance, including a certification of the same from the Installing Electrical Contractor upon request by the Company. Notwithstanding the above, the CBRE Facility must still comply with the Performance Standards required in this Contract.

**30. NOTICE AND DISCLAIMER REGARDING FUTURE TARIFF MODIFICATIONS.**

A. This Contract shall, at all times, be subject to modification by the Commission as said Commission may, from time to time, direct in the exercise of its jurisdiction. Without limiting the foregoing, Subscriber Organization expressly acknowledges the following:

1. The CBRE Tariff is subject to modification by the Commission.
2. The CBRE Facility shall be subject to any future modifications ordered by the Commission. Subscriber Organization agrees to abide by and comply with and to pay for any costs related to such Commission-ordered modifications for the term of the Contract.

B. BY SIGNING BELOW, SUBSCRIBER ORGANIZATION ACKNOWLEDGES IT HAS READ, UNDERSTANDS AND AGREES TO ABIDE BY THE ABOVE SECTION 30. NOTICE AND DISCLAIMER.

**IN WITNESS WHEREOF**, the Parties hereto have caused this Contract to be executed by their duly authorized representatives. This Contract is effective as of the Effective Date set forth above.

[Subscriber Organization]	[Hawaiian Electric Company, Inc; Hawai'i Electric Light Company, Inc. Maui Electric Company, Limited], a Hawai'i corporation
By: _____ Name: _____ Date: _____	By: _____ Name: _____ Date: _____

MAILING ADDRESS [select as appropriate]

Hawaiian Electric Company, Inc. Attn: Customer Energy Resources Division P.O. Box 2750 Honolulu, HI 96840]	Maui Electric Company, Ltd. Attn: Renewable Energy Projects Division P.O. Box 398 Kahului, HI 96733-6898]	Hawai'i Electric Light Company, Inc.  <u>Hilo:</u> Hawai'i Electric Light Engineering Attn: DER Program 54 Halekauila Street Hilo, HI 96720  <u>Kona:</u> Hawai'i Electric Light Engineering Attn: DER Program 74-5519 Kaiwi Street Kailua Kona, HI 96740]
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**ATTACHMENT A**  
**SCHEDULE OF DEFINED TERMS**

For the purposes of this Contract, the following capitalized terms shall have the meanings set forth below:

"Acceptance Test": A test conducted by Subscriber Organization and witnessed by Company, within thirty (30) Days of completion of all Interconnection Facilities and in accordance with criteria and test procedures determined by Company to determine conformance with Attachment F (Facility Owned by Subscriber Organization) and in accordance with Good Engineering and Operating Practices. Exhibit F-8 (Acceptance Test General Criteria) provides general criteria to be included in the written protocol for the Acceptance Test. Successful completion of the Acceptance Test shall be a condition precedent for the performance of the Control System Acceptance Test and the Commercial Operations Date.

"Active Power Control Interface": Shall have the meaning set forth in Section 1.G (Active Power Control Interface) of Attachment F (Facility Owned by Subscriber Organization) of this Contract.

"Account Holder": The primary account holder for each physical residence or business address on the island serviced by the Company, as identified in Company's records. An Account Holder is not a Subscriber until such Account Holder has been successfully enrolled in Facility's CBRE Program.

"Actual Output": The total quantity of electric energy (measured in kilowatt hours) produced by the CBRE Facility over a given time period and delivered to the Point of Interconnection, as measured by the Revenue Meter. "Actual Output" is the equivalent of "Net Energy."

"Allowed Capacity": Shall have the meaning set forth in Section 5(f) of Exhibit F-1 (Description of Generation and Battery Storage Facilities) to this Contract.

"Applicable Period Lump Sum Payment": For each applicable period, the total amount of Lump Sum Payment payable during such period, as such amount may be calculated and adjusted from time to time as set forth in Section 4.B (Lump Sum Payment) of this Contract and/or Section 3 (Calculation of Lump Sum Payment) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract.

"Applicable NEP Verification Date": For the Initial OEPR, the Initial NEP Verification Date. For any Subsequent OEPR, the first Day of the calendar month following the calendar month during which there occurs the first anniversary of the event (e.g., completion of equipment replacement) which occasioned the preparation of such Subsequent OEPR.

"Battery Energy Storage System" or "BESS": The battery energy storage system as described in Attachment F (Facility Owned by Subscriber Organization) to the Contract, together with all other equipment, devices, and associated appurtenances owned, controlled, operated and managed by Subscriber Organization in connections, with or to facilitate, the storage, transmission, delivery or furnishing by Subscriber Organization to Company of the electric energy stored in the BESS.

"BESS Allocated Portion of the Lump Sum Payment": For each BESS Measurement Period and for any other applicable period, an amount equal to fifty percent (50%) of the total of the three monthly Lump Sum Payments for such period without taking into account any set-offs against such monthly Lump Sum Payments.

"BESS Annual Equivalent Availability Factor": Shall be as described in Attachment C (Required Performance Metrics; Liquidated Damages), Section 4, (BESS Annual Equivalent Availability Factor; Liquidated Damages; Termination Rights) to this Contract.

"BESS Capacity Performance Metric": Shall have the meaning set forth in Attachment H (BESS Requirements), Section 1 (BESS Tests) to this Contract.

"BESS Capacity Cure Period": Shall have the meaning set forth in Attachment C (Required Performance Metrics; Liquidated Damages), Section 3. (BESS Capacity Test; Liquidated Damages; Termination Rights).

"BESS Capacity Ratio": Shall have the meaning set forth in Attachment H (BESS Requirements), Section 1 (BESS Tests) to this Contract.

"BESS Capacity Test": Shall have the meaning set forth in Attachment H (BESS Requirements), Section 1 (BESS Tests) to this Contract.

"BESS Contract Capacity": The storage capacity, in MWh, of the BESS, or \_\_\_\_ MWh.

"BESS EAF Performance Metric": Shall have the meaning set forth in Attachment C (Required Performance Metrics; Liquidated Damages) Section 4. (BESS Annual Equivalent Availability Factor; Liquidated Damages; Termination Rights).

"BESS EFOF Performance Metric": Shall have the meaning set forth in Attachment C (Required Performance Metrics; Liquidated Damages) Section 4. (BESS Annual Equivalent Forced Outage Factor; Liquidated Damages; Termination Rights).

"BESS Measurement Period": Shall mean, in any Contract Year, the following periods of three calendar months each: (i) the period beginning on the first day of the first calendar month of such Contract Year and extending through the last day of the third calendar month of such Contract Year; (ii) the period beginning on the first day of the fourth calendar month of such Contract Year and extending through the last day of the sixth calendar month of such Contract Year; (iii) the period beginning on the first day of the seventh calendar month of such Contract Year and extending through the last day of the ninth calendar month of such Contract Year; and (iv) the period beginning on the first day of the tenth calendar month of such Contract Year and extending through the last day of the twelfth calendar month of such Contract Year.

"BESS Measurement Period Report": For each BESS Measurement Period, the report of the data necessary for calculation of the Performance Metrics for such BESS Measurement Period to be provided by Subscriber Organization to Company in the form set forth in Section 1 (Monthly Report) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract or such other form as the Company may approve in writing.

"Bill Credit": shall mean the dollar amount payable by means of a credit by the Company to each Subscriber on the Subscriber's retail electric service bill, which represents the Subscriber's beneficial share of the Contract Capacity by which renewable energy is produced by the CBRE Facility and exported to the Company, and offsetting Subscriber's current renewable energy usage on such service bill.

"Bill Credit Rate": shall mean the then current applicable "Credit Rate" as determined by the CBRE Tariff. The CBRE Tariff prescribes a specific Credit Rate in the event that CBRE Small Project Phase 2 Capacity (as defined in the CBRE Tariff) is not filled for any island and a competitive credit rate procurement ("CCRP") mechanism to set the Credit Rate if there are more applications for CBRE Small Project Phase 2 Capacity than is available for any island.

"Bill of Material": A list of equipment to be installed at the Facility including, but not necessarily limited to, items such as relays, breakers, and switches.

"Business Day": Any calendar day that is not a Saturday, a Sunday, or a federal or Hawai'i state holiday.

"CBRE Facility" or "Facility": Subscriber Organization's renewable electric energy facility that is the subject of this Contract, including the PV System, the BESS, all Subscriber Organization-Owned Interconnection Facilities and all other equipment, devices, associated appurtenances owned, controlled, operated and managed by Subscriber Organization in connection with, or to facilitate, the production, generation, storage, transmission, delivery or furnishing of electric energy by Subscriber Organization to

Company and required to interconnect with the Company System. As described in Attachment F (Facility Owned by Subscriber Organization).

"CBRE Framework": means the CBRE Framework (Phase 1), as amended and supplemented by the CBRE Framework (Phase 2).

"CBRE Framework (Phase 1)": means that certain "Community-Based Renewable Energy – A Program Framework" issued by the PUC and attached as Attachment A to that certain Decision and Order No. 35137, filed December 22, 2017, in Docket No. 2015-0389, portions of which are applicable to Phase 2 of the CBRE Program as specified in the CBRE Tariff.

"CBRE Framework (Phase 2)": means that certain Order No. 37070, filed April 9, 2020, in Docket No. 2015-0389. The CBRE Framework (Phase 2) provides the basis and framework for Phase 2 of the CBRE Program and is implemented by the CBRE Tariff.

"CBRE IO": means the Independent Observer contracted with the Company but answering to the PUC to carry out the responsibilities assigned to the Independent Observer under the Phase 2 CBRE Framework.

"CBRE Online Portal": is the interactive, internet website-based interface maintained by or on behalf of the Company through which the Subscriber Organization may establish qualifications, provide information and complete documents necessary for acceptance in the CBRE Program, and may enter or change the Monthly Subscription Information reflecting updated information for each Subscriber, including any changes to any Subscriber's name, account number, address, and Subscriber Allocation. For Phase One of the CBRE Program, the CBRE Online Portal will be a manually administered application form-based process managed by Company until the CBRE Online Portal is online and ready for commercial operation. The CBRE Online Portal should be completed in time for the commencement of Phase Two of the CBRE Program.

"CBRE Program": The program established under the CBRE Tariff to allow developers of renewable energy projects to provide Account Holders with an opportunity to avail themselves of the benefits of the CBRE Tariff

"CBRE Project": A community-based renewable energy project subject to the CBRE Tariff.

"CBRE Subscriber Thresholds": Each of the following is a CBRE Subscriber Threshold: (i) the requirement that Unsubscribed RDG not exceed 15% of Contract Capacity; (ii) the requirement that the Facility's CBRE Program have a minimum of four individual Subscribers; (iii) the requirement that the total Subscriber Allocations for all Residential Subscribers be not less than 40% of Contract Capacity; (iv) the requirement that, if Subscriber Organization's Response to RFP included an Enhanced Residential Threshold, the total Subscriber Allocations for all Residential Subscribers be not less than the Enhanced Residential Threshold; (v) the requirement for a CBRE LMI Project that the total Subscriber Allocations be allocated 100% to LMI Subscribers in accordance with the CBRE Tariff; and (vi) if Subscriber Organization's Response to RFP included an LMI Minimum Threshold, the total Subscriber Allocations for all LMI Subscribers be not less than the LMI Minimum Threshold.

"CBRE Tariff": The rules for Phase 2 of the CBRE Program approved by the PUC as Tariff Rule 29 based on the CBRE Framework (Phase 2).

"Commercial Operations": Upon satisfaction of the following conditions, the Facility shall be considered to have achieved Commercial Operations on the Day specified in Subscriber Organization's written notice described below: (i) the Acceptance Test has been passed, (ii) all generating units have passed Control System Acceptance Tests, (iii) the Transfer Date has occurred, (iv) Subscriber Organization has (1) provided to Company the Required Models (as defined in Section 6.A (Subscriber Organization's Obligation to Provide Models) of Attachment F (Facility Owned by Subscriber Organization) in the form of Source Code, (2) placed the current version of the Source Code for the Required Models with the Source

Code Escrow Agent as required in Section 6.B.1.a (Establishment of Source Code Escrow) of Attachment F (Facility Owned by Subscriber Organization), or (3) if Subscriber Organization is unable to arrange for the placement of the appropriate Source Code into the Source Code Escrow account, obtained the required standby letter of credit, as required in Section 6.B.2.a (Establishment of Source Code Security) of Attachment F (Facility Owned by Subscriber Organization), and (v) Subscriber Organization provides Company with written notice that (aa) Subscriber Organization is ready to declare the Commercial Operations Date and (bb) the Commercial Operations Date will occur within 24 hours (i.e., the next Day).

"Commercial Operations Date" or "COD": The date on which Facility first achieves Commercial Operations.

"Commercial Operations Date Deadline": Shall have the meaning set forth in Section 10.I.1 of this Contract.

"Company": Shall have the meaning set forth in the preamble to this Contract.

"Company-Designated NEP Estimate": The estimated Net Energy Potential of the CBRE Facility as designated by Company pursuant to Section 1.C. (NEP IE Estimate and Company-Designated NEP Estimate) of Attachment D (Calculation and Adjustment of Net Energy Potential) this Contract.

"Company Dispatch": Company's right, through supervisory equipment or otherwise, to direct or control both the capacity and the energy output of the CBRE Facility from its minimum output rating to its maximum output rating consistent with this Contract (including, without limitation, Good Engineering and Operating Practices, which dispatch shall include real power, reactive power, voltage, frequency, the determination to take generating or storage equipment offline or online, frequency droop setting, the ramp rate setting, and other characteristics of such electric energy output whose parameters are normally controlled or accounted for in a utility dispatching system.

"Company-Owned Interconnection Facilities": Shall have the meaning set forth in of Attachment G (Company-Owned Interconnection Facilities).

"Company System": The electric system owned and operated by Company (to include any non-utility owned facilities) consisting of power plants, transmission and distribution lines, and related equipment for the production and delivery of electric power to the public.

"Company System Operator": The authorized representative of Company who is responsible for carrying out Company dispatch and curtailment of electric energy generation interconnected to the Company System.

"Company's Recommendations": Shall have the meaning set forth in Section 4.C of Attachment F (Facility Owned by Subscriber Organization) to this Contract.

"Competitive Bidding Framework": The Framework for Competitive Bidding contained in Decision and Order No. 23121 issued by the Public Utilities Commission on December 8, 2006, and any subsequent orders providing for modifications from those set forth in Order No. 23121 issued December 8, 2006.

"Consultants List": Shall have the meaning set forth in Exhibit F-2 (Consultants List) of Attachment F (Facility Owned by Subscriber Organization) to this Contract.

"Contract": The Mid-Tier Standard Form Contract for the CBRE Facility, and all Attachments, Exhibits and related documents attached to such Mid-Tier Standard Form Contract, together with the Project Specific Agreement for the CBRE Facility, and all Attachments, Exhibits and related documents attached to such Project Specific Agreement, including, if required, the DC-Coupled Storage Attachment.

"Contract Capacity": Shall have the meaning set forth in Attachment F - Exhibit F-1 (Description of Generation and Battery Storage Facilities) to this Contract.



"Contract Year": A twelve (12) calendar month period commencing on either: (i) the Commercial Operations Date (if the Commercial Operations Date occurs on the first Day of a calendar month) and thereafter on each anniversary of the Commercial Operations Date; or (ii) the first Day of the calendar month following the month during which the Commercial Operations Date occurs, and thereafter on each anniversary of the first Day of such month; provided, however, that, in the latter case, the initial Contract Year shall also include the Days from the Commercial Operations Date to the first Day of the succeeding calendar month.

"Control System Acceptance Test(s)" or "CSAT": A test or tests performed on the centralized and collective control systems and Active Power Control Interface of the CBRE Facility, which includes successful completion of the Control System Telemetry and Control List, in accordance with procedures set forth in Exhibit F-7 (Control System Acceptance Test Criteria) to Attachment F (Facility Owned by Subscriber Organization) of the Contract.

"Control System Telemetry and Control List": The Control System Telemetry and Control List includes, but is not limited to, all of the Facility's equipment and generation performance/quality parameters that will be monitored, alarmed and/or controlled by Company's Energy Management System (EMS) throughout the Term of this Contract.

"Day": A calendar day.

"DC-Coupled Storage Attachment": The DC-Coupled Storage Attachment for the CBRE Facility including any and all attachments, exhibits and related documents attached to such DC-Coupled Storage Attachment.

"Development Period Security": Shall have the meaning set forth in Section 11.F.1. (Development Security) of this Contract.

"Disconnection Event": Shall have the meaning set forth in Section 4.A of Attachment F (Facility Owned by Subscriber Organization) to this Contract.

"Dispute": Shall have the meaning set forth in Section 17. of this Contract.

"DPR": Shall have the meaning set forth in Section 17. of this Contract.

"EMS" or "Energy Management System": The real-time, computer-based control system, or any successor thereto, used by Company to manage the supply and delivery of electric energy to its consumers. It provides the Company System Operator with an integrated set of manual and automatic functions necessary for the operation of the Company System under both normal and emergency conditions. The EMS provides the interfaces for the Company System Operator to perform real-time monitoring and control of the Company System, including but not limited to monitoring and control of the Facility for system balancing, supplemental frequency control and economic dispatch as prescribed in this Contract.

"Enhanced Residential Threshold": A specific percentage of Contract Capacity in excess of 40% committed to by Subscriber Organization in its proposal as the percentage to be represented by Subscriber Allocations for Residential Subscribers. The Enhanced Residential Threshold for this Contract is \_\_%. **[Drafting note: If there is no Enhanced Residential Threshold enter "N/A" in the blank.]**

"Environment": Shall have the meaning set forth in Section 1.B.3.g.4.(iii) (Malware) of Attachment F (Facility Owned by Subscriber Organization) to this Contract.

"Environmental Credits": Any environmental credit, offset, or other benefit allocated, assigned or otherwise awarded by any Governmental Authority, international agency, or non-governmental renewable energy certificate accounting and verification organization to Company or Subscriber Organization based in whole or in part on the fact that the CBRE Facility is a non-fossil fuel facility. Such Environmental Credits shall include, without limitation, the non-energy attributes of renewable energy including, but not limited to, any

avoided emissions of pollutants to the air, soil, or water such as sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, and hazardous air pollutants; any other pollutant that is now or may in the future be regulated under the pollution control laws of the United States; and avoided emissions of carbon dioxide and any other greenhouse gas, along with the renewable energy certificate reporting rights to these avoided emissions, but in all cases shall not mean tax credits.

"Event of Default": Shall have the meaning set forth in Section 13. (Events of Default by Subscriber Organization) of this Contract.

"Excess Energy Conditions": An operating condition on the Company System that may occur when Company has more energy available than is required to meet the load on the Company System at any point in time and the generating assets interconnected with the Company System are operating at or near their minimum levels, taking into consideration factors such as the need to maintain system reliability and stability under changing system conditions and configurations, the need for downward regulating reserves, the terms and conditions of power purchase Contracts for base-loaded firm capacity or scheduled energy, and the normal minimum loading levels of such units.

"Execution Date": The date designated as such on the first page of this Contract or, if no date is so designated, the date the Parties exchanged executed signature pages to this Contract.

"Facility's CBRE Program": The program offered by Subscriber Organization whereby Subscribers are afforded the opportunity to obtain benefits of the CBRE Tariff by acquiring a beneficial interest in the Contract Capacity by which renewable energy is produced by the Facility and exported to Company. The Facility's CBRE Program includes the entire process of marketing and sales of, or subscriptions to, the Subscriber Allocations, enrolling Subscribers, providing Company with the information necessary to afford each Subscriber the Bill Credit to which such Subscriber is entitled, responding to Subscriber inquiries, facilitating the transfer of Subscriber interests and buying back Subscriber interests. The Facility's CBRE Program shall have a duration of 20 years commencing on the Commercial Operations Date.

"Federal Non-Refundable Tax Credit": Shall mean any U.S. federal tax credit for which the federal government is not required to refund any tax credit which exceeds the tax payments due to the federal government by the Claiming Entity or to provide a cash rebate in lieu of such credit to the Claiming Entity.

"Federal Refundable Tax Credit": Shall mean any U.S. federal tax credit for which the federal government is required to refund any tax credit which exceeds the tax payments due to the federal government by the Claiming Entity or to provide a cash rebate in lieu of such credit to the Claiming Entity.

"First Benchmark Period": The period commencing on the Commercial Operations Date and ending on the last Day of the calendar month during which an OEPR Evaluator issues the Initial OEPR. During the First Benchmark Period, the First NEP Benchmark shall be the estimate of Net Energy Potential that is used to calculate the Lump Sum Payment as provided in Section 3.A. (Lump Sum Payment During First Benchmark Period) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract.

"First NEP Benchmark": The estimate of Net Energy Potential that is used to calculate the Lump Sum Payment during the First Benchmark Period as provided in Section 3.A. (Lump Sum Payment During First Benchmark Period) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract. The "First NEP Benchmark" shall consist of whichever of the following is applicable as of the Commercial Operation Date, as more fully provided in Section 1.C. (NEP IE Estimate and Company-Designated NEP Estimate) and Section 1.D. (NEP IE Estimate, Liquidated Damages and Subscriber Organization's Null and Void Right) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract: (i) NEP RFP Projection, (ii) NEP IE Estimate, (iii) Company-Designated NEP Estimate or (iv) such other amount as the Parties may agree in writing.

"First OEPR": Shall have the meaning set forth in Section 2.F. (Timeline and Fees) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract.

"Force Majeure": An event that satisfies the requirements of Section 27.A. (Definition of Force Majeure), Section 27.B. (Events That Could Qualify as Force Majeure) and Section 27.C. (Exclusions from Force Majeure).

"Forced Outage": A start failure or unplanned outage reported consistently with the principles in the NERC GADS REPORTING INSTRUCTIONS for SF, U1, U2 and U2 events. This may be a startup failure, a condition resulting in immediate shutdown or trip, or an outage which requires removal from the in-service state before the end of the next weekend (Sunday at 2400 or before Sunday turns into Monday). This type of outage can only occur while the resource is in service.

"Full Dispatch": A time period during which all inverters are available and there are no technical restrictions or limitations affecting generation imposed to meet Company Dispatch.

"Good Engineering and Operating Practices": The practices, methods and acts engaged in or approved by a significant portion of the electric utility industry for similarly situated U.S. facilities, considering Company's isolated island setting, that at a particular time, in the exercise of reasonable judgment in light of the facts known or that reasonably should be known at the time a decision is made, would be expected to accomplish the desired result in a manner consistent with law, regulation, reliability for an island system, safety, environmental protection, economy and expedition. With respect to the CBRE Facility, Good Engineering and Operating Practices include, but are not limited to, taking reasonable steps to ensure that:

- (i) Adequate materials, resources and supplies, are available to meet the CBRE Facility's needs under normal conditions and reasonably foreseeable abnormal conditions.
- (ii) Sufficient operating personnel are available and are adequately experienced and trained to operate the CBRE Facility properly, efficiently and within manufacturer's guidelines and specifications and are capable of responding to emergency conditions.
- (iii) Preventive, routine and non-routine maintenance and repairs are performed on a basis that ensures reliable long-term and safe operation, and are performed by knowledgeable, trained and experienced personnel utilizing proper equipment, tools, and procedures.
- (iv) Appropriate monitoring and testing is done to ensure equipment is functioning as designed and to provide assurance that equipment will function properly under both normal and reasonably foreseeable abnormal conditions.
- (v) Equipment is operated in a manner safe to workers, the general public and the environment and in accordance with equipment manufacturer's specifications, including, without limitation, defined limitations such as temperature, current, frequency, polarity, synchronization, control system limits, etc.

"Governmental Approvals": All permits, licenses, approvals, certificates, entitlements and other authorizations issued by Governmental Authorities, as well as any agreements with Governmental Authorities, required for the construction, ownership, operation and maintenance of the CBRE Facility and the Company-Owned Interconnection Facilities, and all amendments, modifications, supplements, general conditions and addenda thereto.

"Governmental Authority": Any federal, state, local or municipal governmental body; any governmental, quasi-governmental, regulatory or administrative agency, commission, body or other authority exercising or entitled to exercise any administrative, executive, judicial, legislative, policy, regulatory or taxing authority or power; or any court or governmental tribunal.

"GPR": Shall have the meaning set forth in Section 4.C. (Assurance of Capability of CBRE Facility to Deliver Net Energy Potential and Availability of BESS) of this Contract.

"GPR Performance Metric": Shall be as determined under Attachment C (Required Performance Metrics; Liquidated Damages), Section 2.C. (Determination of GPR Performance Metric) of this Contract.

"Hawai'i Investment Tax Credit": Shall mean a credit against Hawai'i source income for which Subscriber Organization is eligible on the Commercial Operations Date or thereafter because of investment in renewable energy technologies incorporated into the CBRE Facility.

"Hawai'i Non-Refundable Tax Credit": Shall mean any Hawai'i Investment Tax Credit for which the State of Hawai'i is not required to refund any tax credit which exceeds the tax payments due to the State of Hawai'i by the Claiming Entity or to provide a cash rebate in lieu of such credit to the Claiming Entity.

"Hawai'i Production Tax Credit": Shall mean a credit against Hawai'i source income for which Subscriber Organization is eligible on the Commercial Operations Date or thereafter because of the energy produced by the CBRE Facility.

"Hawai'i Refundable Tax Credit": Shall mean any Hawai'i Investment Tax Credit for which the State of Hawai'i is required to refund any tax credit which exceeds the tax payments due to the State of Hawai'i by the Claiming Entity or to provide a cash rebate in lieu of such credit to the Claiming Entity.

"Hawai'i Renewable Energy Tax Credit": The Hawai'i Investment Tax Credit and the Hawai'i Production Tax Credit.

"HERA": The Hawai'i Electricity Reliability Administrator.

"HERA Law": Act 166 (Haw. Leg. 2012), which was passed by the 27th Hawai'i Legislature in the form of S.B. No. 2787, S.D. 2, H.D.2, C.D.1 on May 2, 2012 and signed by the Governor on June 27, 2012. The effective date for the law is July 1, 2012. The HERA Law authorizes (i) the PUC to develop, adopt, and enforce reliability standards and interconnection requirements, (ii) the PUC to contract for the performance of related duties with a party that will serve as the HERA, and (iii) the collection of a Hawai'i electricity reliability surcharge to be collected by Hawai'i's electric utilities and used by the HERA. Reliability standards and interconnection requirements adopted by the PUC pursuant to the HERA Law will apply to any electric utility and any user, owner, or operator of the Hawai'i electric system. The PUC also is provided with the authority to monitor and compel the production of data, files, maps, reports, or any other information concerning any electric utility, any user, owner or operator of the Hawai'i electric system, or other person, business, or entity, considered by the Commission to be necessary for exercising jurisdiction over interconnection to the Hawai'i electric system, or for administering the process for interconnection to the Hawai'i electric system.

"House Power": shall mean the electricity needed to assist in the operation of the CBRE Facility including system performance monitoring and associated communications, except for energy directly required for the local control and safe operation of the PV System and BESS. It also means other electricity used by the CBRE Facility, such as for perimeter lighting, a visitor's center or any other structures or facilities at the CBRE Facility site.

"Independent AF Evaluator": A person empowered, pursuant to Section 2.E (Appointment of Independent AF Evaluator) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to resolve disagreements due to failure of the Parties to resolve a Monthly Report Disagreement.

"Initial NEP OEPR Estimate": The NEP OEPR Estimate set forth in or derived from the Initial OEPR, as more fully set forth in Section 2.E (Terms of Engagement) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract.

**"Initial NEP Verification Date"**: The first Day of the calendar month following the fifteenth (15th) calendar month after the Commercial Operations Date.

**"Initial OEPR"**: The OEPR to be prepared pursuant in Section 1.E. (Initial OEPR) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract.

**"Interconnection Facilities"**: The equipment and devices required to permit the CBRE Facility to operate in parallel with, and deliver electric energy to, the Company System and provide reliable and safe operation of, and power quality on, the Company System (in accordance with applicable provisions of the PUC's General Order No. 7, Company tariffs, operational practices, interconnection requirements studies, and planning criteria), such as, but not limited to, transmission and distribution lines, transformers, switches, and circuit breakers.

**"Interconnection Requirements Study" or "IRS"**: A study consisting of a system impact study and a Facility study, performed in accordance with the terms of the IRS Letter Agreement to determine, among other things, (a) the system requirements and equipment requirements to interconnect the CBRE Facility with the Company System, (b) the Performance Standards for the CBRE Facility, and (c) an estimate of interconnection costs and project schedule for interconnection of the CBRE Facility.

**"IRS Amendment"**: Shall have the meaning ascribed to such term in Section 3.C.1 (Interconnection Requirements Study).

**"IRS Amendment Deadline"**: The 75th Day following the date the completed IRS is provided to Subscriber Organization, or such later date as Company and Subscriber Organization may agree to by written agreement.

**"IRS Letter Agreement or IRS Letter Agreements"**: The system impact study and Facility study letter agreements (which may combined into one letter agreement) and any written, signed amendments thereto, between Company and Subscriber Organization that collectively describe the scope, schedule, and payment arrangements for the Interconnection Requirements Study.

**"IRS Termination Deadline"**: The 30th Day following the date the completed IRS is provided to Subscriber Organization, or such later date as Company and Subscriber Organization may agree to by a written agreement.

**"Interface Block Diagram"**: The visual representation of the signals between Subscriber Organization and Company, including but not limited to, Telemetry and Control points, digital fault recorder settings, telecommunications and protection signals.

**"kV"**: Kilovolt.

**"kW"**: Kilowatt. Unless expressly provided otherwise, all kW values stated in this Contract are alternating current values and not direct current values.

**"kWh"**: Kilowatt-hour.

**"Land Rights"**: All easements, rights of way, licenses, leases, surface use agreements and other interests or rights in real estate.

**"Laws"**: All federal, state and local laws, rules, regulations, orders, ordinances, permit conditions and other governmental actions.

**"LD Assessment Date"**: For the last month of each LD Period, the Day following the expiration of the 10-Business Day period provided for Company to submit a Notice of Disagreement pursuant to Section 2.A (Notice of Disagreement With Monthly Report) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract.

"LDT": Shall have the meaning set forth in Attachment C (Required Performance Metrics; Liquidated Damages), Section 6.A. (RTE Test and Liquidated Damages).

"LMI Minimum Threshold": A specific percentage of Contract Capacity committed to by Subscriber Organization in its proposal as the percentage to be represented by Subscriber Allocations for LMI Subscribers. The Minimum LMI Threshold for this Contract is \_\_%. **[Drafting note: The percentage shall be taken from Subscriber Organization's proposal if that proposal included a LMI Minimum Threshold. If there is no LMI Minimum Threshold enter "N/A" in the blank. For dedicated LMI projects, the LMI Minimum Threshold is 100%.]**

"LMI Subscriber": A Subscriber who satisfies the LMI requirements set forth in the CBRE Tariff.

"LD Period": A rolling period of twelve (12) calendar months each. At the end of each calendar month, the LD Period rolls forward to include the next calendar month. The initial "LD Period" shall consist of the 12 full calendar months of the initial Contract Year.

"Losses": Any and all direct, indirect or consequential damages, fines, penalties, deficiencies, losses, liabilities (including settlements and judgments), costs, expenses (including reasonable attorneys' fees and court costs) and disbursements.

"Lowest BESS Capacity Bandwidth": Shall have the meaning set forth in Attachment C (Required Performance Metrics; Liquidated Damages) Section 3. (BESS Capacity Test; Liquidated Damages; Termination Rights).

"Lump Sum Payment": The monthly lump sum as provided in Section 2. (Lump Sum Payment for) of Attachment B to this Contract (Company Payments for Energy, Dispatchability and Availability of BESS).

"Malware": means computer software, code or instructions that: (a) intentionally, and with malice intent by a third party, adversely affect the operation, security or integrity of a computing, telecommunications or other digital operating or processing system or environment, including without limitation, other programs, data, databases, computer libraries and computer and communications equipment, by altering, destroying, disrupting or inhibiting such operation, security or integrity; (b) without functional purpose, self-replicate without manual intervention; (c) purport to perform a useful function but which actually performs either a destructive or harmful function, or perform no useful function other than utilize substantial computer, telecommunications or memory resources with the intent of causing harm; or (d) without authorization collect and/or transmit to third parties any information or data; including such software, code or instructions commonly known as viruses, Trojans, logic bombs, worms, adware and spyware.

"Management Meeting": Shall have the meaning set forth in Section 17.B. (Dispute Resolution).

"Maximum Rated Output": Net maximum output of the BESS in MW, which shall not exceed the Allowed Capacity.

"Measured Performance Ratio" or "MPR": Shall have the meaning set forth in Attachment C (Required Performance Metrics; Liquidated Damages), Section 2.A. (Calculation of Measured Performance Ratio) of this Contract.

"MMS": Meteorological monitoring station.

"Monthly Report": The report of the data (for the calendar month and the LD Period, the MPR Assessment Period and the BESS Measurement Period ending with such calendar month) necessary for the calculation of the Performance Metrics to be provided by Subscriber Organization to Company as set forth in Section 1. (Monthly Report) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract. Without limitation to the generality of the preceding sentence, references to

the Monthly Report for a month that constitutes the last month of a BESS Measurement Period shall be deemed to include the BESS Measurement Period Report for such BESS Measurement Period.

"Monthly Report Disagreement": Any disagreement arising out of the same Monthly Report.

"Monthly Subscription Information": shall mean the information stored within the CBRE Online Portal, as timely entered or changed by the Subscriber Organization via the CBRE Online Portal, setting forth the name, account number and service address each Subscriber holding subscriptions in the CBRE Facility, and the Subscriber Allocation applicable to each such Subscriber's subscription, reflecting each Subscriber's allocable portion of renewable energy produced by the CBRE Facility during a particular Production Month.

"Most Recent Prior NEP Benchmark": In the event a Subsequent OEPR is prepared for an OEPR Period of Record ending on or after the commencement of the fourth (4th) Contract Year, the "Most Recent Prior NEP Benchmark" shall be (i) for the first such Subsequent OEPR, the Second NEP Benchmark that was used to calculate the Lump Sum Payment for the last month of the Second Benchmark Period pursuant to Section 3.B. (Lump Sum Payment During Second Benchmark Period) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract and (ii) for all Subsequent OEPRs prepared after the aforementioned first Subsequent OEPR, the NEP OEPR Estimate obtained from the immediately preceding Subsequent OEPR.

"MPR": Shall have the meaning set forth in Attachment C Section 2. of this Contract.

"MPR Assessment Period": Shall mean, for purposes of demonstrating a Measured Performance Ratio, a rolling period of twelve (12) calendar months each. At the end of each calendar month, the MPR Assessment Period rolls forward to include the next calendar month. The initial "MPR Assessment Period" shall consist of the 12 full calendar months of the initial contract year.

"MPR Assessment Period Lump Sum Payment": For each MPR Assessment Period, the monthly Lump Sum Payment for the twelfth month of such MPR Assessment Period after deducting the amounts (if any) payable as liquidated damages under Attachment C Section 1. (PV System Equivalent Availability Factor Performance Metric; Liquidated Damages; Termination Rights) for the same calendar month in question.

"MPR Test": Shall have the meaning set forth in Attachment C (Required Performance Metrics; Liquidated Damages), Section 2.B. (MPR Test) of this Contract.

"MW": Megawatt. Unless expressly provided otherwise, all MW values stated in this Contract are alternating current values and not direct current values.

"MWh": Megawatt-hour.

"NEP IE Estimate": The estimated Net Energy Potential of the CBRE Facility to which the IE Energy Assessment Report assigns a P-Value of 95 for a ten-year period.

"NEP OEPR Estimate": For each OEPR, the estimated Net Energy Potential of the CBRE Facility to which such OEPR assigns a P-Value of 95 for a ten-year period.

"NEP RFP Projection": The Net Energy Potential of the CBRE Facility to which the Subscriber Organization in Subscriber Organization's RFP Proposal assigns a P-Value of 95 for a ten-year period.

"NERC GADS": Shall have the meaning set forth in Section 4.C (Assurance of Capability of CBRE Facility to Deliver Net Energy Potential and Availability of BESS) of this Contract.

"Net Amount": Shall mean, with respect to any Hawai'i Renewable Tax Credit, the amount remaining after deducting any documented and reasonable financial, legal, administrative and other costs and expenses of applying for, pursuing, monetizing and receiving the applicable Hawai'i Renewable Tax Credit, and all

payments to or reserves required by Subscriber Organization's lenders or other financing parties in connection with the application for or receipt of such Hawai'i Renewable Tax Credit.

"Net Energy": The total quantity of electric energy (measured in kilowatt hours) produced by the CBRE Facility over a given time period and delivered to the Point of Interconnection, as measured by the Revenue Meter. "Net Energy" the equivalent of "Actual Output."

"Net Energy Potential": The estimated single number with a P-Value of 95 for the annual Net Energy that could be produced by the CBRE Facility based on the estimated long-term monthly and annual total of such production over a ten-year period. The Net Energy Potential is subject to adjustment as provided in Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract, but in no circumstances shall the Net Energy Potential exceed the NEP RFP Projection.

"Notice of Disagreement": Shall have the meaning set forth in Section 2.A. (Notice of Disagreement with Monthly Report) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract.

"OEPR": An Operational Energy Production Report, including the Initial OEPR and each Subsequent OEPR.

"OEPR Conference": Shall have the meaning set forth in Section 2.G. (Review of the First OEPR Evaluator Report) of this Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract.

"OEPR Consultants List": The engineering firms listed in Section 2.J. (Acceptable Persons and Entities) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract, as such list may be expanded or contracted by the Parties as provided in Section 2.B. (Eligibility for Appointment as OEPR Evaluator) of said Attachment D (Calculation and Adjustment of Net Energy Potential) or Section 2.F. (Eligibility for Appointment as Independent AF Evaluator) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract.

"OEPR Evaluator": Shall have the meaning set forth in Section 2.A. (Selection of OEPR Evaluator) of Attachment D (Calculation and Adjustment of Net Energy Potential) of this Contract.

"OEPR Period of Record": For each OEPR, the twelve-month period preceding the Applicable NEP Verification Date for such OEPR.

"Parties": Subscriber Organization and Company, collectively.

"Party": Each of Subscriber Organization or Company.

"Performance Metrics": Each of the applicable PV System Equivalent Availability Factor Performance Metric, the GPR Performance Metric, the BESS Capacity Performance Metric, the BESS EAF Performance Metric, the BESS EFOF Performance Metric, and the RTE Performance Metric.

"Performance Metrics LDs": Shall have the meaning set forth in Attachment C (Required Performance Metrics; Liquidated Damages) Section 8. (Payment of Liquidated Damages for Failure to Achieve Performance Metrics; Limitation on Liquidated Damage).

"Performance Standards": The various performance standards for the operation of the Facility and the delivery of electric energy from the Facility to Company specified in Section 3. (Performance Standards) of Attachment F (Facility Owned by Subscriber Organization), as such standards may be revised from time to time pursuant to this Contract.

"Point of Interconnection": The point of delivery of electric energy and/or capacity supplied by Subscriber Organization to Company, where the CBRE Facility owned by the Subscriber Organization interconnects with the Company System. The Subscriber Organization shall own and maintain the facilities from the



CBRE Facility to the Point of Interconnection, excluding any Company-Owned Interconnection Facilities located on the Site. The Company shall own and maintain the facilities from the Point of Interconnection to the Company's system. The Point of Interconnection will be identified in the IRS and set forth on the Single-Line Drawing and Interface Block Diagram in Attachment F, Exhibit F-5 (Single-Line Drawing and Interface Block Diagram).

"Prime Rate" shall mean the current "U.S. Prime Rate" of interest, as published from time to time by The Wall Street Journal in the "Money Rates" section of its Western Edition Newspaper. The Prime Rate shall change without notice with each change in the U.S. Prime Rate reported by The Wall Street Journal, as of the date such change is reported.

"Project": The Facility as described in Attachment F (Facility Owned by Subscriber Organization).

"Project Documents": This Contract, any ground lease or other agreement or instrument in respect of the Site and/or the Land Rights, all construction contracts to which Subscriber Organization is or becomes a party thereto, operation and maintenance agreements, and all other agreements, documents and instruments to which Subscriber Organization is or becomes a party thereto in respect of the Facility, other than the Financing Documents, as the same may be modified or amended from time to time in accordance with the terms thereof.

"Project Specific Addendum": The Project Specific Addendum for the CBRE Facility dated as of the date of the Mid-Tier Contract for the CBRE Facility, including any and all attachments, exhibits and related documents attached to such Project Specific Addendum.

"PUC" or "Commission": Shall have the meaning set forth in the Recitals.

"PUC's Standards": Standards for Small Power Production and Cogeneration in the State of Hawai'i, issued by the Public Utilities Commission of the State of Hawai'i, Chapter 74 of Title 6, Hawai'i Administrative Rules, currently in effect and as may be amended from time to time.

"PV System": The photovoltaic solar electric generating project as more particularly described in Exhibit F-1 to Attachment F to the Contract (Description of Generation and Battery Storage Facilities).

"PV System Equivalent Availability Factor Performance Metric": Shall have the meaning set forth in Attachment C, (Required Performance Metrics; Liquidated Damages).

"Renewable Portfolio Standards" or "RPS": The Hawai'i law that mandates that Company and its subsidiaries generate or purchase certain amounts of their net electricity sales over time from qualified renewable resources. The RPS requirements in Hawai'i are currently codified as Hawai'i Revised Statutes (HRS) 269-91 through 269-95.

"Renewable Resource Baseline": The estimated renewable resource potential of the Site for a typical meteorological year. For avoidance of doubt, the purpose of this term is to provide a short-hand characterization of the nature of the renewable resource risk assumed by the Subscriber Organization under this Contract in making its Site selection.

"Renewable Resource Variability": The variations, above and below the Renewable Resource Baseline, of the renewable resource actually available at the Site on a moment-to-moment basis. For avoidance of doubt, the purpose of this term is to provide a short-hand characterization of the nature of the renewable resource risk assumed by the Company under this Contract in agreeing to make fixed payments in an amount calculated on the basis of the CBRE Facility's capability to deliver the Net Energy Potential regardless of whether or not sufficient renewable resource is in fact available at any particular moment.

"Required Model" or "Required Models": Shall have the meaning set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models) of Attachment F (Facility Owned by Subscriber Organization) of this Contract.

"Residential Subscriber": A subscriber served by Company under any of the following Company rate schedules: Schedule R, TOU-R, TOU-RI, TOU-EV or any other residential option.

"Revenue Meter": The revenue meter packaging, revenue metering PTs and CTs, and secondary wiring, which will record the renewable energy produced by the CBRE Facility and dispatched to the Company at the Point of Interconnection.

"RFP": Company's Request for Proposals issued on [\_\_\_\_\_], 202\_.

"RFP Proposal": The documents and submissions comprising Subscriber Organization's proposal selected in response to the RFP.

"RTE Performance Metric": Shall have the meaning set forth in Attachment H (BESS Requirements), Section 1 (BESS Tests) to this Contract and as referenced in Attachment C (Required Performance Metrics; Liquidated Damages), Section 6. (Bess Round Trip Efficiency Test; Liquidated Damages; Termination Rights) to this Contract.

"RTE Ratio": Shall have the meaning set forth in in Section 1 (BESS Tests) of Attachment H (BESS Requirements) to this Contract.

"SCADA" or "Supervisory Control and Data Acquisition": The Company system that provides remote control and monitoring of Company's transmission and sub-transmission systems and enables Company to perform real-time control of equipment in the field and to monitor the conditions and status of the Company System.

"Second Benchmark Period": The period commencing on the first Day of the calendar month following the month during which an OEPR Evaluator issues the Initial OEPR and ending with the expiration of the third (3rd) Contract Year. For avoidance of doubt, the effect of the foregoing definition is that the Second Benchmark Period will follow immediately upon the expiration of the First Benchmark Period.

"Second NEP Benchmark": For each calendar month during the Second Benchmark Period, the estimate of Net Energy Potential to be used during such calendar month to calculate the Lump Sum Payment pursuant to Section 3. (Calculation of Lump Sum Payment) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract. For avoidance of doubt, the Second NEP Benchmark may vary during the Second Benchmark Period as and to the extent provided in Section 3.B. (Lump Sum Payment During Second Benchmark Period) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to this Contract.

"Second OEPR": Shall have the meaning set forth in Section 2.G. (Review of the First OEPR Evaluator Report) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract.

"Second OEPR Evaluator": Shall have the meaning set forth in Section 2.G. (Review of the First OEPR Evaluator Report) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract.

"Site": The parcel of real property on which the CBRE Facility will be constructed and located, together with any Land Rights reasonably necessary for the construction, ownership, operation and maintenance of the CBRE Facility. The Site is identified in Attachment F (Facility Owned by Subscriber Organization) to this Contract.

"Source Code": Shall mean the human readable source code of the Required Models which: (i) will be narrated documentation related to the compilation, linking, packaging and platform requirements and any other materials or software sufficient to enable a reasonably skilled programmer to build, modify and use

the code within a commercially reasonable period of time for the purposes of a Source Code Authorized Use; and (ii) can reasonably be compiled by a computer for execution.

"Source Code Authorized Use": Shall have the meaning set forth in Section 6.B.1.e (Authorized Use) of Attachment F (Facility Owned by Subscriber Organization) of this Contract.

"Source Code Escrow": Shall mean the escrow established with the Source Code Escrow Agent under the terms of the Source Code Escrow Agreement under which Source Code shall be confidentially deposited by a Source Code Owner for safekeeping and, upon the satisfaction of certain conditions, release to the Company.

"Source Code Escrow Agent": Shall mean Iron Mountain Intellectual Property Management, Inc. or such other similar escrow agent approved by Company.

"Source Code Escrow Agreement": Shall mean a multi-party escrow agreement between Company, Source Code Escrow Agent and any and all Source Code Owners depositing Source Code into the Source Code Escrow which, among other matters, names Company as beneficiary thereunder, and is otherwise acceptable in form and substance to Company.

"Source Code Owner": Shall mean the developer and/or owner of the Required Models utilizing Source Code authorized to deposit the Source Code with the Source Code Escrow Agent upon the terms of the Source Code Escrow Agreement.

"SOX 404": Shall have the meaning set forth in Section 8.F. (Financial Compliance) of the Contract.

"State of Charge": Energy in the BESS stated as a percentage of BESS Contract Capacity.

"Submission Notice": Shall have the meaning set forth in Section 2.E. (Appointment of Independent AF Evaluator) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract.

"Study": Shall have the meaning set forth in Section 4.E. of Attachment F (Facility Owned by Subscriber Organization) to this Contract.

"Submission Notice": Shall have the meaning set forth in Section 2.E. (Appointment of Independent AF Evaluator) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract.

"Subscriber" means a retail customer of the Company who owns one or more subscriptions of a CBRE Facility interconnected with the Company.

"Subscriber Agency Agreement and Consent Form" means the consent agreement between Subscriber Organization and Subscriber that authorizes disclosure of certain account information and energy usage data, the form of which is included in the CBRE Tariff.

"Subscriber Agreement" means the written Agreement between Subscriber Organization and its Subscribers required to contain standard information and provisions to ensure transparency and proper consumer protection in accordance with the CBRE Tariff and applicable law.

"Subscriber Allocation" shall mean, for each Subscriber, such Subscriber's percentage interest in the total nameplate capacity of the PV System, reflecting each Subscriber's allocable portion of renewable energy available for dispatch by the CBRE Facility in a particular calendar month.

"Subscriber's Confidential Account Information" consists of the Subscriber's name, account number, service address, telephone number, email address, web site URL, information on Subscriber participation in other distributed generation serving the premises of the Subscriber, and Subscriber specific Bill Credit(s).

"Subscriber Organization": Shall have the meaning set forth in the preamble to this Contract.

"Subscriber Organization-Attributable Non-Generation": Time periods during which the inverter in question (or the CBRE Facility as a whole) is not dispatched or is derated or shutdown (or the CBRE Facility is disconnected) because of any of the following:

- (i) The CBRE Facility's failure to comply with any of the Performance Standards, Good Engineering and Operating Practices, Governmental Approvals, applicable Laws or Subscriber Organization's other obligations under this Contract;
- (ii) Subscriber Organization-Attributable System Conditions;
- (iii) Conditions at or on either side of the Point of Interconnection arising from the acts or omissions of Subscriber Organization or any of its affiliates, employees, agents, contractors, vendors, materialmen, independent contractors or suppliers of Subscriber Organization, acting in such capacity for the benefit of Subscriber Organization ("Subscriber Organization Representatives"), unless such acts or omissions are themselves excused by reasons of Force Majeure pursuant to Section 27. (Force Majeure) of the Contract;
- (iv) A disconnection initiated by the Company pursuant to Section 12. (Personnel and System Safety) of this Contract that is caused by Subscriber Organization or any Subscriber Organization Representatives;
- (v) The Company has reasonably decided that it is inadvisable for such generating equipment, inverter, or BESS, (or the CBRE Facility as a whole) to continue normal operations without a further Control System Acceptance Test as provided in Attachment F (Facility Owned by Subscriber Organization) to the Contract;
- (vi) The CBRE Facility is deemed to be in Subscriber Organization-Attributable Non-Generation status under any of the following sections of Attachment F: Section 1.G.6., Section 1.I.J. (Demonstration of Facility) or Section 4.E.;
- (vii) The CBRE Facility is shutdown at the direction of Company, and such shutdown is caused by Subscriber Organization or any Subscriber Organization Representatives or the lack of reliable real time data; and
- (viii) The CBRE Facility fails to comply with Company Dispatch or other outage or duration as provided in Section 5.C. (Company Rights of Dispatch)

Each time period of Subscriber Organization-Attributable Non-Generation shall constitute an Outage or Deration, as applicable.

"Subscriber Organization-Attributable System Conditions": Conditions on the Company System:

- (i) that result from either (a) the CBRE Facility's generation and delivery of electric power to the Company System or (b) any condition arising from the acts or omissions of Subscriber Organization or any Subscriber Organization Representative, unless such acts or omissions are themselves excused by reasons of Force Majeure pursuant to Section 27. (Force Majeure) of the Contract; and
- (ii) caused by or attributable to the CBRE Facility or Subscriber Organization or any Subscriber Organization Representatives that Company reasonably determines to either (a) be inconsistent with Good Engineering and Operating Practices on the Company System or (b) jeopardize the safety, reliability or stability of the Company System.

For avoidance of doubt, the Company's inability to dispatch the CBRE Facility due to the existence of Excess Energy Conditions on the Company System shall not constitute Subscriber Organization-Attributable System Conditions.

"Subscriber Organization-Owned Interconnection Facilities": The Interconnection Facilities constructed and owned by Subscriber Organization.

"Subscriber's Confidential Account Information" consists of the Subscriber's name, account number, service address, telephone number, email address, web site URL, information on Subscriber participation in other distributed generation serving the premises of the Subscriber, and Subscriber specific Bill Credit(s).

"Subscriber's Usage Data" refers to data collected from the utility Subscriber meters that reflects the quantity, quality, or timing of electric usage or renewable energy production attributable to the Subscriber for the service address and account number identified for participation in the CBRE Facility.

"Subsequent NEP OEPR Estimate": For each Subsequent OEPR, the NEP OEPR Estimate derived from such Subsequent OEPR.

"Subsequent OEPR": Any OEPR prepared pursuant to Section 1.F. (Subsequent OEPRs) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract.

"Subsequent NEP OEPR Estimate": For each Subsequent OEPR, the NEP OEPR Estimate derived from such Subsequent OEPR.

"Subsequent OEPR": Any OEPR prepared pursuant to Section 1.F. (Subsequent OEPRs) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract.

"Substantial Progress": means that on or before the last Day of the 18-month period (including day-for-day extensions) to achieve the Commercial Operations Date, the Subscriber Organization has achieved all of the following: (1) installed one-hundred percent (100%) of the PV System foundation (including pier, helical screw, ballasts, or similar) to enable mounting of the nameplate capacity as collectively set forth in Attachment F to this Contract; (2) built, or otherwise has in place, a permanent drivable (road) surface on the parcel or parcels of land associated with the CBRE Facility so that (i) Company on a 24 hour a day, seven days a week, basis can access its equipment, including but not limited to lines, poles, transformers, billing meters, underground facilities and other facilities, but excluding production meters; and (ii) the drivable road surface is reasonably sufficient to support operation and maintenance vehicles; and (3) built, or otherwise has in place, a permanent fence surrounding the entirety of the CBRE Facility location.

"Telemetry and Control": The interface between Company's EMS and the physical equipment at the Facility.

"Term": means the term of this Contract and shall begin when this Contract is signed by the Parties and end twenty (20) years after the Commercial Operations Date unless otherwise provided for in this Contract.

"Termination Damages": Liquidated damages calculated in accordance with Section 15. (Damages in the Event of Termination by Company) of this Contract.

"Third OEPR": Shall have the meaning set forth in Section 2.H. (Review of the Second OEPR Evaluator Report) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract.

"Third OEPR Evaluator": Shall have the meaning set forth in Section 2.H. (Review of the Second OEPR Evaluator Report) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract.

"Third Party": Any person or entity other than Company or Subscriber Organization, and includes, but is not limited to, any subsidiary or affiliate of Subscriber Organization.

"Tier 1 Bandwidth": The Tier 1 bandwidth set forth in Attachment C (Required Performance Metrics; Liquidated Damages), Section 2.D. (GPR Performance Metric and Liquidated Damages) of this Contract.

"Tier 2 Bandwidth": The Tier 2 bandwidth set forth in Attachment C (Required Performance Metrics; Liquidated Damages), Section 2.D. (GPR Performance Metric and Liquidated Damages) of this Contract.

"Total Estimated Interconnection Costs": Shall have the meaning set forth in Section 11.E.3 of this Contract and as further described in Attachment G (Company-Owned Interconnection Facilities).

"Transfer Date": The date, prior to the Commercial Operations Date, upon which Subscriber Organization transfer to Company all right, title and interest in and to Company-Owned Interconnection Facilities to the extent, if any, that such facilities were constructed by Subscriber Organization and/or its contractors.

"Unit Price": \$ \_\_\_\_ per \_\_\_\_ MWh of Net Energy Potential annually. [TO BE CALCULATED FROM RESPONSE TO RFP.]

"Unsubscribed RDG": That portion of the Contract Capacity during a particular calendar month that is not associated with any Subscriber and is therefore not included in any Subscriber Allocation for such month. The Unsubscribed RDG for a particular calendar month is the balance of the Contract Capacity remaining after subtracting the Contract Capacity represented by the total of the Subscriber Allocations for such month. For purposes of allocating to Subscriber Organization a portion of the monthly Lump Sum Payment for a particular month: (i) the Unsubscribed RDG for such month is associated with the Subscriber Organization; and (ii) the portion of the monthly Lump Sum Payment for such month that is payable to Subscriber Organization for such Unsubscribed RDG is the balance of such monthly Lump Sum Payment remaining after subtracting that portion of the monthly Lump Sum Payment that is payable in the form of Bill Credits or any payment reduction attributable to Subscriber Organization's failure to meet any of the CBRE Subscriber Thresholds.

--END--

**ATTACHMENT B**  
**COMPANY PAYMENTS FOR ENERGY, DISPATCHABILITY AND AVAILABILITY OF BESS**

1. **PRICE FOR PURCHASE OF ELECTRIC ENERGY.** Commencing on the Commercial Operations Date, Company shall pay Subscriber Organization for electric energy produced by the Facility and delivered to the Point of Interconnection in response to Company Dispatch in accordance with this Contract at the rate of \$0.00/MWh. Company shall also not pay for electric energy delivered to the Point of Interconnection from the BESS.
2. **LUMP SUM PAYMENT.** Commencing on the Commercial Operations Date, Company shall pay for (i) the Actual Output produced by the Facility and delivered to the Point of Interconnection in response to Company Dispatch of the Facility; (ii) the availability of the Facility's Net Energy Potential for Company Dispatch in accordance with this Contract, and (iii) the availability of the BESS, a monthly Lump Sum Payment as calculated and adjusted as set forth in Section 3. (Calculation of Lump Sum Payment), below. The monthly Lump Sum Payment shall be calculated and adjusted to reflect changes in the estimate of the Facility's Net Energy Potential as such estimate is revised from time to time as more fully set forth in Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract.
3. **CALCULATION OF LUMP SUM PAYMENT.** The monthly Lump Sum Payment shall be calculated and adjusted as follows:
  - A. **Lump Sum Payment During First Benchmark Period.** During the First Benchmark Period, the monthly Lump Sum Payment shall be equal to one-twelfth ( $1/12^{\text{th}}$ ) of the product (rounded to the nearest cent) obtained by multiplying the Unit Price by the First NEP Benchmark.
  - B. **Lump Sum Payment During Second Benchmark Period.**
    1. One purpose of the Second Benchmark Period is to provide the Subscriber Organization, in the event that the Initial NEP OEPR Estimate is less than NEP RFP Projection, with a limited period during which Subscriber Organization will have an opportunity, by having a Subsequent OEPR prepared pursuant to Section 1.F.2. (Voluntary Subsequent OEPR) of Attachment D (Calculation Adjustment of Net Energy Potential) to this Contract, to obtain an adjustment to the NEP OEPR Estimate used to calculate the Lump Sum Payment, subject to (i) the cap on any upward adjustment imposed by the limitation that the estimate of Net Energy Potential that is used to calculate the Lump Sum Payment shall not exceed the NEP RFP Projection and (ii) the risk that any Subsequent OEPR might result in a downward adjustment to the NEP OEPR Estimate used to calculate the Lump Sum Payment. Accordingly, for each calendar month during the Second Benchmark Period, the monthly Lump Sum Payment shall be equal to one-twelfth ( $1/12^{\text{th}}$ ) of the product (rounded to the nearest cent) obtained by multiplying the Unit Price by the lesser of (w) the NEP RFP Projection or (x) the NEP OEPR Estimate of the OEPR that is most recent as of the first Day of such calendar month. For avoidance of doubt:
      - a. On the first Day of the Second Benchmark Period, the most recent OEPR will be the Initial OEPR
      - b. If no Subsequent OEPR is issued under Section 1.F. (Subsequent OEPRs) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract for an OEPR Period of Record ending prior to the end of the third ( $3^{\text{rd}}$ ) Contract Year, the "most recent OEPR" during the entirety of the Second Benchmark Period will be the Initial OEPR;
      - c. If any Subsequent OEPR is prepared for an OEPR Period of Record ending prior to the commencement of the fourth ( $4^{\text{th}}$ ) Contract Year, the monthly Lump Sum Payment shall, for the period commencing on the first Day of the calendar month following the month

during which an OEPR Evaluator issues such Subsequent OEPR, be equal to one-twelfth (1/12<sup>th</sup>) of the product (rounded to the nearest cent) obtained by multiplying the Unit Price by the lesser of (w) the NEP OEPR Estimate obtained from such Subsequent OEPR or (x) the NEP RFP Projection. The monthly Lump Sum Payment calculated as aforesaid shall remain in effect through the first to occur of (y) the end of the Term or (z) the end of the calendar month during which an OEPR Evaluator issues the next Subsequent OEPR (if any) that is required or permitted under Section 2, (Preparation of OEPR) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract.

C. Lump Sum Payment Following Second Benchmark Period.

1. As of the first Day of the fourth (4<sup>th</sup>) Contract Year, the estimate of Net Energy Potential that was used to calculate the Lump Sum Payment for the last calendar month of the Second Benchmark Period shall continue in effect as the estimate of Net Energy Potential that is used to calculate the Lump Sum Payment until the end of the calendar month during which an OEPR Evaluator issues the first Subsequent OEPR for an OEPR Period of Record ending on or after the commencement of the fourth (4<sup>th</sup>) Contract Year and, effective at the end of such calendar month, the Second NEP Benchmark that was in effect immediately prior to the issuance of such Subsequent OEPR shall constitute the "Most Recent Prior NEP Benchmark" under clause (i) of the definition of that term set forth in this Contract. For avoidance of doubt, if no Subsequent OEPR is issued for an OEPR Period of Record ending on or after the commencement of the fourth (4<sup>th</sup>) Contract Year, the Second NEP Benchmark that was used to calculate the Lump Sum Payment for the last calendar month of the Second Benchmark Period shall continue in effect for the balance of the Term as the estimate of Net Energy Potential that is used to calculate the Lump Sum Payment.
2. In order to facilitate planning for the Company System, no increase in Net Energy Potential (and hence in the monthly Lump Sum Payment) shall be permitted under this Contract as a consequence of any Subsequent OEPR that is prepared for an OEPR Period of Record ending on or after the expiration of the Second Benchmark Period. Accordingly, if any such Subsequent OEPR is prepared, the monthly Lump Sum Payment shall, for the period commencing on the first Day of the calendar month following the month during which an OEPR Evaluator issues such Subsequent OEPR, be equal to one-twelfth (1/12<sup>th</sup>) of the product (rounded to the nearest cent) obtained by multiplying the Unit Price by the lesser of (w) the NEP OEPR Estimate obtained from such Subsequent OEPR or (x) the Most Recent Prior NEP Benchmark. The monthly Lump Sum Payment calculated as aforesaid shall remain in effect through the first to occur of (y) the end of the Term or (z) the end of the calendar month during which an OEPR Evaluator issues the next following Subsequent OEPR (if any) that is required or permitted under Section 1.F.3 (Subsequent OEPRs) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract. If any such next following Subsequent OEPR is issued, the monthly Lump Sum Payment shall, for the period commencing on the first Day of the calendar month following the calendar month during which an OEPR Evaluator issues such Subsequent OEPR, be re-calculated and adjusted as provided in this and shall continue in effect for the period provided in the preceding sentence.

D. Lump Sum Pro-Rata Adjustments.

1. Under the Company's previous forms of as-available power purchase agreements for renewable energy, the independent power producer was compensated for the production and delivery of electrical energy and assumed the risk of non-payment for events such as Force Majeure that prevented such production and delivery. Although under this Contract most or all of Subscriber Organization's compensation will be in the form of a Lump Sum Payment rather than for the



production and delivery of electrical energy, it is not the intent of the Parties that Subscriber Organization should be entitled to unrestricted compensation in circumstances in which an independent power producer would not have been able to earn compensation under the Company's prior form of power purchase agreements (i.e., if the Facility or any portion thereof is unable to produce and deliver electric energy). Although the liquidated damages that are payable if the PV System Equivalent Availability Factor fails to satisfy the PV System Equivalent Availability Factor Performance Metric address this issue in certain of the circumstances when the PV System or a portion thereof is unable to generate electric energy, the PV System Equivalent Availability Factor does not account for events of Force Majeure because months containing such events are excluded from the PV System Equivalent Availability Factor calculation under Section 1.A. (Calculation of the PV System Equivalent Availability Factor) of Attachment C (Required Performance Metrics; Liquidated Damages) to this Contract. Similarly, in the case of the BESS, although the liquidated damages that are payable if the BESS Annual Equivalent Availability Factor fails to satisfy the BESS EAF Performance Metric addresses this issue in certain of the circumstances when the BESS or a portion thereof is unable to respond to Company Dispatch, the BESS Annual Equivalent Availability Factor does not account for events of Force Majeure because months containing such events are excluded from the calculation under Section 2 (BESS Annual Equivalent Availability Factor) of Attachment H (BESS Requirements) of this Contract.

2. Accordingly, and without limitation to the generality of the foregoing provisions of this Section 3. (Calculation of Lump Sum Payment) of this Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS), the monthly Lump Sum Payment shall be adjusted downward pro rata for each hour or portion thereof during the calendar month in question that the CBRE Facility or a portion thereof was not available to respond to Company Dispatch because of a Force Majeure condition (i) affecting the Facility or any portion thereof or (ii) that otherwise delays or prevents the Subscriber Organization from making the CBRE Facility or any portion thereof generate energy or be available for Company Dispatch.
3. In the case of a BESS Force Majeure, such downward adjustment in the Lump Sum Payment shall be limited to the BESS Allocated Portion of the Lump Sum Payment. Further, during any periods in which there is a Force Majeure affecting both the PV System and the BESS, the Lump Sum Payment shall only be adjusted for the effect of the Force Majeure on the PV System.
4. The hours the Facility is affected by a Force Majeure are converted to equivalent full outage hours by multiplying the actual duration of the event (hours) by (i) the size of the reduction in MWs or number of devices, divided by (ii) the Contract Capacity if the size of the reduction is in MWs or the total number of devices in the affected system if the size of the reduction is a device count. These equivalent hour(s) are then summed. The summation of equivalent full outage hours is then divided by the months total period hours (number of days in the month x 24hrs/day) to determine the pro-rated factor the Lump Sum Payment will be adjusted by.

EXAMPLE 1: if the PV System has ten inverter(s) and, during the month of May (which has 31 calendar days or 744 period hours), one inverter is not available to respond to Company Dispatch for a period of 360 hours due to a Force Majeure condition as aforesaid, the monetary amount of the resulting downward adjustment to the monthly Lump Sum Payment for the month of May would be calculated as follows:

$$\text{Monetary Amount of Downward Adjustment} = (\text{MLSP} \times 1/10) \times 360/744$$

where:

**MLSP** = The monthly Lump Sum Payment that would be payable for such month but for the downward adjustment.

EXAMPLE 2: if a Facility BESS System has forty inverters and, during the month of June (which has 720 period hours), one BESS module is not available to respond to Company Dispatch for a period of 240 hours due to a Force Majeure condition as aforesaid, the monetary amount of the resulting downward adjustment to the monthly Lump Sum Payment for the month of June would be calculated as follows:

$$\text{Monetary Amount of Downward Adjustment} = (\text{BLSP} \times 1/40) \times 240/720$$

where:

**BLSP** = The BESS Allocated Portion of the Lump Sum Payment that would be payable for such month but for the downward adjustment.

Note: The foregoing monetary amount of downward adjustments shall be rounded to the nearest cent.

**4. UPDATING MONTHLY SUBSCRIBER INFORMATION USED TO CALCULATE BILL CREDITS AND OTHER MATTERS.**

- A. No later than the last Day of each calendar month, the Subscriber Organization shall provide to the Company any and all changes to the Monthly Subscription Information to be used for such calendar month by entering new or updating previously-entered data through the CBRE Online Portal. Such data to be entered or changed by the Subscriber Organization shall include additions, deletions or changes to the listing of Subscribers, including any changes occurring by said last Day of such calendar month to the Subscriber's account number and service address attributable to each subscription and the Subscriber Allocation for each subscription.
- B. For each calendar month, the purchase or transfer of all or any portion of a Subscriber's Allocation occurring on or before the 20<sup>th</sup> Day of such calendar month of which the Company is notified, as provided for in the preceding paragraph, shall have retroactive effect as of the first Day of such calendar month; the purchase or transfer of all or any portion of a Subscriber's Allocation occurring on or after the 21<sup>st</sup> Day of such calendar month, but prior to the first Day of the following calendar month, shall have effect as of the first Day of such following calendar month. The following shall be recalculated as of the last Day of each calendar month to account for the effectiveness of such purchases and transfers as aforesaid: (i) Unsubscribed RDG; (ii) the percentage of the Contract Capacity represented by the Subscriber Allocations for all Residential Subscribers; (iii) the number of individual Subscribers; and (iv) the percentage of Contract Capacity represented by all LMI Subscribers.

**5. PAYMENT TO SUBSCRIBER ORGANIZATION; PAYMENT REDUCTIONS-LIQUIDATED DAMAGES FOR FAILURE TO ACHIEVE CBRE SUBSCRIBER THRESHOLDS.**

The dollar amount payable to Subscriber Organization for the Unsubscribed RDG for a particular calendar month shall be as follows:

- A. The balance of the monthly Lump Sum Payment remaining after deducting the total dollar value of the Bill Credits for that month.

- B. Beginning with the seventh calendar month following the Commercial Operations Date, the Subscriber Organization shall pay, and Company shall accept, payment reductions (from Subscriber Organization's payment for Unsubscribed RDG) or liquidated damages for failure of the Subscriber Organization to achieve, during the calendar month in question, any one or more of the applicable CBRE Subscriber Thresholds. The amount of such payment reductions-liquidated damages shall be determined as set forth in the CBRE Tariff. For purposes of this Section 5 (Payment to Subscriber Organization; Payment Reductions-Liquidated Damages for Failure to Achieve CBRE Subscriber Thresholds) of this Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS), a provision in the CBRE Tariff that provides for a reduction in the amount to be paid to the Subscriber Organization for Unsubscribed RDG shall be deemed to provide for liquidated damages in the event that Subscriber Organization's payment for Unsubscribed RDG is insufficient to cover such payment reduction, which liquidated damages shall be in the amount of such insufficiency. The Company shall have the right to set-off liquidated damages for failure to achieve one or more of the CBRE Subscriber Thresholds from the amounts to be paid to the Subscriber Organization or to draw such liquidated damages from the Operating Period Security.
6. **TEST ENERGY.** Company shall use reasonable efforts to accept test energy that is delivered as part of the normal testing for generators (such as energy delivered to Company during the Control System Acceptance Test but not during the Acceptance Test), provided Subscriber Organization shall use reasonable efforts to coordinate such normal testing with Company so as to minimize adverse impacts on the Company System and operations. Company shall not compensate Subscribers or Subscriber Organization for test energy.
7. **TAX CREDIT PASS THROUGH.** Company acknowledges and agrees that the Federal Refundable Tax Credit and Federal Non-Refundable Tax Credit shall inure to the benefit of the Claiming Entity; provided, however, that Subscriber Organization acknowledges and expressly agrees that the Federal Refundable Tax Credit and Federal Non-Refundable Tax Credit, with regard to Subscriber Organization's Facility, have been calculated into the Contract Pricing based on the maximization of such credits. In the event that Subscriber Organization's Facility does not gain the benefit of the Federal Refundable Tax Credit and/or the Federal Non-Refundable Tax Credit, Subscriber Organization expressly acknowledges and agrees that it shall not seek to amend the Contract Pricing.
- A. Because the Hawai'i tax treatment that will apply to renewable energy technologies on the Commercial Operations Date is uncertain, the parties acknowledge that the Contract Pricing was set assuming Subscriber Organization will not be eligible for any Hawai'i Renewable Energy Tax Credit. The intent of this Section 7. (Tax Credit Pass Through) is to entitle Company, for the benefit of its customers, to a payment equal to 100% of the maximum Hawai'i Renewable Energy Tax Credit for which Subscriber Organization is eligible with respect to the Facility and receives during the Term, as more fully set forth in this Section 7. (Tax Credit Pass Through).
- B. If, as of the Commercial Operations Date, or, if not available at the Commercial Operations Date, at any subsequent time during the Term, a Hawai'i Refundable Tax Credit is reasonably available to Subscriber Organization or its affiliates with respect to the Facility, the following shall apply:
1. Subscriber Organization or Subscriber Organization's affiliate will apply for such Hawai'i Refundable Tax Credit, it being understood and agreed that if Subscriber Organization applies for a Hawai'i Refundable Tax Credit as of the Commercial Operations Date, it shall have fulfilled its obligations hereunder to apply for the Hawai'i Refundable Tax Credit;
  2. Subscriber Organization shall make a payment to Company in an amount equal to one hundred percent (100%) of the Net Amount of such Hawai'i Refundable Tax Credit within thirty (30) Days after funds are received from the Hawai'i Department of Taxation;

3. Upon application for the Hawai'i Refundable Tax Credit, an officer of Subscriber Organization will deliver to Company a notice (A) describing Subscriber Organization's efforts to apply for and obtain the Hawai'i Refundable Tax Credit, (B) confirming that Subscriber Organization has applied for the Hawai'i Refundable Tax Credit, and (C) certifying that Subscriber Organization has used commercially reasonable efforts to apply for and obtain the maximum reasonably available Hawai'i Refundable Tax Credit as provided in this Section 7. (Tax Credit Pass Through);
  4. Upon receipt of any funds from the Hawai'i Department of Taxation for the Hawai'i Refundable Tax Credit, an officer of Subscriber Organization or an affiliate of Subscriber Organization, if applicable, will deliver a notice to Company certifying (A) the amount of funds received, (B) and the amount of payment that will be made to Company, net of any documented and reasonable financial, legal, administrative, and other costs required to claim and transfer such funds to Subscriber Organization, as supported by the officer's certificate as to the amount of such costs and the reasonableness thereof.
- C. If, as of the Commercial Operations Date, a Hawai'i Refundable Tax Credit is unavailable, but a Hawai'i Non-Refundable Tax Credit is available to Subscriber Organization or its affiliates with respect to the Facility, or at any subsequent time during the Term, a Hawai'i Non-Refundable Tax Credit becomes available to Subscriber Organization or its affiliates with respect to the Facility, notwithstanding that Subscriber Organization may have applied for a Hawai'i Refundable Tax Credit, and in either case Subscriber Organization can claim, or enable its investors to claim, such Hawai'i Non-Refundable Tax Credit, the following shall apply:
1. Subscriber Organization or an affiliate of Subscriber Organization will apply for any available Hawai'i Non-Refundable Tax Credit, it being understood and agreed that if Subscriber Organization applies for a Hawai'i Non-Refundable Tax Credit as of the Commercial Operations Date, it shall have fulfilled its obligations hereunder to apply for the Hawai'i Non-Refundable Tax Credit;
  2. Subscriber Organization shall make a payment to Company in an amount equal to one hundred percent (100%) of the Net Amount of such Hawai'i Non-Refundable Tax Credit that Subscriber Organization can claim in the tax year in question within sixty (60) Days after the filing date of the applicable tax return for the tax year in which such Hawai'i Non-Refundable Tax Credit is utilized;
  3. Upon the filing of the applicable tax return(s), an officer of Subscriber Organization or an affiliate of Subscriber Organization, if applicable, will deliver a notice to Company (A) describing Subscriber Organization's efforts to apply for and obtain the Hawai'i Non-Refundable Tax Credit, (B) confirming that Subscriber Organization has applied for the Hawai'i Non-Refundable Tax Credit, and (C) certifying that Subscriber Organization has used commercially reasonable efforts to apply for and obtain the maximum reasonably available Hawai'i Non-Refundable Tax Credit as provided in this Section 7. (Tax Credit Pass Through);
  4. Upon receipt of any funds for the Hawai'i Non-Refundable Tax Credit, an officer of Subscriber Organization or an affiliate of Subscriber Organization, if applicable, will deliver a notice to Company certifying (A) the amount of funds received, (B) and the amount of payment that will be made to Company, net of any documented and reasonable financial, legal, administrative, and other costs required to claim, monetize and transfer such funds to Subscriber Organization, as supported by the officer's certificate as to the amount of such costs and the reasonableness thereof.

- D. Subscriber Organization shall use commercially reasonable efforts to apply for and obtain the maximum reasonably available Hawai'i Refundable and/or Non-Refundable Tax Credit as provided in this Section 7 (Tax Credit Pass Through). If Subscriber Organization fails to apply for and to use commercially reasonable efforts to obtain such Hawai'i Renewable Energy Tax Credit as described above, then Company shall be entitled to liquidated damages in an amount equal **[\$150,000 per MW of Contract Capacity]**. Subscriber Organization and Company agree and acknowledge that (i) the failure to use commercially reasonable efforts as provided in the preceding sentence would result in damages to Company in the form of reduction or loss of a benefit for Company's customers that would be difficult or impossible to calculate with certainty and (ii) **[Note - Insert Amount That Equals \$150,000 Per Mw Of Contract Capacity]** is an appropriate approximation of such damages. Company's right to collect liquidated damages as described in this Section 7.D. shall constitute Company's exclusive remedy and fulfillment of all Subscriber Organization's liability with respect to its obligations to maximize the amount of Hawai'i Renewable Energy Tax Credit. Such liquidated damages shall be provided to Company in the form of a lump sum payment by Subscriber Organization or as a credit against any amounts due by Company to Subscriber Organization under this Contract, as Company reasonably determines.
- E. If, prior to the application in Section 7.B. or filing in Section 7.C. of this Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS), as applicable, a change in tax law occurs to introduce a Hawai'i Production Tax Credit or an alternative renewable tax credit, Subscriber Organization will use commercially reasonable efforts to determine which tax strategy is likely to result in the larger Net Amount (based on net present value for tax credits earned over time) of claimable tax credits. If, based on such efforts, Subscriber Organization determines that either Section 7.B. or Section 7.C. would result in a larger Net Amount of usable tax credits, an officer of Subscriber Organization will deliver a notice to Company certifying that Subscriber Organization has reasonably determined that the selected form of Hawai'i Renewable Energy Tax Credit is likely to result in the larger Net Amount (based on net present value for tax credits earned over time) of claimable tax credits and explaining the rationale for such determination. If, however, Subscriber Organization reasonably determines that such Hawai'i Production Tax Credit is likely to result in the larger Net Amount (based on net present value for tax credits earned over time) of claimable tax credits and that it reasonably can obtain such Hawai'i Production Tax Credit, Subscriber Organization shall promptly notify Company in writing and explain the rationale for such determination, and Subscriber Organization and Company shall negotiate in good faith and use commercially reasonable efforts to agree upon lump sum payments and/or credits or adjustments to the Contract Pricing and other terms of this Contract as may be required to best benefit Company's customers with 100% of the Net Amount of such tax benefits and preserve the intended economic benefits to the Parties arising from this Contract.
- F. Company reserves the right to have Subscriber Organization's application for the Hawai'i Renewable Energy Tax Credit in Section 7.B. or Section 7.C., or the Hawai'i Production Tax Credit or alternative tax credit under Section 7.E. of this Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) reviewed by an Independent Tax Expert to determine if such application is expected to maximize available tax credits to best benefit Company's customers, in which case, the provisions of this Section 7.F. shall apply. Company shall deliver to Subscriber Organization a written notice (the "Nomination Notice") of: (i) the names of three persons qualified and willing to accept appointment as an Independent Tax Expert; (ii) a description provided by each nominee of his or her qualifications to serve as an Independent Tax Expert; (iii) a written undertaking by each nominee to review Subscriber Organization's tax credit strategy and application, and (iv) each nominee's fee proposal. Subscriber Organization and Company shall agree on a mutually acceptable person to serve as the Independent Tax Expert within ten (10) Business Days of Subscriber Organization's receipt of Company's written notice. If the Parties fail

to agree upon a mutually acceptable Independent Tax Expert within the aforesaid ten Business Day period, such disagreement shall be resolved pursuant to Section 7.G. of this Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS). Company shall pay the fees and expenses of the Independent Tax Expert and Subscriber Organization shall promptly reimburse Company for one-half of such fees and expenses.

- G. Any dispute arising under this Section 7. (Tax Credit Pass Through) of this Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) shall constitute a "Dispute" within the meaning of Section 17. (Dispute Resolution) of the Contract and shall be resolved as provided in said Section 17. (Dispute Resolution).
- H. For purposes of this Section 7. (Tax Credit Pass Through) of this Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS), an affiliate of Subscriber Organization is a company that directly or indirectly controls, is controlled by, or is under common control with Subscriber Organization, and Subscriber Organization may perform its obligations under this Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) directly or through one or more affiliates.

--END--

**ATTACHMENT C**  
**REQUIRED PERFORMANCE METRICS; LIQUIDATED DAMAGES**

**1. PV SYSTEM EQUIVALENT AVAILABILITY FACTOR; LIQUIDATED DAMAGES; TERMINATION RIGHTS.**

- A. Calculation of the PV System Equivalent Availability Factor. Following the end of each LD Period, the PV System Equivalent Availability Factor shall be calculated for such LD Period as follows:

$$\text{PV System Equivalent Availability Factor} = 100\% \times \frac{AH - EDH}{PH}$$

where:

Period Hours (PH) is the total number of hours in the LD Period counting twenty-four (24) hours per day. In a normal year, PH = 8,760, and in a leap year PH = 8,784.

Available Hours (AH) is the number of hours that the PV System is not on Outage. It is the sum of all Service Hours (SH) + Reserve Shutdown Hours (RSH).

An "Outage" exists whenever the entire PV System is not online producing electric energy and is not in a Reserve Shutdown state.

Service Hours (SH) is the number of hours during the LD Period the PV System is online and producing electric energy to meet Company Dispatch and/or to maintain the BESS State of Charge.

Reserve Shutdown Hours (RSH) is the number of hours the PV System was available to the Company System but not providing electric energy or is offline at the Company's request for reasons other than Subscriber Organization-Attributable Non-Generation, or is offline due to insufficient irradiance levels based on the inverter manufacturer's minimum irradiance level for production. All hours between 7:00 pm and 6:00 am will be considered RSH. The PV System will be considered RSH in these hours, even if the system would otherwise be in an outage or derated state.

A "PV System Derating" exists if the Facility is available for Company Dispatch, but at less than full potential output for the given irradiance conditions, including deratings due to Subscriber Organization-Attributable Non-Generation or deratings by Company pursuant to Section 5.C (Company Rights of Dispatch).

For avoidance of doubt, if there is a PV System Outage occurring, there cannot also be a PV System Derating.

Equivalent Derated Hours (EDH) is the sum of ESADH, EPDH, and EUDH. For deratings due to PV System inverter unavailability, the equivalent full outage hour(s) are calculated by multiplying the actual duration of the derating (hours) by the number of inverters in the PV System unavailable and dividing by the total number of inverters in the PV System. For deratings that do not impact the availability of an entire inverter or set of entire inverters, the equivalent full outage hour(s) are calculated by multiplying the actual duration of the derating (hours) by the size of the derating (in MW) divided by the Contract Capacity.

Equivalent Subscriber Organization-Attributable Derated Hours (ESADH): A Subscriber Organization-Attributable Derating occurs when a derating exists due to Subscriber

Organization-Attributable Non-Generation or deratings by Company pursuant to Section 5.C (Company Rights of Dispatch) of the Contract. Each individual derating is transformed into equivalent full outage hour(s). These equivalent hour(s) are then summed.

Equivalent Planned Derated Hours (EPDH) includes Planned Deratings (PD) and Maintenance Deratings (D4). A Planned Derating is when the PV System experiences a derating scheduled well in advance and for a predetermined duration. A Maintenance Derating is a derating that can be deferred beyond the end of the next weekend (Sunday at midnight or before Sunday turns into Monday) but requires a reduction in capacity before the next Planned Derating (PD). Each individual Deration is transformed into equivalent full outage hour(s). These equivalent hour(s) are then summed.

Equivalent Unplanned Derated Hours (EUDH): An Unplanned Derating (Forced Derating) occurs when the PV System experiences a derating that requires a reduction in availability before the end of the nearest following weekend. Unplanned Derations include those due to Subscriber Organization-Attributable Non-Generation. Each individual Unplanned Derating is transformed into equivalent full outage hour(s). These equivalent hour(s) are then summed.

The effect of Force Majeure is taken into account in calculating the PV System Equivalent Availability Factor over the 12 calendar month LD Period as follows: When an LD Period contains any hours in a month during which the PV System or a portion of the PV System is unavailable due to Force Majeure, then such month shall be excluded from the LD Period and the LD Period shall be extended back in time to include the next previous month during which there was no such unavailability of the PV System or a portion thereof due to Force Majeure. This means the PV System Equivalent Availability Factor would not change from that determined in the month directly preceding a month containing Forced Majeure.

