

**DRAFT REQUEST FOR PROPOSALS**  
**FOR**  
**VARIABLE RENEWABLE DISPATCHABLE GENERATION**

**ISLAND OF MAUI**

FEBRUARY 2, 2018

Docket No. 2017-0352

*Model PV RDG PPA*  
*Attachment B*

[Note: The body of the Companies' RDG PPAs for both PV and wind are the same for all three Companies and are therefore not reproduced as part of this exhibit. Some of the attachments to the RDG PPA for both PV and wind are island specific and such island specific attachments for Maui are provided in Exhibit 7 of this Transmittal Letter]



**Maui  
Electric**

**[ATTACHMENT B WILL BE REVISED TO REFLECT  
THE RESULTS OF IRS]**

ATTACHMENT B  
FACILITY OWNED BY SELLER

1. The Facility.

(a) Drawings, Diagrams, Lists, Settings and As-Builts.

- (i) 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 Seller has obtained prior written consent from Company, be attached to this Agreement on the Execution Date as Attachment E (Single-Line Drawing and Interface Block Diagram) and Attachment F (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 "Final" Single-Line Drawing, the "Final" Interface Block Diagram and "Final" Relay List and Trip Scheme and shall supersede Attachment E (Single-Line Drawing and Interface Block Diagram) and Attachment F (Relay List and Trip Scheme) to this Agreement 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 Seller and Company. The single-line drawing shall expressly identify the Point of Interconnection of Facility to Company System.
- (ii) As-Builts. Seller shall provide final as-built drawings of the Seller-Owned Interconnection Facilities within 30 Days of the successful completion of the Acceptance Test.

(iii) No Material Changes. Seller agrees that no material changes or additions to 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 Seller 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 Seller in writing, and, except in the case of an emergency, Seller shall have the opportunity to review and comment upon any such changes or additions in advance.

(b) Certain Specifications for the Facility.

- (i) Seller 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.
- (ii) The Facility shall include:

**[LIST OF THE FACILITY**

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

- **Seller-Owned Interconnection Facilities**
- **Substation**
- **Control and monitoring facilities**
- **Transformers**
- **Generators (as described in Attachment A)**
- **"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]**

(iii) The Facility shall comply with the following **[includes excerpts of language that may be requested by Company]**:

- A. Seller shall install a \_\_\_\_ kV 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. Seller shall provide within the Seller-Owned Interconnection Facilities a separate, fenced area with separate access for Company. Seller shall provide all conduits, structures and accessories necessary for Company to install the Revenue Metering Package. Seller shall also provide within such area, space for Company to install its communications, supervisory control and data acquisition ("SCADA") remote terminal unit ("RTU") and certain relaying if necessary for the interconnection. Seller shall also provide AC and DC source lines as specified later by Company. Seller shall provide a telephone line for Company-owned meters. Seller shall work with Company to determine an acceptable location and size of the fenced-in area. Seller shall provide an acceptable demarcation cabinet on its side of the

fence where Seller and Company wiring will connect/interface.

- C. Seller shall ensure that the Seller-Owned Interconnection Facilities has a lockable cabinet for switching station relaying equipment. Seller 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. Seller shall install protective relays that operate a lockout relay, which in turn will trip the main circuit breaker.
- D. Seller shall configure the relay protection system to provide overpower protection to enable Facility to comply with the Allowed Capacity limitation.
- E. Seller's equipment also shall provide at a minimum:
  - (i) Interface with Company's RTU, 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;
  - (ii) Interface with Company's RTU, or designated communications and control interface, to provide status for circuit breakers, reactive devices, switches, and other equipment as identified by the Company;
  - (iii) Interface with Company's RTU, or designated communications and control interface, to provide

control to incrementally raise and lower the voltage and power factor setpoints at the point of regulation operating in automatic voltage regulation control. If Company's RTU, or designated communications and control interface, is unavailable, due to loss of communication link, RTU failure, or other event resulting in loss of the remote control by Company, provision must be made for Seller to be able 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 as directed by the Company System Operator;

- (iv) Interface with Company's RTU, or designated communications and control interface, to provide active power control to incrementally limit net real power export from the Facility and to incrementally remove the limit of the net real power export of the Facility. The incremental size will be determined as part of the Interconnection Requirements Study taking into account the size of the Facility and the dynamic system frequency bias; and
- (v) For PV Facilities: Interface with Company's RTU, or designated communications and control interface, to provide telemetry of inverter availability and meteorological

and production data required under Section 8 (Data and Forecasting) of this Attachment B (Facility Owned by Seller) and the Facility's Power Possible.

F. If Seller 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, Seller shall be required to obtain Company's prior written approval. If an analysis to revise parts of the IRS is required, Seller 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. Critical Infrastructure Protection.

(i) Documentation. Seller shall submit documentation describing the approach, methodology and design to provide physical and cyber security with its submittal of the design drawings pursuant to Section 1(c) (Design Drawings, Bill of Materials, Relay Settings and Fuse Selection) of Attachment B (Facility Owned by Seller) which shall be at least sixty (60) Days prior to the Acceptance Test.

- The design shall meet industry standards and best practices, as indicated by NERC CIP guidelines and requirements for critical generation facilities. The system shall be designed with the criteria to meet applicable industry standards and guidelines (at the time of this writing, NERC CIP, or any future standard adopted by the industry in its place) compliance requirements and identify areas

that are not consistent with NERC CIP guidelines and requirements.

- The cyber-security documentation shall include a block diagram of the control system with all external connections clearly described.
- Seller shall provide such additional information as Company may reasonably request as part of a security posture assessment.
- Company shall be notified in advance when there is any condition that would compromise physical or cyber security, or if any breaches in security, or security incidents are detected.

(ii) Malware. Seller shall (consistent with the following sentence) ensure that no malware or similar items are coded or introduced into any aspect of the Facility, Interconnection Facilities, the Company Systems interfacing with the Facility and Interconnection Facilities, and any of Seller's critical control systems or processes used by Seller to provide energy, including the information, data and other materials delivered by or on behalf of Seller to Company, (collectively, the "Environment"). Seller will continue to review, analyze and implement improvements to and upgrades of its Malware prevention and correction 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 Seller with respect to its own information systems. If Malware is found to have been introduced into the Environment, Seller will promptly notify Company and Seller shall take immediate action to eliminate and remediate the effects of the Malware, at Seller's expense. Seller shall not modify or otherwise take corrective action with respect to the Company Systems except at Company's request. Seller will promptly report to Company the nature and status of all Malware elimination and remediation efforts.

- (iii) Security Breach. In the event that Seller discovers or is notified of a breach, potential breach of security, or security incident at Seller's Facility or of Seller's systems, Seller shall immediately (i) notify Company of such potential, suspected or actual security breach, whether or not such breach has compromised any of Company's confidential information, (ii) investigate and promptly remediate the effects of the breach, whether or not the breach was caused by Seller, (iii) cooperate with Company with respect to any such breach or unauthorized access or use; (iv) comply with all applicable privacy and data protection laws governing Company's or any other individual's or entity's data; and (v) to the extent such breach was caused by Seller, provide Company with reasonable assurances satisfactory to Company that such breach, potential breach, or security incident shall not recur. Seller shall provide documentation to Company evidencing the length and impact of the breach. Any

remediation of any such breach will be at Seller's sole expense.

- (iv) Monitoring and Audit. Seller's shall provide information on available audit logs and reports relating to cyber and physical and security. Company may audit Seller's records to ensure Seller's compliance with the terms of this Section 1(b)(iii)G (Critical Infrastructure Protection) of this Attachment B (Facility Owned by Seller), provided that Company has provided reasonable notice to Seller and any such records of Seller's will be treated by Company as confidential.
- H. Because a reliable Power Possible value under Section 1(b)(iii)(E)(v) of this Attachment B (Facility Owned by Seller) is necessary throughout the Term in order for Company to effectively optimize the benefits of its right of Company Dispatch, it is the expectation of the Parties that the model and data inputs used by the Seller to calculate Power Possible will be validated during the Evaluation Periods described below as more fully set forth below.

- (i) The relationship between the 15-minute averaged Power Possible value and the Facility's 15-minute averaged actual power production at the Point of Interconnection shall be evaluated in 15-minute intervals for periods described below. The periods eligible for such evaluation (each such period an "Eligible Period") are periods during which both of the following conditions continuously apply for a duration of not less than 30 consecutive minutes: (aa) the Facility is in an operative

state (i.e., the Facility is available to produce and export energy to the Point of Interconnection); and (bb) the plane of array irradiance is not less than 600 W/m<sup>2</sup>. For avoidance of doubt, the aforementioned 30-minute minimum is not a cap on the duration of an Eligible Period, which shall continue for as long as the two conditions set forth in the preceding sentence continuously apply. The periods for which the relationship between the 15-minute averaged Power Possible value and the 15-minute averaged actual power production will be evaluated (each such 15-minute period an "Evaluation Period") shall commence 15 minutes after the commencement of the Eligible Period in question and shall consist of each of the consecutive 15-minute intervals that are encompassed within the balance of such Eligible Period.

- (ii) An Evaluation Period shall constitute a Power Possible Discrepancy Period if the 15-minute averaged Power Possible value for such Evaluation Period is outside of a band of plus or minus **0.1 MW** of the 15-minute averaged actual power production at the Point of Interconnection for that same Evaluation Period.
- (iii) Upon the occurrence of a Power Possible Discrepancy Period, Seller shall promptly investigate the reason why the

bandwidth was exceeded, take such action as may be necessary to improve Seller's model and data inputs for calculating Power Possible with the objective of avoiding future Power Possible Discrepancy Periods, and provide to Company, within thirty (30) Days of the occurrence of the Power Possible Discrepancy Period in question, a written report of both the results of such investigation and the action taken by Seller.

- (iv) If, at any time during the Term, four consecutive Evaluation Periods each constitute a Power Possible Discrepancy Period: (aa) the model and data inputs used by Seller to calculate Power Possible shall be considered to be invalidated and the Parties shall promptly commission a study to be performed by one of the engineering firms then included on the OEPR Consultants List to evaluate the cause of the Power Possible Discrepancy Periods and to make recommendations with the objective of avoiding future Power Possible Discrepancy Periods ("Study"); and (bb) if the Company decides that its ability to effectively optimize the benefits of its right of Company Dispatch is materially impaired by the lack of a validated Power Possible calculation, the Company shall have the right to derate the Facility and the Facility

shall be deemed to be in Seller-Attributable Non-Generation status until the Study has been completed and the Study's recommendations have been implemented by Seller to Company's reasonable satisfaction. Seller shall pay for the cost of the Study. The Study shall be completed within ninety (90) days from such fourth consecutive Power Possible Discrepancy Period, unless otherwise agreed to in writing by Seller and Company. The Consultant shall send the Study to Company and Seller. Seller (and/or its Third-Party consultants and contractors), at Seller'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 Discrepancy Periods. Such recommendations shall be implemented by Seller to Company's reasonable satisfaction no later than forty-five (45) Days from the Day the completed Study is issued by the consultant, unless otherwise agreed to in writing by Company.

- I. Seller shall reserve space within the Site for possible future installation of Company-owned meteorological equipment (such as SODAR and irradiance monitors) and AC and DC source lines for such equipment. In the event Company decides to install such meteorological equipment: (i) Seller 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 Seller 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 Materials, Relay Settings and Fuse Selection. Seller 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 Seller's interconnected system. Seller shall provide the relay settings, fuse selection, and AC/DC Schematic Trip Scheme (part of design drawings) for the Facility to Company at least sixty (60) Days prior to the Acceptance Test. Company, at its option, may, with reasonable frequency, witness Seller's operation of control, synchronizing, and protection schemes and shall have the right to periodically re-specify the settings. Seller shall utilize relay settings prescribed by Company, which

may be changed over time as Company System requirements change.

- (d) Disconnect Device. Seller 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. Seller 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 ductlines, 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. **[COMPANY TO REVISE THIS SECTION 1(E) PRIOR TO EXECUTION FOR SPECIFICS OF THE PROJECT.]**
  
- (f) Maintenance Plan. Seller shall maintain Seller-Owned Interconnection Facilities in accordance with the following maintenance plan:

Transmission line: [REDACTED]

[REDACTED] kV Facility switching station:  
[REDACTED]

Relay protection equipment: [REDACTED]

Other equipment as identified: [REDACTED]

Seller 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.
  - (i) Seller 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 maximum level of the net real power export from the Facility when required under this Attachment B (Facility Owned by Seller). The implementation of the Active Power Control Interface will allow Company System Operator to initiate the active power limiting, vary the level of limiting, and remove the limiting remotely from Company System Operations Control Center through control signals from Company's SCADA and EMS systems.

- (ii) 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. In order to ensure such continued compatibility, Seller shall not materially change the approved design without Company's prior review and prior written approval.
- (iii) The Active Power Control Interface shall include, but not be limited to, a demarcation cabinet, ancillary equipment and software necessary for Seller to connect to Company's RTU, or designated communications and control interface, 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 (setpoint) controls.
- (iv) The Active Power Control Interface shall also include provision for feedback points from the Facility indicating when active power limiting is in effect and the analog value of the MW limit(s). The Facility shall provide the feedback to the Company SCADA system within 2 seconds of receiving the respective control signal from the Company.



- (v) Seller shall provide to the telemetry interface an analog signal for the MW gross production of each individual generating unit, and an analog signal for the total net MW production at the Point of Interconnection.
- (vi) 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 shall not export electric energy to Company, unless the Company, in its sole discretion, agrees to accept electric energy and Seller and Company agree on an alternate means of dispatch. Notwithstanding the foregoing, if Seller fails to provide such remote control features (whether temporarily or throughout the Term) and fails to discontinue exporting electric energy to Company as required by this Section 1(g)(vi), then, notwithstanding any other provision of this Attachment B (Facility Owned by Seller), Company shall have the right to derate or disconnect the entire Facility during those periods that such control features are not provided.
- If all local and remote active power controls become unavailable or fail, the Facility shall immediately disconnect from the Company's System.
  - If the direct transfer trip is unavailable due to loss of communication link, RTU failure, or other event resulting in the loss of the remote control by the Company, provision must be made for the Seller to curtail to zero at a controlled rate until such time as the direct transfer trip is restored.
- (vii) The rate at which the Facility changes net real power export shall not exceed the ramp rate specified in Section 3(c) (Ramp Rate) of Attachment B (Facility Owned by Seller). 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]**

(viii) The Active Power Control Interface shall accept the following active power control(s) from the Company centralized control systems:

- **Maximum Power Limit:** The Facility is not allowed to exceed this setting under any circumstances. The frequency response control specified in Section 3(m) (Frequency Response) of Attachment B (Facility Owned by Seller) is not allowed to increase the Facility's net real power export above this limit. When the Maximum Power Limit is set to zero, the Facility's inverters must be shutdown. **[Applicability subject to Company review].**
- **Power Reference Limit:** The Facility is not allowed to exceed this setting when system frequency is at 60 Hz. When system frequency is not 60 Hz, the Facility's net real power export is allowed to exceed this setting or be further reduced below this setting when commanded by the frequency response control specified in Section 3(m) of Attachment B (Facility Owned by Seller).

(ix) Seller shall not override Company's active power controls without first obtaining specific approval to do so from the Company System Operator.

(x) 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.