EXAMPLE: The following is an example of a PV System Equivalent Availability Factor calculation and is included for illustrative purposes only. Assume the following:

- PV System has 10 inverters and the Facility has a Contract Capacity of 30 MWs.
- LD Period = first 12 calendar months of the Contract (non-leap year).
- PV System was online and producing electric energy for 4,000 hours and was available but not producing electric energy due to lack of sufficient irradiance for production (i.e., not Subscriber Organization-Attributable Non-Generation) for 500 hours.
- 3 Inverters were offline for 100 hours due to a Planned Derating while not otherwise in RSH.
- 2 Inverters were offline for 50 hours due to an Unplanned Derating while not in RSH.
- The PV System had a 3 MW derating for 100 hours due to Subscriber Organization-Attributable Non-Generation while not otherwise in RSH.
- The PV System Equivalent Availability Factor would be calculated as follows:



$$PH = 8,760 \text{ hours in 12 calendar months} = 8,760 \text{ hours}$$

$$SH = 4,000 \text{ hours}$$

$$RSH = 500 \text{ hours} + (11 \text{ hours/day} \times 365 \text{ days}) = 4,515 \text{ hours}$$

$$AH = SH + RSH = 4,000 \text{ hours} + 4,515 \text{ hours} = 8,515 \text{ hours}$$

$$ESADH = 100 \text{ hours} \times \left( \frac{3 \text{ MW}}{30 \text{ MW}} \right) = 10 \text{ hours}$$

$$EPDH = 100 \text{ hours} \times \left( \frac{3 \text{ inverters}}{10 \text{ inverters}} \right) = 30 \text{ hours}$$

$$EUDH = 50 \text{ hours} \times \left( \frac{2 \text{ inverters}}{10 \text{ inverters}} \right) = 10 \text{ hours}$$

$$EDH = ESADH + EPDH + EUDH = 10 \text{ hours} + 30 \text{ hours} + 10 \text{ hours} = 50 \text{ hours}$$

$$EAF = 100\% \times \frac{8,515 - 50}{8,760} = 96.6\%$$

- B. PV System Equivalent Availability Factor Performance Metric and Liquidated Damages. For each LD Period, a PV System Equivalent Availability Factor shall be calculated as provided in accordance with Section 1. A. (Calculation of PV System Equivalent Availability Factor) of this Attachment C (Required Performance Metrics; Liquidated Damages). In the event the PV System Equivalent Availability Factor is less than **98%** (the "PV System Equivalent Availability Factor Performance Metric") for any LD Period, Subscriber Organization shall be subject to liquidated damages as set forth in this Section 1. B. (PV System Equivalent Availability Factor Performance Metric and Liquidated Damages). For avoidance of doubt, because the PV System Equivalent Availability Factor is calculated over an LD Period of 12 calendar months, the first month for which liquidated damages would be calculated under this Section 1.B. (PV System Equivalent Availability Factor Performance Metric and Liquidated Damages) would be the last calendar month of the initial Contract Year. If the PV System Equivalent Availability Factor for a LD Period is less than the PV System Equivalent Availability Factor Performance Metric, Subscriber Organization shall pay, in accordance with Attachment C (Required Performance Metrics; Liquidated Damages), Section 8 (Payment of Liquidated Damages for Failure to Achieve Performance Metrics; Limitation on Liquidated Damages), and Company shall accept, as liquidated damages for Subscriber Organization's failure to achieve the PV System Equivalent Availability Factor Performance Metric for such LD Period, an amount calculated in accordance with the following formula:

<u>PV System Equivalent Availability Factor</u>	<u>Amount of Liquidated Damages Per Calendar Month</u>
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**97.9% and below**

For each one-tenth of one percent (0.001) by which the PV System Equivalent Availability Factor for such LD Period

falls below the PV System Equivalent Availability Factor Performance Metric, an amount equal to 0.001917 of the Applicable Period Lump Sum Payment for the last calendar month of such LD Period.

For purposes of determining liquidated damages under the preceding formula, the amount by which the PV System Equivalent Availability Factor for the LD Period in question falls below the applicable threshold shall be rounded to the nearest one-tenth of one percent (0.001). Each Party agrees and acknowledges that (i) the damages that Company would incur if the Subscriber Organization fails to achieve the PV System Equivalent Availability Factor Performance Metric for a LD Period would be difficult or impossible to calculate with certainty and (ii) the aforesaid liquidated damages are an appropriate approximation of such damages.

EXAMPLE: The following is an example calculation of liquidated damages for the PV System Equivalent Availability Factor Performance Metric and is included for illustrative purposes only. Assume the monthly Lump Sum Payment is \$1,000,000 and the PV System Equivalent Availability Factor is 96.9% as calculated in the example in Section 1.A (Calculation of the PV System Equivalent Availability Factor) above.

The liquidated damages would be calculated as follows:

Applicable Period Lump Sum Payment = \$1,000,000

$\$1,000,000 \times .001917 = \$1,917$

$98.0\% - 96.9\% = 1.1\%$

$1.1\% / 0.1\% = 11$

$\$1,917 \times 11 = \$21,087$

- C. PV System Equivalent Availability Factor Termination Rights. The Parties acknowledge that, although the intent of the liquidated damages payable under Attachment C (Required Performance Metrics; Liquidated Damages) Section 1.B. (PV System Equivalent Availability Factor Performance Metric and Liquidated Damages) is to compensate Company for the damages that Company would incur if the Subscriber Organization fails to achieve the PV System Equivalent Availability Factor Performance Metric for a LD Period, such liquidated damages are not intended to compensate Company for the damages that Company would incur if a pattern of underperformance establishes a reasonable expectation that the PV System is likely to continue to substantially underperform the PV System Equivalent Availability Factor Performance Metric. Accordingly, and without limitation to Company's rights under said Section 1.B. (PV System Equivalent Availability Factor Performance Metric and Liquidated Damages) for those LD Periods during which the Subscriber Organization failed to achieve the PV System Equivalent Availability Factor Performance Metric, the failure of the Facility to achieve a PV System Equivalent Availability Factor of not less than **84%** for each of three consecutive Contract Years shall constitute an Event of Default under this Contract for which Company shall have the rights (including but not limited to the termination rights) set forth in Section 13. (Events of Default by Subscriber Organization) and Section 15. (Damages in the Event of Termination by Company) of this Contract.

## 2. MEASURED PERFORMANCE RATIO; LIQUIDATED DAMAGES; TERMINATION RIGHTS.

### A. Calculation of Measured Performance Ratio.

1. The Measured Performance Ratio ("MPR") represents the PV System's measured AC power output compared to its theoretical DC power output as adjusted for the plane of array irradiance and weather conditions measured at the Site [**DRAFTING NOTE: MAY REQUIRE REVISION FOR DC OUTPUT**]. The net PV System output in MW will be measured at such points mutually agreed to by the Parties on the Facility's single-line diagram attached hereto as Attachment F, Exhibit F-5 (Single-Line Drawing and Interface Block Diagram) to this Contract.
  - Following the end of each MPR Assessment Period, the MPR shall be calculated for such MPR Assessment Period (using the previous 12 months of data) as follows:

$$MPR_{corr} = \frac{\sum_i P_{AC\_i}}{\sum_i \left[ P_{DC_{STC}} \left( \frac{G_{POA\_i}}{G_{STC}} \right) \left( 1 - \frac{\delta}{100} (T_{cell\_type\_avg} - T_{cell\_i}) \right) \right]}$$

Where:

$i$  = each 15-minute interval during the MPR Assessment Period where the conditions set forth in Section 2.A.1. are met.

$P_{AC\_i}$  is the measured AC power output of the PV System measured at the Point of Interconnection and BESS inverters' AC input averaged over time period  $i$  in MW.

$G_{STC}$  = plane of array irradiance at the standard condition of 1,000  $W/m^2$ .

$P_{DC_{STC}}$  is the DC rated capacity of the PV System at the standard test conditions of 1,000  $W/m^2$  and 25°C (MW), (i.e., the DC power rating of the PV panels at standard test conditions multiplied by the number of PV panels in the Facility).

$G_{POA\_i}$  is the measured plane of array irradiance averaged over time period  $i$  ( $W/m^2$ ).

$T_{cell\_i}$  = cell temperature computed from measured meteorological data averaged over time period  $i$  using the equation provided below. (°C)

$T_{cell\_typ\_avg}$  = annual average irradiance-weighted cell temperature computed from one year of weather data using the GPR performance metric weather file and the equation below. (°C) Calculated once per GPR.

$\delta$  = temperature coefficient for power (%/°C, negative in sign) that corresponds to the installed photovoltaic modules.

$$T_{cell\_typ\_avg} = \frac{\sum_j [G_{POA\_typ\_j} \times T_{cell\_typ\_j}]}{\sum_j G_{POA\_typ\_j}}$$

Where:

$j$  = each hour of the year in the GPR performance metric weather file (hours 1-8760).

$G_{POA\_typ\_j}$  = Plane of array irradiance for each hour of the year determined from the GPR performance metric weather file and tracker orientation. This irradiance is zero (0) when the sun is not up. ( $W/m^2$ ).

$T_{cell\_typ\_j}$  = calculated cell operating temperature for each hour of the year computed using the GPR performance metric weather file for the weather variables in the equation for  $T_{cell\_i}$  below.

$$T_{cell\_i} = G_{POA_i} \times e^{(a+b \times WS_i)} + T_{a\_i} + \left( \frac{G_{POA_i}}{G_{STC}} \times dT_{cond} \right)$$

Where:

$T_{a\_i}$  = the measured ambient temperature averaged over time period  $i$  [ $^{\circ}C$ ]

$WS_i$  = the measured wind speed corrected to a measurement height of 10 meters (using the anemometer height and proper Hellmann coefficient) averaged over time period  $i$  [m/s]

$a$  = empirical constant reflecting the increase of module temperature with sunlight as presented in Table 2 below.

$b$  = empirical constant reflecting the effect of wind speed on the module temperature as presented in Table 2 below [s/m]

$e$  = Euler's constant and the base for the natural logarithm.

$dT_{cond}$  = conduction temperature coefficient from module to cell as presented in Table 2 below.

<b>Table 2. Empirical Convective Heat Transfer Coefficients Module Type</b>	<b>Mount</b>	<b><math>a</math></b>	<b><math>b</math></b>	<b><math>dT_{cond}</math></b>
Glass/cell/glass	Open rack	-3.47	-0.0594	3
Glass/cell/glass	Close-roof mount	-2.98	-0.0471	1
Glass/cell/polymer sheet	Open rack	-3.56	-0.0750	3
Glass/cell/polymer sheet	Insulated back	-2.81	-0.0455	0
Polymer/thin-film/steel	Open rack	-3.58	-0.1130	3

The time periods used in the foregoing calculation shall be only periods during which, for the entire 15-minute interval, the PV System output is allowed to convert all irradiance to AC power (whether directed to the BESS or Point of Interconnection) and the plane of array irradiance is not less than 600 W/m<sup>2</sup>. Data points that will be excluded are limited to data points where: (A) the GPOA is below 600 W/m<sup>2</sup>, (B) GPOA is above the maximum threshold (C) the PV System is in Reserve Shutdown, (D) when the PV System has a Planned or Unplanned Derating, (E) the PV System was not allowed to convert the full DC output to AC energy to deliver to the BESS and Point of Interconnection due to Company

Dispatch being less than the PV System potential at the measured irradiance and the BESS reaching its maximum State of Charge; (F) there is a PV System Outage; or (G) the BESS is discharging. The aforementioned 15-minute intervals are fixed intervals that commence, in sequence, at the top of each hour and at 15, 30 and 45 minutes past the hour. At the end of each month, Subscriber Organization shall provide Company a report that lists all hours when such excluded data points occur (from the Facility's SCADA system as necessary) to validate the exclusion of any data points from the calculation set forth in Section 2.A., above. This information shall be validated on a monthly basis.

The effect of the Force Majeure is taken into account in calculating the MPR for the MPR Assessment Period as follows: When an MPR Assessment Period contains any hours in a month during which the PV System or a portion of the PV System is unavailable due to Force Majeure, then such month shall be excluded from the MPR Assessment Period and the MPR Assessment Period shall be retroactively extended to include the next previous month during which there was no such unavailability of the PV System or a portion thereof due to Force Majeure. This means the MPR would not change from that determined in the month directly preceding a month containing Force Majeure.

- B. MPR Test. In the event that the set of operational data points under Section 2.A. that is available for any month to calculate the MPR cannot be validated to Company's reasonable satisfaction or in the event there were not at least 16 such data points during such month that could be used to calculate the MPR, the Company shall have the right to perform a test ("MPR Test") to collect the data points for such month to be used to calculate the MPR in lieu of the use of operational data for such month. The Company shall retain sole discretion as to when to conduct the MPR Test and the MPR Test may be conducted at any point during the month following the month for which Company was either unable to validate the set of operational data points for such month or there were not at least 16 data points available during such month, provided that Company will provide Subscriber Organization three (3) Business Days' notice prior to conducting the MPR Test. The MPR Test shall have a minimum duration of four (4) hours and shall run until at least 16 data points are collected that meet the criteria set forth in Section 2.A., subject to the limitation set forth in the last sentence of this Section 2.B). To the extent possible, the Company shall schedule the MPR Test for a period where all inverters in the PV System and BESS are fully available and weather conditions are expected to be optimum allowing the PV System to generate at full capacity for the duration of the MPR Test (if possible). However, if Company chooses a period where some of the Facility inverter(s) are unavailable,  $P_{DCSTC}$  shall be adjusted to account for any reduction in capability to accept energy from the PV System due to the unavailable inverter(s).
- For each MPR Assessment Period that includes one or more months for which a MPR Test was performed, the data points collected during said MPR Test for such month(s) shall be used together with the data points for months for which an MPR Test was not conducted to calculate the MPR for the MPR Assessment Period in question using the formula set forth in Section 2.A.1., above. The result of the calculation based on the MPR Test shall be the MPR for the MPR Assessment Period in question.

EXAMPLE: The following is an example of a Measured Performance Ratio calculation and is included for illustrative purposes only. Assume the following:

- Facility with 120,000 panels with a standard test condition rating of 300 W
- $PDCSTC = 120,000 \times 300 \text{ W} = 36 \text{ MW}$
- For illustrative purposes only, 4 hours of data which met the criteria specified in 2.6(a) (iii) have been recorded over the MPR Assessment Period. It should be noted that all

available operational data that meets the criteria specified in Section 2.A.1. shall be included in the actual calculation.

Time Period	Average Measured Plane of Array Irradiance (W/m <sup>2</sup> )	Average Measured Net AC Power at POI and BESS Inverters (MW)	Average Measured Ambient Temperature (°C)	10 Meter Elevation Average Measured Wind Speed (m/s)
1	690	16	27	3
2	850	11	26	8
...	...	...	...	...
i	750	19	29	7

$$MPR_{corr} = \frac{\sum_i P_{AC\_i}}{\sum_i \left[ P_{DCSTC} \left( \frac{G_{POA_i}}{G_{STC}} \right) \left( 1 - \frac{\delta}{100} (T_{cell\_typ\_avg} - T_{cell\_i}) \right) \right]}$$

where:

$$T_{cell\_i} = G_{POA_i} \times e^{(a+b \times WS_i)} + T_{a\_i} + \left( \frac{G_{POA_i}}{G_{STC}} \times dT_{cond} \right)$$

Assuming:

The temperature coefficient ( $\delta$ ) of the installed modules is -0.4%/°C

The average irradiance-weighted cell temperature ( $T_{cell\_typ\_avg}$ ) has been calculated as 28°C

The installed modules are a glass/cell/polymer sheet module type using an open rack mount. ( $a = -3.56$ ;  $b = -0.0750$ ;  $dT_{cond} = 3$ )

$$\sum_i P_{AC\_i} = 16 \text{ MW} + 11 \text{ MW} + \dots + 19 \text{ MW} = \mathbf{305 \text{ MW}}$$

$$\begin{aligned} \sum_i \left[ P_{DCSTC} \left( \frac{G_{POA_i}}{G_{STC}} \right) \left( 1 - \frac{\delta}{100} (T_{cell\_type\_avg} - T_{cell\_i}) \right) \right] &= 36 \text{ MW} \times \\ &[(690/1000) \times (1 - (0.4/100) \times (28 - ((690 \times e^{(-3.56 - 0.075 \times 3)} + 27) + ((690/1000) \times 3))) + \\ &(850/1000) \times (1 - (0.4/100) \times (28 - ((850 \times e^{(-3.56 - 0.075 \times 8)} + 26) + ((850/1000) \times 3))) + \\ &\dots + \\ &(750/1000) \times (1 - (0.4/100) \times (28 - ((750 \times e^{(-3.56 - 0.075 \times 7)} + 29) + ((750/1000) \times 3)))]) \\ &= \mathbf{374.76 \text{ MW}} \end{aligned}$$

$$MPR = 305 \text{ MW} / 374.76 \text{ MW} = \mathbf{0.814}$$

#### C. Determination of GPR Performance Metric.

1. Upon Commencement of Commercial Operations. If a copy of the IE Energy Assessment Report together with the supporting Year 1 P-Value of 50 8760 data (plane of array irradiance, ambient temperature, windspeed and corresponding power output) is not provided to Company in accordance with Section 1.C. (NEP IE Estimate and Company-Designated NEP Estimate) of Attachment D (Calculation and Adjustment of Net Energy Potential), the GPR Performance Metric for the period commencing on the Commercial Operations Date through the end of the

- calendar month during which the Initial OEPR is issued shall be 0.85. If a copy of the IE Energy Assessment Report together with the supporting data (plane of array irradiance, ambient temperature, windspeed and corresponding power output) is provided to Company in accordance with Section 1.C. (NEP IE Estimate and Company-Designated NEP Estimate) of Attachment D (Calculation and Adjustment of Net Energy Potential), the GPR Performance Metric shall be the GPR set forth in the IE Energy Assessment Report and based on the Year 1 P-Value of 50 8760 data, provided that such GPR is justified by such supporting data and consistent with the minimum irradiance level and points of power measurement specified in Section 2.A. of this Attachment C. In the event that the IE Assessment Report includes the supporting data (plane of array irradiance, ambient temperature, windspeed and corresponding power output) relied upon in arriving at the NEP IE Estimate, but does not set forth a GPR, the GPR Performance Metric shall be calculated using such supporting data and the Measured Performance Ratio formula in Section 2.A. of this Attachment C. Within 30 Days of Company's receipt of the IE Energy Assessment Report together with the aforementioned supporting data, Company shall provide written notice to Subscriber Organization of either (aa) the GPR Performance Metric derived from such supporting data or (bb) Company's inability to reasonably derive a GPR Performance Metric from such supporting data, in which case the GPR Performance Metric shall be 0.85.
2. Commencing With Initial OEPR. For the period commencing with the first Day of the calendar month following the establishment of the NEP OEPR Estimate for the Initial OEPR (as provided in Section 1.E. (Initial OEPR) and Sections 2.G. (Review of the First OEPR Evaluator Report) and 2.H. (Review of the Second OEPR Evaluator Report) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract through the end of the calendar month during which the NEP OEPR Estimate for the first Subsequent OEPR is established as provided in Section 2.F. (Subsequent OEPRs) and Sections 2.G. (Review of the First OEPR Evaluator Report) and 2.H. (Review of the Second OEPR Evaluator Report) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract, the GPR Performance Metric shall be the GPR as established through the Initial OEPR process as aforementioned. If no GPR has been established through the Initial OEPR process, the GPR Performance Metric shall be 0.85.
  3. Commencing With the First Subsequent OEPR and Thereafter. Commencing with the establishment of the NEP OEPR Estimate for the first Subsequent OEPR as provided in Section 2.F. (Subsequent OEPRs) and Sections 2.G. (Review of the First OEPR Evaluator Report) and 2.H. (Review of the Second OEPR Evaluator Report) of Attachment D (Calculation and Adjustment of Net Energy Potential) to this Contract, for each period commencing with the first Day of the calendar month following the establishment of the NEP OEPR Estimate for a Subsequent OEPR (including but not limited to the first Subsequent OEPR) through the end of the calendar month during which the NEP OEPR Estimate is established for the next Subsequent OEPR, the GPR Performance Metric shall be the GPR established for the applicable Subsequent OEPR. If no GPR has been established through the then applicable Subsequent OEPR process, the GPR Performance Metric shall be 0.85.
- D. GPR Performance Metric and Liquidated Damages. For each MPR Assessment Period, a Measured Performance Ratio shall be calculated as provided in Attachment C Section 2.A. (Calculation of Measured Performance Ratio) to this Contract. In the event the MPR is less than 95% of the GPR Performance Metric as adjusted by the degradation factor set forth below, Subscriber Organization shall pay, in accordance with Attachment C Section 8. (Payment of Liquidated Damages for Failure to Achieve Performance Metrics; Limitation on Liquidated Damages), and Company shall accept, as liquidated damages for Subscriber Organization's failure to achieve the GPR Performance Metric for such MPR Assessment Period, an amount calculated in accordance with the following formula:

<b>TIER</b>	<b>MEASURED PERFORMANCE RATIO</b>	<b>AMOUNT OF LIQUIDATED DAMAGES PER MPR ASSESSMENT PERIOD</b>
Tier 1	$\text{GPR Performance Metric} \times \text{DF} \times 0.95 > \text{Measured Performance Ratio} \geq \text{GPR Performance Metric} \times \text{DF} \times 0.90$	For each one-tenth of one percent (0.001) by which the Measured Performance Ratio for such MPR Assessment Period falls below the upper limit of the bandwidth specified in this subparagraph, an amount equal to one-tenth of one percent (0.001) of the MPR Assessment Period Lump Sum Payment. The upper end of the aforementioned bandwidth is equal to the product of the GPR Performance Metric, the applicable degradation factor (DF), and 95%. The lower limit of the aforementioned bandwidth consists of and includes the product of the GPR Performance Metric, the applicable degradation factor (DF), and 90%; plus
Tier 2	$\text{GPR Performance Metric} \times \text{DF} \times 0.90 > \text{Measured Performance Ratio} \geq \text{GPR Performance Metric} \times \text{DF} \times 0.80$  $\text{Measured Performance Ratio} < \text{GPR Performance Metric} \times \text{DF} \times 0.80$	<p>For each one-tenth of one percent (0.001) by which the Measured Performance Ratio for such MPR Assessment Period falls below the upper limit of the bandwidth specified in this subparagraph, an amount equal to two-tenths of one percent (0.002) of the MPR Assessment Period Lump Sum Payment. The upper end of the aforementioned bandwidth is equal to the product of the GPR Performance Metric, the applicable degradation factor (DF), and 90%. The lower limit of the aforementioned bandwidth consists of and includes the product of the GPR Performance Metric, the applicable degradation factor (DF), and 80%; plus</p> <p>For each one-tenth of one percent (0.001) by which the Measured Performance Ratio for such MPR Assessment Period falls below the product of the GPR Performance Metric, the applicable degradation factor (DF), and 80%, an amount equal to four-tenths of one percent (0.004) of the MPR Assessment Period Lump Sum Payment.</p>

For purposes of the foregoing calculations under this Section 2, (Measured Performance Metric; Liquidated Damages; Termination Rights), the degradation factor (DF) is calculated for each Contract Year (e.g., second Contract Year, third Contract Year, fourth Contract Year, etc.) as follows:  $DF = 1 - 0.005 * (\text{Applicable Contract Year} - 1)$ . For purposes of the foregoing formula, the "Applicable Contract Year" is the Contract Year within which the calendar month in question falls. If all of the months of an MPR Assessment Period fall within the same Contract Year, the Contract Year is the "Applicable Contract Year." For example, if all of the months of MPR Assessment Period fall within the third Contract Year, the value assigned to the "Applicable Contract Year" would be "3" and the formula for calculating the DF for such LD Period would be:  $DF = 1 - 0.005 * (3 - 1)$ . However, because the MPR Assessment Period is a rolling 12-month period, the MPR Assessment Period will often straddle two consecutive Contract Years. In such cases, all of the months falling within the same Contract Year will be assigned the value for such Contract Year and the value assigned to the "Applicable Contract Year" for purposes of the



foregoing formula shall be the average of the assigned monthly values for such 12-month MPR Assessment Period. For example, for an MPR Assessment Period which has four months in the third Contract Year and eight months in the fourth Contract Year, the value assigned to the "Applicable Contract Year" for such MPR Assessment Period would be 3.67, as calculated as follows:

$$\frac{(3 \times 4) + (4 \times 8)}{12}$$

And the formula for calculating the DF for such MPR Assessment Period would be  $DF = 1 - 0.005 * (3.67 - 1)$ . For purposes of determining liquidated damages under this Section 2, (Measured Performance Metric; Liquidated Damages; Termination Rights). The amount by which the Measured Performance Ratio for the MPR Assessment Period in question falls below the applicable threshold shall be rounded to the nearest one-tenth of one percent (0.001). Each Party agrees and acknowledges that (i) the damages that Company would incur if the Subscriber Organization fails to achieve the GPR Performance Metric for a MPR Assessment Period would be difficult or impossible to calculate with certainty and (ii) the aforesaid liquidated damages are an appropriate approximation of such damages.

EXAMPLE: The following is an example calculation of liquidated damages for the GPR Performance Metric and is included for illustrative purposes only. Assume the following facts:

- The MPR Assessment Period has five months in the second Contract Year and seven months in the third Contract Year.
- The GPR for the Facility as determined by the OEPR is 0.9.
- The MPR has been calculated to be 0.694.
- Applicable Contract Year =  $[(5 \times 2) + (7 \times 3)]/12 = 2.58$
- $DF = 1 - 0.005 * (2.58 - 1) = 0.9921$
- Upper limit of the Tier 1 bandwidth =  $0.9 \times 0.9921 \times 0.95 = 0.848$
- Lower limit of the Tier 1 bandwidth/Upper limit of the Tier 2 bandwidth =  $0.9 \times 0.9921 \times 0.9 = 0.804$
- Lower limit of the Tier 2 bandwidth =  $0.8 \times 0.9921 \times 0.9 = 0.714$

$LD = [((0.848 - 0.804) \times 1) + ((0.804 - 0.714) \times 2) + ((0.714 - 0.694) \times 4)] \times \text{MPR Assessment Period Lump Sum Payment} = 0.304 \times \text{MPR Assessment Period Lump Sum Payment}$

- E. MPR Termination Rights. The Parties acknowledge that, although the intent of the liquidated damages payable under Section 2 (Measured Performance Ratio; Liquidated Damages; Termination Rights) is to compensate Company for the damages that Company would incur if the Subscriber Organization fails to achieve the GPR Performance Metric for a MPR Assessment Period, such liquidated damages are not intended to compensate Company for the damages that Company would incur if a pattern of underperformance establishes a reasonable expectation that the Facility is likely to continue to substantially underperform the GPR Performance Metric. Accordingly, and without limitation to Company's rights under said Section 2, (Measured Performance Metric; Liquidated Damages; Termination Rights) for those MPR Assessment Periods during which the Subscriber Organization failed to achieve the GPR Performance Metric, the failure of the PV System to achieve, for each of three consecutive Contract Years, a Measured Performance Ratio of not less than the Tier 2 Bandwidth for such Contract Year shall constitute an Event of Default under Section 13.A.4, of this Contract for which Company shall have the rights

(including but not limited to the termination rights) set forth in Section 13. (Events of Default) and Section 15. (Damages in the Event of Termination by Company).

**3. BESS CAPACITY TEST; LIQUIDATED DAMAGES; TERMINATION RIGHTS.**

- A. BESS Capacity Test and Liquidated Damages. For each BESS Measurement Period following the Commercial Operations Date, the BESS shall be required to complete a BESS Capacity Test, as more fully set forth in Section 1. (BESS Tests) to Attachment H (BESS Requirement) to this Contract. For each BESS Measurement Period for which the BESS fails to demonstrate that it satisfies the BESS Capacity Performance Metric, Subscriber Organization shall pay, in accordance with Attachment C Section 8. (Payment of Liquidated Damages for Failure to Achieve Performance Metrics; Limitation on Liquidated Damages), and Company shall accept, as liquidated damages for such shortfall, the amount set forth in the following table (on a progressive basis) upon proper demand at the end the BESS Measurement Period in question:

<b>BESS Capacity Ratio</b>	<b>Liquidated Damage Amount</b>
<b>Tier 1 95.0% - 99.9%</b>	For each one-tenth of one percent (0.001) that the BESS Capacity Ratio is below 100% and is equal to or greater than 95.0%, an amount equal to one-tenth of one percent (0.001) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question; plus
<b>Tier 2 85.0% - 94.9%</b>	For each one-tenth of one percent (0.001) that the BESS Capacity Ratio is below 95% and is above 84.9%, an amount equal to one and a half-tenths of one percent (0.0015) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question; plus
<b>Tier 3 75.0% - 84.9%</b>	For each one-tenth of one percent (0.001) that the BESS Capacity Ratio is below 85% and is above 74.9%, an amount equal to two-tenths of one percent (0.002) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question; plus
<b>Tier 4 60.0% - 74.9%</b>	For each one-tenth of one percent (0.001) that the BESS Capacity Ratio is below 75% and is above 59.9%, an amount equal to two and a half-tenths of one percent (0.0025) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question; plus
<b>Tier 5 50.0% - 59.9%</b>	For each one-tenth of one percent (0.001) that the BESS Capacity Ratio is below 60% and is above 49.9%, an amount equal to three-tenths of one percent (0.003) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question; plus
<b>Tier 6 49.9% and below ("Lowest BESS Capacity Bandwidth")</b>	For each one-tenth of one percent (0.001) that the BESS Capacity Ratio is below 50%, an amount equal to three and a half-tenths of one percent (0.0035) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question.

For purposes of determining liquidated damages under this Section 3. (BESS Capacity Test; Liquidated Damages; Termination Rights), the starting and end points for the duration of the period that the BESS discharges shall be rounded to the nearest MWh. Each Party agrees and acknowledges that (i) the damages that Company would incur if the Subscriber Organization fails to achieve the BESS Capacity Performance Metric for a BESS Measurement Period would be

difficult or impossible to calculate with certainty and (ii) the aforesaid liquidated damages are an appropriate approximation of such damages.

EXAMPLE: The following is an example calculation of liquidated damages for the BESS Capacity Performance Metric and is included for illustrative purposes only. Assume the following:

- The Maximum Rated Output for the BESS is 25 MW.
- A BESS Capacity Test was conducted, and the BESS was measured to have discharged 65 MWh
- BESS Contract Capacity = 25 MW x 4 hours = 100 MWh
- BESS Capacity Ratio = MWh Discharged/BESS Contract Capacity = 65 MWh/100 MWh = 0.65

$$LD = [((1 - 0.950) \times 1) + ((0.950 - 0.850) \times 1.5) + ((0.850 - 0.750) \times 2) + ((0.750 - 0.65) \times 2.5)] \times \text{BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question} = 0.65 \times \text{BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question}.$$

B. BESS Capacity Test Termination Rights. The Parties acknowledge that, although the intent of the liquidated damages payable under Section 3. (BESS Capacity Test; Liquidated Damages; Termination Rights) is to compensate Company for the damages that Company would incur if the BESS fails to demonstrate satisfaction of the BESS Capacity Performance Metric during a BESS Measurement Period, such liquidated damages are not intended to compensate Company for the damages that Company would incur if a pattern of underperformance establishes a reasonable expectation that the BESS is likely to continue to substantially underperform the Company's expectations. Accordingly, and without limitation to Company's rights under said Section 3. (BESS Capacity Test; Liquidated Damages; Termination Rights) for those BESS Measurement Periods during which the BESS fails to demonstrate satisfaction of the BESS Capacity Performance Metric, substantial underperformance shall give rise to a termination right as set forth in this Section 3.B. (BESS Capacity Test Termination Rights). If the BESS is in the Lowest BESS Capacity Bandwidth for any two BESS Measurement Periods during a 12-month period, an 18-month cure period (the "BESS Capacity Cure Period") will commence on the Day following the close of the second such BESS Measurement Period. For each BESS Measurement Period during such BESS Capacity Cure Period, BESS Capacity Tests shall continue to be conducted as set forth in Attachment H (BESS Requirements) to this Contract and liquidated damages paid and accepted as set forth in Section 3. (BESS Capacity Test; Liquidated Damages; Termination Rights); provided, however, that if the Subscriber Organization fails to demonstrate satisfaction of the BESS Capacity Performance Metric prior to the expiration of the BESS Capacity Cure Period, such failure shall constitute an Event of Default under this Contract for which Company shall have the rights (including but not limited to the termination rights) set forth in Section 13. (Events of Default), Section 14. (Termination for Cause) and Section 15. (Damages in the Event of Termination by Company).

**4. BESS ANNUAL EQUIVALENT AVAILABILITY FACTOR; LIQUIDATED DAMAGES; TERMINATION RIGHTS.**

A. BESS Annual Equivalent Availability Factor and Liquidated Damages. For each BESS Measurement Period following the Commercial Operations Date, a BESS Annual Equivalent Availability Factor shall be calculated as set forth in Section 2. (BESS Annual Equivalent Availability Factor) of Attachment H. (BESS Requirements). If the BESS Annual Equivalent Availability Factor for such BESS Measurement Period is less than 97% (the "BESS EAF Performance Metric"), Subscriber Organization shall pay, in accordance with Attachment C

Section 8. (Payment of Liquidated Damages for Failure to Achieve Performance Metrics; Limitation on Liquidated Damages), and Company shall accept, as liquidated damages for such shortfall, the amount set forth in the following table (on a progressive basis) upon proper demand at the end the current BESS Measurement Period:

<b>BESS Annual Equivalent Availability Factor</b>	<b>Liquidated Damage Amount</b>
<b>Tier 1 85.0% - 96.9%</b>	For each one-tenth of one percent (0.001) by which the BESS Annual Equivalent Availability Factor falls below 97% but equal to or above 85%, an amount equal to one-tenth of one percent (0.001) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question; plus
<b>Tier 2 80.0% - 84.9%</b>	For each one-tenth of one percent (0.001) by which the BESS Annual Equivalent Availability Factor falls below 85% but equal to or above 80%, an amount equal to two-tenths of one percent (0.002) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question; plus
<b>Tier 3 75.0% - 79.9%</b>	For each one-tenth of one percent (0.001) by which the BESS Annual Equivalent Availability Factor falls below 80% but equal to or above 75%, an amount equal to three-tenths of one percent (0.003) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question; plus
<b>Tier 4 Below 75.0%</b>	For each one-tenth of one percent (0.001) by which the BESS Annual Equivalent Availability Factor falls below 75%, an amount equal to four-tenths of one percent (0.004) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question.

For purposes of determining liquidated damages under this Section 4. (BESS Annual Equivalent Availability Factor; Liquidated Damages; Termination Rights), the BESS Annual Equivalent Availability Factor for the BESS Measurement Period in question shall be rounded to the nearest one-tenth of one percent (0.001). Each Party agrees and acknowledges that (i) the damages that Company would incur if the Subscriber Organization fails to achieve the BESS EAF Performance Metric for a BESS Measurement Period would be difficult or impossible to calculate with certainty and (ii) the aforesaid liquidated damages are an appropriate approximation of such damages.

EXAMPLE: The following is an example calculation of liquidated damages for the BESS Annual Equivalent Availability Factor Performance Metric and is included for illustrative purposes only. Assume the following:

The monthly Lump Sum Payment is \$1,000,000

The BESS Annual Equivalent Availability Factor Performance Metric was calculated to be 72.9%.

BESS Allocated Portion of the Lump Sum Payment = 50% x 3 calendar months x \$1,000,000 = \$1,500,000

LD =  $[(0.970-0.850) \times 1] + [(0.850-0.800) \times 2] + [(0.800-0.750) \times 3] + [(0.750-0.729) \times 4]$  x \$1,500,000

=  $[0.120 + 0.100 + 0.150 + 0.084] \times \$1,500,000 = \$681,000$

- B. BESS Annual Equivalent Availability Factor Termination Rights. The Parties acknowledge that, although the intent of the liquidated damages payable under Section 4. (BESS Annual Equivalent

Availability Factor; Liquidated Damages; Termination Rights) is to compensate Company for the damages that Company would incur if the Subscriber Organization fails to achieve the BESS EAF Performance Metric for a BESS Measurement Period, such liquidated damages are not intended to compensate Company for the damages that Company would incur if a pattern of underperformance establishes a reasonable expectation that the BESS is likely to continue to substantially underperform the BESS EAF Performance Metric. Accordingly, and without limitation to Company's rights under said Section 4. (BESS Annual Equivalent Availability Factor ; Liquidated Damages; Termination Rights) for those BESS Measurement Periods during which the Subscriber Organization failed to achieve the BESS EAF Performance Metric, the failure of the Subscriber Organization to achieve, for each of six consecutive BESS Measurement Periods, a BESS Annual Equivalent Availability Factor of not less than **75%** shall constitute an Event of Default under Section 13.A. of this Contract for which Company shall have the rights (including but not limited to the termination rights) set forth in Section 13. (Events of Default), Section 14. (Termination for Cause), and Section 15. (Damages in the Event of Termination by Company); provided, however, that if a BESS Measurement Period for which the aforementioned 75% threshold is not achieved falls within a BESS Capacity Cure Period, such BESS Measurement Period shall be excluded from the calculation of the aforementioned "six consecutive BESS Measurement Periods" if the failure to achieve the aforementioned 75% threshold was the result of unavailability caused by the process of carrying out the repairs to or replacements of the BESS necessary to remedy the failure of the BESS to achieve the BESS Capacity Performance Metric.

**5. BESS ANNUAL EQUIVALENT FORCED OUTAGE FACTOR; LIQUIDATED DAMAGES.**

- A. For each BESS Measurement Period following the Commercial Operations Date, the BESS shall maintain a BESS Annual Equivalent Forced Outage Factor of not more than **4%** (the "BESS EFOF Performance Metric") as calculated as set forth in Section 5. (BESS Annual Equivalent Forced Outage Factor). If the BESS Annual Equivalent Forced Outage Factor for such BESS Measurement Period exceeds the BESS EFOF Performance Metric, Subscriber Organization shall pay, in accordance with Attachment C Section 8. (Payment of Liquidated Damages for Failure to Achieve Performance Metrics; Limitation on Liquidated Damages), and Company shall accept, as liquidated damages for exceeding the BESS EFOF Performance Metric, the amount set forth in the following table (on a progressive basis) upon proper demand by the Company at the end of the BESS Measurement Period in question:

<b>BESS Annual Equivalent Forced Outage Factor</b>	<b>Liquidated Damage Amount</b>
<b>0.0% - 4.0%</b>	-0-
<b>4.1% - 6.9%</b>	For each one-tenth of one percent (0.001) that the BESS Annual Equivalent Forced Outage Factor is above 4.0% but less than 7.0%, an amount equal to two-tenths of one percent (0.002) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question; plus
<b>7.0% and above</b>	For each one-tenth of one percent (0.001) that the BESS Annual Equivalent Forced Outage Factor is above 6.9%, an amount equal to four-tenths of one percent (0.004) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question

For purposes of determining liquidated damages under this Attachment C Section 5, (BESS Annual Equivalent Forced Outage Factor; Liquidated Damages), the BESS Annual Equivalent Forced Outage Factor for the BESS Measurement Period in question shall be rounded to the nearest one-tenth of one percent (0.001). Each Party agrees and acknowledges that (i) the damages that Company would incur if the Subscriber Organization fails to achieve the BESS EFOF Performance Metric for a BESS Measurement Period would be difficult or impossible to calculate with certainty and (ii) the aforesaid liquidated damages are an appropriate approximation of such damages.

For example, if the BESS Equivalent Annual Forced Outage Factor was 4.1% as calculated in the example in Section 5, (BESS Annual Equivalent Forced Outage Factor; Liquidated Damages) attached hereto and the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question is \$1,000,000, the liquidated damages would be \$2,000, calculated as follows:

- $4.1\% - 4.0\% = 0.1\%$
- $0.1\%/0.1 = 1$
- $\$1,000,000 \times .002 = \$2,000$
- $\$2,000 \times 1 = \$2,000$

## **6. BESS ROUND TRIP EFFICIENCY TEST; LIQUIDATED DAMAGES; TERMINATION RIGHTS.**

- A. RTE Test and Liquidated Damages. For each BESS Measurement Period following the Commercial Operations Date, the BESS shall be required to complete an RTE Test or otherwise demonstrate satisfaction of the RTE Performance Metric, as more fully set forth in Attachment H (BESS Requirements) to this Contract. For each BESS Measurement Period for which the BESS fails to demonstrate that it satisfies the RTE Performance Metric, Subscriber Organization shall pay, in accordance with Attachment C Section 8, (Payment of Liquidated Damages for Failure to Achieve Performance Metrics; Limitation on Liquidated Damages), and Company shall accept, as liquidated damages for such shortfall, in the amount to be calculated as provided in this Section 6.A, (RTE Test and Liquidated Damages) and in Attachment B (Company Payments for Energy, Dispatchability and Availability of Bess), upon proper demand at the end the BESS Measurement Period in question.

The RTE Performance Metric is     %. The RTE Performance Metric represents the lowest acceptable efficiency of the BESS for a full charge and discharge cycle if all energy to achieve the full cycle was taken from and delivered to the Point of Interconnection. **[DRAFTING NOTE: PERCENTAGE TO BE TAKEN FROM RESPONSE TO RFP. The metric will remain a “theoretical” POI to POI worse acceptable performance, even though the intake energy measurement used in the RTE test will move electrically closer to the BESS. This is in the Subscriber Organization's favor, as it can expect to gain efficiency (less losses) by moving the intake energy measurement point closer to the BESS as set forth in Attachment H.]**

The liquidated damages threshold ("LDT") is equal to the RTE Performance Metric minus 2 percentage points.

The Selected RTE Test is the RTE Test most recently completed during the BESS Measurement Period in question.

Subscriber Organization shall be liable for liquidated damages if:

$$(PM - RTE\ Ratio) > 2\%$$

Where:

PM = RTE Performance Metric stated as percentage

RTE Ratio = RTE Ratio from Selected RTE Test stated as percentage

For each percentage point by which the RTE Ratio is below the LDT, Subscriber Organization shall pay, and Company shall accept, liquidated damages in an amount equal to two-tenths of one percent (0.002) of the BESS Allocated Portion of the Lump Sum Payment for the BESS Measurement Period in question.

Each Party agrees and acknowledges that (i) the damages that Company would incur if the Subscriber Organization fails to achieve the RTE Performance Metric for a BESS Measurement Period would be difficult or impossible to calculate with certainty and (ii) the aforesaid liquidated damages are an appropriate approximation of such damages.

- B. RTE Test Termination Rights. The Parties acknowledge that, although the intent of the liquidated damages payable under Section 6.A. (RTE Test and Liquidated Damages) is to compensate Company for the damages that Company would incur if the BESS fails to demonstrate satisfaction of the RTE Performance Metric during a BESS Measurement Period, such liquidated damages are not intended to compensate Company for the damages that Company would incur if a pattern of underperformance establishes a reasonable expectation that the BESS is likely to continue to substantially underperform the Company's expectations. Accordingly, and without limitation to Company's rights under said Section 6. A. (RTE Test and Liquidated Damages) for those BESS Measurement Periods during which the BESS fails to demonstrate satisfaction of the RTE Performance Metric, substantial underperformance shall give rise to a termination right as set forth in this Section 6.B. (RTE Test Termination Rights). If the RTE Ratio for the Selected RTE Test for the BESS Measurement Period in question is more than 15 percentage points below the RTE Performance Metric for any two BESS Measurement Periods during a 12-month period, an 18-month cure period (the "RTE Cure Period") will commence on the Day following the close of the second such BESS Measurement Period. For each BESS Measurement Period during such RTE Cure Period, RTE Tests shall continue to be conducted as set forth in Attachment H (BESS Requirements) and liquidated damages paid and accepted as set forth in Section 6.A. (RTE Test and Liquidated Damages); provided, however, that if the Subscriber Organization fails to demonstrate satisfaction of the RTE Performance Metric prior to the expiration of the RTE Cure Period, such failure shall constitute an Event of Default under Section 13.6 of this Contract for which Company shall have the rights (including but not limited to the termination rights) set forth in Section 13. (Events of Default) and Section 15. (Damages in the Event of Termination by Company) of this Contract.

## 7. [RESERVED]

## 8. PAYMENT OF LIQUIDATED DAMAGES FOR FAILURE TO ACHIEVE PERFORMANCE METRICS; LIMITATION ON LIQUIDATED DAMAGE.

- A. Payment of Performance Metrics LDs by Subscriber Organization. With respect to the liquidated damages payable under Section 1. (PV System Equivalent Availability Factor Performance Metric; Liquidated Damages; Termination Rights), Section 2. (Measured Performance Metric; Liquidated Damages; Termination Rights) Section 3. (BESS Capacity Test; Liquidated Damages; Termination Rights), Section 4. (BESS Annual Equivalent Availability Factor ; Liquidated Damages; Termination Rights), Section 5. (BESS Annual Equivalent Forced Outage Factor; Liquidated Damages) and Section 6. (BESS Round Trip Efficiency Test; Liquidated Damages; Termination

Rights) (collectively, the "Performance Metrics LDs"), Company shall have the right, at any time on or after the LD Assessment Date for the liquidated damages in question, at Company's option, to set-off such liquidated damages from the amounts to be paid to Subscriber Organization for the Unsubscribed RDG or, to draw such liquidated damages from the Operating Period Security, as follows:

1. [Reserved]
2. if the Monthly Report for the calendar month, MPR Assessment Period, or BESS Measurement Period in question, as applicable, shows a failure to achieve one or more of the Performance Metrics required for the LD Period in question, the MPR Measurement Period in question, or the BESS Measurement Period in question, as applicable, and Company does not submit a Notice of Disagreement with respect to such Monthly Report, the Company shall have the right to set-off or draw the amount of liquidated damages owed for such failure as calculated as provided in Section 1. (PV System Equivalent Availability Factor Performance Metric; Liquidated Damages; Termination Rights), Section 2. (Measured Performance Metric; Liquidated Damages; Termination Rights), Section 3. (BESS Capacity Test; Liquidated Damages; Termination Rights), Section 4. (BESS Annual Equivalent Availability Factor; Liquidated Damages; Termination Rights), Section 5. (BESS Annual Equivalent Forced Outage Factor; Liquidated Damages), and Section 6. (BESS Round Trip Efficiency Test; Liquidated Damages; Termination Rights) as applicable;
3. in all cases in which Company submits a Notice of Disagreement for a given Monthly Report, Company shall have the right to set-off or draw all or any portion of the amount of liquidated damages for the calendar month in question, MPR Assessment Period in question, or BESS Measurement Period in question, as applicable, as calculated on the basis of the shortfall(s) in the achievement of the Performance Metric(s) in question, as shown in such Notice of Disagreement; and
4. in the event of any disagreement as to the liquidated damages owed under clause 8.A.1. and 8.A.3.above:
  - a. if the amount set-off or drawn by the Company exceeds the amount of liquidated damages for such calendar month, BESS Measurement Period or MPR Assessment Period that are eventually found to be payable for the LD Period in question as determined under Section 2. (Monthly Report Disagreements) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract, Company shall promptly (and in no event more than forty-five (45) Business Days from the date of such determination) repay such excess to Subscriber Organization together with, unless the Parties otherwise agree in writing, interest from the date of Company's set-off or draw until the date that such excess is repaid to Subscriber Organization at the average Prime Rate for such period; and
  - b. if Company does not exercise its rights to set-off or draw liquidated damages for such calendar month, BESS Measurement Period or MPR Assessment Period, or does not set-off or draw the full amount of the liquidated damages for such calendar month, BESS Measurement Period or MPR Assessment Period that are eventually found to be payable for the LD Period, BESS Measurement Period or MPR Assessment Period in question as determined under Section 2. (Monthly Report Disagreements) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract, Subscriber Organization shall promptly, upon such determination as aforesaid, pay to Company the amount of liquidated damages that are found to be owing together with, unless otherwise agreed by the Parties in writing, interest on the amount of such liquidated damages that went unpaid from the applicable LD Assessment Date for such liquidated damages until the date such liquidated damages are paid to Company in full at the average



Prime Rate for such period, and Company shall have the right, at its option, to set-off such interest from the amounts to be paid to Subscriber Organization for the Unsubscribed RDG or to draw from the Operating Period Security

a. .

Any delay by Company in exercising its rights to set-off liquidated damages and/or interest from the amounts to be paid to Subscriber Organization for the Unsubscribed RDG or to draw such liquidated damages and/or interest from the Operating Period Security shall not constitute a waiver by Company of its right to do so.

B. Limitation on Liquidated Damages. Notwithstanding any other provision of this Contract to the contrary, the aggregate liquidated damages paid by Subscriber Organization during each Contract Year for the Performance Metrics LDs, such payments by Subscriber Organization to include but not be limited to any set-offs or draws made by Company during such Contract Year pursuant to Section 8 A. (Payment of Performance Metrics LDs by Subscriber Organization) of this Attachment C (Required Performance Metrics; Liquidated Damages), shall not exceed the total of the twelve (12) monthly Lump Sum Payments payable during such Contract Year pursuant to Section 4.B. (Lump Sum Payment) and Section 4.G. (Payment Procedures) of the Contract. For avoidance of doubt: A monthly Lump Sum Payment that is invoiced by Subscriber Organization to Company pursuant to Section 4.F. (Subscriber Organization's Preparation of the Monthly Invoice) for, e.g., the twelfth (12th) calendar month of Contract Year N but is paid during Contract Year N+1 as provided in Section 4.G. (Payment Procedures) shall, for purposes of determining the limitation on Performance Metrics LDs under this Section 8.B. (Limitation on Liquidated Damages) of Attachment C (Required Performance Metrics; Liquidated Damages), be included in the total of the twelve (12) monthly Lump Sum Payments payable during Contract Year N+1. As a result of the foregoing, the total of the monthly Lump Sum Payments used to establish the limitation on Performance Metrics LDs for the initial Contract Year under this Section 8.B. (Limitation on Liquidated Damages) of Attachment C (Required Performance Metrics; Liquidated Damages) will be less than twelve (12). The Parties acknowledge that, because the monthly Lump Sum Payment is subject to adjustment (including downward adjustment) as provided in Section 4.B. of the Contract (Lump Sum Payment), it is possible that a downward adjustment in some or all of the monthly Lump Sum Payments payable during a Contract Year might cause the Performance Metrics LDs paid by Subscriber Organization during the course of such Contract Year to exceed the limitation on the Performance Metrics LDs for such Contract Year established at the close of such Contract Year pursuant to the first sentence of this Section 8.B. (Limitation on Liquidated Damages). In such case, Company shall promptly upon the determination that the Performance Metrics LDs paid during the course of such Contract Year exceeded the limitation on Performance Metrics LDs for such Contract Year (and in no event more than forty-five (45) Business Days from the end of such Contract Year) repay such excess amount to Subscriber Organization without interest.

C. Payment of Shortfall Performance Metrics LDs by Reduction of Bill Credits.

1. If Performance Metrics LDs remain unpaid after Company has exercised its rights under Attachment C Section 8.A. (Payment of Performance Metrics LDs by Subscriber Organization) to set off such liquidated damages from the amounts to be paid to Subscriber Organization and to draw such liquidated damages from the Operating Period Security, the Company shall have the right to pay such unpaid Performance Metrics LDs ("Shortfall Performance Metrics LDs") by reducing Bill Credits in the aggregate amount of such unpaid Shortfall Performance Metrics LDs. The reduction in Bill Credits shall be proportionate so that the burden of paying the Shortfall Performance Metrics LDs is shared equitably among the Subscribers.

2. In the event of any disagreement under Attachment C Section 8.A. (Payment of Performance Metrics LDs by Subscriber Organization) as to the amount of liquidated damages owing:
  - a. Upon the resolution of such disagreement pursuant to Section 2. (Monthly Report Disagreements) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract, if such resolution has the effect of reducing the Shortfall Performance Metrics LDs, and if such reduction in the Shortfall Performance Metrics LDs has the effect of causing the reduction in Bill Credits previously implemented by Company to exceed the actual amount of the Shortfall Performance Metrics LDs (the amount of such excess being referred to herein on the "Excess Reduction in Bill Credits"), Company shall promptly (and in no event later than the second billing cycle for each Subscriber following the date of the resolution of such disagreement as aforesaid) afford to such Subscriber a Bill Credit (referred to herein as a "Compensatory Bill Credit") in an amount equivalent to the total of (i) such Subscriber's proportionate share of the Excess Reduction in Bill Credits and (ii), unless the Company and Subscriber Organization otherwise agree in writing as provided Section 4.A. (Purchase and Sale of Renewable Energy, Dispatchability of CBRE Facility and Availability of the BESS) of the Contract, interest on the amount of the Excess Reduction in Bill Credits from the date Company implemented such Excess Reduction in Bill Credits with respect to such Subscriber until the date that Company applies the Compensatory Bill Credit against such Subscriber's retail electric service bill, at the average Prime Rate for such period; and
  - b. Upon the resolution of such disagreement pursuant to Section 2. (Monthly Report Disagreements) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to this Contract, if Company has not previously exercised -its rights to set-off or draw liquidated damages pursuant to Section 8.A. (Payment of Performance Metrics LDs by Subscriber Organization), or has not previously set-off or drawn from the Performance Security the full amount of the liquidated damages that are eventually found to be payable as a result of the resolution of such disagreement, ,Company shall have the right to reduce Subscriber Bill Credits in an amount equal to the total of Subscribers' share of pay such Shortfall Performance Metrics LDs

--END--

**ATTACHMENT D**  
**CALCULATION AND ADJUSTMENT OF NET ENERGY POTENTIAL**

**1. NET ENERGY POTENTIAL.**

A. Net Energy Potential and the Intent of the Parties. The essence of this Attachment D is that Company is paying to Subscriber Organization a Lump Sum Payment in exchange for Company's right to dispatch, subject to Renewable Resource Variability, the Facility's Net Energy Potential. Under this Attachment D, "Net Energy Potential": (i) constitutes an estimated single number with a P-Value of 95 for annual Net Energy that could be produced by the Facility based on the estimated long-term monthly and annual total of such production over a period of ten years excluding losses due to availability and Company Dispatch; (ii) is subject to adjustment from time to time as provided in this Attachment D (Calculation and Adjustment of Net Energy Potential); and (iii) as so adjusted, provides a basis for calculating and adjusting the Lump Sum Payment, as provided in Section 3. (Calculation of Lump Sum Payment) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to the Contract. The Net Energy Potential shall be calculated using, but not limited to, long-term resource data correlated with on-site measurements (if available), the most current construction design and equipment specifications, and industry-accepted energy simulation models. Loss factors and uncertainty analysis are to be determined using industry best practices and standard assumptions. Loss factors shall include, but not be limited to, electrical losses. Loss factors will exclude losses due to availability and Company Dispatch. In the case of the Initial OEPR and any Subsequent OEPR evaluation, the Net Energy Potential shall also consider historical operational data further described in this Attachment D Section 2.E (Terms of Engagement). It is the intent of the Parties that the estimate of Net Energy Potential, as calculated and adjusted as aforesaid, should reflect the following risk allocation between the Parties under the Contract:

1. Subscriber Organization has assumed the risk of downward adjustment to the Net Energy Potential (and hence the Lump Sum Payment) to account for any of the following circumstances:
  - a. if the Renewable Resource Baseline (as estimated on the basis of the typical meteorological year as derived from the Site's measured meteorological data) is lower than Subscriber Organization had assumed when it submitted its RFP Proposal;
  - b. if the as-built design and construction of the Facility is not as efficient in generating electrical energy and delivering such electric energy to the Point of Interconnection as Subscriber Organization had assumed when it submitted its RFP Proposal; and
  - c. if the Facility's level of operational efficiency is below the standard of comparable facilities;
  - d. Company has assumed the risk of the following (i.e., the following are to be disregarded for purposes of estimating Net Energy Potential (and hence the Lump Sum Payment)):
  - e. Renewable Resource Variability; and
  - f. the possibility that, at any given moment, Company does not need to dispatch any or all of the electric energy that the Facility is then capable of generating and delivering to the Point of Interconnection.
2. The foregoing is not intended as an exhaustive list of the risks assumed by either Party under this Attachment D or as a limitation on the circumstances that an OEPR Evaluator, in its professional judgment, may decide to take into account in preparing its OEPR under Section

2.E. (Terms of Engagement) of this Attachment D (Calculation and Adjustment of Net Energy Potential).

- B. NEP RFP Projection. In its RFP Proposal, the Subscriber Organization projected that the Facility would have a Net Energy Potential (as defined in this Attachment D) of [REDACTED] MWh [NOTE – INSERT NEP FROM RFP PROPOSAL] and provided the plane of array irradiance data used in arriving at the NEP RFP Projection, and Company relied on Subscriber Organization's NEP RFP Projection in deciding to contract with Subscriber Organization in lieu of other developers. Among the fundamentals of the bargain evidenced in this Attachment D is that there will be consequences to Subscriber Organization if (i) the IE Energy Assessment does not support the NEP RFP Projection and/or (ii) the operational performance of the Facility indicates a Net Energy Potential that is below the applicable thresholds set forth in this Attachment D (Calculation and Adjustment of Net Energy Potential).
- C. NEP IE Estimate and Company-Designated NEP Estimate. Prior to the closing of the construction financing for the Facility but in no event later than the Commercial Operations Date, the Subscriber Organization shall provide Company with a copy of the IE Energy Assessment Report and the data on plane of array irradiance and corresponding power output used in arriving at the NEP IE Estimate. In addition, Subscriber Organization shall obtain from the administrative agent of the Facility Lender and provide to Company, at financial close of the construction debt financing, a confirmation letter confirming to Company that the IE Energy Assessment Report including the data on plane of array of irradiance and corresponding power output used in arriving at the NEP IE Estimate provided by Subscriber Organization to Company is the final energy assessment prepared for the Facility Lender as part of the Facility Lender's due diligence leading up to the Facility Lender's legally binding commitment (subject to certain conditions precedent) to provide a specific amount of financing for the Project as evidenced by the Facility Lender's execution of the Financing Documents. If the IE Energy Assessment Report fails to provide a NEP IE Estimate that is consistent with the requirements of this Attachment D in all material respects, or if the data on plane of array of irradiance and corresponding power output used in arriving at the NEP IE Estimate is not provided, or if the aforementioned confirmation letter is not provided, Company shall have the option, exercisable by written notice to Subscriber Organization issued no later than 30 Days, or such longer period as the Parties may agree in writing, following the first to occur of Company's receipt of (i) the IE Energy Assessment Report or (ii) notice that Company will not be provided with a copy of the IE Energy Assessment Report and the data on plane of array of irradiance, ambient temperature, wind speed and corresponding power output used in arriving at the NEP IE Estimate, to designate such Company-Designated NEP Estimate as Company, in its sole discretion, determines to be reasonable in light of the information then available to Company. In connection with Company's decision as to whether to designate a Company-Designated NEP Estimate, Company shall have the right to require Subscriber Organization to pay for an energy assessment to be performed by an independent engineer selected by Company. In such case, the aforesaid 30-Day period for Company's decision to designate a Company-Designated NEP Estimate shall be tolled for the time necessary to prepare such assessment. If Company fails, within the aforesaid 30-Day period as such period may be tolled as provided in the preceding sentence, to designate a Company-Designated NEP Estimate, the NEP RFP Projection shall constitute the First NEP Benchmark, unless the Parties agree in writing on a lower First NEP Benchmark.
- D. NEP IE Estimate, Liquidated Damages and Subscriber Organization's Null and Void Right. If the NEP IE Estimate is higher than the NEP RFP Projection, the NEP RFP Projection shall constitute the First NEP Benchmark. In any other case, Subscriber Organization shall have the option to declare the Contract null and void by written notice to Company as follows:

1. if (aa) the NEP IE Estimate is lower than the NEP RFP Projection and (bb) Subscriber Organization issues its null and void notice to Company not later than 30 Days after issuance of the IE Energy Assessment Report; or
  2. if (aa) Company exercises its right to designate a Company-Designated NEP Estimate under Section 1.C. (NEP IE Estimate and Company-Designated NEP Estimate) of this Attachment D (Calculation and Adjustment of Net Energy Potential), (bb) such Company-Designated NEP Estimate is lower than the NEP RFP Projection, and (cc) Subscriber Organization issues its null and void notice to Company not later than 30 Days after Company's notice of the Company-Designated NEP Estimate.
  3. If Subscriber Organization fails to declare this Contract null and void under the conditions set forth in either clause (1) or clause (2) above, then: (x) the NEP IE Estimate or the Company-Designated NEP Estimate, as applicable, shall thereafter constitute the First NEP Benchmark and (y) Subscriber Organization shall, within five (5) Business Days following the expiration of the applicable 30-Day period for the issuance of Subscriber Organization's null and void notice, pay liquidated damages equal to \$10 for every MWh by which the NEP RFP Projection exceeds the First NEP Benchmark for the initial Contract Year.
- E. Initial OEPR. Following the Initial NEP Verification Date, the Initial OEPR shall be prepared pursuant to the process set forth in Section 2. (Preparation of OEPR) of this Attachment D (Calculation and Adjustment of Net Energy Potential) and the Initial NEP OEPR Estimate shall be as set forth in or derived from the Initial OEPR, as more fully set forth in Section 2. E. (Terms of Engagement) of this Attachment D (Calculation and Adjustment of Net Energy Potential). If the Initial NEP OEPR Estimate differs from the First NEP Benchmark, the Lump Sum Payment shall be recalculated and adjusted as provided in Section 3.B. (Lump Sum Payment during Second Benchmark Period) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to the Contract.
- F. Subsequent OEPRS.
1. Required Subsequent OEPR. If Subscriber Organization makes any changes to the Facility that involve (i) replacing any step-up transformer(s) or (ii) making any other changes (e.g., changing the characteristics of the Facility equipment or the specifications used in the IRS) that Company reasonably determines require an updated IRS, then Subscriber Organization shall also be required to have a subsequent OEPR prepared as of the first Day of the calendar month following the second anniversary of the date such change to the Facility was completed.
  2. Voluntary Subsequent OEPR. Without limitation to the generality of Section 1.F.1. (Required Subsequent OEPR) of this Attachment D (Calculation and Adjustment of Net Energy Potential), if the Subscriber Organization makes any changes to the Facility (e.g., replacing original equipment) that does not trigger a required Subsequent OEPR but which changes Subscriber Organization has reasonable grounds to believe will improve the Facility's Net Energy Potential, Subscriber Organization shall have a one-time option, exercisable by written notice to Company issued not less than 120 Days prior to the Applicable NEP Verification Date, of having a subsequent OEPR prepared as of a date no sooner than 12 months following completion of the then most recent OEPR.
  3. Subsequent OEPR and Adjustment to Lump Sum Payment. If the Subsequent NEP OEPR Estimate differs from the Most Recent Prior NEP Benchmark, the Lump Sum Payment shall be recalculated and adjusted as provided in Section 3.B. (Lump Sum Payment Following Second Benchmark Period) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS) to the Contract.

2. **PREPARATION OF OEPR.** The following provisions apply to the Initial OEPR and any Subsequent OEPR:

- A. **Selection of OEPR Evaluator.** No later than 90 Days prior to the Applicable NEP Verification Date, Company and Subscriber Organization shall select, in accordance with the terms of this Section 2.A. (Selection of OEPR Evaluator), an independent engineering firm from the firms listed on the OEPR Consultants List (the "OEPR Evaluator") to prepare an operational energy production report ("OEPR"). Each party shall select the names of two (2) firms from the OEPR Consultants List. If there is mutual agreement on one or both of the named firms, then the Subscriber Organization shall select one of the named firms to serve as the OEPR Evaluator. If there is no agreement on any of the named firms, then Subscriber Organization shall select one of the firms named by the Company.
- B. **Eligibility for Appointment as OEPR Evaluator.** Both Parties agree that the engineering firms listed in Section 2. J. (Acceptable Persons and Entities) of this Attachment D (Calculation and Adjustment of Net Energy Potential) are fully qualified to prepare the OEPR. By mutual agreement between the Parties in writing, both Parties acting reasonably, a name or names may be added to or removed from the OEPR Consultants List at any time. In no event shall there be less than three (3) names on the OEPR Consultants List.
- C. **OEPR Period of Record.** It is the intent of the Parties that the OEPR shall be prepared using measured meteorological and production data from the OEPR Period of Record. However, although the OEPR Period of Record is a twelve-month period, the Parties acknowledge that, in certain circumstances (e.g., Force Majeure), there may not be twelve months of data available for the OEPR Period of Record. In such case, (i) it is the intent of the Parties that the OEPR be prepared using such measured meteorological and production data that is available from the OEPR Period of Record and (ii) Parties may, by written agreement, direct the OEPR Evaluator to use such additional data outside of the OEPR Period of Record as the Parties may agree. The preceding sentence does not constitute a limitation on the professional judgment of the OEPR Evaluator as to the appropriateness of using measured meteorological and/or production from outside of the OEPR Period of Record.
- D. **Participation of Parties.** Promptly following the Applicable NEP Verification Date, Subscriber Organization and Company shall provide the OEPR Evaluator with such data from the OEPR Period of Record as they consider to be material to the preparation of the OEPR. Subscriber Organization and Company shall also provide such additional data and information as the OEPR Evaluator may reasonably request. The Parties shall assist the OEPR Evaluator throughout the process of preparing the OEPR, including making key personnel and records available to the OEPR Evaluator, but neither Party shall be entitled to participate in any meetings with personnel of the other Party or review of the other Party's records. However, the OEPR Evaluator will have the right to conduct meetings, hearings or oral arguments in which both Parties are represented. Subscriber Organization and Company shall have forty-five (45) Days from issuance of the draft OEPR Report to review and provide feedback to the OEPR Evaluator on such report.
- E. **Terms of Engagement.** Upon selection of the OEPR Evaluator, as set forth in this Attachment D (Calculation and Adjustment of Net Energy Potential), the Subscriber Organization shall retain and contract with the OEPR Evaluator in accordance with the terms of this Attachment D (Calculation and Adjustment of Net Energy Potential). The OEPR Evaluator's scope of work and expected deliverables for all OEPRs must be acceptable to Company and shall, among other things, require the OEPR Evaluator to provide (i) an estimated single number with a P-Value of 95 for annual Net Energy that could be produced by the Facility based on the estimated long-term monthly and annual total of such production over a period of ten years; (ii) the data on plane of array of irradiance and corresponding power output used in arriving at the aforementioned estimated annual Net Energy;

(iii) the GPR Performance Metric as provided in Section 1.E. ( Initial OEPR) or Section 1.F. (Subsequent OEPR and ) of this Attachment D, as applicable; and (iv) any additional information that may be reasonably required by a Party with respect to the methodology used by the OEPR Evaluator to reach its conclusion. The provisions of this Attachment D (Calculation and Adjustment of Net Energy Potential) do not impose a limit on the OEPR Evaluator's professional judgment as to what other estimates (if any) to include in the OEPR. Without limiting the professional judgment of the OEPR Evaluator in estimating the Net Energy Potential and GPR Performance Metric, the following is a general description of how the Parties anticipate that the OEPR Evaluator will proceed:

1. The purpose of an OEPR is to implement the intent of the Parties as set forth in Section 1. A. (Net Energy Potential and the Intent of the Parties) of this Attachment D (Calculation and Adjustment of Net Energy Potential) by evaluating (i) whether, when the Renewable Resource Baseline (as estimated by the OEPR Evaluator on the basis of the typical meteorological year as derived from the Site's measured meteorological data) is present and the Facility is in Full Dispatch, the Facility is capable of doing what the Parties expected the Facility to do: i.e., generating and delivering to the Point of Interconnection electric energy in an amount consistent with the then applicable Net Energy Potential of the Facility (i.e., the estimate of Net Energy Potential then being used to calculate the monthly Lump Sum Payment pursuant to Section 3. (Calculation of Lump Sum Payment) of Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS to the Contract); and (ii) if the Facility is not doing what the parties expected in this regard, identifying a new estimated single number with a P-Value of 95 for annual Net Energy that could be generated and delivered by the Facility based on the estimated long-term monthly and annual total of such production over a period of the next ten years.
  2. At a high level, the analysis relies on reported Actual Output (i.e., energy delivered to the Point of Interconnection) during the OEPR Period of Record to estimate Facility performance over a future evaluation period of ten years. The data from the OEPR Period of Record are first quality screened and evaluated. One-time events are assessed and removed from the record where appropriate. Values for potential energy are then calculated from the reported energy production measured at the Point of Interconnection by adjusting for 100% availability and undischarged energy. Suitable long-term reference data sets are then identified by analyzing the reference for irradiance and the normalized values for potential energy production at the Point of Interconnection over the OEPR Period of Record. Relationships between selected long-term reference irradiance data sets and normalized values for potential energy production at the Point of Interconnection are used to calculate long-term values for such on a monthly and annual basis. Finally, estimates of future Facility availability (taking into account anticipated maintenance) and losses (such as system degradation and balance of plant losses) are applied in order to calculate the Net Energy Potential. For this purpose, no reductions are made for future estimates of energy that Company may choose not to dispatch. If a copy of the IE Energy Assessment Report is available to the OEPR Evaluator, the OEPR Evaluator should review such Report before commencing preparation of the OEPR and evaluate whether it is appropriate for the OEPR Evaluator to take into account any of the work reflected in the IE Energy Assessment Report.
- F. Timeline and Fees. The terms of engagement with the OEPR Evaluator shall require the OEPR Evaluator to provide, for Party review, a draft OEPR that shall include a NEP OEPR Estimate and a Guaranteed Measured Performance Ratio Benchmark within 30 Days following the NEP Applicable Verification Date ("First OEPR"). The OEPR Evaluator shall be required to provide its completed OEPR within 30 Days following the end of the Parties' 45-Day review period under Section 2.D. (Participation of Parties) of this Attachment D (Calculation and Adjustment of Net

Energy Potential) The Parties shall each pay fifty percent (50%) of the fees and expenses charged by the OEPR Evaluator in connection with the Initial OEPR. For the Initial OEPR, the OEPR Evaluator's fees and costs must be acceptable to Company. Subscriber Organization shall pay all of the fees and expenses charged by the OEPR Evaluator in connection with any Subsequent OEPR. Subscriber Organization shall also pay for any reasonable internal fees and costs incurred by the Company as a result of its participation in the process set forth in Section 2.D. (Participation of Parties) of this Attachment D (Calculation and Adjustment of Net Energy Potential).

- G. Review of the First OEPR or and Subsequent OEPR Report. In the event Company or Subscriber Organization does not agree with the NEP OEPR Estimate or GPR Performance Metric determined by the First OEPR Evaluator, Subscriber Organization or Company may, within 30 Days of issuance of the First OEPR, engage, at its own cost, a different expert evaluator from the OEPR Consultants List (the "Second OEPR Evaluator") to prepare a second OEPR that shall include a NEP OEPR Estimate or GPR Performance Metric, as applicable ("Second OEPR"). The terms of engagement with the Second OEPR Evaluator shall require the Second OEPR Evaluator to issue the Second OEPR within 60 Days following the date of its appointment. In the event the NEP OEPR Estimates or GPR Performance Metric, as applicable, provided by the First OEPR Evaluator and the Second OEPR Evaluator are different then, within ten (10) Days of the issuance of the Second OEPR, the Parties shall, with the two evaluators, confer in an attempt to mutually agree upon a NEP OEPR Estimate or GPR Performance Metric, as applicable ("OEPR Conference").
- H. Review of the Second OEPR Evaluator Report. If the Parties are unable to agree upon an NEP OEPR Estimate or GPR Performance Metric, as applicable, within 30 Days of the OEPR Conference, then within ten (10) Days thereafter the First OEPR Evaluator and Second OEPR Evaluator shall, by mutual agreement, select a third firm from the OEPR Consultants List to act as an independent OEPR Evaluator ("Third OEPR Evaluator"). The Third OEPR Evaluator shall not be a person from the same entity as the First OEPR Evaluator or the Second OEPR Evaluator. The Parties shall direct the Third OEPR Evaluator to review the First OEPR and Second OEPR and select one as the final and binding NEP OEPR Estimate and/or GPR Performance Metric, as applicable ("Third OEPR"). The Third OEPR Evaluator shall complete its review and selection of the NEP OEPR Estimate within thirty (30) Days following his or her retention. If the Third OEPR Evaluator selects the First OEPR, then the Party requesting the Second OEPR shall pay for the cost of the Third OEPR. If the Third OEPR Evaluator selects the Second OEPR, then the Parties shall each pay fifty percent (50%) of the fees and expenses charged by the Third OEPR Evaluator in connection with the Third OEPR.
- I. Final, Binding and Conclusive. The Parties acknowledge the inherent uncertainty in estimating the Net Energy Potential and GPR Performance Metric and hereby assume the risk of such uncertainty and waive any right to dispute any of the qualification of the person or entity appointed as the OEPR Evaluator pursuant to Section 2.A. (Selection of OEPR Evaluator) and Section 2.B. (Eligibility for Appointment as OEPR Evaluator) of this Attachment D (Calculation and Adjustment of Net Energy Potential), the appropriateness of the methodology used by OEPR Evaluator in preparing the OEPRs, the NEP OEPR Estimate and/or the GPR Performance Metric. Without limitation to the generality of the preceding sentence, the determination of the NEP OEPR Estimate and GPR Performance Metric in the First OEPR, Second OEPR (if applicable), or final decision of the Third OEPR Evaluator (if applicable) shall be final, conclusive and binding upon Company and Subscriber Organization and shall not be subject to further dispute under Section 17. (Dispute Resolution) of the Contract; provided that, nothing in this Section 2.I. (Final, Binding and Conclusive) of this Attachment D (Calculation and Adjustment of Net Energy Potential) shall preclude Subscriber Organization from engaging an OEPR Evaluator to issue a Subsequent OEPR as allowed pursuant to Section 1.F. (Subsequent OEPRs) of this Attachment D (Calculation and Adjustment of Net Energy Potential).



J. Acceptable Persons and Entities. The OEPR Evaluator and Second OEPR Evaluator shall be selected from the following engineering firms listed below, subject to such additions or deletions effectuated by the Parties as provided in Section 2.F (Eligibility for Appointment as Independent AF Evaluator) of Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) to the Contract and Section 2.B. (Eligibility for Appointment as OEPR Evaluator) of this Attachment D (Calculation and Adjustment of Net Energy Potential):

- DNV GL
- UL
- Black & Veatch
- Leidos Engineering

--END--

**ATTACHMENT E**  
**MONTHLY REPORTING AND DISPUTE**  
**RESOLUTION BY INDEPENDENT AF EVALUATOR**

1. **MONTHLY REPORT.** Commencing with the month during which the Commercial Operations Date is achieved, and for each calendar month thereafter during the Term, Subscriber Organization shall provide to Company a Monthly Report in Excel, Lotus or such other format as Company may require ("Monthly Report"), which Monthly Report shall include (i) the data for the calendar month in question populated into the form of the "PV System Monthly Report" below, (ii) the data for the BESS Measurement Period ending with the calendar month in question populated into the form of "BESS Measurement Period Report" below, and (iii) Subscriber Organization's calculations of the performance metrics and any liquidated damages assessments for the LD Period ending with such calendar month as set forth below. Subscriber Organization shall deliver such Monthly Report to Company by the tenth (10<sup>th</sup>) Business Day following the close of the calendar month in question. Subscriber Organization shall deliver the Monthly Report electronically to the address provided by the Company. Company shall have the right to verify all data set forth in the Monthly Report by inspecting measurement instruments and reviewing Facility operating records. Upon Company's request, Subscriber Organization shall promptly provide to Company any additional data and supporting documentation necessary for Company to audit and verify any matters in the Monthly Report.

**PV System Monthly Report**

**NAME OF IPP FACILITY:** [Facility Name]

**MONTHLY REPORT PERIOD:** [Month Day, Year] to [Month Day, Year]

Enter the information for each Force Majeure event effecting the PV System during the reporting period. Dates and times should be entered to the nearest minute. Duration and equivalent hours should be rounded to 2 decimal places. When using MWs for item (D) below, Contract Capacity is to be provided for (E); and when using number of devices for item (D), total number of devices is to be provided for (E).

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of effect in MW or Number of devices that are offline (D)	Contract Capacity or Total number of devices in the effected system (E)	Equivalent Hours (hrs) (C x D)/E
...					

Calendar hours in the reporting period: \_\_\_\_\_

Total equivalent hours for the reporting period (from above, with proper  
accounting for any simultaneous events): \_\_\_\_\_

\_\_\_\_\_

Please provide the following availability information even in months containing Force Majeure even though it will not be applied in the PV System EAF Calculation.

Enter the information for each Outage during the reporting period. Dates and times should be entered to the nearest minute. Duration should be rounded to 2 decimal places.

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (B-A)
...		

Calendar hours in the reporting period: \_\_\_\_\_

Total Outage hours for the reporting period (from above): \_\_\_\_\_

Available Hours (AH) in the reporting period: \_\_\_\_\_

AH from the last eleven (11) reporting periods: \_\_\_\_\_

AH for the last twelve (12) reporting periods: \_\_\_\_\_

Enter the information for each Subscriber Organization Attributable Derating events during the reporting period. Dates and times should be entered to the nearest minute. Duration and equivalent hours should be rounded to 2 decimal places. When using MWs for item (D) below, Contract Capacity is to be provided for (E); and when using number of inverters for item (D), total number of inverters is to be provided for (E).

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of derating in MWs or Number of Inverters (D)	Contract Capacity or Total number of Inverters in the PV System (E)	Equivalent Hours (hrs) (C x D)/E
...					

Total Equivalent Subscriber Organization Attributable Derated hours (ESADH) for the reporting period: \_\_\_\_\_

ESADH from the last eleven (11) reporting periods: \_\_\_\_\_

ESADH for the last twelve (12) reporting periods: \_\_\_\_\_

Enter the information for each Planned Derating event during the reporting period. Dates and times should be entered to the nearest minute. Duration and equivalent hours should be rounded to 2 decimal places.

When using MWs for item (D) below, Contract Capacity is to be provided for (E); and when using number of inverters for item (D), total number of inverters is to be provided for (E).

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of derating in MWs or Number of Inverters (D)	Contract Capacity or Total number of Inverters in the PV System (E)	Equivalent Hours (hrs) (C x D)/E
...					

Total equivalent planned derated hours (EPDH) for the reporting period: \_\_\_\_\_

EPDH from the last eleven (11) reporting periods: \_\_\_\_\_

EPDH for the last twelve (12) reporting periods: \_\_\_\_\_

Enter the information for each Unplanned Derating event during the reporting period. Dates and times should be entered to the nearest minute. Duration and equivalent hours should be rounded to 2 decimal places. When using MWs for item (D) below, Contract Capacity is to be provided for (E); and when using number of inverters for item (D), total number of inverters is to be provided for (E).

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of derating in MWs or Number of Inverters (D)	Contract Capacity or Total number of Inverters in the PV System (E)	Equivalent Hours (hrs) (C x D)/E
...					

Total equivalent unplanned derated hours (EUDH) for the reporting period: \_\_\_\_\_

EUDH for the last eleven (11) reporting periods: \_\_\_\_\_

EUDH for the last twelve (12) reporting periods: \_\_\_\_\_

Period Hours (PH) is : (8760 hours if no 29<sup>th</sup> day in February in that last twelve months; otherwise 8784 hours; also can be adjusted appropriately depending on any month(s) containing Force Majeure in the last 12 reporting periods.)

Enter the Available Hours, ESADH, EPDH, and EUDH for the last twelve (12) reporting periods as calculated above.

AH (A)	ESADH (B)	EPDH (C)	EUDH (D)	PV System Annual Equivalent Availability Factor 100% x (A – B – C – D)/PH

If the month for which this monthly report has been prepared contains a Force Majeure event, please indicate the PV System Annual Equivalent Availability Factor calculated in the previous month's monthly report.

Enter the following properties for the facility's PV panels that are used in the calculation of the Measured Performance Ratio. Refer to Attachment C (Required Performance Metrics; Liquidated Damages) to the Contract for the definitions of terms.

DC rated capacity of the system at standard test conditions ( $P_{DCSTC}$ ): \_\_\_\_\_

Temperature coefficient of power in %/°C( $\delta$ ): \_\_\_\_\_

Temperature empirical constant ( $a$ ): \_\_\_\_\_

Wind speed empirical constant ( $b$ ): \_\_\_\_\_

Conduction temperature coefficient ( $dT_{cond}$ ): \_\_\_\_\_

Annual average irradiance-weighted cell temperature ( $T_{cell\_typ\_avg}$ ) \_\_\_\_\_

For the reporting period, provide the 15-minute interval averaged site data for the following measurements in .csv format (refer to Attachment C (Required Performance Metrics; Liquidated Damages) for the definitions of terms). The data set should include an indication of whether each interval is included or excluded in the calculation of the Measured Performance Ratio and the reason for exclusion (refer to Attachment C (Required Performance Metrics; Liquidated Damages) for data requirements).

Measured data:

- $P_{AC\_i}$  is the apparent power output of the PV System measured at the POI averaged over time period  $i$  (MW)
- $P_{DC\_i}$  is the measured DC power output of the PV System measured at the DC input to the BESS charging system averaged over time period  $i$  (MW)
- $G_{POA\_i}$  is the measured plane of array irradiance averaged over time period  $i$  ( $W/m^2$ );
- $T_{a\_i}$  is the measured ambient temperature averaged over time period  $i$  [°C]
- $WS_i$  is the measured wind speed corrected to a measurement height of 10 meters (using the anemometer height and proper Hellmann coefficient) averaged over time period  $i$  [m/s]

Calculated data:

- Computed cell temperature ( $T_{cell_i}$ )

Using the data provided above, enter the calculated values for Measured Performance Ratio rounded to the third decimal place (0.001).

Measured Performance Ratio for the reporting period: \_\_\_\_\_

Measured Performance Ratio for this reporting period and the previous eleven  
(11) reporting periods: \_\_\_\_\_

Enter the Applicable Contract Year and calculated Degradation Factor for the reporting period. Refer to Attachment C (Required Performance Metrics; Liquidated Damages) for how these should be calculated.

Applicable Contract Year: \_\_\_\_\_

Degradation Factor: \_\_\_\_\_

#### **BESS Measurement Period Report**

**NAME OF IPP FACILITY:** [Facility Name]

**BESS MEASUREMENT PERIOD:** [Month Day, Year] to [Month Day, Year]

Enter the applicable information operational data collected during the most recently completed BESS Capacity Test to demonstrate satisfaction of the BESS Capacity Performance Metric during the reporting period. This can either be from the most recent BESS Capacity Test performed during the period or taken from operating data reflecting the net output of the BESS.

Date/Time Start	Date/Time End	Total MWh delivered to the POI (A)	BESS Contract Capacity (MWh) (B)	BESS Capacity Ratio 100% x (A/B)

Enter the applicable information to demonstrate satisfaction of the BESS Round Trip Efficiency Performance Metric during the reporting period. This can either be from the most recent BESS RTE Test performed during the period or taken from operational data reflecting the charging/discharging of the BESS.

Date/Time Start	Date/Time End	Total MWh delivered to the POI (A)	Charging Energy (MWh) (B)	BESS RTE Ratio 100% x (A ÷ B)

Enter the information for each Force Majeure event effecting the BESS during the reporting period. Dates and times should be entered to the nearest minute. Duration, size of reduction, maximum rated output, and equivalent hours should be rounded to 1 decimal place.

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of Reduction (MW) (D)	Maximum Rated Output (MW) (E)	Equivalent Hours (hrs) (C x D)/E
...					

Calendar hours in the reporting period: \_\_\_\_\_

Total equivalent hours for the reporting period (from above, with proper accounting for any simultaneous events): \_\_\_\_\_

Please provide the following BESS availability information even in months containing Force Majeure even though it will not be applied in the PV System EAF Calculation.

Enter the information for each BESS Outage during the reporting period. Dates and times should be entered to the nearest minute. Duration should be rounded to 1 decimal place.

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (B-A)
...		