(i) Conditions Precedent. The following conditions precedent must be satisfied prior to the conduct of the Control System Acceptance Test:

- Successful Completion of the Acceptance Test.
  - Facility has been successfully energized.
  - All of the Facility's generators 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.
- (ii) Facility Generators. Unless all of the Facility's generators are 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 Seller demonstrates to the satisfaction of the Company that the test results attained with less than all of the Facility's generators are consistent with the results that would have been attained if all of the Facility's generators had been available for the duration of the test.
- (i) 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 Seller shall agree on a written protocol setting out the detailed procedure and criteria for passing the Control System Acceptance Test. Attachment O (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 Seller 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 Attachment A (Description of Generation and Conversion Facility), such changes shall be reflected in an amendment to this Agreement, 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. Seller is responsible for securing the Facility. Seller shall have personnel available to respond to all calls related to security incidents and shall take commercially reasonable efforts to prevent any security incidents. Seller is also responsible for maintaining the Facility, including vegetation management, to prevent security breaches. Seller 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 communicated by Seller, to notify Seller in writing of Seller's failure, as observed by Company and set forth in such written notice, to meet the operational and performance requirements specified in Section 1(g) (Active Power Control Interface) and Section 3 (Performance Standards) of this Attachment B (Facility Owned by Seller), and to require documentation or testing to verify compliance with such requirements. Upon receipt of such notice, Seller shall promptly investigate the matter, implement corrective action and provide to Company, within thirty (30) Days of such notice, a written report of both the results of such investigation and the corrective action taken by Seller. If the Seller's report does not resolve 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 OEPR Consultants List to evaluate the cause of the non-

compliance and to make recommendations to remedy such non-compliance. Seller shall pay for the cost of the study. The study shall be completed within ninety (90) days, unless otherwise agreed to in writing by Seller and Company. The consultant shall send the study to Company and Seller. Seller (and/or its Third-Party consultants and contractors), at Seller'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 Seller to Company's reasonable satisfaction no later than forty-five (45) Days from the Day the completed study is issued by the consultant, unless otherwise agreed to in writing by Company. Failure to implement such recommendations within this period shall constitute a material breach of this Agreement.

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 Seller 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. Seller must separate from Company System whenever requested to do so by the Company System Operator pursuant to Article 8 (Company Dispatch) and Article 9 (Personnel and System Safety) of the Agreement.
- (c) Seller Logs. Logs shall be kept by Seller 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. Seller shall maintain such records for a period of not less than six (6) years.

- (d) Reclosing. Under no circumstances shall Seller, when separated from the Company System for any reason, 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. Seller shall comply with the critical infrastructure protection requirements set forth in Section 1(b)(iii)G of this Attachment B (Facility Owned by Seller).
- (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) Reactive Power Control. Seller shall control its reactive power by automatic voltage regulation control. Seller shall automatically regulate voltage at 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 Amount) of this Attachment B (Facility Owned by Seller). **[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.]**

(i) Seller shall install sufficient equipment so that each [ ] kVA inverter online at the Facility will have the ability to deliver or receive, at the Point of Interconnection, reactive power as illustrated in the **[generator capability]** curve(s) attached to this Agreement as Exhibit B-2 (Generator Capability Curve(s)). **[NOTE: THE IRS WILL DETERMINE IF ANY ADDITIONAL REACTIVE POWER RESOURCES WILL BE REQUIRED.]**

- (ii) 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 or changes in real power output. 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.
- (iii) If the Facility does not operate in accordance with Section 3(b)(i) of this Attachment B (Facility Owned by Seller), Company may disconnect all or a part of Facility from Company System until Seller corrects its operation (such as by installing capacitors at Seller's expense).
- (c) Ramp Rates.
- (i) Seller shall ensure that the ramp rate of the Facility is less than the following limits for all conditions including start up, normal operations, Seller adjusting the Facility's net real power export, changes in the solar resource, and shut down (for the following periods as calculated in accordance with Attachment C (Methods and Formulas For Measuring Performance Standards)).

Island of Maui **[NOTE: THESE VALUES MAY BE CHANGED BY COMPANY UPON COMPLETION OF THE IRS.]**

- Maximum Ramp Rate Upward of 2 MW/minute for all periods.
- Maximum Ramp Rate Downward of 2 MW/minute for all periods.

Islands of Moloka'i and Lāna'i **[NOTE: THESE VALUES MAY BE CHANGED BY COMPANY UPON COMPLETION OF THE IRS.]**

- Maximum Ramp Rate Upward of 0.1 MW/minute for all periods.
- Maximum Ramp Rate Downward of 0.1 MW/minute for all periods.

(ii) Upon receiving a command from the Company active power limit control(s) described in Section 1(g)(viii) of this Attachment B (Facility Owned by Seller), Seller shall adjust the Facility's net real power export at a ramp rate, as calculated in accordance with Attachment C (Methods and Formulas for Measuring Performance Standards), to be specified by the Company to the extent allowed by the solar resource without exceeding such ramp rate and without intentional delay.

(iii) The Facility is allowed to exceed the maximum ramp rate limits in Section 3(c) (Ramp Rates) of this Attachment B (Facility Owned by Seller) when Facility output is changed by the frequency response control described in Section 3(m) (Frequency Response) of this Attachment B (Facility Owned by Seller).

(d) Reserved.

(e) Undervoltage Ride-Through.

The Facility, as a whole, shall meet the following minimum 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 pu  $\leq$  V  $\leq$  1.00 pu      The Facility remains connected to the Company System and in continuous normal operation.

0.50 pu  $\leq$  V  $<$  0.88 pu      The Facility shall disconnect from the Company System if the voltage remains in this range for more than 22 seconds.



0.00 pu  $\leq$  V < 0.50 pu      The Facility shall disconnect from the Company System if voltage remains in this range for more than [REDACTED] milliseconds. **[TO BE DETERMINED BY COMPANY BASED ON RESULTS OF IRS]**

Seller 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 69 kV transmission faults cleared after 5 cycles with one reclose attempt, cleared in 5 cycles, 30 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 30 cycles between the initial clearing time and the reclosing time.
- Normally cleared 23 kV 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 pu. RIDE-THROUGH REQUIREMENTS FOR OTHER SYSTEMS WILL BE DETERMINED IN THE IRS.]:**

1.00 pu < V  $\leq$  1.10 pu      The Facility remains connected to the Company System.

- 1.10 pu < V ≤ 1.15 pu      The Facility shall disconnect from the Company System if voltage remains in this range for more 1 seconds.
- 1.15 pu < V ≤ 1.175 pu      The Facility shall disconnect from the Company System if voltage remains in this range for more than 500 milliseconds.
- 1.175 pu < V ≤ 1.2 pu      The Facility shall disconnect from the Company System if voltage remains in this range for more than 200 milliseconds.
- V > 1.2 pu      The Facility shall disconnect from the Company System within 0.1667 seconds (10 cycles).

(g) [RESERVED]

(h) 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(e) (Undervoltage Ride Through) of this Attachment B (Facility Owned by Seller), upon clearing of the fault, Seller shall within 1 second of restoration, provide at least 90% of the real power output at the Point of Interconnection immediately before the fault without regard to the ramp rate requirements of Section 3(c) (Ramp Rates) of this Attachment B (Facility Owned by Seller) to the extent allowed by the availability of the **solar** resource. The fault ride through requirement does not apply if the Facility is operating at less than five percent (5%) of the Facility's nameplate capacity.

(i) Underfrequency ride-through.

(i) Islands of O'ahu, Maui and Hawai'i

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) **[THE ACTUAL CLEARING TIMES WILL**

**BE DETERMINED BY THE COMPANY IN CONNECTION WITH THE IRS]:**

- |                                 |  |
|---------------------------------|--|
| 57.0 Hz $\leq$ f $\leq$ 60.0 Hz | The Facility remains connected to the Company System.  |
| 56.0 Hz $\leq$ f < 57.0 Hz      | The Facility shall disconnect from the Company System if frequency remains in this range for more than 20 seconds. |
| f < 56.0 Hz                     | The Facility shall disconnect from the Company System within 0.1667 seconds (10 cycles).                           |

(ii) Islands of Moloka'i and Lāna'i

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) **[THE ACTUAL CLEARING TIMES WILL BE DETERMINED BY COMPANY IN CONNECTION WITH THE IRS]:**

- |                                 |  |
|---------------------------------|--|
| 57.0 Hz $\leq$ f $\leq$ 60.0 Hz | The Facility remains connected to the Company System.  |
| 50.0 Hz $\leq$ f < 57.0 Hz      | The Facility shall disconnect from the Company System if frequency remains in this range for more than 20 seconds. |
| f < 50.0 Hz                     | The Facility shall disconnect from the Company System within 0.1667 seconds (10 cycles).                           |

(j) Overfrequency ride-through.

(i) Islands of O'ahu, Maui and Hawai'i

The Facility will behave as specified below for overfrequency conditions ("f" is the Company System frequency at the Point of Interconnection) **[THE ACTUAL CLEARING TIMES WILL BE DETERMINED BY COMPANY IN CONNECTION WITH THE IRS ]:**

60.0 Hz < f ≤ 63.0 Hz	The Facility remains connected to the Company System.
63.0 Hz < f ≤ 64.0 Hz	The Facility shall disconnect from the Company System if frequency remains in this range for more than 20 seconds.
f > 64.0 Hz	The Facility shall disconnect from the Company System within 0.1667 seconds (10 cycles).

(ii) Islands of Moloka'i and Lāna'i

The Facility will behave as specified below for overfrequency conditions ("f" is the Company System frequency at the Point of Interconnection) **[THE ACTUAL CLEARING TIMES WILL BE DETERMINED BY COMPANY IN CONNECTION WITH THE IRS]**:

60.0 Hz < f ≤ 63.0 Hz	The Facility remains connected to the Company System.
63.0 Hz < f ≤ 65.0 Hz	The Facility shall disconnect from the Company System if frequency remains in this range for more than 20 seconds.
f > 65.0 Hz	The Facility shall disconnect from the Company System within 0.1667 seconds (10 cycles).

(k) 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".

(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". Seller 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) Frequency Response.

Seller 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.

- (i) The Facility 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 B (Facility Owned by Seller), the Facility's net real power export when system frequency is not 60 Hz based on frequency deadband and frequency droop settings specified by the Company.
- (ii) The Facility frequency response control shall be allowed to increase the net real power export above the Power Reference Limit set under Section 1(g) (viii) of this Attachment B (Facility Owned by Seller) or further decrease the net real power export from the Power Reference Limit in its operations.
- (iii) 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%.
- (iv) The Facility frequency response control shall be in continuous operation when the Facility is exporting energy to the Company unless directed otherwise by the Company.

(n) Inertia Constant.

Synchronous Generator(s) must have an inertia constant (H) between 4 to 6 seconds. **[TO BE REVIEWED BY COMPANY]**

**FOLLOWING THE IRS. WITHOUT LIMITATION TO THE FOREGOING, IF THE FACILITY LACKS INHERENT INERTIAL CAPABILITIES BUT IS CAPABLE OF PRODUCING SYNTHETIC INERTIA, COMPANY SHALL REVISE THIS SECTION TO APPROPRIATELY REFLECT SUCH OPERATIONAL CONSIDERATIONS.]**

4. Maintenance of Seller-Owned Interconnection Facilities.

- (a) Seller must address any Disconnection (as defined below) according to the requirements of this Section 4 (Maintenance of Seller-Owned Interconnection Facilities) of Attachment B (Facility Owned by Seller). For this purpose, a Disconnection is a disconnection from Company System of at least [REDACTED] MW **[TO BE DETERMINED BY COMPANY FOLLOWING THE IRS]** from the Facility over a "rolling 120-second period", if such disconnection is due to a defect in or a failure of Seller-Owned Interconnection Facilities. 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.
- (b) For every disconnection from the Company System of at least [REDACTED] MW **[TO BE DETERMINED BY THE COMPANY UPON COMPLETION OF THE IRS]** from Facility over a rolling 120-second period ("Disconnection Event"), Seller shall investigate the cause of the Disconnection Event, and determine if it is a Disconnection as defined in Section 4(a) of this Attachment B (Facility Owned by Seller). Within three (3) Business Days of the Disconnection Event, Seller shall provide, in writing to Company, an incident report that summarizes the sequence of events and probable cause of the Disconnection Event, and states whether the Seller believes the Disconnection Event is a Disconnection.
- (c) Within forty-five (45) Days of a Disconnection, Seller shall provide, in writing to Company, Seller's findings, data relied upon for such findings, and proposed actions to prevent reoccurrence of a Disconnection ("Proposed Actions"). Company may assist Seller in determining the causes of and recommendations to remedy or prevent a Disconnection ("Company's Recommendations"). Seller 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 Seller 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) whether the Disconnection Event is a Disconnection, (iv) the Proposed Actions, (v) Company's Recommendations, and/or (vi) 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 B (Facility Owned by Seller).
- (e) Upon the fourth (4th) Disconnection (and each subsequent Disconnection) within any Contract Year, the Parties shall follow the procedures set forth in Section 4(a) and Section 4(d) of Attachment B (Facility Owned by Seller), to the extent applicable. If after following the procedures set forth in this Section 4 (Maintenance of Seller-Owned Interconnection Facilities) of Attachment B (Facility Owned by Seller), Seller and Company continue to have a disagreement as to (1) the probable cause of the Disconnection, (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 Agreement as Attachment D (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 Seller-Owned Interconnection Facilities ("Study"). Seller 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 (and each subsequent Disconnection) within any Contract Year, unless otherwise agreed to in writing by Seller and Company. The Qualified Consultant shall send the Study to Company and Seller. Seller (and/or its Third-Party consultants and contractors), at Seller's expense, shall change the design of, change the operating and

maintenance procedures dealing with, implement modifications to, and/or perform the maintenance on Seller-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 otherwise agreed to in writing by Company. In the event the time requirement for the (i) commissioning of the Study, (ii) completion of the Study, or (iii) completion of the design change, operating and maintenance procedure change, modifications, and/or maintenance recommended by the Study is not achieved, Company may limit the total Allowed Capacity to a level that maintains reliable operations in accordance with Good Engineering and Operating Practices for the period that such requirement has not been achieved. Nothing in this provision shall affect Company's right to dispatch the Facility as provided for in this Agreement.

- (f) The Consultants List attached hereto as Attachment D (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 Seller regarding (i) Seller's compliance with the standards set forth in Section 3 (Performance Standards) of this Attachment B (Facility Owned by Seller), and/or (ii) Section 4



(Maintenance of Seller-Owned Interconnection Facilities) of this Attachment B (Facility Owned by Seller) such as (aa) whether a Disconnection Event occurred, (bb) the sequence of events and/or probable cause of the Disconnection Event, (cc) whether the Disconnection Event is a Disconnection, (dd) the Proposed Actions, (ee) the Company's Recommendations, and (ff) the time period to implement the Proposed Actions and/or the Company's Recommendations, then authorized representatives from Company and Seller, 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 either Party may pursue the dispute resolution procedure set forth in Article 28 (Dispute Resolution) of this Agreement.

6. Modeling.

(a) Seller's Obligation to Provide Models. Within 30 Days of Company's written request, but no later than the Commercial Operations Date, Seller 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 electromagnetic 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, Seller shall provide working updates of any Required Model within 30 Days of (i) Company's written request, or (ii) Seller 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) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned by Seller), the Required Models are provided to the Company in a form other than Source Code, Seller 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)(i) (Source Code Escrow) no later than the time periods set forth in Section 6(a) (Seller's Obligation to Provide Models) for delivery of the Required Models. Seller shall be responsible for all costs associated with establishing and maintaining the Source Code Escrow. If, however, Seller is unable to deposit the required Source Code into the Source Code Escrow within the time periods set forth in Section 6(a) (Seller's Obligation to Provide Models), Seller shall, no later than such time periods, instead establish a monetary escrow as set forth below in Section 6(b)(ii) (Monetary Escrow) of this Attachment B (Facility Owned by Seller).

(i) 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) of this Attachment B (Facility Owned by Seller), Seller 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:

(i) A receiver, trustee, or similar officer is appointed, pursuant to federal, state or applicable foreign law, for the Source Code Owner;

(ii) 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

(iii) Failure of the Source Code Owner to function as a going concern or operate in the ordinary course; or

(iv) Seller and the Source Code Owner fail to provide to Company the Required Models or updated Required Models within the time periods set forth in Section 6(a) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned by Seller), Company gives written notice of such failure to Seller and the Source Code Owner, and Seller 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)(i)(B) (Release Conditions) of Attachment B (Facility Owned by Seller), and Company finds that Seller 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)(i) (Establishment of Source Code Escrow) of Attachment B (Facility Owned by Seller) or that the Source Code for the Required Models is incomplete or otherwise unusable, Seller shall be liable to Company for liquidated damages in the amount of \$500 per day for each day Seller 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)(i)(A) (Establishment of Source Code Escrow) of Attachment B (Facility Owned by Seller) shall constitute an Event of Default pursuant to Section 15.2(F) (Events of Default by a Party) under the Agreement.

(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)(i)(B) (Release Conditions) of Attachment B (Facility Owned by Seller) of

the Power Purchase Agreement 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 Seller under Section 6(a) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned By Seller) (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 Authorized Use. Promptly upon Seller's request, Company shall provide Seller 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.