Calendar hours in the reporting period: \_\_\_\_\_

Total Outage hours for the reporting period (from above): \_\_\_\_\_

Available Hours (AH) in the reporting period: \_\_\_\_\_

AH from the last three (3) reporting periods: \_\_\_\_\_

AH for the last four (4) reporting periods: \_\_\_\_\_

Enter the information for each BESS Planned Derating event during the reporting period. Dates and times should be entered to the nearest minute. Duration, size of reduction, maximum rated output, and equivalent hours should be rounded to 1 decimal place.

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of Reduction (MW) (D)	Maximum Rated Output (MW) (E)	Equivalent Hours (hrs) (C x D)/E
...					

Total equivalent planned derated hours (EPDH) for the reporting period: \_\_\_\_\_

EPDH from the last three (3) reporting periods: \_\_\_\_\_

EPDH for the last four (4) reporting periods: \_\_\_\_\_

Enter the information for each BESS Unplanned Derating event during the reporting period. Dates and times should be entered to the nearest minute. Duration, size of reduction, maximum rated output, and equivalent hours should be rounded to 1 decimal place.

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of Reduction (MW) (D)	Maximum Rated Output (MW) (E)	Equivalent Hours (hrs) (C x D)/E
...					

Total equivalent unplanned derated hours (EUDH) for the reporting period: \_\_\_\_\_

EUDH for the last three (3) reporting periods: \_\_\_\_\_

EUDH for the last four (4) reporting periods: \_\_\_\_\_

Period Hours (PH) is : \_\_\_\_\_ (8760 hours if no 29th day in February in the last twelve months; otherwise 8784 hours; also can be adjusted appropriately depending on any month(s) containing Force Majeure in last 12 reporting periods.)

Enter the Available Hours, EPDH and EUDH for the last four (4) reporting periods as calculated above.

AH (A)	EPDH (B)	EUDH (C)	PH (D)	BESS Annual Equivalent Availability Factor $100\% \times (A - B - C)/PH$



Enter the information for each Unplanned (Forced) Outage during the reporting period. Dates and times should be entered to the nearest minute. Duration should be rounded to 1 decimal place.

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (B-A)
...		

Total Forced Outage Hours (FOH) for the reporting period (from above): \_\_\_\_\_

FOH from the last three (3) reporting periods: \_\_\_\_\_

FOH for the last four (4) reporting periods: \_\_\_\_\_

Enter the FOH and EUDH for the last four (4) reporting periods as calculated above.

FOH (A)	EUDH (B)	BESS Annual Equivalent Forced Outage Factor $100\% \times (A + B)/8760$

If the BESS Measurement Period for which this report has been prepared contains a month with a BESS Force Majeure event, please indicate the proper 12-month period used to calculate the BESS Annual Equivalent Availability Factor for this report.

## 2. **MONTHLY REPORT DISAGREEMENTS.**

A. Notice of Disagreement with Monthly Report. Within ten (10) Business Days following the close of the calendar month in question, Subscriber Organization shall provide to Company the Monthly Report for such calendar month and the LD Period, the MPR Assessment Period and the BESS Measurement Period (if any) ending with such calendar month, as provided in Section 1. (Monthly Report) of this Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator). Within ten (10) Business Days after Company's receipt of a Monthly Report, Company shall provide written notice to Subscriber Organization of any Monthly Report Disagreement, including with respect to the data for the calendar month covered by such Monthly Report and Subscriber Organization's calculation of, as applicable, (i) the PV System Equivalent Availability Factor for the LD Period ending with such calendar month, (ii) the MPR for the MPR Assessment Period ending with such calendar month, or (iii) any of the BESS Capacity Ratio, the RTE Ratio, the BESS Annual Equivalent Availability Factor or the BESS Equivalent Forced Outage Factor for the BESS Measurement Period (if any) ending with such calendar month ("Notice of Disagreement"). Together with any such Notice of Disagreement, the Company shall include its own calculations and other support for its position. If Company fails to provide a Notice of Disagreement within said 10-Business Day period, the Monthly Report provided by Subscriber Organization shall be deemed to be accepted by Company and shall no longer be subject to dispute by Company or Subscriber Organization.

B. [Reserved]

- C. Submission of Monthly Report Disagreement to Independent AF Evaluator. Upon issuance of a Notice of Disagreement, the Parties shall review the contents of the Monthly Report(s) together with such Notice of Disagreement and attempt to resolve such Monthly Report Disagreement. If the Parties are able to agree on a resolution of any Monthly Report Disagreement, the resulting corrected Monthly Report(s) in question shall be set forth in a writing executed by both Parties, following which (i) such corrected Monthly Reports shall no longer be subject to dispute by either Party and (ii) to the extent such resolution of such Monthly Report Disagreement affects future Monthly Reports, such future Monthly Reports shall be prepared, and the PV System Equivalent Availability Factor, the MPR, the BESS Annual Equivalent Factor and the BESS Annual Equivalent Forced Outage Factor in such future Monthly Reports shall be calculated, in a manner consistent with such resolution. If the Parties are unable to resolve such Monthly Report Disagreement within ten (10) Business Days after Company's issuance of such Notice of Monthly Report Disagreement, either Party may, within five (5) Business Days after the end of such 10-Business Day period, submit the unresolved Monthly Report Disagreement to an Independent AF Evaluator for resolution.
- D. [Reserved]
- E. Appointment of Independent AF Evaluator. If either Party decides to submit an unresolved Monthly Report Disagreement to an Independent AF Evaluator, it shall provide written notice to that effect (the "Submission Notice") to the other Party, which notice shall designate which of the engineering firms on the OEPR Consultants List is to act as the Independent AF Evaluator for purposes of resolving such dispute; provided, however, for purposes of facilitating consistency in the resolution of Monthly Report Disagreements, all Monthly Report Disagreements concerning the same Performance Metric arising out of any one or more of the twelve (12) Monthly Reports issued for a given Contract Year shall be submitted to the same Independent AF Evaluator unless such Independent AF Evaluator declines to accept any such submission(s). A Submission Notice must be provided within the 5-Business Day period provided in Section 2.C. (Submission of Monthly Report Disagreement to Independent AF Evaluator) of this Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator). The Parties shall each pay fifty percent (50%) of the fees and expenses charged by the Independent AF Evaluator.
- F. Eligibility for Appointment as Independent AF Evaluator. Both Parties agree that the engineering firms listed in Section 2.J. (Acceptable Persons and Entities) of Attachment D. (Calculation and Adjustment of Net Energy Potential) are fully qualified to serve as Independent AF Evaluator. By mutual agreement between the Parties in writing, a name or names may be added to or removed from the OEPR Consultants List at any time. In no event shall there be less than three (3) names on the OEPR Consultants List.
- G. Participation of Parties. Promptly following the issuance of a Submission Notice as provided in Section 2.E. (Appointment of Independent AF Evaluator) of this Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator), Subscriber Organization and Company shall provide the Independent AF Evaluator which such data as they consider to be material to the resolution of the disputed issue(s). Subscriber Organization and Company shall also provide such additional data and information as the Independent AF Evaluator may reasonably request. The Parties shall assist the Independent AF Evaluator throughout the process of resolving such dispute, including making key personnel and records available to the Independent AF Evaluator, but neither Party shall be entitled to participate in any meetings with personnel of the other Party or review of the other Party's records. However, the Independent AF Evaluator will have the right to conduct meetings, hearing or oral arguments in which both Parties are represented.
- H. Written Decision of Independent AF Evaluator. The terms of engagement with the Independent AF Evaluator shall require the Independent AF Evaluator to issue its written decision resolving the

disputed issues submitted to it within the applicable time period set forth below, which time periods are subject to any tolling that may be applicable pursuant to Section 2.I. (Sequence to Resolving Interrelated Disagreements) of this Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator): (a) 30 Days as measured from the issuance of the Submission Notice; or (b) such other time period as the Parties may agree in writing. Unless otherwise agreed by the Parties in writing:

1. for a Monthly Report Disagreement concerning the PV System Equivalent Availability Factor, the written decision of the Independent AF Evaluator shall set forth (aa) for the calendar month in question, the correct values for AH, EPDH, EUDH and PH to be used in calculations under Section 1. (PV System Equivalent Availability Factor Performance Metric; Liquidated Damages; Termination Rights) of Attachment C (Required Performance Metrics; Liquidated Damages) to this Contract as determined by such Independent AF Evaluator if any such values were in dispute and (bb) for the LD Period ending with the calendar month in question, the PV System Equivalent Availability Factor for such LD Period as determined by such Independent AF Evaluator if such PV System Equivalent Availability Factor was in dispute;
2. for a Monthly Report Disagreement concerning the MPR, the written decision of the Independent AF Evaluator shall set forth (aa) the correct data points from the operational data set for the calendar month in question to be used in the calculation of MPR under Section 2.A. (Calculation of Measured Performance Ratio) of Attachment C (Required Performance Metrics; Liquidated Damages) to this Contract, for the MPR Assessment Periods that include such calendar month if any such data points were in dispute, (bb) if a MPR Test was conducted during the month in question, the correct data points from such MPR Test to be used in the calculation of MPR under Section 2.A. (Calculation of Measured Performance Ratio) of Attachment C (Required Performance Metrics; Liquidated Damages) to this Contract. for the MPR Assessment Periods that include the month preceding the month covered by the Monthly Report in question if any such data points were in dispute and (cc) for the MPR Assessment Period ending with the calendar month in question, the Measured Performance Ratio if such Measured Performance Ratio was in dispute;
3. for a Monthly Report Disagreement concerning the BESS Capacity Ratio or the RTE Ratio, the written decision of the Independent AF Evaluator shall set forth the BESS Capacity Ratio and/or the RTE Ratio for the BESS Measurement Period ending with the calendar month in question;
4. for a Monthly Report Disagreement concerning the BESS Annual Equivalent Availability Factor, the written decision of the Independent AF Evaluator shall set forth (aa) the correct values to be used for AH, EPDH, EUDH and PH under Attachment H (BESS Requirements) Section 2. (BESS Annual Equivalent Availability Factor) for the calendar month in question if any such values were in dispute and (bb) the BESS Annual Equivalent Availability Factor for the BESS Measurement Period ending with the calendar month in question if such BESS Annual Equivalent Availability Factor was in dispute; and
5. for a Monthly Report Disagreement concerning the BESS Annual Equivalent Forced Outage Factor, the written decision of the Independent AF Evaluator shall set forth (aa) the correct values for FOH and EUDH under Attachment H (BESS Requirements) Section 3 (BESS Annual Equivalent Forced Outage Factor) for the calendar month in question if any such values were in dispute and (bb) the BESS Annual Equivalent Forced Outage Factor for the BESS Measurement Period ending with the calendar month in question if such BESS Annual Equivalent Forced Outage Factor was in dispute.

- I. Sequence for Resolving Interrelated Disagreements. If at the time a Monthly Report Disagreement is submitted to an Independent AF Evaluator pursuant to Section 2.E. (Appointment of Independent AF Evaluator) of this Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) there are one or more other unresolved Monthly Report Disagreements concerning the same Monthly Report and the same LD Period that are pending before a different Independent AF Evaluator, and the resolution of such other Monthly Report Disagreement(s) is necessary to the resolution of the Monthly Report Disagreement that has been newly submitted to a new Independent AF Evaluator as aforesaid, the time period for such new Independent AF Evaluator to issue its written decision resolving such newly submitted Monthly Report Disagreement shall be tolled until such pending Monthly Report Disagreement(s) have been resolved. For avoidance of doubt, it is the intent of the Parties that disagreements over performance ratio data and calculations for a given calendar month or a given BESS Measurement Period shall (i) not be subject to resolution twice and (ii) once resolved, shall not be reopened.
  - J. Final, Conclusive and Binding. The Parties acknowledge the inherent uncertainty in calculating the Monthly Reports, and hereby assume the risk of such uncertainty and waive any right to dispute the qualification of the person or entity appointed as the Independent AF Evaluator pursuant to Section 2.E. (Appointment of Independent AF Evaluator) of this Attachment E (Monthly Reporting and Dispute Resolution by Independent AF Evaluator) and/or the appropriateness of the methodology used by Independent AF Evaluator in resolving such Monthly Report Disagreements. Without limitation to the generality of the preceding sentence, the decision of the Independent AF Evaluator as to each Monthly Report Disagreement submitted to an Independent AF Evaluator shall be final, conclusive and binding upon Company and Subscriber Organization and shall not be subject to further dispute under Section 17. (Dispute Resolution) of the Contract.
3. **PERIODIC REVIEW OF METHOD OF CALCULATING AND REPORTING MONTHLY REPORT.** At least once per Contract Year, Company shall review the method of calculating and reporting Monthly Report under this Contract to determine if other variables should be incorporated into such calculations. Any revisions to the Monthly Report calculations in this Contract shall be mutually agreed to by both Subscriber Organization and Company.
4. **FUTURE CHANGES IN REPORTING REQUIREMENTS.** Subscriber Organization shall reasonably cooperate with any Company requested revisions to the Monthly Report to include additional data that may be necessary from time to time to enable Company to comply with any new reporting requirements directed by the PUC or otherwise imposed under applicable Laws.

**ATTACHMENT F**  
**FACILITY OWNED BY SUBSCRIBER ORGANIZATION**

**[See Project Specific Addendum for Attachment F and its Exhibits]**

**ATTACHMENT G**  
**COMPANY-OWNED INTERCONNECTION FACILITIES**

(To be filled out by Company)

**1. DESCRIPTION OF COMPANY-OWNED INTERCONNECTION FACILITIES.**

- A. General. Company will furnish or construct, own, operate and maintain all interconnection facilities required to interconnect the Company's system with the CBRE Facility at \_\_\_\_volts, up to the point of interconnection.
- B. Site. Where any Company-Owned Interconnection Facilities are to be located on the Site, Subscriber Organization shall provide, at no expense to Company, a location and access acceptable to Company for all such Company-Owned Interconnection Facilities, as well as an easement, license or right of entry to access such Company-Owned Interconnection Facilities. If power sources (120/240VAC) are required, Subscriber Organization shall provide such sources, at no expense to Company.
- C. IRS. If an IRS addressing Facility requirements was or will be completed for the Project in accordance with the IRS Letter Agreements, the results have been or will be incorporated in Attachment F (Facility Owned by Subscriber Organization) and this Attachment G (Company-Owned Interconnection Facilities) as appropriate
- D. The Company-Owned Interconnection Facilities, for which the Subscriber Organization agrees to pay, include: **[Need to specify the interconnection facilities. If no interconnection facilities, state "None".]**
- E. Responsibility of Subscriber Organization and Company. The general responsibilities of Subscriber Organization and Company for the design, procurement, installation, programming/testing, and maintenance/ownership of equipment at the Facility and the Company Owned Interconnection Facilities is specified in Matrix G-1 (Substation Responsibilities) and Matrix G-2 (Telecom Responsibilities). **[DRAFTING NOTE: MATRIXES WILL BE UPDATED FOLLOWING COMPLETION OF IRS.]**

**2. CONSTRUCTION AND SUPPORT SERVICES BY SUBSCRIBER ORGANIZATION.**

- A. Construction and Support Services By Subscriber Organization.

Subscriber Organization (and/or its third party consultants or contractors (collectively, "Contractors")) will design, engineer, construct, test and place in service, at Subscriber Organization's expense, the items identified in Matrix G-1 (Substation Responsibilities) and Matrix G-2 (Telecom Responsibilities) as being the responsibility of Subscriber Organization to construct; and

All design, engineering and construction performed by Subscriber Organization (and/or its Contractors) shall, without limitation, satisfy the wind load and seismic load requirements of the International Building Code and any more stringent requirements imposed under applicable Laws.

- 1. Subscriber Organization shall provide the necessary support for the Company's    kV overhead line extension work, which may include, but not limited to:
  - a. Furnish surveyed topographical drawing including contour lines of project areas and beyond as needed in State Plane coordinates with overlay of the Facility and Company pole line route(s) indicating pole locations and anchors in CADD format acceptable to Company.

- b. Staking of Company proposed poles and anchors by surveyor.
  - c. Graded access roads including gravel if required by Company to provide sufficient vehicle access to Company poles and anchors by Company trucks and cranes.
  - d. Graded level pads to provide vehicle working areas around all Company poles and anchors.
  - e. Grading of the areas beneath the Company's overhead lines as needed to provide required ground clearance.
  - f. Grubbing and clearing of vegetation within Company's easement area or as required.
- B. Coordination of Construction. Prior to Subscriber Organization engaging the Contractors, Subscriber Organization shall obtain Company's written approval, which approval shall not be unreasonably withheld. Prior to Subscriber Organization and/or its Contractors first starting to work on the construction plans for Company-Owned Interconnection Facilities to be constructed by Subscriber Organization (and/or its Contractors), such as the civil, structural, and construction drawings, specifications to vendors, vendor approved final drawings and materials lists (collectively, the "Plans"), Subscriber Organization and/or its Contractors shall meet with Company to discuss the construction of such Company-Owned Interconnection Facilities, including but not limited to subjects concerning coordination of construction milestone dates, agreement on areas of interface design, and Company's design/drawing layout and symbols standards, equipment specifications and construction specifications and standards. Company will provide the equipment specifications and construction specifications and standards information so Subscriber Organization can incorporate such information in its bid documents.
- C. Plans. Subscriber Organization shall provide Company its complete Plans at 30%, 60% and 90% completion. No later than sixty (60) Days before Subscriber Organization and/or its Contractors first start to order materials and equipment for Company-Owned Interconnection Facilities to be constructed by Subscriber Organization and/or its Contractors, Subscriber Organization shall provide Company with the final Plans. The Plans for Company-Owned Interconnection Facilities to be constructed by Subscriber Organization (and/or its Contractors) shall comply with (i) all applicable Laws; (ii) Company's design/drawing layout and symbol standards, equipment specifications, and construction specifications and standards; and (iii) Good Engineering and Operating Practices (collectively, the "Standards"). Subscriber Organization shall submit design drawings in MicroStation format per Company standards.
- D. Company's Review of the Plans. Unless otherwise agreed to by the Parties, Company shall have thirty (30) Days following receipt of the complete Plans at each stage (30%, 60%, 90% and final) for it to review and comment on the Plans, and verify in writing to Subscriber Organization that the Plans comply with the Standards, which verification shall not be unreasonably withheld. If Company reasonably determines that the Plans are not in accordance with the Standards, then it may request in writing a response from Subscriber Organization to its comments and Subscriber Organization shall respond in writing within thirty (30) Days of such request by providing (i) its justification for why its Plans conform to the Standards or (ii) changes in the Plans responsive to Company's comments and in accordance with the Standards.
- E. Company Inspection. Construction work will be subject to Company inspections to ensure that construction is done in accordance with the Standards. Company inspectors will be allowed access to the construction sites for inspections and to monitor construction work. The inspector shall have the authority to work with the appropriate construction supervisor to stop any work that does not meet the Standards. All equipment and materials used in Company-Owned Interconnection Facilities to be constructed by Subscriber Organization and/or its Contractors shall meet the Standards.

F. Acceptance Test Procedures.

1. Subscriber Organization acknowledges that: (aa) Company has multiple on-going projects with other developers as well as its own capital improvement projects; (bb) Company has limited resources to provide engineering oversight (such as review of plans) to such projects and to participate in the testing of such projects; (cc) in order for Company to accommodate such oversight and testing, it is necessary for Company to sequentially allocate its resources for each project a year or more in advance; (dd) the result is a queue of such projects that reflects the scheduling commitments of Company's resources to conduct such oversight and to participate in such testing; (ee) if a project is behind the schedule on which Company's resources have been scheduled for the oversight of such project, or if a project is not ready for testing at the time Company's resources have been scheduled for the testing of such project, or if a project does not complete testing within the period for which Company's resources have been scheduled for such testing, the progress of projects later in the queue may be adversely affected; and (ff) the Project will lose its place in the queue and will be assigned a new Acceptance Testing date for commencement of the Acceptance Test that will be behind the other projects then in the queue if (i) the Subscriber Organization fails to satisfy any of the conditions precedent set forth in Section 2F.2. of this Attachment G (Company-Owned Interconnection Facilities) within the time period specified therein for the task in question, (ii) the Acceptance Test are not satisfactorily completed within the time allotted to complete such testing.
2. The Conduct of the Acceptance Test is subject to the satisfaction of the following conditions precedent within the time period required by Company for the task in question:
  - Final Single-Line Drawing, and notes, has received Company's written consent pursuant to Section 1.A.1 (Single-Line Drawing, Interface Block Diagram, Relay List, Relay Settings and Trip Scheme) of Attachment F (Facility Owned by Subscriber Organization) to this Contract.
  - Final Relay List and Trip Scheme have received Company's written consent pursuant to Section 1.A.1 (Single-Line Drawing, Interface Block Diagram, Relay List, Relay Settings and Trip Scheme) of Attachment F (Facility Owned by Subscriber Organization) to this Contract.
  - Final Interface Block Diagram has received Company consent pursuant to Section 1.A.1 (Single-Line Drawing, Interface Block Diagram, Relay List, Relay Settings and Trip Scheme) of Attachment F (Facility Owned by Subscriber Organization) to this Contract.
  - Final Control System Telemetry and Control List has received Company consent.
  - Final phasor measurement unit (PMU) devices, if applicable, have received Company consent.
  - Control system design and tunable parameters reviewed and mutually agreed upon as needed to meet the Company requirements in accordance with Attachment F (Facility Owned by Subscriber Organization) Performance Standards.
  - Agreement on Active Power Control Interface.
  - No later than 14 Days prior to commencement of the Acceptance Test:
    - Subscriber Organization shall have certified to Company that Subscriber Organization-Owned Interconnection Facilities have been installed and commissioned and such certification has not, prior to the commencement of the Acceptance Test, been subsequently challenged by Company on the basis of on-site observations made by the Company's representatives following the walk-through to be conducted



pursuant to Section 2.F.3. of this Attachment G (Company-Owned Interconnection Facilities).

- Subscriber Organization shall have certified to Company that any Company-Owned Interconnection Facilities built by Subscriber Organization (and/or its Contractors) have been installed and commissioned and such certification has not, prior to the commencement of the Acceptance Test, been subsequently challenged by Company on the basis of on-site observations made by the Company's representatives following the walk-through to be conducted pursuant to Section 2.F.3. of this Attachment G (Company-Owned Interconnection Facilities).
  - Any Company-Owned Interconnection Facilities not built by or on behalf of Subscriber Organization have been installed and commissioned.
  - No later than 7 Days prior to the commencement of the Acceptance Test, Subscriber Organization and Company shall have participated in walk-through of fully constructed Interconnection Facilities.
  - Redlined as-built drawings of the Subscriber Organization-Owned Interconnection Facilities and any of the Company-Owned Interconnection Facilities built by Subscriber Organization (and/or its Contractors) shall have been provided to Company.
  - Continuous power is being supplied to Company's protection and SCADA equipment.
  - Not less than four (4) weeks prior to the commencement of the Acceptance Test, the high speed communication lines required under this Contract have been commissioned and are ready for use.
  - Not less than two (2) weeks prior to the commencement of the Acceptance Test, Subscriber Organization and Company have participated in an on-Site Acceptance Test coordination meeting.
3. Subscriber Organization shall provide Company with at least fourteen (14) Days advance written notice of the commencement of the Acceptance Test. The Acceptance Test will be conducted on Business Days during normal business hours and may take a minimum of 30 Days to complete. No electric energy will be delivered from Subscriber Organization to Company during the Acceptance Test. No later than thirty (30) Days prior to conducting the Acceptance Test, Company and Subscriber Organization shall agree on a written protocol setting out the detailed procedure and criteria for passing the Acceptance Test. At the time that Subscriber Organization provides its 14-Day notice of the Acceptance Test to Company, Subscriber Organization shall concurrently schedule a site walk-through of the Facility with Company to occur no later than seven (7) Days prior to the Acceptance Test. Subscriber Organization's 14-Day notice to Company of the Acceptance Test shall constitute its certification that (i) the completion of the installation and commissioning of the Subscriber Organization-Owned Interconnection Facilities and the Company-Owned Interconnection Facilities built by Subscriber Organization (and/or its Contractors) and (ii) a walk-through by Company shall demonstrate, to Company's reasonable satisfaction, Subscriber Organization's readiness to commence with the Acceptance Test. If, after the site walk-through, Company representatives reasonably determine that Subscriber Organization is not ready to commence with the Acceptance Test, the Project will lose its place in the queue and will be assigned a new Acceptance Testing date that will be behind the other projects then in the queue. In the meantime, Subscriber Organization shall remediate the deficiencies identified by Company, and the process described in this Section 2.F. (Acceptance Test Procedures) of this Attachment G (Company-Owned Interconnection Facilities), shall commence again until Subscriber Organization's readiness for the Acceptance Test is demonstrated to Company's reasonable

satisfaction. Successful completion of the Acceptance Test requires successful completion of each of the individual tests that comprise the Acceptance Test. Retesting of any individual test constitutes as restart of the Acceptance Test if such retesting is required because of a prior failure of such individual test or because of a prior test could not be completed because of a problem with the Facility. Within fifteen (15) Business Days of completion of the Acceptance Test and Company's receipt of the final report setting forth the results of the Acceptance Test, Company shall notify Subscriber Organization in writing whether the Acceptance Test has been passed and, if so, the date upon which the Acceptance Test was passed.

4. Company will be present when the Acceptance Test is conducted, and Subscriber Organization shall promptly correct any deficiencies identified during the Acceptance Test. Subscriber Organization will be responsible for the cost of Company personnel (and/or Company contractors) performing the duties (such as reviewing the Plans and reviewing the construction) necessary for Company-Owned Interconnection Facilities to be constructed by Subscriber Organization (and/or its Contractors). If Company (i) does not make any inspection or test, (ii) does not discover defective workmanship, materials or equipment, or (iii) accepts Company-Owned Interconnection Facilities (that were constructed by Subscriber Organization and or its Contractors), such action or inaction shall not relieve Subscriber Organization from its obligation to do and complete the work in accordance with the Plans approved by Company.

- G. As-Built Drawings. Within thirty (30) Days of the successful completion of the Acceptance Test, Subscriber Organization shall provide for Company review a set of the proposed as-built drawings for the Company-Owned Interconnection Facilities constructed by Subscriber Organization (and/or its Contractors). Within thirty (30) Days of Company's receipt of the proposed as-built drawings, Company shall provide Subscriber Organization with either (i) its comments on the proposed as-built drawings or (ii) notice of acceptance of the proposed as-built drawings as final as-built drawings. If Company provides comments on the proposed as-built drawings, Subscriber Organization shall incorporate such comments into a final set of as-built drawings and provide such final as-built drawings to Company within twenty (20) Days of Subscriber Organization's receipt of Company's comments

### **3. SUBSCRIBER ORGANIZATION PAYMENT TO COMPANY FOR COMPANY-OWNED INTERCONNECTION FACILITIES. REVIEW OF GENERATING FACILITY, AND REVIEW OF VERIFICATION TESTING.**

- A. Subscriber Organization shall pay to the Company the total estimated interconnection costs to be incurred by the Company (Total Estimated Interconnection Costs), which is comprised of (i) the estimated cost of the Company-Owned Interconnection Facilities, (ii) the estimated engineering costs associated with (a) developing the Company-Owned Interconnection Facilities and (b) reviewing and specifying those portions of the CBRE Facility which allow interconnected operation, and (iii) witnessing and reviewing the verification testing, which shall include testing of the telemetry and control interface which allows the Company to remotely measure, monitor, evaluate and verify technical compliance, CBRE Facility performance, and power quality and, if necessary, control the Generating Facility. The following summarizes the Total Estimated Interconnection Costs:

Description	Estimated Cost (\$) [If no cost, state "None".]

<b>Total Estimated Interconnection Costs (\$):</b>	

- B. The Total Estimated Interconnection Cost, which, except as otherwise provided herein, is non-refundable, shall be paid by the Subscriber Organization fourteen (14) days after receipt of an invoice from the Company, which shall be provided not less than thirty (30) days prior to start of procurement of the Company-Owned Interconnection Facilities.
- C. Within thirty (30) days of receipt of an invoice, which shall be provided within fourteen (14) days of the final accounting, which shall take place within sixty (60) days of completion of construction of the Company-Owned Interconnection Facilities, the Subscriber Organization shall remit to the Company the difference between the Total Estimated Interconnection Costs paid to date and the total actual interconnection cost (Total Actual Interconnection Costs). The latter is comprised of (i) the total costs of the Company-Owned Interconnection Facilities, and (ii) the total engineering costs associated with (a) developing the Company-Owned Interconnection Facilities and (b) reviewing and specifying those portions of the Generating Facility which allow interconnected operations as such are described in Exhibit F-1, and (iii) reviewing the verification testing. If in fact the Total Actual Interconnection Costs is less than the payments received by the Company as the Total Estimated Interconnection Costs, the Company shall repay the difference to the Subscriber Organization within thirty (30) days of the final accounting. If the Contract is terminated prior to the Subscriber Organization's payment for the Total Actual Interconnection Costs (or the portion of this cost which has been incurred) or prior to the Company's repayment of the over collected amount of the Total Estimated Interconnection Costs (or the portion of this cost which has been paid), such payments shall be made by the Subscriber Organization or Company, as appropriate. If payment is due to the Company, the Subscriber Organization shall pay within thirty (30) days of receipt of an invoice, which shall be provided within fourteen (14) days of the final accounting, which shall take place within sixty (60) days of the date the Contract is terminated. If payment is due to the Subscriber Organization, the Company shall pay within thirty (30) days of the final accounting.
- D. All Company-Owned Interconnection Facilities shall be the property of the Company.

#### **4. OPERATION, MAINTENANCE AND TESTING COSTS.**

The Company will bill the Subscriber Organization monthly and the Subscriber Organization will, within 30 days after the billing date, reimburse the Company for any costs incurred in operating, maintaining or testing the Company-Owned Interconnection Facilities. The Company's costs will be determined on the basis of outside service costs, direct labor costs, material costs, transportation costs, applicable overheads at time incurred and applicable taxes. Applicable overheads will include such costs as vacation, payroll taxes, non-productive wages, supervision, tools expense, employee benefits, engineering administration, corporate administration, and materials handling. Applicable taxes will include the Public Service Company Tax, and Public Utility Fee and Hawai'i general excise tax.

**5. RELOCATION OF COMPANY-OWNED INTERCONNECTION FACILITIES.**

- A. In the event that the Land Rights include a relocation clause and such clause is exercised or if Company-Owned Interconnection Facilities must be relocated for any other reason not caused by Company, Subscriber Organization shall bear the cost of such relocation. Prior to the relocation of the Company-Owned Interconnection Facilities Company shall invoice Subscriber Organization for the total estimated cost of relocating the Company-Owned Interconnection Facilities (the “Total Estimated Relocation Cost”). Subscriber Organization shall, within thirty (30) Days after the invoice date, pay to Company the Total Estimated Relocation Cost.
- B. Once the relocation of the Company-Owned Interconnection Facilities is complete, Company shall conduct a final accounting of all costs related thereto. Within thirty (30) Days of the final accounting, which shall take place within one hundred and twenty (120) Days of completion of the relocation of Company-Owned Interconnection Facilities, Subscriber Organization shall remit to Company the difference between the Estimated Relocation Cost paid to date and the total actual relocation cost incurred by Company (the “Total Actual Relocation Cost”). If the Total Actual Relocation Cost is less than the payments received by Company as the Total Estimated Relocation Cost, Company shall repay the difference to Subscriber Organization within thirty (30) Days of the final accounting.

**6. LAND RESTORATION.**

- A. Definition of “Land”. For the purposes of this Attachment G (Company-Owned Interconnection Facilities), “Land” means any portion of the Site and any other real property where any Company-Owned Interconnection Facilities are located.
- B. Removal of Interconnection Facilities. After termination of this Contract, if requested by Company, Subscriber Organization shall, at its sole cost and expense, remove (i) the Company-Owned Interconnection Facilities from the Land and (ii) the Subscriber Organization-Owned Interconnection Facilities from the Land, and, in conjunction with such removal, shall develop and implement a program to recycle, to the fullest extent possible, or to otherwise properly dispose of, all such removed infrastructure; provided, however, that, Company may elect to remove all or part of the Company-Owned Interconnection Facilities and/or Subscriber Organization-Owned Interconnection Facilities from the Land because of operational concerns over the removal of such Interconnection Facilities, in which case Subscriber Organization shall reimburse Company for its costs to remove such Company-Owned Interconnection Facilities and/or Subscriber Organization-Owned Interconnection Facilities. To the extent Subscriber Organization is obligated to remove Company-Owned Interconnection Facilities and/or Subscriber Organization-Owned Interconnection Facilities, Subscriber Organization shall complete such removal within ninety (90) Days of termination of this Contract, or as otherwise agreed to by both Parties in writing.
- C. Restoration of the Land. After the termination of this Contract and removal of the Company-Owned Interconnection Facilities and/or Subscriber Organization-Owned Interconnection Facilities, as the case may be, Subscriber Organization shall, at its sole cost and expense, restore the Land to its condition prior to construction of such Company-Owned Interconnection Facilities and/or Subscriber Organization-Owned Interconnection Facilities, as applicable. Land restoration shall be completed within ninety (90) Days of termination of this Contract, or as otherwise agreed to by both Parties in writing.

**7. TRANSFER OF OWNERSHIP/TITLE.**

- A. Transfer of Ownership and Title. On the Transfer Date, Subscriber Organization shall transfer to Company all right, title and interest in and to Company-Owned Interconnection Facilities to the extent such facilities were designed and constructed by Subscriber Organization and/or its

Contractors together with (i) all applicable manufacturers' or Contractors' warranties which are assignable and (ii) all Land Rights necessary to own, operate and maintain Company-Owned Interconnection Facilities on and after the Transfer Date. Subscriber Organization shall provide a written list of the manufacturers' and Contractors' warranties which will be assigned to Company and the expiration dates of such warranties no later than thirty (30) Days before the Transfer Date.

- B. No Liens or Encumbrances. Company's title to and ownership of Company-Owned Interconnection Facilities that were designed and constructed by Subscriber Organization and/or its Contractors shall be free and clear of liens and encumbrances.
- C. Form of Documents. The transfers to be made to Company shall not require any further payment by Company. The form of the document to be used to convey title to the Company-Owned Interconnection Facilities that were designed and constructed by or on behalf of Subscriber Organization shall be in the form set forth by Company. The form of the document(s) to be used to assign leases shall be substantially in the form set forth by Company.

## **8. GOVERNMENTAL APPROVALS FOR ANY COMPANY-OWNED INTERCONNECTION FACILITIES.**

For all other Governmental Approvals for Company-Owned Interconnection Facilities, Subscriber Organization shall provide these prior to the Transfer Date. On or before the Transfer Date, Subscriber Organization shall provide Company with (i) copies of all such Governmental Approvals obtained by Subscriber Organization regarding the construction, ownership, operation and maintenance of Company-Owned Interconnection Facilities that Subscriber Organization and/or its Contractors constructed and (ii) documentation regarding the satisfaction of any condition or requirement set forth in any Governmental Approvals for Company-Owned Interconnection Facilities (excluding on-going reporting or monitoring requirements that may continue beyond the Transfer Date in accordance with such Governmental Approval) or that such Governmental Approvals have otherwise been closed with the issuing Governmental Authority.

## **9. LAND RIGHTS.**

Subscriber Organization shall, prior to the commencement of construction of the Company-Owned Interconnection Facilities (whether to be built by Subscriber Organization or by Company) obtain at its sole cost and expense all Land Rights that are required to construct, own, operate and maintain the Company-Owned Interconnection Facilities. At least one (1) month prior to commencement of construction, Subscriber Organization shall provide Company with Land Rights documents, which may be redacted to the limited extent as set forth below. Without limitation to the preceding sentences, Subscriber Organization shall pay all surveying and mapping costs, appraisal fees, document preparation fees, recording fees or other costs. Subscriber Organization shall use commercially reasonable efforts to obtain on behalf of the Company perpetual Land Rights for the Company-Owned Interconnection Facilities. Such Land Rights shall contain terms and conditions which are acceptable to Company and the documents setting forth the Land Rights shall be provided in advance of execution to Company for its review and approval and shall be recorded if required by Company. Following the Execution Date, Subscriber Organization shall provide as part of the Monthly Progress Report the status of negotiations with landowner(s) regarding the Land Rights. Notwithstanding the foregoing, Company shall have the right in its sole discretion, at any time upon notice to Subscriber Organization, to communicate directly with the landowner(s) and/or participate in the negotiations with landowner(s) for the Land Rights. For so long as Subscriber Organization has the right under this Contract to sell the availability of the Facility to Company, Subscriber Organization shall pay for any rents and other payments due under such Land Rights that are associated with Company-Owned Interconnection Facilities.

**10. CONTRACTS FOR COMPANY-OWNED INTERCONNECTION FACILITIES.**

For all contracts entered into by or on behalf of Subscriber Organization for Company-Owned Interconnection Facilities to be designed, engineered and constructed, in whole or in part, by or on behalf of Subscriber Organization, the following shall apply: (i) Company shall be made an intended third-party beneficiary of such contracts; and (ii) Company shall be provided with copies of such executed contracts, which may be redacted but only to the extent required to prevent disclosure of confidential or proprietary information of Subscriber Organization or the counterparty to such agreement; provided, however, that such redactions may not conceal information that is necessary for the Company to determine and exercise Company's rights under such contracts as a third-party beneficiary.

[MATRIX TO BE INSERTED]

**EXHIBIT G-1**  
**FORM OF LETTER OF CREDIT**

Page 1 of 2

**[Bank Letterhead]**

**[Date]**

**Beneficiary:** [designate appropriate entity according to where Facility is located] **Hawaiian Electric Company, Inc. [or] Maui Electric Company, Limited [or] Hawai'i Electric Light Company, Inc.**

**[Address]**

**[Bank's Name]**

**[Bank's Address]**

Re: **[Irrevocable Standby Letter of Credit Number]**

Ladies and Gentlemen:

We hereby establish, in your favor, our irrevocable standby Letter of Credit Number \_\_\_\_\_ (this "Letter of Credit") for the account of **[Applicant's Name]** and **[Applicant's Address]** in the initial amount of \$\_\_\_\_\_ **[dollar value]** and authorize you, Hawaiian Electric Company, Inc. **[or]** Maui Electric Company, Limited **[or]** Hawai'i Electric Light Company, Inc. ("Beneficiary"), to draw at sight on **[Bank's Name]**.

Subject to the terms and conditions hereof, this Letter of Credit secures **[Project Entity Name]**'s certain obligations to Beneficiary under the Mid-Tier Standard Form Contract for Renewable Dispatchable Generation dated as of \_\_\_\_\_ between **[Project Entity Name]** and Beneficiary.

This Letter of Credit is issued with respect to the following obligations: \_\_\_\_\_.

This Letter of Credit may be drawn upon under the terms and conditions set forth herein, including any documentation that must be delivered with any drawing request.

Partial draws of this Letter of Credit are permitted. This Letter of Credit is not transferable. Drafts on us at sight shall be accompanied by a Beneficiary's signed statement signed by a representative of Beneficiary as follows:

The undersigned hereby certifies that (i) I am duly authorized to execute this document on behalf of Hawaiian Electric Company, Inc. **[or]** Maui Electric Company, Limited **[or]** Hawai'i Electric Light Company, Inc. and [(ii) the amount of the draft accompanying this certification is due and owing to Hawaiian Electric Company, Inc. **[or]** Maui Electric Company, Limited **[or]** Hawai'i Electric Light Company, Inc. under the terms of the Mid-Tier Standard Form Contract for Renewable Dispatchable Generation dated as of \_\_\_\_\_, between \_\_\_\_\_, and Hawaiian Electric Company, Inc. **[or]** Maui Electric Company, Limited **[or]** Hawai'i Electric Light Company, Inc.][(ii) the Letter of Credit will expire in less than thirty (30) days, it has not been



replaced or extended and collateral is still required under Section 11.F of the Mid-Tier Standard Form Contract for Renewable Dispatchable Generation \*].

Such drafts must bear the clause "Drawn under **[Bank's Name and Letter of Credit Number and date of Letter of Credit.]**"

All demands for payment shall be made by presentation of originals or copies of documents, by facsimile transmission of documents to **[Bank Fax Number]** or other such number as specified from time to time by the bank, or by email transmission of documents to **[Bank Email Address]** or other such email address as specified from time to time by the bank. If presentation is made by facsimile transmission or an email transmission, you may contact us at **[Bank Phone Number]** to confirm our receipt of the transmission. Your failure to seek such a telephone confirmation does not affect our obligation to honor such a presentation. If presented by facsimile or email, original documents are not required.

This letter of credit shall expire one year from the date hereof. Notwithstanding the foregoing, however, this letter of credit shall be automatically extended (without amendment of any other term and without the need for any action on the part of the undersigned or Beneficiary) for one year from the initial expiration date and each future expiration date unless we notify you and Applicant in writing at least thirty (30) days prior to any such expiration date that this letter of credit will not be so extended. Any such notice shall be delivered by registered or certified mail, or by FedEx, both to:

Beneficiary at:

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and to

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And copy to Applicant at:

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\* For draw relating to lapse of Letter of Credit while credit support is still required pursuant to the Mid-Tier Standard Form Contract for Renewable Dispatchable Generation.

We hereby agree with drawers that drafts and documents as specified above will be duly honored upon presentation to **[Bank's Name]** and **[Bank's Address]** if presented on or before the then-current expiration date hereof.

Payment of any amount under this Letter of Credit by **[Bank]** shall be made as the Beneficiary shall instruct on the next Business Day after the date the **[Bank]** receives all documentation required hereunder, in immediately available funds on such date. As used in this Letter of Credit, the term "Business Day" shall mean any day other than a Saturday or Sunday or any other day on which banks in the State of **[Note – insert State of bank's location]** are authorized or required by law to be closed.

Unless otherwise expressly stated herein, this irrevocable standby letter of credit is issued subject to the rules of the International Standby Practices, International Chamber of Commerce publication no. 590 ("ISP98")

**[Bank's Name]:**

**[Authorized Signature]**

## **ATTACHMENT H**

### **BESS REQUIREMENTS**

#### **1. BESS TESTS**

Prior to achieving Commercial Operations, and in each BESS Measurement Period, unless waived by Company, Subscriber Organization shall demonstrate that the BESS satisfies the (1) BESS Capacity Performance Metric, and (2) the RTE Performance Metric, each as defined and further described below.

##### **A. BESS Capacity Performance Metric.**

- The BESS Capacity Performance Metric reflecting the net output of the BESS from the Point of Interconnection can be demonstrated either through (i) operational data or (ii) a scheduled formal BESS Capacity Test.
- The "BESS Capacity Performance Metric" shall be deemed to be satisfied where the BESS Capacity Ratio is not less than 100% for an applicable BESS Measurement Period. The "BESS Capacity Ratio" shall be the number, expressed as a percentage, equal to the total "Discharge Energy" (MWh discharge) delivered to the Point of Interconnection to bring the BESS from (i) its maximum State of Charge or (ii) 100% State of Charge to a 0% State of Charge, divided by the BESS Contract Capacity.
- A "BESS Capacity Test" is when the Company coordinates Company Dispatch to demonstrate the BESS maintains the power output required to follow the dispatch signal provided by the Company through a control set point, as measured at the Point of Interconnection, and is able to continuously discharge energy to the Point of Interconnection according to Company Dispatch to bring the BESS from (i) its maximum State of Charge or (ii) 100% State of Charge to a 0% State of Charge.
- The BESS Capacity Test can only be performed when the BESS is at the lower of: (i) its maximum State of Charge or (ii) 100% State of Charge prior to the start of the BESS Capacity Test and during the BESS Capacity Test the Company Dispatch allows for continuous discharge of the BESS to 0% State of Charge with energy delivered to the Point of Interconnection.

##### **B. RTE Performance Metric.**

- The "RTE Performance Metric" is set forth in Section 6.A (RTE Test and Liquidated Damages) of Attachment C (Required Performance Metrics; Liquidated Damages) to this Contract. The RTE Performance Metric reflecting the charging/discharging of the BESS can be demonstrated either through (i) operational data or (ii) a scheduled formal RTE Test.
- Demonstration of the RTE Performance Metric requires measurement of "Charging Energy" (MWh charge) at the BESS inverters' AC input to bring the BESS from a 0% State of Charge to a 100% State of Charge from the PV System (or grid, if grid charging is permitted) according to Company Dispatch, followed by measurement at the Point of Interconnection of the "Discharge Energy" (MWh discharge) delivered to the grid to bring the BESS to a 0% State of Charge according to Company Dispatch. The exact equipment and point used for measurement of Charging Energy will be mutually agreed to by the Parties on the Facility's single-line diagram attached as Exhibit E-5 (Single-Line Drawing and Interface Block Diagram) to Attachment F (Facility Owned by Subscriber Organization) to this Contract. For the purposes of evaluating satisfaction of the RTE Performance Metric, the "RTE Ratio" shall be the number, expressed as a percentage, equal to the total Discharge Energy delivered to the Point of Interconnection during the BESS Capacity Test, divided by the Charging Energy measured at the BESS inverters' AC input.

- The formula for the RTE Ratio is as follows:  $\text{RTE Ratio} = 100\% \times (\text{MWh discharge})/(\text{MWh charge})$
- The RTE Performance Metric will be deemed to have been "passed" or "satisfied" to the extent the RTE Ratio is not less than the RTE Performance Metric set forth in Section 6.A (RTE Test and Liquidated Damages) of Attachment C (Required Performance Metrics; Liquidated Damages) to this Contract.
- An "RTE Test" is when the Company coordinates Company Dispatch to demonstrate the charging/discharging requisite to satisfy the RTE Performance Metric.
- The RTE Test may be conducted concurrently with a BESS Capacity Test.
- For purposes of the RTE Test, the charging cycle shall begin when the BESS is at a 0% State of Charge prior to a (i) 100% discharge cycle or (ii) BESS Capacity Test if being conducted concurrently and the Charging Energy is the amount of energy, as measured at the BESS inverters' AC input, that brings the BESS to a 100% State of Charge.

C. BESS Test Procedures.

- After Commercial Operations, Subscriber Organization shall demonstrate satisfaction of the BESS Capacity Performance Metric by reference to the operational data reflecting the net output of the BESS from the Point of Interconnection, or by conducting a scheduled formal BESS Capacity Test during such BESS Measurement Period. Once Subscriber Organization demonstrates satisfaction of the BESS Capacity Performance Metric through either operational data or a scheduled formal BESS Capacity Test (100% discharge cycle), the BESS shall be deemed to have met the BESS Capacity Performance Metric and satisfied ("passed") the BESS Capacity Test for the applicable BESS Measurement Period.
- After Commercial Operations, Subscriber Organization shall demonstrate satisfaction of the RTE Performance Metric by reference to the operational data reflecting the charging/discharging of the BESS, or by conducting a scheduled formal RTE Test during such BESS Measurement Period. Once Subscriber Organization demonstrates satisfaction of the RTE Performance Metric through either operational data or a scheduled formal RTE Test (100% charge/discharge cycle), the BESS shall be deemed to have met the RTE Performance Metric and satisfied ("passed") the RTE Test for the applicable BESS Measurement Period.
- Any BESS Capacity Test or RTE Test (each a "BESS Test" and collectively, the "BESS Tests") scheduled in lieu of being demonstrated by reference to operational data shall be performed at a time scheduled by the Company in its sole discretion.
- Subscriber Organization shall be permitted up to a total of three (3) BESS Tests (100% discharge cycles) within a BESS Measurement Period to demonstrate satisfaction of the BESS Capacity Performance Metric and RTE Performance Metric for such BESS Measurement Period, unless additional such tests are authorized by Company. If upon completion of the first BESS Test, Subscriber Organization does not "pass" either the BESS Capacity Test or the RTE Test, Company shall attempt to notice up to two (2) additional BESS Tests within a BESS Measurement Period, for Subscriber Organization to further demonstrate its performance. If a scheduled formal BESS Test is requested by Subscriber Organization, Company shall attempt to schedule a formal BESS Test and Company shall provide notice to Subscriber Organization no less than three (3) Business Days prior to conducting such scheduled formal BESS Test.
- If, during a BESS Measurement Period, Subscriber Organization fails to pass a BESS Capacity Test, the BESS shall nevertheless be deemed to have satisfied the BESS Capacity Performance

Metric for the applicable BESS Measurement Period if (i) Company failed to notice up to three BESS Capacity Tests in order for Subscriber Organization to further demonstrate the BESS' performance during such BESS Measurement Period, or (ii) Subscriber Organization was unable to perform at least two (2) such noticed BESS Capacity Tests during such BESS Measurement Period due to (a) conditions on the Company System other than Subscriber Organization-Attributable Non-Generation or (b) an act or omission by Company. If Subscriber Organization-Attributable Non-Generation is cause for the inability to demonstrate the BESS Capacity Performance Metric, the BESS Capacity Ratio used to assess LDs shall be the highest demonstrated in operational data or the most recently completed test during the applicable BESS Measurement Period.

- If, during a BESS Measurement Period, Subscriber Organization does not demonstrate satisfaction of the BESS Capacity Performance Metric through operational data or a BESS Capacity Test, assessment of Liquidated Damages will be based on the last of the BESS Capacity Tests performed.
- If, during a BESS Measurement Period, Subscriber Organization both fails to pass a RTE Test noticed by Company and fails to demonstrate satisfaction of the RTE Performance Metric by reference to operational data for such BESS Measurement Period, the BESS shall nevertheless be deemed to have satisfied the RTE Performance Metric for the applicable BESS Measurement Period if (i) Company failed to notice up to three RTE Tests in order for Subscriber Organization to further demonstrate the BESS' performance during such BESS Measurement Period, or (ii) Subscriber Organization was unable to perform at least two (2) such noticed RTE Tests during such BESS Measurement Period due to (a) conditions on the Company System other than Subscriber Organization-Attributable Non-Generation or (b) an act or omission by Company. If Subscriber Organization-Attributable Non-Generation is cause for not adequately demonstrating the RTE Performance Metric, the RTE Ratio used to assess LDs shall be the highest demonstrated in operational data or the most recently completed test during the applicable BESS Measurement Period.
- If, during a BESS Measurement Period, Subscriber Organization does not demonstrate satisfaction of the RTE Performance Metric through operational data or RTE Tests, assessment of Liquidated Damages will be based on the last of the RTE Tests performed.
- Company will conduct any necessary BESS Test(s) through Company Dispatch. Company shall have the right to attend, observe and receive the results of all BESS Tests. Subscriber Organization shall provide to Company the results of each BESS Test (including time stamped graphs of system performance based in operational data or test data) no later than ten (10) Business Days after any BESS Test.

## **2. BESS ANNUAL EQUIVALENT AVAILABILITY FACTOR**

- A. To the extent the Commercial Operations Date occurs on a date other than the first day of a BESS Measurement Period, the period between the Commercial Operations Date and the first day of the next BESS Measurement Period if any, shall be ignored for purposes of this BESS Availability Factor.
- B. For the purposes of calculating the BESS Annual Equivalent Availability Factor for the first three (3) full BESS Measurement Periods in the first Contract Year, the calculation will assume that the BESS is one hundred percent (100%) available for the remaining hours of the Contract Year.

C. “BESS Annual Equivalent Availability Factor” shall be calculated as follows:

$$\frac{\text{BESS Annual Availability Factor}}{\text{Equivalent}} = 100\% \times \frac{AH - EDH}{PH}$$

Where:

PH is period hours (8760 hours; except leap year is 8784)

Available Hours (AH) is the number of hours that the BESS is not on Outage. It is sum of all Service Hours (SH) + Reserve Shutdown Hours (RSH).

A “BESS Outage” exists whenever the entire BESS is offline and unable to charge or discharge electric energy and is not in Reserve Shutdown state.

Service Hours (SH) is the number of hours during the applicable BESS Measurement Period and the immediately preceding three (3) full BESS Measurement Period that the BESS is online and (i) charging from the PV System or the Company System, or (ii) discharging electric energy to the Company System.

Reserve Shutdown Hours (RSH) is the number of hours the BESS is available but not charging or discharging electric energy or is offline at the Company's request for reasons other than Subscriber Organization-Attributable Non-Generation.

A "BESS Derating" exists when the BESS is available but at less than Maximum Rated Output, including deratings due to Subscriber Organization-Attributable Non-Generation or those by Company pursuant to Section 5.C (Company Rights of Dispatch) of the Contract. For the avoidance of doubt, if there is a BESS Outage occurring, there cannot also be a BESS Derating.

Equivalent Derated Hours (EDH) is the sum of ESADH, EPDH, and EUDH. For deratings due to BESS inverter unavailability, the equivalent full outage hour(s) are calculated by multiplying the actual duration of the derating (hours) by the number of inverters in the BESS unavailable and dividing by the total number of inverters in the BESS. For deratings that do not impact the availability of an entire BESS inverter or set of entire BESS inverters, the equivalent full outage hour(s) are calculated by multiplying the actual duration of the derating (hours) by the size of the derating (in MW) and dividing by the Maximum Rated Output.

Equivalent Subscriber Organization-Attributable Derated Hours (ESADH): A Subscriber Organization-Attributable Derating occurs when a derating exists due to Subscriber Organization-Attributable Non-Generation or deratings by Company pursuant to Section 5.C (Company Rights of Dispatch). Each individual derating is transformed into equivalent full outage hour(s). These equivalent hour(s) are then summed for the applicable BESS Measurement Period and the immediately preceding three (3) full BESS Measurement Periods.

EPDH is the equivalent planned derated hours, including Planned Derations (PD) and Maintenance Derations. A Planned Deration is when the BESS experiences a Deration scheduled well in advance and for a predetermined duration. A Maintenance Deration is a Deration that can be deferred beyond the end of the next weekend (Sunday at midnight or before Sunday turns into Monday) but requires a reduction in capacity before the next

Planned Deration (PD). Each individual Deration is transformed into equivalent full outage hour(s). These equivalent hour(s) are then summed for the applicable BESS Measurement Period and the immediately preceding three (3) full BESS Measurement Periods.

EUDH is the equivalent unplanned derated hours. An Unplanned Deration (Forced Derating) occurs when the BESS experiences a derating that requires a reduction in availability before the end of the nearest following weekend. Each individual Unplanned Deration is transformed into equivalent full outage hour(s). These equivalent hour(s) are then summed for the applicable BESS Measurement Period and the immediately preceding three (3) full BESS Measurement Periods.

The effect of Force Majeure is taken into account in calculating the BESS Annual Equivalent Availability Factor over a 12 calendar month period as follows: When such 12 month period contains any hours in a month during which the BESS or a portion of the BESS is unavailable due to Force Majeure, then such month shall be excluded from the 12 month period and the calculation period shall be extended back in time to include the next previous month during which there was no such unavailability of the BESS or a portion thereof due to Force Majeure. This means the BESS Equivalent Availability Factor would not change from that determined in the month directly preceding a month containing Force Majeure.

The following examples are provided as illustrative examples only:

*Example A:* The BESS was continuously available, with no BESS Outages or BESS Deratings during the applicable BESS Measurement Period and in the immediately preceding three (3) full BESS Measurement Periods. In this case AH = 8760 hours, EDH = 0 hours as ESADH, EPDH, and EUDH each = 0 hours

$$\text{BESS EAF} = 100\% \times \frac{8,760-0}{8,760} = 100\%$$

*Example B:* During the applicable BESS Measurement Period and the immediately preceding three (3) full BESS Measurement Periods: (a) The BESS was online and charging from the PV system or discharging electric energy to the Company System for 8,400 hours and was available but not discharging electric energy due to lack of stored energy (i.e., not Subscriber Organization-Attributable Non-Generation) for 226 hours; (b) The BESS experienced a Planned Derating of 7.2 MWs for 100 hours for maintenance that was scheduled a month in advance; (c) The BESS also experienced an Unplanned Derating of 62 BESS inverters for 100 hours as the derating could not be deferred to beyond the nearest following weekend. (d) The BESS did not experience any outage or derating due to Subscriber Organization-Attributable Non-Generation during this period.

The BESS Maximum Rated Output is 10 MW and the BESS contains 100 total inverters.

$$PH = 8,760 \text{ hours in 12 calendar months}$$

$$SH = 8,400 \text{ hours}$$

$$RSH = 226 \text{ hours}$$

$$AH = SH + RSH = 8,400 + 226 = 8,626 \text{ hours}$$

$$ESADH = 0$$

$$EPDH = 100 \text{ hours} \times 7.2 \text{ MW}/10 \text{ MW} = 72 \text{ hours (Planned Maintenance)}$$

$$EUDH = 100 \text{ hours} \times 62 \text{ inverters}/100 \text{ inverters} = 62 \text{ hours (Unplanned Deration (Forced Derating))}$$

$$EDH = 72 \text{ hours} + 62 \text{ hours} = 134 \text{ hours}$$

$$\text{BESS EAF} = 100\% \times \frac{8,626 - 134}{8,760} = 96.9\%$$

### 3. **SECTION 3 - BESS ANNUAL EQUIVALENT FORCED OUTAGE FACTOR**

$$EFOF = 100\% \times \frac{(FOH + EUDH)}{8760}$$

Where:

Equivalent Unplanned (Forced) Derated Hours (EUDH) is calculated in accordance with Attachment X (BESS Annual Equivalent Availability Factor) of this Contract.

Forced Outage Hours (FOH) = Sum of all hours the BESS experienced an Unplanned (Forced Outages) during the applicable BESS Measurement Period and the sum of all hours experienced during Unplanned (Forced) Outages during the immediately preceding three (3) full BESS Measurement Periods, in each case caused by Subscriber Organization-Attributable Non-Generation.

Unplanned (Forced) Derating: A Deration that requires a reduction in capacity of the BESS before the end of the nearest following weekend.

Unplanned (Forced) Outage: An outage that requires removal of the entire BESS from service before the end of the nearest following weekend that is not planned, including those caused by Subscriber Organization-Attributable Non-Generation or those imposed by Company pursuant to Section 5.C (Company Rights of Dispatch) to the Contract .



EXAMPLE CALCULATION:

Assume a 50 MW BESS that for the BESS Measurement Period in question was completely out of service for 50 hours. For the BESS Measurement Period in question, it also had the following deratings:

Duration of Derating	MW Size Reduction
100 Hours	25 MW
20 Hours	20 MW
50 Hours	5 MW

During the three preceding BESS Measurement Periods, the BESS had a total of 150 Forced Outage Hours and a total of 100 Equivalent Forced Derated Hours.

$$\begin{aligned} \text{FOH} &= 50 \text{ hours} + 150 \text{ hours} = 200 \text{ hours} \\ \text{EUDH} &= ((100 \times 25) / 50) + ((20 \times 20) / 50) + ((50 \times 5) / 50) + 100 = 163 \text{ hours} \end{aligned}$$

$$EFOF = 100\% \times \frac{(200 + 163)}{8760} = 4.1\%$$

**ATTACHMENT I**  
**FACILITY'S CBRE PROGRAM**

1. **CBRE Program.** The purpose of the CBRE Program is to facilitate the continued expansion of renewable energy by allowing developers of renewable energy projects to provide Company's retail customers with the opportunity to avail themselves of the benefits of the CBRE Tariff by utilizing CBRE Credits to offset all or a portion of their on-going electricity usage. To this end, Subscriber Organization has established Facility's CBRE Project. Subscriber Organization acknowledges that it has been informed that Facility's CBRE Project must at all times comply with the requirements of the CBRE Program, the CBRE Tariff, the CBRE Framework, guidance from the PUC, guidance from the CBRE IO, and applicable Laws, including (i) the federal securities laws, including the registration requirements under the Securities Act of 1933 and the Securities and Exchange Act of 1934 and all rules and regulations promulgated thereunder (collectively, "Federal Securities Laws"); (ii) the State securities laws, including the registration requirements under the Hawai'i Uniform Securities Act and all rules and regulations promulgated thereunder (collectively, "State Securities Laws"); (iii) Laws concerning the dissemination of personally identifiable information; and (iv) Laws concerning consumer protection. The purpose of this Attachment I (Facility's CBRE Program) is to set forth certain requirements of the CBRE Program as of the Execution Date. Company reserves the right to modify the requirements of the CBRE Program upon PUC order and/or guidance from the CBRE IO where such modifications are necessary to comply with the CBRE Tariff, the CBRE Framework or applicable Laws, and Subscriber Organization shall comply with all such modifications. Without limitation to the generality of the foregoing, in the event of any conflict between the requirements of the CBRE Program, on the one hand, and any one or more of the CBRE Tariff, the CBRE Framework, guidance from the PUC, guidance from the CBRE IO, and/or applicable Laws, on the other hand, the CBRE Tariff, the CBRE Framework, guidance from the PUC, guidance from the CBRE IO, and applicable Laws, shall control and Subscriber Organization shall comply with the CBRE Tariff, the CBRE Framework, guidance from the PUC, guidance from the CBRE IO, and applicable Laws.
2. **Termination, Transfer and Buy-back of Subscriber Allocations.** Termination, transfer and buy-back of Subscriber Allocations shall be governed by the provisions of the CBRE Tariff contingent on whether the Facility's CBRE Program uses the Pay-As -You -Go or Pay-Up-Front model for Subscriber Allocations.
3. **Additional Representations of Subscriber Organization.** Subscriber Organization represents, warrants and covenants that:
  - A. Subscriber Organization shall disclose to each Account Holder before enrolling such Account Holder as a Subscriber:
    1. Subscriber Organization's experience in developing and operating renewable energy projects similar to the Facility.
    2. The circumstances under which the Lump Sum Payment can be reduced through the OEPR process and the impact of such reduction on Bill Credits.
    3. The circumstances under which the Bill Credits can be reduced if Performance Metrics LDs are unpaid by Subscriber Organization.
  - B. Subscriber Organization shall not knowingly allow the transfer of any Subscriber Allocations at a price other than that set forth in the repurchase/resale price schedule attached to the Subscriber Agreement.
  - C. Facility's CBRE Program:

1. As of the Execution Date, complies with all applicable Federal Securities Laws, and shall continue to be in compliance for the duration of Facility's CBRE Program.
  2. As of the Execution Date, complies with all applicable State Securities Laws, and shall continue to be in compliance for the duration of Facility's CBRE Program.
  3. As of the Execution Date, complies with all applicable Laws concerning the dissemination of personally identifiable information, and shall continue to be in compliance for the longer of (i) the duration of Facility's CBRE Program and (ii) for as long as Subscriber Organization continues to hold or otherwise have access to any personally identifiable information of Account Holders or former customers of Company.
  4. As of the Execution Date, complies with all applicable Laws concerning consumer protection, and shall continue to be in compliance for the duration of Facility's CBRE Program.
  5. Shall achieve the various CBRE Subscriber thresholds applicable to the Facility's CBRE Program.
  6. As of the Execution Date, Subscriber Organization is and "approved Subscriber Organization" under the CBRE Tariff and committed to operating, maintaining and administering its CBRE Project in accordance with this Contract and the CBRE Framework for the Term.
4. **Marketing and Sales of the Subscriber Allocations.** Subscriber Organization represents, warrants, and covenants that Subscriber Organization's marketing and sale of the Subscriber Allocations, including but not limited to Subscriber Organization's marketing and sales materials, shall comply with all applicable Federal Securities Laws and State Securities Laws.
  5. **CBRE Online Portal and CBRE Program Data.** Subscriber Organization shall utilize the CBRE Online Portal and provide Company with CBRE Program data as required under the CBRE Tariff and/or the CBRE Framework.
  6. **Additional Responsibilities.** Subscriber Organization shall perform the responsibilities of "Subscriber Organizations" under the CBRE Framework and the CBRE Tariff, including but not limited to complying with the Subscriber Agreement requirements, complying with the consumer protection measures, unlocking the market for LMI Subscribers and data collection requirements. Subscriber Organization shall cooperate with the CBRE IO as and when requested by the CBRE IO to facilitate the performance of the CBRE IO's responsibilities under the CBRE Framework.
  7. **LMI Subscribers.**
    - A. If Subscriber Organization's Facility has been awarded a project from one of Company's CBRE LMI RFP's, then Subscriber Organization has proposed, and hereby agrees, that all Subscribers enrolled for subscriptions in the Facility CBRE Program for this Facility shall be LMI Subscribers.
    - B. If Subscriber Organization, in its bid in response to any other Company CBRE RFP, has pledged to recruit a certain percentage of LMI Subscribers for its Facility CBRE Program, then Subscriber Organization hereby agrees to recruit LMI Subscribers to meet this pledged commitment for LMI Subscribers into Subscriber Organization's Facility CBRE Program.
    - C. If Subscriber Organization has an LMI Subscriber commitment under either Section 7.A or Section 7.B of this Attachment I (Facility's CBRE Program), then Subscriber Organization shall comply with the requirements of Part III of the CBRE Tariff to (1) qualify LMI Subscribers, (2) provide to Company upon request confirmation that Subscriber Organization has obtained the LMI certification obtained from each of its LMI Subscribers, and (3) comply with the minimum applicable requirements for LMI Subscribers and report monthly Subscriber Organization's LMI

Subscriber percentage status for Company's review. Subscriber Organization understands and agrees that failure to maintain the required percentages of LMI Subscribers in Subscriber Organization's Facility CBRE Program may subject Subscriber Organization to payment reductions and/or liquidated damages as specified in the CBRE Tariff.

--END--

**ATTACHMENT J**  
**[RESERVED]**





**Hawaiian  
Electric**

*Draft Project Specific Addendum  
For  
Renewable Dispatchable Generation  
Projects Located on O‘ahu*

*Project Type: PV + BESS Community Based Renewable Energy*

*Contract Capacity: \_\_\_\_\_MW of Generation*

*BESS Contract Capacity: \_\_\_\_\_MW of Storage*

*Are the PV System and the BESS DC-Coupled?, No ☐ Yes ☐*

*CBRE Facility Location: \_\_\_\_\_*

*Execution Date: \_\_\_\_\_*

## PROJECT SPECIFIC ADDENDUM

This **PROJECT SPECIFIC ADDENDUM** is incorporated by reference into the **MID-TIER STANDARD FORM CONTRACT FOR RENEWABLE DISPATCHABLE GENERATION** for this CBRE Facility and entered into coterminous with such Mid-Tier Standard Form Contract as of \_\_\_\_\_, 20\_\_ (the “Execution Date”), by Hawaiian Electric Company, Inc., a Hawai‘i corporation (“Company”) and \_\_\_\_\_ (“Subscriber Organization”). Together, the Company and Subscriber Organization are the “Parties” and may singularly each be referred to as a “Party”.

**WHEREAS**, the Company has certain technical and contractual requirements are specific to the individual islands;

**WHEREAS**, the CBRE Facility will be located at \_\_\_\_\_ on the island of O‘ahu;

**WHEREAS**, this Project Specific Addendum (“PSA”) contains all of the Island Specific provisions for the island of O‘ahu that apply to this CBRE Facility;

**WHEREAS**, the Parties agree to abide by the provisions of this PSA, as hereinafter set-forth.

### **NOW, THEREFORE THE PARTIES AGREE AS FOLLOWS:**

1. The text of Section 26.J (Hawai‘i General Excise Tax) of the Mid-Tier Standard Form Contract for this CBRE Facility shall read as follows:

Hawai‘i General Excise Tax. Subscriber Organization shall, when making payments to Company under this Contract, pay such additional amount as may be necessary to reimburse Company for the Hawai‘i general excise tax on gross income and all other similar taxes imposed on Company by any Governmental Authority with respect to payments in the nature of gross receipts tax, sales tax, privilege tax or the like, but excluding federal or state net income taxes. By way of example and not limitation, as of the Execution Date, all payments subject to the Hawai‘i general excise tax plus surcharge on O‘ahu (totaling 4.5% as of the Execution Date) would include an additional 4.712% so the underlying payment will be net of such tax liability.

2. If the CBRE Facility is located on a Company-owned Site then Attachment 1 – COMPANY-OWNED SITE shall be attached to this Project Specific Amendment and be a part hereof. Such Attachment 1 provides additional requirements for use of the Company-owned Site.

3. Attachment F (Facility Owned Subscriber Organization) to the Mid-Tier Standard Form Contract for this CBRE Facility consists of the following Attachment F and Exhibits F-1 to F-9 that are attached to this Project Specific Addendum. In the event this CBRE Facility is DC-coupled, Attachment 2 - DC-COUPLED STORAGE shall be attached to this Project Specific Amendment and be a part hereof. Such Attachment 2 replaces certain terms and conditions found in the Mid-Tier Standard Form Contract and the attached Attachment F.



<b>O'ahu</b>	
<b>ATTACHMENT F</b>	Facility Owned by Subscriber Organization
<b>Exhibit F-1</b>	Description of Generation and Battery Storage Facilities
<b>Exhibit F-2</b>	Consultants List
<b>Exhibit F-3</b>	Required Models
<b>Exhibit F-4</b>	Generator and Energy Storage Capability Curve(s)
<b>Exhibit F-5</b>	Single-Line Drawing and Interface Block Diagram
<b>Exhibit F-6</b>	Relay List and Trip Scheme
<b>Exhibit F-7</b>	Control System Acceptance Test Criteria
<b>Exhibit F-8</b>	Acceptance Test General Criteria
<b>Exhibit F-9</b>	Methods and Formulas for Measuring Performance Standards

**IN WITNESS WHEREOF**, the Parties hereto have caused this Project Specific Addendum to be executed by their duly authorized representatives. This Project Specific Addendum is effective as of the Effective Date set forth above.

[Subscriber Organization]		Hawaiian Electric Company, Inc., a Hawai'i corporation
By: _____		By: _____
Name: _____		Name: _____
Date: _____		Date: _____

**MAILING ADDRESS:**

Hawaiian Electric Company, Inc.

Attn: Customer Energy Resources Division

P.O. Box 2750

Honolulu, HI 96840]

**ATTACHMENT F**  
**FACILITY OWNED BY SUBSCRIBER ORGANIZATION**

**1. THE FACILITY.**

**A. Drawings, Diagrams, Lists, Settings and As-Built.**

1. Single-Line Drawing, Interface Block Diagram, Relay List, Relay Settings and Trip Scheme.  
A preliminary single-line drawing (including notes), Interface Block Diagram, relay list, relay settings, and trip scheme of the Facility shall, after Subscriber Organization has obtained prior written consent from Company, be attached to this Contract on the Execution Date as Exhibit F-5 (Single-Line Drawing and Interface Block Diagram) and Exhibit F-6 (Relay List and Trip Scheme). A final single-line drawing (including notes), Interface Block Diagram, relay list and trip scheme of the Facility shall, after having obtained prior written consent from Company, be labeled the "Final" Single-Line Drawing, the "Final" Interface Block Diagram and the "Final" Relay List and Trip Scheme and shall supersede Exhibit F-5 (Single-Line Drawing and Interface Block Diagram) and Exhibit F-6 (Relay List and Trip Scheme) to this Contract and shall be made a part hereof on the Commercial Operations Date. After the Commercial Operations Date, no changes shall be made to the "Final" Single-Line Drawing, the "Final" Interface Block Diagram and the "Final" Relay List and Trip Scheme without the prior written consent of Subscriber Organization and Company. The single-line drawing shall expressly identify the Point of Interconnection of Facility to Company System.
2. As-Built. Subscriber Organization shall provide final as-built drawings of the Subscriber Organization-Owned Interconnection Facilities within 30 Days of the successful completion of the Acceptance Test.
3. Modeling. Subscriber Organization shall provide the models as set forth in Exhibit F-4.
4. No Material Changes. Subscriber Organization agrees that no material changes or additions to the Facility as reflected in the "Final" Single-Line Drawing (including notes), the "Final" Interface Block Diagram and the "Final" Relay List and Trip Scheme, shall be made without Subscriber Organization first having obtained prior written consent from Company. The foregoing are subject to changes and additions as part of any Performance Standards Modifications. If Company directs any changes in or additions to the Facility, records and operating procedures that are not part of any Performance Standards Modifications, Company shall specify such changes or additions to Subscriber Organization in writing, and, except in the case of an emergency, Subscriber Organization shall have the opportunity to review and comment upon any such changes or additions in advance.

**B. Certain Specifications for the Facility.**

1. Subscriber Organization shall furnish, install, operate and maintain the Facility including breakers, relays, switches, synchronizing equipment, monitoring equipment and control and protective devices approved by Company as suitable for parallel operation of the Facility with Company System. The Facility shall be accessible at all times to authorized Company personnel.
2. The Facility shall include:

**[LIST OF THE FACILITY]**

**Examples may include, but are not limited to:**

- **Subscriber Organization-Owned Interconnection Facilities**

- **Substation**
  - **Control and monitoring facilities**
  - **Transformers**
  - **Generating and/or Battery Energy Storage System (“BESS”) equipment (as described in Exhibit F-1)**
  - **"Lockable" cabinets or housings suitable for the installation of the Company-Owned Interconnection Facilities located on the Site**
  - **Relays and other protective devices**
  - **Leased telephone line and/or equipment to facilitate microwave communication]**
3. The Facility shall comply with the following [some requirements may be removed by Company following completion of Technical Review or IRS]:
- a. Subscriber Organization shall install a \_\_\_\_ kV gang operated, load breaking, lockable disconnect switch and all other items for its switching station (relaying, control power transformers, high voltage circuit breaker). Bus connection shall be made to a manually and automatically (via protective relays) operated high-voltage circuit breaker. The high-voltage circuit breaker shall be fitted with bushing style current transformers for metering and relaying. Downstream of the high-voltage circuit breaker, a structure shall be provided for metering transformers. From the high-voltage circuit breaker, another bus connection shall be made to another pole mounted disconnect switch, with surge protection.
  - b. Subscriber Organization shall provide within the Subscriber Organization-Owned Interconnection Facilities a separate, fenced area with separate access for Company. Subscriber Organization shall provide all conduits, structures and accessories necessary for Company to install the Revenue Metering Package. Subscriber Organization shall also provide within such area, space for Company to install its communications, supervisory control and data acquisition ("SCADA") equipment (remote terminal unit or equivalent) and certain relaying if necessary for the interconnection. Subscriber Organization shall also provide AC and DC source lines as specified by Company. Subscriber Organization shall provide a telephone line for Company-owned meters. Subscriber Organization shall work with Company to determine an acceptable location and size of the fenced-in area. Subscriber Organization shall provide an acceptable demarcation cabinet on its side of the fence where Subscriber Organization and Company wiring will connect/interface.
  - c. Subscriber Organization shall ensure that the Subscriber Organization-Owned Interconnection Facilities have a lockable cabinet for switching station relaying equipment. Subscriber Organization shall select and install relaying equipment acceptable to Company. At a minimum, the relaying equipment will provide over and under frequency (81) negative phase sequence (46), under voltage (27), over voltage (59), ground over voltage (59G), over current functions (50/51) and direct transfer trip (if required). The settings shall be consistent with the requirements for over/under frequency and voltage ride-through. Subscriber Organization shall install protective relays that operate a lockout relay (86), which in turn will trip the main circuit breaker and not allow it to be reclosed without reset.

- d. [Reserved]
- e. Subscriber Organization's equipment also shall provide at a minimum:
  - 1) Interface with Company's Telemetry and Control, or designated communications and control interface, to provide telemetry of electrical quantities such as total Facility net MW, MVar, power factor, voltages, currents, and other quantities as identified by the Company;
  - 2) Interface with Company's Telemetry and Control, or designated communications and control interface, to provide status for circuit breakers, reactive devices, switches, and other equipment as identified by the Company;
  - 3) Interface with Company's Telemetry and Control, or designated communications and control interface, to provide control to incrementally raise and lower the voltage target at the point of regulation operating in automatic voltage regulation control. If Company's Telemetry and Control, or designated communications and control interface, is unavailable, due to loss of communication link, Telemetry and Control failure, or other event resulting in loss of the remote control by Company, Subscriber Organization shall undertake its best efforts to institute via local controls, within 30 minutes (or such other period as Company accepts in writing) of the verbal directive by the Company System Operator, such change in voltage regulation target and real power export or import as directed by the Company System Operator;
  - 4) Interface with Company's Telemetry and Control, or designated communications and control interface, to provide active power control to limit or set level of (when storage is not depleted) net real power import or export from the Facility and to remove the limit or change level (when storage is not depleted) of net real power import or export of the Facility; and
  - 5) For Variable Energy Facilities: Interface with Company's Telemetry and Control, or designated communications and control interface, to provide telemetry of equipment availability and meteorological and production data required under Section 8 (Data and Forecasting) of this Attachment F (Facility Owned by Subscriber Organization) and the Facility's Power Possible.
- f. If Subscriber Organization adds, deletes and/or changes any of its equipment, or changes its design in a manner that would change the characteristics of the equipment and specifications used in the IRS, Subscriber Organization shall be required to obtain Company's prior written approval. If an analysis to revise parts of the IRS is required, Subscriber Organization shall be responsible for the cost of revising those parts of the IRS, and modifying and paying for the cost of the modifications to the Facility and/or the Company-Owned Interconnection Facilities based on the revisions to the IRS.
- g. Cybersecurity and Critical Infrastructure Protection.

**[DRAFTING NOTE: COMPANY RETAINS SOLE DISCRETION TO CONSIDER THE LESS STRINGENT REQUIREMENTS (WHICH ARE INCLUDED IN THE FIRST SET OF ALTERNATIVE CYBER-SECURITY PROVISIONS UNDER G. (i) THROUGH (iv)) FOR PROJECTS THAT DO NOT EXCEED 1 MW.]**

- 1) Safety and Security Procedures. The Subscriber Organization shall maintain and enforce safety and security procedures to safeguard: all data provided by Company to

Subscriber Organization pursuant to this Contract or in any way connected with the CBRE Program and the administration of the CBRE Program including but not limited to Subscriber names, Subscriber account numbers and information on such accounts, Subscriber addresses, Subscriber rate schedules and Subscriber CBRE bill credit information (“Company CBRE Data”); and all information regarding Company’s customers, customer lists, any of the data and testing results produced under this Contract and any information identified by Company as confidential (“Company Customer Data” and together with Company CBRE Data, collectively referred to as “Company Confidential Information”); all generation and telemetry data provided by the Subscriber Organization to the Company (“SO Data”); in Subscriber Organization’s possession, including Company Confidential Information that Subscriber Organization provides to any contractors, consultants, and other third parties retained by Subscriber Organization to assist Subscriber Organization to perform under this Contract in the course of Subscriber Organization’s performance pursuant to this Contract. Subscriber Organization warrants that it shall (A) use the National Institute of Standards and Technology (“NIST”) industry best practices for physical and systems security measures to prevent destruction, loss, alteration or unauthorized access to, use of, or tampering with, the CBRE Facility, Subscriber Organization software, and Company Confidential Information, including to protect the confidentiality and integrity of any of Company Confidential Information, operation of Company’s systems, and to prevent viruses and similar destructive code from being placed in any software or data provided to Company, on Subscriber Organization’s or Company’s website, or in Subscriber Organization’s or Company’s programming; and (B) use NIST industry best practices physical security and precautionary measures to prevent unauthorized access or damage to the CBRE Facility, including to protect the confidentiality and integrity of any of Company’s Confidential Information as well as the operation of Company’s systems. Subscriber Organization shall, at a minimum, protect Company’s Confidential Information and provide the standard of care required by NIST cybersecurity requirements, and the same measures it uses to protect its own confidential information.

- 2) Exception to Certain NIST Requirements. Company, at its sole and absolute discretion, may waive the requirements concerning NIST industry best practices as set forth in subsection 1(A) and (B) above provided that Subscriber Organization implements alternate measures that Company deems acceptable and not inconsistent with Company’s standards with respect to (A) physical and systems security measures to prevent destruction, loss, alteration or unauthorized access to, use of, or tampering with, the CBRE Facility, software and Company’s Confidential Information, including to protect the confidentiality and integrity of any of Company’s Confidential Information, operation of Company’s systems, and to prevent viruses and similar destructive code from being placed in any software provided to Company, on Subscriber Organization’s or Company’s website, or in Subscriber Organization’s or Company’s programming; and (B) physical security and precautionary measures to prevent unauthorized access or damage to the CBRE Facility, including to protect the confidentiality and integrity of any of Company’s Confidential Information as well as the operation of Company’s systems.
- 3) Security Breach. In the event that Subscriber Organization discovers or is notified of a breach, potential breach of security, or security incident at the CBRE Facility or of Subscriber Organization's systems (a “Security Breach”), Subscriber Organization shall immediately (i) notify Company of such Security Breach, whether or not such

breach has compromised any of Company Confidential information, (ii) investigate and remediate the effects of the Security Breach, (iii) cooperate with Company with respect to any such Security Breach and provide necessary information on the Security Breach as requested by Company; and (iv) comply with all applicable privacy and data protection laws, including any notification obligations. Any remediation of any Security Breach will be at Subscriber Organization's sole expense.

- 4) “Subscriber” means a retail customer of the Company who owns a subscription of Subscriber Organization’s CBRE project interconnected with the Company.

**[ALTERNATIVE ENHANCED CYBER-SECURITY PROVISIONS-WAIVED SOLELY AT DISCRETION OF COMPANY.]**

- (i) Security Policies and Documentation. Subscriber Organization shall implement and document security policies and standards in accordance with industry best practices (e.g., aligned with the intent of NERC CIP-003-6 R1) and consistent with Company’s security policies and standards. Subscriber Organization shall submit documentation describing the approach, methodology, and design to provide physical and cyber security (i.e., aligned with the intent of NERC CIP-003-6 R2) with its submittal of the design drawings pursuant to Section 1.C. (Design Drawings, Bill of Materials, Relay Settings and Fuse Selection) of Attachment F (Facility Owned by Subscriber Organization) which shall be at least sixty (60) Days prior to the Acceptance Test.
- (a) The design shall meet industry standards and best practices, consistent with the National Institute of Standards and Technology ("NIST") guidelines as indicated in Special Publication 800-53 Rev. 4 "Security and Privacy Controls for Federal Information Systems and Organizations" and Special Publication 800-82 Rev. 2 "Guide to Industrial Control Systems (ICS) Security". The system shall be designed with the criteria to meet applicable compliance requirements and identify areas that are not consistent with NIST guidelines and recommendations.
- (b) The cybersecurity documentation shall include a block diagram of the control system with all external connections clearly described.
- (c) Subscriber Organization shall provide such additional information as Company may reasonably request as part of a security posture assessment.
- (d) Subscriber Organization shall, at the request of Company or, in the absence of any request from Company, at least annually during the term of this Contract, provide Company with updated documentation and diagrams including a record of changes.
- (ii) Network and Application Security. Subscriber Organization shall implement appropriate network and application security processes and practices commensurate with the level of risk as determined by periodic risk assessments (i.e., aligned with the intent of NERC CIP-005-5):
- (a) Segment and segregate networks and functions, including physical and logical separation between business networks and control system networks (i.e., aligned with the intent of NERC CIP-005-5 R1).

- (b) Limit unnecessary lateral communications (i.e., aligned with the intent of NERC CIP-005-5 R1).
  - (c) Harden network devices (i.e., aligned with the intent of NERC CIP-007-6 R1).
  - (d) Secure access to infrastructure devices (i.e., aligned with the intent of NERC CIP-004-6 R4).
  - (e) Perform out-of-band (OoB) network management (i.e., aligned with the intent of NERC CIP-005-5 R2).
  - (f) Validate integrity of hardware and software (i.e., aligned with the intent of NERC CIP-010-3 R1 and NERC CIP-006-6 R1 Part 10).
- (iii) Endpoint and Server Security. Subscriber Organization shall implement appropriate endpoint and server security processes and practices commensurate with the level of risk as determined by periodic risk assessments:
- (a) Mechanisms to identify vulnerabilities and apply security patches in a timely manner (i.e., aligned with the intent of NERC CIP-007-6 R2).
  - (b) Malware defense and anti-phishing capabilities (i.e., aligned with the intent of NERC CIP-007-6 R3).
  - (c) Access Controls to enforce the least privilege principle and provide access to resources only for authorized users (i.e., aligned with the intent of NERC CIP-004-6 R4).
  - (d) Secure authentication mechanisms including multi-factor authentication for systems with higher risk exposure (i.e., aligned with the intent of NERC CIP-007-6 R5 and NERC CIP-005-5 R2).
  - (e) Data confidentiality, protection, and encryption technologies for endpoints, servers, and mobile devices (i.e., aligned with the intent of NERC CIP-011-2 R1 and NERC CIP-005-5 R2).