(ii) Monetary Escrow.

(A) Establishment of Monetary Escrow. 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) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned by Seller) and if the Seller 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)(i) (Source Code Escrow) of this Attachment B (Facility Owned by Seller) then, no later than the time periods set forth in Section 6(a) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned by Seller) for delivery of the Required Models and Source Code, Seller shall provide an irrevocable standby letter of credit 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 Agreement as Attachment M (Form of Letter of Credit) from a bank or other financial institution located 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. 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 Seller 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 Seller.

(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 Seller fails to provide the Company the Required Models or updated Required Models within the time periods set forth in Section 6(a) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned by Seller), Company gives written notice of such failure to Seller, and Seller fails to remedy such breach within five (5) days following receipt of such notice.

(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 Seller's cost, in an escrow account in accordance with Section 6(b)(ii)(D) (Proceeds Escrow), until and unless Seller provides a substitute form of letter of credit meeting the requirements of this Section 6(b)(ii) (Monetary Escrow) of this Attachment B (Facility Owned by Seller).

(D) Proceeds Escrow. If Company draws on the letter of credit pursuant to Section 6(b)(ii)(C) (Extend

Letter of Credit) of this Attachment B (Facility Owned by Seller), 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)(ii)(D) (Proceeds Escrow) of this Attachment B (Facility Owned by Seller) 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 Proceeds as necessary to recover amounts Company is owed pursuant to this Section 6 (Modeling) of this Attachment B (Facility Owned by Seller). To that end, 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 account. Seller shall not be a party to such documentation and shall have no rights to the Proceeds. Upon full satisfaction of Seller's obligations under Section 6 (Modeling) of this Attachment B (Facility Owned by Seller), Company shall instruct the 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) Seller'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, Seller shall pay to Company the difference within ten (10) Days of Company's written notice to Seller.

(F) Model Verification. Seller 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. Seller shall also arrange for and ensure that Company may obtain new Required Models directly from the Source Code Owner in the event that Seller 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 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)(ii)(B) (Release Conditions) of Attachment B (Facility Owned by Seller) of the Power Purchase Agreement dated as of \_\_\_\_\_, between \_\_\_\_\_, and Maui Electric.

(H) Authorized Use. If Company becomes entitled to a release of funds from 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 Seller under Section 6(a) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned by Seller) (the "Monetary Authorized Use").

(iii) Supplementary Agreement. The parties stipulate and agree that the escrow provisions in this Attachment B (Facility Owned By Seller), Section 6(b) (Escrow Establishment) and the Source Code Escrow Agreement and Monetary Escrow Agreement are "supplementary agreements" as contemplated in Section 365(n)(1)(B) of the Code. In any voluntary or involuntary bankruptcy proceeding involving Seller, 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 monetary 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, Seller

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 Seller-Attributable Non-Generation status until the new relevant tests of the Control System Acceptance Test have been successfully passed.

- B. Periodic Testing. Seller shall coordinate periodic testing of the Facility with Company to ensure that the Facility is meeting the performance standards specified under this Agreement.

8. Data and Forecasting.

Seller shall provide Site, meteorological and production data in accordance with the terms of Article 6 (Forecasting) of this Agreement and the following requirements:

- (i) Physical Site Data: Seller shall provide Company with an accurate description of the physical Site, including but not limited to the following, which may not be changed during the Term without Company's prior written consent:
- A. Location Facility map showing the layout of the Facility (coverage area or footprint), coordinates (latitude and longitude) elevation (above ground), orientation angle and direction (north-east-south-west plane) of arrays/concentrators.
  - B. Location (latitude and longitude) of each MMT and elevation (above ground) of each MMS and each field measurement device located on such MMS.
  - C. Inverter type, power rating, array configuration to inverters and DC rating of



the Facility at the following standard test conditions: irradiance of  $1000 \text{ W/m}^2$ , air mass 1.5, and cell temperature  $25^\circ \text{ C}$ .

- D. Solar generation technology employed at the Facility with temperature dependence, mounting and module type.

(ii) Meteorological and Production Data:

- A. Seller 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.
- B. Seller 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.
- C. 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.
- D. For purposes of calculating the Measured Performance Ratio, the Seller shall provide (i) Plane of Array irradiance, (ii) back of panel temperature at array height, and (iii) the power production at the Facility's equipment on the Seller's side of the Point of Interconnection.
- E. Seller 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 Agreement updated every 2 seconds.
- F. For facilities with a Contract Capacity greater than 1 MW, Seller shall arrange for a dedicated 12 kV 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.

(iii) Units and Accuracy:

A. The Table below shows minimum required solar irradiance measurements for various types of solar generation technology. **[DRAFTING**

**TABLE.]** 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

B. 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)**

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
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 Seller	MW	0 to inverter name plate	Not applicable
Power production of Facility	Measured at Facility's equipment on	MW	Up to Allowed Capacity	The lesser of the tolerances of

	Seller's side of POI			the communication / telemetry equipment or 2% of measurement
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	Seller's Model	MW	0 to Allowed Capacity	+/-0.1 MW

(iv) Status of Inverters for Purposes of Calculating Facility Availability:

C. For each inverter, Seller shall, unless agreed otherwise by Company and Seller in writing, provide to Company, via SCADA communication and protocol acceptable to Company at a continuous scan updated not less than frequently than every 2 seconds, a signal as to whether such inverter is available or unavailable.

9. Technology Specific Requirements.

(a) Three-Phase Synchronous Generators.

The generating facility circuit breakers shall be 3-phase devices with electronic or electromechanical control. The Seller shall be responsible for properly synchronizing its generating facility with the Company System by means of either a manual or automatic synchronizing function. Automatic synchronizing is

required for all synchronous generators which have an short circuit current rating ("SCCR") greater than 5%. For a generating facility whose SCCR exceeds 5%, the Facility shall provide protective equipment suitable for detecting loss of synchronism and automatically disconnecting the generating facility from the Company System. Unless otherwise agreed to between the Company and Seller, synchronous generators shall automatically regulate power factor, not voltage, while operating in parallel with the Company System.

(b) Induction Generators.

- (i) Induction generators may be connected and brought up to synchronous speed (as an induction motor) if it can be demonstrated that the initial voltage drop measured at the Point of Interconnection is within the visible flicker limits as defined by IEEE 519-1992 (or latest version). The same requirements also apply to induction generation connected at or near synchronous speed because a similar voltage dip is present due to an inrush magnetizing current. The Facility shall submit number of starts per specific time period and maximum starting kVA draw data for the utility to verify that the voltage dip due to starting is within the visible flicker limits and does not degrade the normal voltage provided by the utility.
- (ii) Induction generators do not require separate synchronizing equipment. Starting or rapid load fluctuations on induction generators can adversely impact the Company System voltage. Corrective step-switched capacitors or other techniques may be necessary if the voltage fluctuations measured at the Point of Interconnection are not within the visible flicker limits as defined by IEEE 519-1992 (or latest version). These measures can, in turn, cause ferroresonance. If these measures (additional capacitors) are installed on Seller's side of the Point of Interconnection, the Company will review these measures and may require Seller to install additional protective relaying equipment. Company will determine whether additional equipment is required to protect the Company System.

(c) Inverter Systems.

- (i) 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. 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 B (Facility Owned by Seller).
- (ii) 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).

EXHIBIT B-1  
REQUIRED MODELS

PSS/E

ASPEN

PSCAD

EXHIBIT B-2  
GENERATOR CAPABILITY CURVE(S)



**DRAFT REQUEST FOR PROPOSALS**  
**FOR**  
**VARIABLE RENEWABLE DISPATCHABLE GENERATION**

**ISLAND OF MAUI**

**FEBRUARY 2, 2018**

Docket No. 2017-0352

*Model Wind RDG PPA*  
*Attachment B*

[Note: The body of the Companies' RDG PPAs for both PV and wind are the same for all three Companies and are therefore not reproduced as part of this exhibit. Some of the attachments to the RDG PPA for both PV and wind are island specific and such island specific attachments for Maui are provided in Exhibit 7 of this Transmittal Letter]



**Maui  
Electric**

**[ATTACHMENT B WILL BE REVISED TO REFLECT  
THE RESULTS OF IRS]**

ATTACHMENT B  
FACILITY OWNED BY SELLER

1. The Facility.

(a) Drawings, Diagrams, Lists, Settings and As-Builts.