Subscriber Organization shall (consistent with the following sentence) ensure that no malicious software ("Malware") or unauthorized code is introduced into any aspect of the Facility, Interconnection Facilities, the Company Systems interfacing with the Facility and Interconnection Facilities, and any of Subscriber Organization's critical control systems or processes used by Subscriber Organization to provide energy, including the information, data and other materials delivered by or on behalf of Subscriber Organization to Company, (collectively, the "Environment"). Subscriber Organization shall periodically review, analyze and implement improvements to and upgrades of its Malware prevention and detection programs and processes that are commercially reasonable and consistent with the then current technology industry's standards and, in any case, not less robust than the programs and processes implemented by Subscriber Organization with respect to its own information systems.

- (iv) Cybersecurity Program. Subscriber Organization shall establish and maintain a continuous cybersecurity program (i.e., aligned with the intent of NERC CIP-003-6) that enables the Subscriber Organization (or its designated third party) to:



- (a) Define the scope and boundaries, policies, and organizational structure of the cybersecurity program.
  - (b) Conduct periodic risk assessments to identify the specific threats to and vulnerabilities of the Subscriber Organization's Organization consistent with guidance provided in NIST Special Publication 800-30 Rev. 1 "Guide for Conducting Risk Assessments".
  - (c) Implement appropriate mitigating controls and training programs and manage resources.
  - (d) Monitor and periodically test the cybersecurity program to ensure its effectiveness. Subscriber Organization shall review and adjust their cybersecurity program as appropriate for any assessed risks.
  - (e) Applicability is extended to Cloud Service providers and other third-party services the Subscriber Organization may use.
- (v) Security Monitoring and Incident Response. Company and Subscriber Organization shall collaborate on security monitoring and incident response, define points of contact on both sides, establish monitoring and response procedures, set escalation thresholds, and conduct training (i.e., aligned with the intent of NERC CIP-008-5). Subscriber Organization shall, at the request of Company or, in the absence of any request from Company, at least quarterly, provide Company with a report of the incidents that it has identified and describe measures taken to resolve or mitigate.

In the event that Subscriber Organization discovers or is notified of a breach, potential breach of security, or security incident at Subscriber Organization's Facility or of Subscriber Organization's systems, Subscriber Organization shall immediately (aa) notify Company of such potential, suspected or actual security breach, whether or not such breach has compromised any of Company's confidential information; (bb) investigate and promptly remediate the effects of the breach, whether or not the breach was caused by Subscriber Organization; (cc) cooperate with Company with respect to any such breach or unauthorized access or use; (dd) comply with all applicable privacy and data protection laws governing Company's or any other individual's or entity's data; and (ee) to the extent such breach was caused by Subscriber Organization, provide Company with reasonable assurances satisfactory to Company that such breach, potential breach, or security incident shall not recur. Subscriber Organization shall provide documentation to Company evidencing the length and impact of the breach. Any remediation of any such breach will be at Subscriber Organization's sole expense.

If malicious software or unauthorized code is found to have been introduced into the Environment, Subscriber Organization will promptly notify Company. Subscriber Organization shall take immediate action to eliminate and remediate the effects of the Malware, at Subscriber Organization's expense. Subscriber Organization shall not modify or otherwise take corrective action with respect to the Company Systems except at Company's request. Subscriber Organization shall promptly report to Company the nature and status of all efforts to isolate and eliminate malicious software or unauthorized code.

- (vi) Monitoring and Audit. Subscriber Organization shall provide information on available audit logs and reports relating to cyber and physical and security (i.e.,

aligned with the intent of NERC CIP-007-6 R4). Company may audit Subscriber Organization's records to ensure Subscriber Organization's compliance with the terms of this Section 1.B.3.G (Cybersecurity and Critical Infrastructure Protection) of this Attachment F (Facility Owned by Subscriber Organization), provided that Company has provided reasonable notice to Subscriber Organization and any such records of Subscriber Organization's will be treated by Company as confidential.

(vii) Contingency Plans. Subscriber Organization shall implement and maintain a business continuity plan, a disaster recovery plan, and an incident response plan ("Contingency Plans" – i.e., aligned with the intent of NERC CIP-009-6) appropriate for the level of risk based on the impact of Subscriber Organization's associated facilities, systems and equipment, which, if destroyed, degraded, misused, or otherwise rendered unavailable, would affect the reliable operation of the Company System.. The Contingency Plans shall be provided to Company upon request. Such Contingency Plans shall be updated to reflect lessons learned from real recovery events.

h. Because a reliable Power Possible value under Section 1.B.3.e.5. of this Attachment F (Facility Owned by Subscriber Organization) is necessary throughout the Term in order for Company to effectively optimize the benefits of its right of Company Dispatch, Subscriber Organization's available power production considering equipment and resource availability and BESS State of Charge ("Power Possible") will be determined at any given time using the best-available data and methods for an accurate representation of the amount of active power at the Point of Interconnection. To the extent available, the Parties shall use Subscriber Organization's real time Power Possible communicated to Company through the SCADA system except to the extent that the potential energy does not accurately reflect the actual available active power at the Point of Interconnection (plus or minus 0.1 MW). During those periods of time when the SCADA derived Power Possible is unavailable, or does not accurately represent the available power production considering equipment and resource availability and BESS State of Charge, the Parties shall use the best available data obtained through commercially reasonable methods to determine the Power Possible.

1) If, at any time during the Term, there is a material discrepancy or pattern of discrepancies in the accuracy of Power Possible, the Parties shall review the method for determining Power Possible and develop modifications with the objective of avoiding future discrepancies. If the Parties are unable to resolve the issue, then (aa) the Parties shall promptly commission a study to be performed by one of the engineering firms then included on the Qualified Independent Third-Party Consultants List attached to the Agreement as Attachment D (Consultants List) to evaluate the cause of the Power Possible discrepancy and to make recommendations with the objective of avoiding future Power Possible discrepancies ("Study"); and (bb) if the Company decides that its ability to effectively optimize the benefits of its right of Company Dispatch to dispatch the Facility's Net Energy Potential is materially impaired by the lack of an accurate method to determine Power Possible, the Company shall have the right to derate the Facility and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status until the Study has been completed and the Study's recommendations have been implemented by Subscriber Organization to Company's reasonable satisfaction. Subscriber Organization shall pay for the cost of the Study. The Study shall be completed within ninety (90) days from the date the Study is commissioned, unless otherwise reasonably agreed to in writing by Subscriber Organization and Company. The Consultant shall send the Study to Company and Subscriber Organization. Subscriber Organization (and/or its Third-

Party consultants and contractors), at Subscriber Organization's expense, shall take such action as the Study shall recommend (e.g., modifications to the model, modifications and/or additions to the data inputs used in the model, modifications to the procedures for maintaining and/or recalibrating the Monitoring and Communication Equipment used to provide data inputs, replacement of such Monitoring and Communication Equipment, modifications of procedures for Facility operations) with the objective of avoiding future Power Possible discrepancies. Such recommendations shall be implemented by Subscriber Organization to Company's reasonable satisfaction no later than forty-five (45) Days from the Day the completed Study is issued by the consultant, or such other longer commercially reasonable timeframe otherwise agreed to in writing by Company.

- i. Subscriber Organization shall reserve space within the Site for possible future installation of Company-owned meteorological equipment (such as wind speed, direction and relative humidity monitors, SODAR and irradiance monitors) and AC and DC source lines for such equipment as may be required depending on the Facility resource type and location. In the event Company decides to install such meteorological equipment: (i) Subscriber Organization shall work with Company to determine an acceptable location for such equipment and any associated wiring, interface or other components; and (ii) Company shall pay for the needed equipment, and installation of such equipment, unless otherwise agreed to by the Parties. Company and Subscriber Organization shall use commercially reasonable efforts to facilitate installation and minimize interference with the operation of the Facility.
  - j. The Facility shall, at a minimum, satisfy the wind load and seismic load requirements of the International Building Code and any more stringent requirements imposed under applicable Laws.
- C. Design Drawings, Bill of Material, Relay Settings and Fuse Selection. Subscriber Organization shall provide to Company for its review the design drawings, Bill of Material, relay settings and fuse selection for the Facility, and Company shall have the right, but not the obligation, to specify the type of electrical equipment, the interconnection wiring, the type of protective relaying equipment, including, but not limited to, the control circuits connected to it and the disconnecting devices, and the settings that affect the reliability and safety of operation of Company's and Subscriber Organization's interconnected system. Subscriber Organization shall provide the relay settings and protection coordination study, including fuse selection and AC/DC Schematic Trip Scheme (part of design drawings), for the Facility to Company during the 60% design. Company, at its option, may, with reasonable frequency, witness Subscriber Organization's operation of control, synchronizing, and protection schemes and shall have the right to periodically re-specify the settings. Subscriber Organization shall utilize relay settings prescribed by Company, which may be changed over time as Company System requirements change.
- D. Disconnect Device. Subscriber Organization shall provide a manually operated disconnect device which provides a visible break to separate Facility from Company System. Such disconnect device shall be lockable in the OPEN position and be readily accessible to Company personnel at all times.
- E. Other Equipment. Subscriber Organization shall install, own and maintain the infrastructure associated with the Revenue Metering Package, including but not limited to all enclosures (meter cabinets, meter pedestals, meter sockets, pull boxes, and junction boxes, along with their grounding/bonding connections), CT/PT mounting structures, conduits and duct lines, enclosure support structures, ground buses, pads, test switches, terminal blocks, isolation relays, telephone

surge suppressors, and analog phone lines (one per meter), subject to Company's review and approval.

- F. Maintenance Plan. Subscriber Organization with a Total Rated Capacity of 250 kW to 1 MW shall maintain Subscriber Organization-Owned Interconnection Facilities in accordance with Good Engineering and Operating Practices.

Subscriber Organization with a Total Rated Capacity greater than 1 MW to 5 MW shall maintain Subscriber Organization-Owned Interconnection Facilities in accordance with the following maintenance plan:

Transmission line: \_\_\_\_\_

\_\_\_\_\_ kV Facility switching station: \_\_\_\_\_

Relay protection equipment: \_\_\_\_\_

Other equipment as identified: \_\_\_\_\_

Subscriber Organization shall furnish to Company a copy of records documenting such maintenance, within thirty (30) Days of completion of such maintenance work.

- G. Active Power Control Interface.

1. Subscriber Organization shall provide and maintain in good working order all equipment, computers and software associated with the control system (the "Active Power Control Interface") necessary to interface the Facility active power controls with the Company System Operations Control Center for real power control of the Facility by the Company System Operator. The Active Power Control Interface will be used to control the net real power import or export from the Facility as required under this Attachment F (Facility Owned by Subscriber Organization). The implementation of the Active Power Control Interface will allow Company System Operator to control the net real power import to or export from the entire Facility remotely from the Company System Operations Control Center through control signals from the Company System Operations Control Center.
2. Company shall review and provide prior written approval of the design for the Active Power Control Interface to ensure compatibility with Company's SCADA and EMS systems. In order to ensure such continued compatibility, Subscriber Organization shall not materially change the approved design without Company's prior review and prior written approval.
3. The Active Power Control Interface shall include, but not be limited to, a demarcation cabinet, ancillary equipment and software necessary for Subscriber Organization to connect to Company's Telemetry and Control, located in Company's portion of the Facility switching station which shall provide the control signals to the Facility and send feedback status to the Company System Operations Control Center. The control type shall be analog output (set point) controls.
4. The Active Power Control Interface shall also include provision for feedback points from the Facility indicating when the Company System Operator active power controls are in effect and the analog value of the controls received from the Company. The Facility shall provide the feedback to the Company SCADA system within 2 seconds of receiving the respective control signal from the Company.

5. Subscriber Organization shall provide an analog input to the Telemetry and Control for the MW output of the individual generating units, and an analog signal for the total MW output at the Point of Interconnection.
6. The Active Power Control Interface shall provide for remote control of the net real power input or output of the Facility by the Company at all times. If the Active Power Control Interface is unavailable or disabled, the Facility shall not import or export net real power from or to Company, and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status, unless the Company, in its sole discretion, agrees to supply or accept net real power and Subscriber Organization and Company agree on an alternate means of dispatch. The alternate means of dispatch, including but not limited to local controls, is to be the temporary dispatch mechanism until the Active Power Interface is returned to service and must be capable of changing the real power export or import as directed by the Company System Operator within 30 minutes (or such other period as Company accepts in writing) of the Subscriber Organization receiving the directive by the Company System Operator, verbal or otherwise permitted by such alternate means. Notwithstanding the foregoing, if Subscriber Organization fails to provide such remote control features (whether temporarily or throughout the Term) and fails to discontinue importing or exporting electric energy to Company as required by this Section 1.G.6., then, notwithstanding any other provision of this Attachment F (Facility Owned by Subscriber Organization), Company shall have the right to derate or disconnect the entire Facility during those periods that such control features are not provided and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status for such periods.
  - a. If all local and remote active power controls become unavailable or fail, the Facility shall immediately disconnect from the Company's System.
  - b. If the direct transfer trip is unavailable due to loss of communication link, Telemetry and Control failure, or other event resulting in the loss of the remote control by the Company, provision must be made for the Subscriber Organization to shutdown Facility and open and lockout the main circuit breaker.
7. The rate at which the Facility changes net real power import or export shall not exceed the ramp rate specified in Section 3.F. (Ramp Rate) of Attachment F (Facility Owned by Subscriber Organization). The Facility's Active Power Control Interface will control the rate at which electric energy is changed to achieve the active power limit. The Facility will respond to the active power control request immediately. **[THESE REQUIREMENTS MAY BE CHANGED BY COMPANY FOLLOWING COMPLETION OF THE IRS]**
8. The Active Power Control Interface shall accept the following active power control(s) from the Company SCADA and EMS systems:
  - Maximum Power Import and Export Limits: The Facility is not allowed to exceed these settings under any circumstances. The primary frequency response control specified in Section 3.M. (Primary Frequency Response) of Attachment F (Facility Owned by Subscriber Organization) is not allowed to increase the Facility's net real power import or export above the Import and Export limits, respectively.
  - Power Reference Set Point: The Facility is to import or export active power at this level to the extent allowed by the solar resource and energy storage and is not allowed to exceed this setting when system frequency is within the deadband determined in Section 3.M.3. of Attachment F (Facility Owned by Subscriber Organization). When system frequency exceeds the deadband determined in Section 3.M.3. of Attachment F (Facility Owned by

Subscriber Organization), the Facility's net real power import or export is allowed to exceed this setting or be further reduced below this setting when commanded by the primary frequency response control specified in Section 3.M. (Primary Frequency Response) of Attachment F (Facility Owned by Subscriber Organization).

- Inverter Enable/Disable Control: The Facility shall include an inverter Enable/Disable control. When Disable is selected, the Facility shall ramp down, shutdown, and leave offline its inverters. When Enable is selected, the Facility inverters can start up, ramp up, and remain in normal operations.
9. Subscriber Organization shall not override Company's active power controls without first obtaining specific approval to do so from the Company System Operator.
  10. The requirements of the Active Power Control Interface may be modified as mutually agreed upon in writing by the Parties.

#### H. Control System Acceptance Test Procedures.

1. Conditions Precedent. The following conditions precedent must be satisfied prior to conducting the Control System Acceptance Test:
  - Successful completion of the Acceptance Test.
  - Facility has been successfully energized.
  - All of the Facility's generators (as applicable) have been fully commissioned.
  - The control system computer has been programmed for normal operations.
  - All equipment that is relied upon for normal operations (including ancillary devices such as capacitors/inductors, energy storage device, statcom, etc.) shall have been commissioned and be operating within normal parameters.
2. Facility Energy Equipment. In the event that all or any portion of the Facility's energy equipment is not available for the duration of the Control System Acceptance Test, the Control System Acceptance Test will have to be re-run from the beginning unless Subscriber Organization demonstrates to the satisfaction of the Company that the test results attained are consistent with the results that would have been attained if all of the equipment had been available for the duration of the test.
3. Procedures. The Control System Acceptance Test will be conducted on Business Days during normal working hours on a mutually agreed upon schedule. No Control System Acceptance Test will be scheduled during the final 21 Days of a calendar year. No later than thirty (30) Days prior to conducting the Control System Acceptance Test, Company and Subscriber Organization shall agree on a written protocol setting out the detailed procedure and criteria for passing the Control System Acceptance Test. Exhibit F-7 (Control System Acceptance Test Criteria) provides general criteria to be included in the written protocol for the Control System Acceptance Test. Within fifteen (15) Business Days of completion of the Control System Acceptance Test, Company shall notify Subscriber Organization in writing whether the Control System Acceptance Test(s) has been passed and, if so, the date upon which such Control System Acceptance Test(s) was passed. If any changes have been made to the technical specifications of the Facility or the design of the Facility in accordance with Section 5(f) of Exhibit F-1 (Description of Generation and Battery Storage Facility), such changes shall be reflected in an amendment to this Contract, and the written protocol for the Control Systems Acceptance Test shall be based on the Facility as modified. Such amendment shall be executed prior to conducting the Control System Acceptance Test and Company shall have no obligation

for any delay in performing the Control Systems Acceptance Test due to the need to complete and execute such amendment.

- I. Facility Security and Maintenance. Subscriber Organization is responsible for securing the Facility. Subscriber Organization shall have personnel available to respond to all calls related to security incidents and shall take commercially reasonable efforts to prevent any security incidents. Subscriber Organization is also responsible for maintaining the Facility, including vegetation management, to prevent security breaches. Subscriber Organization shall comply with all commercially reasonable requests of Company to update security and/or maintenance if required to prevent security breaches.
  - J. Demonstration of Facility. Company shall have the right at any time, other than during maintenance or other special conditions, including Force Majeure, communicated by Subscriber Organization, to notify Subscriber Organization in writing of Subscriber Organization's failure, as observed by Company and set forth in such written notice, to meet the operational and performance requirements specified in and Section 1B.3.i., Section 1.G. (Active Power Control Interface) and Section 3 (Performance Standards) of this Attachment F (Facility Owned by Subscriber Organization), and to require documentation or testing to verify compliance with such requirements. Upon receipt of such notice, Subscriber Organization shall promptly investigate the matter, implement corrective action and provide to Company, within thirty (30) Days of such notice or such longer time period agreed to in writing by Company, a written report of both the results of such investigation and the corrective action taken by Subscriber Organization. If the Subscriber Organization's report does not resolve the issues to Company's reasonable satisfaction, the Parties shall promptly commission a study to be performed by one of the engineering firms then included on the Qualified Independent Third-Party Consultants List attached to the Contract as Exhibit F-2 (Consultants List) to evaluate the cause of the non-compliance and to make recommendations to remedy such non-compliance. Subscriber Organization shall pay for the cost of the study. The study shall be completed within ninety (90) Days, unless the selected consultant determines that such study cannot reasonably be completed within ninety (90) Days, in which case, such longer commercially reasonable period of time as it takes the consultant to complete the study. The consultant shall send the study to Company and Subscriber Organization. Subscriber Organization (and/or its Third-Party consultants and contractors), at Subscriber Organization's expense, shall take such action as the study shall recommend with the objective of resolving the non-compliance. Such recommendations shall be implemented by Subscriber Organization to Company's reasonable satisfaction no later than forty-five (45) Days from the Day the completed study is issued by the consultant unless the consultant determines that such recommendation cannot reasonably be implemented within forty-five (45) Days, in which case, such longer commercially reasonable period of time agreed to by the Parties in writing to implement such recommendation as determined by the consultant. Failure to implement such recommendations within this period shall constitute a material breach of this Contract. Company shall have the right to derate the Facility and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status until Subscriber Organization's aforementioned written report has been completed, any subsequent study commissioned by the Parties has been completed and any recommendations to resolve the non-compliance have been implemented to Company's reasonable satisfaction.
2. **OPERATING PROCEDURES.** [NOTE: NUMERICAL SPECIFICATIONS IN THIS SECTION 2 MAY VARY DEPENDING ON THE SPECIFIC PROJECT AND THE RESULTS OF THE PROJECT-SPECIFIC INTERCONNECTION REQUIREMENT STUDY.]
- A. Reviews of the Facility. Company may require periodic reviews of the Facility, maintenance records, available operating procedures and policies, and relay settings, and Subscriber Organization shall implement changes Company deems necessary for parallel operation or to

protect the Company System from damages resulting from the parallel operation of the Facility with the Company System.

- B. Separation. Subscriber Organization must separate from Company System whenever requested to do so by the Company System Operator pursuant to Section 5. (Company Dispatch) and Section 12. (Personnel and System Safety) of the Contract.
- C. Subscriber Organization Logs. Logs shall be kept by Subscriber Organization for information on unit availability including reasons for planned and forced outages, circuit breaker trip operations, relay operations, including target initiation, and other unusual events. Company shall have the right to review these logs, especially in analyzing system disturbances. Subscriber Organization shall maintain such records for a period of not less than six (6) years.
- D. Reclosing. Under no circumstances shall Subscriber Organization, when separated from the Company System for any reason, including tripping during disturbances or due to equipment failure, reclose into the Company System without first obtaining specific approval to do so from the Company System Operator.
- E. [Reserved]
- F. [Reserved]
- G. Critical Infrastructure Protection. Subscriber Organization shall comply with the critical infrastructure protection requirements set forth in Section 1.B.3.g (Cybersecurity and Critical Infrastructure Protection) of this Attachment F (Facility Owned by Subscriber Organization).
- H. Allowed Operations. Facility shall be allowed to export energy to the Company System only when the [ ] circuit is in normal operating configuration served by breaker [ ] at [ ] Substation. **[TO BE DETERMINED BY COMPANY BASED ON THE RESULTS AND REQUIREMENTS OF THE IRS]**

**3. PERFORMANCE STANDARDS. [NOTE: FACILITIES CONNECTING TO THE DISTRIBUTION SHALL FOLLOW THE PERFORMANCE STANDARDS FOR DISTRIBUTION SET FORTH BELOW. FACILITIES CONNECTING TO THE SUB-TRANSMISSION SHALL FOLLOW THE PERFORMANCE STANDARDS FOR SUB-TRANSMISSION SET FORTH BELOW.]**

**[DRAFTING NOTE: COMPANY RETAINS SOLE DISCRETION TO CONSIDER THE LESS STRINGENT REQUIREMENTS (WHICH ARE INCLUDED IN THE FIRST SET OF ALTERNATIVE PERFORMANCE STANDARD PROVISIONS UNDER 3. (a) THROUGH (g)) FOR PROJECTS THAT DO NOT EXCEED 1 MW].**

**PROVISIONS FOR DISTRIBUTION CONNECTION (THESE WILL BE DELETED IF FACILITY IS CONNECTING TO SUB-TRANSMISSION)**

- A. Rule 14H. The Facility shall follow the performance standards of Rule 14H Appendix I and the additional provisions set forth below in Section 3.B. (Voltage Ride-Through) through Section 3.H. (Unintentional Islanding). To the extent any of those additional provisions conflict with Rule 14H, the additional provisions of Section 3.B through Section 3.H. shall control.
- B. Voltage Ride-Through. Whenever the utility Distribution System voltage at the Point of Interconnection varies from and remains outside the normal operating high and normal operating low region voltage for the predetermined parameters set forth in Table 4A-1.1. The Facility's protective functions shall cause the Facility's Advanced Inverters(s) to Cease to Energize the utility



Distribution System. Unless provided alternate settings by the Company, the Facility must comply with the voltage ride-through and trip settings specified in Table 4A-1.1:

1. The Facility shall stay connected to the utility Distribution System while the grid remains within the “Ride-Through Until” voltage-time range and must operate in accordance with the “Operating Mode” specified for each “Operating Region”.
2. In the Continuous Operation region, the Facility’s Advanced Inverter shall reduce power output as a function of voltage, in accordance with section (iv) Volt-Watt of Rule 14H.
3. Different settings than those specified in Table 4A-1.1 may be specified by the Company

<b>TABLE 4A-1.1: VOLTAGE RIDE-THROUGH TABLE</b>				
<b>Operating Region</b>	<b>Voltage at Point of Interconnection (% of Nominal Voltage)</b>	<b>Operating Mode</b>	<b>Ride-Through Until (s)</b>	<b>Default Maximum Trip Time (s)</b>
OV2	$V > 120$	Cease to Energize	N/A	0.16 (1)
OV1	$120 \geq V > 110$	Mandatory operation	.92	1
CO	$110 \geq V > 100$	Continuous Operation (Volt-Watt)	N/A	N/A
CO	$100 > V \geq 88$	Continuous Operation	N/A	N/A
UV1	$88 > V \geq 70$	Mandatory Operation	20	21
UV2	$70 > V \geq 50$	Mandatory Operation	10-20	11-21(2)
UV3	$50 > V$	Momentary Cessation	N/A	2

<sup>(1)</sup>Must trip time under steady state condition. Inverters will also be required to meet the Company’s Transient Overvoltage criterion (TrOV-2) or Limitation of overvoltage contribution requirement stated in IEEE 1547-2018 (or latest version), "IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power System Interfaces." Ride-Through shall not inhibit TrOV-2 or limitation of overvoltage contribution of IEEE 1547-2018 requirements.

<sup>(2)</sup>May be adjusted within these ranges at manufacturer's discretion.

- C. **Fault Ride Through.** For fault-related voltage dips at the Point of Interconnection that stay within the limits of the under voltage ride-through requirements in Section 3.B. (Voltage Ride-Through), upon clearing of the fault, Subscriber Organization shall within 1 second of restoration, provide at least 90% of the real power output at the point of interconnection immediately before the fault to the extent allowed by the availability of the solar resource. The fault ride through requirement does not apply if the Generating Facility is operating at less than five percent (5%) of the Generating Facility's nameplate capacity.
- D. **Grid Forming Capabilities.** **[NOTE APPLICABILITY BASED ON RESOURCE TYPE AND DESIGN, FOR PV INVERTER BASED RESOURCES PAIRED WITH STORAGE, TO BE DELETED IF SUBSCRIBER ORGANIZATION DOES NOT PROPOSE GRID FORMING]** Subscriber Organization Facility inverters shall be capable of operating in grid forming mode supporting system operation under normal and emergency conditions without relying on the characteristics of synchronous machines. This includes operation as a current independent AC voltage source during normal and transient conditions (as long as no limits are reached within the inverter) and the ability to synchronize to other voltage sources or operate autonomously if a grid reference is unavailable.

1. Subscriber Organization shall operate the Facility in grid forming mode only as directed by the Company System Operator, in its sole discretion. Such mode of operation shall be indicated to the Company System Operator through telemetry.
2. The Facility shall include safeguards to prevent the unintentional switching of the Facility into and out of grid forming mode. The safeguards shall be approved in writing by the Company and implemented by the Subscriber Organization prior to the CSAT.

E. Black Start Capability. **[NOTE - APPLICABILITY BASED ON RESOURCE TYPE AND DESIGN, FOR PV INVERTER BASED RESOURCES PAIRED WITH STORAGE, TO BE DELETED IF SUBSCRIBER ORGANIZATION DOES NOT PROPOSE BLACK START]**  
The BESS shall be capable of grid forming inverter capability so it can generate its own AC waveform rather than relying on a grid voltage to synchronize and maintain frequency.

F. Ramp Rates.

1. Subscriber Organization shall ensure that the ramp rate of the Facility is less than the following limits for all conditions including start up, normal operations, Subscriber Organization adjusting the Facility Actual Output, changes in the solar resource, and shut down for the following periods as calculated in accordance with Attachment F-9 (Methods and Formulas For Measuring Performance Standards).

Maximum Ramp Rate Upward of [ ] MW/minute for all periods. **[TO BE DETERMINED FOLLOWING IRS.]**

Maximum Ramp Rate Downward of [ ] MW/minute for all periods other than periods for which such maximum is not operationally possible because of rapid loss of renewable resource and the depletion of energy storage. **[TO BE DETERMINED FOLLOWING IRS.]**

2. (ii) Upon receiving a command from the Company active power control(s) described in Section 1.G.8 of this Attachment F (Facility Owned by Subscriber Organization), Subscriber Organization shall adjust the Facility's net real power import or export at a ramp rate, as calculated in accordance with Exhibit F-9 (Methods and Formulas for Measuring Performance Standards), to be specified by the Company to the extent allowed by the solar resource and energy storage without exceeding such ramp rate and without intentional delay. Such ramp rate shall be in the range of \_\_ MW/min to \_\_ MW/min.
3. The Facility is allowed to exceed the maximum ramp rate limits in Section 3.F. (Ramp Rates) of this Attachment F (Facility Owned by Subscriber Organization) when Facility net real power import or export is changed by the primary frequency response control described in Section 3.G. (Primary Frequency Response) of this Attachment F (Facility Owned by Subscriber Organization).

G. Primary Frequency Response.

1. Subscriber Organization Facility shall provide a primary frequency response with a frequency droop characteristic reacting to system frequency fluctuations at the Point of Interconnection in both the overfrequency and underfrequency directions except to the extent such response is not operationally possible because of the level of available solar resource and depletion of energy storage.
2. The Facility primary frequency response control shall adjust, without intentional delay and without regard to the ramp rate limits in Section 3.F. (Ramp Rates) of this Attachment F (Facility Owned by Subscriber Organization), the Facility's net real power import or export

when system frequency is not 60 Hz based on frequency deadband and frequency droop settings specified by the Company.

3. The Facility primary frequency response control shall be allowed to increase the net real power import or export above the Power Reference Set Point set under Section 1.G.8 of this Attachment F (Facility Owned by Subscriber Organization) or further decrease the net real power import or export from the Power Reference Set Point in its operations.
  4. The frequency deadband shall be settable in the range from  $\pm 0.01$  Hz to  $\pm 0.10$  Hz and the frequency droop shall be settable in the range of 0.1% to 10%.
  5. The Facility primary frequency response control shall be in continuous operation when the Facility is online and connected to the Company unless directed otherwise by the Company.
  6. The Facility primary frequency response shall perform to the Appendix A, Section 3, Active Power-Frequency Control specifications of the NERC "Reliability Guideline, BPS-Connected Inverter-Based Resource Performance" (September 2018) except when otherwise specified in Section 3.G. (Primary Frequency Response) of this Attachment F (Facility Owned by Subscriber Organization).
- H. Unintentional Islanding. A Facility's inverters shall be certified to meet the unintentional islanding requirement stated in IEEE 1547-2018 (or latest version), "IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power System Interfaces." Ride through requirements specified herein shall not inhibit the islanding detection performance where a valid unintentional islanding condition exists.

**PERFORMANCE STANDARDS FOR SUB-TRANSMISSION (THESE WILL BE DELETED IF FACILITY IS CONNECTING TO DISTRIBUTION)**

- A. Reactive Power Control. Subscriber Organization shall control its reactive power by automatic voltage regulation control. Subscriber Organization shall automatically regulate voltage at a point, the point of regulation, between the Subscriber Organization's generator terminal and the Point of Interconnection to be specified by Company, to within 0.5% of a voltage specified by the Company System Operator to the extent allowed by the Facility reactive power capabilities as defined in Section 3.B (Reactive Amount) of this Attachment F (Facility Owned by Subscriber Organization). **[FOR FACILITIES CONNECTED TO THE DISTRIBUTION SYSTEM, THESE REQUIREMENTS MAY BE CHANGED BY COMPANY UPON COMPLETION OF THE IRS.]**
- B. Reactive Amount. **[THESE REQUIREMENTS MAY BE CHANGED BY COMPANY UPON COMPLETION OF THE IRS.]**
1. Subscriber Organization shall install sufficient equipment so that each \_\_\_\_\_ kVA generator inverter and each kVA energy storage unit online at the Facility will have the ability to deliver or receive, at its terminal, reactive power as illustrated in the **[generator capability and energy storage unit]** curve[s] attached to this Contract as Exhibit-F-4 (Generator and Energy Storage Capability Curve(s)). **[NOTE: THE IRS WILL DETERMINE IF ANY ADDITIONAL REACTIVE POWER RESOURCES WILL BE REQUIRED.]**
  2. The Facility shall contain equipment able to continuously and actively control the output of reactive power under automatic voltage regulation control reacting to system voltage fluctuations. The automatic voltage regulation response speed at the point of regulation shall be such that at least 90% of the initial voltage correction needed to reach the voltage control target will be achieved within 1 second following a step change.

3. If the Facility does not operate in accordance with Section 3.B.1 of this Attachment F (Facility Owned by Subscriber Organization), Company may disconnect all or a part of Facility from Company System until Subscriber Organization corrects its operation (such as by installing capacitors at Subscriber Organization's expense).

C. Ramp Rates.

1. Subscriber Organization shall ensure that the ramp rate of the Facility is less than the following limits for all conditions including start up, normal operations, Subscriber Organization adjusting the Facility Actual Output, changes in the solar resource, and shut down for the following periods as calculated in accordance with Attachment F-9 (Methods and Formulas For Measuring Performance Standards).

Maximum Ramp Rate Upward of [ ] MW/minute for all periods. **[TO BE DETERMINED FOLLOWING IRS.]**

Maximum Ramp Rate Downward of 2 MW/minute for all periods other than periods for which such maximum is not operationally possible because of rapid loss of renewable resource and the depletion of energy storage.

2. Upon receiving a command from the Company active power control(s) described in Section 1.G.8 of this Attachment F (Facility Owned by Subscriber Organization), Subscriber Organization shall adjust the Facility's net real power import or export at a ramp rate, as calculated in accordance with Exhibit F-9 (Methods and Formulas for Measuring Performance Standards), to be specified by the Company to the extent allowed by the solar resource and energy storage without exceeding such ramp rate and without intentional delay. Such ramp rate shall be in the range of \_\_ MW/min to \_\_ MW/min.
3. The Facility is allowed to exceed the maximum ramp rate limits in Section 3.C.(Ramp Rates) of this Attachment F (Facility Owned by Subscriber Organization) when Facility net real power import or export is changed by the primary frequency response control described in Section 3.M. (Primary Frequency Response) of this Attachment F (Facility Owned by Subscriber Organization).

D. Ride Through Requirements.

In meeting the voltage and frequency ride-through requirements in this Attachment F, Sections 3.3.F., 3.I., and 3.J., the Facility shall not enter momentary cessation of operations within the voltage and frequency zones and time periods where the Facility must remain connected to the Company System. **[THIS PROVISION MAY BE ADJUSTED BY COMPANY UPON COMPLETION OF THE IRS IF MOMENTARY CESSATION IS NEEDED TO PREVENT EQUIPMENT DAMAGE DUE TO A POWER EQUIPMENT LIMITATION. DOCUMENTATION FROM THE EQUIPMENT MANUFACTURER OF SUCH LIMITATION SHALL BE PROVIDED TO COMPANY IN WRITING FOR THE OWNER'S RFP SUBMITTAL AND THE CONDUCT OF THE IRS.]**

E. Undervoltage Ride-Through.

The Facility, as a whole, will meet the following undervoltage ride-through requirements during low voltage affecting one or more of the three voltage phases ("V" is the voltage of any three voltage phases at the Point of Interconnection). **[THESE VALUES MAY BE CHANGED BY COMPANY UPON COMPLETION OF THE IRS. WITHOUT LIMITATION, FOR A DISTRIBUTION-CONNECTED FACILITY, UPON COMPLETION OF THE IRS THE**

**COMPANY MAY SPECIFY REQUIREMENTS FOR A MANDATORY DISCONNECTION FROM THE COMPANY SYSTEM.]:**

- |   |  |
|---|--|
| $0.88 \text{ pu} \leq V \leq 1.00 \text{ pu}$ | The Facility remains connected to the Company System.  |
| $0.70 \text{ pu} \leq V < 0.88 \text{ pu}$    | The Facility may initiate disconnection from the Company System if the voltage remains in this range for more than 20 seconds. |
| $0.50 \text{ pu} \leq V < 0.70 \text{ pu}$    | The Facility may initiate disconnection from the Company System if the voltage remains in this range for more than 10 seconds. |
| $0.00 \text{ pu} \leq V < 0.50 \text{ pu}$    | The Facility may disconnection from the Company System if voltage remains in this range for more than 600 milliseconds.        |

Subscriber Organization shall have sufficient capacity to fulfill the above mentioned requirements to ride-through the following sequences or combinations thereof **[THE ACTUAL CLEARING TIMES WILL BE DETERMINED BY COMPANY IN CONNECTION WITH THE IRS]**

Normally cleared 46kV subtransmission faults cleared in 7 cycles with one reclose attempt, cleared in 7 cycles, 23 cycles after the initial fault was cleared. The voltage at the Point of Interconnection will recover above the 0.80 p.u. level for the 23 cycles between the initial clearing time and the reclosing time.

F. Over Voltage Ride-Through.

The overvoltage protection equipment at the Facility shall be set so that the Facility will meet the following overvoltage ride-through requirements during high voltage affecting one or more of the three voltage phases (as described below) ("V" is the voltage of any of the three voltage phases at the Point of Interconnection). **[THESE VALUES MAY BE CHANGED BY THE COMPANY UPON COMPLETION OF THE IRS. WITHOUT LIMITATION, FOR A DISTRIBUTION-CONNECTED FACILITY, UPON COMPLETION OF THE IRS THE COMPANY MAY SPECIFY REQUIREMENTS FOR A MANDATORY DISCONNECTION FROM THE COMPANY SYSTEM AT  $V > 1.2 \text{ pu}$ . RIDE-THROUGH REQUIREMENTS FOR OTHER SYSTEMS WILL BE DETERMINED IN THE IRS.]:**

- |   |   |
|---|---|
| $1.00 \text{ pu} \leq V \leq 1.10 \text{ pu}$ | The Facility remains connected to the Company System.   |
| $1.10 \text{ pu} < V \leq 1.20 \text{ pu}$    | The Facility may initiate disconnection from the Company System if voltage remains in this range for more 0.92 seconds. |
| $V > 1.2 \text{ pu}$                          | The Facility may initiate disconnection from the Company System immediately.  |

G. [Reserved]

H. [Reserved]

I. Underfrequency Ride-Through.

The Facility shall meet the following underfrequency ride-through requirements during an underfrequency disturbance ("f" is the Company System frequency at the Point of Interconnection):

$57.0\text{Hz} \leq f \leq 60.0\text{Hz}$	The Facility remains connected to the Company System.
$56.0\text{Hz} \leq f < 57.0\text{Hz}$	The Facility may initiate disconnection from the Company System if frequency remains in this range for more than 20 seconds.
$f < 56.0\text{Hz}$	The Facility may initiate disconnection from the Company System immediately.

J. Overfrequency Ride-Through.

The Facility will behave as specified below for overfrequency conditions ("f" is the Company System frequency at the Point of Interconnection):

$60.0\text{Hz} \leq f \leq 63.0\text{Hz}$	The Facility remains connected to the Company System.
$63.0\text{Hz} < f \leq 64.0\text{Hz}$	The Facility shall initiate disconnection from the Company System if frequency remains in this range for more than 20 seconds.
$f > 64.0\text{Hz}$	The Facility shall initiate disconnection from the Company System immediately.

K. Voltage Flicker.

Any voltage flicker on the Company System caused by the Facility shall not exceed the limits stated in IEEE Standard 1453-2015, or latest version "Recommended Practice for the Analysis of Fluctuating Installations on Power Systems".

L. Harmonics.

Harmonic distortion at the Point of Interconnection caused by the Facility shall not exceed the limits stated in IEEE Standard 519-1992, or latest version "Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems". Subscriber Organization shall be responsible for the installation of any necessary controls or hardware to limit the voltage and current harmonics generated from the Facility to defined levels.

M. Primary Frequency Response.

1. Subscriber Organization Facility shall provide a primary frequency response with a frequency droop characteristic reacting to system frequency fluctuations at the Point of Interconnection in both the overfrequency and underfrequency directions except to the extent such response is not operationally possible because of the level of available solar resource and depletion of energy storage.
2. The Facility primary frequency response control shall adjust, without intentional delay and without regard to the ramp rate limits in Section 3.C. (Ramp Rates) of this Attachment F (Facility Owned by Subscriber Organization), the Facility's net real power import or export

when system frequency is not 60 Hz based on frequency deadband and frequency droop settings specified by the Company.

3. The Facility primary frequency response control shall be allowed to increase the net real power import or export above the Power Reference Set Point set under Section 1.G.8 of this Attachment F (Facility Owned by Subscriber Organization) or further decrease the net real power import or export from the Power Reference Set Point in its operations.
4. The frequency deadband shall be settable in the range from +/-0.01 Hz to +/- 0.10 Hz and the frequency droop shall be settable in the range of 0.1% to 10%.
5. The Facility primary frequency response control shall be in continuous operation when the Facility is online and connected to the Company unless directed otherwise by the Company.
6. The Facility primary frequency response shall perform to the Appendix A, Section 3, Active Power-Frequency Control specifications of the NERC “Reliability Guideline, BPS-Connected Inverter-Based Resource Performance” (September 2018) except when otherwise specified in Section 3.M. (Primary Frequency Response) of this Attachment F (Facility Owned by Subscriber Organization).

N. Grid Forming. **[DRAFTING NOTE: TO BE REMOVED IF SUBSCRIBER ORGANIZATION’S PROPOSAL DID NOT OFFER GRID FORMING.]**

1. (Subscriber Organization Facility inverters shall be capable of operating in grid forming mode supporting system operation under normal and emergency conditions without relying on the characteristics of synchronous machines. This includes operation as a current independent ac voltage source during normal and transient conditions (as long as no limits are reached within the inverter), and the ability to synchronize to other voltage sources or operate autonomously if a grid reference is unavailable.
2. (Subscriber Organization shall operate the Facility in grid forming mode only as directed by the System Operator, in its sole discretion. Such mode of operation shall be indicated to the Company System Operator through telemetry.
3. (The Facility shall include safeguards to prevent the unintentional switching of the Facility into and out of grid forming mode. The safeguards shall be approved in writing by the Company and implemented by the Subscriber Organization prior to the CSAT.

O. Blackstart. The Facility shall be able to blackstart (i.e., start and energize itself without support from the Company System). **[DRAFTING NOTE: TO BE REMOVED IF SUBSCRIBER ORGANIZATION’S PROPOSAL DID NOT OFFER GRID FORMING.]**

At the Company System Operator’s sole discretion and to the extent of the operating limits of the Facility, the Facility shall blackstart and energize a part of the Company System as directed by the Company System Operator.

Upon blackstart and energization of a part of the Company System, the Facility shall:

- Voltage Regulation**[To be determined upon completion of the IRS.]**
- Frequency Control**[To be determined upon completion of the IRS.]**
- Supply power to the part of the Company System that the Facility has energized, which shall include supplying power to start synchronous and other inverter-based generating resources.

- The Facility shall seamlessly and bumplessly transition from blackstart mode to normal operating mode as directed by and at the sole discretion of the Company System Operator. The blackstart control mode status shall be telemetered to Company through SCADA.
- The Facility shall maintain a minimum level of energy in the Facility storage system for blackstart use to be specified by the Company in its sole discretion.
- The Facility blackstart design and configuration, including the isochronous governor, shall be subject to the prior written approval of Company in its sole discretion and implemented by Subscriber Organization prior to conducting the CSAT. The blackstart design and configuration may be modified by mutual agreement of Subscriber Organization and Company.

P. [Reserved]

#### **4. MAINTENANCE OF SUBSCRIBER ORGANIZATION-OWNED INTERCONNECTION FACILITIES.**

- A. Subscriber Organization must address any Disconnection Event (as defined below) according to the requirements of this Section 4 (Maintenance of Subscriber Organization-Owned Interconnection Facilities) of Attachment F (Facility Owned by Subscriber Organization). For this purpose, a "Disconnection Event" is [the removal of 80% of capacity or more from Company System (projects 250 kW - 1 MW)] [a disconnection from Company System of at least \_\_\_ MW [TO BE DETERMINED BY COMPANY FOLLOWING THE IRS] from the Facility (projects > 1 MW)] over a "rolling 120-second period", (i) that is not the result of Company dispatch, frequency droop response, or isolation of the Facility resulting from designed protection fault clearing, and (ii) for which Company does not issue for such disconnection the written notice for failure to meet operational and performance requirements as set forth in Section 1.J. (Demonstration of Facility) of this Attachment F (Facility Owned by Subscriber Organization). A "rolling 120-second period" means a period that is comprised of 120 seconds and such rolling period will change as each new one (1) second elapses. With the elapse of each new one (1) second, the newest one (1) second would be added to the 120-second period, and the oldest one (1) second would no longer be included in the rolling 120-second period. Company's election to exercise its rights under Section 1.J. (Demonstration of Facility) shall not relieve Subscriber Organization of its obligation to comply with the requirements of this Section 4 (Maintenance of Subscriber Organization-Owned Interconnection Facilities) for any future Disconnection Event during the pendency of such election or thereafter.
- B. For every Disconnection Event from the Company System, Subscriber Organization shall investigate the cause. Within three (3) Business Days, Subscriber Organization shall provide, in writing to Company, an incident report that summarizes the sequence of events and probable cause.
- C. Within forty-five (45) Days of a Disconnection Event, Subscriber Organization shall provide, in writing to Company, Subscriber Organization's findings, data relied upon for such findings, and proposed actions to prevent reoccurrence of a Disconnection Event ("Proposed Actions"). Company may assist Subscriber Organization in determining the causes of and recommendations to remedy or prevent a Disconnection Event ("Company's Recommendations"). Subscriber Organization shall implement such Proposed Actions (as modified to incorporate the Company's Recommendations, if any) and Company's Recommendations (if any) in accordance with the time period agreed to by the Parties.



- D. In the event Subscriber Organization and Company disagree as to (i) whether a Disconnection Event occurred, (ii) the sequence of events and/or probable cause of the Disconnection Event, (iii) the Proposed Actions, (iv) Company's Recommendations, and/or (v) the time period to implement the Proposed Actions and/or Company's Recommendations, then the Parties shall follow the procedure set forth in Section 5 (Expedited Dispute Resolution) of this Attachment F (Facility Owned by Subscriber Organization).
- E. Upon the fourth (4th) Disconnection Event (and each subsequent Disconnection Event) within any Contract Year, the Parties shall follow the procedures set forth in Section 4.D. and Section 4.D. of Attachment F (Facility Owned by Subscriber Organization), to the extent applicable. If after following the procedures set forth in this Section 4 (Maintenance of Subscriber Organization-Owned Interconnection Facilities) of Attachment F (Facility Owned by Subscriber Organization), Subscriber Organization and Company continue to have a disagreement as to (1) the probable cause of the Disconnection Event, (2) the Proposed Actions, (3) the Company's Recommendations, and/or (4) the time period to implement the Proposed Actions and/or the Company's Recommendations, then the Parties shall commission a study to be performed by a qualified independent Third-Party consultant ("Qualified Consultant") chosen from the Qualified Independent Third-Party Consultants List ("Consultants List") attached to the Contract as Exhibit F-2 (Consultants List). Such study shall review the design of, review the operating and maintenance procedures dealing with, recommend modifications to, and determine the type of maintenance that should be performed on Subscriber Organization-Owned Interconnection Facilities ("Study"). Subscriber Organization and Company shall each pay for one-half of the total cost of the Study. The Study shall be completed within ninety (90) Days from such fourth Disconnection Event (and each subsequent Disconnection Event) within any Contract Year, unless the Qualified Consultant determines the Study cannot reasonably be completed within ninety (90) Days, in which case, such longer period of time as the Qualified Consultant determines is necessary to complete the Study shall apply. The Qualified Consultant shall send the Study to Company and Subscriber Organization. Subscriber Organization (and/or its Third-Party consultants and contractors), at Subscriber Organization's expense, shall change the design of, change the operating and maintenance procedures dealing with, implement modifications to, and/or perform the maintenance on Subscriber Organization-Owned Interconnection Facilities recommended by the Study. Such design changes, operating and maintenance procedure changes, modifications, and/or maintenance shall be completed no later than forty-five (45) Days from the Day the completed Study is issued by the Qualified Consultant, unless such design changes, operating and maintenance procedure changes, modifications, and/or maintenance cannot reasonably be completed within forty-five (45) Days, in which case, Subscriber Organization shall complete the foregoing within such longer commercially reasonable period of time agreed to by the Parties in writing. Company shall have the right to derate the Facility to a level that maintains reliable operations in accordance with Good Engineering and Operating Practices, and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status, until the study has been completed and the study's recommendations have been implemented by Subscriber Organization to Company's reasonable satisfaction. Nothing in this provision shall affect Company's right to dispatch the Facility as provided for in this Contract.
- F. The Consultants List attached hereto as Exhibit F-2 (Consultants List) contains the names of engineering firms which both Parties agree are fully qualified to perform the Study. At any time, except when a Study is being conducted, either Party may remove a consultant from the Consultants List by giving written notice of such removal to the other Party. However, neither Party may remove a name or names from the Consultants List without approval of the other Party if such removal would leave the list without any names. Intended deletions shall be effective upon receipt of notice by the other Party, provided that such deletions do not leave the Consultants List without any names. Proposed additions to the Consultants List shall automatically become effective thirty

(30) Days after notice is received by the other Party unless written objection is made by such other Party within said thirty (30) Day period. By mutual agreement between the Parties, a new name or names may be added to the Consultants List at any time.

## **5. EXPEDITED DISPUTE RESOLUTION.**

If there is a disagreement between Company and Subscriber Organization regarding (i) whether a Disconnection Event occurred, (ii) the sequence of events and/or probable cause of the Disconnection Event, (iii) the Proposed Actions, (iv) the Company's Recommendations, and (v) the time period to implement the Proposed Actions and/or the Company's Recommendations, then authorized representatives from Company and Subscriber Organization, having full authority to settle the disagreement, shall meet in Hawai'i (or by telephone conference) and attempt in good faith to settle the disagreement. Unless otherwise agreed in writing by the Parties, the Parties shall devote no more than five (5) Business Days to settle the disagreement in good faith. In the event the Parties are unable to settle the disagreement after the expiration of the time period, then such disagreement shall constitute a Dispute for which either Party may pursue the dispute resolution procedure set forth in Section 17. (Dispute Resolution) of this Contract.

## **6. MODELING.**

- A. Subscriber Organization's Obligation to Provide Models. Within 30 Days of Company's written request, but no later than the Commercial Operations Date, Subscriber Organization shall provide detailed data regarding the design and location of the Facility, in a form reasonably satisfactory to Company, to allow the modeling of the inverters and any other equipment within the Facility identified in the IRS which utilizes Source Code (such as energy storage system, STATCOM or DVAR equipment), including, but not limited to, integrated and validated power flow and transient stability models (such as PSS/E models), a short circuit model (such as an ASPEN model), and an electro-magnetic transient model (such as a PSCAD model) of the inverters and any additional equipment identified in the IRS as set forth above, applied assumptions, and pertinent data sets (each a "Required Model" and collectively, the "Required Models"). Thereafter, during the Term, Subscriber Organization shall provide working updates of any Required Model within 30 Days of (i) Company's written request, or (ii) Subscriber Organization obtaining knowledge or notice that any Required Model has been modified, updated or superseded by the Source Code Owner.
- B. Escrow Establishment. If, pursuant to Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization), the Required Models are provided to the Company in a form other than Source Code, Subscriber Organization shall arrange for and ensure that the Source Code for the relevant Required Model is deposited into the Source Code Escrow as set forth below in Section 6.B.1. (Source Code Escrow) of this Attachment F (Facility Owned by Subscriber Organization) no later than the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization) for delivery of the Required Models. Subscriber Organization shall be responsible for all costs associated with establishing and maintaining the Source Code Escrow. If, however, Subscriber Organization is unable to deposit the required Source Code into the Source Code Escrow within the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models), Subscriber Organization shall, no later than such time periods, instead establish a monetary escrow as set forth below in Section 6.B.2. (Source Code Security) of this Attachment F (Facility Owned by Subscriber Organization).

1. Source Code Escrow.

- a. Establishment of Source Code Escrow. If the Required Models are not provided to the Company in the form of Source Code pursuant to Section 6.A.(a) (Subscriber Organizations Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization), Subscriber Organization shall: (a) arrange for and ensure the deposit of a copy of the current version of the Source Code and relevant documentation for all Required Models with the Source Code Escrow Agent under the terms and conditions of the Source Code Escrow Agreement, and (b) arrange for and ensure the update of the deposited Source Code and relevant documentation for Major Releases and Minor Releases of the Required Models as soon as reasonably possible after they are made generally available.
- b. Release Conditions. Company shall have the right to obtain from the Source Code Escrow Agent one copy of the escrowed Source Code for the Required Models, under the following conditions upon Company's request:
- 1) A receiver, trustee, or similar officer is appointed, pursuant to federal, state or applicable foreign law, for the Source Code Owner;
  - 2) Any voluntary or involuntary petition or proceeding is instituted, under (x) U.S. bankruptcy laws or (y) any other bankruptcy, insolvency or similar proceeding outside of the United States, by or against the Source Code Owner; or
  - 3) Failure of the Source Code Owner to function as a going concern or operate in the ordinary course; or
  - 4) Subscriber Organization and the Source Code Owner fail to provide to Company the Required Models or updated Required Models, or, alternatively, fail to issue a Source Code LC, within the time periods set forth in Section 6.A (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization), Company gives written notice of such failure to Subscriber Organization and the Source Code Owner, and Subscriber Organization and Source Code Owner fail to remedy such breach within five (5) Days following receipt of such notice.
- c. Remedies. If Company has the right to obtain from the Source Code Escrow Agent one copy of the escrowed Source Code for the Required Models pursuant to Section 6.B.1.b. (Release Conditions) of Attachment F (Facility Owned by Subscriber Organization), and Company finds that Subscriber Organization failed to arrange for and ensure the update the Source Code Escrow with the modified and/or updated Source Code and relevant documentation for Major Releases and Minor Releases of the Required Models as provided in Section 6.B.1.a (Establishment of Source Code Escrow) of Attachment F (Facility Owned by Subscriber Organization) or that the Source Code for the Required Models is incomplete or otherwise unusable, Subscriber Organization shall be liable to Company for liquidated damages in the amount of \$500 per Day for each Day Subscriber Organization fails to provide such Source Code to Company or such update to the Source Code to Company from the date such Major Release or Minor Release was first made available by the Source Code Owner to customers of the Source Code Owner. Failure to provide the updated Source Code of the Required Models within 30 Days' notice from Company of a breach of Section 6.B.1.a. (Establishment of Source Code Escrow) of Attachment F (Facility Owned by Subscriber Organization); provided, that Subscriber Organization has also failed to provide a satisfactory Source Code LC as set forth in Section 6.B.2. (Source Code Security) of this Attachment F (Facility Owned by Subscriber Organization) shall

constitute an Event of Default pursuant to Section 13. (Events of Default by Subscriber Organization) under the Contract.

- d. Certification. The Source Code Escrow Agent shall release the Source Code of the Required Models to Company upon receipt of a signed statement by a representative of Company that reads substantially as follows:

The undersigned hereby certifies that (i) I am duly authorized to execute this document on behalf of Hawaiian Electric Company, Inc. ("Hawaiian Electric"), and (ii) Hawaiian Electric is entitled to a copy of the Source Code of the Required Models Pursuant to Section 6.B.1.b. (Release Conditions) of Attachment F (Facility Owned by Subscriber Organization) of the Mid-Tier Standard Form Contract for Renewable Dispatchable Generation dated as of \_\_\_\_\_, between \_\_\_\_\_, and Hawaiian Electric.

- e. Authorized Use. If Company becomes entitled to a release of the Source Code of the Required Models from escrow, Company may thereafter correct, modify, update and enhance the Required Models for the sole purpose of providing itself the support and maintenance it otherwise would have been entitled to if it had been provided the Required Models by Subscriber Organization under Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned By Subscriber Organization) (the "Source Code Authorized Use").
- f. Confidentiality Obligations. Company shall keep the Source Code of the Required Models confidential pursuant to the confidentiality obligations of the Source Code Escrow Agreement. Company shall restrict access to the Source Code of the Required Models to those employees, independent contractors and consultants of Company who have agreed in writing to be bound by confidentiality and use obligations consistent with those specified in the Escrow Agreement, and who have a need to access the Source Code of the Required Models on behalf of Company to carry out their duties for the Source Code Authorized Use. Promptly upon Subscriber Organization's request, Company shall provide Subscriber Organization with the names and contact information of all individuals who have accessed the Source Code of the Required Models, and shall take all reasonable actions required to recover any such Source Code in the event of loss or misappropriation, or to otherwise prevent their unauthorized disclosure or use.

2. Source Code Security.

- a. Establishment of Source Code Security. If the Required Models and their relevant Source Code are not provided to the Company in the form of Source Code pursuant to Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization) and if the Subscriber Organization is unable to arrange for and ensure the deposit of the Source Code into the Source Code Escrow established for the benefit of the Company pursuant to Section 6.B.1 (Source Code Escrow) of this Attachment F (Facility Owned by Subscriber Organization) then, no later than the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization) for delivery of the Required Models and Source Code, Subscriber Organization shall provide an irrevocable standby letter of credit (the "Source Code LC") with no documentation requirement in the amount of Two Hundred Fifty Thousand Dollars (\$250,000) per Required Model (and its relevant Source Code) substantially in the form attached to this Contract as Exhibit G-1 (Form of Letter of Credit) from a bank chartered in the United States with a credit rating of "A-" or better from Standard & Poor's or A3 or better from Moody's. Such letter of

credit shall be issued for a minimum term of one (1) year. Furthermore, at the end of each year the security shall be renewed for an additional one (1) year term so that at the time of such renewal, the remaining term of any such security shall not be less than one (1) year. The letter of credit shall include a provision for at least thirty (30) Days' advance notice to Company of any expiration or earlier termination of the letter of credit so as to allow Company sufficient time to exercise its rights under said security if Subscriber Organization fails to extend or replace the security. In all cases, the reasonable costs and expenses of establishing, renewing, substituting, canceling, increasing, reducing, or otherwise administering the letter of credit shall be borne by Subscriber Organization.

- b. Release Conditions. Company shall have the right to draw on the letter of credit the funds necessary to develop and recreate the Required Model or Required Models upon Company's request if Subscriber Organization fails to provide the Company the Required Models or updated Required Models within the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models) or Section 6.B.1.c. (Remedies) of this Attachment F (Facility Owned by Subscriber Organization), Company gives written notice of such failure to Subscriber Organization, and Subscriber Organization fails to remedy such breach within five (5) Days following receipt of such notice for a breach under Section 6.A. (Subscriber Organization's Obligation to Provide Models, or within thirty (30) Days following receipt of such notice for a breach under Section 6.B.1.c (Remedies).
- c. Extend Letter of Credit. If the letter of credit is not renewed or extended no later than thirty (30) Days prior to its expiration or earlier termination, Company shall have the right to draw immediately upon the full amount of the letter of credit and to place the proceeds of such draw (the "Proceeds"), at Subscriber Organization's cost, in an escrow account in accordance with Section 6.B.2.d. (Proceeds Escrow), until and unless Subscriber Organization provides a substitute form of letter of credit meeting the requirements of this Section 6.B.2. (Source Code Security) of this Attachment F (Facility Owned by Subscriber Organization).
- d. Proceeds Escrow. If Company draws on the letter of credit pursuant to Section 6.B.2.c. (Extend Letter of Credit) of this Attachment F (Facility Owned by Subscriber Organization), Company shall, in order to avoid comingling the Proceeds, have the right but not the obligation to place the Proceeds in an escrow account as provided in this Section 6.B.2.d. (Proceeds Escrow) of this Attachment F (Facility Owned by Subscriber Organization) with a reputable escrow agent acceptable to Company ("Proceeds Escrow Agent") subject to an escrow agreement acceptable to Company ("Proceeds Escrow Agreement"). Without limitation to the generality of the foregoing, a federally insured bank shall be deemed to be a "reputable escrow agent." Company shall have the right to apply the Proceeds as necessary to recover amounts Company is owed pursuant to this Section 6 (Modeling) of this Attachment F (Facility Owned by Subscriber Organization). To that end, the Proceeds Escrow Agreement governing such escrow account shall give Company the sole authority to draw from the account. Subscriber Organization shall not be a party to such Proceeds Escrow Agreement and shall have no rights to the Proceeds. Upon full satisfaction of Subscriber Organization's obligations under Section 6 (Modeling) of this Attachment F (Facility Owned by Subscriber Organization), Company shall instruct the Proceeds Escrow Agent to remit to the bank that issued the letter of credit that was the source of the Proceeds the remaining balance (if any) of the Proceeds. If there is more than one escrow account with Proceeds, Company may, in its sole discretion, draw on such accounts in any sequence Company may select. Any failure to draw upon the Proceeds for any damages or other amounts due Company shall not prejudice Company's rights to recover such damages or amounts in any other manner.

- e. Subscriber Organization's Obligation. If the letter of credit is not sufficient to cover Company's associated consultant fees, costs and expenses to develop and recreate the Required Models, Subscriber Organization shall pay to Company the difference within ten (10) Days of Company's written notice to Subscriber Organization.
  - f. Model Verification. Subscriber Organization shall work with the Company to validate the new Required Models developed by or on behalf of Company within sixty (60) Days of receiving such new Required Models. Subscriber Organization shall also arrange for and ensure that Company may obtain new Required Models directly from the Source Code Owner in the event that Subscriber Organization ceases to operate as a going concern or is subject to voluntary or involuntary bankruptcy and is unable or unwilling to obtain the new Required Models from the Source Code Owner.
  - g. Certification. The terms of the letter of credit shall provide for a release of the funds, or in the event the funds have been placed into a Proceeds Escrow, the Proceeds Escrow Agent shall release the necessary funds to Company upon receipt of a signed statement by a representative of Company that reads substantially as follows:
  - h. The undersigned hereby certifies that (i) I am duly authorized to execute this document on behalf of Hawaiian Electric Company, Inc. ("Hawaiian Electric") , and (ii) Hawaiian Electric is entitled to \$ \_\_\_\_\_, pursuant to Section 6.B.2.b (Release Conditions) of Attachment F (Facility Owned by Subscriber Organization) of the Mid-Tier Standard Form Contract for Renewable Energy Generation dated as of \_\_\_\_\_, between \_\_\_\_\_, and Hawaiian Electric. Authorized Use. If Company becomes entitled to a draw of funds from the Source Code Security or a release of funds from the Proceeds Escrow, Company may thereafter use such funds to develop, recreate, correct, modify, update and enhance the Required Models for the sole purpose of providing itself the support and maintenance it otherwise would have been entitled to if it had been provided the Required Models by Subscriber Organization under Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization).
3. Supplementary Agreement. The parties stipulate and agree that the escrow provisions in this Section 6.B. (Escrow Establishment) of Attachment F (Facility Owned by Subscriber Organization) and the Source Code Escrow Agreement and Proceeds Escrow Agreement are "supplementary agreements" as contemplated in Section 365(n)(1)(B) of the Code. In any voluntary or involuntary bankruptcy proceeding involving Subscriber Organization, failure by Company to assert its rights to "retain its rights" to the intellectual property encompassed by the Source Code or the funds in the Proceeds Escrow, pursuant to Section 365(n)(1)(B) of the Code, under an executory contract rejected in a bankruptcy proceeding, shall not be construed as an election to terminate the contract by Company under Section 365(n)(1)(A) of the Code.

## 7. TESTING REQUIREMENTS.

- A. Testing Requirements. Once the Control System Acceptance Test has been successfully passed, Subscriber Organization shall not replace and/or change the configuration of the Facility Control, inverter control settings and/or ancillary device controls, without prior written notice to Company. In the event of any such replacement and/or change, the relevant test(s) of the Control System Acceptance Test shall be redone and must be successfully passed before the replacement or altered equipment is allowed to be placed in normal operations. In the event that Company reasonably determines that such replacement and/or change of controls makes it inadvisable for the Facility to continue in normal operations without a further Control Systems Acceptance Test, the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status until the new relevant tests of the Control System Acceptance Test have been successfully passed.

- B. Periodic Testing. Subscriber Organization shall coordinate periodic testing of the Facility with Company to ensure that the Facility is meeting the performance standards specified under this Contract.

**8. DATA AND FORECASTING.**

Subscriber Organization shall provide Site, meteorological and production data in accordance with the following requirements:

- A. Physical Site Data: Subscriber Organization shall provide Company with an accurate description of the physical Site, including but not limited to the following, [as appropriate to Facility resource type(s) and use of storage] which may not be changed during the Term without Company's prior written consent:

Location Facility Map showing the layout of the Facility (coverage area or footprint) and the coordinates (latitude and longitude) of generating equipment:

Solar PV: elevation (above ground), orientation angle and direction (north-east-south-west plane) of arrays/concentrators.

Location (latitude and longitude) and elevation (above ground) of each MMS and elevation (above ground) of each field measurement device for, e.g., air density, ambient air pressure and ambient air temperature, located at each MMS or each field measurement device located on such MMS.

For solar resource inverters: Inverter type, power rating, array configuration to inverters and DC rating of the Facility at the following standard test conditions: irradiance of 1000 W/m<sup>2</sup>, air mass 1.5, and cell temperature 25° C.

Solar generation technology employed at the Facility with temperature dependence, mounting and module type.

BESS technology and related auxiliary equipment, location and type.

- B. Meteorological and Production Data:

Subscriber Organization shall install and maintain a minimum of one MMS for facilities with a Contract Capacity of less than 5 MW and a coverage area of not more than one square kilometer.

Subscriber Organization shall install and maintain a minimum of two MMS for facilities that have either (i) a DC rating of the Facility of 5 MW or greater or (ii) a coverage area greater than one square kilometer.

Placement of each MMS should account for the microclimate of the area and Facility coverage area and shall be oriented with respect to the primary wind direction.

Subscriber Organization shall provide to Company, via SCADA communication and protocol acceptable to Company to support operations and forecasting needs at a continuous scan, all meteorological and production data required under this Contract updated every 2 seconds.

Subscriber Organization shall arrange for a dedicated distribution voltage line to provide separate service from Company, or for such other independent, backup power source as approved by Company in writing, to temporarily store and record the meteorological data from the field

measuring devices at the MMSs. Any such backup power source must be capable of providing power for the field measurement devices for a reasonable period of time until primary power is restored. The same backup power source can serve multiple MMSs as needed by the Facility.

C. Units and Accuracy:

The Table below shows minimum required solar irradiance measurements for various types of solar generation technology. This value may not be derived.

<b>Solar Technology</b>	<b>Direct Normal Irradiance</b>	<b>Global Irradiance (GHI)</b>	<b>Plane of Array Irradiance (POA)</b>
<b>Flat Plate</b> (fixed horizontal, fixed angle, tracking, roof mounted)		X	X
<b>Flat Panel Solar Thermal</b> (fixed angle, roof mounted, tracking)	X		X
<b>Concentrated PV</b> (flat, trough, tracking)	X	X	X

Units and accuracy of measured parameters to be provided to Company in real time shall be as shown in the Table below. These represent the minimum required accuracies.

**Table of Units and Accuracy of  
Meteorological and Production Data (PV)**

<b>Parameter</b>	<b>Measurement Device (typical)</b>	<b>Unit</b>	<b>Range</b>	<b>Accuracy</b>
Global Horizontal Irradiance at MMS	Pyranometer or equivalent	W/m <sup>2</sup>	0 to 1500 W/m <sup>2</sup>	Secondary standard per ISO 9060 or ≤ 3% from 100 W/m <sup>2</sup> to 1500 W/m <sup>2</sup> if using a PV Reference Cell



Parameter	Measurement Device (typical)	Unit	Range	Accuracy
Plane of Array Irradiance on same axis as array	Pyranometer or equivalent	W/m <sup>2</sup>	0 to 1500 W/m <sup>2</sup>	Secondary standard per ISO 9060 or <= 3% from 100 W/m <sup>2</sup> to 1500 W/m <sup>2</sup> if using a PV Reference Cell
Back of Panel temperature at array height	Temperature probe	°C	-20 to +50 °C	+/-1 °C
Ambient air temperature at MMS	Temperature probe	°C	-20 to +50 °C	+/-1 °C
Ambient air pressure at MMS	Piezoresistive transducer or equivalent	mbar	150 to 1150 mbar	+/-60 mbar (0 to +50°C)
Wind speed at MMS	Anemometer, sonic device or equivalent	mph	0 to 134 mph	+/-1 mph
Wind direction at MMS	Vane, sonic device or equivalent	Degrees (from True North)	360°	+/-5°
Set point for each inverter	Reported by Subscriber Organization	MW	0 to inverter name plate	Not applicable
Power production of Facility	Measured at POI	MW	Up to Allowed Capacity	+/-0.1 MW
BESS Charging Power	Measured at BESS Charging Interface	MW	Up to Allowed Capacity	+/-0.1 MW
Facility power production ratio	Ratio of Facility's power production (MW)/Allowed	%	0 to 100%	+/-0.1 %

Parameter	Measurement Device (typical)	Unit	Range	Accuracy
	Capacity (MW)			
Inverters Available	NA	NA	Up to the number installed inverters	
Facility Inverter Availability	Ratio of inverters online/number of inverters	%	0 to 100%	
Power Possible	Subscriber Organization's Model	MW	0 to Allowed Capacity	+/-4%

D. Status of Generating Equipment:

For each inverter Subscriber Organization shall provide to Company, via SCADA communication and protocol acceptable to Company at a continuous scan updated not less frequently than every 2 seconds, a signal as to whether such inverter is available or unavailable, and on or offline.

**9. TECHNOLOGY SPECIFIC REQUIREMENTS.**

A. [Reserved]

B. [Reserved]

C. Inverter Systems.

1. Direct current generators and non-power (i.e., other than 60 Hertz) alternating current generators can only be installed in parallel with the Company System using a non-islanding synchronous inverter unless alternate designs are approved by the Company. The design shall comply with the requirements of IEEE Std 1547-2003 (or latest version), except as described in Section 3 (Performance Standards) of this Attachment F (Facility Owned by Subscriber Organization).m
2. Self-commutated inverters of the Company-interactive type shall synchronize to the Company System. Line-commutated, thyristor-based inverters are not recommended and will require additional technical study to determine harmonic and reactive power requirements. All interconnected inverter systems shall comply with the harmonic current limits of IEEE Std 519-1992 (or latest version).

D. Battery Energy Storage System. The Battery Energy Storage System ("BESS") operational conditions ("Operational Conditions") shall be as follows:

1. For facilities with variable energy and paired storage: The BESS shall directly charge storage from the variable resource when the Company Active Power Dispatch is for less than the available resource energy.
2. No more than [ ] % of the BESS energy capacity can be charged from the grid prior to the fifth (5<sup>th</sup>) anniversary of the Commercial Operations Date. Thereafter, 100% of the BESS energy capacity can be charged from the grid. **[DRAFTING NOTE ONE: 5-YEAR LIMITATION ON GRID CHARGING WILL BE DELETED IF ITC RECAPTURE IS NOT APPLICABLE TO THE BESS.] [DRAFTING NOTE TWO: IF THE BESS WILL NEVER CHARGE FROM THE GRID, REPLACE THIS ENTIRE SUBSECTION WITH THE FOLLOWING: "None of the BESS energy capacity may be charged from the grid during the Term of this Agreement."]**
3. For Contract Years that are non-leap years, the BESS shall be discharged no more than BESS Contract Capacity x 365, MWh in each Contract Year. For Contract Years that are leap years, the BESS shall be discharged no more than BESS Contract Capacity x 366, MWh in each Contract Year.
4. The BESS will not be required to discharge more energy than available relative to the available state of charge.
5. The BESS may be called on to provide frequency droop response, frequency regulation response, and frequency regulation (AGC dispatch) under the following conditions:
  - a. Dispatch to the grid is limited to the interconnection limit minus the generation from the PV system.

--END--

**EXHIBIT F-1**  
**DESCRIPTION OF GENERATION AND BATTERY STORAGE FACILITIES**

1. Name of Facility:

(a) Location: (TMK No. )

(b) Telephone number (for system emergencies):

(c) E-mail Address:

(d) Contact Information for notices pursuant to the Contract:

Mailing Address:

Address for Delivery by Hand or Overnight Delivery:

Email Address:

2. Owner (If different from Subscriber Organization):

If Subscriber Organization is not the owner, Subscriber Organization shall provide Company with a certified copy of a certificate warranting that the owner is a corporation, partnership or limited liability company in good standing with the Hawai'i Department of Commerce and Consumer Affairs which shall be attached hereto as Exhibit F-1.2 (Good Standing Certificates).

3. Operator:

4. Name of person to whom payments are to be made:

(a) Mailing address:

(b) Hawai'i Gross Excise Tax License number:

5. Equipment:

(a) Type of facility and conversion equipment:

**[For example: Small power production facility designated as a Qualifying Facility that produces electric energy using \_\_\_\_\_.]**

(b) Design and capacity

Total Facility Capacity ( "Contract Capacity"):

\_\_\_\_\_kW

Total Number of Generators:

**[number and size of each generator, e.g., one (1) Brand X, 200 kW; one (1) Brand Y, 300 kW]**

Description of Equipment:

**[For example: Describe the type of energy conversion equipment, capacity, and any special features.]**

Individual Unit: **[if more than one generator, list information for each generator]**

	kW	kVAR Consumed	kVAR Produced
<u>Full load</u>			
<u>Startup</u>			

Generator:

Type \_\_\_\_\_

Rated Power \_\_\_\_\_ kW

Voltage \_\_\_\_\_ V, \_ phase

Frequency \_\_\_\_\_ Hz

Class of Protection \_\_\_\_\_

Number of Poles \_\_\_\_\_

Rated Speed \_\_\_\_\_ rpm

Rated Current \_\_\_\_\_ A

Rated Power Factor See Exhibit F-4

Batteries

Total Number of Energy Storage Units:

- (c) Single or 3 phase:
- (d) Name of manufacturer:
- (e) Description of Facility SCADA and control system(s)
- (f) The “Allowed Capacity” of this Contract shall be the lower of (i) Contract Capacity or (ii) the net nameplate capacity (net for export) of the Facility installed by the Commercial Operations Date.
- (g) Subscriber Organization may propose revisions to this Section 5 (Equipment) of Exhibit F-1 (Description of Generation Battery and Storage Facilities) ( “Section 5”) for Company’s approval prior to commencement of construction, provided, however, that (i) no such revision to this Section 5 shall change the type of Facility or conversion equipment deployed at the Facility from a solar energy conversion facility using photovoltaic equipment; (ii) Subscriber Organization shall be in compliance with all other terms and conditions of this Contract; and (iii) such revision(s) shall not change the characteristics of the Facility equipment or the specifications used in the IRS. Any revision to this Section 5 complying with items (i) through (iii) above shall be subject to Company’s prior approval, which approval shall not be unreasonably withheld. If Subscriber Organization’s proposed revision(s) to this Section 5 otherwise satisfies items (i) and (ii) above but not item (iii) such that Company, in its reasonable discretion, determines that a re-study or revision to all or any part of the IRS is required to accommodate Subscriber Organization’s proposed revision(s), Company may, in its sole and absolute discretion, conditionally approve such revision(s) subject to a satisfactory re-study or revision to the IRS and Subscriber Organization's payment and continued obligation to be liable and responsible for all costs and expenses of re-studying or revising such portions of the IRS and for modifying and paying for all costs and expenses of modification to the Facility, the Company-Owned Interconnection Facilities based on the results of the re-studies or revisions to the IRS. Any changes made to this Attachment F of the Contract as a result of this Section 5(f) of Exhibit F-1 (Description of Generation and Battery Storage Facilities) shall be reflected in a written amendment to the Contract.

Subscriber Organization understands and acknowledges that Company’s review and approval of Subscriber Organization’s proposed revisions to this Section 5 and any necessary re-studies or revisions to the IRS shall be subject to Company’s then-existing time and personnel constraints. Company agrees to use commercially reasonable efforts, under such time and personnel constraints, to complete any necessary reviews, approvals and/or re-studies or revisions to the IRS.

Any delay in completing, or failure by Subscriber Organization to meet, the Commercial Operations Date as a result of any revisions pursuant to this Section

5 by Subscriber Organization (whether requiring a re-study or revision to the IRS or not) shall be borne entirely by Subscriber Organization and Company shall not be responsible or liable for any delay or failure to meet the Commercial Operations Date by Subscriber Organization.

6. Insurance carrier(s): [SUBSCRIBER ORGANIZATION TO PROVIDE INFORMATION]
7. If Subscriber Organization is not the operator, Subscriber Organization shall provide a copy of the agreement between Subscriber Organization and the operator which requires the operator to operate the Facility and which establishes the scope of operations by the operator and the respective rights of Subscriber Organization and the operator with respect to the sale of electric energy from Facility no later than the Commercial Operations Date. In addition, Subscriber Organization shall provide a certified copy of a certificate warranting that the operator is a corporation, partnership or limited liability company in good standing with the Hawai'i Department of Commerce and Consumer Affairs no later than the Commercial Operations Date.
8. Subscriber Organization shall provide a certified copy of a certificate warranting that Subscriber Organization is a corporation, partnership or limited liability company in good standing with the Hawai'i Department of Commerce and Consumer Affairs which shall be attached hereto as Exhibit F-1-1 (Good Standing Certificates).
9. Subscriber Organization, owner and operator shall provide Company a certificate and/or description of their ownership structures which shall be attached hereto as Exhibit F-1-2 (Ownership Structure).
10. In the event of a change in ownership or identity of Subscriber Organization, owner or operator, such entity shall provide within 30 Days thereof, a certified copy of a new certificate and a revised ownership structure.

--END--

**EXHIBIT F-2**  
**CONSULTANTS LIST**



**EXHIBIT F-3**  
**REQUIRED MODELS**

PSS/E

ASPEN

PSCAD

**EXHIBIT F-4**  
**GENERATOR AND ENERGY STORAGE CAPABILITY CURVE(S)**

**EXHIBIT F-5**  
**SINGLE-LINE DRAWING AND INTERFACE BLOCK DIAGRAM**

(To be attached as per Section 1.A. of Attachment F)

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**EXHIBIT F-6**  
**RELAY LIST AND TRIP SCHEME**

(To be attached as per Section 1.A. of Attachment F.)

**EXHIBIT F-7**  
**CONTROL SYSTEM ACCEPTANCE TEST CRITERIA**

**[THIS ATTACHMENT WILL NEED TO BE MODIFIED BASED ON THE TYPE AND DESIGN OF THE FACILITY AND RESULTS OF THE IRS]**

1. Final test criteria and procedures shall be agreed upon by Company and Subscriber Organization no later than thirty (30) Days prior to conducting the Control System Acceptance Test ("CSAT") in accordance with Good Engineering and Operating Practices and with the terms of this Agreement. The Control System RTU Points List is necessary for the effective operation of the Company System and will be tested during the Control System Acceptance Test.
2. The Control System Acceptance Test is comprised of two parts, a set of onsite (at Facility) specific tests and a monitoring performance test. These tests may include the following:
  - A. On-site Tests:
    1. SCADA Test to verify the status and analog telemetry, and if the remote controls between the Company's EMS and the Facility are working properly end-to-end.
    2. Dispatch Test to verify if the Facility's active power limit controls and the Active Power Control Interface with the Company's EMS are working properly. The Test is generally conducted by setting different active power setpoints and limits and observing the proper dispatch of the appropriate ramp rate of the Facility's real power output.
    3. Control Test for Voltage Regulation to verify the Facility can properly perform automatic voltage regulation as defined in this Agreement. Test is generally conducted by making small adjustments of the voltage setpoint and verifying by observation that the Facility regulates the voltage at the point of regulation to the setpoint by delivering/receiving reactive power to/from the Company System to maintain the applicable setpoint according to the reactive power control and the reactive amount requirements of Sections 3.A. (Reactive Power Control) and Section 3.B. (Reactive Amount) of Attachment F (Facility Owned by Subscriber Organization) to this Contract.
    4. Primary Frequency Response Test to verify the Facility provides a frequency droop response as defined in this Contract. Test is generally conducted by making adjustments of the frequency reference setting and verifying by observation that the Facility responds per droop and deadband settings.
    5. Loss-of-Communication Test to verify the Facility will properly shutdown upon the failure of the direct-transfer-trip communication system. Test is generally conducted by simulating a communications failure and observing the proper shutdown of the Facility.
    6. Round Trip Efficiency Test to verify that the round trip efficiency of the BESS is not less than [ ] percent ([ ]%). **[DRAFTING NOTE: The round trip efficiency percentage will be taken from Subscriber Organization's response to the RFP.]**
    7. Capacity Test to verify the BESS Capacity Ratio.
    8. Blackstart Test.
    9. Monitoring Test:

- a. The monitoring test requires the Facility to operate as it would in normal operations.
- b. To ensure useful and valid test data is collected, the monitoring test shall end when one of the following criteria is met:
  - 1) The Facility's power production is greater than 85% of its Allowed Capacity, for at least four (4) hours in any continuous 24-hour CSAT period.
  - 2) The recorded renewable energy resource at the Facility is above **[600 W/m<sup>2</sup>] [a Measured Wind Speed of 9 meters per second]** for at least eight (8) hours in any continuous 48-hour CSAT period.
  - 3) 14 continuous Days from the start of the CSAT.
- c. At the end of the test, an evaluation period is selected based on the criteria that triggered the end of the test.
- d. The performance of the Facility during the period of a successfully completed monitoring test is evaluated for, e.g., voltage regulation, primary frequency response, dispatch control, operating limits and ramp rate performance, to verify the performance meets the requirements of this Contract. The Facility is considered to have complied with a requirement if the Facility was compliant with the requirement at least 99.0% of the time during the evaluation period and the Facility does not grossly violate the requirement when the Facility was in violation. The Parties understand and agree that these compliance conditions are limited only to determining whether the Facility successfully completes the CSAT monitoring test and are not for use in determining compliance during Commercial Operations, shall not be considered a waiver of any of the performance standards of Subscriber Organization, all of which are hereby reserved, and shall not alleviate Subscriber Organization from any of its obligations under the Contract.

**EXHIBIT F-8**  
**ACCEPTANCE TEST GENERAL CRITERIA**

**[THIS ATTACHMENT WILL NEED TO BE MODIFIED BASED ON THE TYPE AND DESIGN OF THE FACILITY AND RESULTS OF THE IRS]**

Upon final completion of Company review of the Facility's drawings, final test criteria and procedures shall be agreed upon by Company and Subscriber Organization no later than thirty (30) Days prior to conducting the Acceptance Test in accordance with the Contract. The Acceptance Test may include the following:

**1. Interconnection.**

- A. Based on manufacturer's specification, test the local operation of the Facility's \_\_\_\_ kV breakers, which connect the Facility to Company System – must open and close locally using the local controls. Test and ensure that the status shown on the Energy Management System (EMS) is the same as the actual physical status in the field.
- B. Remotely test the operation of the Facility's \_\_\_\_ kV breakers which connect the Facility to Company System – must open and close remotely from Company's EMS. Test and ensure that the status shown on the EMS is the same as the actual physical status in the field.
- C. Relay test engineers to connect equipment and simulate certain inputs to test and ensure that the protection schemes such as any under/over frequency and under/over voltage protection or the Direct Transfer Trip operate as designed. (For example, a fault condition may be simulated to confirm that the breaker opens to sufficiently clear the fault. Additional scenarios may be tested and would be outlined in the final test criteria and procedures.) Subscriber Organization to also test the synchronizing mechanisms to which the Facility would be synchronizing and closing into the Company System to ensure correct operation. Other relaying also to be tested as specified in the protection review of the IRS and on the single line diagram, Attachment E (Single-Line Drawing and Interface Block Diagram) for the Facility.
- D. All \_\_\_\_ kV breaker disconnects and other high voltage switches will be inspected to ensure they are properly aligned and operated manually or automatically (if designed).
- E. Switching Station inspections – The Switching Station may be inspected to test and ensure that the equipment that Subscriber Organization has installed is installed and operating correctly based upon agreed to design. Wiring may be field verified on a sample basis against the wiring diagrams to ensure that the installed equipment is wired properly. The grounding mat at the Switching Station may be tested to make sure there is adequate grounding of equipment.
- F. Communication testing – Communication System testing to occur to ensure correct operation. Detailed scope of testing will be agreed by Company and Subscriber Organization to reflect installed systems and communication paths that tie the Facility to Company's communications system.
- G. Various contingency scenarios to be tested to ensure adequate operation, including testing contingencies such as loss of communications, and fault simulations to ensure that the Facility's \_\_\_\_ kV breakers, if any, open as they are designed to open. (Back up relay testing)
- H. Metering section inspection; verification of metering PTs, CTs, and cabinet and the installation of Company meters.

**2. Telephone Communication.**

- A. Test to confirm Company has a direct line to the Facility control room at all times and that it is programmed correctly.
- B. Test to confirm that the Facility operators can sufficiently reach Company System Operator.

If agreed by the Parties in writing, some requirements may be postponed to the Control Systems Acceptance Test.



**EXHIBIT F-9**  
**METHODS AND FORMULAS FOR MEASURING PERFORMANCE STANDARDS**

1. Performance Standards as defined below shall be used, in part, to govern actions by Company to limit the Actual Output of the Facility for purposes of maintaining power quality on Company System. Specific standards are defined for:

- Ramp Rate (RR)

2. Formulas for measuring the performance standards are presented below and assume that the power fluctuations will be monitored on the Company's SCADA and EMS systems. These formulas are based on the periodicity at which analog data is retrieved from Telemetry and Control. This periodicity is called the "scan rate". Company presently uses a two-second analog scan rate. The formulas below are based on the two-second scans. The two-second scan rate, characteristics of transducers and Telemetry and Control reporting, and SCADA method of calculation, were considered and included in the proposed values for the performance standards.

3. Ramp Rate Calculation:

$$RR = MW_s - MW_{s-30}$$

Where:

$RR$  = Ramp Rate, may be calculated once every scan

$MW_{s-30}$  = The instantaneous MW analog value 30 scans (60 seconds) prior the present scan

$MW_s$  = The instantaneous MW analog value for the present scan

4. All changes in output shall be implemented as a ramp rate, and not with one or two step changes within the period. It is not acceptable, for example, for a two MW/minute ramp rate compliance, that all values be zero except for a 2 MW change in the last scan value.



**Hawaiian  
Electric**

*Draft Project Specific Addendum  
For  
Renewable Dispatchable Generation  
Projects Located on Maui or Hawai‘i Island*

*Project Type: PV + BESS Community Based Renewable Energy*

*Contract Capacity: \_\_\_\_\_MW of Generation*

*BESS Contract Capacity: \_\_\_\_\_MW of Storage*

*Are the PV System and the BESS DC-Coupled? No ☐ Yes ☐*

*CBRE Facility Location: \_\_\_\_\_*

*Execution Date: \_\_\_\_\_*

## PROJECT SPECIFIC ADDENDUM

This **PROJECT SPECIFIC ADDENDUM** is incorporated by reference into the **MID-TIER STANDARD FORM CONTRACT FOR RENEWABLE DISPATCHABLE GENERATION** for this CBRE Facility and entered into coterminous with such Mid-Tier Standard Form Contract as of \_\_\_\_\_, 20\_\_ (the “Execution Date”), by [Maui Electric Company, Ltd., Hawai‘i Electric Light Company, Inc.] a Hawai‘i corporation (“Company”) and \_\_\_\_\_ (“Subscriber Organization”). Together, the Company and Subscriber Organization are the “Parties” and may singularly each be referred to as a “Party”.

**WHEREAS**, the Company has certain technical and contractual requirements are specific to the individual islands;

**WHEREAS**, the CBRE Facility will be located at \_\_\_\_\_ on the island of [Maui, Hawai‘i];

**WHEREAS**, this Project Specific Addendum (“PSA”) contains all of the Island Specific provisions for the island of [Maui, Hawai‘i] that apply to this CBRE Facility;

**WHEREAS**, the Parties agree to abide by the provisions of this PSA, as hereinafter set-forth.

### **NOW, THEREFORE THE PARTIES AGREE AS FOLLOWS:**

1. The text of Section 26.J (Hawai‘i General Excise Tax) of the Mid-Tier Standard Form Contract for this CBRE Facility shall read as follows:

Hawai‘i General Excise Tax. Subscriber Organization shall, when making payments to Company under this Contract, pay such additional amount as may be necessary to reimburse Company for the Hawai‘i general excise tax on gross income and all other similar taxes imposed on Company by any Governmental Authority with respect to payments in the nature of gross receipts tax, sales tax, privilege tax or the like, but excluding federal or state net income taxes. By way of example and not limitation, as of the Execution Date, all payments subject to the Hawai‘i general excise tax, (i) on the islands of on Maui, Moloka‘i and Lāna‘i (totaling 4.0% as of the Execution Date) would include an additional 4.166% so that the underlying payment will be net of such tax liability; and (ii) all payments subject to general excise tax plus surcharge on Hawai‘i island (totaling 4.5% as of the Execution Date) would include an additional 4.7120% so the underlying payment will be net of such tax liability.

2. If the CBRE Facility is located on a Company-owned Site then Attachment 1 – COMPANY-OWNED SITE shall be attached to this Project Specific Amendment and be a part hereof. Such Attachment 1 provides additional requirements for use of the Company-owned Site.

3. Attachment F (Facility Owned Subscriber Organization) to the Mid-Tier Standard Form Contract for this CBRE Facility shall consist of the following Attachment F and Exhibits F-1 to F-8 that are attached to this Project Specific Addendum. In the event this CBRE Facility is DC-coupled, Attachment 2 - DC-COUPLED STORAGE shall be attached to this Project Specific Amendment and be a part hereof. Such

Attachment 2 replaces certain terms and conditions found in the Mid-Tier Standard Form Contract and the attached Attachment F.

<b>Maui or Hawai'i Island</b>	
<b>ATTACHMENT F</b>	Facility Owned by Subscriber Organization
<b>Exhibit F-1</b>	Description of Generation and Battery Storage Facilities
<b>Exhibit F-2</b>	Consultants List
<b>Exhibit F-3</b>	Modeling Requirements
<b>Exhibit F-4</b>	Generator and Energy Storage Capability Curve(s)
<b>Exhibit F-5</b>	Single-Line Drawing and Interface Block Diagram
<b>Exhibit F-6</b>	Relay List and Trip Scheme
<b>Exhibit F-7</b>	Control System Acceptance Test Criteria
<b>Exhibit F-8</b>	Acceptance Test General Criteria

**IN WITNESS WHEREOF**, the Parties hereto have caused this Project Specific Addendum to be executed by their duly authorized representatives. This Project Specific Addendum is effective as of the Effective Date set forth above.

[Subscriber Organization]		[Hawai'i Electric Light Company, Inc. Maui Electric Company, Limited], a Hawai'i corporation
By: _____ Name: _____ Date: _____		By: _____ Name: _____ Date: _____

MAILING ADDRESS [select as appropriate]

Maui Electric Company, Ltd. Attn: Renewable Energy Projects Division P.O. Box 398 Kahului, HI 96733-6898]	Hawai'i Electric Light Company, Inc.  <u>Hilo:</u> Hawai'i Electric Light Engineering Attn: DER Program 54 Halekauila Street Hilo, HI 96720  <u>Kona:</u> Hawai'i Electric Light Engineering Attn: DER Program 74-5519 Kaiwi Street Kailua Kona, HI 96740]
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**ATTACHMENT F**  
**FACILITY OWNED BY SUBSCRIBER ORGANIZATION**

**1. THE FACILITY.**

**A. Drawings, Diagrams, Lists, Settings and As-Built.**

1. Single-Line Drawing, Interface Block Diagram, Relay List, Relay Settings and Trip Scheme.  
A preliminary single-line drawing (including notes), Interface Block Diagram, relay list, relay settings, and trip scheme of the Facility shall, after Subscriber Organization has obtained prior written consent from Company, be attached to this Contract on the Execution Date as Exhibit F-5 (Single-Line Drawing and Interface Block Diagram) and Exhibit F-6 (Relay List and Trip Scheme). A final single-line drawing (including notes), Interface Block Diagram, relay list and trip scheme of the Facility shall, after having obtained prior written consent from Company, be labeled the "Final" Single-Line Drawing, the "Final" Interface Block Diagram and the "Final" Relay List and Trip Scheme and shall supersede Exhibit F-5 (Single-Line Drawing and Interface Block Diagram) and Exhibit F-6 (Relay List and Trip Scheme) to this Contract and shall be made a part hereof on the Commercial Operations Date. After the Commercial Operations Date, no changes shall be made to the "Final" Single-Line Drawing, the "Final" Interface Block Diagram and the "Final" Relay List and Trip Scheme without the prior written consent of Subscriber Organization and Company. The single-line drawing shall expressly identify the Point of Interconnection of Facility to Company System.
2. As-Built. Subscriber Organization shall provide final as-built drawings of the Subscriber Organization-Owned Interconnection Facilities within 30 Days of the successful completion of the Acceptance Test.
3. Modeling. Subscriber Organization shall provide the models as set forth in Exhibit F-4.
4. No Material Changes. Subscriber Organization agrees that no material changes or additions to the Facility as reflected in the "Final" Single-Line Drawing (including notes), the "Final" Interface Block Diagram and the "Final" Relay List and Trip Scheme, shall be made without Subscriber Organization first having obtained prior written consent from Company. The foregoing are subject to changes and additions as part of any Performance Standards Modifications. If Company directs any changes in or additions to the Facility, records and operating procedures that are not part of any Performance Standards Modifications, Company shall specify such changes or additions to Subscriber Organization in writing, and, except in the case of an emergency, Subscriber Organization shall have the opportunity to review and comment upon any such changes or additions in advance.

**B. Certain Specifications for the Facility.**

1. Subscriber Organization shall furnish, install, operate and maintain the Facility including breakers, relays, switches, synchronizing equipment, monitoring equipment and control and protective devices approved by Company as suitable for parallel operation of the Facility with Company System. The Facility shall be accessible at all times to authorized Company personnel.
2. The Facility shall include:

**[LIST OF THE FACILITY]**

**Examples may include, but are not limited to:**

- **Subscriber Organization-Owned Interconnection Facilities**

- **Substation**
  - **Control and monitoring facilities**
  - **Transformers**
  - **Generating and/or Battery Energy Storage System (“BESS”) equipment (as described in Exhibit F-1)**
  - **"Lockable" cabinets or housings suitable for the installation of the Company-Owned Interconnection Facilities located on the Site**
  - **Relays and other protective devices**
  - **Leased telephone line and/or equipment to facilitate microwave communication]**
3. The Facility shall comply with the following [some requirements may be removed by Company following completion of Technical Review or IRS]:
- a. Subscriber Organization shall install a \_\_\_\_ kV gang operated, load breaking, lockable disconnect switch and all other items for its switching station (relaying, control power transformers, high voltage circuit breaker). Bus connection shall be made to a manually and automatically (via protective relays) operated high-voltage circuit breaker. The high-voltage circuit breaker shall be fitted with bushing style current transformers for metering and relaying. Downstream of the high-voltage circuit breaker, a structure shall be provided for metering transformers. From the high-voltage circuit breaker, another bus connection shall be made to another pole mounted disconnect switch, with surge protection.
  - b. Subscriber Organization shall provide within the Subscriber Organization-Owned Interconnection Facilities a separate, fenced area with separate access for Company. Subscriber Organization shall provide all conduits, structures and accessories necessary for Company to install the Revenue Metering Package. Subscriber Organization shall also provide within such area, space for Company to install its communications, supervisory control and data acquisition ("SCADA") equipment (remote terminal unit or equivalent) and certain relaying if necessary for the interconnection. Subscriber Organization shall also provide AC and DC source lines as specified by Company. Subscriber Organization shall provide a telephone line for Company-owned meters. Subscriber Organization shall work with Company to determine an acceptable location and size of the fenced-in area. Subscriber Organization shall provide an acceptable demarcation cabinet on its side of the fence where Subscriber Organization and Company wiring will connect/interface.
  - c. Subscriber Organization shall ensure that the Subscriber Organization-Owned Interconnection Facilities have a lockable cabinet for switching station relaying equipment. Subscriber Organization shall select and install relaying equipment acceptable to Company. At a minimum, the relaying equipment will provide over and under frequency (81) negative phase sequence (46), under voltage (27), over voltage (59), ground over voltage (59G), over current functions (50/51) and direct transfer trip (if required). The settings shall be consistent with the requirements for over/under frequency and voltage ride-through. Subscriber Organization shall install protective relays that operate a lockout relay (86), which in turn will trip the main circuit breaker and not allow it to be reclosed without reset.
  - d. [Reserved]
  - e. Subscriber Organization's equipment also shall provide at a minimum:

- 1) Interface with Company's Telemetry and Control, or designated communications and control interface, to provide telemetry of electrical quantities such as total Facility net MW, MVar, power factor, voltages, currents, and other quantities as identified by the Company;
  - 2) Interface with Company's Telemetry and Control, or designated communications and control interface, to provide status for circuit breakers, reactive devices, switches, and other equipment as identified by the Company;
  - 3) Interface with Company's Telemetry and Control, or designated communications and control interface, to provide control to incrementally raise and lower the voltage target at the point of regulation operating in automatic voltage regulation control;
  - 4) Interface with Company's Telemetry and Control, or designated communications and control interface, to provide the active power control requirements of this Contract. More than one interface may be required if Facility energy components, such as a BESS and variable generation resource are controlled separately by the Company (as in grid-charging BESS);
  - 5) Interface with Company's Telemetry and Control, or designated communications and control interface, for the Company to specify control system modes of operation and parameters, for remotely configurable parameters and operating states required under this Contract;
  - 6) For Variable Energy Facilities: Interface with Company's Telemetry and Control, or designated communications and control interface, to provide telemetry of equipment availability and meteorological and production data required under Section 8 (Data and Forecasting) of this Attachment F (Facility Owned by Subscriber Organization) and the Facility's Power Possible; and
  - 7) Provision for Loss of Telemetry and Control: If Company's Telemetry and Control, or designated communications and control interface, is unavailable, due to loss of communication link, Telemetry and Control failure, or other event resulting in loss of the remote control by Company, provision must be made for Subscriber Organization to be able to institute via local controls, within 5 minutes (or such other period as Company accepts in writing) of the verbal directive by the Company System Operator, such change in voltage regulation target and real power export or import as directed by the Company System Operator. If all local and remote active power controls become unavailable or fail, the Facility may be required disconnect from the Company's System **[to be based upon the size of the system]**
  - 8) If the direct transfer trip is required and is unavailable due to loss of communication link, Telemetry and Control failure, or other event resulting in the loss of the remote control by the Company, provision must be made for the Subscriber Organization to shutdown Facility and open and lockout the main circuit breaker.
- f. If Subscriber Organization adds, deletes and/or changes any of its equipment, or changes its design in a manner that would change the characteristics of the equipment and specifications used in the IRS, Subscriber Organization shall be required to obtain Company's prior written approval. If an analysis to revise parts of the IRS is required, Subscriber Organization shall be responsible for the cost of revising those parts of the IRS, and modifying and paying for the cost of the modifications to the Facility and/or the Company-Owned Interconnection Facilities based on the revisions to the IRS.



g. Cybersecurity and Critical Infrastructure Protection.

**[DRAFTING NOTE: COMPANY RETAINS SOLE DISCRETION TO CONSIDER THE LESS STRINGENT REQUIREMENTS (WHICH ARE INCLUDED IN THE FIRST SET OF ALTERNATIVE CYBER-SECURITY PROVISIONS UNDER G. (i) THROUGH (iv)) FOR PROJECTS THAT DO NOT EXCEED 1 MW.]**

- 1) Safety and Security Procedures. The Subscriber Organization shall maintain and enforce safety and security procedures to safeguard: all data provided by Company to Subscriber Organization pursuant to this Contract or in any way connected with the CBRE Program and the administration of the CBRE Program including but not limited to Subscriber names, Subscriber account numbers and information on such accounts, Subscriber addresses, Subscriber rate schedules and Subscriber CBRE bill credit information (“Company CBRE Data”); and all information regarding Company’s customers, customer lists, any of the data and testing results produced under this Contract and any information identified by Company as confidential (“Company Customer Data” and together with Company CBRE Data, collectively referred to as “Company Confidential Information”); all generation and telemetry data provided by the Subscriber Organization to the Company (“SO Data”); in Subscriber Organization’s possession, including Company Confidential Information that Subscriber Organization provides to any contractors, consultants, and other third parties retained by Subscriber Organization to assist Subscriber Organization to perform under this Contract in the course of Subscriber Organization’s performance pursuant to this Contract. Subscriber Organization warrants that it shall (A) use the National Institute of Standards and Technology (“NIST”) industry best practices for physical and systems security measures to prevent destruction, loss, alteration or unauthorized access to, use of, or tampering with, the CBRE Facility, Subscriber Organization software, and Company Confidential Information, including to protect the confidentiality and integrity of any of Company Confidential Information, operation of Company’s systems, and to prevent viruses and similar destructive code from being placed in any software or data provided to Company, on Subscriber Organization’s or Company’s website, or in Subscriber Organization’s or Company’s programming; and (B) use NIST industry best practices physical security and precautionary measures to prevent unauthorized access or damage to the CBRE Facility, including to protect the confidentiality and integrity of any of Company’s Confidential Information as well as the operation of Company’s systems. Subscriber Organization shall, at a minimum, protect Company’s Confidential Information and provide the standard of care required by NIST cybersecurity requirements, and the same measures it uses to protect its own confidential information.
- 2) Exception to Certain NIST Requirements. Company, at its sole and absolute discretion, may waive the requirements concerning NIST industry best practices as set forth in subsection 1(A) and (B) above provided that Subscriber Organization implements alternate measures that Company deems acceptable and not inconsistent with Company’s standards with respect to (A) physical and systems security measures to prevent destruction, loss, alteration or unauthorized access to, use of, or tampering with, the CBRE Facility, software and Company’s Confidential Information, including to protect the confidentiality and integrity of any of Company’s Confidential Information, operation of Company’s systems, and to prevent viruses and similar destructive code from being placed in any software provided to Company, on Subscriber Organization’s or Company’s website, or in Subscriber Organization’s or Company’s programming; and (B) physical security and precautionary measures to

prevent unauthorized access or damage to the CBRE Facility, including to protect the confidentiality and integrity of any of Company's Confidential Information as well as the operation of Company's systems.

- 3) Security Breach. In the event that Subscriber Organization discovers or is notified of a breach, potential breach of security, or security incident at the CBRE Facility or of Subscriber Organization's systems (a "Security Breach"), Subscriber Organization shall immediately (i) notify Company of such Security Breach, whether or not such breach has compromised any of Company Confidential information, (ii) investigate and remediate the effects of the Security Breach, (iii) cooperate with Company with respect to any such Security Breach and provide necessary information on the Security Breach as requested by Company; and (iv) comply with all applicable privacy and data protection laws, including any notification obligations. Any remediation of any Security Breach will be at Subscriber Organization's sole expense.
- 4) "Subscriber" means a retail customer of the Company who owns a subscription of Subscriber Organization's CBRE project interconnected with the Company.

**[ALTERNATIVE ENHANCED CYBER-SECURITY PROVISIONS-WAIVED  
SOLELY AT DISCRETION OF COMPANY.]**

- (i) Security Policies and Documentation. Subscriber Organization shall implement and document security policies and standards in accordance with industry best practices (e.g., aligned with the intent of NERC CIP-003-6 R1) and consistent with Company's security policies and standards. Subscriber Organization shall submit documentation describing the approach, methodology, and design to provide physical and cyber security (i.e., aligned with the intent of NERC CIP-003-6 R2) with its submittal of the design drawings pursuant to Section 1.C. (Design Drawings, Bill of Materials, Relay Settings and Fuse Selection) of Attachment F (Facility Owned by Subscriber Organization) which shall be at least sixty (60) Days prior to the Acceptance Test.
  - (a) The design shall meet industry standards and best practices, consistent with the National Institute of Standards and Technology ("NIST") guidelines as indicated in Special Publication 800-53 Rev. 4 "Security and Privacy Controls for Federal Information Systems and Organizations" and Special Publication 800-82 Rev. 2 "Guide to Industrial Control Systems (ICS) Security". The system shall be designed with the criteria to meet applicable compliance requirements and identify areas that are not consistent with NIST guidelines and recommendations.
  - (b) The cybersecurity documentation shall include a block diagram of the control system with all external connections clearly described.
  - (c) Subscriber Organization shall provide such additional information as Company may reasonably request as part of a security posture assessment.
  - (d) Subscriber Organization shall, at the request of Company or, in the absence of any request from Company, at least annually during the term of this Contract, provide Company with updated documentation and diagrams including a record of changes.
- (ii) Network and Application Security. Subscriber Organization shall implement appropriate network and application security processes and practices

commensurate with the level of risk as determined by periodic risk assessments (i.e., aligned with the intent of NERC CIP-005-5):

- (a) Segment and segregate networks and functions, including physical and logical separation between business networks and control system networks (i.e., aligned with the intent of NERC CIP-005-5 R1).
  - (b) Limit unnecessary lateral communications (i.e., aligned with the intent of NERC CIP-005-5 R1).
  - (c) Harden network devices (i.e., aligned with the intent of NERC CIP-007-6 R1).
  - (d) Secure access to infrastructure devices (i.e., aligned with the intent of NERC CIP-004-6 R4).
  - (e) Perform out-of-band (OoB) network management (i.e., aligned with the intent of NERC CIP-005-5 R2).
  - (f) Validate integrity of hardware and software (i.e., aligned with the intent of NERC CIP-010-3 R1 and NERC CIP-006-6 R1 Part 10).
- (iii) Endpoint and Server Security. Subscriber Organization shall implement appropriate endpoint and server security processes and practices commensurate with the level of risk as determined by periodic risk assessments:
- (a) Mechanisms to identify vulnerabilities and apply security patches in a timely manner (i.e., aligned with the intent of NERC CIP-007-6 R2).
  - (b) Malware defense and anti-phishing capabilities (i.e., aligned with the intent of NERC CIP-007-6 R3).
  - (c) Access Controls to enforce the least privilege principle and provide access to resources only for authorized users (i.e., aligned with the intent of NERC CIP-004-6 R4).
  - (d) Secure authentication mechanisms including multi-factor authentication for systems with higher risk exposure (i.e., aligned with the intent of NERC CIP-007-6 R5 and NERC CIP-005-5 R2).
  - (e) Data confidentiality, protection, and encryption technologies for endpoints, servers, and mobile devices (i.e., aligned with the intent of NERC CIP-011-2 R1 and NERC CIP-005-5 R2).

Subscriber Organization shall (consistent with the following sentence) ensure that no malicious software ("Malware") or unauthorized code is introduced into any aspect of the Facility, Interconnection Facilities, the Company Systems interfacing with the Facility and Interconnection Facilities, and any of Subscriber Organization's critical control systems or processes used by Subscriber Organization to provide energy, including the information, data and other materials delivered by or on behalf of Subscriber Organization to Company, (collectively, the "Environment"). Subscriber Organization shall periodically review, analyze and implement improvements to and upgrades of its Malware prevention and detection programs and processes that are commercially reasonable and consistent with the then current technology industry's standards and, in any case, not less robust than the programs and processes implemented by Subscriber Organization with respect to its own information systems.

- (iv) Cybersecurity Program. Subscriber Organization shall establish and maintain a continuous cybersecurity program (i.e., aligned with the intent of NERC CIP-003-6) that enables the Subscriber Organization (or its designated third party) to:
- (a) Define the scope and boundaries, policies, and organizational structure of the cybersecurity program.
  - (b) Conduct periodic risk assessments to identify the specific threats to and vulnerabilities of the Subscriber Organization's Organization consistent with guidance provided in NIST Special Publication 800-30 Rev. 1 "Guide for Conducting Risk Assessments".
  - (c) Implement appropriate mitigating controls and training programs and manage resources.
  - (d) Monitor and periodically test the cybersecurity program to ensure its effectiveness. Subscriber Organization shall review and adjust their cybersecurity program as appropriate for any assessed risks.
  - (e) Applicability is extended to Cloud Service providers and other third-party services the Subscriber Organization may use.
- (v) Security Monitoring and Incident Response. Company and Subscriber Organization shall collaborate on security monitoring and incident response, define points of contact on both sides, establish monitoring and response procedures, set escalation thresholds, and conduct training (i.e., aligned with the intent of NERC CIP-008-5). Subscriber Organization shall, at the request of Company or, in the absence of any request from Company, at least quarterly, provide Company with a report of the incidents that it has identified and describe measures taken to resolve or mitigate.

In the event that Subscriber Organization discovers or is notified of a breach, potential breach of security, or security incident at Subscriber Organization's Facility or of Subscriber Organization's systems, Subscriber Organization shall immediately (aa) notify Company of such potential, suspected or actual security breach, whether or not such breach has compromised any of Company's confidential information; (bb) investigate and promptly remediate the effects of the breach, whether or not the breach was caused by Subscriber Organization; (cc) cooperate with Company with respect to any such breach or unauthorized access or use; (dd) comply with all applicable privacy and data protection laws governing Company's or any other individual's or entity's data; and (ee) to the extent such breach was caused by Subscriber Organization, provide Company with reasonable assurances satisfactory to Company that such breach, potential breach, or security incident shall not recur. Subscriber Organization shall provide documentation to Company evidencing the length and impact of the breach. Any remediation of any such breach will be at Subscriber Organization's sole expense.

If malicious software or unauthorized code is found to have been introduced into the Environment, Subscriber Organization will promptly notify Company. Subscriber Organization shall take immediate action to eliminate and remediate the effects of the Malware, at Subscriber Organization's expense. Subscriber Organization shall not modify or otherwise take corrective action with respect to the Company Systems except at Company's request. Subscriber Organization shall

promptly report to Company the nature and status of all efforts to isolate and eliminate malicious software or unauthorized code.

(vi) Monitoring and Audit. Subscriber Organization shall provide information on available audit logs and reports relating to cyber and physical and security (i.e., aligned with the intent of NERC CIP-007-6 R4). Company may audit Subscriber Organization's records to ensure Subscriber Organization's compliance with the terms of this Section 1B.3.G (Cybersecurity and Critical Infrastructure Protection) of this Attachment F (Facility Owned by Subscriber Organization), provided that Company has provided reasonable notice to Subscriber Organization and any such records of Subscriber Organization's will be treated by Company as confidential.

(vii) Contingency Plans. Subscriber Organization shall implement and maintain a business continuity plan, a disaster recovery plan, and an incident response plan ("Contingency Plans" – i.e., aligned with the intent of NERC CIP-009-6) appropriate for the level of risk based on the impact of Subscriber Organization's associated facilities, systems and equipment, which, if destroyed, degraded, misused, or otherwise rendered unavailable, would affect the reliable operation of the Company System. The Contingency Plans shall be provided to Company upon request. Such Contingency Plans shall be updated to reflect lessons learned from real recovery events.

h. Available Power Production.

1) Variable Energy Systems. Subscriber Organization's available power production considering equipment and resource availability (Power Possible) will be determined at any given time using the best-available data and methods for an accurate representation of the amount of available active power at the Point of Interconnection.

2) Variable Energy Systems Paired with Storage Operated through a Single Active Power Control Interface. For variable energy systems paired with storage operated through a single active power control interface (i.e., charging indirectly controlled through dispatch), Subscriber Organization's available power production considering equipment and resource availability and BESS state of charge ("Power Possible") will be determined at any given time using the best-available data and methods for an accurate representation of the amount of available active power at the Point of Interconnection. Telemetry will be provided to indicate state of charge, including available estimated duration at the current dispatch given state of charge and forecast production.

i. For variable resources where Power Possible is derived, in part or in whole, from a measured available variable energy source such as solar or wind: To the extent available, the Parties shall use Subscriber Organization's real time Power Possible communicated to Company through the SCADA system except to the extent that the potential energy does not accurately reflect the actual available active power at the Point of Interconnection (plus or minus 0.1 MW). During those periods of time when the SCADA derived Power Possible is unavailable or does not accurately represent the available power production considering equipment and resource availability and BESS State of Charge, the Parties shall use the best available data obtained through commercially reasonable methods to determine the Power Possible. Follow up actions to resolve the discrepancy will be as provided in Section 1.J. (Demonstration of Facility) of this Attachment F (Facility Owned by Subscriber Organization).

- 1) If, at any time during the Term, there is a material discrepancy or pattern of discrepancies in the accuracy of Power Possible, the Parties shall review the method for determining Power Possible and develop modifications with the objective of avoiding future discrepancies. If the Parties are unable to resolve the issue, then (aa) the Parties shall promptly commission a study to be performed by one of the engineering firms then included on the Qualified Independent Third-Party Consultants List attached to the Agreement as Attachment D (Consultants List) to evaluate the cause of the Power Possible discrepancy and to make recommendations with the objective of avoiding future Power Possible discrepancies ("Study"); and (bb) if the Company decides that its ability to effectively optimize the benefits of its right of Company Dispatch to dispatch the Facility's Net Energy Potential is materially impaired by the lack of an accurate method to determine Power Possible, the Company shall have the right to derate the Facility and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status until the Study has been completed and the Study's recommendations have been implemented by Subscriber Organization to Company's reasonable satisfaction. Subscriber Organization shall pay for the cost of the Study. The Study shall be completed within ninety (90) days from the date the Study is commissioned, unless otherwise reasonably agreed to in writing by Subscriber Organization and Company. The Consultant shall send the Study to Company and Subscriber Organization. Subscriber Organization (and/or its Third-Party consultants and contractors), at Subscriber Organization's expense, shall take such action as the Study shall recommend (e.g., modifications to the model, modifications and/or additions to the data inputs used in the model, modifications to the procedures for maintaining and/or recalibrating the Monitoring and Communication Equipment used to provide data inputs, replacement of such Monitoring and Communication Equipment, modifications of procedures for Facility operations) with the objective of avoiding future Power Possible discrepancies. Such recommendations shall be implemented by Subscriber Organization to Company's reasonable satisfaction no later than forty-five (45) Days from the Day the completed Study is issued by the consultant, or such other longer commercially reasonable timeframe otherwise agreed to in writing by Company.
  - j. Subscriber Organization shall reserve space within the Site for possible future installation of Company-owned meteorological equipment (such as wind speed, direction and relative humidity monitors, SODAR and irradiance monitors) and AC and DC source lines for such equipment as may be required depending on the Facility resource type and location. In the event Company decides to install such meteorological equipment: (i) Subscriber Organization shall work with Company to determine an acceptable location for such equipment and any associated wiring, interface or other components; and (ii) Company shall pay for the needed equipment, and installation of such equipment, unless otherwise agreed to by the Parties. Company and Subscriber Organization shall use commercially reasonable efforts to facilitate installation and minimize interference with the operation of the Facility.
  - k. The Facility shall, at a minimum, satisfy the wind load and seismic load requirements of the International Building Code and any more stringent requirements imposed under applicable Laws.
- C. Design Drawings, Bill of Material, Relay Settings and Fuse Selection. Subscriber Organization shall provide to Company for its review the design drawings, Bill of Material, relay settings and fuse selection for the Facility, and Company shall have the right, but not the obligation, to specify the type of electrical equipment, the interconnection wiring, the type of protective relaying

equipment, including, but not limited to, the control circuits connected to it and the disconnecting devices, and the settings that affect the reliability and safety of operation of Company's and Subscriber Organization's interconnected system. Subscriber Organization shall provide the relay settings and protection coordination study, including fuse selection and AC/DC Schematic Trip Scheme (part of design drawings), for the Facility to Company during the 60% design. Company, at its option, may, with reasonable frequency, witness Subscriber Organization's operation of control, synchronizing, and protection schemes and shall have the right to periodically re-specify the settings. Subscriber Organization shall utilize relay settings prescribed by Company, which may be changed over time as Company System requirements change.

- D. Disconnect Device. Subscriber Organization shall provide a manually operated disconnect device which provides a visible break to separate Facility from Company System. Such disconnect device shall be lockable in the OPEN position and be readily accessible to Company personnel at all times.
- E. Other Equipment. Subscriber Organization shall install, own and maintain the infrastructure associated with the Revenue Metering Package, including but not limited to all enclosures (meter cabinets, meter pedestals, meter sockets, pull boxes, and junction boxes, along with their grounding/bonding connections), CT/PT mounting structures, conduits and duct lines, enclosure support structures, ground buses, pads, test switches, terminal blocks, isolation relays, telephone surge suppressors, and analog phone lines (one per meter), subject to Company's review and approval.
- F. Maintenance Plan. Subscriber Organization shall maintain Subscriber Organization-Owned Interconnection Facilities in accordance with Good Engineering and Operating Practices.
- G. Active Power Control Interface. **[COMPANY TO REVISE THIS SECTION BASED ON SPECIFICS OF THE PROJECT.]**
  - 1. Subscriber Organization shall provide and maintain in good working order all equipment, computers and software associated with the control system (the "Active Power Control Interface") necessary to interface the Facility active power controls with the Company System Operations Control Center for real power control of the Facility by the Company System Operator.

The detailed design will be tailored to the specific resource type and configuration to achieve the functional requirements of the Facility.

The Active Power Control Interface will be used to control the net real power export (or import, as applicable) from the Facility for load following, system balancing, energy arbitrage, and/or supplemental frequency control as required under this Attachment F (Facility Owned by Subscriber Organization).

For variable resources paired with storage: The implementation of the Active Power Control Interface will allow the Company System Operator to control the net real power import or export (or import, as applicable for facilities with grid-charging storage) from the entire Facility, up to Power Possible, remotely from the Company System Operations Control Center through control signals from the Company System Operations Control Center. The Facility will maintain the power level specified by the Company through the variable resource and BESS available energy, subject to the availability of resource and BESS State of Charge.

For facilities with grid charging storage, the Active Power Control interface will provide for a negative signal resulting in charging the BESS. The Facility real power output (or import, if grid storage charging is enabled) will automatically adjust to a change in frequency in

accordance with the frequency response requirements provided in this Attachment F (Facility Owned by Subscriber Organization).

2. Company shall review and provide prior written approval of the design for the Active Power Control Interface to ensure compatibility with Company's centralized control systems and use of Facility available energy and storage capabilities. To ensure such continued compatibility, Subscriber Organization shall not materially change the approved design without Company's prior review and written approval. This will include design description and parameters for the Subscriber Organization's control system(s), which determine provision of net real power from the variable resource System (PV) and/or the BESS storage, and charging of the BESS storage, in response to the Active Power Control signal or signals.
3. The Active Power Control Interface shall include, but not be limited to, a demarcation cabinet, ancillary equipment and software necessary for Subscriber Organization to connect to Company's Telemetry and Control, located in Company's portion of the Facility switching station which shall provide the control signals to the Facility and send feedback status to the Company System Operations Control Center. The control type shall be analog output (set point) or raise/lower controls and will be established by the Company prior to final design approval.
4. The Active Power Control Interface shall also include provision for feedback points from the Facility indicating when active power target in MW for the Active Power Control signal(s). The Facility shall provide the MW target feedback to the Company SCADA system immediately upon receiving the respective control signal from the Company.
5. Subscriber Organization shall provide to the telemetry interface analogs for the gross production of the energy resource(s) at the Facility (for example, DC or AC MW production of the variable resource generator(s), depending on design; gross DC MW of the BESS, etc.). Subscriber Organization shall also provide the total net AC MW production at the Point of Interconnection.
6. The Active Power Control Interface shall provide for remote control of the real power output of the Facility by the Company at all times. If the Active Power Control Interface is unavailable or disabled, the Facility may not export electric energy to Company and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status, unless the Company, in its sole discretion, agrees on an alternate means of dispatch. The alternate means of dispatch, including but not limited to local controls, is to be the temporary dispatch mechanism until the Active Power Interface is returned to service and must be capable of changing the real power export or import as directed by the Company System Operator within a mutually agreed response time by the Subscriber Organization receiving the directive from the Company System Operator, verbal or otherwise available by such alternate means. The mutually agreed upon response time will be established in writing after the completion of the IRS. If Subscriber Organization fails to provide such remote control capability (whether temporarily or throughout the Term), then, notwithstanding any other provision of this Attachment F (Facility Owned by Subscriber Organization), Company shall have the right to derate or disconnect the entire Facility during those periods that such control capability is not provided and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status for such periods.
  - If all local and remote active power controls become unavailable or fail, the Company shall have the right to immediately disconnect the CBRE Facility from the Company System. If the direct transfer trip is unavailable due to loss of communication link, Telemetry and Control failure, or other event resulting in the loss of the remote control



by the Company, provision must be made for the Subscriber Organization to shutdown Facility and open and lockout the main circuit breaker.

7. The rate at which the CBRE Facility changes net real power in response to the active power control shall not be less than the greater of 2 MW per minute or 10% of the Facility capacity per minute, and shall make available through agreed parameters, such faster ramp as the installed equipment can support. The Facility's Active Power Control Interface will be used by Company to control the rate at which electric energy is changed to achieve the active power limit for load-following and regulation. The Facility will respond to the active power control request immediately with an echo of the set point and measurable change within the 4 second control cycle.
8. The CBRE Facility shall accept the following controls related to active power and frequency response to or from the Company centralized control system:
  - Power Reference Setpoint from Company (based on the input to the Facility, from the Active Power Control Interface): The Facility output shall match this setting from the Variable Resource and/or BESS so long as it can be supported by the variable resource and/or BESS State of Charge (Power Possible does not change). This net output should be accurate within +/- 0.1 MW under normal frequency conditions. This setpoint will be modified as appropriate in the controls by the appropriate frequency response consistent with Section 1.G.11. (Active Power – Frequency Response (DROOP)) and Section 1G.12. (Dynamic Active Power – Frequency Performance) this Attachment F (Facility Owned by Subscriber Organization).
  - **From Subscriber Organization:**
    - Power Possible (Available maximum capacity): See above, instantaneous limit for available energy, represents max level the Facility can produce under present resource, BESS State of Charge (if applicable) and equipment conditions. This is used as upper limit for Company Dispatch.
    - For variable energy resources, maximum level the variable generation resources can produce under present variable resource and equipment conditions.
    - Minimum Sustained Limit: Minimum output level the Facility can be reduced to continuously without delay (ecomn). For projects with BESS: If BESS charging from the grid is permitted, and charging capacity is available, this will be a negative value.
    - Minimum Transient Limit (for frequency response, regulation) (lfcmn). For projects with BESS: If BESS charging from the grid is permitted, and charging capacity is available, this will be a negative value.
    - Maximum Dispatchable Ramp Rate: Controlled ramp rate available for controlled changes in output.
    - For projects with a BESS, Subscriber Organization shall also provide the following:
      - BESS potential (BESS State of Charge and projected number of hours at present dispatch, minimum dispatch, and maximum dispatch).
9. Subscriber Organization shall not override Company's active power controls without first obtaining specific approval to do so from the Company System Operator unless there is a

system emergency. Disabling of the remote Active Power Control shall initiate telemetry notification to the Company.

10. The requirements of the Active Power Control Interface may be modified as mutually agreed upon in writing by the Parties.

**Active Power Communications between Company and Subscriber Organization.** Company will receive and send AGC Set-Point and related data through the communications interface in accordance with Company standards. The data points covered under this Contract, as described below, may overlap with data requirements described elsewhere.

**AGC Data Points to be sent from Subscriber Organization to Company via SCADA.** The following data points will be transmitted via SCADA from Subscriber Organization to Company and represent Facility level data [**Note: May be modified based on resource type and Facility requirements**]:

DESCRIPTION	UNITS
AGC Set-Point (echo)	MW
Power demand	MW
Actual power	MW
Power Possible	MW
Actual reactive power	Mvars
Average Voltage	Kv
Variable Generation potential	MW
BESS State of Charge	Pct
[PV only] Inverters online	Integer
Facility duration at current output	HRS
AGC Status	Remote/Local

### **Response times and limitations of Facility in regard to Active Power Control**

The following protocols outline the expectations for responding to the AGC Set-Point.

Frequency of Changes. Company may send a new AGC Set-Point to the Facility at up to the AGC control cycle (presently 4 seconds).

Range of AGC Set-Point. The range of set point values can be between 0% and 100% of Power Possible. For projects offering grid-charging storage, negative set-point values may be required.

The response time of the CBRE Facility to commanded active and reactive power setpoints provided by the Company System Operator shall be within the specified control cycle. Reaction time is defined as the time interval between the moment of receiving external control setpoints for active and voltage control/reactive power from the Company System Operator and the moment when the CBRE Facility's active and reactive power reach the designated setpoint (as measured at the POI).

### **Backup Communications**

In the event of an AGC failure, Company and Subscriber Organization shall communicate via telephone, or other method mutually agreeable between the Parties, in order to correct the failure.

#### 11. Active Power - Frequency Response (DROOP).

The Facility shall provide a primary frequency response with a frequency droop characteristic reacting to system frequency at the Point of Interconnection in both the overfrequency and underfrequency directions except as limited by the minimum and maximum available capacity and energy potential at the time of the event including BESS state of charge. This response must be timely and sustained rather than injected for a short period and then withdrawn. For over-frequency events, response may include absorption through charging (as applicable under the terms of this Contract). Subscriber Organization shall provide minimum operational limits for each online resource and the Facility for primary frequency response.

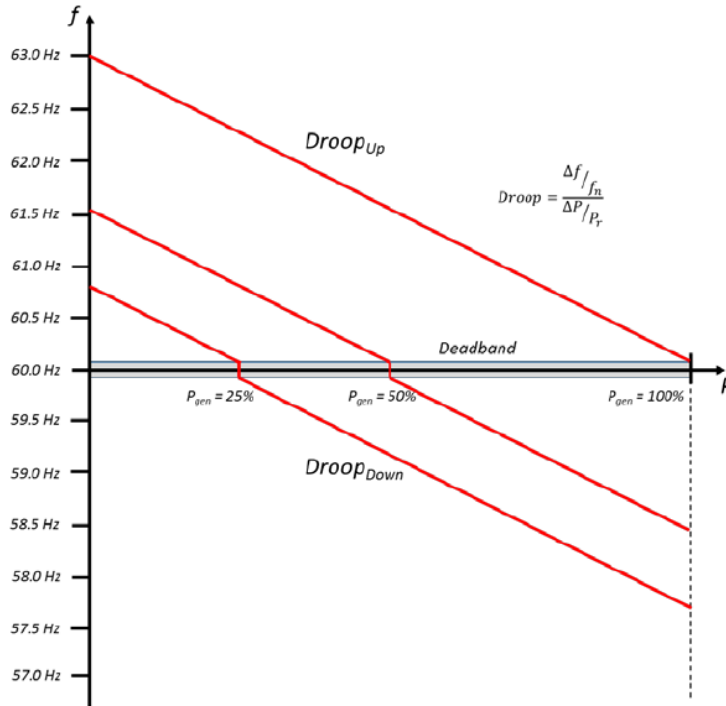
Frequency will be calculated over a period of time (e.g., three to six cycles, or other period as specified by Company), and filtered to take control action on the fundamental frequency component of the calculated signal. Calculated frequency may not be susceptible to spikes caused by phase jumps on the Company system.

The active power-frequency control system, and overall response of the inverter-based resource (plant), must meet the following performance aspects (see figure below):

The active power-frequency control system shall have an adjustable proportional droop characteristic with a default value of [4%] percent. The droop setting shall permit a setting from 0.1% to 10%. This setting shall be changed upon Company's written request as necessary for grid droop response coordination. The droop setting shall be tunable and may be specified during commissioning. The droop shall be a permanent value based on Pmax (maximum nominal active power output of the plant) and Pmin (typically 0 for an inverter-based resource). This keeps the proportional droop constant across the full range of operation. The curve for an inverter-based BESS may include the negative active power quadrant of this curve. The droop response must include the capability to respond in both the upward (underfrequency) and downward (overfrequency) directions. Frequency droop will be based on the difference between maximum nameplate active power output (Pmax) and zero output (Pmin) such that the [4%] percent droop line is always constant for a resource.

Subscriber Organization shall make commercially reasonable efforts to provide frequency response without a deadband, but in any case, not to exceed +/- 0.0166 Hz. If the active power-frequency control system has a deadband, it shall be a nonstep deadband that is adjustable between 0 Hz and the full frequency range of the droop characteristic with a default value not to exceed  $\pm 0.036$  Hz. (Nonstep deadband is where the change in active power output starts from zero deviation on either side of the deadband.) (Frequency deadband is the range of frequencies in which the unit does not change active power output.)

Inverter-based resources may consider a small hysteresis characteristic where linear droop meets any deadband to reduce dithering of inverter output when operating near the edges of the deadband. The hysteresis range may not exceed  $\pm 0.005$  Hz on either side of the deadband. If measurement resolution is not sufficient to measure this frequency, hysteresis may not be used.



### Active Power - Frequency Control Characteristic

Nominal System Frequency is 60.00 Hz.

The closed-loop dynamic response of the active power-frequency control system of the overall inverter-based resources, as measured at the POI must have the capability to meet or exceed the performance specified in below. Subscriber Organization shall ensure that the models and parameters for the resources and control equipment are consistent with those provided during the IRS process and that any updates have been provided to the Company reflecting currently implemented settings and configuration.

#### 12. Dynamic Active Power-Frequency Performance.

For a step change in frequency at the point of measure of the inverter-based resource [NOTE - MAY BE ADJUSTED AS THE RESULT OF IRS]:

Reaction time: The time between a step change in frequency and the time when the resource active power output begins responding to the change shall be less than 500 ms or as otherwise specified by Company.<sup>1</sup>

Rise time: The time when the resource has reached 90% of the new steady-state (target) active power output shall be less than 4 seconds, or as otherwise specified by Company.<sup>2</sup>

<sup>1</sup> Time between step change in frequency and the time to 10 percent of new steady-state value can be used as a proxy for determining this time.

<sup>2</sup> Percentage based on final (expected) settling value.

Settling Time: Time in which the resource has entered into, and remains within, the settling band of the new steady-state active power (target) output shall be less than 10 seconds, or as otherwise specified by Company.

Overshoot: Percentage of the rated active power output that the resource can exceed while reaching the settling band shall be less than 5% or as otherwise specified by Company.<sup>3</sup>

Settling Band: Percentage of rated active power output that the resource should settle to within the settling time shall be less than 2.5%.

When operating in parallel with the Company System, the Facility shall operate with its primary frequency response control in automatic operation and in accordance with Company directions. Notification of changes in the status of the frequency response controls and, where applicable, mode of operation must be provided to the Company System Operator immediately through SCADA telemetry indication.

The Facility frequency response control shall adjust, without intentional delay and without regard to the ramp rate limits in Section 1.G.7. of this Attachment F (Facility Owned by Subscriber Organization), the Facility's net real power export based on frequency deadband and frequency droop settings specified by the Company.

The Facility frequency response control shall increase the net real power export above the Power Reference Setpoint set under Section 1.G.8. of this Attachment F (Facility Owned by Subscriber Organization) or further decrease the net real power export from the Power Reference Limit in its operations in accordance with the frequency response settings.

The Facility frequency response control shall be in continuous operation unless directed otherwise by the Company.

13. [Reserved]

H. Control System Acceptance Test Procedures.

1. Conditions Precedent. The following conditions precedent must be satisfied prior to conducting the Control System Acceptance Test:
  - Successful completion of the Acceptance Test.
  - Facility has been successfully energized.
  - All of the Facility's generators (as applicable) have been fully commissioned.
  - The control system computer has been programmed for normal operations.
  - All equipment that is relied upon for normal operations (including ancillary devices such as capacitors/inductors, energy storage device, statcom, etc.) shall have been commissioned and be operating within normal parameters.
2. Facility Energy Equipment. In the event that all or any portion of the Facility's energy equipment is not available for the duration of the Control System Acceptance Test, the Control System Acceptance Test will have to be re-run from the beginning unless Subscriber Organization demonstrates to the satisfaction of the Company that the test results attained are

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<sup>3</sup> Percentage based on final (expected) settling value.

consistent with the results that would have been attained if all of the equipment had been available for the duration of the test.

3. Procedures. The Control System Acceptance Test will be conducted on Business Days during normal working hours on a mutually agreed upon schedule. No Control System Acceptance Test will be scheduled during the final 21 Days of a calendar year. No later than thirty (30) Days prior to conducting the Control System Acceptance Test, Company and Subscriber Organization shall agree on a written protocol setting out the detailed procedure and criteria for passing the Control System Acceptance Test. Exhibit F-7 (Control System Acceptance Test Criteria) provides general criteria to be included in the written protocol for the Control System Acceptance Test. Within fifteen (15) Business Days of completion of the Control System Acceptance Test, Company shall notify Subscriber Organization in writing whether the Control System Acceptance Test(s) has been passed and, if so, the date upon which such Control System Acceptance Test(s) was passed. If any changes have been made to the technical specifications of the Facility or the design of the Facility in accordance with Section 5(f) of Exhibit F-1 (Description of Generation and Battery Storage Facility), such changes shall be reflected in an amendment to this Contract, and the written protocol for the Control Systems Acceptance Test shall be based on the Facility as modified. Such amendment shall be executed prior to conducting the Control System Acceptance Test and Company shall have no obligation for any delay in performing the Control Systems Acceptance Test due to the need to complete and execute such amendment.
- I. Facility Security and Maintenance. Subscriber Organization is responsible for securing the Facility. Subscriber Organization shall have personnel available to respond to all calls related to security incidents and shall take commercially reasonable efforts to prevent any security incidents. Subscriber Organization is also responsible for maintaining the Facility, including vegetation management, to prevent security breaches. Subscriber Organization shall comply with all commercially reasonable requests of Company to update security and/or maintenance if required to prevent security breaches.
- J. Demonstration of Facility. Company shall have the right at any time, other than during maintenance or other special conditions, including Force Majeure, communicated by Subscriber Organization, to notify Subscriber Organization in writing of Subscriber Organization's failure, as observed by Company and set forth in such written notice, to meet the operational and performance requirements specified in Section 1.B.3.i, Section 1.G. (Active Power Control Interface) and Section 3 (Performance Standards) of this Attachment F (Facility Owned by Subscriber Organization), and to require documentation or testing to verify compliance with such requirements. Upon receipt of such notice, Subscriber Organization shall promptly investigate the matter, implement corrective action and provide to Company, within thirty (30) Days of such notice or such longer time period agreed to in writing by Company, a written report of both the results of such investigation and the corrective action taken by Subscriber Organization. If the Subscriber Organization's report does not resolve the issue to Company's reasonable satisfaction, the Parties shall promptly commission a study to be performed by one of the engineering firms then included on the Qualified Independent Third-Party Consultants List attached to the Contract as Exhibit F-2 (Consultants List) to evaluate the cause of the non-compliance and to make recommendations to remedy such non-compliance. Subscriber Organization shall pay for the cost of the study. The study shall be completed within ninety (90) Days, unless the selected consultant determines that such study cannot reasonably be completed within ninety (90) Days, in which case, such longer commercially reasonable period of time as it takes the consultant to complete the study. The consultant shall send the study to Company and Subscriber Organization. Subscriber Organization (and/or its Third-Party consultants and contractors), at Subscriber Organization's expense, shall take such action as the study shall recommend with the objective of resolving the non-compliance.

Such recommendations shall be implemented by Subscriber Organization to Company's reasonable satisfaction no later than forty-five (45) Days from the Day the completed study is issued by the consultant, unless the consultant determines that such recommendation cannot reasonably be implemented within forty-five (45) Days, in which case, such longer commercially reasonable period of time agreed to by the Parties in writing to implement such recommendation as determined by the consultant. Failure to implement such recommendations within this period shall constitute a material breach of this Contract. Company shall have the right to derate the Facility and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status until the Subscriber Organization's aforementioned written report has been completed, any subsequent study commissioned by the Parties has been completed and any recommendations to resolve the non-compliance have been implemented to Company's reasonable satisfaction.

**2. OPERATING PROCEDURES. [NOTE: NUMERICAL SPECIFICATIONS IN THIS SECTION 2 MAY VARY DEPENDING ON THE SPECIFIC PROJECT AND THE RESULTS OF THE PROJECT-SPECIFIC INTERCONNECTION REQUIREMENT STUDY.]**

- A. Reviews of the Facility. Company may require periodic reviews of the Facility, maintenance records, available operating procedures and policies, and relay settings, and Subscriber Organization shall implement changes Company deems necessary for parallel operation or to protect the Company System from damages resulting from the parallel operation of the Facility with the Company System.
- B. Separation. Subscriber Organization must separate from Company System whenever requested to do so by the Company System Operator pursuant to Section 5. (Company Dispatch) and Section 12. (Personnel and System Safety) of the Contract.
- C. Subscriber Organization Logs. Logs shall be kept by Subscriber Organization for information on unit availability including reasons for planned and forced outages, circuit breaker trip operations, relay operations, including target initiation, and other unusual events. Company shall have the right to review these logs, especially in analyzing system disturbances. Subscriber Organization shall maintain such records for a period of not less than six (6) years.
- D. Reclosing and Return to Service. Under no circumstances shall Subscriber Organization, when separated from the Company System for any reason, including tripping during disturbances or due to equipment failure, reclose into the Company System without first obtaining specific approval to do so from the Company System Operator. Ramp rates, behavior and mode of operation upon return to service shall conform to verbal instructions from the System Operator or Active Power control from Company. Following "system black" conditions, the Facility shall not attempt to automatically reconnect to the grid (unless directed by the Company System Operator) so as to not interfere with system restoration procedures.
- E. [Reserved]
- F. [Reserved]
- G. Critical Infrastructure Protection. Subscriber Organization shall comply with the critical infrastructure protection requirements set forth in Section 1.B.3.g. (Cybersecurity and Critical Infrastructure Protection) of this Attachment F (Facility Owned by Subscriber Organization).
- H. Allowed Operations. Facility shall be allowed to export energy to the Company System only when the [ ] circuit is in normal operating configuration served by breaker [ ] at [ ] Substation. **[TO BE DETERMINED BY COMPANY BASED ON THE RESULTS AND REQUIREMENTS OF THE IRS]**

3. **PERFORMANCE STANDARDS.** [NOTE: FACILITIES CONNECTING TO THE DISTRIBUTION SHALL FOLLOW THE PERFORMANCE STANDARDS FOR DISTRIBUTION SET FORTH BELOW.]

**PROVISIONS FOR DISTRIBUTION CONNECTION**

- A. Rule 14H. The Facility shall follow the performance standards of Rule 14H Appendix I and the additional provisions set forth below in Section 3.B. (Voltage Ride-Through) through Section 3.J. (Unintentional Islanding). To the extent any of those additional provisions conflict with Rule 14H, the provisions of this Contract shall control.
- B. Voltage Ride-Through. The Facility shall have under-voltage and over-voltage ride through capability. This Facility shall behave as follows during the under-voltage disturbances and over-voltage disturbances ("V" is the voltage of any three voltage phases at the Point of Interconnection). For alarm conditions the Facility should not disconnect from the Company System unless the Subscriber Organization reasonably determines based upon Good Engineering and Operating Practices that the Facility's equipment is at risk of damage. The is necessary in order to coordinate with the existing Company System. **[THESE VALUES MAY BE CHANGED BY COMPANY UPON COMPLETION OF THE IRS. WITHOUT LIMITATION, FOR A DISTRIBUTION-CONNECTED FACILITY, UPON COMPLETION OF THE IRS THE COMPANY MAY SPECIFY REQUIREMENTS FOR A MANDATORY DISCONNECTION FROM THE COMPANY SYSTEM.];**
- C. Undervoltage Ride-Through: The Facility, as a whole, will meet the following undervoltage ride-through requirements during low voltage affecting one or more of the three voltage phases ("V" is the voltage of any three voltage phases at the Point of Interconnection).

$$V \geq 0.80 \text{ pu}$$

The Facility remains connected to the Company's System in continuous operation.

$$0.70 \text{ pu} \leq V < 0.80 \text{ pu}$$

The Facility remains connected to the Company's System and in continuous operation for a minimum of twenty (20) seconds per event (while "V" remains in this range). The duration of the event is measured from the point at which the voltage drops below 0.80 pu and ends when the voltage is at or above 0.80 pu.

$$0.50 \text{ pu} \leq V < 0.70 \text{ pu}$$

The Facility remains connected to the Company's System and in continuous operation for a minimum of ten (10) seconds (while "V" remains in this range); the duration of the event is measured from the point at which the voltage drops below 0.70 pu. and ends when the voltage is at or above 0.70 pu.

$$0.00 \text{ pu} \leq V < 0.50 \text{ pu}$$

The Facility remains connected to the Company's System and in continuous operation for a minimum of 600 milliseconds (while "V" remains in this range); the duration of the event is measured from the point at which the voltage drops below 0.50 pu. and ends when the voltage is at or above 0.50 pu.



- D. Overvoltage Ride-Through: The overvoltage protection equipment at the Facility shall be set so that the Facility will meet the following overvoltage ride-through requirements during high voltage affecting one or more of the three voltage phases (as described below) ("V" is the voltage of any of the three voltage phases at the Point of Interconnection).

$1.00 \text{ pu} \leq V < 1.10 \text{ pu}$	The Facility remains connected to the Company's System and in continuous operation.
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$1.10 \text{ pu} \leq V < 1.15 \text{ pu}$	The Facility remains connected to the Company's System and in continuous operation no less than thirty (30) seconds; the duration of the event is measured from the point at which the voltage increases at or above 1.10 pu and ends when voltage is at or below 1.10 pu.
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$1.15 \text{ pu} \leq V$	The Facility remains connected to the Company's System and in continuous operation for as long as possible as allowed by the equipment operational limitations.
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- E. Fault Ride Through. Ride-Through requires that the resource continues to inject current within the "No Trip" zone of the voltage and frequency ride-through requirements. Unless approved during the Interconnection Requirements Study analysis, resources should not use "momentary cessation" within the ride-through regions for any of the ride-through requirements.

- F. Grid Forming Capabilities.**[NOTE APPLICABILITY BASED ON RESOURCE TYPE AND DESIGN, FOR PV INVERTER BASED RESOURCES PAIRED WITH STORAGE, TO BE DELETED IF SUBSCRIBER ORGANIZATION DOES NOT PROPOSE GRID FORMING]** Subscriber Organization Facility may be capable of operating in grid forming mode if intended to serve load in the absence of the power system. . Grid forming is required for facilities that provide black start capability. This includes operation as a current independent AC voltage source during normal and transient conditions (as long as no limits are reached within the inverter) and the ability to synchronize to other voltage sources or operate autonomously if a grid reference is unavailable. The grid-forming design and operation shall be reviewed and agreed upon by the company to ensure compatibility with system operation under normal and restoration procedures.

- G. Black Start Capability.**[NOTE - APPLICABILITY BASED ON RESOURCE TYPE AND DESIGN, FOR PV INVERTER BASED RESOURCES PAIRED WITH STORAGE, TO BE DELETED IF SUBSCRIBER ORGANIZATION DOES NOT PROPOSE BLACK START]** The BESS shall be capable of grid forming inverter capability so it can generate its own AC waveform rather than relying on a grid voltage to synchronize and maintain frequency.

- H. Control Systems and Auxiliary Equipment. The power source for control systems and auxiliary equipment required for normal operation of the CBRE Facility shall be designed to be immune from system transients in accordance with the Public Utilities Commission of the State of Hawai'i tariff for Maui Electric Company, Ltd. Rule No. 2, Character of Service (Revised Sheet No. 5, effective Oct. 20, 1991) and Section 3.2(A)(6) (Facility Protection and Control Equipment) to meet the performance during under/over voltage and under/over frequency conditions pursuant to Section 3(e) (Undervoltage Ride-Through), Section 3(f) (Over Voltage Ride-Through), Section 3(i) (Underfrequency Ride-Through) and Section 3(j) (Overfrequency Ride-Through) of this Attachment F (Facility Owned by Subscriber Organization).

- I. Frequency Response. Subscriber Organization shall comply with the requirements of Section 1.G.11. (Active Power - Frequency Response (DROOP)) and Section 1.G.12. (Dynamic Active

Power – Frequency Performance), of this Attachment F (Facility Owned by Subscriber Organization).

- J. Unintentional Islanding. A Facility's inverters shall be certified to meet the unintentional islanding requirement stated in IEEE 1547-2018 (or latest version), "IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power System Interfaces." Ride through requirements specified herein shall not inhibit the islanding detection performance where a valid unintentional islanding condition exists.

**4. MAINTENANCE OF SUBSCRIBER ORGANIZATION-OWNED INTERCONNECTION FACILITIES.**

- A. Subscriber Organization must address any Disconnection Event (as defined below) according to the requirements of this Section 4 (Maintenance of Subscriber Organization-Owned Interconnection Facilities) of Attachment F (Facility Owned by Subscriber Organization). For the purposes of this Section 4 (Maintenance of Subscriber Organization-Owned Interconnection Facilities), a "Disconnection Event" is the removal of 80% of capacity or more from Company System and/or disconnection of the Facility from the Company's System (i) that is not the result of Company dispatch, frequency droop response, or isolation of the Facility resulting from designed protection fault clearing, and (ii) for which Company does not issue the written notice for failure to meet operational and performance requirements as set forth in Section 1.J. (Demonstration of Facility) of this Attachment F (Facility Owned by Subscriber Organization). Company's election to exercise its rights under Section 1.J. (Demonstration of Facility) shall not relieve Subscriber Organization of its obligation to comply with the requirements of this Section 4 (Maintenance of Subscriber Organization-Owned Interconnection Facilities) for any future Disconnection Event during the pendency of such election or thereafter.
- B. For every Disconnection Event, Subscriber Organization shall investigate the cause. Within three (3) Business Days of the Disconnection Event, Subscriber Organization shall provide, in writing to Company, an incident report that summarizes the sequence of events and probable cause.
- C. Within forty-five (45) Days of a Disconnection Event, Subscriber Organization shall provide, in writing to Company, Subscriber Organization's findings, data relied upon for such findings, and proposed actions to prevent reoccurrence of a Disconnection Event ("Proposed Actions"). Company may assist Subscriber Organization in determining the causes of and recommendations to remedy or prevent a Disconnection Event ("Company's Recommendations"). Subscriber Organization shall implement such Proposed Actions (as modified to incorporate the Company's Recommendations, if any) and Company's Recommendations (if any) in accordance with the time period agreed to by the Parties.
- D. In the event Subscriber Organization and Company disagree as to (i) whether a Disconnection Event occurred, (ii) the sequence of events and/or probable cause of the Disconnection Event, (iii) the Proposed Actions, (iv) Company's Recommendations, and/or (v) the time period to implement the Proposed Actions and/or Company's Recommendations, then the Parties shall follow the procedure set forth in Section 5 (Expedited Dispute Resolution) of this Attachment F (Facility Owned by Subscriber Organization).
- E. Upon the fourth (4th) Disconnection Event (and each subsequent Disconnection Event) within any Contract Year, the Parties shall follow the procedures set forth in Section 4.A. and Section 4.D. of Attachment F (Facility Owned by Subscriber Organization), to the extent applicable. If after following the procedures set forth in this Section 4 (Maintenance of Subscriber Organization-Owned Interconnection Facilities) of Attachment F (Facility Owned by Subscriber Organization), Subscriber Organization and Company continue to have a disagreement as to (1) the probable cause

of the Disconnection Event, (2) the Proposed Actions, (3) the Company's Recommendations, and/or (4) the time period to implement the Proposed Actions and/or the Company's Recommendations, then the Parties shall commission a study to be performed by a qualified independent Third-Party consultant ("Qualified Consultant") chosen from the Qualified Independent Third-Party Consultants List ("Consultants List") attached to the Contract as Exhibit F-2 (Consultants List). Such study shall review the design of, review the operating and maintenance procedures dealing with, recommend modifications to, and determine the type of maintenance that should be performed on Subscriber Organization-Owned Interconnection Facilities ("Study"). Subscriber Organization and Company shall each pay for one-half of the total cost of the Study. The Study shall be completed within ninety (90) Days from such fourth Disconnection Event (and each subsequent Disconnection Event) within any Contract Year, unless otherwise reasonably agreed to in writing by the Subscriber Organization and Company. The Qualified Consultant shall send the Study to Company and Subscriber Organization. Subscriber Organization (and/or its Third-Party consultants and contractors), at Subscriber Organization's expense, shall change the design of, change the operating and maintenance procedures dealing with, implement modifications to, and/or perform the maintenance on Subscriber Organization-Owned Interconnection Facilities recommended by the Study. Such design changes, operating and maintenance procedure changes, modifications, and/or maintenance shall be completed no later than forty-five (45) Days from the Day the completed Study is issued by the Qualified Consultant, unless such design changes, operating and maintenance procedure changes, modifications, and/or maintenance cannot reasonably be completed within forty-five (45) Days, in which case, Subscriber Organization shall complete the foregoing within such longer commercially reasonable period of time agreed to by the Parties in writing. Company shall have the right to derate the Facility to a level that maintains reliable operations in accordance with Good Engineering and Operating Practices, and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status, until the study has been completed and the study's recommendations have been implemented by Subscriber Organization to Company's reasonable satisfaction. Nothing in this provision shall affect Company's right to dispatch the Facility as provided for in this Contract.

- F. The Consultants List attached hereto as Exhibit F-2 (Consultants List) contains the names of engineering firms which both Parties agree are fully qualified to perform the Study. At any time, except when a Study is being conducted, either Party may remove a particular consultant from the Consultants List by giving written notice of such removal to the other Party. However, neither Party may remove a name or names from the Consultants List without approval of the other Party if such removal would leave the list without any names. Intended deletions shall be effective upon receipt of notice by the other Party, provided that such deletions do not leave the Consultants List without any names. Proposed additions to the Consultants List shall automatically become effective thirty (30) Days after notice is received by the other Party unless written objection is made by such other Party within said thirty (30) Day period. By mutual agreement between the Parties, a new name or names may be added to the Consultants List at any time.

## **5. EXPEDITED DISPUTE RESOLUTION.**

If there is a disagreement between Company and Subscriber Organization regarding (i) whether a Disconnection Event occurred, (ii) the sequence of events and/or probable cause of the Disconnection Event, (iii) the Proposed Actions, (iv) the Company's Recommendations, and (v) the time period to implement the Proposed Actions and/or the Company's Recommendations, then authorized representatives from Company and Subscriber Organization, having full authority to settle the disagreement, shall meet in Hawai'i (or by telephone conference) and attempt in good faith to settle the disagreement. Unless otherwise agreed in writing by the Parties, the Parties shall devote no more than five (5) Business Days to settle the disagreement in good faith. In the event the Parties are unable to settle the disagreement after the expiration of the time period, then such disagreement shall constitute

a Dispute for which either Party may pursue the dispute resolution procedure set forth in Section 17. (Dispute Resolution) of this Contract.

## 6. MODELING.

A. Subscriber Organization's Obligation to Provide Models. Within 30 Days of Company's written request, but no later than the Commercial Operations Date, Subscriber Organization shall provide detailed data regarding the design and location of the Facility, in a form reasonably satisfactory to Company, to allow the modeling of the inverters and any other equipment within the Facility identified in the IRS which utilizes Source Code (such as energy storage system, STATCOM or DVAR equipment), including, but not limited to, integrated and validated power flow and transient stability models (such as PSS/E models), a short circuit model (such as an ASPEN model), and an electro-magnetic transient model (such as a PSCAD model) of the inverters and any additional equipment identified in the IRS as set forth above, applied assumptions, and pertinent data sets (each a "Required Model" and collectively, the "Required Models"). Thereafter, during the Term, Subscriber Organization shall provide working updates of any Required Model within 30 Days of (i) Company's written request, or (ii) Subscriber Organization obtaining knowledge or notice that any Required Model has been modified, updated or superseded by the Source Code Owner.

B. Escrow Establishment. If, pursuant to Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization), the Required Models are provided to the Company in a form other than Source Code, Subscriber Organization shall arrange for and ensure that the Source Code for the relevant Required Model is deposited into the Source Code Escrow as set forth below in Section 6.B.1. (Source Code Escrow) of this Attachment F (Facility Owned by Subscriber Organization) no later than the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization) for delivery of the Required Models. Subscriber Organization shall be responsible for all costs associated with establishing and maintaining the Source Code Escrow. If, however, Subscriber Organization is unable to deposit the required Source Code into the Source Code Escrow within the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models), Subscriber Organization shall, no later than such time periods, instead establish a monetary escrow as set forth below in Section 6.B.2. (Source Code Security) of this Attachment F (Facility Owned by Subscriber Organization).

### 1. Source Code Escrow.

a. Establishment of Source Code Escrow. If the Required Models are not provided to the Company in the form of Source Code pursuant to Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization), Subscriber Organization shall: (a) arrange for and ensure the deposit of a copy of the current version of the Source Code and relevant documentation for all Required Models with the Source Code Escrow Agent under the terms and conditions of the Source Code Escrow Agreement, and (b) arrange for and ensure the update of the deposited Source Code and relevant documentation for Major Releases and Minor Releases of the Required Models as soon as reasonably possible after they are made generally available.

b. Release Conditions. Company shall have the right to obtain from the Source Code Escrow Agent one copy of the escrowed Source Code for the Required Models, under the following conditions upon Company's request:

- 1) A receiver, trustee, or similar officer is appointed, pursuant to federal, state or applicable foreign law, for the Source Code Owner;

- 2) Any voluntary or involuntary petition or proceeding is instituted, under (x) U.S. bankruptcy laws or (y) any other bankruptcy, insolvency or similar proceeding outside of the United States, by or against the Source Code Owner; or
  - 3) Failure of the Source Code Owner to function as a going concern or operate in the ordinary course; or
  - 4) Subscriber Organization and the Source Code Owner fail to provide to Company the Required Models or updated Required Models, or, alternatively, fail to issue a Source Code LC, within the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization), Company gives written notice of such failure to Subscriber Organization and the Source Code Owner, and Subscriber Organization and Source Code Owner fail to remedy such breach within five (5) Days following receipt of such notice.
- c. Remedies. If Company has the right to obtain from the Source Code Escrow Agent one copy of the escrowed Source Code for the Required Models pursuant to Section 6.B.1.b. (Release Conditions) of Attachment F (Facility Owned by Subscriber Organization), and Company finds that Subscriber Organization failed to arrange for and ensure the update the Source Code Escrow with the modified and/or updated Source Code and relevant documentation for Major Releases and Minor Releases of the Required Models as provided in Section 6.B.1.a (Establishment of Source Code Escrow) of Attachment F (Facility Owned by Subscriber Organization) or that the Source Code for the Required Models is incomplete or otherwise unusable, Subscriber Organization shall be liable to Company for liquidated damages in the amount of \$500 per Day for each Day Subscriber Organization fails to provide such Source Code to Company or such update to the Source Code to Company from the date such Major Release or Minor Release was first made available by the Source Code Owner to customers of the Source Code Owner. Failure to provide the updated Source Code of the Required Models within 30 Days' notice from Company of a breach of Section 6.B.1.a. (Establishment of Source Code Escrow) of Attachment F (Facility Owned by Subscriber Organization); provided, that Subscriber Organization has also failed to provide a satisfactory Source Code LC as set forth in Section 6.B.2. (Source Code Security) of this Attachment F (Facility Owned by Subscriber Organization) shall constitute an Event of Default pursuant to Section 13. under the Contract.
- d. Certification. The Source Code Escrow Agent shall release the Source Code of the Required Models to Company upon receipt of a signed statement by a representative of Company that reads substantially as follows:

**For Maui Facilities:**

The undersigned hereby certifies that (i) I am duly authorized to execute this document on behalf of Maui Electric Company, Limited ("Maui Electric"), and (ii) Maui Electric is entitled to a copy of the Source Code of the Required Models Pursuant to Section 6.B.1.b. (Release Conditions) of Attachment F (Facility Owned by Subscriber Organization) of the Mid-Tier Standard Form Contract for Renewable Dispatchable Generation dated as of \_\_\_\_\_, between \_\_\_\_\_, and Maui Electric.

**For Hawai'i Facilities:**

The undersigned hereby certifies that (i) I am duly authorized to execute this document on behalf Hawai'i Electric Light Company, Inc. ("Hawai'i Electric Light"), and (ii) Hawai'i

Electric Light of is entitled to a copy of the Source Code of the Required Models Pursuant to Section 6.B.1.b. (Release Conditions) of Attachment F (Facility Owned by Subscriber Organization) of the Mid-Tier Standard Form Contract for Renewable Dispatchable Generation dated as of \_\_\_\_\_, between \_\_\_\_\_, and Hawai'i Electric Light.

- e. Authorized Use. If Company becomes entitled to a release of the Source Code of the Required Models from escrow, Company may thereafter correct, modify, update and enhance the Required Models for the sole purpose of providing itself the support and maintenance it otherwise would have been entitled to if it had been provided the Required Models by Subscriber Organization under Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned By Subscriber Organization) (the "Source Code Authorized Use").
  - f. Confidentiality Obligations. Company shall keep the Source Code of the Required Models confidential pursuant to the confidentiality obligations of the Source Code Escrow Agreement. Company shall restrict access to the Source Code of the Required Models to those employees, independent contractors and consultants of Company who have agreed in writing to be bound by confidentiality and use obligations consistent with those specified in the Escrow Agreement, and who have a need to access the Source Code of the Required Models on behalf of Company to carry out their duties for the Source Code Authorized Use. Promptly upon Subscriber Organization's request, Company shall provide Subscriber Organization with the names and contact information of all individuals who have accessed the Source Code of the Required Models, and shall take all reasonable actions required to recover any such Source Code in the event of loss or misappropriation, or to otherwise prevent their unauthorized disclosure or use.
2. Source Code Security.
- a. Establishment of Source Code Security. If the Required Models and their relevant Source Code are not provided to the Company in the form of Source Code pursuant to Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization) and if the Subscriber Organization is unable to arrange for and ensure the deposit of the Source Code into the Source Code Escrow established for the benefit of the Company pursuant to Section 6.B.1 (Source Code Escrow) of this Attachment F (Facility Owned by Subscriber Organization) then, no later than the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization) for delivery of the Required Models and Source Code, Subscriber Organization shall provide an irrevocable standby letter of credit (the "Source Code LC") with no documentation requirement in the amount of Two Hundred Fifty Thousand Dollars (\$250,000) per Required Model (and its relevant Source Code) substantially in the form attached to this Contract as Exhibit G-1 (Form of Letter of Credit) from a bank chartered in the United States with a credit rating (as measured by Standard & Poor's) of "A-" or better or A3 or better from Moody's. Such letter of credit shall be issued for a minimum term of one (1) year. Furthermore, at the end of each year the security shall be renewed for an additional one (1) year term so that at the time of such renewal, the remaining term of any such security shall not be less than one (1) year. The letter of credit shall include a provision for at least thirty (30) Days' advance notice to Company of any expiration or earlier termination of the letter of credit so as to allow Company sufficient time to exercise its rights under said security if Subscriber Organization fails to extend or replace the security. In all cases, the reasonable costs and

expenses of establishing, renewing, substituting, canceling, increasing, reducing, or otherwise administering the letter of credit shall be borne by Subscriber Organization.

- b. Release Conditions. Company shall have the right to draw on the letter of credit the funds necessary to develop and recreate the Required Model or Required Models upon Company's request if Subscriber Organization fails to provide the Company the Required Models or updated Required Models within the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models) or Section 6.B.1.c. (Remedies) of this Attachment F (Facility Owned by Subscriber Organization), Company gives written notice of such failure to Subscriber Organization, and Subscriber Organization fails to remedy such breach within five (5) Days following receipt of such notice for a breach under Section 6.A. (Subscriber Organization's Obligation to Provide Models, or within thirty (30) Days following receipt of such notice for a breach under Section 6.B.1.c. (Remedies).
- c. Extend Letter of Credit. If the letter of credit is not renewed or extended no later than thirty (30) Days prior to its expiration or earlier termination, Company shall have the right to draw immediately upon the full amount of the letter of credit and to place the proceeds of such draw (the "Proceeds"), at Subscriber Organization's cost, in an escrow account in accordance with Section 6.B.2.d (Proceeds Escrow), until and unless Subscriber Organization provides a substitute form of letter of credit meeting the requirements of this Section 6.B.2. (Source Code Security) of this Attachment F (Facility Owned by Subscriber Organization).
- d. Proceeds Escrow. If Company draws on the letter of credit pursuant to Section 6.B.2.c. (Extend Letter of Credit) of this Attachment F (Facility Owned by Subscriber Organization), Company shall, in order to avoid comingling the Proceeds, have the right but not the obligation to place the Proceeds in an escrow account as provided in this Section 6.B.2.d (Proceeds Escrow) of this Attachment F (Facility Owned by Subscriber Organization) with a reputable escrow agent acceptable to Company ("Proceeds Escrow Agent") subject to an escrow agreement acceptable to Company ("Proceeds Escrow Agreement"). Without limitation to the generality of the foregoing, a federally insured bank shall be deemed to be a "reputable escrow agent." Company shall have the right to apply the Proceeds as necessary to recover amounts Company is owed pursuant to this Section 6 (Modeling) of this Attachment F (Facility Owned by Subscriber Organization). To that end, the Proceeds Escrow Agreement governing such escrow account shall give Company the sole authority to draw from the account. Subscriber Organization shall not be a party to such Proceeds Escrow Agreement and shall have no rights to the Proceeds. Upon full satisfaction of Subscriber Organization's obligations under Section 6 (Modeling) of this Attachment F (Facility Owned by Subscriber Organization), Company shall instruct the Proceeds Escrow Agent to remit to the bank that issued the letter of credit that was the source of the Proceeds the remaining balance (if any) of the Proceeds. If there is more than one escrow account with Proceeds, Company may, in its sole discretion, draw on such accounts in any sequence Company may select. Any failure to draw upon the Proceeds for any damages or other amounts due Company shall not prejudice Company's rights to recover such damages or amounts in any other manner.
- e. Subscriber Organization's Obligation. If the letter of credit is not sufficient to cover Company's associated consultant fees, costs and expenses to develop and recreate the Required Models, Subscriber Organization shall pay to Company the difference within ten (10) Days of Company's written notice to Subscriber Organization.

- f. Model Verification. Subscriber Organization shall work with the Company to validate the new Required Models developed by or on behalf of Company within sixty (60) Days of receiving such new Required Models. Subscriber Organization shall also arrange for and ensure that Company may obtain new Required Models directly from the Source Code Owner in the event that Subscriber Organization ceases to operate as a going concern or is subject to voluntary or involuntary bankruptcy and is unable or unwilling to obtain the new Required Models from the Source Code Owner.
- g. Certification. The terms of the letter of credit shall provide for a release of the funds, or in the event the funds have been placed into a Proceeds Escrow, the Proceeds Escrow Agent shall release the necessary funds to Company upon receipt of a signed statement by a representative of Company that reads substantially as follows:

**For Maui Facilities:** The undersigned hereby certifies that (i) I am duly authorized to execute this document on behalf of Maui Electric Company, Limited (“Maui Electric”), and (ii) Maui Electric is entitled to \$ \_\_\_\_\_, pursuant to Section 6.B.2.b. (Release Conditions) of Attachment F (Facility Owned by Subscriber Organization) of the Mid-Tier Standard Form Contract for Renewable Dispatchable Generation dated as of \_\_\_\_\_, between \_\_\_\_\_, and Maui Electric.

**For Hawai‘i Facilities:** The undersigned hereby certifies that (i) I am duly authorized to execute this document on behalf of Hawai‘i Electric Light Company, Inc. (“Hawai‘i Electric Light”), and (ii) Hawai‘i Electric Light is entitled to \$ \_\_\_\_\_, pursuant to Section 6.B.2.b. (Release Conditions) of Attachment F (Facility Owned by Subscriber Organization) of the Mid-Tier Standard Form Contract for Renewable Dispatchable Generation dated as of \_\_\_\_\_, between \_\_\_\_\_, and Hawai‘i Electric Light.

- h. Authorized Use. If Company becomes entitled to a draw of funds from the Source Code Security or a release of funds from the Proceeds Escrow, Company may thereafter use such funds to develop, recreate, correct, modify, update and enhance the Required Models for the sole purpose of providing itself the support and maintenance it otherwise would have been entitled to if it had been provided the Required Models by Subscriber Organization under Section 6.A. (Subscriber Organization’s Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization).
3. Supplementary Agreement. The parties stipulate and agree that the escrow provisions in this Section 6.B. (Escrow Establishment) of Attachment F (Facility Owned by Subscriber Organization) and the Source Code Escrow Agreement and Proceeds Escrow Agreement are “supplementary agreements” as contemplated in Section 365(n)(1)(B) of the Code. In any voluntary or involuntary bankruptcy proceeding involving Subscriber Organization, failure by Company to assert its rights to “retain its rights” to the intellectual property encompassed by the Source Code or the funds in the Proceeds Escrow, pursuant to Section 365(n)(1)(B) of the Code, under an executory contract rejected in a bankruptcy proceeding, shall not be construed as an election to terminate the Contract by Company under Section 365(n)(1)(A) of the Code.

## 7. TESTING REQUIREMENTS.



- A. Testing Requirements. Once the Control System Acceptance Test has been successfully passed, Subscriber Organization shall not replace and/or change the configuration of the Facility Control, inverter control settings and/or ancillary device controls, without prior written notice to Company. In the event of any such replacement and/or change, the relevant test(s) of the Control System Acceptance Test shall be redone and must be successfully passed before the replacement or altered equipment is allowed to be placed in normal operations. In the event that Company reasonably determines that such replacement and/or change of controls makes it inadvisable for the Facility to continue in normal operations without a further Control Systems Acceptance Test, the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status until the new relevant tests of the Control System Acceptance Test have been successfully passed.
- B. Periodic Testing. Subscriber Organization shall coordinate periodic testing of the Facility with Company to ensure that the Facility is meeting the performance standards specified under this Contract.

## 8. DATA AND FORECASTING.

Subscriber Organization shall provide Site, meteorological and production data in accordance with the following requirements:

- A. Physical Site Data: Subscriber Organization shall provide Company with an accurate description of the physical Site, including but not limited to the following, **[as appropriate to Facility resource type(s) and use of storage]** which may not be changed during the Term without Company's prior written consent:

Location Facility Map showing the layout of the Facility (coverage area or footprint) and the coordinates (latitude and longitude) of generating equipment:

Solar PV: elevation (above ground), orientation angle and direction (north-east-south-west plane) of arrays/concentrators.

Location (latitude and longitude) and elevation (above ground) of each MMS and elevation (above ground) of each field measurement device for, e.g., air density, ambient air pressure and ambient air temperature, located at each MMS or each field measurement device located on such MMS.

For solar resource inverters: Inverter type, power rating, array configuration to inverters and DC rating of the Facility at the following standard test conditions: irradiance of 1000 W/m<sup>2</sup>, air mass 1.5, and cell temperature 25° C.