- (i) 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 Seller has obtained prior written consent from Company, be attached to this Agreement on the Execution Date as Attachment E (Single-Line Drawing and Interface Block Diagram) and Attachment F (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 "Final" Single-Line Drawing, the "Final" Interface Block Diagram and "Final" Relay List and Trip Scheme and shall supersede Attachment E (Single-Line Drawing and Interface Block Diagram) and Attachment F (Relay List and Trip Scheme) to this Agreement 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 Seller and Company. The single-line drawing shall expressly identify the Point of Interconnection of Facility to Company System.
- (ii) As-Builts. Seller shall provide final as-built drawings of the Seller-Owned Interconnection Facilities within 30 Days of the successful completion of the Acceptance Test.

(iii) No Material Changes. Seller agrees that no material changes or additions to 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 Seller 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 Seller in writing, and, except in the case of an emergency, Seller shall have the opportunity to review and comment upon any such changes or additions in advance.

(b) Certain Specifications for the Facility.

(i) Seller 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.

(ii) The Facility shall include:

**[LIST OF THE FACILITY**

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

- **Seller-Owned Interconnection Facilities**
- **Substation**
- **Control and monitoring facilities**
- **Transformers**
- **Generators (as described in Attachment A)**
- **"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]**

(iii) The Facility shall comply with the following **[includes excerpts of language that may be requested by Company]**:

- A. Seller shall install a \_\_\_\_ kV 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. Seller shall provide within the Seller-Owned Interconnection Facilities a separate, fenced area with separate access for Company. Seller shall provide all conduits, structures and accessories necessary for Company to install the Revenue Metering Package. Seller shall also provide within such area, space for Company to install its communications, supervisory control and data acquisition ("SCADA") remote terminal unit ("RTU") and certain relaying if necessary for the interconnection. Seller shall also provide AC and DC source lines as specified later by Company. Seller shall provide a telephone line for Company-owned meters. Seller shall work with Company to determine an acceptable location and size of the fenced-in area. Seller shall provide an acceptable demarcation cabinet on its side of the

fence where Seller and Company wiring will connect/interface.

- C. Seller shall ensure that the Seller-Owned Interconnection Facilities has a lockable cabinet for switching station relaying equipment. Seller 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. Seller shall install protective relays that operate a lockout relay, which in turn will trip the main circuit breaker.
- D. Seller shall configure the relay protection system to provide overpower protection to enable Facility to comply with the Allowed Capacity limitation.
- E. Seller's equipment also shall provide at a minimum:
  - (i) Interface with Company's RTU, 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;
  - (ii) Interface with Company's RTU, or designated communications and control interface, to provide status for circuit breakers, reactive devices, switches, and other equipment as identified by the Company;
  - (iii) Interface with Company's RTU, or designated communications and control interface, to provide

control to incrementally raise and lower the voltage and power factor setpoints at the point of regulation operating in automatic voltage regulation control. If Company's RTU, or designated communications and control interface, is unavailable, due to loss of communication link, RTU failure, or other event resulting in loss of the remote control by Company, provision must be made for Seller to be able 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 as directed by the Company System Operator;

- (iv) Interface with Company's RTU, or designated communications and control interface, to provide active power control to incrementally limit net real power export from the Facility and to incrementally remove the limit of the net real power export of the Facility. The incremental size will be determined as part of the Interconnection Requirements Study taking into account the size of the Facility and the dynamic system frequency bias; and
- (v) For Wind Facilities: Interface with Company's RTU, or designated communications and control interface, to provide telemetry of turbine availability and meteorological

and production data required under Section 8 (Data and Forecasting) of this Attachment B (Facility Owned by Seller) and the Facility's Power Possible.

F. If Seller 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, Seller shall be required to obtain Company's prior written approval. If an analysis to revise parts of the IRS is required, Seller 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. Critical Infrastructure Protection.

(i) Documentation. Seller shall submit documentation describing the approach, methodology and design to provide physical and cyber security with its submittal of the design drawings pursuant to Section 1(c) (Design Drawings, Bill of Materials, Relay Settings and Fuse Selection) of Attachment B (Facility Owned by Seller) which shall be at least sixty (60) Days prior to the Acceptance Test.

- The design shall meet industry standards and best practices, as indicated by NERC CIP guidelines and requirements for critical generation facilities. The system shall be designed with the criteria to meet applicable industry standards and guidelines (at the time of this writing, NERC CIP, or any future standard adopted by the industry in its place) compliance requirements and identify areas

that are not consistent with NERC CIP guidelines and requirements.

- The cyber-security documentation shall include a block diagram of the control system with all external connections clearly described.
- Seller shall provide such additional information as Company may reasonably request as part of a security posture assessment.
- Company shall be notified in advance when there is any condition that would compromise physical or cyber security, or if any breaches in security, or security incidents are detected.

(ii) Malware. Seller shall (consistent with the following sentence) ensure that no malware or similar items are coded or introduced into any aspect of the Facility, Interconnection Facilities, the Company Systems interfacing with the Facility and Interconnection Facilities, and any of Seller's critical control systems or processes used by Seller to provide energy, including the information, data and other materials delivered by or on behalf of Seller to Company, (collectively, the "Environment"). Seller will continue to review, analyze and implement improvements to and upgrades of its Malware prevention and correction 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 Seller with respect to its own information systems. If Malware is found to have been introduced into the Environment, Seller will promptly notify Company and Seller shall take immediate action to eliminate and remediate the effects of the Malware, at Seller's expense. Seller shall not modify or otherwise take corrective action with respect to the Company Systems except at Company's request. Seller will promptly report to Company the nature and status of all Malware elimination and remediation efforts.

- (iii) Security Breach. In the event that Seller discovers or is notified of a breach, potential breach of security, or security incident at Seller's Facility or of Seller's systems, Seller shall immediately (i) notify Company of such potential, suspected or actual security breach, whether or not such breach has compromised any of Company's confidential information, (ii) investigate and promptly remediate the effects of the breach, whether or not the breach was caused by Seller, (iii) cooperate with Company with respect to any such breach or unauthorized access or use; (iv) comply with all applicable privacy and data protection laws governing Company's or any other individual's or entity's data; and (v) to the extent such breach was caused by Seller, provide Company with reasonable assurances satisfactory to Company that such breach, potential breach, or security incident shall not recur. Seller shall provide documentation to Company evidencing the length and impact of the breach. Any

remediation of any such breach will be at Seller's sole expense.

(iv Monitoring and Audit. Seller's shall provide information on available audit logs and reports relating to cyber and physical and security. Company may audit Seller's records to ensure Seller's compliance with the terms of this Section 1(b)(iii)G (Critical Infrastructure Protection) of this Attachment B (Facility Owned by Seller), provided that Company has provided reasonable notice to Seller and any such records of Seller's will be treated by Company as confidential.

H. Because a reliable Power Possible value under Section 1(b)(iii)(E)(v) of this Attachment B (Facility Owned by Seller) is necessary throughout the Term in order for Company to effectively optimize the benefits of its right of Company Dispatch, it is the expectation of the Parties that the model and data inputs used by the Seller to calculate Power Possible will be validated during the Evaluation Periods described below as more fully set forth below.

(i) The relationship between the 10-minute averaged Power Possible value and the Facility's 10-minute averaged actual power production at the Point of Interconnection shall be evaluated in 10-minute intervals for periods described below. The periods eligible for such evaluation (each such period an "Eligible Period") are periods during which both of the following conditions continuously apply for a duration of not less than 20

consecutive minutes: (aa) the Facility is in an operative state (i.e., the Facility is available to produce and export energy to the Point of Interconnection); and (bb) the Measured Wind Speed is within the following range (the "Evaluation Range"): not less than 1 m/s below the manufacturer's specified cut-in-wind speed and not more than 1.5 times the wind speed specified by the manufacturer as associated with 85% of the rated power of the WTGS(s). For avoidance of doubt, the aforementioned 20-minute minimum is not a cap on the duration of an Eligible Period, which shall continue for as long as the two conditions set forth in the preceding sentence continuously apply. The periods for which the relationship between the 10-minute averaged Power Possible value and the 10-minute averaged actual power production will be evaluated (each such 10-minute period an "Evaluation Period") shall commence 10 minutes after the commencement of the Eligible Period in question and shall consist of each of the consecutive 10-minute intervals that are encompassed within the balance of such Eligible Period.