Solar generation technology employed at the Facility with temperature dependence, mounting and module type.

BESS technology and related auxiliary equipment, location and type.

- B. Meteorological and Production Data:

Subscriber Organization shall install and maintain a minimum of one MMS for facilities with a Contract Capacity of less than 5 MW and a coverage area of not more than one square kilometer.

Subscriber Organization shall install and maintain a minimum of two MMS for facilities that have either (i) a DC rating of the Facility of 5 MW or greater or (ii) a coverage area greater than one square kilometer.

Placement of each MMS should account for the microclimate of the area and Facility coverage area and shall be oriented with respect to the primary wind direction.

Subscriber Organization shall provide to Company, via SCADA communication and protocol acceptable to Company to support operations and forecasting needs at a continuous scan, all meteorological and production data required under this Contract updated every 2 seconds.

Subscriber Organization shall arrange for a dedicated distribution voltage line to provide separate service from Company, or for such other independent, backup power source as approved by Company in writing, to temporarily store and record the meteorological data from the field measuring devices at the MMSs. Any such backup power source must be capable of providing power for the field measurement devices for a reasonable period of time until primary power is restored. The same backup power source can serve multiple MMSs as needed by the Facility.

C. Units and Accuracy:

The Table below shows minimum required solar irradiance measurements for various types of solar generation technology. This value may not be derived.

Solar Technology	Direct Normal Irradiance	Global Irradiance (GHI)	Plane of Array Irradiance (POA)
<b>Flat Plate</b> (fixed horizontal, fixed angle, tracking, roof mounted)		X	X
<b>Flat Panel Solar Thermal</b> (fixed angle, roof mounted, tracking)	X		X
<b>Concentrated PV</b> (flat, trough, tracking)	X	X	X

Units and accuracy of required measured parameters to be provided to Company in real time shall be as shown in the Table below. These represent the minimum required accuracies.

**Table of Units and Accuracy of Meteorological and Production Data (PV)**

Parameter	Measurement Device (typical)	Unit	Range	Accuracy
Global Horizontal Irradiance at MMS	Pyranometer or equivalent	W/m <sup>2</sup>	0 to 1500 W/m <sup>2</sup>	Secondary standard per ISO 9060 or ≤ 3% from 100 W/m <sup>2</sup> to 1500 W/m <sup>2</sup> if using a PV Reference Cell

Parameter	Measurement Device (typical)	Unit	Range	Accuracy
Plane of Array Irradiance on same axis as array	Pyranometer or equivalent	W/m <sup>2</sup>	0 to 1500 W/m <sup>2</sup>	Secondary standard per ISO 9060 or ≤ 3% from 100 W/m <sup>2</sup> to 1500 W/m <sup>2</sup> if using a PV Reference Cell
Back of Panel temperature at array height	Temperature probe	°C	-20 to +50 °C	+/-1 °C
Ambient air temperature at MMS	Temperature probe	°C	-20 to +50 °C	+/-1 °C
Ambient air pressure at MMS	Piezoresistive transducer or equivalent	Mbar	150 to 1150 mbar	+/-60 mbar (0 to +50°C)
Wind speed at MMS	Anemometer, sonic device or equivalent	Mph	0 to 134 mph	+/-1 mph
Wind direction at MMS	Vane, sonic device or equivalent	Degrees (from True North)	360°	+/-5°
Set point for each inverter	Reported by Subscriber Organization	MW	0 to inverter name plate	Not applicable
Power production of Facility	Measured at POI	MW	Up to Allowed Capacity	+/-0.1 MW
BESS Charging Power	Measured at BESS Charging Interface	MW	Up to Allowed Capacity	+/-0.1 MW
Facility power production ratio	Ratio of Facility's power production (MW)/Allowed Capacity (MW)	%	0 to 100%	+/-0.1 %
Inverters Available	NA	NA	Up to the number installed inverters	
Facility Inverter Availability	Ratio of inverters online/number of inverters	%	0 to 100%	
Power Possible	Subscriber Organization's Model	MW	0 to Allowed Capacity	+/-4%

D. Status of Generating Equipment:

For each inverter, Subscriber Organization shall provide to Company, via SCADA communication and protocol acceptable to Company at a continuous scan updated not less frequently than every 2 seconds, a signal as to whether such inverter is available or unavailable, and on or offline.

E. Data Collection.

**[NOTE COMPANY TO UPDATE REQUIREMENTS; WILL BE SPECIFIC TO FACILITY EQUIPMENT AND RESOURCE TYPE]**

- High Resolution Data: Subscriber Organization shall install and make available to the Company time stamped and sequential data recordings for all inverter-based resources (and all generating resources) to perform event analysis and verify Facility performance during steady state and transient disturbance events. This will include a time-synchronized phasor measurement unit at the Facility, and access to multiple sources to provide sufficient clarity as to any abnormal response or behavior within the Facility, including Facility control settings and static values, SCADA data, sequence of events recording (SER) data, dynamic disturbance recorder (DDR) data, and inverter fault codes and inverter-level dynamic recordings. This data will be used to review the Facility response to system dynamics, such as the frequency response (normal droop), reactive response, etc.
- Plant Data: **[Note: specific requirements below are representative of variable energy resources and will be tailored to the Facility resource type(s) and geographic arrangement]**

At least two months prior to the Commercial Operation Date, Subscriber Organization shall deliver to Company a report showing (i) manufacturer, model and year of all energy equipment (panels, inverters, energy storage devices), and meteorological instrumentation, and (ii) the latitude and longitude of the center of the energy equipment (i.e., solar panels for every inverter, wind turbines) and every meteorological tower. Beginning upon COD, Subscriber Organization shall transmit and provide to Company the real-time data set forth below, refreshed as frequently as allowed by the SCADA system, not to exceed sixty (60) second intervals:

- Three (3) data points from each inverter:
  - Inverter/turbine generation (MW)
  - Inverter/turbine availability
  - Inverter/turbine on/offline status
- Two (2) data points from each meteorological tower (solar resources):
  - Global horizontal solar irradiance (instantaneous solar intensity, full sky)
  - Plane of array solar irradiance (instantaneous solar intensity at the current angle of the PV array) or as required in the first table of this section

Subscriber Organization shall provide a map and key for each inverter sufficient to allow Company to correlate the data received through Company's data historian system to each individual resource.

9. TECHNOLOGY SPECIFIC REQUIREMENTS.

A. [Reserved]

B. [Reserved]

C. Inverter Systems.

1. Direct current generators and non-power (i.e., other than 60 Hertz) alternating current generators can only be installed in parallel with the Company System using a non-islanding synchronous inverter unless alternate designs are approved by the Company. The design shall comply with the requirements of IEEE Std 1547-2003 (or latest version), except as described in Section 3 (Performance Standards) of this Attachment F (Facility Owned by Subscriber Organization).
2. Self-commutated inverters of the Company-interactive type shall synchronize to the Company System. Line-commutated, thyristor-based inverters are not recommended and will require additional technical study to determine harmonic and reactive power requirements. All interconnected inverter systems shall comply with the harmonic current limits of IEEE Std 519-1992 (or latest version).

D. Battery Energy Storage System. The operating parameters of the BESS for facilities with paired storage shall be as follows:

1. For facilities with variable energy and paired storage: The BESS shall directly charge storage from the variable resource when the Company Active Power Dispatch is for less than the available resource energy.
2. No more than [ ] % of the BESS energy capacity can be charged from the grid prior to the fifth (5<sup>th</sup>) anniversary of the Commercial Operations Date. Thereafter, 100% of the BESS energy capacity can be charged from the grid. **[DRAFTING NOTE ONE: 5-YEAR LIMITATION ON GRID CHARGING WILL BE DELETED IF ITC RECAPTURE IS NOT APPLICABLE TO THE BESS.] [DRAFTING NOTE TWO: IF THE BESS WILL NEVER CHARGE FROM THE GRID, REPLACE THIS ENTIRE SUBSECTION WITH THE FOLLOWING: “None of the BESS energy capacity may be charged from the grid during the Term of this Agreement.”]**
3. The BESS will not be required to discharge more energy than available relative to the available state of charge.
4. For storage used primarily for energy shifting, the BESS shall be designed for an average annual use of 365 cycle(s) (a cycle is a discharge equal to the portion of the BESS Contract Capacity allocated for energy shifting, and sufficient charging to return the BESS to 100% State of Charge)

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**EXHIBIT F-1**  
**DESCRIPTION OF GENERATION AND BATTERY STORAGE FACILITIES**

1. Name of Facility:

- (a) Location: (TMK No. )
- (b) Telephone number (for system emergencies):
- (c) E-mail Address:
- (d) Contact Information for notices pursuant to the Contract:

Mailing Address:

Address for Delivery by Hand or Overnight Delivery:

Email Address:

2. Owner (If different from Subscriber Organization):

If Subscriber Organization is not the owner, Subscriber Organization shall provide Company with a certified copy of a certificate warranting that the owner is a corporation, partnership or limited liability company in good standing with the Hawai'i Department of Commerce and Consumer Affairs which shall be attached hereto as Exhibit F-1-1 (Good Standing Certificates).

3. Operator:

4. Name of person to whom payments are to be made:

- (a) Mailing address:
- (b) Hawai'i Gross Excise Tax License number:

5. Equipment:

- (a) Type of facility and conversion equipment:

**[For example: Small power production facility designated as a Qualifying Facility that produces electric energy using \_\_\_\_\_.]**

- (b) Design and capacity

Total Facility Capacity ("Contract Capacity"):

\_\_\_\_\_ kW

Total Number of Generators:

**[number and size of each generator, e.g., one (1) Brand X, 200 kW; one (1) Brand Y, 300 kW]**

Description of Equipment:

**[For example: Describe the type of energy conversion equipment, capacity, and any special features.]**

Individual Unit: **[if more than one generator, list information for each generator]**

	kW	kVAR Consumed	kVAR Produced
<u>Full load</u>			
<u>Startup</u>			

Generator:

Type \_\_\_\_\_

Rated Power \_\_\_\_\_ kW

Voltage \_\_\_\_\_ V, \_ phase

Frequency \_\_\_\_\_ Hz

Class of Protection \_\_\_\_\_

Number of Poles \_\_\_\_\_

Rated Speed \_\_\_\_\_ rpm

Rated Current \_\_\_\_\_ A

Rated Power Factor See Exhibit B-2

Batteries

Total Number of Energy Storage Units:

- (c) Single or 3 phase:
- (d) Name of manufacturer:
- (e) Description of Facility SCADA and control system(s)
- (f) The “Allowed Capacity” of this Contract shall be the lower of (i) Contract Capacity or (ii) the net nameplate capacity (net for export) of the Facility installed by the Commercial Operations Date.

- (g) Subscriber Organization may propose revisions to this Section 5 (Equipment) of Exhibit F-1 (Description of Generation Battery and Storage Facilities) (“Section 5”) for Company’s approval prior to commencement of construction, provided, however, that (i) no such revision to this Section 5 shall change the type of Facility or conversion equipment deployed at the Facility from a solar energy conversion facility using photovoltaic equipment; (ii) Subscriber Organization shall be in compliance with all other terms and conditions of this Contract; and (iii) such revision(s) shall not change the characteristics of the Facility equipment or the specifications used in the IRS. Any revision to this Section 5 complying with items (i) through (iii) above shall be subject to Company’s prior approval, which approval shall not be unreasonably withheld. If Subscriber Organization’s proposed revision(s) to this Section 5 otherwise satisfies items (i) and (ii) above but not item (iii) such that Company, in its reasonable discretion, determines that a re-study or revision to all or any part of the IRS is required to accommodate Subscriber Organization’s proposed revision(s), Company may, in its sole and absolute discretion, conditionally approve such revision(s) subject to a satisfactory re-study or revision to the IRS and Subscriber Organization’s payment and continued obligation to be liable and responsible for all costs and expenses of re-studying or revising such portions of the IRS and for modifying and paying for all costs and expenses of modification to the Facility, the Company-Owned Interconnection Facilities based on the results of the re-studies or revisions to the IRS. Any changes made to this Attachment F of the Contract as a result of this Section 5(f) of Exhibit F-1 (Description of Generation and Battery Storage Facilities) shall be reflected in a written amendment to the Contract.

Subscriber Organization understands and acknowledges that Company’s review and approval of Subscriber Organization’s proposed revisions to this Section 5 and any necessary re-studies or revisions to the IRS shall be subject to Company’s then-existing time and personnel constraints. Company agrees to use commercially reasonable efforts, under such time and personnel constraints, to complete any necessary reviews, approvals and/or re-studies or revisions to the IRS.

Any delay in completing, or failure by Subscriber Organization to meet, the Commercial Operations as a result of any revisions pursuant to this Section 5 by Subscriber Organization (whether requiring a re-study or revision to the IRS or not) shall be borne entirely by Subscriber Organization and Company shall not be responsible or liable for any delay or failure to meet any such milestones by Subscriber Organization.

6. Insurance carrier(s): **[SUBSCRIBER ORGANIZATION TO PROVIDE INFORMATION]**
7. If Subscriber Organization is not the operator, Subscriber Organization shall provide a copy of the agreement between Subscriber Organization and the operator which requires the operator to operate the Facility and which establishes the scope of operations by the operator and the respective rights of Subscriber Organization and the operator with respect to the sale of electric energy from Facility no later than the Commercial Operations Date. In addition, Subscriber Organization shall provide a certified copy of a certificate warranting that the operator is a corporation, partnership or limited liability company in good standing with the Hawai‘i Department of Commerce and Consumer Affairs no later than the Commercial Operations Date.
8. Subscriber Organization shall provide a certified copy of a certificate warranting that Subscriber Organization is a corporation, partnership or limited liability company in good standing with the



Hawai'i Department of Commerce and Consumer Affairs which shall be attached hereto as Exhibit F-1-1 (Good Standing Certificates).

9. Subscriber Organization, owner and operator shall provide Company a certificate and/or description of their ownership structures which shall be attached hereto as Exhibit F-1-2 (Ownership Structure).
10. In the event of a change in ownership or identity of Subscriber Organization, owner or operator, such entity shall provide within 30 Days thereof, a certified copy of a new certificate and a revised ownership structure.

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**EXHIBIT F-2**  
**CONSULTANTS LIST**

**EXHIBIT F-3**  
**MODELING REQUIREMENTS**

1. **Steady State and Dynamic Model Requirements and As-built Data to be provided by Subscriber Organization.** The expected steady state power flow and dynamic models will be provided by the Subscriber Organization during the interconnection study process in the format compatible with the analytical tools used by Company. Depending upon Facility design, different representations may be required for steady state and dynamic simulations. Subscriber Organization will work with Company to derive a complex equivalent model if it is required to meet interconnection study needs. The as-built data and models will be provided by Subscriber Organization immediately upon commissioning with sufficient information to demonstrate that the as-built parameters match the model. Any changes to plant settings that affect its response and impact to the Company System are required to be studied prior to those changes taking effect. The modeling will include all necessary control settings such that the correct capabilities, flags, and settings can be represented in a base case. Where such parameters are settable according to this Contract, the initial models will be configured with parameters mutually agreed with Company for the interconnection study analysis. This includes, but is not limited to:

- Plant Type: A description of the resource type (e.g., storage, solar PV or wind power resource) used as a flag to ensure that the inverter-based resource is accurately represented in the base case, where applicable.
- Active and Reactive Capability: The overall plant “composite capability curve” shall be provided by Subscriber Organization for performance purposes. That same curve will be used for accurately modeling the P-Q capability in power flow studies.
- Plant-Level Voltage Control Settings: Information on the plant voltage control mode to ensure correct voltage control flags and set points are set accordingly in the software tools.
- The voltage control set point at the POI is provided by the Company. Subscriber Organization shall provide a description of the coordination of any plant-level shunt compensation (static or dynamic) to ensure it can be accurately represented in the power flow base case.

The models provided by Subscriber Organization should accurately reflect the contractual requirements established under this Contract.

2. **Positive Sequence Stability Modeling.** Subscriber Organization shall provide a positive sequence stability model representation which provides sufficient detailed modeling for necessary reliability studies, as specified by Company. **[Note – language to be revised based on proposed Facility.]** For example, the following are typical requirements for plants with inverter equipment:
- Inverter-Level Controller Model: This represents the overall control of the inverter as an energy or generating resource.
  - Electrical Control Model: This represents the detailed electrical controls of the resource, including large disturbance behavior.
  - Plant-Level Controller Model: This represents control of multiple individual inverters and/or generators within the plant.
3. **Short Circuit Modeling.** Subscriber Organization will provide appropriate and accurate models to Company to support short circuit studies. **[Company to specify requirements based on specific Facility]**

4. **Electromagnetic Transient Modeling.** Company will require an electromagnetic transient (“EMT”) model for the Facility. Subscriber Organization shall provide Company with an EMT model for the IRS and an updated EMT model after the Facility has been commissioned. These models are in addition to the positive sequence stability models required for interconnection-wide modeling purposes. In addition, Subscriber Organization shall provide Company with evidence that the expected (and commissioned) EMT model reasonably matches the positive sequence dynamic models provided. This should include a benchmarking report provided by the inverter OEM.

**EXHIBIT F-4**  
**GENERATOR AND ENERGY STORAGE CAPABILITY CURVE(S)**

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**EXHIBIT F-5**  
**SINGLE-LINE DRAWING AND INTERFACE BLOCK DIAGRAM**

(To be attached as per Section 1.A. of Attachment F)

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**EXHIBIT F-6**  
**RELAY LIST AND TRIP SCHEME**

(To be attached as per Section 1.A. of Attachment F.)

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**EXHIBIT F-7**  
**CONTROL SYSTEM ACCEPTANCE TEST CRITERIA**

**[THIS ATTACHMENT WILL NEED TO BE MODIFIED BASED ON THE RESULTS OF THE IRS]**

1. The Control System Acceptance Test for the Facility will be conducted, following installation of the Facility. The Control System Acceptance Test procedures will be in accordance with criteria set forth herein. The Control System Acceptance Test shall be performed in accordance with Good Engineering and Operating Practices and demonstrate to Company's satisfaction that the Facility and the interconnection portion of the Facility, including Company-Owned Interconnection Facilities, have met the provisions of Section 5. (Company Dispatch) of the Contract and Section 3. (Performance Standards) of Attachment F (Facility Owned by Subscriber Organization).
  - A. Control System Acceptance Test procedures will be developed by Company for the Subscriber Organization's review at least sixty (60) Days in advance of performing the tests based on the date provided by Company.
  - B. The procedures will include, but not be limited to, demonstration of the functional requirements of the Facility defined in Section 5. (Company Dispatch) of the Contract and Section 3. (Performance Standards) of Attachment F (Facility Owned by Subscriber Organization) such as, but not limited to:
    1. Interconnection equipment and communications to support remote monitoring of the Facility and control of Facility breakers
    2. Droop characteristic and change of frequency control / response modes (if applicable)
    3. Real power delivery under remote Company Dispatch, Active Power Dispatch. For facilities with directly controlled storage, the storage will be operated to perform at least two full charging/discharging cycles.
    4. Accurate provision of limits for Minimum and Maximum Dispatch (Power Possible, Minimum load capability)
    5. Ramp rates for controlled actions
    6. Control of Facility breakers
    7. Voltage regulation
    8. Grid forming and Black start (if applicable)
    9. BESS Capacity Test and demonstration of the round-trip efficiency of the BESS, each as described in Attachment H (BESS Requirements)
  - C. Testing of primary and redundant communications between Company System Operator and Facility Operator
  - D. The actual dynamic response of the Facility equipment will be confirmed to allow Company transient stability model to reflect the as-left conditions of the unit. During the commissioning, the following will be required:
    1. A final review by Company engineers of the equipment installed to control the operation and protect the plant will be needed upon installation and prior to the start of commercial operation.



2. The review will include off-line tuning and testing results of the excitation and governor control and/or control system and the IEEE block diagram utilized for the PSS/E dynamics program.
  3. During the commissioning of the actual Facility, equipment system testing will be conducted to ensure that similar, well damped, expected responses will be produced by the facility. The as-left parameters obtained from real and reactive local response tuning will be determined for use in the Company planning model. The Subscriber Organization will provide an estimate of the earliest date for the Control System Acceptance Test at least ninety (90) Days before the date.
- E. The Control System Acceptance Test procedures for the Facility will be mutually agreed upon between Subscriber Organization and Company prior to conducting the test.
  - F. When the Facility is ready for the Control System Acceptance Test, Subscriber Organization shall notify Company at least seven (7) Days prior to the test and shall coordinate with Company. Subscriber Organization shall perform, and Company shall monitor such test no earlier than seven (7) Days from Company's receipt of such notice.
  - G. The Control System Acceptance Test is to be successfully completed prior to the Commercial Operation Date.
2. Examples of the type of tests conducted to meet the aforementioned objectives may include, but are not limited to the following:
    - A. On-site Tests
      1. SCADA Test to verify the status and analog telemetry, and if the remote controls between the Company's EMS and the Facility are working properly end-to-end.
      2. Dispatch Test to verify if the Facility's active power limit controls and the Active Power Control Interface with the Company's EMS are working properly. The Test is generally conducted by setting different active power setpoints and limits and observing the proper dispatch at the appropriate ramp rate limiting of the Facility's real power output.
    - B. Control Test for Voltage Regulation to verify the Facility can properly perform automatic voltage regulation as defined in this Exhibit F-7 and pursuant to Attachment F and the Contract. Test is generally conducted by making small adjustments of the voltage setpoint and verifying by observation that the Facility regulates the voltage at the point of regulation to the setpoint by delivering/receiving reactive power to/from the Company System to maintain the applicable setpoint according to the reactive power control and the reactive amount requirements of Section 3. (Performance Standards) of Attachment F (Facility Owned by Subscriber Organization) to the Contract. [**Note: Sub transmission Requirements**]
    - C. Frequency Response Test to verify the Facility provides a frequency droop response as defined in the Contract. Test is generally conducted by adjusting of the frequency reference setting and verifying by observation that the Facility responds per droop and deadband settings, and appropriately modifies the Company issued Dispatch Setpoint. If different modes of frequency response are provided, each mode is tested (i.e.; isochronous, fast frequency response, active power droop response).
    - D. Loss-of-Communication Test to verify the Facility will properly shutdown upon the failure of the direct-transfer-trip communication system. Test is generally conducted by simulating a communications failure and observing the proper shutdown of the Facility. [If DTT required for the Project]

- E. Round trip efficiency test, as described in Attachment H (BESS Requirements) Section 1. (BESS Tests) to verify that the round-trip efficiency of the BESS is not less than [ ] percent ([ ]%). **[DRAFTING NOTE: The round-trip efficiency percentage will be taken from Subscriber Organization's response to the RFP.]**
- F. BESS Capacity Test to verify the BESS Capacity Ratio.
1. Monitoring Test:
    - a. The monitoring test requires the Facility to operate as it would in normal operations.
    - b. To ensure useful and valid test data is collected for variable facilities, the monitoring test shall end when one of the following criteria is met:
      - 1) For variable energy resources, Facility's gross power production is greater than 85% of its Allowed Capacity, for at least four (4) hours in any continuous 24-hour CSAT period.
      - 2) For solar facilities, the recorded renewable energy resource at the Facility is above 600 W/m<sup>2</sup> for least eight (8) hours in any continuous 48-hour CSAT period.
- G. At the end of the test, an evaluation period is selected based on the criteria that triggered the end of the test.
- H. The performance of the Facility during the period of the successfully completed monitoring test is evaluated for, e.g., voltage regulation, frequency response, dispatch control, operating limits and ramp rate performance, to verify the performance meets the requirements of this Exhibit F-7, according to the criteria set forth in the testing procedures. Certain requirements, such as disturbance ride-through requirements, cannot be adequately tested without actual grid disturbances. These requirements will be confirmed following a grid event based on operational data, which may be after the completion of the Control System Acceptance Test. The Parties understand and agree that a successful completion of the test does not constitute a waiver of any of the performance standards of Subscriber Organization, all of which are hereby reserved, and shall not alleviate Subscriber Organization from any of its obligations under the Contract, in particular, as required in Section 5. (Company Dispatch) and the Performance Standards in Section 3. (Performance Standards) of Attachment F (Facility Owned by Subscriber Organization).

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**EXHIBIT F-8**  
**ACCEPTANCE TEST GENERAL CRITERIA**

**[THIS ATTACHMENT WILL NEED TO BE MODIFIED  
BASED ON THE RESULTS OF THE IRS]**

Upon final completion of Company review of the Facility's drawings, final test criteria and procedures shall be agreed upon by Company and Subscriber Organization no later than thirty (30) Days prior to conducting the Acceptance Test in accordance with the Contract. The Acceptance Test shall include, but not be limited to, the following:

**1. Interconnection.**

- A. A visual inspection of all Interconnection equipment and verification of as-built drawings.
- B. Phase rotation testing to verify proper phase connections.
- C. Based on manufacturer's specification, test the local operation of the Facility's generator breaker(s) and inter-tie breaker(s), and other breaker(s) which connect the Facility equipment to Company System – must open and close locally using the local controls remotely from Company's EMS. Test and ensure that the status shown on the EMS is the same as the actual physical status in the field.
- D. Relay test engineers to connect equipment and simulate certain inputs to test and ensure that the protection schemes such as any under/over frequency and under/over voltage protection or the Direct Transfer Trip operate as designed. (For example, a fault condition may be simulated to confirm that the breaker opens to sufficiently clear the fault. Additional scenarios may be tested and would be outlined in the final test criteria and procedures.) Subscriber Organization to also test the synchronizing mechanisms to which the Facility would be synchronizing and closing into the Company System to ensure correct operation. Other relaying also to be tested as specified in the protection review of the IRS and on the single line diagram, Attachment E (Single-Line Drawing and Interface Block Diagram) for the Facility.
- E. All breaker disconnects and other high voltage switches will be inspected to ensure they are properly aligned and operated manually or automatically (if designed).
- F. Step-Up Transformer Enclosure(s) inspections – The Step-Up Transformer Enclosure(s) may be inspected to test and ensure that the equipment that Subscriber Organization has installed is installed and operating correctly based upon agreed to design. Wiring may be field verified on a sample basis against the wiring diagrams to ensure that the installed equipment is wired properly. The grounding mat at the Step-Up Transformer Enclosure(s) may be tested to make sure there is adequate grounding of equipment.
- G. Communication testing – Communication System testing to occur to ensure correct operation. Detailed scope of testing will be agreed by Company and Subscriber Organization to reflect installed systems and communication paths that tie the Facility to Company's communications system.
- H. Various contingency scenarios to be tested to ensure adequate operation, including testing contingencies such as loss of communications, and fault simulations to ensure that the Facility's breakers, if any, open as they are designed to open. (Back up relay testing)
- I. Metering section inspection; verification of metering PTs, CTs, and cabinet and the installation of the two Company meters.

2. Telephone Communication.

- A. Test to confirm Company has a direct line to the Facility control room at all times and that it is programmed correctly.
- B. Test to confirm that the Facility operators can sufficiently reach Company System Operator.
- C. Verification of dial-up telephone connection for metering cabinet.

3. Drawings, Documentation and Equipment Warranties.

The items below are required components of the Acceptance Test and must be satisfied for successful completion of this Test.

- A. Electronic and three (3) hard copies of all Switchyard construction drawings, specifications, calibrations, and settings including as-built drawings.
- B. Equipment operating and maintenance manuals, spare parts lists, commissioning notes, as-built equipment settings, and other information related to the switchyard equipment.
- C. Contractor construction warranties and equipment warranties.
- D. Phase rotation testing to verify proper phase connections.
- E. Switching Station inspections – The Switching Station may be inspected to test and ensure that the equipment that Subscriber Organization has installed is installed and operating correctly based upon agreed-to design. Wiring may be field verified on a sample basis against the wiring diagrams to ensure that the installed equipment is wired properly. The grounding mat at the Switching Station may be tested to make sure there is adequate grounding of equipment.
- F. If agreed by the Parties in writing, some requirements may be postponed to the Control Systems Acceptance Test



**Hawaiian  
Electric**

*Draft*  
*Project Specific Addendum*  
*For*  
*Renewable Dispatchable Generation*  
*Projects Located on Moloka‘i*

*Project Type: PV + BESS Community Based Renewable Energy*

*Contract Capacity: \_\_\_\_\_MW of Generation*

*BESS Contract Capacity: \_\_\_\_\_MW of Storage*

*Are the PV System and the BESS DC-Coupled? No ☐ Yes ☐*

*CBRE Facility Location: \_\_\_\_\_*

*Execution Date: \_\_\_\_\_*

## PROJECT SPECIFIC ADDENDUM

This **PROJECT SPECIFIC ADDENDUM** is incorporated by reference into the **MID-TIER STANDARD FORM CONTRACT FOR RENEWABLE DISPATCHABLE GENERATION** for this CBRE Facility and entered into coterminous with such Mid-Tier Standard Form Contract as of \_\_\_\_\_, 20\_\_ (the “Execution Date”), by Maui Electric Company, Ltd., a Hawai‘i corporation (“Company”) and \_\_\_\_\_ (“Subscriber Organization”). Together, the Company and Subscriber Organization are the “Parties” and may singularly each be referred to as a “Party”.

**WHEREAS**, the Company has certain technical and contractual requirements are specific to the individual islands;

**WHEREAS**, the CBRE Facility will be located at \_\_\_\_\_ on the island of Moloka‘i;

**WHEREAS**, this Project Specific Addendum (“PSA”) contains all of the Island Specific provisions for the island of Moloka‘i that apply to this CBRE Facility;

**WHEREAS**, the Parties agree to abide by the provisions of this PSA, as hereinafter set-forth.

### **NOW, THEREFORE THE PARTIES AGREE AS FOLLOWS:**

1. The text of Section 26.J (Hawai‘i General Excise Tax) of the Mid-Tier Standard Form Contract for this CBRE Facility shall read as follows:

Hawai‘i General Excise Tax. Subscriber Organization shall, when making payments to Company under this Contract, pay such additional amount as may be necessary to reimburse Company for the Hawai‘i general excise tax on gross income and all other similar taxes imposed on Company by any Governmental Authority with respect to payments in the nature of gross receipts tax, sales tax, privilege tax or the like, but excluding federal or state net income taxes. By way of example and not limitation, as of the Execution Date, all payments subject to the Hawai‘i general excise tax, (i) on the islands of on Maui, Moloka‘i and Lana‘i (totaling 4.0% as of the Execution Date) would include an additional 4.166% so that the underlying payment will be net of such tax liability; and (ii) all payments subject to general excise tax plus surcharge on Hawai‘i island (totaling 4.5% as of the Execution Date) would include an additional 4.7120% so the underlying payment will be net of such tax liability.

2. If the CBRE Facility is located on the Company-owned Site then Attachment 1 – COMPANY-OWNED SITE shall be attached to this Project Specific Amendment and be a part hereof. Such Attachment 1 provides additional requirements for use of the Company-owned Site.

3. Attachment F (Facility Owned Subscriber Organization) to the Mid-Tier Standard Form Contract for this CBRE Facility shall consist of the following Attachment F and Exhibits F-1 to F-8 that are attached to this Project Specific Addendum. In the event this CBRE Facility is DC-coupled, Attachment 2 - DC-COUPLED STORAGE shall be attached to this Project Specific Amendment and be a part hereof. Such Attachment 2 replaces certain terms and conditions found in the Mid-Tier Standard Form Contract and the attached Attachment F.

<b>Moloka‘i</b>	
<b>ATTACHMENT F</b>	Facility Owned by Subscriber Organization
<b>Exhibit F-1</b>	Description of Generation and Battery Storage Facilities
<b>Exhibit F-2</b>	Consultants List
<b>Exhibit F-3</b>	Modeling Requirements
<b>Exhibit F-4</b>	Generator and Energy Storage Capability Curve(s)
<b>Exhibit F-5</b>	Single-Line Drawing and Interface Block Diagram
<b>Exhibit F-6</b>	Relay List and Trip Scheme
<b>Exhibit F-7</b>	Control System Acceptance Test Criteria
<b>Exhibit F-8</b>	Acceptance Test General Criteria

**IN WITNESS WHEREOF**, the Parties hereto have caused this Project Specific Addendum to be executed by their duly authorized representatives. This Project Specific Addendum is effective as of the Effective Date set forth above.

[Subscriber Organization]		Maui Electric Company, Limited, a Hawai'i corporation
By: _____		By: _____
Name: _____		Name: _____
Date: _____		Date: _____

**MAILING ADDRESS:**

Maui Electric Company, Ltd.  
Attn: Renewable Energy Projects Division  
P.O. Box 398  
Kahului, HI 96733-6898



**ATTACHMENT F**  
**FACILITY OWNED BY SUBSCRIBER ORGANIZATION**

**1. THE FACILITY.**

**A. Drawings, Diagrams, Lists, Settings and As-Built.**

1. Single-Line Drawing, Interface Block Diagram, Relay List, Relay Settings and Trip Scheme.  
A preliminary single-line drawing (including notes), Interface Block Diagram, relay list, relay settings, and trip scheme of the Facility shall, after Subscriber Organization has obtained prior written consent from Company, be attached to this Contract on the Execution Date as Exhibit F-5 (Single-Line Drawing and Interface Block Diagram) and Exhibit F-6 (Relay List and Trip Scheme). A final single-line drawing (including notes), Interface Block Diagram, relay list and trip scheme of the Facility shall, after having obtained prior written consent from Company, be labeled the "Final" Single-Line Drawing, the "Final" Interface Block Diagram and the "Final" Relay List and Trip Scheme and shall supersede Exhibit F-5 (Single-Line Drawing and Interface Block Diagram) and Exhibit F-6 (Relay List and Trip Scheme) to this Contract and shall be made a part hereof on the Commercial Operations Date. After the Commercial Operations Date, no changes shall be made to the "Final" Single-Line Drawing, the "Final" Interface Block Diagram and the "Final" Relay List and Trip Scheme without the prior written consent of Subscriber Organization and Company. The single-line drawing shall expressly identify the Point of Interconnection of Facility to Company System.
2. As-Built. Subscriber Organization shall provide final as-built drawings of the Subscriber Organization-Owned Interconnection Facilities within 30 Days of the successful completion of the Acceptance Test.
3. Modeling. Subscriber Organization shall provide the models as set forth in Exhibit F-4.
4. No Material Changes. Subscriber Organization agrees that no material changes or additions to the Facility as reflected in the "Final" Single-Line Drawing (including notes), the "Final" Interface Block Diagram and the "Final" Relay List and Trip Scheme, shall be made without Subscriber Organization first having obtained prior written consent from Company. The foregoing are subject to changes and additions as part of any Performance Standards Modifications. If Company directs any changes in or additions to the Facility, records and operating procedures that are not part of any Performance Standards Modifications, Company shall specify such changes or additions to Subscriber Organization in writing, and, except in the case of an emergency, Subscriber Organization shall have the opportunity to review and comment upon any such changes or additions in advance.

**B. Certain Specifications for the Facility.**

1. Subscriber Organization shall furnish, install, operate and maintain the Facility including breakers, relays, switches, synchronizing equipment, monitoring equipment and control and protective devices approved by Company as suitable for parallel operation of the Facility with Company System. The Facility shall be accessible at all times to authorized Company personnel.
2. The Facility shall include:

**[LIST OF THE FACILITY]**

**Examples may include, but are not limited to:**

- **Subscriber Organization-Owned Interconnection Facilities**
- **Substation**
- **Control and monitoring facilities**
- **Transformers**
- **Generating and/or Battery Energy Storage System (“BESS”) equipment (as described in Exhibit F-1)**
- **"Lockable" cabinets or housings suitable for the installation of the Company-Owned Interconnection Facilities located on the Site**
- **Relays and other protective devices**
- **Leased telephone line and/or equipment to facilitate microwave communication]**

3. The Facility shall comply with the following **[some requirements may be removed by Company following completion of technical review or IRS]:**

- a. Subscriber Organization shall install a \_\_\_\_ kV gang operated, load breaking, lockable disconnect switch and all other items for its switching station (relaying, control power transformers, high voltage circuit breaker). Bus connection shall be made to a manually and automatically (via protective relays) operated high-voltage circuit breaker. The high-voltage circuit breaker shall be fitted with bushing style current transformers for metering and relaying. Downstream of the high-voltage circuit breaker, a structure shall be provided for metering transformers. From the high-voltage circuit breaker, another bus connection shall be made to another pole mounted disconnect switch, with surge protection.
- b. Subscriber Organization shall provide within the Subscriber Organization-Owned Interconnection Facilities a separate, fenced area with separate access for Company. Subscriber Organization shall provide all conduits, structures and accessories necessary for Company to install the Revenue Metering Package. Subscriber Organization shall also provide within such area, space for Company to install its communications, supervisory control and data acquisition ("SCADA") equipment (remote terminal unit or equivalent) and certain relaying if necessary for the interconnection. Subscriber Organization shall also provide AC and DC source lines as specified by Company. Subscriber Organization shall provide a telephone line for Company-owned meters. Subscriber Organization shall work with Company to determine an acceptable location and size of the fenced-in area. Subscriber Organization shall provide an acceptable demarcation cabinet on its side of the fence where Subscriber Organization and Company wiring will connect/interface.
- c. Subscriber Organization shall ensure that the Subscriber Organization-Owned Interconnection Facilities have a lockable cabinet for switching station relaying equipment. Subscriber Organization shall select and install relaying equipment acceptable to Company. At a minimum, the relaying equipment will provide over and under frequency (81) negative phase sequence (46), under voltage (27), over voltage (59), ground over voltage (59G), over current functions (50/51) and direct transfer trip (if required). The settings shall be consistent with the requirements for over/under frequency and voltage ride-through. Subscriber Organization shall install protective relays that operate a lockout

relay (86), which in turn will trip the main circuit breaker and not allow it to be reclosed without reset.

- d. [Reserved]
- e. Subscriber Organization's equipment also shall provide at a minimum:
  - 1) Interface with Company's Telemetry and Control, or designated communications and control interface, to provide telemetry of electrical quantities such as total Facility net MW, MVar, power factor, voltages, currents, and other quantities as identified by the Company;
  - 2) Interface with Company's Telemetry and Control, or designated communications and control interface, to provide status for circuit breakers, reactive devices, switches, and other equipment as identified by the Company;
  - 3) Interface with Company's Telemetry and Control, or designated communications and control interface, to provide control to incrementally raise and lower the voltage target at the point of regulation operating in automatic voltage regulation control;
  - 4) Interface with Company's Telemetry and Control, or designated communications and control interface, to provide the active power control requirements of this Contract. More than one interface may be required if Facility energy components, such as a BESS and variable generation resource are controlled separately by the Company (as in grid-charging BESS);
  - 5) Interface with Company's Telemetry and Control, or designated communications and control interface, for the Company to specify control system modes of operation and parameters, for remotely configurable parameters and operating states required under this Contract;
  - 6) For Variable Energy Facilities: Interface with Company's Telemetry and Control, or designated communications and control interface, to provide telemetry of equipment availability and meteorological and production data required under Section 8 (Data and Forecasting) of this Attachment F (Facility Owned by Subscriber Organization) and the Facility's Power Possible; and
  - 7) Provision for Loss of Telemetry and Control: If Company's Telemetry and Control, or designated communications and control interface, is unavailable, due to loss of communication link, Telemetry and Control failure, or other event resulting in loss of the remote control by Company, provision must be made for Subscriber Organization to be able to institute via local controls, within 5 minutes (or such other period as Company accepts in writing) of the verbal directive by the Company System Operator, such change in voltage regulation target and real power export or import as directed by the Company System Operator. If all local and remote active power controls become unavailable or fail, the Facility may be required disconnect from the Company's System **[to be based upon the size of the system]**
  - 8) If the direct transfer trip is required and is unavailable due to loss of communication link, Telemetry and Control failure, or other event resulting in the loss of the remote control by the Company, provision must be made for the Subscriber Organization to shutdown Facility and open and lockout the main circuit breaker.
- f. If Subscriber Organization adds, deletes and/or changes any of its equipment, or changes its design in a manner that would change the characteristics of the equipment and

specifications used in the IRS, Subscriber Organization shall be required to obtain Company's prior written approval. If an analysis to revise parts of the IRS is required, Subscriber Organization shall be responsible for the cost of revising those parts of the IRS, and modifying and paying for the cost of the modifications to the Facility and/or the Company-Owned Interconnection Facilities based on the revisions to the IRS.

g. Cybersecurity and Critical Infrastructure Protection.

**DRAFTING NOTE: COMPANY RETAINS SOLE DISCRETION TO CONSIDER THE LESS STRINGENT REQUIREMENTS (WHICH ARE INCLUDED IN THE FIRST SET OF ALTERNATIVE CYBER-SECURITY PROVISIONS UNDER G. (i) THROUGH (iv)) FOR PROJECTS THAT DO NOT EXCEED 1 MW.]**

- 1) Safety and Security Procedures. The Subscriber Organization shall maintain and enforce safety and security procedures to safeguard: all data provided by Company to Subscriber Organization pursuant to this Contract or in any way connected with the CBRE Program and the administration of the CBRE Program including but not limited to Subscriber names, Subscriber account numbers and information on such accounts, Subscriber addresses, Subscriber rate schedules and Subscriber CBRE bill credit information ("Company CBRE Data"); and all information regarding Company's customers, customer lists, any of the data and testing results produced under this Contract and any information identified by Company as confidential ("Company Customer Data" and together with Company CBRE Data, collectively referred to as "Company Confidential Information"); all generation and telemetry data provided by the Subscriber Organization to the Company ("SO Data"); in Subscriber Organization's possession, including Company Confidential Information that Subscriber Organization provides to any contractors, consultants, and other third parties retained by Subscriber Organization to assist Subscriber Organization to perform under this Contract in the course of Subscriber Organization's performance pursuant to this Contract. Subscriber Organization warrants that it shall (A) use the National Institute of Standards and Technology ("NIST") industry best practices for physical and systems security measures to prevent destruction, loss, alteration or unauthorized access to, use of, or tampering with, the CBRE Facility, Subscriber Organization software, and Company Confidential Information, including to protect the confidentiality and integrity of any of Company Confidential Information, operation of Company's systems, and to prevent viruses and similar destructive code from being placed in any software or data provided to Company, on Subscriber Organization's or Company's website, or in Subscriber Organization's or Company's programming; and (B) use NIST industry best practices physical security and precautionary measures to prevent unauthorized access or damage to the CBRE Facility, including to protect the confidentiality and integrity of any of Company's Confidential Information as well as the operation of Company's systems. Subscriber Organization shall, at a minimum, protect Company's Confidential Information and provide the standard of care required by NIST cybersecurity requirements, and the same measures it uses to protect its own confidential information.
- 2) Exception to Certain NIST Requirements. Company, at its sole and absolute discretion, may waive the requirements concerning NIST industry best practices as set forth in subsection 1(A) and (B) above provided that Subscriber Organization implements alternate measures that Company deems acceptable and not inconsistent with Company's standards with respect to (A) physical and systems security measures to prevent destruction, loss, alteration or unauthorized access to, use of, or tampering

with, the CBRE Facility, software and Company's Confidential Information, including to protect the confidentiality and integrity of any of Company's Confidential Information, operation of Company's systems, and to prevent viruses and similar destructive code from being placed in any software provided to Company, on Subscriber Organization's or Company's website, or in Subscriber Organization's or Company's programming; and (B) physical security and precautionary measures to prevent unauthorized access or damage to the CBRE Facility, including to protect the confidentiality and integrity of any of Company's Confidential Information as well as the operation of Company's systems.

- 3) Security Breach. In the event that Subscriber Organization discovers or is notified of a breach, potential breach of security, or security incident at the CBRE Facility or of Subscriber Organization's systems (a "Security Breach"), Subscriber Organization shall immediately (i) notify Company of such Security Breach, whether or not such breach has compromised any of Company Confidential information, (ii) investigate and remediate the effects of the Security Breach, (iii) cooperate with Company with respect to any such Security Breach and provide necessary information on the Security Breach as requested by Company; and (iv) comply with all applicable privacy and data protection laws, including any notification obligations. Any remediation of any Security Breach will be at Subscriber Organization's sole expense.
- 4) "Subscriber" means a retail customer of the Company who owns a subscription of Subscriber Organization's CBRE project interconnected with the Company.

**[ALTERNATIVE ENHANCED CYBER-SECURITY PROVISIONS-WAIVED SOLELY AT DISCRETION OF COMPANY.]**

- (i) Security Policies and Documentation. Subscriber Organization shall implement and document security policies and standards in accordance with industry best practices (e.g., aligned with the intent of NERC CIP-003-6 R1) and consistent with Company's security policies and standards. Subscriber Organization shall submit documentation describing the approach, methodology, and design to provide physical and cyber security (i.e., aligned with the intent of NERC CIP-003-6 R2) with its submittal of the design drawings pursuant to Section 1.C(Design Drawings, Bill of Materials, Relay Settings and Fuse Selection) of Attachment F (Facility Owned by Subscriber Organization) which shall be at least sixty (60) Days prior to the Acceptance Test.
  - (a) The design shall meet industry standards and best practices, consistent with the National Institute of Standards and Technology ("NIST") guidelines as indicated in Special Publication 800-53 Rev. 4 "Security and Privacy Controls for Federal Information Systems and Organizations" and Special Publication 800-82 Rev. 2 "Guide to Industrial Control Systems (ICS) Security". The system shall be designed with the criteria to meet applicable compliance requirements and identify areas that are not consistent with NIST guidelines and recommendations.
  - (b) The cybersecurity documentation shall include a block diagram of the control system with all external connections clearly described.
  - (c) Subscriber Organization shall provide such additional information as Company may reasonably request as part of a security posture assessment.

- (d) Subscriber Organization shall, at the request of Company or, in the absence of any request from Company, at least annually during the term of this Contract, provide Company with updated documentation and diagrams including a record of changes.
- (ii) Network and Application Security. Subscriber Organization shall implement appropriate network and application security processes and practices commensurate with the level of risk as determined by periodic risk assessments (i.e., aligned with the intent of NERC CIP-005-5):
  - (a) Segment and segregate networks and functions, including physical and logical separation between business networks and control system networks (i.e., aligned with the intent of NERC CIP-005-5 R1).
  - (b) Limit unnecessary lateral communications (i.e., aligned with the intent of NERC CIP-005-5 R1).
  - (c) Harden network devices (i.e., aligned with the intent of NERC CIP-007-6 R1).
  - (d) Secure access to infrastructure devices (i.e., aligned with the intent of NERC CIP-004-6 R4).
  - (e) Perform out-of-band (OoB) network management (i.e., aligned with the intent of NERC CIP-005-5 R2).
  - (f) Validate integrity of hardware and software (i.e., aligned with the intent of NERC CIP-010-3 R1 and NERC CIP-006-6 R1 Part 10).
- (iii) Endpoint and Server Security. Subscriber Organization shall implement appropriate endpoint and server security processes and practices commensurate with the level of risk as determined by periodic risk assessments:
  - (a) Mechanisms to identify vulnerabilities and apply security patches in a timely manner (i.e., aligned with the intent of NERC CIP-007-6 R2).
  - (b) Malware defense and anti-phishing capabilities (i.e., aligned with the intent of NERC CIP-007-6 R3).
  - (c) Access Controls to enforce the least privilege principle and provide access to resources only for authorized users (i.e., aligned with the intent of NERC CIP-004-6 R4).
  - (d) Secure authentication mechanisms including multi-factor authentication for systems with higher risk exposure (i.e., aligned with the intent of NERC CIP-007-6 R5 and NERC CIP-005-5 R2).
  - (e) Data confidentiality, protection, and encryption technologies for endpoints, servers, and mobile devices (i.e., aligned with the intent of NERC CIP-011-2 R1 and NERC CIP-005-5 R2).

Subscriber Organization shall (consistent with the following sentence) ensure that no malicious software ("Malware") or unauthorized code is introduced into any aspect of the Facility, Interconnection Facilities, the Company Systems interfacing with the Facility and Interconnection Facilities, and any of Subscriber Organization's critical control systems or processes used by Subscriber Organization to provide energy, including the information, data and other materials

delivered by or on behalf of Subscriber Organization to Company, (collectively, the "Environment"). Subscriber Organization shall periodically review, analyze and implement improvements to and upgrades of its Malware prevention and detection programs and processes that are commercially reasonable and consistent with the then current technology industry's standards and, in any case, not less robust than the programs and processes implemented by Subscriber Organization with respect to its own information systems.

- (iv) Cybersecurity Program. Subscriber Organization shall establish and maintain a continuous cybersecurity program (i.e., aligned with the intent of NERC CIP-003-6) that enables the Subscriber Organization (or its designated third party) to:
  - (a) Define the scope and boundaries, policies, and organizational structure of the cybersecurity program.
  - (b) Conduct periodic risk assessments to identify the specific threats to and vulnerabilities of the Subscriber Organization's Organization consistent with guidance provided in NIST Special Publication 800-30 Rev. 1 "Guide for Conducting Risk Assessments".
  - (c) Implement appropriate mitigating controls and training programs and manage resources.
  - (d) Monitor and periodically test the cybersecurity program to ensure its effectiveness. Subscriber Organization shall review and adjust their cybersecurity program as appropriate for any assessed risks.
  - (e) Applicability is extended to Cloud Service providers and other third-party services the Subscriber Organization may use.
- (v) Security Monitoring and Incident Response. Company and Subscriber Organization shall collaborate on security monitoring and incident response, define points of contact on both sides, establish monitoring and response procedures, set escalation thresholds, and conduct training (i.e., aligned with the intent of NERC CIP-008-5). Subscriber Organization shall, at the request of Company or, in the absence of any request from Company, at least quarterly, provide Company with a report of the incidents that it has identified and describe measures taken to resolve or mitigate.

In the event that Subscriber Organization discovers or is notified of a breach, potential breach of security, or security incident at Subscriber Organization's Facility or of Subscriber Organization's systems, Subscriber Organization shall immediately (aa) notify Company of such potential, suspected or actual security breach, whether or not such breach has compromised any of Company's confidential information; (bb) investigate and promptly remediate the effects of the breach, whether or not the breach was caused by Subscriber Organization; (cc) cooperate with Company with respect to any such breach or unauthorized access or use; (dd) comply with all applicable privacy and data protection laws governing Company's or any other individual's or entity's data; and (ee) to the extent such breach was caused by Subscriber Organization, provide Company with reasonable assurances satisfactory to Company that such breach, potential breach, or security incident shall not recur. Subscriber Organization shall provide documentation to

Company evidencing the length and impact of the breach. Any remediation of any such breach will be at Subscriber Organization's sole expense.

If malicious software or unauthorized code is found to have been introduced into the Environment, Subscriber Organization will promptly notify Company. Subscriber Organization shall take immediate action to eliminate and remediate the effects of the Malware, at Subscriber Organization's expense. Subscriber Organization shall not modify or otherwise take corrective action with respect to the Company Systems except at Company's request. Subscriber Organization shall promptly report to Company the nature and status of all efforts to isolate and eliminate malicious software or unauthorized code.

(vi) Monitoring and Audit. Subscriber Organization shall provide information on available audit logs and reports relating to cyber and physical and security (i.e., aligned with the intent of NERC CIP-007-6 R4). Company may audit Subscriber Organization's records to ensure Subscriber Organization's compliance with the terms of this Section 1.B.3.G (Cybersecurity and Critical Infrastructure Protection) of this Attachment F (Facility Owned by Subscriber Organization), provided that Company has provided reasonable notice to Subscriber Organization and any such records of Subscriber Organization's will be treated by Company as confidential.

(vii) Contingency Plans. Subscriber Organization shall implement and maintain a business continuity plan, a disaster recovery plan, and an incident response plan ("Contingency Plans" – i.e., aligned with the intent of NERC CIP-009-6) appropriate for the level of risk based on the impact of Subscriber Organization's associated facilities, systems and equipment, which, if destroyed, degraded, misused, or otherwise rendered unavailable, would affect the reliable operation of the Company System. The Contingency Plans shall be provided to Company upon request. Such Contingency Plans shall be updated to reflect lessons learned from real recovery events.

h. Available Power Production.

1) Variable Energy Systems. Subscriber Organization's available power production considering equipment and resource availability (Power Possible) will be determined at any given time using the best-available data and methods for an accurate representation of the amount of available active power at the Point of Interconnection.

2) Variable Energy Systems Paired with Storage Operated through a Single Active Power Control Interface. For variable energy systems paired with storage operated through a single active power control interface (i.e., charging indirectly controlled through dispatch), Subscriber Organization's available power production considering equipment and resource availability and BESS state of charge ("Power Possible") will be determined at any given time using the best-available data and methods for an accurate representation of the amount of available active power at the Point of Interconnection. Telemetry will be provided to indicate state of charge, including available estimated duration at the current dispatch given state of charge and forecast production.

i. For variable resources where Power Possible is derived, in part or in whole, from a measured available variable energy source such as solar or wind: To the extent available, the Parties shall use Subscriber Organization's real time Power Possible communicated to Company through the SCADA system except to the extent that the potential energy does



not accurately reflect the actual available active power at the Point of Interconnection (plus or minus 0.1 MW). During those periods of time when the SCADA derived Power Possible is unavailable or does not accurately represent the available power production considering equipment and resource availability and BESS State of Charge, the Parties shall use the best available data obtained through commercially reasonable methods to determine the Power Possible. Follow up actions to resolve the discrepancy will be as provided in Section 1.J (Demonstration of Facility) of this Attachment F (Facility Owned by Subscriber Organization).

- 1) If, at any time during the Term, there is a material discrepancy or pattern of discrepancies in the accuracy of Power Possible, the Parties shall review the method for determining Power Possible and develop modifications with the objective of avoiding future discrepancies. If the Parties are unable to resolve the issue, then (aa) the Parties shall promptly commission a study to be performed by one of the engineering firms then included on the Qualified Independent Third-Party Consultants List attached to the Agreement as Attachment D (Consultants List) to evaluate the cause of the Power Possible discrepancy and to make recommendations with the objective of avoiding future Power Possible discrepancies ("Study"); and (bb) if the Company decides that its ability to effectively optimize the benefits of its right of Company Dispatch to dispatch the Facility's Net Energy Potential is materially impaired by the lack of an accurate method to determine Power Possible, the Company shall have the right to derate the Facility and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status until the Study has been completed and the Study's recommendations have been implemented by Subscriber Organization to Company's reasonable satisfaction. Subscriber Organization shall pay for the cost of the Study. The Study shall be completed within ninety (90) days from the date the Study is commissioned, unless otherwise reasonably agreed to in writing by Subscriber Organization and Company. The Consultant shall send the Study to Company and Subscriber Organization. Subscriber Organization (and/or its Third-Party consultants and contractors), at Subscriber Organization's expense, shall take such action as the Study shall recommend (e.g., modifications to the model, modifications and/or additions to the data inputs used in the model, modifications to the procedures for maintaining and/or recalibrating the Monitoring and Communication Equipment used to provide data inputs, replacement of such Monitoring and Communication Equipment, modifications of procedures for Facility operations) with the objective of avoiding future Power Possible discrepancies. Such recommendations shall be implemented by Subscriber Organization to Company's reasonable satisfaction no later than forty-five (45) Days from the Day the completed Study is issued by the consultant, or such other longer commercially reasonable timeframe otherwise agreed to in writing by Company.
- j. Subscriber Organization shall reserve space within the Site for possible future installation of Company-owned meteorological equipment (such as wind speed, direction and relative humidity monitors, SODAR and irradiance monitors) and AC and DC source lines for such equipment as may be required depending on the Facility resource type and location. In the event Company decides to install such meteorological equipment: (i) Subscriber Organization shall work with Company to determine an acceptable location for such equipment and any associated wiring, interface or other components; and (ii) Company shall pay for the needed equipment, and installation of such equipment, unless otherwise agreed to by the Parties. Company and Subscriber Organization shall use commercially

reasonable efforts to facilitate installation and minimize interference with the operation of the Facility.

- k. The Facility shall, at a minimum, satisfy the wind load and seismic load requirements of the International Building Code and any more stringent requirements imposed under applicable Laws.
- C. Design Drawings, Bill of Material, Relay Settings and Fuse Selection. Subscriber Organization shall provide to Company for its review the design drawings, Bill of Material, relay settings and fuse selection for the Facility, and Company shall have the right, but not the obligation, to specify the type of electrical equipment, the interconnection wiring, the type of protective relaying equipment, including, but not limited to, the control circuits connected to it and the disconnecting devices, and the settings that affect the reliability and safety of operation of Company's and Subscriber Organization's interconnected system. Subscriber Organization shall provide the relay settings and protection coordination study, including fuse selection and AC/DC Schematic Trip Scheme (part of design drawings), for the Facility to Company during the 60% design. Company, at its option, may, with reasonable frequency, witness Subscriber Organization's operation of control, synchronizing, and protection schemes and shall have the right to periodically re-specify the settings. Subscriber Organization shall utilize relay settings prescribed by Company, which may be changed over time as Company System requirements change.
- D. Disconnect Device. Subscriber Organization shall provide a manually operated disconnect device which provides a visible break to separate Facility from Company System. Such disconnect device shall be lockable in the OPEN position and be readily accessible to Company personnel at all times.
- E. Other Equipment. Subscriber Organization shall install, own and maintain the infrastructure associated with the Revenue Metering Package, including but not limited to all enclosures (meter cabinets, meter pedestals, meter sockets, pull boxes, and junction boxes, along with their grounding/bonding connections), CT/PT mounting structures, conduits and duct lines, enclosure support structures, ground buses, pads, test switches, terminal blocks, isolation relays, telephone surge suppressors, and analog phone lines (one per meter), subject to Company's review and approval.
- F. Maintenance Plan. Subscriber Organization shall maintain Subscriber Organization-Owned Interconnection Facilities in accordance with Good Engineering and Operating Practices.
- G. Active Power Control Interface. **[COMPANY TO REVISE THIS SECTION BASED ON SPECIFICS OF THE PROJECT.]**
  - 1. Subscriber Organization shall provide and maintain in good working order all equipment, computers and software associated with the control system (the "Active Power Control Interface") necessary to interface the Facility active power controls with the Company System Operations Control Center for real power control of the Facility by the Company System Operator.

The detailed design will be tailored to the specific resource type and configuration to achieve the functional requirements of the Facility.

The Active Power Control Interface will be used to control the net real power export (or import, as applicable) from the Facility for load following, system balancing, energy arbitrage, and/or supplemental frequency control as required under this Attachment F (Facility Owned by Subscriber Organization).

For variable resources paired with storage: The implementation of the Active Power Control Interface will allow the Company System Operator to control the net real power export or import, as applicable from the entire Facility, up to Power Possible, remotely from the Company System Operations Control Center through control signals from the Company System Operations Control Center. The Facility will maintain the power level specified by the Company through the variable resource and BESS available energy, subject to the availability of resource and BESS State of Charge.

The Active Power Control interface may also direct the charging/discharging of energy from the BESS.

The Facility real power output (or import, if grid storage charging is enabled) will automatically adjust to a change in frequency in accordance with the frequency response requirements provided in this Attachment F (Facility Owned by Subscriber Organization).

2. Company shall review and provide prior written approval of the design for the Active Power Control Interface to ensure compatibility with Company's centralized control systems and use of Facility available energy and storage capabilities. To ensure such continued compatibility, Subscriber Organization shall not materially change the approved design without Company's prior review and written approval. This will include design description and parameters for the Subscriber Organization's control system(s), which determine provision of net real power from the variable resource System (PV) and/or the BESS storage, and charging of the BESS storage, in response to the Active Power Control signal or signals.
3. The Active Power Control Interface shall include, but not be limited to, a demarcation cabinet, ancillary equipment and software necessary for Subscriber Organization to connect to Company's Telemetry and Control, located in Company's portion of the Facility switching station which shall provide the control signals to the Facility and send feedback status to the Company System Operations Control Center. The control type shall be analog output (set point) or raise/lower controls and will be established by the Company prior to final design approval.
4. The Active Power Control Interface shall also include provision for feedback points from the Facility indicating when active power target in MW for the Active Power Control signal(s). The Facility shall provide the MW target feedback to the Company SCADA system immediately upon receiving the respective control signal from the Company.
5. Subscriber Organization shall provide to the telemetry interface analogs for the gross production of the energy resource(s) at the Facility (for example, DC or AC MW production of the variable resource generator(s), depending on design; gross DC MW of the BESS, etc.). Subscriber Organization shall also provide the total net AC MW production at the Point of Interconnection.
6. The Active Power Control Interface shall provide for remote control of the real power output of the Facility by the Company at all times. If the Active Power Control Interface is unavailable or disabled, the Facility may not export electric energy to Company and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status, unless the Company, in its sole discretion, agrees on an alternate means of dispatch. The alternate means of dispatch, including but not limited to local controls, is to be the temporary dispatch mechanism until the Active Power Interface is returned to service and must be capable of changing the real power export or import as directed by the Company System Operator within a mutually agreed response time by the Subscriber Organization receiving the directive from the Company System Operator, verbal or otherwise available by such alternate means. The

mutually agreed upon response time will be established in writing after the completion of the IRS. If Subscriber Organization fails to provide such remote control capability (whether temporarily or throughout the Term), then, notwithstanding any other provision of this Attachment F (Facility Owned by Subscriber Organization), Company shall have the right to derate or disconnect the entire Facility during those periods that such control capability is not provided and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status for such periods.

- If all local and remote active power controls become unavailable or fail, the Company shall have the right to immediately disconnect the Facility from the Company System.
  - If the direct transfer trip is unavailable due to loss of communication link, Telemetry and Control failure, or other event resulting in the loss of the remote control by the Company, provision must be made for the Subscriber Organization to shutdown Facility and open and lockout the main circuit breaker.
7. The rate at which the Facility changes net real power in response to the active power control shall not be less than the greater of 4 MW per minute, and shall make available through agreed parameters, such faster ramp as the installed equipment can support. The Facility's Active Power Control Interface will be used by Company to control the rate at which electric energy is changed to achieve the active power limit for load-following and regulation. The Facility will respond to the active power control request immediately with an echo of the set point and measurable change within the specified control cycle (0.5 to 4 seconds).
8. The Facility shall accept the following controls related to active power and frequency response to or from the Company centralized control system:
- Power Reference Setpoint from Company (based on the input to the Facility, from the Active Power Control Interface): The Facility output shall match this setting from the Variable Resource and/or BESS so long as it can be supported by the variable resource and/or BESS State of Charge (Power Possible does not change). This net output should be accurate within +/- 0.05 MW under normal frequency conditions. This setpoint will be modified as appropriate in the controls by the appropriate frequency response consistent with Section 1.G.11 (Active Power – Frequency Response (DROOP)) and Section 1.G.12 (Dynamic Active Power – Frequency Performance) of this Attachment F (Facility Owned by Subscriber Organization).
  - From Subscriber Organization:
    - Power Possible (Available maximum capacity): See above, instantaneous limit for available energy, represents max level the Facility can produce under present resource, BESS State of Charge (if applicable) and equipment conditions. This is used as upper limit for Company Dispatch.
    - For variable energy resources, maximum level the variable generation resources can produce under present variable resource and equipment conditions.
    - Minimum Sustained Limit: Minimum output level the Facility can be reduced to continuously without delay (ecomn). For projects with BESS: If BESS charging from the grid is permitted, and charging capacity is available, this will be a negative value.

- Minimum Transient Limit (for frequency response, regulation) (lfcmn). For projects with BESS: If BESS charging from the grid is permitted, and charging capacity is available, this will be a negative value.
  - Maximum Dispatchable Ramp Rate: Controlled ramp rate available for controlled changes in output.
  - For projects with a BESS, Subscriber Organization shall also provide the following:
    - BESS potential (BESS State of Charge and projected number of hours at present dispatch, minimum dispatch, and maximum dispatch).
9. Subscriber Organization shall not override Company's active power controls without first obtaining specific approval to do so from the Company System Operator unless there is a system emergency. Disabling of the remote Active Power Control shall initiate telemetry notification to the Company.
10. The requirements of the Active Power Control Interface may be modified as mutually agreed upon in writing by the Parties.

#### **Active Power Communications between Company and Subscriber Organization**

Company will receive and send telemetry and control data through the communications interface in accordance with Company standards. The data points covered under this Contract, as described below, may overlap with data requirements described elsewhere.

#### **Data Points to be sent from Subscriber Organization to Company via SCADA**

The following data points will be transmitted via SCADA or similar control system from Subscriber Organization to Company and represent Facility level data **[Note: Data is representative and may be modified based on resource type and Facility requirements]:**

<b><u>Description</u></b>	<b><u>Units</u></b>
Control Set-Point (echo)	KW
Power demand	KW
Actual power	KW
Power Possible	KW
Actual reactive power	Kvars
Average Voltage	Kv
Variable Generation potential	KW
BESS State of Charge	Pct
[PV only] Inverters online	Integer
Facility duration at current output	HRS
Control Status	Remote/Local
Indication of Frequency Response Mode	Integer Droop, ISOCH

## **Response times and limitations of Facility in regards to Active Power Control**

The following protocols outline the expectations for responding to the Control Set-Point.

Frequency of Changes. Company may send a new Control Set Point to the Facility at up to the control cycle (between 0.5 and 4 seconds).

Range of control target. The range of set point values can be between 0% and 100% of Power Possible. For projects offering grid-charging storage, negative set-point values may be required.

The response time of the CBRE Facility to commanded active and reactive power setpoints provided by the Company System Operator shall be within the specified control cycle. Reaction time is defined as the time interval between the moment of receiving external control setpoints for active and voltage control/reactive power from the Company System Operator and the moment when the CBRE Facility's active and reactive power reach the designated setpoint (as measured at the POI).

## **Backup Communications**

In the event of an Active Power Communications failure, Company and Subscriber Organization shall communicate via telephone, or other method mutually agreeable between the Parties, in order to correct the failure.

### **11. Active Power - Frequency Response (DROOP).**

The Facility shall provide a primary frequency response with a frequency droop characteristic reacting to system frequency at the Point of Interconnection in both the overfrequency and underfrequency directions except as limited by the minimum and maximum available capacity and energy potential at the time of the event including BESS state of charge. This response must be timely and sustained rather than injected for a short period and then withdrawn. For over-frequency events, response may include absorption through charging (as applicable under the terms of this Contract). Subscriber Organization shall provide minimum operational limits for each online resource and the Facility for primary frequency response.

Frequency will be calculated over a period of time (e.g., three to six cycles, or other period as specified by Company), and filtered to take control action on the fundamental frequency component of the calculated signal. Calculated frequency may not be susceptible to spikes caused by phase jumps on the Company system.

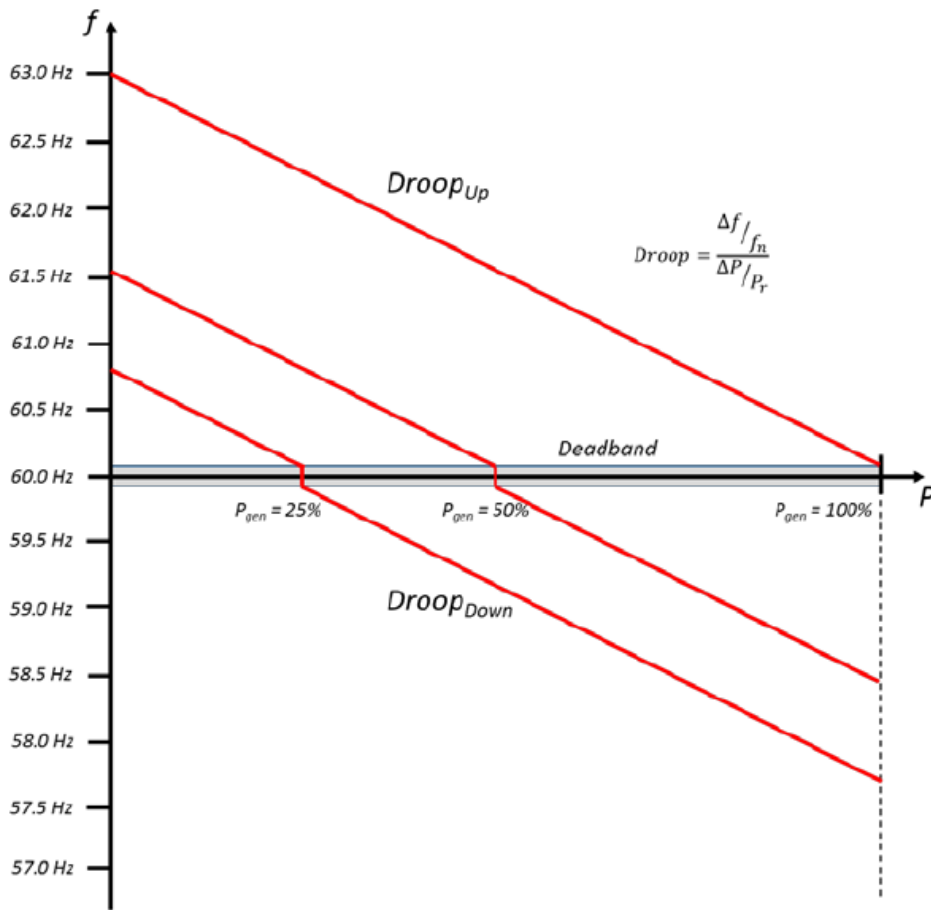
The active power-frequency control system, and overall response of the inverter-based resource (plant), must meet the following performance aspects (see figure below):

The active power-frequency control system shall have an adjustable proportional droop characteristic with a default value of [4%] percent. The droop setting shall permit a setting from 0.1% to 10%. This setting shall be changed upon Company's written request as necessary for grid droop response coordination. The droop setting shall be tunable and may be specified during commissioning. The droop shall be a permanent value based on Pmax (maximum nominal active power output of the plant) and Pmin (typically 0 for an inverter-based resource). This keeps the proportional droop constant across the full range of operation. The curve for an inverter-based BESS may include the negative active power quadrant of this curve. The droop response must include the capability to respond in both the upward (underfrequency) and downward (overfrequency) directions. Frequency droop will be based on the difference

between maximum nameplate active power output (Pmax) and zero output (Pmin) such that the 4% percent droop line is always constant for a resource.

Subscriber Organization shall make commercially reasonable efforts to provide frequency response without a deadband, but in any case, not to exceed +/- 0.0166 Hz. If the active power-frequency control system has a deadband, it shall be a nonstep deadband that is adjustable between 0 Hz and the full frequency range of the droop characteristic with a default value not to exceed ± 0.018 Hz. (Nonstep deadband is where the change in active power output starts from zero deviation on either side of the deadband.) (Frequency deadband is the range of frequencies in which the unit does not change active power output.)

Inverter-based resources may consider a small hysteresis characteristic where linear droop meets any deadband to reduce dithering of inverter output when operating near the edges of the deadband. The hysteresis range may not exceed ± 0.005 Hz on either side of the deadband. If measurement resolution is not sufficient to measure this frequency, hysteresis may not be used.



### Active Power - Frequency Control Characteristic

Nominal System Frequency is 60.00 Hz.

The closed-loop dynamic response of the active power-frequency control system of the overall inverter-based resources, as measured at the POI must have the capability to meet or exceed the performance specified in below. Subscriber Organization shall ensure that the models and parameters for the resources and

control equipment are consistent with those provided during the IRS process and that any updates have been provided to the Company reflecting currently implemented settings and configuration.

#### 12. Dynamic Active Power-Frequency Performance.

For a step change in frequency at the point of measure of the inverter-based resource **[NOTE - MAY BE ADJUSTED AS THE RESULT OF IRS]:**

Reaction time: The time between a step change in frequency and the time when the resource active power output begins responding to the change shall be less than 500 ms, or as otherwise specified by Company.<sup>1</sup>

Rise time: The time when the resource has reached 90% of the new steady-state (target) active power output shall be less than 4 seconds, or as otherwise specified by Company.<sup>2</sup>

Settling Time: Time in which the resource has entered into, and remains within, the settling band of the new steady-state active power (target) output shall be less than 10 seconds, or as otherwise specified by Company.

Overshoot: Percentage of the rated active power output that the resource can exceed while reaching the settling band shall be less than 5% or as otherwise specified by Company.<sup>3</sup>

Settling Band: Percentage of rated active power output that the resource should settle to within the settling time shall be less than 2.5%.

When operating in parallel with the Company System, the Facility shall operate with its primary frequency response control in automatic operation and in accordance with Company directions. Notification of changes in the status of the frequency response controls and, where applicable, mode of operation must be provided to the Company System Operator immediately through SCADA telemetry indication.

The Facility frequency response control shall adjust, without intentional delay and without regard to the ramp rate limits in Section 3.D (Ramp Rates) of this Attachment F (Facility Owned by Subscriber Organization), the Facility's net real power export based on frequency deadband and frequency droop settings specified by the Company.

The Facility frequency response control shall increase the net real power export above the Power Reference Setpoint set under Section 1.G.8 of this Attachment F (Facility Owned by Subscriber Organization) or further decrease the net real power export from the Power Reference Limit in its operations in accordance with the frequency response settings.

The Facility frequency response control shall be in continuous operation unless directed otherwise by the Company.

#### 13. [Reserved]

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<sup>1</sup> Time between step change in frequency and the time to 10 percent of new steady-state value can be used as a proxy for determining this time.

<sup>2</sup> Percentage based on final (expected) settling value.

<sup>3</sup> Percentage based on final (expected) settling value.



H. Control System Acceptance Test Procedures.

1. Conditions Precedent. The following conditions precedent must be satisfied prior to conducting the Control System Acceptance Test:

- Successful completion of the Acceptance Test.
- Facility has been successfully energized.
- All of the Facility's generators (as applicable) have been fully commissioned.
- The control system computer has been programmed for normal operations.
- All equipment that is relied upon for normal operations (including ancillary devices such as capacitors/inductors, energy storage device, statcom, etc.) shall have been commissioned and be operating within normal parameters.

2. Facility Energy Equipment. In the event that all or any portion of the Facility's energy equipment is not available for the duration of the Control System Acceptance Test, the Control System Acceptance Test will have to be re-run from the beginning unless Subscriber Organization demonstrates to the satisfaction of the Company that the test results attained are consistent with the results that would have been attained if all of the equipment had been available for the duration of the test.

3. Procedures. The Control System Acceptance Test will be conducted on Business Days during normal working hours on a mutually agreed upon schedule. No Control System Acceptance Test will be scheduled during the final 21 Days of a calendar year. No later than thirty (30) Days prior to conducting the Control System Acceptance Test, Company and Subscriber Organization shall agree on a written protocol setting out the detailed procedure and criteria for passing the Control System Acceptance Test. Exhibit F-7 (Control System Acceptance Test Criteria) provides general criteria to be included in the written protocol for the Control System Acceptance Test. Within fifteen (15) Business Days of completion of the Control System Acceptance Test, Company shall notify Subscriber Organization in writing whether the Control System Acceptance Test(s) has been passed and, if so, the date upon which such Control System Acceptance Test(s) was passed. If any changes have been made to the technical specifications of the Facility or the design of the Facility in accordance with Section 5(f) of Exhibit F-1 (Description of Generation and Battery Storage Facility), such changes shall be reflected in an amendment to this Contract, and the written protocol for the Control Systems Acceptance Test shall be based on the Facility as modified. Such amendment shall be executed prior to conducting the Control System Acceptance Test and Company shall have no obligation for any delay in performing the Control Systems Acceptance Test due to the need to complete and execute such amendment.

I. Facility Security and Maintenance. Subscriber Organization is responsible for securing the Facility. Subscriber Organization shall have personnel available to respond to all calls related to security incidents and shall take commercially reasonable efforts to prevent any security incidents. Subscriber Organization is also responsible for maintaining the Facility, including vegetation management, to prevent security breaches. Subscriber Organization shall comply with all commercially reasonable requests of Company to update security and/or maintenance if required to prevent security breaches.

J. Demonstration of Facility. Company shall have the right at any time, other than during maintenance or other special conditions, including Force Majeure, communicated by Subscriber Organization, to notify Subscriber Organization in writing of Subscriber Organization's failure, as observed by Company and set forth in such written notice, to meet the operational and performance requirements specified in Section 1.B.3.i, Section 1.G (Active Power Control Interface) and Section

3 (Performance Standards) of this Attachment F (Facility Owned by Subscriber Organization), and to require documentation or testing to verify compliance with such requirements. Upon receipt of such notice, Subscriber Organization shall promptly investigate the matter, implement corrective action and provide to Company, within thirty (30) Days of such notice or such longer time period agreed to in writing by the Company, a written report of both the results of such investigation and the corrective action taken by Subscriber Organization. If the Subscriber Organization's report does not resolve the issue to Company's reasonable satisfaction, the Parties shall promptly commission a study to be performed by one of the engineering firms then included on the Qualified Independent Third-Party Consultants List attached to the Contract as Exhibit F-2 (Consultants List) to evaluate the cause of the non-compliance and to make recommendations to remedy such non-compliance. Subscriber Organization shall pay for the cost of the study. The study shall be completed within ninety (90) Days, unless the selected consultant determines that such study cannot reasonably be completed within ninety (90) Days, in which case, such commercially reasonable longer period of time as it takes the consultant to complete the study. The consultant shall send the study to Company and Subscriber Organization. Subscriber Organization (and/or its Third-Party consultants and contractors), at Subscriber Organization's expense, shall take such action as the study shall recommend with the objective of resolving the non-compliance. Such recommendations shall be implemented by Subscriber Organization to Company's reasonable satisfaction no later than forty-five (45) Days from the Day the completed study is issued by the consultant, unless the consultant determines that such recommendation cannot reasonably be implemented within forty-five (45) Days, in which case, such longer commercially reasonable period of time agreed to by the Parties in writing to implement such recommendation as determined by the consultant. Failure to implement such recommendations within this period shall constitute a material breach of this Contract. Company shall have the right to derate the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status until the Subscriber Organization's aforementioned written report has been completed, any subsequent study commissioned by the Parties has been completed and any recommendations to resolve the non-compliance have been implemented to Company's reasonable satisfaction.

**2. OPERATING PROCEDURES. [NOTE: NUMERICAL SPECIFICATIONS IN THIS SECTION 2 MAY VARY DEPENDING ON THE SPECIFIC PROJECT AND THE RESULTS OF THE PROJECT-SPECIFIC INTERCONNECTION REQUIREMENT STUDY.]**

- A. Reviews of the Facility. Company may require periodic reviews of the Facility, maintenance records, available operating procedures and policies, and relay settings, and Subscriber Organization shall implement changes Company deems necessary for parallel operation or to protect the Company System from damages resulting from the parallel operation of the Facility with the Company System.
- B. Separation. Subscriber Organization must separate from Company System whenever requested to do so by the Company System Operator pursuant to Section 5. (Company Dispatch) and Section 12. (Personnel and System Safety) of the Contract.
- C. Subscriber Organization Logs. Logs shall be kept by Subscriber Organization for information on unit availability including reasons for planned and forced outages, circuit breaker trip operations, relay operations, including target initiation, and other unusual events. Company shall have the right to review these logs, especially in analyzing system disturbances. Subscriber Organization shall maintain such records for a period of not less than six (6) years.
- D. Reclosing and Return to Service. Under no circumstances shall Subscriber Organization, when separated from the Company System for any reason, including tripping during disturbances or due to equipment failure, reclose into the Company System without first obtaining specific approval to

do so from the Company System Operator. Ramp rates, behavior and mode of operation upon return to service shall conform to verbal instructions from the System Operator or Active Power control from Company. Following "system black" conditions, the Facility shall not attempt to automatically reconnect to the grid (unless directed by the Company System Operator) so as to not interfere with system restoration procedures.

E. [Reserved]

F. [Reserved]

G. Critical Infrastructure Protection. Subscriber Organization shall comply with the critical infrastructure protection requirements set forth in Section 1.B.3.g (Cybersecurity and Critical Infrastructure Protection) of this Attachment F (Facility Owned by Subscriber Organization).

H. Allowed Operations. Facility shall be allowed to export energy to the Company System only when the [ ] circuit is in normal operating configuration served by breaker [ ] at [ ] Substation. **[TO BE DETERMINED BY COMPANY BASED ON THE RESULTS AND REQUIREMENTS OF THE IRS]**

### 3. PERFORMANCE STANDARDS.

#### A. PROVISIONS FOR DISTRIBUTION CONNECTION.

Rule 14H. The Facility shall follow the performance standards of Rule 14H Appendix I and the additional provisions set forth below in Section 3.B. (Reactive Power Control) through Section 3.V. (Unintentional Islanding). To the extent any of those additional provisions conflict with Rule 14H, the provisions of this Contract shall control.

B. Reactive Power Control. Subscriber Organization shall control its reactive power by automatic voltage regulation control. Subscriber Organization shall automatically regulate voltage at a point, the point of regulation, between the Subscriber Organization's generator terminal and the Point of Interconnection to be specified by Company, to within 0.5% of a voltage or power factor specified by the Company System Operator to the extent allowed by the Facility reactive power capabilities as defined in Section 3.B (Reactive Power Characteristics) of this Attachment F (Facility Owned by Subscriber Organization).

C. Reactive Power Characteristics. **[THESE REQUIREMENTS MAY BE CHANGED BY COMPANY UPON COMPLETION OF THE IRS.]**

1. The Facility must deliver power up to the Allowed Capacity (MW) at a power factor between 95% lagging and 95% leading to the Company System as illustrated in the **[generator capability]** curve(s) attached as Exhibit F-4, which represents the Facility Composite (Generator and Energy Storage Capability Curve(s)). Facilities with a BESS with grid charging can operate with negative active power. These facilities shall provide automatic voltage control within their reactive capability while acting as a load (charging, negative active power generation). The automatic voltage control aspects of a BESS shall be seamless across the transition from acting as a generating resource to acting as a load. The Facility must be capable of automatically adjusting reactive control to maintain the bus voltage at the Point of Interconnection to meet the scheduled voltage set point target specified by the Company System Operator and be capable of supplying reactive power at the leading/lagging 0.95 power factor at all active power outputs down to zero active power. The voltage target will be specified remotely by the Company System Operator through the SCADA/EMS. The Facility's voltage set point target must reflect the Company voltage set point target controlled from the SCADA/EMS, without delay. The Facility should not normally operate on a fixed var or fixed

power factor unless agreed by Company. The voltage setpoint target and present Facility minimum and maximum reactive power limits based on the Facility Composite capability curve shall be provided to the Company EMS through Company's Telemetry and Control.

2. The Facility shall contain equipment able to continuously and actively control the output of reactive power under automatic voltage regulation control reacting to system voltage changes. The response requirements are differentiated for large and small signal disturbance performance characteristics. Small signal disturbances are those that reflect normal variations under non-disturbance conditions, the continuous operation range for voltage ride through:  $0.80 \text{ pu} \leq V \leq 1.00 \text{ pu}$  at the point of interconnection. Large disturbance is where the voltage at the point of interconnection falls outside the continuous operating range.
3. For small signal disturbances, reaction time between the step change in voltage and the reactive power change shall be less than 500 msec (no intentional time delay). The automatic voltage regulation response speed at the point of regulation shall be such that at least 90% of the initial voltage correction needed to reach the voltage control target will be achieved within 1 second following a step change. The percentage of rated reactive power output that the resource can exceed while reaching the settling band shall be less than five percent (5%).
4. Large disturbances: Large disturbances are characterized by voltage falling outside of the continuous operating range. The Facility shall adhere to the following characteristics for large disturbances:

The response of each generating resource over its full operating range and for all expected grid conditions should be stable. The dynamic performance of each resource should be tuned to provide this stable response. Company will work with Subscriber Organization to ensure during the interconnection process that each resource supports Company System reliability and provides a stable transient response to grid events. **[Note - The performance specifications described here may need to be modified based on studies performed for specific interconnections to provide a stable response.]**

Inverter-based resources shall operate in closed loop automatic voltage control at all times to support voltage regulation and voltage stability. Either the individual inverters or the plant-level closed loop automatic voltage controller must operate with a relatively fast response characteristic to mitigate steady-state voltage issues from causing dynamic voltage collapse. The plant-level controller may send voltage or reactive power set point changes to the individual inverters relatively fast, or the inverters will respond locally (depending on control architecture).