- (ii) An Evaluation Period shall constitute a Power Possible Discrepancy Period if the 10-minute averaged Power Possible value for such Evaluation Period is outside of a band of

plus or minus **0.1 MW** of the 10-minute averaged actual power production at the Point of Interconnection for that same Evaluation Period.

- (iii) Upon the occurrence of a Power Possible Discrepancy Period, Seller shall promptly investigate the reason why the bandwidth was exceeded, take such action as may be necessary to improve Seller's model and data inputs for calculating Power Possible with the objective of avoiding future Power Possible Discrepancy Periods, and provide to Company, within thirty (30) Days of the occurrence of the Power Possible Discrepancy Period in question, a written report of both the results of such investigation and the action taken by Seller.
  
- (iv) If, at any time during the Term, four consecutive Evaluation Periods each constitute a Power Possible Discrepancy Period: (aa) the model and data inputs used by Seller to calculate Power Possible shall be considered to be invalidated and the Parties shall promptly commission a study to be performed by one of the engineering firms then included on the OEPR Consultants List to evaluate the cause of the Power Possible Discrepancy Periods and to make recommendations with the objective of avoiding future Power Possible Discrepancy Periods ("Study");

and (bb) if the Company decides that its ability to effectively optimize the benefits of its right of Company Dispatch is materially impaired by the lack of a validated Power Possible calculation, the Company shall have the right to derate the Facility and the Facility shall be deemed to be in Seller-Attributable Non-Generation status until the Study has been completed and the Study's recommendations have been implemented by Seller to Company's reasonable satisfaction. Seller shall pay for the cost of the Study. The Study shall be completed within ninety (90) days from such fourth consecutive Power Possible Discrepancy Period, unless otherwise agreed to in writing by Seller and Company. The Consultant shall send the Study to Company and Seller. Seller (and/or its Third-Party consultants and contractors), at Seller'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 Discrepancy Periods.

Such recommendations shall be implemented by Seller to Company's reasonable satisfaction no later than forty-five (45) Days from the Day the completed Study is issued by the consultant, unless otherwise agreed to in writing by Company.

- I. Seller shall reserve space within the Site for possible future installation of Company-owned meteorological equipment (such as wind speed, direction and relative humidity monitors) and AC and DC source lines for such equipment. In the event Company decides to install such meteorological equipment: (i) Seller 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 Seller 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 Materials, Relay Settings and Fuse Selection. Seller 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 Seller's interconnected system. Seller shall provide the relay settings, fuse selection, and AC/DC Schematic Trip Scheme (part of design drawings) for the Facility to Company at least sixty (60) Days prior to the Acceptance Test. Company, at its option, may, with reasonable frequency, witness Seller's operation of control, synchronizing, and protection schemes and shall have the right to periodically re-specify the settings. Seller shall utilize relay settings prescribed by Company, which may be changed over time as Company System requirements change.

- (d) Disconnect Device. Seller 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. Seller 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 ductlines, 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. **[COMPANY TO REVISE THIS SECTION 1(E) PRIOR TO EXECUTION FOR SPECIFICS OF THE PROJECT.]**
- (f) Maintenance Plan. Seller shall maintain Seller-Owned Interconnection Facilities in accordance with the following maintenance plan:

Transmission line: [REDACTED]

[REDACTED] kV Facility switching station:  
[REDACTED]

Relay protection equipment: [REDACTED]

Other equipment as identified: [REDACTED]

Seller 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.

- (i) Seller 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 maximum level of the net real power export from the Facility when required under this Attachment B (Facility Owned by Seller). The implementation of the Active Power Control Interface will allow Company System Operator to initiate the active power limiting, vary the level of limiting, and remove the limiting remotely from Company System Operations Control Center through control signals from Company's SCADA and EMS systems.
- (ii) 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. In order to ensure such continued compatibility, Seller shall not materially change the approved design without Company's prior review and prior written approval.
- (iii) The Active Power Control Interface shall include, but not be limited to, a demarcation cabinet, ancillary equipment and software necessary for Seller to connect to Company's RTU, or designated communications and control interface, 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 (setpoint) controls.

(iv) The Active Power Control Interface shall also include provision for feedback points from the Facility indicating when active power limiting is in effect and the analog value of the MW limit(s). The Facility shall provide the feedback to the Company SCADA system within 2 seconds of receiving the respective control signal from the Company.

(v) Seller shall provide to the telemetry interface an analog signal for the MW gross production of each individual generating unit, and an analog signal for the total net MW production at the Point of Interconnection.

(vi) 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 shall not export electric energy to Company, unless the Company, in its sole discretion, agrees to accept electric energy and Seller and Company agree on an alternate means of dispatch. Notwithstanding the foregoing, if Seller fails to provide such remote control features (whether temporarily or throughout the Term) and fails to discontinue exporting electric energy to Company as required by this Section 1(g)(vi), then, notwithstanding any other provision of this Attachment B (Facility Owned by Seller), Company shall have the right to derate or disconnect the entire Facility during those periods that such control features are not provided.

- If all local and remote active power controls become unavailable or fail, the Facility shall immediately disconnect from the Company's System.
- If the direct transfer trip is unavailable due to loss of communication

link, RTU failure, or other event resulting in the loss of the remote control by the Company, provision must be made for the Seller to curtail to zero at a controlled rate until such time as the direct transfer trip is restored.

(vii) The rate at which the Facility changes net real power export shall not exceed the ramp rate specified in Section 3(c) (Ramp Rate) of Attachment B (Facility Owned by Seller). 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]**

(viii) The Active Power Control Interface shall accept the following active power control(s) from the Company centralized control systems:

- **Maximum Power Limit:** The Facility is not allowed to exceed this setting under any circumstances. The frequency response control specified in Section 3(m) (Frequency Response) of Attachment B (Facility Owned by Seller) is not allowed to increase the Facility's net real power export above this limit. When the Maximum Power Limit is set to zero, the Facility's WTGS(s) must be shutdown. **[Applicability subject to Company review]**.
- **Power Reference Limit:** The Facility is not allowed to exceed this setting when system frequency is at 60 Hz. When system frequency is not 60 Hz, the Facility's net real power export is allowed to exceed this setting or be further reduced below this setting when commanded by the frequency response control specified in Section 3(m) of Attachment B (Facility Owned by Seller).

(ix) Seller shall not override Company's active power controls without first obtaining

specific approval to do so from the Company System Operator.

- (x) 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.

- (i) Conditions Precedent. The following conditions precedent must be satisfied prior to the conduct of the Control System Acceptance Test:

- Successful Completion of the Acceptance Test.
- Facility has been successfully energized.
- All of the Facility's generators 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.

- (ii) Facility Generators. Unless all of the Facility's generators are 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 Seller demonstrates to the satisfaction of the Company that the test results attained with less than all of the Facility's generators are consistent with the results that would have been attained if all of the Facility's generators had been available for the duration of the test.

- (i) 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 Seller shall agree on a written protocol setting out the detailed procedure and criteria for passing the Control

System Acceptance Test. Attachment O (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 Seller 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 Attachment A (Description of Generation and Conversion Facility), such changes shall be reflected in an amendment to this Agreement, 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. Seller is responsible for securing the Facility. Seller shall have personnel available to respond to all calls related to security incidents and shall take commercially reasonable efforts to prevent any security incidents. Seller is also responsible for maintaining the Facility, including vegetation management, to prevent security breaches. Seller 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 communicated by Seller, to notify Seller in writing of Seller's failure, as observed by Company and set forth in such written notice, to meet the operational and performance requirements specified in Section 1(g) (Active Power Control Interface) and Section 3 (Performance Standards) of this Attachment B (Facility Owned by

Seller), and to require documentation or testing to verify compliance with such requirements. Upon receipt of such notice, Seller shall promptly investigate the matter, implement corrective action and provide to Company, within thirty (30) Days of such notice, a written report of both the results of such investigation and the corrective action taken by Seller. If the Seller'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 OEPR Consultants List to evaluate the cause of the non-compliance and to make recommendations to remedy such non-compliance. Seller shall pay for the cost of the study. The study shall be completed within ninety (90) days, unless otherwise agreed to in writing by Seller and Company. The consultant shall send the study to Company and Seller. Seller (and/or its Third-Party consultants and contractors), at Seller'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 Seller to Company's reasonable satisfaction no later than forty-five (45) Days from the Day the completed study is issued by the consultant, unless otherwise agreed to in writing by Company. Failure to implement such recommendations within this period shall constitute a material breach of this Agreement.