For a large disturbance step in voltage, measured at the inverter terminals, where voltage falls outside the continuous operating range, the positive sequence component of the inverter reactive current response must meet the performance specifications set forth below. These parameters may be adjusted following additional study and/or operational testing and performance.

Reaction time: Time between the step change in voltage and when the resource reactive power output begins responding to the change. The reaction time shall be less than 16 msec.

Rise time: Time between a step change in control signal input and when the reactive power output changes by 90 percent of its final value. The rise time shall be less than 100 msec.

Overshoot: Percentage of rated reactive current output that the resource can exceed when reaching the settling band. Overshoot will be determined following the IRS such that any

overshoot in reactive power response does not cause Company System voltages to exceed acceptable voltage limits. The magnitude of the dynamic response may be requested to be reduced based on stability studies or actual operational data review.

If the Facility does not operate in accordance with Section 3.C of this Attachment F (Facility Owned by Subscriber Organization), Company may disconnect all or a part of Facility from Company System until Subscriber Organization corrects its operation (such as by installing supplemental reactive power equipment or additional control modifications, at Subscriber Organization's expense).

D. Ramp Rates.

Subscriber Organization shall ensure that the ramp rate of the Facility is less than 100 KW a minute for all conditions other than those under control of the Company System Operator and/or those due to desired frequency response, including start up, depletion of storage charge and resource, locally controlled startup and shut down.

E. Ride Through.

Ride-Through requires that the resource continues to inject current within the "No Trip" zone of the voltage and frequency ride-through requirements. Unless approved during the Interconnection Requirements Study analysis, resources should not use "momentary cessation" within the ride-through regions for any of the ride-through requirements in this Attachment F (Facility Owned by Subscriber Organization). In the "may trip" regions, the Facility shall initiate trip for over/under voltage and frequency conditions only as required for Facility equipment operating limits to avoid damage. Any such limits of operation should be conveyed to the Company and represented in the provided models.

F. Undervoltage Ride-Through.

The Facility, as a whole, will meet the following undervoltage ride-through requirements during low voltage affecting one or more of the three voltage phases ("V" is the voltage of any three voltage phases at the Point of Interconnection). For alarm conditions the Facility shall not disconnect from the Company System unless the Facility's equipment is at risk of damage. This is necessary in order to coordinate with the existing Company System. **[THESE VALUES MAY BE CHANGED BY COMPANY UPON COMPLETION OF THE IRS. WITHOUT LIMITATION, FOR A DISTRIBUTION-CONNECTED FACILITY, UPON COMPLETION OF THE IRS THE COMPANY MAY SPECIFY REQUIREMENTS FOR A MANDATORY DISCONNECTION FROM THE COMPANY SYSTEM.]**:

$$0.80 \text{ pu} \leq V \leq 1.10 \text{ pu}$$

The Facility remains connected to the Company System and in continuous operation.

$$0.70 \text{ pu} \leq V < 0.80 \text{ pu}$$

The Facility may initiate disconnection from the Company System if the voltage remains in this range for more than 20 seconds.

$$0.50 \text{ pu} \leq V < 0.70 \text{ pu}$$

The Facility may initiate disconnection from the Company System if the voltage remains in this range for more than 10 seconds.

$$0.15 \text{ pu} \leq V < 0.50 \text{ pu}$$

The Facility may initiate disconnection from the Company System if voltage remains in this range for more than 2 seconds.

$$0.00 \text{ pu} \leq V < 0.15 \text{ pu}$$

The Facility may initiate disconnection from the Company System if the voltage remains in this range for more than 0.16 seconds.

Protective Undervoltage Relaying (27) shall be set to alarm only to meet the above ride-through requirements, and shall not initiate a disconnect from the Company System unless Subscriber Organization reasonably determines based upon Good Engineering and Operating Practices that the Facility's equipment is at risk of damage. This is necessary in order to coordinate with the existing Company System.

Subscriber Organization shall have sufficient capacity to fulfill the above mentioned requirements to ride-through subsequent events 300 cycles or more apart, between which the voltage at the Point of Interconnection recovers above 0.80 pu. **[THE ACTUAL RIDE-THROUGH TIMES WILL BE DETERMINED BY COMPANY IN CONNECTION WITH THE IRS]**

G. Over Voltage Ride-Through.

The overvoltage protection equipment at the Facility shall be set so that the Facility will meet the following overvoltage ride-through requirements during high voltage affecting one or more of the three voltage phases (as described below) ("V" is the voltage of any of the three voltage phases at the Point of Interconnection). For alarm conditions the Facility should not disconnect from the Company System unless the Facility's equipment is at risk of damage. This is necessary in order to coordinate with the existing Company System. **[THESE VALUES MAY BE CHANGED BY THE COMPANY UPON COMPLETION OF THE IRS. WITHOUT LIMITATION, FOR A DISTRIBUTION-CONNECTED FACILITY, UPON COMPLETION OF THE IRS THE COMPANY MAY SPECIFY REQUIREMENTS FOR A MANDATORY DISCONNECTION FROM THE COMPANY SYSTEM.]**:

$$0.80 \text{ pu} \leq V \leq 1.10 \text{ pu}$$

The Facility remains connected to the Company System and in continuous operation.

$$1.10 \text{ pu} < V \leq 1.20 \text{ pu}$$

The Facility remains connected to the Company System and in continuous operation no less than 30 seconds; the duration of the event is measured from the point at which the voltage increases at or above 1.10 pu and ends when voltage is at or below 1.10 pu.

$$V > 1.20 \text{ pu}$$

The Facility remains connected to the Company System and in continuous operation for as long as possible as allowed by the equipment operational limitations.

Protective Overvoltage Relaying (59) shall be set to alarm only to meet the above ride-through requirements, and shall not initiate a disconnect from the Company System unless

Subscriber Organization reasonably determines based upon Good Engineering and Operating Practices that the Facility's equipment is at risk of damage. This is necessary in order to coordinate with the existing Company System.

H. Transient Stability Ride-Through.

In all modes, the Facility shall be designed such that the transient stability of Company System is maintained for normally cleared and secondarily cleared faults. The Facility will be required to remain connected through anticipated rates of change of frequency **[TO BE PROVIDED UPON COMPLETION OF IRS]**

I. [RESERVED]

J. Underfrequency Ride-Through.

The Facility shall meet the following underfrequency ride-through requirements during an underfrequency disturbance, and export of power shall continue with output adjusted as appropriate for Facility droop response consistent with Section 1.G.11 (Active Power – Frequency Response (DROOP)) and Section 1.G.12 (Dynamic Active Power – Frequency Performance) of this Attachment F (Facility Owned by Subscriber Organization) ("f" is the Company System frequency at the Point of Interconnection):

$$57.0\text{Hz} \leq f < 63.0\text{Hz}$$

The Facility remains connected to the Company System and in continuous operation.

$$50.0\text{Hz} \leq f < 57.0\text{Hz}$$

The Facility remains connected to the Company System and in continuous operation for at least twenty (20) seconds per event. The duration of the event is from the point at which the frequency is below 57 Hz and ends when the frequency is at or above 57 Hz. The Facility may initiate an alarm if frequency remains in this range for more than twenty (20) seconds.

$$f < 50.0\text{Hz}$$

The Facility remains connected to the Company System and in continuous operation for the duration allowed by the equipment operational limitations. The Facility may initiate an alarm immediately.

Protective Underfrequency Relaying (81U) shall be set to alarm only to meet the above ride-through requirements, and shall not initiate a disconnect from the Company System unless Subscriber Organization reasonably determines based upon Good Engineering and Operating Practices that the Facility's equipment is at risk of damage. This is necessary in order to coordinate with the existing Company System.

Any tripping on calculated frequency should be based on accurately calculated and filtered frequency measurement over a time frame of minimum six cycles, or other period as specified by the Company, and should not use an instantaneously calculated value.

K. Overfrequency Ride-Through.

The Facility will behave as specified below for overfrequency conditions, and export of power shall continue with output adjusted as appropriate for Facility droop response consistent with Section 1(g)(xi) (Active Power – Frequency Response (DROOP)), Section 1(g)(xii) (Dynamic Active Power – Frequency Performance), and **[FOR FACILITIES WITH STORAGE]** Section 1(g)(xiii) (Alternate Active Power / Frequency Response Modes) ("f" is the Company System frequency at the Point of Interconnection):

$$57.0\text{Hz} \leq f \leq 63.0\text{Hz}$$

The Facility remains connected to the Company System and in continuous operation.

$$63.0\text{Hz} < f \leq 65.0\text{Hz}$$

The Facility remains connected to the Company System for at least twenty (20) seconds. After twenty seconds, the Facility may initiate an alarm and the Facility remains connected and producing power for the duration allowed by the equipment operational limitations. The duration of condition is from the point at which the frequency is above 63.0 Hz and ends when the frequency is at or below 63.0 Hz.

$$f > 65.0\text{Hz}$$

The Facility may initiate disconnection from the Company System immediately.

Protective Overfrequency Relaying (81O) shall be set to alarm only to meet the above ride-through requirements, and shall not initiate a disconnect from the Company System unless Subscriber Organization reasonably determines based upon Good Engineering and Operating Practices that the Facility's equipment is at risk of damage. This is necessary in order to coordinate with the existing Company System.

Any tripping on calculated frequency should be based on accurately calculated and filtered frequency measurement over a time frame of minimum six cycles, or other period as specified by the Company, and should not use an instantaneously calculated value.

L. Successive Faults.

If the resource necessitates tripping to protect from the cumulative effects of those successive faults, in a period of time to ensure safety and equipment integrity, the constraint and time periods should be provided for inclusion in the interconnection study. For all cases, at a minimum, the ride-through requirements shall be met for two ride-through events within two seconds to allow for the Company's transmission automatic reclosing attempt. **[Note - this requirement may be modified based on the results of the IRS.]**

M. Rate of Change of Frequency ("ROCOF").

The inverter-based resources in the Facility shall not use rate-of-change-of-frequency protection unless an equipment limitation exists that requires the inverter to trip on high ROCOF. Any ROCOF tripping must be approved by Company.

N. Phase Angle Shift Ride-Through.

The Facility equipment shall ride through phase angle shift of up to (    ) **[Note – requirements will depend on Facility]**. Inverter phase lock loop (PLL) loss of synchronism shall not cause the



inverter to trip or enter momentary cessation within the voltage and frequency ride-through region. Inverters must be capable of riding through temporary loss of synchronism, and regain synchronism, without causing a trip or momentary cessation of the resource.

O. DC Protection.

If the Facility requires DC reverse current protection, such protection must be coordinated with the inverter equipment module ratings and set to operate for short circuits on the DC side. DC reverse current protection shall not operate for transient overvoltage or for AC-side faults.

P. Voltage Flicker.

Any voltage flicker on the Company System caused by the Facility shall not exceed the limits stated in IEEE Standard 1453-2011, or latest version "Recommended Practice – Adoption of IEC 61000-4-15:2010, Electromagnetic compatibility (EMC) – Testing and measurement techniques – Flickermeter – Functional and design specifications".

Q. Harmonics.

Harmonic distortion at the Point of Interconnection caused by the Facility shall not exceed the limits stated in IEEE Standard 519-1992, or latest version "Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems". Subscriber Organization shall be responsible for the installation of any necessary controls or hardware to limit the voltage and current harmonics generated from the Facility to defined levels.

R. Grid Forming Capabilities.

**[NOTE APPLICABILITY BASED ON RESOURCE TYPE AND DESIGN, FOR PV INVERTER BASED RESOURCES PAIRED WITH STORAGE]** Subscriber Organization Facility inverters shall be capable of operating in grid forming mode supporting system operation under normal and emergency conditions without relying on the characteristics of synchronous machines. While in grid forming mode, the inverters will support grid operation, consistent with tariff requirements, as a continuous current independent ac voltage source during normal and transient conditions (as long as no limits are reached within the inverter) and the ability to synchronize to other voltage sources and operate autonomously if a grid reference is unavailable, and should be able to share active and reactive power burden with other voltage sources without impacts on system stability.

1. Subscriber Organization shall operate the Facility in grid forming mode only as directed by the Company System Operator, in its sole discretion. The Facility shall be capable of enabling and disabling grid forming mode remotely from the Company System Operator. Such mode of operation shall be indicated to the Company System Operator through telemetry.
2. The design shall be approved in writing by the Company and implemented by the Subscriber Organization prior to control system testing.
3. The Facility shall transition seamlessly from grid forming mode to grid following mode and vice versa while under load without ceasing current output in accordance with tunable system state parameters (frequency/voltage) and/or under the direction of the Company System Operator.

S. Black Start Capability.

**[NOTE - APPLICABILITY BASED ON RESOURCE TYPE AND DESIGN, FOR INVERTER BASED RESOURCES PAIRED WITH STORAGE TO BE DELETED IF SUBSCRIBER ORGANIZATION DOES NOT PROPOSE BLACK START]** The BESS shall

be capable of grid forming inverter capability so it can generate its own AC waveform rather than relying on a grid voltage to synchronize and maintain frequency.

T. Control Systems and Auxiliary Equipment.

The power source for control systems and auxiliary equipment required for normal operation of the Facility shall be designed to be immune from system transients in accordance with the Public Utilities Commission of the State of Hawai'i tariff for Maui Electric Company, Ltd. Rule No. 2, Character of Service (Revised Sheet No. 5, effective Oct. 20, 1991) and Section 3.2(A)(6) (Facility Protection and Control Equipment) to meet the performance during under/over voltage and under/over frequency conditions pursuant to Section 3(e) (Undervoltage Ride-Through), Section 3(f) (Over Voltage Ride-Through), Section 3(i) (Underfrequency Ride-Through) and Section 3(j) (Overfrequency Ride-Through) of this Attachment F (Facility Owned by Subscriber Organization).

U. Frequency Response.

Subscriber Organization shall comply with the requirements of Section 1.G.11. (Active Power - Frequency Response (DROOP)) and Section 1.G.12. (Dynamic Active Power – Frequency Performance) of this Attachment F (Facility Owned by Subscriber Organization).

V. Unintentional Islanding.

A Facility's inverters shall be certified to meet the unintentional islanding requirement stated in IEEE 1547-2018 (or latest version), "IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power System Interfaces." Ride through requirements specified herein shall not inhibit the islanding detection performance where a valid unintentional islanding condition exists.

**4. MAINTENANCE OF SUBSCRIBER ORGANIZATION-OWNED INTERCONNECTION FACILITIES.**

- A. Subscriber Organization must address any Disconnection Event (as defined below) according to the requirements of this Section 4 (Maintenance of Subscriber Organization-Owned Interconnection Facilities) of Attachment F (Facility Owned by Subscriber Organization). For the purposes of this Section 4 (Maintenance of Subscriber Organization-Owned Interconnection Facilities), a "Disconnection Event" is the removal of 80% of capacity or more from Company System and/or disconnection of the Facility from the Company's System (i) that is not the result of Company dispatch, frequency droop response, or isolation of the Facility resulting from designed protection fault clearing, and (ii) for which Company does not issue the written notice for failure to meet operational and performance requirements as set forth in Section 1.J. (Demonstration of Facility) of this Attachment F (Facility Owned by Subscriber Organization). Company's election to exercise its rights under Section 1.J.(j) (Demonstration of Facility) shall not relieve Subscriber Organization of its obligation to comply with the requirements of this Section 4 (Maintenance of Subscriber Organization-Owned Interconnection Facilities) for any future Disconnection Event during the pendency of such election or thereafter.
- B. For every Disconnection Event, Subscriber Organization shall investigate the cause. Within three (3) Business Days of the Disconnection Event, Subscriber Organization shall provide, in writing to Company, an incident report that summarizes the sequence of events and probable cause.
- C. Within forty-five (45) Days of a Disconnection Event, Subscriber Organization shall provide, in writing to Company, Subscriber Organization's findings, data relied upon for such findings, and proposed actions to prevent reoccurrence of a Disconnection Event ("Proposed Actions"). Company may assist Subscriber Organization in determining the causes of and recommendations

to remedy or prevent a Disconnection Event ("Company's Recommendations"). Subscriber Organization shall implement such Proposed Actions (as modified to incorporate the Company's Recommendations, if any) and Company's Recommendations (if any) in accordance with the time period agreed to by the Parties.

- D. In the event Subscriber Organization and Company disagree as to (i) whether a Disconnection Event occurred, (ii) the sequence of events and/or probable cause of the Disconnection Event, (iii) the Proposed Actions, (iv) Company's Recommendations, and/or (v) the time period to implement the Proposed Actions and/or Company's Recommendations, then the Parties shall follow the procedure set forth in Section 5 (Expedited Dispute Resolution) of this Attachment F (Facility Owned by Subscriber Organization).
- E. Upon the fourth (4th) Disconnection Event (and each subsequent Disconnection Event) within any Contract Year, the Parties shall follow the procedures set forth in Section 4.A. and Section 4.D. of Attachment F (Facility Owned by Subscriber Organization), to the extent applicable. If after following the procedures set forth in this Section 4 (Maintenance of Subscriber Organization-Owned Interconnection Facilities) of Attachment F (Facility Owned by Subscriber Organization), Subscriber Organization and Company continue to have a disagreement as to (1) the probable cause of the Disconnection Event, (2) the Proposed Actions, (3) the Company's Recommendations, and/or (4) the time period to implement the Proposed Actions and/or the Company's Recommendations, then the Parties shall commission a study to be performed by a qualified independent Third-Party consultant ("Qualified Consultant") chosen from the Qualified Independent Third-Party Consultants List ("Consultants List") attached to the Contract as Exhibit F-2 (Consultants List). Such study shall review the design of, review the operating and maintenance procedures dealing with, recommend modifications to, and determine the type of maintenance that should be performed on Subscriber Organization-Owned Interconnection Facilities ("Study"). Subscriber Organization and Company shall each pay for one-half of the total cost of the Study. The Study shall be completed within ninety (90) Days from such fourth Disconnection Event (and each subsequent Disconnection Event) within any Contract Year, unless otherwise reasonably agreed to in writing by the Subscriber Organization and Company. The Qualified Consultant shall send the Study to Company and Subscriber Organization. Subscriber Organization (and/or its Third-Party consultants and contractors), at Subscriber Organization's expense, shall change the design of, change the operating and maintenance procedures dealing with, implement modifications to, and/or perform the maintenance on Subscriber Organization-Owned Interconnection Facilities recommended by the Study. Such design changes, operating and maintenance procedure changes, modifications, and/or maintenance shall be completed no later than forty-five (45) Days from the Day the completed Study is issued by the Qualified Consultant, unless such design changes, operating and maintenance procedure changes, modifications, and/or maintenance cannot reasonably be completed within forty-five (45) Days, in which case, Subscriber Organization shall complete the foregoing within such longer commercially reasonable period of time agreed to by the Parties in writing. . Company shall have the right to derate the Facility to a level that maintains reliable operations in accordance with Good Engineering and Operating Practices, and the Facility shall be deemed to be in Subscriber Organization-Attributable Non-Generation status, until the study has been completed and the study's recommendations have been implemented by Subscriber Organization to Company's reasonable satisfaction. Nothing in this provision shall affect Company's right to dispatch the Facility as provided for in this Contract.
- F. The Consultants List attached hereto as Exhibit F-2 (Consultants List) contains the names of engineering firms which both Parties agree are fully qualified to perform the Study. At any time, except when a Study is being conducted, either Party may remove a particular consultant from the Consultants List by giving written notice of such removal to the other Party. However, neither Party may remove a name or names from the Consultants List without approval of the other Party

if such removal would leave the list without any names. Intended deletions shall be effective upon receipt of notice by the other Party, provided that such deletions do not leave the Consultants List without any names. Proposed additions to the Consultants List shall automatically become effective thirty (30) Days after notice is received by the other Party unless written objection is made by such other Party within said thirty (30) Day period. By mutual agreement between the Parties, a new name or names may be added to the Consultants List at any time.

## **5. EXPEDITED DISPUTE RESOLUTION.**

If there is a disagreement between Company and Subscriber Organization regarding (i) whether a Disconnection Event occurred, (ii) the sequence of events and/or probable cause of the Disconnection Event, (iii) the Proposed Actions, (iv) the Company's Recommendations, and (v) the time period to implement the Proposed Actions and/or the Company's Recommendations, then authorized representatives from Company and Subscriber Organization, having full authority to settle the disagreement, shall meet in Hawai'i (or by telephone conference) and attempt in good faith to settle the disagreement. Unless otherwise agreed in writing by the Parties, the Parties shall devote no more than five (5) Business Days to settle the disagreement in good faith. In the event the Parties are unable to settle the disagreement after the expiration of the time period, then such disagreement shall constitute a Dispute for which either Party may pursue the dispute resolution procedure set forth in Section 17. (Dispute Resolution) of this Contract.

## **6. MODELING.**

- A. Subscriber Organization's Obligation to Provide Models. Within 30 Days of Company's written request, but no later than the Commercial Operations Date, Subscriber Organization shall provide detailed data regarding the design and location of the Facility, in a form reasonably satisfactory to Company, to allow the modeling of the inverters and any other equipment within the Facility identified in the IRS which utilizes Source Code (such as energy storage system, STATCOM or DVAR equipment), including, but not limited to, integrated and validated power flow and transient stability models (such as PSS/E models), a short circuit model (such as an ASPEN model), and an electro-magnetic transient model (such as a PSCAD model) of the inverters and any additional equipment identified in the IRS as set forth above, applied assumptions, and pertinent data sets (each a "Required Model" and collectively, the "Required Models"). Thereafter, during the Term, Subscriber Organization shall provide working updates of any Required Model within 30 Days of (i) Company's written request, or (ii) Subscriber Organization obtaining knowledge or notice that any Required Model has been modified, updated or superseded by the Source Code Owner.
- B. Escrow Establishment. If, pursuant to Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization), the Required Models are provided to the Company in a form other than Source Code, Subscriber Organization shall arrange for and ensure that the Source Code for the relevant Required Model is deposited into the Source Code Escrow as set forth below in Section 6.B.1. (Source Code Escrow) of this Attachment F (Facility Owned by Subscriber Organization) no later than the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization) for delivery of the Required Models. Subscriber Organization shall be responsible for all costs associated with establishing and maintaining the Source Code Escrow. If, however, Subscriber Organization is unable to deposit the required Source Code into the Source Code Escrow within the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models), Subscriber Organization shall, no later than such time periods, instead establish a monetary escrow as set forth below in Section 6.B.2. (Source Code Security) of this Attachment F (Facility Owned by Subscriber Organization).

### **1. Source Code Escrow.**

- a. Establishment of Source Code Escrow. If the Required Models are not provided to the Company in the form of Source Code pursuant to Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization), Subscriber Organization shall: (a) arrange for and ensure the deposit of a copy of the current version of the Source Code and relevant documentation for all Required Models with the Source Code Escrow Agent under the terms and conditions of the Source Code Escrow Agreement, and (b) arrange for and ensure the update of the deposited Source Code and relevant documentation for Major Releases and Minor Releases of the Required Models as soon as reasonably possible after they are made generally available.
- b. Release Conditions. Company shall have the right to obtain from the Source Code Escrow Agent one copy of the escrowed Source Code for the Required Models, under the following conditions upon Company's request:
- 1) A receiver, trustee, or similar officer is appointed, pursuant to federal, state or applicable foreign law, for the Source Code Owner;
  - 2) Any voluntary or involuntary petition or proceeding is instituted, under (x) U.S. bankruptcy laws or (y) any other bankruptcy, insolvency or similar proceeding outside of the United States, by or against the Source Code Owner; or
  - 3) Failure of the Source Code Owner to function as a going concern or operate in the ordinary course; or
  - 4) Subscriber Organization and the Source Code Owner fail to provide to Company the Required Models or updated Required Models, or, alternatively, fail to issue a Source Code LC, within the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization), Company gives written notice of such failure to Subscriber Organization and the Source Code Owner, and Subscriber Organization and Source Code Owner fail to remedy such breach within five (5) Days following receipt of such notice.
- c. Remedies. If Company has the right to obtain from the Source Code Escrow Agent one copy of the escrowed Source Code for the Required Models pursuant to Section 6.B.1.b (Release Conditions) of Attachment F (Facility Owned by Subscriber Organization), and Company finds that Subscriber Organization failed to arrange for and ensure the update the Source Code Escrow with the modified and/or updated Source Code and relevant documentation for Major Releases and Minor Releases of the Required Models as provided in Section 6.B.1.a. (Establishment of Source Code Escrow) of Attachment F (Facility Owned by Subscriber Organization) or that the Source Code for the Required Models is incomplete or otherwise unusable, Subscriber Organization shall be liable to Company for liquidated damages in the amount of \$500 per Day for each Day Subscriber Organization fails to provide such Source Code to Company or such update to the Source Code to Company from the date such Major Release or Minor Release was first made available by the Source Code Owner to customers of the Source Code Owner. Failure to provide the updated Source Code of the Required Models within 30 Days' notice from Company of a breach of Section 6.B.1.a. (Establishment of Source Code Escrow) of Attachment F (Facility Owned by Subscriber Organization); provided, that Subscriber Organization has also failed to provide a satisfactory Source Code LC as set forth in Section 6.B.2. (Source Code Security) of this Attachment F (Facility Owned by Subscriber Organization) shall constitute an Event of Default pursuant to Section 13. under the Contract.

- d. Certification. The Source Code Escrow Agent shall release the Source Code of the Required Models to Company upon receipt of a signed statement by a representative of Company that reads substantially as follows:

The undersigned hereby certifies that (i) I am duly authorized to execute this document on behalf of Maui Electric Company, Limited ("Maui Electric"), and (ii) Maui Electric is entitled to a copy of the Source Code of the Required Models Pursuant to Section 6.B.1.b. (Release Conditions) of Attachment F (Facility Owned by Subscriber Organization) of the Mid-Tier Standard Form Contract for Renewable Dispatchable Generation dated as of \_\_\_\_\_, between \_\_\_\_\_, and Maui Electric.

- e. Authorized Use. If Company becomes entitled to a release of the Source Code of the Required Models from escrow, Company may thereafter correct, modify, update and enhance the Required Models for the sole purpose of providing itself the support and maintenance it otherwise would have been entitled to if it had been provided the Required Models by Subscriber Organization under Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned By Subscriber Organization) (the "Source Code Authorized Use").
- f. Confidentiality Obligations. Company shall keep the Source Code of the Required Models confidential pursuant to the confidentiality obligations of the Source Code Escrow Agreement. Company shall restrict access to the Source Code of the Required Models to those employees, independent contractors and consultants of Company who have agreed in writing to be bound by confidentiality and use obligations consistent with those specified in the Escrow Agreement, and who have a need to access the Source Code of the Required Models on behalf of Company to carry out their duties for the Source Code Authorized Use. Promptly upon Subscriber Organization's request, Company shall provide Subscriber Organization with the names and contact information of all individuals who have accessed the Source Code of the Required Models, and shall take all reasonable actions required to recover any such Source Code in the event of loss or misappropriation, or to otherwise prevent their unauthorized disclosure or use.

2. Source Code Security.

- a. Establishment of Source Code Security. If the Required Models and their relevant Source Code are not provided to the Company in the form of Source Code pursuant to Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization) and if the Subscriber Organization is unable to arrange for and ensure the deposit of the Source Code into the Source Code Escrow established for the benefit of the Company pursuant to Section 6.B.1. (Source Code Escrow) of this Attachment F (Facility Owned by Subscriber Organization) then, no later than the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization) for delivery of the Required Models and Source Code, Subscriber Organization shall provide an irrevocable standby letter of credit (the "Source Code LC") with no documentation requirement in the amount of Two Hundred Fifty Thousand Dollars (\$250,000) per Required Model (and its relevant Source Code) substantially in the form attached to this Contract as Exhibit G-1 (Form of Letter of Credit) from a bank chartered in the United States with a credit rating (as measured by Standard & Poor's) of "A-" or better or A3 or better from Moody's. Such letter of credit shall be issued for a minimum term of one (1) year. Furthermore, at the end of each year the security shall be renewed for an additional one (1) year term so that at the

time of such renewal, the remaining term of any such security shall not be less than one (1) year. The letter of credit shall include a provision for at least thirty (30) Days' advance notice to Company of any expiration or earlier termination of the letter of credit so as to allow Company sufficient time to exercise its rights under said security if Subscriber Organization fails to extend or replace the security. In all cases, the reasonable costs and expenses of establishing, renewing, substituting, canceling, increasing, reducing, or otherwise administering the letter of credit shall be borne by Subscriber Organization.

- b. Release Conditions. Company shall have the right to draw on the letter of credit the funds necessary to develop and recreate the Required Model or Required Models upon Company's request if Subscriber Organization fails to provide the Company the Required Models or updated Required Models within the time periods set forth in Section 6.A. (Subscriber Organization's Obligation to Provide Models) or Section 6.B.1.c. (Remedies) of this Attachment F (Facility Owned by Subscriber Organization), Company gives written notice of such failure to Subscriber Organization, and Subscriber Organization fails to remedy such breach within five (5) Days following receipt of such notice for a breach under Section 6.A. (Subscriber Organization's Obligation to Provide Models, or within thirty (30) Days following receipt of such notice for a breach under Section 6.B.1.c. (Remedies).
- c. Extend Letter of Credit. If the letter of credit is not renewed or extended no later than thirty (30) Days prior to its expiration or earlier termination, Company shall have the right to draw immediately upon the full amount of the letter of credit and to place the proceeds of such draw (the "Proceeds"), at Subscriber Organization's cost, in an escrow account in accordance with Section 6.B.2.d. (Proceeds Escrow), until and unless Subscriber Organization provides a substitute form of letter of credit meeting the requirements of this Section 6.B.2. (Source Code Security) of this Attachment F (Facility Owned by Subscriber Organization).
- d. Proceeds Escrow. If Company draws on the letter of credit pursuant to Section 6.B.2.c(b)(ii)(C) (Extend Letter of Credit) of this Attachment F (Facility Owned by Subscriber Organization), Company shall, in order to avoid comingling the Proceeds, have the right but not the obligation to place the Proceeds in an escrow account as provided in this Section 6.B.2.d. (Proceeds Escrow) of this Attachment F (Facility Owned by Subscriber Organization) with a reputable escrow agent acceptable to Company ("Proceeds Escrow Agent") subject to an escrow agreement acceptable to Company ("Proceeds Escrow Agreement"). Without limitation to the generality of the foregoing, a federally-insured bank shall be deemed to be a "reputable escrow agent." Company shall have the right to apply the Proceeds as necessary to recover amounts Company is owed pursuant to this Section 6 (Modeling) of this Attachment F (Facility Owned by Subscriber Organization). To that end, the Proceeds Escrow Agreement governing such escrow account shall give Company the sole authority to draw from the account. Subscriber Organization shall not be a party to such Proceeds Escrow Agreement and shall have no rights to the Proceeds. Upon full satisfaction of Subscriber Organization's obligations under Section 6 (Modeling) of this Attachment F (Facility Owned by Subscriber Organization), Company shall instruct the Proceeds Escrow Agent to remit to the bank that issued the letter of credit that was the source of the Proceeds the remaining balance (if any) of the Proceeds. If there is more than one escrow account with Proceeds, Company may, in its sole discretion, draw on such accounts in any sequence Company may select. Any failure to draw upon the Proceeds for any damages or other amounts due Company shall not prejudice Company's rights to recover such damages or amounts in any other manner.

- e. Subscriber Organization's Obligation. If the letter of credit is not sufficient to cover Company's associated consultant fees, costs and expenses to develop and recreate the Required Models, Subscriber Organization shall pay to Company the difference within ten (10) Days of Company's written notice to Subscriber Organization.
- f. Model Verification. Subscriber Organization shall work with the Company to validate the new Required Models developed by or on behalf of Company within sixty (60) Days of receiving such new Required Models. Subscriber Organization shall also arrange for and ensure that Company may obtain new Required Models directly from the Source Code Owner in the event that Subscriber Organization ceases to operate as a going concern or is subject to voluntary or involuntary bankruptcy and is unable or unwilling to obtain the new Required Models from the Source Code Owner.
- g. Certification. The terms of the letter of credit shall provide for a release of the funds, or in the event the funds have been placed into a Proceeds Escrow, the Proceeds Escrow Agent shall release the necessary funds to Company upon receipt of a signed statement by a representative of Company that reads substantially as follows:  
  

The undersigned hereby certifies that (i) I am duly authorized to execute this document on behalf of Maui Electric Company, Limited ("Maui Electric"), and (ii) Maui Electric is entitled to \$ \_\_\_\_\_, pursuant to Section 6.B.2.b (Release Conditions) of Attachment F (Facility Owned by Subscriber Organization) of the Mid-Tier Standard Form Contract for Renewable Dispatchable Generation dated as of \_\_\_\_\_, between \_\_\_\_\_, and Maui Electric.
- h. Authorized Use. If Company becomes entitled to a draw of funds from the Source Code Security or a release of funds from the Proceeds Escrow, Company may thereafter use such funds to develop, recreate, correct, modify, update and enhance the Required Models for the sole purpose of providing itself the support and maintenance it otherwise would have been entitled to if it had been provided the Required Models by Subscriber Organization under Section 6.A. (Subscriber Organization's Obligation to Provide Models) of this Attachment F (Facility Owned by Subscriber Organization).
- 3. Supplementary Agreement. The parties stipulate and agree that the escrow provisions in this Section 6.B. (Escrow Establishment) of Attachment F (Facility Owned by Subscriber Organization) and the Source Code Escrow Agreement and Proceeds Escrow Agreement are "supplementary agreements" as contemplated in Section 365(n)(1)(B) of the Code. In any voluntary or involuntary bankruptcy proceeding involving Subscriber Organization, failure by Company to assert its rights to "retain its rights" to the intellectual property encompassed by the Source Code or the funds in the Proceeds Escrow, pursuant to Section 365(n)(1)(B) of the Code, under an executory contract rejected in a bankruptcy proceeding, shall not be construed as an election to terminate the Contract by Company under Section 365(n)(1)(A) of the Code.

## **7. TESTING REQUIREMENTS.**

- A. Testing Requirements. Once the Control System Acceptance Test has been successfully passed, Subscriber Organization shall not replace and/or change the configuration of the Facility Control, inverter control settings and/or ancillary device controls, without prior written notice to Company. In the event of any such replacement and/or change, the relevant test(s) of the Control System Acceptance Test shall be redone and must be successfully passed before the replacement or altered equipment is allowed to be placed in normal operations. In the event that Company reasonably determines that such replacement and/or change of controls makes it inadvisable for the Facility to continue in normal operations without a further Control Systems Acceptance Test, the Facility shall



be deemed to be in Subscriber Organization-Attributable Non-Generation status until the new relevant tests of the Control System Acceptance Test have been successfully passed.

- B. Periodic Testing. Subscriber Organization shall coordinate periodic testing of the Facility with Company to ensure that the Facility is meeting the performance standards specified under this Contract.

## 8. DATA AND FORECASTING.

Subscriber Organization shall provide Site, meteorological and production data in accordance with the following requirements:

- A. Physical Site Data: Subscriber Organization shall provide Company with an accurate description of the physical Site, including but not limited to the following, **[as appropriate to Facility resource type(s) and use of storage]** which may not be changed during the Term without Company's prior written consent:

Location Facility Map showing the layout of the Facility (coverage area or footprint) and the coordinates (latitude and longitude) of generating equipment:

Solar PV: elevation (above ground), orientation angle and direction (north-east-south-west plane) of arrays/concentrators.

Location (latitude and longitude) and elevation (above ground) of each MMS and elevation (above ground) of each field measurement device for, e.g., air density, ambient air pressure and ambient air temperature, located at each MMS or each field measurement device located on such MMS.

For solar resource inverters: Inverter type, power rating, array configuration to inverters and DC rating of the Facility at the following standard test conditions: irradiance of 1000 W/m<sup>2</sup>, air mass 1.5, and cell temperature 25° C.

Solar generation technology employed at the Facility with temperature dependence, mounting and module type.

BESS technology and related auxiliary equipment, location and type.

- B. Meteorological and Production Data:

Subscriber Organization shall install and maintain a minimum of one MMS for facilities with a Contract Capacity of less than 5 MW and a coverage area of not more than one square kilometer.

Subscriber Organization shall install and maintain a minimum of two MMS for facilities that have either (i) a DC rating of the Facility of 5 MW or greater or (ii) a coverage area greater than one square kilometer.

Placement of each MMS should account for the microclimate of the area and Facility coverage area and shall be oriented with respect to the primary wind direction.

Subscriber Organization shall provide to Company, via SCADA communication and protocol acceptable to Company to support operations and forecasting needs at a continuous scan, all meteorological and production data required under this Contract updated every 2 seconds.

Subscriber Organization shall arrange for a dedicated distribution voltage line to provide separate service from Company, or for such other independent, backup power source as

approved by Company in writing, to temporarily store and record the meteorological data from the field measuring devices at the MMSs. Any such backup power source must be capable of providing power for the field measurement devices for a reasonable period of time until primary power is restored. The same backup power source can serve multiple MMSs as needed by the Facility.

C. Units and Accuracy:

The Table below shows minimum required solar irradiance measurements for various types of solar generation technology. This value may not be derived.

Solar Technology	Direct Normal Irradiance	Global Irradiance (GHI)	Plane of Array Irradiance (POA)
<b>Flat Plate</b> (fixed horizontal, fixed angle, tracking, roof mounted)		X	X
<b>Flat Panel Solar Thermal</b> (fixed angle, roof mounted, tracking)	X		X
<b>Concentrated PV</b> (flat, trough, tracking)	X	X	X

Units and accuracy of required measured parameters to be provided to Company in real time shall be as shown in the Table below. These represent the minimum required accuracies.

**Table of Units and Accuracy of  
Meteorological and Production Data (PV)**

Parameter	Measurement Device (typical)	Unit	Range	Accuracy
Global Horizontal Irradiance at MMS	Pyranometer or equivalent	W/m <sup>2</sup>	0 to 1500 W/m <sup>2</sup>	Secondary standard per ISO 9060 or ≤ 3% from 100 W/m <sup>2</sup> to 1500 W/m <sup>2</sup> if using a PV Reference Cell

Parameter	Measurement Device (typical)	Unit	Range	Accuracy
Plane of Array Irradiance on same axis as array	Pyranometer or equivalent	W/m <sup>2</sup>	0 to 1500 W/m <sup>2</sup>	Secondary standard per ISO 9060 or ≤ 3% from 100 W/m <sup>2</sup> to 1500 W/m <sup>2</sup> if using a PV Reference Cell
Back of Panel temperature at array height	Temperature probe	°C	-20 to +50 °C	+/-1 °C
Ambient air temperature at MMS	Temperature probe	°C	-20 to +50 °C	+/-1 °C
Ambient air pressure at MMS	Piezoresistive transducer or equivalent	Mbar	150 to 1150 mbar	+/-60 mbar  (0 to +50°C)
Wind speed at MMS	Anemometer, sonic device or equivalent	Mph	0 to 134 mph	+/-1 mph
Wind direction at MMS	Vane, sonic device or equivalent	Degrees (from True North)	360°	+/-5°
Set point for each inverter	Reported by Subscriber Organization	MW	0 to inverter name plate	Not applicable
Power production of Facility	Measured at POI	MW	Up to Allowed Capacity	+/-0.1 MW
BESS Charging Power	Measured at BESS Charging Interface	MW	Up to Allowed Capacity	+/-0.05 MW
Facility power production ratio	Ratio of Facility's power production (MW)/Allowed Capacity (MW)	%	0 to 100%	+/-0.1 %
Inverters Available	NA	NA	Up to the number installed inverters	
Facility Inverter Availability	Ratio of inverters online/number of inverters	%	0 to 100%	

Parameter	Measurement Device (typical)	Unit	Range	Accuracy
Power Possible	Subscriber Organization's Model	MW	0 to Allowed Capacity	+/-4%

D. Status of Generating Equipment: For each inverter, Subscriber Organization shall provide to Company, via SCADA communication and protocol acceptable to Company at a continuous scan updated not less frequently than every 2 seconds, a signal as to whether such inverter is available or unavailable, and on or offline.

E. Data Collection. [NOTE COMPANY TO UPDATE REQUIREMENTS; WILL BE SPECIFIC TO FACILITY EQUIPMENT AND RESOURCE TYPE] High Resolution Data: Subscriber Organization shall install and make available to the Company time stamped and sequential data recordings for all inverter-based resources (and all generating resources) to perform event analysis and verify Facility performance during steady state and transient disturbance events. This will include a time-synchronized phasor measurement unit at the Facility, and access to multiple sources to provide sufficient clarity as to any abnormal response or behavior within the Facility, including Facility control settings and static values, SCADA data, sequence of events recording (SER) data, dynamic disturbance recorder (DDR) data, and inverter fault codes and inverter-level dynamic recordings. This data will be used to review the Facility response to system dynamics, such as the frequency response (normal droop), reactive response, etc.

1. Plant Data: [Note: specific requirements below are representative of variable energy resources and will be tailored to the Facility resource type(s) and geographic arrangement]

At least two months prior to the Commercial Operation Date, Subscriber Organization shall deliver to Company a report showing (i) manufacturer, model and year of all energy equipment (panels, inverters, energy storage devices, turbine generators), and meteorological instrumentation, and (ii) the latitude and longitude of the center of the energy equipment (i.e., solar panels for every inverter) and every meteorological tower. Beginning upon COD, Subscriber Organization shall transmit and provide to Company the real-time data set forth below, refreshed as frequently as allowed by the SCADA system, not to exceed sixty (60) second intervals:

- Three (3) data points from each inverter:
  - Inverter/turbine generation (MW)
  - Inverter/turbine availability
  - Inverter/turbine on/offline status
- Two (2) data points from each meteorological tower (solar resources):
  - Global horizontal solar irradiance (instantaneous solar intensity, full sky)
  - Plane of array solar irradiance (instantaneous solar intensity at the current angle of the PV array) or as required in the first table of this section

Subscriber Organization shall provide a map and key for each inverter sufficient to allow Company to correlate the data received through Company's data historian system to each individual resource.

**9. TECHNOLOGY SPECIFIC REQUIREMENTS.**

A. [Reserved]

B. [Reserved]

C. Inverter Systems.

1. Direct current generators and non-power (i.e., other than 60 Hertz) alternating current generators can only be installed in parallel with the Company System using a non-islanding synchronous inverter unless alternate designs are approved by the Company. The design shall comply with the requirements of IEEE Std 1547-2003 (or latest version), except as described in Section 3 (Performance Standards) of this Attachment F (Facility Owned by Subscriber Organization).
2. Self-commutated inverters of the Company-interactive type shall synchronize to the Company System. Line-commutated, thyristor-based inverters are not recommended and will require additional technical study to determine harmonic and reactive power requirements. All interconnected inverter systems shall comply with the harmonic current limits of IEEE Std 519-1992 (or latest version).

D. Battery Energy Storage System. The operating parameters of the BESS for facilities with paired storage shall be as follows:

1. For facilities with variable energy and paired storage: The BESS shall directly charge storage from the variable resource when the Company Active Power Dispatch is for less than the available resource energy.

No more than [ ]% of the BESS energy capacity can be charged from the grid prior to the fifth (5th) anniversary of the Commercial Operations Date. Thereafter, 100% of the BESS energy capacity can be charged from the grid. **[DRAFTING NOTE ONE: 5-YEAR LIMITATION ON GRID CHARGING WILL BE DELETED IF ITC RECAPTURE IS NOT APPLICABLE TO THE BESS.] [DRAFTING NOTE TWO: IF THE BESS WILL NEVER CHARGE FROM THE GRID, REPLACE THIS ENTIRE SUBSECTION WITH THE FOLLOWING: “None of the BESS energy capacity may be charged from the grid during the Term of this Agreement.”]**

The BESS will not be required to discharge more energy than available relative to the available state of charge.

For storage used primarily for energy shifting, the BESS shall be designed for an average annual use of 365 cycle(s) (a cycle is a discharge equal to the portion of the BESS Contract Capacity allocated for energy shifting, and sufficient charging to return the BESS to 100% State of Charge)

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**EXHIBIT F-1**  
**DESCRIPTION OF GENERATION AND BATTERY STORAGE FACILITIES**

1. Name of Facility:

(a) Location: (TMK No. )

(b) Telephone number (for system emergencies):

(c) E-mail Address:

(d) Contact Information for notices pursuant to the Contract:

Mailing Address:

Address for Delivery by Hand or Overnight Delivery:

Email Address:

2. Owner (If different from Subscriber Organization):

If Subscriber Organization is not the owner, Subscriber Organization shall provide Company with a certified copy of a certificate warranting that the owner is a corporation, partnership or limited liability company in good standing with the Hawai'i Department of Commerce and Consumer Affairs which shall be attached hereto as Exhibit F-1-1 (Good Standing Certificates).

3. Operator:

4. Name of person to whom payments are to be made:

(a) Mailing address:

(b) Hawai'i Gross Excise Tax License number:

5. Equipment:

(a) Type of facility and conversion equipment:

**[For example: Small power production facility designated as a Qualifying Facility that produces electric energy using \_\_\_\_\_.]**

(b) Design and capacity

Total Facility Capacity (“Contract Capacity”):

\_\_\_\_\_ kW

Total Number of Generators:

**[number and size of each generator, e.g., one (1) Brand X, 200 kW; one (1) Brand Y, 300 kW]**

Description of Equipment:

**[For example: Describe the type of energy conversion equipment, capacity, and any special features.]**

Individual Unit: **[if more than one generator, list information for each generator]**

	kVAR	kVAR
_____ kW	Consumed	Produced

Full load

Startup

Generator:

Type \_\_\_\_\_

Rated Power \_\_\_\_\_ kW

Voltage \_\_\_\_\_ V, \_ phase

Frequency \_\_\_\_\_ Hz

Class of Protection

Number of Poles

Rated Speed \_\_\_\_\_ rpm

Rated Current \_\_\_\_\_ A

Rated Power Factor See Exhibit B-2

#### Batteries

Total Number of Energy Storage Units:

- (c) Single or 3 phase:
- (d) Name of manufacturer:
- (e) Description of Facility SCADA and control system(s)
- (f) The “Allowed Capacity” of this Contract shall be the lower of (i) Contract Capacity or (ii) the net nameplate capacity (net for export) of the Facility installed by the Commercial Operations Date.
- (g) Subscriber Organization may propose revisions to this Section 5 (Equipment) of Exhibit F-1 (Description of Generation Battery and Storage Facilities) (“Section 5”) for Company’s approval prior to commencement of construction, provided, however, that (i) no such revision to this Section 5 shall change the type of Facility or conversion equipment deployed at the Facility from a solar energy conversion facility using photovoltaic equipment; (ii) Subscriber Organization shall be in compliance with all other terms and conditions of this Contract; and (iii) such revision(s) shall not change the characteristics of the Facility equipment or the specifications used in the IRS. Any revision to this Section 5 complying with items (i) through (iii) above shall be subject to Company’s prior approval, which approval shall not be unreasonably withheld. If Subscriber Organization’s proposed revision(s) to this Section 5 otherwise satisfies items (i) and (ii) above but not item (iii) such that Company, in its reasonable discretion, determines that a re-study or revision to all or any part of the IRS is required to accommodate Subscriber Organization’s proposed revision(s), Company may, in its sole and absolute discretion, conditionally approve such revision(s) subject to a satisfactory re-study or revision to the IRS and Subscriber Organization’s payment and continued obligation to be liable and responsible for all costs and expenses of re-studying or revising such



portions of the IRS and for modifying and paying for all costs and expenses of modification to the Facility, the Company-Owned Interconnection Facilities based on the results of the re-studies or revisions to the IRS. Any changes made to this Attachment F of the Contract as a result of this Section 5(f) of Exhibit F-1 (Description of Generation and Battery Storage Facilities) shall be reflected in a written amendment to the Contract.

Subscriber Organization understands and acknowledges that Company's review and approval of Subscriber Organization's proposed revisions to this Section 5 and any necessary re-studies or revisions to the IRS shall be subject to Company's then-existing time and personnel constraints. Company agrees to use commercially reasonable efforts, under such time and personnel constraints, to complete any necessary reviews, approvals and/or re-studies or revisions to the IRS.

Any delay in completing, or failure by Subscriber Organization to meet, the Commercial Operations Date as a result of any revisions pursuant to this Section 5 by Subscriber Organization (whether requiring a re-study or revision to the IRS or not) shall be borne entirely by Subscriber Organization and Company shall not be responsible or liable for any delay or failure to meet the Commercial Operations Date by Subscriber Organization.

6. Insurance carrier(s): **[SUBSCRIBER ORGANIZATION TO PROVIDE INFORMATION]**
7. If Subscriber Organization is not the operator, Subscriber Organization shall provide a copy of the agreement between Subscriber Organization and the operator which requires the operator to operate the Facility and which establishes the scope of operations by the operator and the respective rights of Subscriber Organization and the operator with respect to the sale of electric energy from Facility no later than the Commercial Operations Date. In addition, Subscriber Organization shall provide a certified copy of a certificate warranting that the operator is a corporation, partnership or limited liability company in good standing with the Hawai'i Department of Commerce and Consumer Affairs no later than the Commercial Operations Date.
8. Subscriber Organization shall provide a certified copy of a certificate warranting that Subscriber Organization is a corporation, partnership or limited liability company in good standing with the Hawai'i Department of Commerce and Consumer Affairs which shall be attached hereto as Exhibit F-1-1 (Good Standing Certificates).
9. Subscriber Organization, owner and operator shall provide Company a certificate and/or description of their ownership structures which shall be attached hereto as Exhibit F-1-2 (Ownership Structure).
10. In the event of a change in ownership or identity of Subscriber Organization, owner or operator, such entity shall provide within 30 Days thereof, a certified copy of a new certificate and a revised ownership structure.

--END--

**EXHIBIT F-2**  
**CONSULTANTS LIST**

**EXHIBIT F-3**  
**MODELING REQUIREMENTS**

1. **Steady State and Dynamic Model Requirements and As-built Data to be provided by Subscriber Organization.** The expected steady state power flow and dynamic models will be provided by the Subscriber Organization during the interconnection study process in the format compatible with the analytical tools used by Company. Depending upon Facility design, different representations may be required for steady state and dynamic simulations. Subscriber Organization will work with Company to derive a complex equivalent model if it is required to meet interconnection study needs. The as-built data and models will be provided by Subscriber Organization immediately upon commissioning with sufficient information to demonstrate that the as-built parameters match the model. Any changes to plant settings that affect its response and impact to the Company System are required to be studied prior to those changes taking effect. The modeling will include all necessary control settings such that the correct capabilities, flags, and settings can be represented in a base case. Where such parameters are settable according to this Contract, the initial models will be configured with parameters mutually agreed with Company for the interconnection study analysis. This includes, but is not limited to:

- Plant Type: A description of the resource type (e.g., storage, solar PV or wind power resource) used as a flag to ensure that the inverter-based resource is accurately represented in the base case, where applicable.
- Active and Reactive Capability: The overall plant "composite capability curve" shall be provided by Subscriber Organization for performance purposes. That same curve will be used for accurately modeling the P-Q capability in power flow studies.
- Plant-Level Voltage Control Settings: Information on the plant voltage control mode to ensure correct voltage control flags and set points are set accordingly in the software tools.
- The voltage control set point at the Point of Interconnection is provided by the Company. Subscriber Organization shall provide a description of the coordination of any plant-level shunt compensation (static or dynamic) to ensure it can be accurately represented in the power flow base case.

The models provided by Subscriber Organization should accurately reflect the contractual requirements established under this Contract.

2. **Positive Sequence Stability Modeling.** Subscriber Organization shall provide a positive sequence stability model representation which provides sufficient detailed modeling for necessary reliability studies, as specified by Company. [Note – language to be revised based on proposed Facility.] For example, the following are typical requirements for plants with inverter equipment:
- Inverter-Level Controller Model: This represents the overall control of the inverter as an energy or generating resource.
  - Electrical Control Model: This represents the detailed electrical controls of the resource, including large disturbance behavior.
  - Plant-Level Controller Model: This represents control of multiple individual inverters and/or generators within the plant
3. **Short Circuit Modeling.** Subscriber Organization will provide appropriate and accurate models to Company to support short circuit studies. [Company to specify requirements based on specific Facility]

4. **Electromagnetic Transient Modeling.** Company will require an electromagnetic transient (“EMT”) model for the Facility. Subscriber Organization shall provide Company with an EMT model for the IRS and an updated EMT model after the Facility has been commissioned. These models are in addition to the positive sequence stability models required for interconnection-wide modeling purposes. In addition, Subscriber Organization shall provide Company with evidence that the expected (and commissioned) EMT model reasonably matches the positive sequence dynamic models provided. This should include a benchmarking report provided by the inverter OEM.

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**EXHIBIT F-4**  
**GENERATOR AND ENERGY STORAGE CAPABILITY CURVE(S)**

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**EXHIBIT F-5**  
**SINGLE-LINE DRAWING AND INTERFACE BLOCK DIAGRAM**  
**(To be attached as per Section 1.A. of Attachment F)**

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**EXHIBIT F-6**  
**RELAY LIST AND TRIP SCHEME**  
**(To be attached as per Section 1.A. of Attachment F.)**

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**EXHIBIT F-7**  
**CONTROL SYSTEM ACCEPTANCE TEST CRITERIA**

**[THIS ATTACHMENT WILL NEED TO BE MODIFIED BASED ON THE RESULTS OF  
THE IRS]**

1. The Control System Acceptance Test for the Facility will be conducted, following installation of the Facility. The Control System Acceptance Test procedures will be in accordance with criteria set forth herein. The Control System Acceptance Test shall be performed in accordance with Good Engineering and Operating Practices and demonstrate to Company's satisfaction that the Facility and the interconnection portion of the Facility, including Company-Owned Interconnection Facilities, have met the provisions of Section 5. (Company Dispatch) of the Contract and Section 3. (Performance Standards) of Attachment F (Facility Owned by Subscriber Organization).
  - A. Control System Acceptance Test procedures will be developed by Company for the Subscriber Organization's review at least sixty (60) Days in advance of performing the tests based on the date provided by Company.
  - B. The procedures will include, but not be limited to, demonstration of the functional requirements of the Facility defined in Section 5. (Company Dispatch) of the Contract and Section 3. (Performance Standards) of Attachment F (Facility Owned by Subscriber Organization) such as, but not limited to:
    1. Interconnection equipment and communications to support remote monitoring of the Facility and control of Facility breakers
    2. Droop characteristic and change of frequency control / response modes (if applicable)
    3. Real power delivery under remote Company Dispatch, Active Power Dispatch. For facilities with directly controlled storage, the storage will be operated to perform at least two full charging/discharging cycles.
    4. Accurate provision of limits for Minimum and Maximum Dispatch (Power Possible, Minimum load capability)
    5. Ramp rates for controlled actions
    6. Control of Facility breakers
    7. Voltage regulation
    8. Grid forming and Black start (if applicable)
    9. BESS Capacity Test and demonstration of the round-trip efficiency of the BESS, each as described in Attachment H (BESS Requirements)
  - C. Testing of primary and redundant communications between Company System Operator and Facility Operator
  - D. The actual dynamic response of the Facility equipment will be confirmed to allow Company transient stability model to reflect the as-left conditions of the unit. During the commissioning, the following will be required:
    1. A final review by Company engineers of the equipment installed to control the operation and protect the plant will be needed upon installation and prior to the start of commercial operation.



2. The review will include off-line tuning and testing results of the excitation and governor control and/or control system and the IEEE block diagram utilized for the PSS/E dynamics program.
  3. During the commissioning of the actual Facility, equipment system testing will be conducted to ensure that similar, well damped, expected responses will be produced by the facility. The as-left parameters obtained from real and reactive local response tuning will be determined for use in the Company planning model. The Subscriber Organization will provide an estimate of the earliest date for the Control System Acceptance Test at least ninety (90) Days before the date.
- E. The Control System Acceptance Test procedures for the Facility will be mutually agreed upon between Subscriber Organization and Company prior to conducting the test.
  - F. When the Facility is ready for the Control System Acceptance Test, Subscriber Organization shall notify Company at least seven (7) Days prior to the test and shall coordinate with Company. Subscriber Organization shall perform, and Company shall monitor such test no earlier than seven (7) Days from Company's receipt of such notice.
  - G. The Control System Acceptance Test is to be successfully completed prior to the Commercial Operation Date.
2. Examples of the type of tests conducted to meet the aforementioned objectives may include, but are not limited to the following:
    - A. On-site Tests
      1. SCADA Test to verify the status and analog telemetry, and if the remote controls between the Company's EMS and the Facility are working properly end-to-end.
      2. Dispatch Test to verify if the Facility's active power limit controls and the Active Power Control Interface with the Company's EMS are working properly. The Test is generally conducted by setting different active power setpoints and limits and observing the proper dispatch at the appropriate ramp rate limiting of the Facility's real power output.
    - B. Control Test for Voltage Regulation to verify the Facility can properly perform automatic voltage regulation as defined in this Exhibit F-7, and pursuant to Attachment F and the Contract. Test is generally conducted by making small adjustments of the voltage setpoint and verifying by observation that the Facility regulates the voltage at the point of regulation to the setpoint by delivering/receiving reactive power to/from the Company System to maintain the applicable setpoint according to the reactive power control and the reactive amount requirements of Sections 3.B (Reactive Power Control) and Section 3.C (Reactive Power Characteristics) of Attachment F (Facility Owned by Subscriber Organization) to the Contract. **[Note: Sub transmission Requirements]**
    - C. Frequency Response Test to verify the Facility provides a frequency droop response as defined in the Contract. Test is generally conducted by adjusting of the frequency reference setting and verifying by observation that the Facility responds per droop and deadband settings, and appropriately modifies the Company issued Dispatch Setpoint. If different modes of frequency response are provided, each mode is tested (i.e.; isochronous, fast frequency response, active power droop response).
    - D. Loss-of-Communication Test to verify the Facility will properly shutdown upon the failure of the direct-transfer-trip communication system. Test is generally conducted by simulating a

communications failure and observing the proper shutdown of the Facility. [If DTT required for the Project]

- E. Round trip efficiency test, as described in Attachment H (BESS Requirements) Section 1. (BESS Tests) to verify that the round-trip efficiency of the BESS is not less than [ ] percent ([ ]%). **[DRAFTING NOTE: The round-trip efficiency percentage will be taken from Subscriber Organization's response to the RFP.]**
- F. BESS Capacity Test to verify the BESS Capacity Ratio.
  - 1. Monitoring Test:
    - a. The monitoring test requires the Facility to operate as it would in normal operations.
    - b. To ensure useful and valid test data is collected for variable facilities, the monitoring test shall end when one of the following criteria is met:
      - 1) For variable energy resources, Facility's gross power production is greater than 85% of its Allowed Capacity, for at least four (4) hours in any continuous 24-hour CSAT period.
      - 2) For solar facilities, the recorded renewable energy resource at the Facility is above 600 W/m<sup>2</sup> for least eight (8) hours in any continuous 48-hour CSAT period.
- G. At the end of the test, an evaluation period is selected based on the criteria that triggered the end of the test.
- H. The performance of the Facility during the period of the successfully completed monitoring test is evaluated for, e.g., voltage regulation, frequency response, dispatch control, operating limits and ramp rate performance, to verify the performance meets the requirements of this Exhibit F-7. according to the criteria set forth in the testing procedures. Certain requirements, such as disturbance ride-through requirements, cannot be adequately tested without actual grid disturbances. These requirements will be confirmed following a grid event based on operational data, which may be after the completion of the Control System Acceptance Test. The Parties understand and agree that a successful completion of the test does not constitute a waiver of any of the performance standards of Subscriber Organization, all of which are hereby reserved, and shall not alleviate Subscriber Organization from any of its obligations under the Contract, in particular, as required in Section 5. (Company Dispatch) and the Performance Standards in Section 3. (Performance Standards) of Attachment F (Facility Owned by Subscriber Organization).

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**EXHIBIT F-8**  
**ACCEPTANCE TEST GENERAL CRITERIA**

**[THIS ATTACHMENT WILL NEED TO BE MODIFIED  
BASED ON THE RESULTS OF THE IRS]**

Upon final completion of Company review of the Facility's drawings, final test criteria and procedures shall be agreed upon by Company and Subscriber Organization no later than thirty (30) Days prior to conducting the Acceptance Test in accordance with the Contract. The Acceptance Test shall include, but not be limited to, the following:

**1. Interconnection.**

- A. A visual inspection of all Interconnection equipment and verification of as-built drawings.
- B. Phase rotation testing to verify proper phase connections.
- C. Based on manufacturer's specification, test the local operation of the Facility's generator breaker(s) and inter-tie breaker(s), and other breaker(s) which connect the Facility equipment to Company System – must open and close locally using the local controls remotely from Company's EMS. Test and ensure that the status shown on the EMS is the same as the actual physical status in the field.
- D. Relay test engineers to connect equipment and simulate certain inputs to test and ensure that the protection schemes such as any under/over frequency and under/over voltage protection or the Direct Transfer Trip operate as designed. (For example, a fault condition may be simulated to confirm that the breaker opens to sufficiently clear the fault. Additional scenarios may be tested and would be outlined in the final test criteria and procedures.) Subscriber Organization to also test the synchronizing mechanisms to which the Facility would be synchronizing and closing into the Company System to ensure correct operation. Other relaying also to be tested as specified in the protection review of the IRS and on the single line diagram, Attachment E (Single-Line Drawing and Interface Block Diagram) for the Facility.
- E. All breaker disconnects and other high voltage switches will be inspected to ensure they are properly aligned and operated manually or automatically (if designed).
- F. Step-Up Transformer Enclosure(s) inspections – The Step-Up Transformer Enclosure(s) may be inspected to test and ensure that the equipment that Subscriber Organization has installed is installed and operating correctly based upon agreed to design. Wiring may be field verified on a sample basis against the wiring diagrams to ensure that the installed equipment is wired properly. The grounding mat at the Step-Up Transformer Enclosure(s) may be tested to make sure there is adequate grounding of equipment.
- G. Communication testing – Communication System testing to occur to ensure correct operation. Detailed scope of testing will be agreed by Company and Subscriber Organization to reflect installed systems and communication paths that tie the Facility to Company's communications system.
- H. Various contingency scenarios to be tested to ensure adequate operation, including testing contingencies such as loss of communications, and fault simulations to ensure that the Facility's breakers, if any, open as they are designed to open. (Back up relay testing)
- I. Metering section inspection; verification of metering PTs, CTs, and cabinet and the installation of the two Company meters.

2. Telephone Communication.

- A. Test to confirm Company has a direct line to the Facility control room at all times and that it is programmed correctly.
- B. Test to confirm that the Facility operators can sufficiently reach Company System Operator.
- C. Verification of dial-up telephone connection for metering cabinet.

3. Drawings, Documentation and Equipment Warranties.

The items below are required components of the Acceptance Test and must be satisfied for successful completion of this Test.

- A. Electronic and three (3) hard copies of all Switchyard construction drawings, specifications, calibrations, and settings including as-built drawings.
- B. Equipment operating and maintenance manuals, spare parts lists, commissioning notes, as-built equipment settings, and other information related to the switchyard equipment.
- C. Contractor construction warranties and equipment warranties.
- D. Phase rotation testing to verify proper phase connections.
- E. Switching Station inspections – The Switching Station may be inspected to test and ensure that the equipment that Subscriber Organization has installed is installed and operating correctly based upon agreed-to design. Wiring may be field verified on a sample basis against the wiring diagrams to ensure that the installed equipment is wired properly. The grounding mat at the Switching Station may be tested to make sure there is adequate grounding of equipment.
- F. If agreed by the Parties in writing, some requirements may be postponed to the Control Systems Acceptance Test.

*Attachment 1*

*COMPANY-OWNED SITE*

**[This Attachment sets forth the terms and conditions which shall apply if Subscriber Organization elects to utilize a Company-owned Site.]**

**ATTACHMENT K  
COMPANY-OWNED SITE**

**1. DESCRIPTION OF COMPANY-OWNED SITE.**

A. **General.** At the request of Subscriber Organization, Company shall make available to Subscriber Organization an area on Company's property to allow performance of Subscriber Organization's obligations under this Contract, provided that Company shall make available only as much acreage as necessary for Subscriber Organization's performance (the "Company-Owned Site").

1. **During Construction of the Facility.** During such time as Subscriber Organization is actively constructing the Facility, the Company shall make available a reasonable area on Company's property, as determined by Company, for Subscriber Organization's construction activities, which shall be no larger than        acres, as shown on the site plan attached as Exhibit K-1 (Site Plan) to this Attachment K (Company-Owned Site). The Company shall work with Subscriber Organization to physically demarcate, at Subscriber Organization's expense, the boundaries of the area that will be made available to Subscriber Organization during construction of the Facility.

2. **Upon Completion of the Facility.**

- a. Upon Subscriber Organization's completion of the Facility, Company shall make available to Subscriber Organization only as much area as necessary for ongoing operation of the Facility under the terms of this Contract for the remainder of the Term (the "Post-Construction Area"). The Company shall work with Subscriber Organization to physically demarcate, at Subscriber Organization's expense, the boundaries of the Post-Construction Area.
- b. Upon Subscriber Organization's request during the Term of this Contract, Company, in its sole discretion, may make available to Subscriber Organization additional acreage, on a temporary basis, for Subscriber Organization's maintenance, repair or replacement of the Facility, or any portion thereof, on an as-needed basis; provided, however, that the additional acreage shall not exceed the boundaries of the area shown on the site plan attached as Exhibit K-1 (Site Plan) to this Attachment K (Company-Owned Site). At any time during the Term, the actual available area that may be available to Subscriber Organization for such maintenance, repair or replacements activities may change in accordance with the Company's needs and then-current utilization plans for the area, all of which the Company hereby reserves in its sole and absolute discretion.

B. **[Maui only – For Moloka'i this section will be replaced with "[RESERVED for site specific provisions for the Pala'au site as may be mutually agreed to by the Parties]": Private Roadway and Landscape Buffer.** The Company-Owned Site is located within a project known as the New Central Maui Generation Site Subdivision (the "Subdivision"). Subscriber Organization acknowledges and agrees that Subscriber Organization will benefit from the construction of the following improvements (the "Company Improvements") on or near the Post-Construction Area on property owned by Company within the New Central Maui Generation Site Subdivision: (i) a Private Roadway that will connect the Post-Construction Area to Pulehu Road, a public road owned by the County of Maui; (ii) a landscape buffer along Pulehu Road required to be built under the Land Use Conditions (hereinafter defined) encumbering the land within the Subdivision; and (iii)

any other improvements or infrastructure required under the Land Use Conditions. Subscriber Organization shall share in the cost to design, construct, operate, and maintain the Company Improvements, based on the Post-Construction Area, on a pro rata basis with others utilizing land within the Subdivision. Notwithstanding the foregoing, Company shall have the sole discretion to make reasonable adjustments to Subscriber Organization's share of the Company Improvements based on other uses within the Subdivision. For the purposes of this Attachment K (Company-Owned Site), "Land Use Conditions" shall mean: (i) that certain Zoning Ordinance 2841 of the County of Maui, as reflected in related Unilateral Contract and Declaration for Conditional Zoning dated June 16, 2000 and recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 2000-085696; and (ii) that certain Findings of Fact, Conclusions of Law, and Decision and Order dated June 22, 1998, issued by the Land Use Commission of the State of Hawaii in Docket No. A97-722, as reflected in the Document Listing Conditions to Reclassification of Land dated July 23, 1998 and recorded in said Bureau as Document No. 98-112111.

- C. **Utilization of Site.** Subscriber Organization shall utilize the Company-Owned Site solely in connection with and for the purposes of constructing a Facility and meeting Subscriber Organization's obligations to Company under this Contract. Subscriber Organization waives and relinquishes any right it may have under Title 11, United States Code, and any other or successor state or federal statute relating to assignment for the benefit of creditors, appointment of a receiver or trustee, bankruptcy, composition, insolvency, moratorium, reorganization, or similar matters ("Bankruptcy Law"), in any proceeding, whether voluntary or involuntary, under any Bankruptcy Law, or otherwise to assert the Company-Owned Site should be used for any purpose other than in connection with and for the purposes of meeting Subscriber Organization's obligations under this Contract.
- D. **Future Subdivision.** Subscriber Organization acknowledges and agrees that Company, in its sole discretion, reserves the right to subdivide the Subdivision at any time during the Term of this Contract. In the event Company exercises its right to subdivide the Subdivision, (i) Subscriber Organization agrees to share in the cost to subdivide the Subdivision on a pro rata basis with others utilizing land within the Subdivision, as determined by the Company, and (ii) Subscriber Organization and Company shall cooperate in good faith to negotiate a lease for Subscriber Organization's use of the Company-Owned Site under terms mutually agreeable to the parties consistent with this Attachment 1 (Company-Owned Site).

## **2. SECURITY AND ACCESS TO SITE.**

### **A. During Construction of the Facility.**

1. **Security.** During such time as Subscriber Organization is actively constructing the Facility, Subscriber Organization at its option may secure the Company-Owned Site with fencing and gates to prevent unauthorized persons or vehicles from entering or crossing through the Company-Owned Site and/or adjacent lands owned or operated by Company. Such fencing and gating shall require the prior written approval of the Company before erecting such fencing and gating.
2. **Access to Company-Owned Site.** During such time as Subscriber Organization is actively constructing the Facility, Company shall provide access to the Company-Owned Site through a separate contractor's entrance, if available, or through other reasonable means as may be determined by Company in its sole discretion.

### **B. Upon Completion of the Facility.**

1. **Secured Facility.** Subscriber Organization shall secure the Facility on the Company-Owned Site and prevent access to the Facility by unauthorized personnel in the same manner or higher

as Company secures its power generating facilities in the county in which the Company-Owned Site is located. Notwithstanding Company's then current security procedures for its other facilities, in the event of security concerns as may be determined by the Company's security personnel, Company may require Subscriber Organization to temporarily maintain personnel at the Company-Owned Site 24 hours a day 7 days a week to monitor the security and safety of the Company-Owned Site and Facility.

2. **Limited Access to Company-Owned Site.** Subscriber Organization shall maintain barriers on the Company-Owned Site to prevent unauthorized persons or vehicles from entering or crossing through the Company-Owned Site and/or adjacent lands owned or operated by Company.
- C. **Personnel.** At all times during the Term of this Contract, Subscriber Organization shall conduct security and background checks on all Subscriber Organization representatives, employees, independent contractors, agents, and other persons who will be allowed access to the Facility by Subscriber Organization and shall require all such persons to take periodic drug tests. Subscriber Organization shall not allow on the Company-Owned Site any persons who do not pass such security checks or drug tests. Due to the critical nature of Company's operations where the Company-Owned Site is situated, Subscriber Organization agrees that if Company, in its sole discretion and after reasonable consultation with Subscriber Organization, determines that the continued presence of any Subscriber Organization representative, employee, contractor or agent on Company property is not consistent with the best interests of Company, then in such an instance Company may request that Subscriber Organization remove such representative, employee, contractor or agent from the Company-Owned Site and Subscriber Organization shall forthwith comply with such request. Subscriber Organization may replace such representative, employee, contractor or agent with another who meets Company's standards at no additional cost to Company.
- D. **Access and Inspection.** At all times during the Term of this Contract, Company and its agents, representatives, and designees may enter the Company-Owned Site upon reasonable notice for any reason, including but not limited to the following: to (a) ascertain whether Subscriber Organization is complying with this Contract; (b) cure any failure of Subscriber Organization to comply with this Attachment K (Company-Owned Site); (c) inspect the Company-Owned Site and any construction or improvements, including the Facility; (d) perform such tests, borings, and other analyses as Company determines may be necessary or appropriate relating to (non)compliance with any Laws or possible Hazardous Substances Discharge (hereinafter defined). Company and its designees shall not unreasonably interfere with operations of the Facility and shall comply with Subscriber Organization's reasonable instructions.

### 3. **Compliance.**

- A. **Generally.** Subscriber Organization shall, at Subscriber Organization's expense, in all material respects: (i) comply with all Laws, ordinances, requirements, orders, proclamations, directives, rules, and regulations of any Governmental Authority affecting the Company-Owned Site; (ii) comply with all rules regulating the use of and activities and conduct upon the Company's property, including the Company-Owned Site, as may be established and amended from time to time by the Company in its sole discretion; (iii) comply with the covenants, conditions, and restrictions set forth in any documents recorded against the Company-Owned Site; (iv) procure any and all licenses, permits (including building, demolition, alteration, use, and special permits), approvals, consents, certificates (including certificate(s) of occupancy), rulings, variances, authorizations, or amendments to any of the foregoing as shall be necessary or appropriate under any Laws to construct and operate the Facility and to perform repair, alteration, demolition, or other work affecting the Facility ("Approvals"); and (v) comply with all Approvals.



- B. **Notice of Inspections.** Subscriber Organization shall give Company notice of any proposed inspection of the Company-Owned Site or the Facility by any Governmental Authority immediately upon Subscriber Organization's receipt of notice of such inspection.

4. **Subscriber Organization's Investigation of the Company-Owned Site.**

- A. **Investigations and Reports.** Subscriber Organization shall make such independent investigations as Subscriber Organization deems necessary or appropriate concerning Subscriber Organization's utilization of the Company-Owned Site for the purposes of meeting Subscriber Organization's obligations under this Contract. Notwithstanding the foregoing, if Subscriber Organization wishes to conduct an environmental or soil assessment on the Company-Owned Site, including but not limited to any Baseline Assessment conducted under Section 7(a) (Baseline Assessment) of this Attachment K (Company-Owned Site), Company shall select the environmental or engineering consultant to conduct the investigation and shall contract with the consultant to provide the report at Subscriber Organization's cost. The provision of any such report to Subscriber Organization shall be subject to the confidentiality provisions of Section 7(l) (Confidentiality) of this Attachment K (Company-Owned Site).
- B. **Permits, Assurances, and Approvals.** Subscriber Organization agrees to provide Company with copies of all permits, Approvals and assurances pertaining to Subscriber Organization's construction on the Company-Owned Site, including but not limited to building and grading permits, special management area permits, assurances from Governmental Authorities, utility commitments and service Contracts, and any permits, Approvals or assurances regarding the development or use of water, roadways, utilities or other infrastructure.
- C. **Acceptance of Company-Owned Site.** Subscriber Organization acknowledges that it has, or has had the opportunity, to inspect carefully the Company-Owned Site, and accepts the Company-Owned Site in AS IS condition WITH ALL FAULTS. Subscriber Organization further acknowledges that neither Company nor its agents or employees have made any representations or warranties of any kind whatsoever as to the suitability or fitness of the Company-Owned Site for the construction or operation of the Facility or for any other purpose, nor has Company or its agents or employees agreed to make any repairs, undertake any alterations, or construct any improvements on or with respect to the Company-Owned Site other than such Company-Owned Interconnection Facilities as Company has or may agree to build or install.
- D. **No Company Services.** Subscriber Organization acknowledges and agrees that Company is under no obligation to provide any services such as security, water, utilities or infrastructure to the Company-Owned Site.

5. **Construction, Maintenance and Interference.**

- A. **Construction.** At Subscriber Organization's sole cost and expense, Subscriber Organization shall construct the Facility in accordance with the requirements of this Contract. Subscriber Organization shall not commence any demolition, construction, reconstruction, restoration, or other work affecting the Company-Owned Site, including construction of the Facility ("Construction") until it has the applicable necessary Approvals. Prior to commencement of any Construction, Subscriber Organization shall cause each entity involved in such Construction, who is a direct contractor of Subscriber Organization and who has mechanic lien rights under Chapter 507 of the Hawaii Revised Statutes, to deliver to Company a performance and payment bond in a form acceptable to Company and from a surety reasonably acceptable to Company, covering the faithful performance of such entity's contract with the Subscriber Organization and the payment of all obligations arising thereunder, and naming Company as an obligee. Subscriber Organization shall complete Construction of the Facility within the time periods required by this Contract. Subscriber

Organization shall pay for all Construction when and as required by the parties that perform such Construction. All improvements that Subscriber Organization constructs on the Company-Owned Site other than Company-Owned Interconnection Facilities shall be the property of the Subscriber Organization for the Term of this Contract.

- B. **Plans and Specifications.** Subscriber Organization shall promptly provide Company with plans and specifications or surveys (including working plans and specifications and “as-built” plans and specifications and surveys) for any Construction.
- C. **Applications.** Upon Subscriber Organization’s request, Company shall, without cost to Company, promptly join in and execute any Application (hereinafter defined) as Subscriber Organization reasonably requests, provided that: (i) such Application is in customary form and imposes no material obligations (beyond obligations ministerial in nature or merely requiring compliance with applicable Laws) upon Company; (ii) no uncured Event of Default exists; and (iii) Subscriber Organization reimburses Company’s attorneys’ fees and costs. Promptly upon Subscriber Organization’s request and without charge (except reimbursement of Company’s attorneys’ fees and costs), Company shall furnish all information in its possession that Subscriber Organization reasonably requests for any Application. For the purposes of this Attachment K (Company-Owned Site), “Application” shall mean any Contract, application, certificate, document, or submission (or amendment of any of the foregoing): (i) necessary or appropriate for any Construction allowed under this Attachment K (Company-Owned Site), including any application for any building permit, certificate of occupancy, utility service or hookup, easement, covenant, condition, restriction, subdivision plat, or such other instrument as Subscriber Organization may from time to time reasonably request for such Construction; (ii) to enable Subscriber Organization from time to time to seek any Approval or to use and operate the Facility in accordance with this Contract; or (iii) otherwise reasonably necessary and appropriate to allow Subscriber Organization to meet its obligations under this Attachment K (Company-Owned Site).
- D. **Obligation to Maintain.** Subscriber Organization shall remove trash and debris from the Company-Owned Site and the adjoining sidewalk, if any, and maintain them in a reasonably clean condition.
- E. **Interference.** The Company-Owned Site is located on or adjacent to property and infrastructure owned and operated by Company. Subscriber Organization acknowledges and agrees that such property and infrastructure includes Company’s existing communications configurations, equipment, and frequencies that exist on or adjacent to the Company-Owned Site as of the Effective Date (“Pre-existing Communications”). Subscriber Organization shall not construct, install, operate, use, maintain, repair, or remove any new or existing equipment that will materially interfere with the Pre-existing Communications and shall be responsible for resolving any technical interference problems between the Facility and the Pre-existing Communications. Subscriber Organization additionally agrees to ensure that the Facility complies with any commercially reasonable communications requirements, specifications or rules developed by Company and provided to Subscriber Organization with respect to the Company-Owned Site throughout the Term of this Contract. Subscriber Organization shall inform and obtain Company’s prior written approval before replacing any of its communications equipment or communications service providers (including internet equipment and internet service providers).

## **6. Prohibited Liens.**

- A. **Subscriber Organization’s Covenant.** Subscriber Organization shall not permit any mechanic’s, vendor’s, laborer’s, or material supplier’s statutory lien or other similar lien arising from work, labor, services, equipment, or materials supplied, or claimed to have been supplied, to Subscriber Organization (or anyone claiming through Subscriber Organization) (“Prohibited Lien”) to attach

to the Company-Owned Site or to any adjacent land owned by the Company. If a Prohibited Lien is filed, Subscriber Organization shall, within 30 Days after receiving notice from Company of such filing (but in any case within 15 Days after Company notifies Subscriber Organization of commencement of any application for a mechanic's lien or foreclosure proceedings), commence appropriate action to cause such Prohibited Lien to be paid, discharged, bonded, or cleared from title. Subscriber Organization shall thereafter prosecute such action with reasonable diligence and continuity. If Company receives notice of any such filing, then Company shall promptly notify Subscriber Organization. Nothing in this Contract shall be construed to obligate Subscriber Organization regarding any lien that results from any act or omission by Company.

- B. **Protection of Company.** Nothing in this Contract shall be deemed or construed in any way to constitute Company's giving Subscriber Organization any right, power or authority to contract for, or permit the rendering of, any services, or the furnishing of any materials that would give rise to the filing of any liens against the Company-Owned Site. Subscriber Organization shall indemnify Company against any claims arising out of Construction undertaken by Subscriber Organization or anyone claiming through Subscriber Organization, and against all Prohibited Liens.

7. Hazardous Substances.

- A. **Baseline Assessment.** At Subscriber Organization's request, Company shall obtain a Phase I and/or Phase II Environmental Assessment (hereinafter defined), at Subscriber Organization's sole cost, revealing the environmental conditions of the Company-Owned Site prior to Subscriber Organization's commencement of Construction on the Company-Owned Site ("Baseline Assessment") and, subject to the confidentiality provisions of Section 7.L (Confidentiality) of this Attachment K (Company-Owned Site), shall provide Subscriber Organization with a copy of the results of the Baseline Assessment. Any Hazardous Substances (hereinafter defined) not disclosed in any Baseline Assessment and discovered on the Company-Owned Site after the Effective Date shall be presumed to be present as a result of Subscriber Organization's utilization of the Company-Owned Site during the Term, unless Subscriber Organization shall prove, by clear and convincing proof, that the Hazardous Substances: (i) were present on the Company-Owned Site prior to the Term; (ii) migrated onto the Company-Owned Site as the result of the activities of a third party; or (iii) are present on the Company-Owned Site as the result of Company's improper actions.

1. For the purposes of this Attachment K (Company-Owned Site): (A) "Phase I Environmental Assessment" means an environmental assessment and report prepared by a qualified environmental professional reasonably acceptable to Company that meets or exceeds the minimum requirements outlined in the then current version of the American Society of Testing and Materials Standard E 1527-00 (Standard Practice of Environmental Site Assessments: Phase I Environmental Site Assessment Process); and (B) "Phase II Environmental Assessment" means an environmental assessment and report prepared by a qualified environmental professional reasonably acceptable to Company that goes beyond the investigations of a Phase I Environmental Assessment and involves sampling and testing of the Company-Owned Site, including (1) an asbestos survey conducted according to the standards of the Asbestos Hazard Emergency Response Act protocol; (2) testing of any transformers on the Company-Owned Site for PCBs; (3) testing for lead based paints; (4) soil and groundwater sampling to measure the effect of any actual or suspected release or discharge of Hazardous Substances on the Company-Owned Site; and (5) such other sampling and testing reasonably necessary to determine the environmental condition of the Company-Owned Site.
2. For the purposes of this Attachment K (Company-Owned Site), "Hazardous Substances" shall include flammable substances, explosives, radioactive materials, asbestos, asbestos-containing materials, polychlorinated biphenyls, chemicals known to cause cancer or reproductive toxicity, pollutants, contaminants, hazardous wastes, medical wastes, toxic substances or

related materials, petroleum and petroleum products, and any “hazardous” or “toxic” material, substance or waste that is defined by those or similar terms or is regulated as such under any Laws, including any material, substance or waste that is: (A) defined as a “hazardous substance” under Section 311 of the Water Pollution Control Act (33 U.S.C. §1317), as amended; (B) defined as a “hazardous waste” under Section 1004 of the Resource Conservation and Recovery Act of 1976, 42 U.S.C. §6901, et seq., as amended; (C) defined as a “hazardous substance” or “hazardous waste” under Section 101 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Reauthorization Act of 1986, 42 U.S.C. §9601 et seq. or any so-called “superfund” or “superlien” law; (D) defined as a “pollutant” or “contaminant” under 42 U.S.C. §9601(33); (E) defined as “hazardous waste” under 40 C.F.R. Part 260; (F) defined as a “hazardous chemical” under 29 C.F.R. Part 1910; or (G) subject to any other Laws regulating, relating to or imposing obligations, liability or standards of conduct concerning protection of human health, plant life, animal life, natural resources, property or the enjoyment of life or property free from the presence in the environment of any solid, liquid, gas, odor or any form of energy from whatever source.

- B. **Compliance with Environmental Law.** Subscriber Organization shall keep and maintain the Company-Owned Site, including the land, the air above the land, the surface and run-off water on the land, and the groundwater under the land, in compliance with, and shall not cause or permit the Company-Owned Site or any portion of the Company-Owned Site to be in violation of any Laws regarding: (i) air, environmental, ground water, soil conditions, or threatened or endangered species; or (ii) clean-up, control, disposal, generation, storage, release, transportation, or use of, or liability or standards of conduct concerning, Hazardous Substances (“Environmental Law”).
- C. **Use of Hazardous Substances.** Subscriber Organization shall not cause or allow any deposit, discharge, generation, release, or spill of Hazardous Substances at or from the Company-Owned Site, or that arises at any time from Subscriber Organization’s operation of the Facility or any activities conducted on the Company-Owned Site or any adjacent or nearby real property, or resulting from seepage, leakage, or other transmission of Hazardous Substances from other real property to the Company-Owned Site, whether or not caused by Subscriber Organization or the Company and whether occurring before or after the Effective Date (“Hazardous Substances Discharge”), except (i) in the ordinary course of Subscriber Organization’s business (ii) in accordance with the instructions of the manufacturer and for the purpose described in such instructions, and (iii) in strict compliance with all applicable Environmental Law. Subscriber Organization shall not install or remove any tank or combination of tanks (including pipes connected to the tanks) used to contain an accumulation of Hazardous Substances, and the volume of which (including the volume of the underground pipes connected to the tanks) is ten percent or more beneath the surface of the ground (“Underground Storage Tank”) on, within, under or about the Company-Owned Site without first obtaining Company’s written approval. Subscriber Organization shall not accept hazardous waste (as defined under any Environmental Law) generated off the Company-Owned Site for any purpose, including treatment, storage or disposal.
- D. **List of Hazardous Substances.** On the Effective Date and on each anniversary of the Effective Date, and at any other time Company requests, Subscriber Organization shall provide Company with a written list identifying any Hazardous Substances then used, stored, or maintained upon the Company-Owned Site, the use and approximate quantity of each such material, a copy of any material safety data sheet (MSDS) issued by the manufacturer thereof, written information concerning the removal, transportation, and disposal of the same, and such other information as Company may reasonably require or as may be required by Law.

- E. **Notice of Disturbance of Any Hazardous Substances.** Subscriber Organization shall provide Company 30 Days' prior notice before commencing any activities, including repair or remodeling of the Facility or the Company-Owned Site or installation or removal of any personal property from the Company-Owned Site, which could result in the disturbance of any Hazardous Substances. Together with such notice, Subscriber Organization shall advise Company of protective measures to be taken by Subscriber Organization to ensure that Hazardous Substances shall not be released and to ensure compliance with Environmental Law. Subscriber Organization shall comply with all reasonable conditions (including adequate assurance of financial resources to comply with Environmental Law) that may be imposed by Company in connection with Subscriber Organization's proposed activities.
- F. **Hazardous Substances Claims.** Subscriber Organization shall immediately notify Company of: (i) any Hazardous Substances Claims (hereinafter defined); or (ii) Subscriber Organization's discovery of any occurrence or condition of the Company-Owned Site which could subject Subscriber Organization or Company to any liability, or restrictions on ownership, occupancy, transferability or use of the Company-Owned Site under any Environmental Law. For the purposes of this Attachment K (Company-Owned Site), "Hazardous Substances Claims" shall mean (i) any actual, alleged or threatened Hazardous Substances Discharge; (ii) any and all enforcement, cleanup, removal, mitigation, remediation or other government actions instituted, contemplated or threatened pursuant to Environmental Law affecting the Company-Owned Site; and (iii) all claims made or threatened by any third party against Subscriber Organization or the Company-Owned Site relating to damage, contribution, cost recovery, compensation, loss or injury resulting from any Hazardous Substances.
- G. **Remediation and Removal.** Except for the use of Hazardous Substances permitted by this Attachment K (Company-Owned Site), Subscriber Organization shall cause any Hazardous Substances Discharge to be: (i) remediated on-site in accordance with applicable Environmental Law; or (ii) removed from the Company-Owned Site for remediation or disposal and to be transported solely by duly licensed Hazardous Substances transporters to duly licensed disposal facilities for final disposition to the extent required by and in accordance with applicable Environmental Law. Subscriber Organization shall deliver to Company copies of any hazardous waste manifest reflecting the proper disposition of such Hazardous Substances. Except in emergencies or as otherwise required by Law, Subscriber Organization shall not take any remedial or removal action in response to a Hazardous Substances Discharge without first notifying Company.
- H. **Proceedings on Hazardous Substances Claims; Indemnity.** Subscriber Organization shall not enter into any legal proceeding or other action, settlement, consent decree or other compromise with respect to any Hazardous Substances Claims without first notifying Company of Subscriber Organization's intention to do so and affording Company the opportunity to join and participate as a party if Company so elects in such proceedings. Subscriber Organization shall be solely responsible for and shall indemnify Company against any Hazardous Substances Claims, including: (i) the costs of any required or necessary removal, repair, cleanup or remediation of the Company-Owned Site, and the preparation and implementation of any closure, removal, remedial or other required plans; and (ii) all reasonable costs and expenses incurred by Company in connection therewith, including legal costs.
- I. **Assurance of Performance.**
1. **Company's Phase II Environmental Assessment.** Company may, but shall not be required to, engage such contractors as Company determines to be appropriate to perform from time to time a Phase II Environmental Assessment, including environmental sampling and testing, of: (A) the Company-Owned Site, the surrounding soil and any adjacent areas, and any ground

water located under or surface water located adjacent to the Company-Owned Site or any adjoining property; (B) Subscriber Organization's compliance with all Environmental Law and the provisions of this Attachment K (Company-Owned Site); and (C) the provisions made by Subscriber Organization for carrying out any removal or remedial action that may be required by reason of the nature of Subscriber Organization's business and operations on the Company-Owned Site.

2. **Cost of Assessment.** All costs and expenses incurred by Company in connection with any such Phase II Environmental Assessment shall be paid by Company, except that if any such Phase II Environmental Assessment shows that: (A) the environmental condition of the Company-Owned Site has materially declined in comparison to any Baseline Assessment; (B) Subscriber Organization has failed to comply with the provisions of this Attachment K (Company-Owned Site) with respect to Hazardous Substances; (C) the Company-Owned Site (including surrounding soil and any underlying groundwater or adjacent surface water) has become contaminated due to operations or activities not attributable to the Company; or (D) an event that is the basis for a Hazardous Substances Claim occurred during the Term, then all of the costs and expenses of such assessment shall be paid by Subscriber Organization.
3. **Conducting Assessment.** Each Phase II Environmental Assessment shall be conducted: (A) only after advance notice of such assessment has been provided to Subscriber Organization at least 10 Days prior to the date of the assessment; and (B) in a manner reasonably designed to minimize the interruption of Subscriber Organization's operations and use of the Company-Owned Site. Company shall repair any substantial damage to the Company-Owned Site or to the Facility that is directly caused by Company (but not the environmental consultant) during the Phase II Environmental Assessment.

**J. Subscriber Organization's Obligations Prior to End of Term.**

1. **Subscriber Organization's Phase I and Phase II Environmental Assessment Deposit.** No later than 18 months prior to the date upon which this Contract terminates, i.e., the end of the Term, Subscriber Organization shall deposit with Company a sum equal to the then current estimated cost of conducting a Phase I and Phase II Environmental Assessment of the Company-Owned Site. Company shall hold such sum for Subscriber Organization and shall apply or reimburse such sum as provided in this section.
2. **Phase I (or Phase II) Environmental Assessment.**
  - a. No later than the beginning of the last year of the Term, or immediately upon earlier termination of the Term, Company shall cause a Phase I Environmental Assessment of the Company-Owned Site to be conducted and may apply the sums previously deposited by Subscriber Organization to pay for such assessment.. If the assessment costs more than the amount of the deposit, Subscriber Organization shall pay to Company, upon demand, the difference. If the assessment costs less than the amount of the deposit, and if the Phase I Environmental Assessment does not identify areas of concern that in Company's reasonable judgment indicate that further investigation is required, Company shall, no later than 30 Days after payment in full of the cost of the Phase I Environmental Assessment, return to Subscriber Organization a sum equal to the amount by which the deposit exceeds the actual costs of such assessment. In addition, no later than the end of the Term, Subscriber Organization shall (1) cause all Hazardous Substances previously owned, stored or used by Subscriber Organization to be removed from the Company-Owned Site and disposed of in accordance with all Environmental Law; and (2) remove any Underground Storage Tanks or other containers installed or used by Subscriber Organization to store any

Hazardous Substances on the Company-Owned Site, and repair any damage to the Company-Owned Site caused by such removal.

- b. If Company's Phase I Environmental Assessment identifies areas of concern that in Company's reasonable judgment indicate that further investigation is required, Company shall cause a Phase II Environmental Assessment of the Company-Owned Site to be conducted and may apply the sums previously deposited by Subscriber Organization to pay for such assessment. If the assessment costs more than the amount of the deposit, Subscriber Organization shall pay to Company, upon demand, the difference. If the assessment costs less than the amount of the deposit, Company shall, no later than 30 Days after payment in full of such costs, return to Subscriber Organization a sum equal to the amount by which the deposit exceeds the actual costs of such assessment. Subscriber Organization expressly acknowledges and agrees that Subscriber Organization's covenant and obligation to pay all costs and expenses associated with any Phase II Environmental Assessment required under this section, whether commissioned by Subscriber Organization or Company, shall survive termination of this Contract.

#### K. Clean-up.

1. **Environmental Report.** If any written report containing results of any Phase I Environmental Assessment ("Environmental Report") shall: (A) reveal that the environmental condition of the Company-Owned Site has materially declined in comparison to the Baseline Assessment; or (B) Subscriber Organization has materially violated any warranty, representation, or covenant of this Attachment K (Company-Owned Site); or (C) recommend the repair, closure, remediation, removal or other clean-up (collectively, the "Clean-up") of any Hazardous Substances found on or about the Company-Owned Site, and if Company determines that Subscriber Organization is responsible for such Clean-up, then:
  - a. Company shall provide Subscriber Organization with a copy of such Environmental Report and with a written explanation of the reasons why Company believes that Subscriber Organization is responsible under the principles of this section for conducting the Clean-up identified in such Environmental Report.
  - b. If, within 30 Days after receiving a copy of such Environmental Report and such written statement, Subscriber Organization fails either (1) to complete the Clean-up, or (2) with respect to any Clean-up which cannot be completed within such 30-Day period, fails to proceed with reasonable diligence to complete such Clean-up as promptly as practicable, then Company shall have the right, but not the obligation, to carry out any Clean-up recommended by the Environmental Report or required by any Governmental Authority, and to recover all of the costs and expenses of such Clean-up from Subscriber Organization from the date Company incurred such costs and expenses until paid in full.
2. **Emergency.** If the Environmental Report reveals a situation which, in Company's sole discretion, constitutes an emergency, then Company shall have the right, but not the obligation, to carry out any Clean-up recommended by the Environmental Report or required by any Governmental Authority, and to recover all of the costs and expenses of such Clean-up from Subscriber Organization from the date Company incurred such costs and expenses until paid in full.
3. **Submission of Report to Government.** To the extent required by Laws, Company shall be entitled to submit the Environmental Report to any Governmental Authority.
4. **Completion of Clean-up Before Termination.** Subscriber Organization shall complete Clean-up prior to termination of this Contract, and shall fully comply with all Environmental

Law and requirements of any Governmental Authority over the Clean-up, including any requirement to file such assessment, mitigation plan, risk assessment or other information with any such Governmental Authority prior to such termination.

5. **Subscriber Organization's Inability to Complete.** Should any such Clean-up for which Subscriber Organization is responsible not be completed or should Subscriber Organization not receive any Approvals regarding the Company-Owned Site or areas adjacent to the Company-Owned Site required under Environmental Law prior to the expiration or sooner termination of this Contract, including any extensions of this Contract, then Subscriber Organization shall deposit with Company an amount of money equal to the balance of the estimated costs of the Clean-up.

**L. Confidentiality.**

1. **Keeping Information Confidential.** Except if required to do so by Law, or compelled by subpoena or discovery proceedings in any legal action or governmental proceeding, Subscriber Organization agrees that Subscriber Organization shall not disclose, discuss, disseminate or copy any information, data, findings, communications, conclusions and reports regarding the environmental condition of the Company-Owned Site, to any person, including any Governmental Authority, without the prior written consent of Company. Upon completion of any Clean-up of the Company-Owned Site, Subscriber Organization shall deliver and return to Company, all information, data, findings, communications, conclusions and reports regarding the environmental condition of the Company-Owned Site whether provided to Subscriber Organization by Company or not.
2. **Scope of Obligation.** Subscriber Organization's obligation to maintain the confidentiality of all information, data, findings, communications, conclusions and reports regarding the environmental condition of the Company-Owned Site, include but are not limited to Subscriber Organization's officers, employees, agents, attorneys, environmental consultants and contractors. Subscriber Organization's obligation to maintain the confidentiality of all information, data, findings, communications, conclusions and reports regarding the environmental condition of the Company-Owned Site, shall survive the termination of this Contract.

- M. Copies of Environmental Reports.** Subscriber Organization shall provide Company with a copy of any and all environmental assessments, audits, studies and reports regarding Subscriber Organization's past or current activities on the Company-Owned Site or the environmental condition of the Company-Owned Site within 30 Days of Subscriber Organization's receipt of such materials. Subscriber Organization shall be obligated to provide Company with a copy of such materials without regard to whether they are generated by Subscriber Organization or prepared for Subscriber Organization, or how Subscriber Organization comes into possession of such materials.

- N. Survival of Contracts.** The covenants of this section, including the indemnification provision, shall survive the expiration or termination of this Contract, or any termination of Subscriber Organization's utilization of the Company-Owned Site.

**8. Archeological and Historical Items.**

- A. Discovery of Items.** In the event any human remains, artifacts, historical items, or any of them (collectively the "Discovered Items") are discovered on the Company-Owned Site, Subscriber Organization shall, at Subscriber Organization's sole expense and subject to the approval of Company, be responsible to: (i) cause all excavation in the immediate area which may damage the Discovered Items and the potential historic site to cease; (ii) cause the site to be stabilized and secured to temporarily protect the Discovered Items against damage, theft, or both; (iii) cause the



Discovered Items to be left untouched so that their archaeological or historical context may be accurately documented; and (iv) cause the discovery to be reported immediately to Company and to Governmental Authorities as required by applicable Laws. If the artifacts or historical items are found without human remains, and leaving the artifacts or historical items in their stabilized and secured site poses a substantial risk of loss or damage to all or part of them, and their removal is therefore necessary, Subscriber Organization shall cause such removal and shall cause any tampering with the artifacts, the historical items, and the site to be minimized as much as possible.

- B. **Human Remains.** In the case of the discovery of human remains, Subscriber Organization shall, at Subscriber Organization's sole expense and in addition to the duties set forth in this section, cause to be prepared and executed a mitigation plan acceptable to Company and to Governmental Authorities possessing jurisdiction over such matters. Subscriber Organization shall also be responsible to obtain written verification that the mitigation plan has been successfully implemented.
- C. **Company's Reservation.** If any Discovered Items are discovered, then Company shall have the right at all reasonable times to enter the Company-Owned Site upon reasonable notice for the purposes of searching for, exploring for, and removing any of the Discovered Items for preservation as permitted by applicable Laws. All objects, antiquities and specimens of Hawaiian or other ancient art or handicraft or of prehistoric, historic or archaeological interest found on the Company-Owned Site belong to and at all times shall remain the property of Company.
- D. **No Studies by Subscriber Organization.** No archaeological studies or historic preservation studies may be sought to be conducted in or on the Company-Owned Site by Subscriber Organization or anyone acting by or through Subscriber Organization. If Subscriber Organization wishes to conduct such studies, or if Subscriber Organization is required by applicable Laws to permit such studies (Subscriber Organization to provide bases for conclusion that such Laws mandate any such requested studies), Subscriber Organization shall obtain Company's prior written consent and shall permit Company, at its option, to commission such studies as required, or Company may permit Subscriber Organization to commission such studies provided that Subscriber Organization shall provide Company with prior notice of the commencement of such studies. If Subscriber Organization commissions such studies, Subscriber Organization shall upon completion of such studies cause a complete copy of the results of such studies to be provided to Company at the earliest opportunity but no later than 15 days after its issuance.

## 9. Transfers.

- A. **Company's Right to Convey.** Company may transfer title to the Company-Owned Site from time to time at any time without prior notice to, or consent from, Subscriber Organization, provided that any such transfer is subject to Subscriber Organization's right to utilize the Company-Owned Site under this Contract. Company will promptly notify Subscriber Organization of such a transfer.
- B. **Subscriber Organization's Limited Right.** Subscriber Organization may only transfer the rights to utilize the Company-Owned Site under this Attachment K (Company-Owned Site) to a permitted assignee of all of the rights and obligations of the Subscriber Organization under this Contract. Any attempt by Subscriber Organization to separately transfer the rights to utilize the Company-Owned Site under this Attachment K (Company-Owned Site) shall be void. Any permitted assignee of Subscriber Organization shall assume all obligations and liabilities of Subscriber Organization under this Attachment K (Company-Owned Site). No transfer shall affect any obligations of Subscriber Organization or rights of Company under this Attachment K (Company-Owned Site).

## 10. End of Term.

- A. **Improvements.** Upon the termination of this Contract, or in the event this Contract is declared null and void under the Null and Void Rights of this Contract (“Contract Termination”), at Company’s option: (i) all improvements on the Company-Owned Site shall become Company’s property; or (ii) Subscriber Organization shall, at its sole cost and expense, remove all Subscriber Organization-constructed improvements, including the Facility, the Company-Owned Interconnection Facilities and the Subscriber Organization-Owned Interconnection Facilities (“Improvements”) from the Company-Owned Site, and, in conjunction with such removal, shall develop and implement a program to recycle, to the fullest extent possible, or to otherwise properly dispose of, all such removed infrastructure.
- B. **Subscriber Organization’s Removal of Improvements.** If Subscriber Organization is required to remove the Improvements upon Contract Termination, Subscriber Organization shall have reasonable access to the Company-Owned Site for a period of up to 90 Days after termination of this Contract to dismantle, pack and remove the Improvements from the Company-Owned Site (the “Removal Period”). Subscriber Organization shall work promptly and diligently to remove the Improvements. The Removal Period shall end upon Subscriber Organization’s completion of removal of the Improvements from the Company-Owned Site. The terms and provisions of this Contract shall apply during the Removal Period, including Subscriber Organization’s obligations to provide insurance and to indemnify Company.
- C. **Company’s Removal of Improvements.** If Company determines that Subscriber Organization is not making diligent efforts to remove the Improvements, or if Company has operational concerns over the removal of the Improvements, Company shall notify Subscriber Organization of Company’s intention to remove the Improvements at Subscriber Organization’s cost. Company shall notify Subscriber Organization of Company’s election to have Subscriber Organization remove the Improvements not later than 90 Days before the end of the Term.
- D. **Restoration of the Company-Owned Site.** After Contract Termination and removal of Subscriber Organization’s Improvements by Subscriber Organization or by Company, as the case may be, Subscriber Organization shall, at its sole cost and expense, restore the Company-Owned Site to its condition prior to Subscriber Organization’s Construction. Restoration pursuant to this Section shall be completed within 90 Days of Contract Termination, or as otherwise agreed to by both Parties in writing.
- E. **Assignment of Rights.** If Company exercise its option under Section 10A. (Improvements) of this Attachment K (Company-Owned Site) to take title to the Improvements, Subscriber Organization shall assign to Company, without recourse, and give Company copies or originals of, all assignable licenses, permits, contracts, warranties, and guarantees then in effect for the Facility.
- F. **Orderly Transition.** The parties shall cooperate to achieve an orderly transition of operations from Subscriber Organization to Company without interruption, including delivery of such books and records (or copies thereof) as Company reasonably requires.

## 11. Miscellaneous.

- A. **Modification.** The parties reserve the right to modify this Attachment K (Company-Owned Site) by mutual Contract set forth in writing. Such modifications shall not be considered amendments to this Contract requiring PUC approval.
- B. **Security.** Subscriber Organization acknowledges and agrees that Subscriber Organization’s performance under this Attachment K (Company-Owned Site) is secured by both the Development Period Security and the Operating Period Security. Any costs and expenses due to Company, or reimbursable to Company, may at Company’s option, be paid or reimbursed to Company from the applicable Development Period Security or Operating Period Security.

- C. **Confidential Information.** Without limitation of the obligations set forth elsewhere in this Contract, each party (including its officers, directors, employees, representatives, brokers, attorneys and advisers) shall, except as otherwise provided by applicable Laws, or in connection with proceedings before the State of Hawaii Public Utilities Commission or other Governmental Authority with jurisdiction over the Company-Owned Site or this Contract, or in connection with the evaluation for financing, or as part of disclosure to its affiliates, attorneys, consultants, and advisers in order to conduct its business or proceedings to enforce this Attachment K (Company-Owned Site) or this Contract, keep the contents of this Attachment K (Company-Owned Site) and any information related to the Company-Owned Site, Subscriber Organization and the Subscriber Organization's utilization of the Company-Owned Site pursuant to this Attachment K (Company-Owned Site) confidential, whether or not marked as "confidential" (collectively, the "Confidential Information"). The Confidential Information shall not include any information publicly known, or which becomes publicly known, other than through the acts of a party to the Contract, or any of their respective officers, directors, employees, representatives, brokers, attorneys or advisers. Subscriber Organization may retain possession of all or any part of the Confidential Information to the extent such Confidential Information relates solely to the Facility and Subscriber Organization's operation of the Facility.
- D. **No Real Property Interest Conveyed.** Notwithstanding anything to the contrary contained herein, this Contract shall not result in the conveyance or transfer to Subscriber Organization, directly or indirectly, expressly or impliedly, or give rise to, any real property right, title, or interest.

**DRAFTING NOTES:**

1. **ATTACHMENT K MAY BE REVISED TO ACCOUNT FOR MATTERS SUCH AS THE SPECIFICS OF THE SITE IN QUESTION, SUBSCRIBER ORGANIZATION'S FACILITY AND ANY NECESSARY ACCESS ARRANGEMENTS THROUGH COMPANY'S FACILITIES.**
2. **PROVISIONS OF THE CONTRACT CONCERNING MATTERS SUCH AS LAND RIGHTS, SCOPE OF INDEMNIFICATION AND DRAWS UPON DEVELOPMENT PERIOD SECURITY OR OPERATING PERIOD SECURITY WILL BE REVISED TO ACCOUNT FOR ATTACHMENT K.**

**EXHIBIT K-1**  
**SITE PLAN**

**[TO BE DETERMINED]**

## *Attachment 2*

### *DC-Coupled Storage*

## ATTACHMENT 2 DC-COUPLED STORAGE

This Attachment 2 - DC COUPLED STORAGE sets forth the modifications to the MID-TIER STANDARD FORM CONTRACT for Renewable Dispatchable Generation (PV+BESS) for projects designed with a single Inverter System (as defined below) such that the PV System and BESS are "DC Coupled."

1. **Deletion of Defined Term.** Definition of "PV System Equivalent Availability Factor Performance Metric" will be deleted from the Schedule of Defined Terms.

2. **Addition of New Defined Terms.** The following will be added to the Schedule of Defined of Terms:

"Inverter System": The electric DC to AC and AC to DC power conversion equipment as more particularly described in Section 5 of Exhibit F-1 (Description of Generation and Storage Facility).

"Inverter System Equivalent Availability Factor": Shall have the meaning set forth in Section 1. A (Calculation of the Inverter System Equivalent Availability Factor) of Attachment C (Required Performance Metrics; Liquidated Damages).

"Inverter System Equivalent Availability Factor Performance Metric": Shall have the meaning set forth in Section 1. B (Inverter System Equivalent Availability Factor Performance Metric and Liquidated Damages) of Attachment C (Required Performance Metrics; Liquidated Damages).

3. **Revisions to Defined Term.** The definition in the Scheduled of Defined Terms for the following is revised to read as follows:

"CBRE Facility": Subscriber Organization's renewable electric energy facility that is the subject of this Contract, including the PV System, Inverter System, the BESS, all Subscriber Organization-Owned Interconnection Facilities and all other equipment, devices, associated appurtenances owned, controlled, operated and managed by Subscriber Organization in connection with, or to facilitate, the production, generation, storage, transmission, delivery or furnishing by Subscriber Organization of, electric energy to Company and required to interconnect with the Company System.

4. **Global Changes.**

- All references in the Contract to "PV System Equivalent Availability Factor" will be changed to "Inverter System Equivalent Availability Factor".
- All references in the Contract to the "PV System Equivalent Availability Factor Performance Metric" will be changed to "Inverter System Equivalent Availability Factor Performance Metric".

5. **Contract Section 4.C.** This Section is revised to read as follows:

4. C. Assurance of Capability of CBRE Facility to Deliver Net Energy Potential and Availability of BESS. In order to provide Company with reasonable assurance that, subject to the Renewable Resource Variability, the CBRE Facility's Net Energy Potential will be available for Company Dispatch: (i) the Inverter System Equivalent Availability Factor Performance Metric shall be used to evaluate the availability of the Inverter System for dispatch by Company; (ii) the Guaranteed Performance Ratio

("GPR") Performance Metric shall be used to evaluate the efficiency of the PV System; (iii) the BESS Capacity Performance Metric shall be used to confirm the capability of the BESS to discharge continuously for four (4) hours at Maximum Rated Output or to discharge continuously for a total energy (MWh) equal to the BESS Contract Capacity if the test is conducted at less than Maximum Rated Output; (iv) the BESS EAF Performance Metric shall be used to determine whether the BESS is meeting its expected availability; (v) the BESS EFOF Performance Metric shall be used to evaluate whether the BESS is experiencing excessive unplanned outages; and (vi) the RTE Performance Metric shall be used to evaluate the storage efficiency of the BESS. Whenever the PV System potential output is in excess of the Company Dispatch, the excess energy from the PV System shall be used to maximize the BESS State of Charge so long as this does not conflict with the operating parameters of the BESS set forth in Section 9.D. (Battery Energy Storage System) of Attachment F (Facility Owned by Subscriber Organization) to this Contract. Subscriber Organization shall design, operate and maintain the CBRE Facility in a manner consistent with the standard of care reasonably expected of an experienced owner/operator with the desire and financial resources necessary to design, operate and maintain the CBRE Facility to achieve the Performance Metrics. The foregoing is without limitation to Subscriber Organization's other obligations under this Contract, including the obligation to operate the CBRE Facility in accordance with Good Engineering and Operating Practices. The Performance Metrics are set forth in Attachment C (Required Performance Metrics; Liquidated Damages) of this Contract and shall be interpreted consistent with the North American Electric Reliability Corporation Generating Availability Data System ("NERC GADS") Data Reporting Instructions.

**6. Attachment C (Required Performance Metrics; Liquidated Damages) Section 1. is revised to read as follows:**

**1. INVERTER SYSTEM EQUIVALENT AVAILABILITY FACTOR; LIQUIDATED DAMAGES; TERMINATION RIGHTS.**

A. Calculation of the Inverter System Equivalent Availability Factor. Following the end of each LD Period, the Inverter System Equivalent Availability Factor shall be calculated for such LD Period as follows:

$$\text{Inverter System Equivalent Availability Factor} = 100\% \times \frac{AH - EDH}{PH}$$

where:

Period Hours (PH) is the total number of hours in the LD Period counting twenty-four (24) hours per day. In a normal year, PH = 8,760 and in a leap year PH = 8,784 .

Available Hours (AH) is the number of hours that the Inverter System is not on Outage. It is the sum of all Service Hours (SH) + Reserve Shutdown Hours (RSH).

An "Inverter System Outage" exists whenever the entire Inverter System is not online producing electric energy and is not in a Reserve Shutdown state.

Inverter System Service Hours (SH) is the number of hours during the LD Period the Inverter System is online and producing or consuming electric energy to meet Company Dispatch.

Inverter System Reserve Shutdown Hours (RSH) is the number of hours the Inverter System was available to the Company System but not converting electric energy or is offline at the Company's request for reasons other than Subscriber Organization-Attributable Non-Generation or the measured

plane of array irradiance is below the inverter manufacturer's minimum irradiance level for production. All hours between 7:00 pm and 6:00 am will be considered RSH. The Inverter System will be considered RSH in these hours, even if the system would otherwise be in an outage or derated state. A BESS Outage or Derating can exist due to an Inverter System Outage or Derating during Inverter System Reserve Shutdown Hours and the effect of such Inverter System Outage or Derating on the BESS Availability shall be included when calculating the BESS Annual Equivalent Availability Factor in accordance with Attachment H (BESS Annual Equivalent Availability Factor).

An "Inverter System Derating" exists if the Inverter System is available for Company Dispatch, but at less than full potential output for the given irradiance and BESS conditions, including deratings due to Subscriber Organization-Attributable Non-Generation. For avoidance of doubt, if there is an Inverter System Outage there cannot also be an Inverter System Derating.

Equivalent Derated Hours (EDH) is the sum of ESADH, EPDH, and EUDH. For deratings due to inverter unavailability, the equivalent full outage hour(s) are calculated by multiplying the actual duration of the derating (hours) by the number of inverters in the Inverter System unavailable and dividing by the total number of inverters in the Inverter System. For deratings, that do not impact the availability of an entire inverter or set of entire inverters, the equivalent full outage hour(s) are calculated by multiplying the actual duration of the derating (hours) by the size of the derating (in MW) divided by the Contract Capacity.

Equivalent Subscriber Organization-Attributable Derated Hours (ESADH): A Subscriber Organization-Attributable Derating occurs when there is an Inverter System Derating, due to Subscriber Organization-Attributable Non-Generation or deratings by Company pursuant to Section 5.C (Company Rights of Dispatch). Each individual derating is transformed into equivalent full outage hour(s). These equivalent hour(s) are then summed.

Equivalent Planned Derated Hours (EPDH) includes Planned Deratings (PD) and Maintenance Deratings (D4). A Planned Derating is when the Inverter System experiences a derating scheduled well in advance and for a predetermined duration. A Maintenance Derating is a derating that can be deferred beyond the end of the next weekend (Sunday at midnight or before Sunday turns into Monday) but requires a reduction in capacity before the next Planned Derating (PD). Each individual derating is transformed into equivalent full outage hour(s). These equivalent hour(s) are then summed.

Equivalent Unplanned Derated Hours (EUDH): An Unplanned Derating (Forced Derating) occurs when the Inverter System experiences a derating that requires a reduction in availability before the end of the nearest following weekend. Each individual Unplanned Derating is transformed into equivalent full outage hour(s). These equivalent hour(s) are then summed.

The effect of Force Majeure is taken into account in calculating the Inverter System Equivalent Availability Factor over the 12 calendar month LD Period as follows: When an LD Period contains any hours in a month during which the Inverter System or a portion of the Inverter System is unavailable due to Force Majeure, then such month shall be excluded from the LD Period and the LD Period shall be extended back in time to include the data used to calculate the Inverter System Equivalent Availability Factor from the next previous month during which there was no such unavailability of the Inverter System or a portion thereof due to Force Majeure. This means the Inverter System Equivalent Availability Factor would not change from that determined in the month directly preceding a month containing Force Majeure.

EXAMPLE: The following is an example of an Inverter System Equivalent Availability Factor calculation and is included for illustrative purposes only. Assume the following:



- Inverter System has 10 inverters and the Facility has a Contract Capacity of 30 MWs.
- LD Period = first 12 calendar months of the Contract (non-leap year).
- Inverter System was online and producing electric energy for 8,015 hours and was available but not producing electric energy due to lack of sufficient irradiance and BESS SOC for production for 500 hours.
- 3 Inverters were offline for 100 hours due to a Planned Derating.
- 2 Inverters were offline for 50 hours due to an Unplanned Derating.
- The Inverter System had a 3 MW derating for 100 hours due to Subscriber Organization-Attributable Non-Generation.

The Inverter System Equivalent Availability Factor would be calculated as follows:

$$PH = 8,760 \text{ hours in 12 calendar months}$$

$$SH = 8,015 \text{ hours}$$

$$RSH = 500 \text{ hours}$$

$$AH = SH + RSH = 8,015 \text{ hours} + 500 \text{ hours} = 8,515 \text{ hours}$$

$$ESADH = 100 \text{ hours} \times \left( \frac{3 \text{ MW}}{30 \text{ MW}} \right) = 10 \text{ hours}$$

$$EPDH = 100 \text{ hours} \times \left( \frac{3 \text{ inverters}}{10 \text{ inverters}} \right) = 30 \text{ hours}$$

$$EUDH = 50 \text{ hours} \times \left( \frac{2 \text{ inverters}}{10 \text{ inverters}} \right) = 10 \text{ hours}$$

$$EDH = ESADH + EPDH + EUDH = 10 \text{ hours} + 30 \text{ hours} + 10 \text{ hours} = 50 \text{ hours}$$

$$EAF = 100\% \times \frac{8,515 - 50}{8,760} = 96.6\%$$

B. Inverter System Equivalent Availability Factor Performance Metric and Liquidated Damages. For each LD Period, a Inverter System Equivalent Availability Factor shall be calculated as provided in accordance with Section 1.A. (Calculation of Inverter System Equivalent Availability Factor) of Attachment C to this Contract. In the event the Inverter System Equivalent Availability Factor is less than 98% (the "Inverter System Equivalent Availability Factor Performance Metric") for any LD Period, Subscriber Organization shall be subject to liquidated damages as set forth in this Section 1.B (Inverter System Equivalent Availability Factor Performance Metric and Liquidated Damages). For avoidance of doubt, because the Inverter System Equivalent Availability Factor is calculated over an LD Period of 12 calendar months, the first month for which liquidated damages would be calculated

under this Section 1.B. (Inverter System Equivalent Availability Factor Performance Metric and Liquidated Damages) would be the last calendar month of the initial Contract Year. If the Inverter System Equivalent Availability Factor for a LD Period is less than the Inverter System Equivalent Availability Factor Performance Metric, Subscriber Organization shall pay, in accordance with Attachment C, Section 8. (Payment of Liquidated Damages for Failure to Achieve Performance Metrics; Limitation on Liquidated Damages), and Company shall accept, as liquidated damages for Subscriber Organization's failure to achieve the Inverter System Equivalent Availability Factor Performance Metric for such LD Period, an amount calculated in accordance with the following formula:

<u>Inverter System Equivalent Availability Factor</u>	<u>Amount of Liquidated Damages Per Calendar Month</u>
<b>97.9% and below</b>	For each one-tenth of one percent (0.001) by which the Inverter System Equivalent Availability Factor for such LD Period falls below the Inverter System Equivalent Availability Factor Performance Metric, an amount equal to 0.001917 of the Applicable Period Lump Sum Payment for the last calendar month of such LD Period.

For purposes of determining liquidated damages under the preceding formula, the amount by which the Inverter System Equivalent Availability Factor for the LD Period in question falls below the applicable threshold shall be rounded to the nearest one-tenth of one percent (0.001). Each Party agrees and acknowledges that (i) the damages that Company would incur if the Subscriber Organization fails to achieve the Inverter System Equivalent Availability Factor Performance Metric for a LD Period would be difficult or impossible to calculate with certainty and (ii) the aforesaid liquidated damages are an appropriate approximation of such damages.

EXAMPLE: The following is an example calculation of liquidated damages for the Inverter System Equivalent Availability Factor Performance Metric and is included for illustrative purposes only. Assume the monthly Lump Sum Payment is \$1,000,000 and the Inverter System Equivalent Availability Factor is 96.6% as calculated in the example in Section 1.A. (Calculation of the Inverter System Equivalent Availability Factor) above.

The liquidated damages would be calculated as follows:

Applicable Period Lump Sum Payment = \$1,000,000

$\$1,000,000 \times .001917 = \$1,917$

$98.0\% - 96.6\% = 1.4\%$

$1.4\% / 0.1\% = 14$

$\$1,917 \times 14 = \$26,838$

C. Inverter System Equivalent Availability Factor Termination Rights. The Parties acknowledge that, although the intent of the liquidated damages payable under Section 1.B. (Inverter System Equivalent Availability Factor Performance Metric and Liquidated Damages) is to compensate Company for the damages that Company would incur if the Subscriber Organization fails to achieve the Inverter System Equivalent Availability Factor Performance Metric for a LD Period, such liquidated damages are not intended to compensate Company for the damages that Company would incur if a pattern of

underperformance establishes a reasonable expectation that the Inverter System is likely to continue to substantially underperform the Inverter System Equivalent Availability Factor Performance Metric. Accordingly, and without limitation to Company's rights under said Section 1.B.) (Inverter System Equivalent Availability Factor Performance Metric and Liquidated Damages) for those LD Periods during which the Subscriber Organization failed to achieve the Inverter System Equivalent Availability Factor Performance Metric, the failure of the Facility to achieve a Inverter System Equivalent Availability Factor of not less than **84%** for each of three consecutive Contract Years shall constitute an Event of Default under the Contract for which Company shall have the rights (including but not limited to the termination rights) set forth in Section 13. (Events of Default) and Section 15. (Damages in the Event of Termination by Company) of the Contract.

7. **Cross references elsewhere in the Contract to Attachment C, Section 1.A. and Section 1.B. All Cross-References elsewhere in the Contract to any of Attachment C, Sections 1.A. and 1.B. are corrected to reflect the revised captions for those Sections as set forth above.**
8. **Attachment C, Section 2. (Measured Performance Ratio; Liquidated Damages; Termination Rights) is revised to read as follows:**

**2. MEASURED PERFORMANCE RATIO; LIQUIDATED DAMAGES; TERMINATION RIGHTS**

**A. Calculation of Measured Performance Ratio.**

1. The Measured Performance Ratio ("**MPR**") represents the PV System's measured power output compared to its theoretical DC power output as adjusted for the plane of array irradiance and weather conditions measured at the Site. The net PV System output in MW will be measured at such points mutually agreed to by the Parties on the Facility's single-line diagram attached hereto as Attachment F, Exhibit F-5 (Single-Line Drawing and Interface Block Diagram).

- Following the end of each MPR Assessment Period, the MPR shall be calculated for such MPR Assessment Period (using the previous 12 months of data) as follows:

$$MPR_{corr} = \frac{\sum_i P_{AC\_i} + \sum_i P_{DC\_i}}{\sum_i \left[ P_{DC\_STC} \left( \frac{G_{POA\_i}}{G_{STC}} \right) \left( 1 - \frac{\delta}{100} (T_{cell\_typ\_avg} - T_{cell\_i}) \right) \right]}$$

Where:

$i$  = each 15-minute interval during the MPR Assessment Period where the conditions set forth in Section 2.A.1. are met.

$P_{AC\_i}$  is the active power output of the PV System measured at the POI averaged over time period  $i$  (MW)

$P_{DC\_i}$  is the measured power output of the PV System measured at the input to the BESS charging system averaged over time period  $i$  (MW)

$G_{STC}$  = plane of array irradiance at the standard condition of  $1,000 \text{ W/m}^2$

$P_{DC\_STC}$  is the DC rated capacity of the PV System at the standard test conditions of  $1,000 \text{ W/m}^2$  and  $25^\circ\text{C}$  (MW), (i.e., the DC power rating of the PV panels at standard test conditions multiplied by the number of PV panels in the Facility);

$G_{POA_i}$  is the measured plane of array irradiance averaged over time period  $i$  ( $W/m^2$ );

$T_{cell\_i}$  = cell temperature computed from measured meteorological data averaged over time period  $i$  using the equation provided below. ( $^{\circ}C$ )

$T_{cell\_typ\_avg}$  = annual average irradiance-weighted cell temperature computed from one year of weather data using the GPR Performance Metric weather file and the equation below. ( $^{\circ}C$ ) Calculated once per GPR.

$\delta$  = temperature coefficient for power ( $\%/^{\circ}C$ , negative in sign) that corresponds to the installed photovoltaic modules

$$T_{cell\_typ\_avg} = \frac{\sum_j [G_{POA\_typ\_j} \times T_{cell\_typ\_j}]}{\sum_j G_{POA\_typ\_j}}$$

Where:

$j$  = each hour of the year in the GPR Performance Metric weather file (hours 1-8760)

$G_{POA\_typ\_j}$  = Plane of array irradiance for each hour of the year determined from the GPR Performance Metric weather file and tracker orientation. This irradiance is zero (0) when the sun is not up. ( $W/m^2$ )

$T_{cell\_typ\_j}$  = calculated cell operating temperature for each hour of the year. Computed using the equation for  $T_{cell\_i}$  below but using the GPR Performance Metric weather file for the weather variables in the equation.

$$T_{cell\_i} = G_{POA_i} \times e^{(a+b \times WS_i)} + T_{a\_i} + \left( \frac{G_{POA_i}}{G_{STC}} \times dT_{cond} \right)$$

Where:

$T_{a\_i}$  = the measured ambient temperature averaged over time period  $i$  [ $^{\circ}C$ ]

$WS_i$  = the measured wind speed corrected to a measurement height of 10 meters (using the anemometer height and proper Hellmann coefficient) averaged over time period  $i$  [m/s]

$a$  = empirical constant reflecting the increase of module temperature with sunlight as presented in Table 2 below.

$b$  = empirical constant reflecting the effect of wind speed on the module temperature as presented in Table 2 below [s/m]

$e$  = Euler's constant and the base for the natural logarithm.

$dT_{cond}$  = conduction temperature coefficient from module to cell as presented in Table 2 below.

<b>Table 2. Empirical Convective Heat Transfer Coefficients Module Type</b>	<b>Mount</b>	<b><i>a</i></b>	<b><i>b</i></b>	<b><i>dT<sub>cond</sub></i></b>
Glass/cell/glass	Open rack	-3.47	-0.0594	3
Glass/cell/glass	Close-roof mount	-2.98	-0.0471	1
Glass/cell/polymer sheet	Open rack	-3.56	-0.0750	3
Glass/cell/polymer sheet	Insulated back	-2.81	-0.0455	0
Polymer/thin-film/steel	Open rack	-3.58	-0.1130	3

The time periods used in the foregoing calculation shall be only periods during which, for the entire 15-minute interval, the PV System output is allowed to convert all irradiance to gross power (whether directed to the BESS or POI) and the measured plane of array irradiance is not less than 600 W/m<sup>2</sup>. Data points that will be excluded from the calculation of the MPR are limited to data points where: (A) the G<sub>POA</sub> is below 600 W/m<sup>2</sup>, (B) G<sub>POA</sub> above the maximum threshold, (C) the Inverter System is in Reserve Shutdown, (D) when the Inverter System has a Planned or Unplanned Derating, (E) the PV System was not allowed to convert the full gross DC output to energy to deliver to the BESS and/or POI, due to Company Dispatch being less than the PV System potential at the measured irradiance and the BESS reaching its maximum State of Charge, (F) there is an Inverter System Outage, (G) the BESS is discharging, or (H) there is Force Majeure effecting the PV System. The aforementioned 15-minute intervals are fixed intervals that commence, in sequence, at the top of each hour and at 15, 30 and 45 minutes past the hour. At the end of each month, Subscriber Organization shall provide Company a report that lists all hours when such excluded data points occur (from the Facility's SCADA system as necessary) to validate the exclusion of any data points from the calculation set forth in Section 2. A., above. This information shall be validated on a monthly basis.

The effect of Force Majeure is taken into account in calculating the MPR for the MPR Assessment Period as follows: When an MPR Assessment Period contains any hours in a month during which the PV System or a portion of the PV System is unavailable due to Force Majeure, then such month shall be excluded from the MPR Assessment Period and the MPR Assessment Period shall be retroactively extended to include the next previous month during which there was no such unavailability of the PV System or a portion thereof due to Force Majeure. This means the MPR would not change from that determined in the month directly preceding a month containing Force Majeure.

B. MPR Test. In the event that the set of operational data points under Section 2.A that is available for any month to calculate the MPR cannot be validated to Company's reasonable satisfaction or in the event there were not at least 16 such data points during such month that could be used to calculate the MPR, the Company shall have the right to perform a test ("MPR Test") to collect the data points for such month to be used to calculate the MPR in lieu of the use of operational data for such month. The Company shall retain sole discretion as to when to conduct the MPR Test and the MPR Test may be conducted at any point during the month following the month for which Company was either unable to validate the set of operational data points for such month or there were not at least 16 data points available during such month, provided that Company will provide Subscriber Organization three (3) Business Days' notice prior to conducting the MPR Test. The MPR Test shall have a minimum duration of four (4) hours and shall run until at least 16 data points are collected that meet the criteria set forth in Section 2.A), subject to the limitation set forth in the last sentence of this Section 2.B. To the extent possible, the Company shall schedule the MPR Test for a period where the Inverter System and BESS are fully available and weather conditions are expected to be optimum allowing the PV System to generate at full capacity for the duration of the MPR Test (if possible). However, if Company chooses

a period where some of the Facility inverter(s) are unavailable,  $P_{DCSTC}$  shall be adjusted to account for any reduction in capability to accept energy from the PV System due to the unavailable inverter(s).

1. For each MPR Assessment Period that includes one or more months for which a MPR Test was performed, the data points collected during said MPR Test for such month(s) shall be used together with the data points for months for which an MPR Test was not conducted to calculate the MPR for the MPR Assessment Period in question using the formula set forth in Section 2.A. above. The result of the calculation based on the MPR Test shall be the MPR for the MPR Assessment Period in question.

EXAMPLE: The following is an example of a Measured Performance Ratio calculation and is included for illustrative purposes only. Assume the following:

- Facility with 120,000 panels with a standard test condition rating of 300 W
- $P_{DCSTC} = 120,000 \times 300 \text{ W} = 36 \text{ MW}$
- For illustrative purposes only, 4 hours of data which met the criteria specified in Section 2. A. have been recorded over the MPR Assessment Period. It should be noted that all available operational data that meets the criteria specified in Section 2.A.1. shall be included in the actual calculation:

Time Period	Average Measured Plane of Array Irradiance (W/m <sup>2</sup> )	Average Measured Active Power at POI (MW)	Average Measured DC Power at BESS Charging Input (MW)	Average Measured Ambient Temperature (°C)	10 Meter Elevation Average Measured Wind Speed (m/s)
1	690	16	0	27	3
2	850	2	21	26	8
...	...	...	...	...	...
i	750	19	1	29	7

$$MPR_{corr} = \frac{\sum_i P_{AC_i} + \sum_i P_{DC_i}}{\sum_i \left[ P_{DCSTC} \left( \frac{G_{POA_i}}{G_{STC}} \right) \left( 1 - \frac{\delta}{100} (T_{cell\_typ\_avg} - T_{cell\_i}) \right) \right]}$$

where:

$$T_{cell\_i} = G_{POA_i} \times e^{(a+b \times WS_i)} + T_{a\_i} + \left( \frac{G_{POA_i}}{G_{STC}} \times dT_{cond} \right)$$

Assuming:

The temperature coefficient ( $\delta$ ) of the installed modules is -0.4%/°C

The average irradiance-weighted cell temperature ( $T_{cell\_typ\_avg}$ ) has been calculated as 28°C

The installed modules are a glass/cell/polymer sheet module type using an open rack mount. (a = -3.56; b = -0.0750;  $dT_{cond} = 3$ )

$$\sum_i P_{AC\_i} = 16 \text{ MW} + 11 \text{ MW} + \dots + 19 \text{ MW} = \mathbf{255 \text{ MW}}$$

$$\sum_i P_{DC\_i} = 0 \text{ MW} + 22 \text{ MW} + \dots + 10 \text{ MW} = \mathbf{50 \text{ MW}}$$

$$\begin{aligned} \sum_i \left[ P_{DC\_i} \left( \frac{G_{POA\_i}}{G_{STC}} \right) \left( 1 - \frac{1}{100} (T_{cell\_type\_avg} - T_{cell\_i}) \right) \right] &= 36 \text{ MW} \times [(690/1000) \times (1 - (0.4/100) \times (28 - ((690) \times e^{(-3.56 - 0.075 \times 3)} + 27) + ((690/1000) \times 3))) + \\ & (850/1000) \times (1 - (0.4/100) \times (28 - ((850) \times e^{(-3.56 - 0.075 \times 8)} + 26) + ((850 \times 3))) + \\ & \dots + \\ & (750/1000) \times (1 - (0.4/100) \times (28 - ((750) \times e^{(-3.56 - 0.075 \times 7)} + 29) + ((750 \times 3))))] \\ &= \mathbf{374.76 \text{ MW}} \end{aligned}$$

$$\text{MPR} = (255 + 50) \text{ MW} / 374.76 \text{ MW} = \mathbf{0.814}$$

**9. Attachment B, Section 3.D. (Lump Sum Pro-Rata Adjustments), Subsections D.1. through D.4. are revised to read as follows:**

**D. Lump Sum Pro-Rata Adjustments.**

1. Under the Company's previous forms of as-available power purchase agreements for renewable energy, the independent power producer was compensated for the production and delivery of electrical energy and assumed the risk of non-payment for events such as Force Majeure that prevented such production and delivery. Although under the Contract most or all of Subscriber Organization's compensation will be in the form of a Lump Sum Payment rather than for the production and delivery of electrical energy, it is not the intent of the Parties that Subscriber Organization should be entitled to unrestricted compensation in circumstances in which an independent power producer would not have been able to earn compensation under the Company's prior form of power purchase agreements (i.e., if the Facility or any portion thereof is unable to produce and deliver electric energy). Although the liquidated damages that are payable if the Inverter System Equivalent Availability Factor fails to satisfy the Inverter System Equivalent Availability Factor Performance Metric address this issue in certain of the circumstances when the Inverter System or a portion thereof is unable to generate electric energy, the Inverter System Equivalent Availability Factor does not account for events of Force Majeure because months containing such events are excluded from the calculation under Attachment C Section 1.A. (Calculation of the Inverter System Equivalent Availability Factor) of the Contract. Furthermore, in the case of the PV System, the liquidated damages that are payable if the MPR fails to satisfy the GPR Performance Metric addresses this issue in certain of the circumstances when the PV System or a portion thereof is unable to generate electric energy while inverters are available, the MPR does not account for events of Force Majeure because periods containing such events are excluded from the calculation under Section 2.A. (Calculation of Measured Performance Ratio) of the Contract. Similarly, in the case of the BESS, although the liquidated damages that are payable if the BESS Annual Equivalent Availability Factor fails to satisfy the BESS EAF Performance Metric addresses this issue in certain of the circumstances when the BESS or a portion thereof is unavailable to respond to Company Dispatch, the BESS Annual Equivalent Availability Factor does not account for events of Force Majeure because months containing such events are excluded

from the calculation under Attachment H (BESS Requirements) Section 2 (BESS Annual Equivalent Availability Factor) of the Contract.

2. Accordingly, and without limitation to the generality of the foregoing provisions of Section 3 (Calculation of Lump Sum Payment) of this Attachment B (Company Payments for Energy, Dispatchability and Availability of BESS), the monthly Lump Sum Payment shall be adjusted downward pro rata for each hour or portion thereof during the calendar month in question that the Facility or a portion thereof was not available to generate energy or respond to Company Dispatch because of a Force Majeure condition (i) affecting the Facility or any portion thereof or (ii) that otherwise delays or prevents the Subscriber Organization from making the Facility or a portion thereof generate energy and make it available for Company Dispatch.
3. In the case of a BESS Force Majeure, such downward adjustment in the Lump Sum Payment shall be limited to the BESS Allocated Portion of the Lump Sum Payment. Further, during any periods in which there is a Force Majeure affecting both (i) the PV System or Inverter System, and (ii) the BESS, the Lump Sum Payment shall only be adjusted for the effect of the Force Majeure on the PV System or Inverter System.
4. The hours the Facility is affected by a Force Majeure are converted to equivalent full outage hours by multiplying the actual duration of the event (hours) by (i) the size of the reduction in MWs or number of devices, divided by (ii) the Contract Capacity if the size of the reduction is in MWs or the total number of devices in the affected system if the size of the reduction is a device count. These equivalent hour(s) are then summed. The summation of equivalent full outage hours is then divided by the months total period hours (number of days in the month x 24hrs/day) to determine the pro-rated factor the Lump Sum Payment will be adjusted by. To avoid any concern of double counting in this calculation any concurrent Force Majeure affecting both the PV System and Inverter System will only consider the more significantly affected system in this calculation; if the affect is equal the equivalent full outage hours from just one of the systems will be included in the calculation. For all non-concurrent Force Majeure, the equivalent full outage hours of the non-concurrent event shall be included in the summation of equivalent full outage hours for calculating the pro-rated effect on the Lump Sum Payment.

**Example 1:** if a Facility has ten inverter(s) and, during the month of May (which has 31 calendar days or 744 calendar hours), one inverter is not available to respond to Company Dispatch for a period of 360 hours due to a Force Majeure condition as aforesaid, the monetary amount of the resulting downward adjustment to the monthly Lump Sum Payment for the month of May would be calculated as follows:

$$\circ \quad \text{Monetary Amount of Downward Adjustment} = (\text{MLSP} \times 1/10) \times 360/744$$

**Example 2:** if a Facility has ten inverter(s) and 10 MW of PV panels, and during the month of May (which has 744 period hours) an event or events of Force Majeure cause one inverter to not be available to respond to Company Dispatch for a period of 360 hours, and 2 MW of PV panels to be unavailable for 120 hours, 60 hours of which occurred concurrently with the Inverter System as aforesaid, the monetary amount of the resulting downward adjustment to the monthly Lump Sum Payment for the month of May would be calculated as follows:

First, determine what adjustment factor to use during the concurrent Force Majeure:

PV System Concurrent FM factor = 2/10

Inverter System Concurrent FM factor = 1/10



Since the PV System Concurrent FM Factor is greater than the Inverter System Concurrent FM Factor it is used during the concurrent FM time:

$$\text{Monetary Amount of Downward Adjustment} = \text{MLSP} \frac{(1/10 \times (360 - 60)) + (2/10 \times (120 - 60))}{31 * 24}$$

where:

MLSP = The monthly Lump Sum Payment that would be payable for such month but for the downward adjustment.

Example 3: if a Facility has forty BESS modules and, during the month of June (which has 720 period hours), one BESS module is not available to respond to Company Dispatch for a period of 240 hours due to a Force Majeure condition as aforesaid, the monetary amount of the resulting downward adjustment to the monthly Lump Sum Payment for the month of June would be calculated as follows:

$$\text{Monetary Amount of Downward Adjustment} = (\text{BLSP} \times 1/40) \times 240/720$$

where:

BLSP = The BESS Allocated Portion of the Lump Sum Payment that would be payable for such month but for the downward adjustment.

For purposes of determining the monetary amount of the foregoing downward adjustment, the product obtained by multiplying a monetary value by a fraction shall be rounded to the nearest cent.

**10. Attachment E (Monthly Reporting and Dispute Resolution By Independent AF Evaluator) Section 1. is revised to read as follows:**

1. MONTHLY REPORT. Commencing with the month during which the Commercial Operations Date is achieved, and for each calendar month thereafter during the Term, Subscriber Organization shall provide to Company a Monthly Report in Excel, Lotus or such other format as Company may require, which Monthly Report shall include (i) the data for the calendar month in question populated into the form of "Monthly Report" below, (ii) the data for the BESS Measurement Period ending with the calendar month in question populated into the form of "BESS Measurement Period Report" below, and (iii) Subscriber Organization's calculations of the performance metrics and any liquidated damages assessments for the LD Period ending with such calendar month as set forth below. Subscriber Organization shall deliver such Monthly Report to Company by the fifth (5<sup>th</sup>) Business Day following the close of the calendar month in question. Subscriber Organization shall deliver the Monthly Report electronically to the address provided by the Company. Company shall have the right to verify all data set forth in the Monthly Report by inspecting measurement instruments and reviewing Facility operating records. Upon Company's request, Subscriber Organization shall promptly provide to Company any additional data and supporting documentation necessary for Company to audit and verify any matters in the Monthly Report.

**Inverter System & PV System Monthly Report**  
**NAME OF IPP FACILITY: [Facility Name]**

**MONTHLY REPORT PERIOD: [Month Day, Year] to [Month Day, Year]**

Enter the information for each Force Majeure event effecting the Inverter System and/or the PV System during the reporting period. Dates and times should be entered to the nearest minute. Duration and equivalent hours should be rounded to 2 decimal places. When using MWs for item (D) below, Contract Capacity is to be provided for (E); and when using number of devices for item (D), total number of devices is to be provided for (E).

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of effect in MW or Number of devices system that are offline (D)	Contract Capacity or Total number of devices in the effected system (E)	Equivalent Hours (hrs) (C x D)/E
...					

Calendar hours in the reporting period:

\_\_\_\_\_

Total equivalent hours for the reporting period (from above, with proper accounting for any simultaneous events):

\_\_\_\_\_

Please provide the following availability information even in months containing

Force Majeure even though it will not be applied in the Inverter System EAF Calculation.

Enter the information for each Outage during the reporting period. Dates and times should be entered to the nearest minute. Duration should be rounded to 2 decimal places.

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (B-A)
...		

Calendar hours in the reporting period:

\_\_\_\_\_

Total Outage hours for the reporting period (from above):

\_\_\_\_\_

Available Hours (AH) in the reporting period:

\_\_\_\_\_

AH from the last eleven (11) reporting periods:

\_\_\_\_\_

AH for the last twelve (12) reporting periods:

\_\_\_\_\_

Enter the information for each Subscriber Organization Attributable Derating events during the reporting period. Dates and times should be entered to the nearest minute. Duration and equivalent hours should be rounded to 2 decimal places. When using MWs for item (D) below, Contract Capacity is to be provided for (E); and when using number of inverters for item (D), total number of inverters is to be provided for (E).

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of derating in MWs or Number of Inverters (D)	Contract Capacity or Total number of Inverters in the Inverter system (E)	Equivalent Hours (hrs) (C x D)/E
...					

Total Equivalent Subscriber Organization Attributable Derated hours (ESADH) for the reporting period: \_\_\_\_\_

ESADH from the last eleven (11) reporting periods: \_\_\_\_\_

ESADH for the last twelve (12) reporting periods: \_\_\_\_\_

Enter the information for each Planned Derating event during the reporting period. Dates and times should be entered to the nearest minute. Duration and equivalent hours should be rounded to 2 decimal places. When using MWs for item (D) below, Contract Capacity is to be provided for (E); and when using number of inverters for item (D), total number of inverters is to be provided for (E).

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of derating in MWs or Number of Inverters (D)	Contract Capacity or Total number of Inverters in the Inverter system (E)	Equivalent Hours (hrs) (C x D)/E
...					

Total equivalent planned derated hours (EPDH) for the reporting period: \_\_\_\_\_

EPDH from the last eleven (11) reporting periods: \_\_\_\_\_

EPDH for the last twelve (12) reporting periods: \_\_\_\_\_

Enter the information for each Unplanned Derating event during the reporting period. Dates and times should be entered to the nearest minute. Duration and equivalent hours should be rounded to 2 decimal places. When using MWs for item (D) below, Contract Capacity is to be provided for (E); and when using number of inverters for item (D), total number of inverters is to be provided for (E).

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of derating in MWs or Number of Inverters (D)	Contract Capacity or Total number of Inverters in the Inverter system (E)	Equivalent Hours (hrs) (C x D)/E
...					

Total equivalent unplanned derated hours (EUDH) for the reporting period: \_\_\_\_\_

EUDH for the last eleven (11) reporting periods: \_\_\_\_\_

EUDH for the last twelve (12) reporting periods: \_\_\_\_\_

Period Hours (PH) is : \_\_\_\_\_ (8760 hours if no 29th day in February in the last twelve months; otherwise 8784 hours; also, can be adjusted appropriately depending on any month(s) containing Force Majeure in the last 12 reporting periods))

Enter the Available Hours, ESADH, EPDH, and EUDH for the last twelve (12) reporting periods as calculated above.

AH (A)	ESADH (B)	EPDH (C)	EUDH (D)	Inverter System Annual Equivalent Availability Factor $100\% \times (A - B - C - D)/PH$

If the month for which this monthly report has been prepared contains a Force Majeure event please indicate the Inverter System Annual Equivalent Availability Factor calculated in the previous month's monthly report.

Enter the following properties for the facility's PV panels that are used in the calculation of the Measured Performance Ratio. Refer to Attachment C (Required Performance Metrics; Liquidated Damages) for the definitions of terms.

DC rated capacity of the system at standard test conditions ( $P_{DC_{STC}}$ ): \_\_\_\_\_

Temperature coefficient of power in  $\%/^{\circ}\text{C}(\delta)$ : \_\_\_\_\_

Temperature empirical constant ( $a$ ): \_\_\_\_\_

Wind speed empirical constant ( $b$ ): \_\_\_\_\_

Conduction temperature coefficient ( $dT_{cond}$ ): \_\_\_\_\_

Annual average irradiance-weighted cell temperature ( $T_{cell\_typ\_avg}$ ) \_\_\_\_\_

For the reporting period, provide 15-minute interval averaged site data for the following measurements in .csv format (refer to Attachment C (Required Performance Metrics; Liquidated Damages) for the definitions of terms). The data set should include an indication of whether each interval is included or excluded in the calculation of the Measured Performance Ratio and the reason for exclusion (refer to article 2.6 for data requirements).

**Measured data:**

- $P_{AC\_i}$  is the active power output of the PV System measured at the POI averaged over time period  $i$  (MW)
- $P_{DC\_i}$  is the measured DC power output of the PV System measured at the DC input to the BESS charging system averaged over time period  $i$  (MW)
- $G_{POA\_i}$  is the measured plane of array irradiance averaged over time period  $i$  ( $W/m^2$ );
- $T_{a\_i}$  = the measured ambient temperature averaged over time period  $i$  [ $^{\circ}C$ ]
- $WS_i$  = the measured wind speed corrected to a measurement height of 10 meters (using the anemometer height and proper Hellmann coefficient) averaged over time period  $i$  [m/s]

**Calculated data:**

- Computed cell temperature ( $T_{cell\_i}$ )

Using the data provided above, enter the calculated values for Measured Performance Ratio rounded to the third decimal place (0.001).

Measured Performance Ratio for the reporting period: \_\_\_\_\_

Measured Performance Ratio for this reporting period and the previous eleven (11) reporting periods: \_\_\_\_\_

Enter the Applicable Contract Year and calculated Degradation Factor for the reporting period. Refer to Contract Attachment C, Section 2.C. for how these should be calculated.

Applicable Contract Year: \_\_\_\_\_

Degradation Factor: \_\_\_\_\_

**BESS Measurement Period Report**  
**NAME OF IPP FACILITY: [Facility Name]**

**BESS MEASUREMENT PERIOD: [Month Day, Year] to [Month Day, Year]**

Enter the applicable information to demonstrate satisfaction of the BESS Capacity Performance Metric during the reporting period. This can be from either the most recent BESS Capacity Test performed during the period or taken from operational data reflecting the net output of the BESS.

Date/Time Start	Date/Time End	Total MWh delivered to the POI (A)	BESS Contract Capacity (MWh) (B)	BESS Capacity Ratio 100% x (A/B)

Enter the applicable information to demonstrate satisfaction of the BESS RTE Performance Metric during the reporting period. This can either be from the most recent BESS RTE Test performed during the period or taken from operational data reflecting the charging/discharging of the BESS.

Date/Time Start	Date/Time End	Total MWh delivered to the POI (A)	Charging Energy (MWh) (B)	BESS RTE Ratio 100% x (A/B)

Enter the information for each Force Majeure event effecting the BESS during the reporting period. Dates and times should be entered to the nearest minute. Duration, size of reduction, maximum rated output, and equivalent hours should be rounded to 1 decimal place.

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of Reduction (MW) (D)	Maximum Rated Output (MW) (E)	Equivalent Hours (hrs) (C x D)/E
...					

Calendar hours in the reporting period: \_\_\_\_\_

Total equivalent hours for the reporting period (from above, with proper accounting for any simultaneous events): \_\_\_\_\_

Please provide the following BESS availability information even in months containing Force Majeure even though it will not be applied in the Inverter System EAF Calculation.

Enter the information for each BESS Outage during the reporting period. Dates and times should be entered to the nearest minute. Duration should be rounded to 1 decimal place.

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (B-A)
...		

Calendar hours in the reporting period: \_\_\_\_\_

Total Outage hours for the reporting period (from above): \_\_\_\_\_

Available Hours (AH) in the reporting period: \_\_\_\_\_

AH from the last three (3) reporting periods: \_\_\_\_\_

AH for the last four (4) reporting periods: \_\_\_\_\_

Enter the information for each BESS Planned Derating event during the reporting period. Dates and times should be entered to the nearest minute. Duration, size of reduction, maximum rated output, and equivalent hours should be rounded to 1 decimal place.

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of Reduction (MW) (D)	Maximum Rated Output (MW) (E)	Equivalent Hours (hrs) (C x D)/E
...					

Total equivalent planned derated hours (EPDH) for the reporting period: \_\_\_\_\_

EPDH from the last three (3) reporting periods: \_\_\_\_\_

EPDH for the last four (4) reporting periods: \_\_\_\_\_

Enter the information for each BESS Unplanned Derating event during the reporting period. Dates and times should be entered to the nearest minute. Duration, size of reduction, maximum rated output, and equivalent hours should be rounded to 1 decimal place.

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (C) = (B-A)	Size of Reduction (MW) (D)	Maximum Rated Output (MW) (E)	Equivalent Hours (hrs) (C x D)/E
...					

Total equivalent unplanned derated hours (EUDH) for the reporting period: \_\_\_\_\_

EUDH for the last three (3) reporting periods: \_\_\_\_\_

EUDH for the last four (4) reporting periods: \_\_\_\_\_

Period Hours (PH) is : \_\_\_\_\_ (8760 hours if no 29<sup>th</sup> day in February in that last twelve months; otherwise 8784 hours; also can be adjusted appropriately depending on any month(s) containing Force Majeure in the last 12 reporting periods)

Enter the Available Hours, EPDH, EUDH, and Period Hours for the last four (4) reporting periods as calculated above.

AH (A)	EPDH (B)	EUDH (C)	BESS Annual Equivalent Availability Factor $100\% \times (A - B - C)/PH$

Enter the information for each Unplanned (Forced) Outage during the reporting period. Dates and times should be entered to the nearest minute. Duration should be rounded to 1 decimal place.

Date/Time Start (A)	Date/Time End (B)	Duration (hrs) (B-A)
...		

Total Forced Outage Hours (FOH) for the reporting period (from above): \_\_\_\_\_

FOH from the last three (3) reporting periods: \_\_\_\_\_

FOH for the last four (4) reporting periods: \_\_\_\_\_

Enter the FOH and EUDH for the last four (4) reporting periods as calculated above.

FOH (A)	EUDH (B)	BESS Annual Equivalent Forced Outage Factor $100\% \times (A + B)/8760$

If the BESS Measurement Period for which this report has been prepared contains a month with a BESS Force Majeure event, please indicate the proper 12-month period used to calculate the BESS Annual Equivalent Availability Factor for this report.

**11. Attachment H Section 1. (BESS Tests). This Section 1. is revised to read as set forth in Attachment H hereto.**



**12. Attachment H Section 2. (BESS Annual Equivalent Forced Outage Factor) . This Section 2. is revised to read as set forth in Attachment H hereto.**

**ATTACHMENT H**  
**BESS REQUIREMENTS**

**1. BESS TESTS**

Prior to achieving Commercial Operations, and in each BESS Measurement Period, unless waived by Company, Subscriber Organization shall demonstrate that the BESS satisfies the (1) BESS Capacity Performance Metric, and (2) the RTE Performance Metric, each as defined and further described below.

**A. BESS Capacity Performance Metric**

- The BESS Capacity Performance Metric reflecting the net output of the BESS from the Point of Interconnection can be demonstrated either through (i) operational data or (ii) a scheduled formal BESS Capacity Test.
- The "BESS Capacity Performance Metric" shall be deemed to be satisfied where the BESS Capacity Ratio is not less than **100%** for an applicable BESS Measurement Period. The "BESS Capacity Ratio" shall be the number, expressed as a percentage, equal to the total "Discharge Energy" (MWh discharge) delivered to the Point of Interconnection to bring the BESS from (i) its maximum State of Charge or (ii) 100% State of Charge to a 0% State of Charge, divided by the BESS Contract Capacity.
- A "BESS Capacity Test" is when the Company coordinates Company Dispatch to demonstrate the BESS maintains the power output required to follow the dispatch signal provided by the Company through a control setpoint, as measured at the Point of Interconnection, and is able to continuously discharge energy to the Point of Interconnection according to Company Dispatch to bring the BESS from (i) its maximum State of Charge or (ii) 100% State of Charge to a 0% State of Charge.
- The BESS Capacity Test can only be performed when the BESS is at the lower of: (i) its maximum State of Charge or (ii) 100% State of Charge prior to the start of the BESS Capacity Test and during the BESS Capacity Test, Company Dispatch allows for continuous discharge of the BESS to 0% State of Charge with energy delivered to the Point of Interconnection.

**B. RTE Performance Metric.**

- The "RTE Performance Metric" is set forth in Section 6.A. (RTE Test and Liquidated Damages) of Attachment C (Required Performance Metrics; Liquidated Damages) to the Contract. The RTE Performance Metric reflecting the charging/discharging of the BESS can be demonstrated either through (i) operational data or (ii) a scheduled formal RTE Test.
- Demonstration of the RTE Performance Metric requires measurement of "Charging Energy" (MWh charge) at the BESS charging input to bring the BESS from a 0% State of Charge to a 100% State of Charge from the PV System or grid according to Company Dispatch, followed by measurement at the Point of Interconnection of the "Discharge Energy" (MWh discharge) delivered to the grid to bring the BESS to a 0% State of Charge according to Company Dispatch. The exact point of measurement for Charging Energy will be mutually agreed to by the Parties on the Facility's single-line diagram attached to the Contract as Attachment F, Exhibit F- 5 (Single-Line Drawing and Interface Block Diagram). For the purposes of evaluating satisfaction of the RTE Performance

Metric, the "RTE Ratio" shall be the number, expressed as a percentage, equal to the total Discharge Energy delivered to the Point of Interconnection during the BESS Capacity Test, divided by the Charging Energy measured at the BESS charging input.

- The formula for the RTE Ratio is as follows:  $\text{RTE Ratio} = 100\% \times (\text{MWh discharge})/(\text{MWh charge})$
- The RTE Performance Metric will be deemed to have been "passed" or "satisfied" to the extent the RTE Ratio is not less than the RTE Performance Metric set forth in Section 6.A. (RTE Test and Liquidated Damages) of Attachment C (Required Performance Metrics; Liquidated Damages) to the Contract.
- An "RTE Test" is when the Company coordinates Company Dispatch to demonstrate the charging/discharging requisite to satisfy the RTE Performance Metric.
- The RTE Test may be conducted concurrently with a BESS Capacity Test.
- For purposes of the RTE Test, the charging cycle shall begin when the BESS is at a 0% State of Charge prior to a (i) 100% discharge cycle or (ii) BESS Capacity Test if being conducted concurrently and the Charging Energy is the amount of energy, as measured at the BESS DC charging input, that brings the BESS to a 100% State of Charge.

### **C. BESS Test Procedures**

- After Commercial Operations, Subscriber Organization shall demonstrate satisfaction of the BESS Capacity Performance Metric by reference to the operational data reflecting the net output of the BESS from the Point of Interconnection, or by conducting a scheduled formal BESS Capacity Test during such BESS Measurement Period. Once Subscriber Organization demonstrates satisfaction of the BESS Capacity Performance Metric through either operational data or a scheduled formal BESS Capacity Test (100% discharge cycle), the BESS shall be deemed to have met the BESS Capacity Performance Metric and satisfied ("passed") the BESS Capacity Test for the applicable BESS Measurement Period.
- After Commercial Operations, Subscriber Organization shall demonstrate satisfaction of the RTE Performance Metric by reference to the operational data reflecting the charging/discharging of the BESS, or by conducting a scheduled formal RTE Test during such BESS Measurement Period. Once Subscriber Organization demonstrates satisfaction of the RTE Performance Metric through either operational data or a scheduled formal RTE Test (100% charge/discharge cycle), the BESS shall be deemed to have met the RTE Performance Metric and satisfied ("passed") the RTE Test for the applicable BESS Measurement Period.
- Any BESS Capacity Test or RTE Test (each a "BESS Test" and collectively, the "BESS Tests") scheduled in lieu of being demonstrated by reference to operational data shall be performed at a time reasonably requested by Company in its sole discretion.
- Subscriber Organization shall be permitted up to a total of three (3) BESS Tests (100% discharge cycles) within a BESS Measurement Period to demonstrate satisfaction of the BESS Capacity Performance Metric and the RTE Performance Metric for such BESS Measurement Period, unless additional such tests are authorized by Company. If upon completion of the first BESS Test, Subscriber Organization does not "pass" either the BESS Capacity Test or the RTE Test, Company shall attempt to notice up to two (2) additional BESS Tests within a BESS Measurement Period, for Subscriber Organization to further demonstrate its performance. If a scheduled formal BESS Test is requested by Subscriber Organization, Company shall attempt to schedule a formal BESS

Test and Company shall provide notice to Subscriber Organization no less than three (3) Business Days prior to conducting such scheduled formal BESS Test.

- If, during a BESS Measurement Period, Subscriber Organization fails to pass a BESS Capacity Test, the BESS shall nevertheless be deemed to have satisfied the BESS Capacity Performance Metric for the applicable BESS Measurement Period if (i) Company failed to notice up to three BESS Capacity Tests in order for Subscriber Organization to further demonstrate the BESS' performance during such BESS Measurement Period, or (ii) Subscriber Organization was unable to perform at least two (2) such noticed BESS Capacity Tests during such BESS Measurement Period due to (a) conditions on the Company System other than Subscriber Organization-Attributable Non-Generation or (b) an act or omission by Company. If Subscriber Organization-Attributable Non-Generation is cause for the inability to demonstrate the BESS Capacity Performance Metric, the BESS Capacity Ratio used to assess LDs shall be the highest demonstrated in operational data or the most recently completed test during the applicable BESS Measurement Period.
- If, during a BESS Measurement Period, Subscriber Organization does not demonstrate satisfaction of the BESS Capacity Performance Metric through operational data or a BESS Capacity Test, assessment of Liquidated Damages will be based on the last of the BESS Capacity Tests performed.
- If, during a BESS Measurement Period, Subscriber Organization fails to pass an RTE Test, the BESS shall nevertheless be deemed to have satisfied the RTE Performance Metric for the applicable BESS Measurement Period if (i) Company failed to notice up to three RTE Tests in order for Subscriber Organization to further demonstrate the BESS' performance during such BESS Measurement Period, or (ii) Subscriber Organization was unable to perform at least two (2) such noticed RTE Tests during such BESS Measurement Period due to (a) conditions on the Company System other than Subscriber Organization-Attributable Non-Generation or (b) an act or omission by Company. If Subscriber Organization-Attributable Non-Generation is cause for not adequately demonstrating the RTE Performance Metric, the RTE Ratio used to assess LDs shall be the highest demonstrated in operational data or the most recently completed test during the applicable BESS Measurement Period.
- If, during a BESS Measurement Period, Subscriber Organization does not demonstrate satisfaction of the RTE Performance Metric through operational data or RTE Tests, assessment of Liquidated Damages will be based on the last of the RTE Tests performed.
- Company will conduct any necessary BESS Test(s) through Company Dispatch. Company shall have the right to attend, observe and receive the results of all BESS Tests. Subscriber Organization shall provide to Company the results of each BESS Test (including time stamped graphs of system performance based in operational data or test data) no later than ten (10) Business Days after any BESS Test.

## **2. BESS ANNUAL EQUIVALENT AVAILABILITY FACTOR**

1. To the extent the Commercial Operations Date occurs on a date other than the first day of a BESS Measurement Period, the period between the Commercial Operations Date and the first day of the next BESS Measurement Period if any, shall be ignored for purposes of this BESS Availability Factor.
2. For the purposes of calculating the BESS Annual Equivalent Availability Factor for the first three (3) full BESS Measurement Periods in the first Contract Year, the calculation will assume that the BESS is one hundred percent (100%) available for the remaining hours of the Contract Year. If an Inverter System Outage or Derating exists as set forth in Attachment C (Required Performance Metrics; Liquidated Damages) Section 1.A. (Calculation of the Inverter System Equivalent Availability Factor) of the Contract,

those hours will be excluded in the BESS Annual Equivalent Availability Factor, except Inverter System Outages or Deratings that effect BESS availability but which occur during Inverter System Reserve Shutdown Hours as set forth in this Attachment H (Bess Annual Equivalent Availability Factor).

3. "BESS Annual Equivalent Availability Factor" shall be calculated as follows:

$$\text{BESS Annual Equivalent Availability Factor} = 100\% \times \frac{AH - EPDH - EUDH}{PH}$$

Where:

PH is period hours (8760 hours; except leap year is 8784).

Available Hours (AH) is the number of hours that the BESS is not on Outage. It is sum of all Service Hours (SH) + Reserve Shutdown Hours (RSH).

A "BESS Outage" exists whenever the entire BESS is offline and unable to charge or discharge electric energy and is not in Reserve Shutdown state.

If the Inverter System is in Reserve Shutdown but would have otherwise been on Outage the Inverter System Outage is counted as a BESS Outage during that period due to its effect on the BESS Availability.

Service Hours (SH) is the number of hours during the applicable BESS Measurement Period and the immediately preceding three (3) full BESS Measurement Periods the BESS is online and (i) charging from the PV System or Company System, or (ii) discharging electric energy to the Company System.

Reserve Shutdown Hours (RSH) is the number of hours during the applicable BESS Measurement Period and the immediately preceding three (3) full BESS Measurement Periods the BESS is available but not charging or discharging electric energy or is offline at the Company's request for reasons other than Subscriber Organization-Attributable Non-Generation or there is an Inverter System Outage or Derating as set forth in Attachment C (Required Performance Metrics; Liquidated Damages), Section 1.A. (Calculation of Inverter System Equivalent Availability Factor).

A "BESS Derating" exists when the BESS is available but at less than Maximum Rated Output. For the avoidance of doubt, if there is a BESS Outage occurring there cannot also be a BESS Derating. If the Inverter System is in Reserve Shutdown but would have otherwise had a derating the Inverter System Derating is counted as a BESS Derating during that period due to its effect on the BESS availability.

EPDH is the equivalent planned derated hours, including Planned Deratings (PD) and Maintenance Deratings (D4). A Planned Derating is when the BESS experiences a derating scheduled well in advance and for a predetermined duration. A Maintenance Derating is a derating that can be deferred beyond the end of the next weekend (Sunday at midnight or before Sunday turns into Monday) but requires a reduction in capacity before the next Planned Derating (PD). Each individual derating is transformed into equivalent full outage hour(s) by multiplying the actual duration of the derating (hours) by (i) the size of the reduction (MW) divided by (ii) Maximum Rated Output. These equivalent hour(s) are then summed for the applicable BESS Measurement Period and the immediately preceding three (3) full BESS Measurement Periods. If the Inverter System is experiencing a Planned Derating as set forth in Attachment C (Required Performance Metrics; Liquidated Damages), Section 1.A.

(Calculation of Inverter System Equivalent Availability Factor) any BESS Planned Derating during the Inverter System Planned Derating is excluded from the BESS EPDH calculation.

EUDH is the equivalent unplanned derated hours. An Unplanned Derating (Forced Derating) occurs when the BESS experiences a derating that requires a reduction in availability before the end of the nearest following weekend. Unplanned Deratings include those due to Subscriber Organization-Attributable Non-Generation effecting BESS availability, but which occur during Inverter System Reserve Shutdown Hours. Each individual Unplanned Derating is transformed into equivalent full outage hour(s) by multiplying the actual duration of the derating (hours) by (i) the size of the reduction (MW) divided by (ii) the Maximum Rated Output. These equivalent hour(s) are then summed for the applicable BESS Measurement Period and the immediately preceding three (3) full BESS Measurement Periods. If the Inverter System is experiencing an Unplanned Derating as set forth in Attachment C (Required Performance Metrics; Liquidated Damages), Section 1.A. (Calculation of Inverter System Equivalent Availability Factor) any BESS Unplanned Derating during the Inverter System Unplanned Derating is excluded from the BESS EUDH calculation.

The effect of Force Majeure is taken into account in calculating the BESS Annual Equivalent Availability Factor over a 12 calendar month period as follows: When such 12 month period contains any hours in a month during which the BESS or a portion of the BESS is unavailable due to Force Majeure, then such month shall be excluded from the 12 month period and the calculation period shall be extended back in time to include the data used to calculate the BESS EAF from the next previous month during which there was no such unavailability of the BESS or a portion thereof due to Force Majeure. This means the BESS Annual Equivalent Availability Factor would not change from that determined in the month directly preceding a month containing Force Majeure.

The following examples are provided as illustrative examples only:

*Example A:* The BESS was continuously available, with no Planned or Unplanned (Forced) Deratings during the applicable BESS Measurement Period and in the immediately preceding three (3) full BESS Measurement Periods. In this case AH = 8760, EPDH and EUDH = 0 hours

$$\text{BESS EAF} = 100\% \times \frac{8,760-0}{8,760} = 100\%$$

*Example B:* During the applicable BESS Measurement Period and the immediately preceding three (3) full BESS Measurement Periods. The BESS was online and charging from the PV System or discharging electric energy to the Company System for 8,400 hours and was available but not discharging electric energy due to lack of stored energy (i.e., not Subscriber Organization-Attributable Non-Generation) for 226 hours. The BESS experienced a Planned Derating of 7.2 MWs for 100 hours for maintenance that was scheduled a month in advance. The BESS also experienced an Unplanned Derating of 6.2 MWs for 100 hours as the derating could not be deferred to beyond the nearest following weekend. The Inverter System experienced a 4 MW Unplanned Derating for 35 hours not during RSH (i.e., an Inverter System Derating, as set forth in Section 1.A. of Attachment C (Required Performance Metrics; Liquidated Damages) to the Contract. The BESS Maximum Rated Output is 10 MW.

Inverter System Derating = (35 hours x 4MW/10MW) = 14 hours

PH = 8,760 hours in 12 calendar months

SH = 8,400 hours

$$\text{RSH} = 226 \text{ hours} + 14 \text{ hours}$$

$$\text{AH} = \text{SH} + \text{RSH} = 8,400 \text{ hours} + 226 \text{ hours} = 8,640 \text{ hours}$$

$$\text{EPDH} = 100 \text{ hours} \times 7.2\text{MW}/10\text{MW} = 72 \text{ hours}$$

$$\text{EUDH} = 100 \text{ hours} \times 6.2\text{MW}/10\text{MW} = 62 \text{ hours (Unplanned Derating (Forced Derating))}$$

$$\text{BESS EAF} = 100\% \times \frac{8,640 - 72 - 62}{8,760} = 97.1\%$$