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 Seller 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. Seller must separate from Company System whenever requested to do so by the Company System Operator pursuant to Article 8 (Company Dispatch) and

Article 9 (Personnel and System Safety) of the Agreement.

- (c) Seller Logs. Logs shall be kept by Seller 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. Seller shall maintain such records for a period of not less than six (6) years.
- (d) Reclosing. Under no circumstances shall Seller, when separated from the Company System for any reason, 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. Seller shall comply with the critical infrastructure protection requirements set forth in Section 1(b)(iii)G of this Attachment B (Facility Owned by Seller).
- (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) Reactive Power Control. Seller shall control its reactive power by automatic voltage regulation control. Seller shall automatically regulate voltage at 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 Amount) of this Attachment B (Facility Owned by Seller). **[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.]**

(i) Seller shall install sufficient equipment so that each [REDACTED] kVA WTGS online at the Facility will have the ability to deliver or receive, at the Point of Interconnection, reactive power as illustrated in the **[generator capability]** curve(s) attached to this Agreement as Exhibit B-2 (Generator Capability Curve(s)). **[NOTE: THE IRS WILL DETERMINE IF ANY ADDITIONAL REACTIVE POWER RESOURCES WILL BE REQUIRED.]**

(ii) 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 or changes in real power output. 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.

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

(c) Ramp Rates.

(i) Seller shall ensure that the ramp rate of the Facility is less than the following limits for all conditions including start up, normal operations, Seller adjusting the Facility's net real power export, changes in the wind resource, and shut down (including high wind speed shut down in the case of wind facilities) for the following periods as calculated in accordance with Attachment C (Methods and Formulas For Measuring Performance Standards).

Island of Maui **[NOTE: THESE VALUES MAY BE CHANGED BY COMPANY UPON COMPLETION OF THE IRS.]**

- Maximum Ramp Rate Upward of 2 MW/minute for all periods.
- Maximum Ramp Rate Downward of 2 MW/minute for all periods.

Islands of Moloka'i and Lāna'i **[NOTE: THESE VALUES MAY CHANGED BY COMPANY UPON COMPLETION OF THE IRS.]**

- Maximum Ramp Rate Upward of 0.1 MW/minute for all periods.
- Maximum Ramp Rate Downward of 0.1 MW/minute for all periods.

(ii) Upon receiving a command from the Company active power limit control(s) described in Section 1(g)(viii) of this Attachment B (Facility Owned by Seller), Seller shall adjust the Facility's net real power export at a ramp rate, as calculated in accordance with Attachment C (Methods and Formulas for Measuring Performance Standards), to be specified by the Company to the extent allowed by the wind resource without exceeding such ramp rate and without intentional delay.

(iii) The Facility is allowed to exceed the maximum ramp rate limits in Section 3(c) (Ramp Rates) of this Attachment B (Facility Owned by Seller) when Facility output is changed by the frequency response control described in Section 3(m) (Frequency Response) of this Attachment B (Facility Owned by Seller).

(d) Reserved.

(e) Undervoltage Ride-Through.

The Facility, as a whole, shall meet the following minimum 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 pu $\leq$ V $\leq$ 1.00 pu	The Facility remains connected to the Company System and in continuous normal operation.
0.50 pu $\leq$ V < 0.88 pu	The Facility shall disconnect from the Company System if the voltage remains in this range for more than 22 seconds.
0.00 pu $\leq$ V < 0.50 pu	The Facility shall disconnect from the Company System if voltage remains in this range for more than [REDACTED] milliseconds. <b>[TO BE DETERMINED BY COMPANY BASED ON RESULTS OF IRS]</b>

Seller 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 69 kV transmission faults cleared after 5 cycles with one reclose attempt, cleared in 5 cycles, 30 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 30 cycles between the initial clearing time and the reclosing time.
- Normally cleared 23 kV 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  $V > 1.2$  pu. RIDE-THROUGH REQUIREMENTS FOR OTHER SYSTEMS WILL BE DETERMINED IN THE IRS.]**:

$1.00 \text{ pu} < V \leq 1.10 \text{ pu}$	The Facility remains connected to the Company System.
$1.10 \text{ pu} < V \leq 1.15 \text{ pu}$	The Facility shall disconnect from the Company System if voltage remains in this range for more 1 seconds.
$1.15 \text{ pu} < V \leq 1.175 \text{ pu}$	The Facility shall disconnect from the Company System if voltage remains in this range for more than 500 milliseconds.
$1.175 \text{ pu} < V \leq 1.2 \text{ pu}$	The Facility shall disconnect from the Company System if voltage remains in this range for more than 200 milliseconds.
$V > 1.2 \text{ pu}$	The Facility shall disconnect from the Company System within 0.1667 seconds (10 cycles).

(g) [RESERVED]

(h) 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(e) (Undervoltage Ride Through) of this Attachment B (Facility Owned by Seller), upon clearing of the fault, Seller shall within 1 second of restoration, provide at least 90% of the real power output at the Point of

Interconnection immediately before the fault without regard to the ramp rate requirements of Section 3(c) (Ramp Rates) of this Attachment B (Facility Owned by Seller) to the extent allowed by the availability of the **wind** resource. The fault ride through requirement does not apply if the Facility is operating at less than five percent (5%) of the Facility's nameplate capacity.

(i) Underfrequency ride-through.

(i) Islands of O'ahu, Maui and Hawai'i

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) **[THE ACTUAL CLEARING TIMES WILL BE DETERMINED BY THE COMPANY IN CONNECTION WITH THE IRS]**:

$57.0 \text{ Hz} \leq f \leq 60.0 \text{ Hz}$	The Facility remains connected to the Company System.
$56.0 \text{ Hz} \leq f < 57.0 \text{ Hz}$	The Facility shall disconnect from the Company System if frequency remains in this range for more than 20 seconds.
$f < 56.0 \text{ Hz}$	The Facility shall disconnect from the Company System within 0.1667 seconds (10 cycles).

(ii) Islands of Moloka'i and Lāna'i

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) **[THE ACTUAL CLEARING TIMES WILL BE DETERMINED BY COMPANY IN CONNECTION WITH THE IRS]**:

$57.0 \text{ Hz} \leq f \leq 60.0 \text{ Hz}$	The Facility remains connected to the Company System.
$50.0 \text{ Hz} \leq f < 57.0 \text{ Hz}$	The Facility shall disconnect from the Company System if frequency remains in this range for more than 20 seconds.

$f < 50.0$  Hz                      The Facility shall disconnect from the Company System within 0.1667 seconds (10 cycles).

(j) Overfrequency ride-through.

(i) Islands of O'ahu, Maui and Hawai'i

The Facility will behave as specified below for overfrequency conditions ("f" is the Company System frequency at the Point of Interconnection) **[THE ACTUAL CLEARING TIMES WILL BE DETERMINED BY COMPANY IN CONNECTION WITH THE IRS ]:**

$60.0$  Hz  $< f \leq 63.0$  Hz                      The Facility remains connected to the Company System.

$63.0$  Hz  $< f \leq 64.0$  Hz                      The Facility shall disconnect from the Company System if frequency remains in this range for more than 20 seconds.

$f > 64.0$  Hz                      The Facility shall disconnect from the Company System within 0.1667 seconds (10 cycles).

(ii) Islands of Moloka'i and Lāna'i

The Facility will behave as specified below for overfrequency conditions ("f" is the Company System frequency at the Point of Interconnection) **[THE ACTUAL CLEARING TIMES WILL BE DETERMINED BY COMPANY IN CONNECTION WITH THE IRS ]:**

$60.0$  Hz  $< f \leq 63.0$  Hz                      The Facility remains connected to the Company System.

$63.0$  Hz  $< f \leq 65.0$  Hz                      The Facility shall disconnect from the Company System if frequency remains in this range for more than 20 seconds.

$f > 65.0$  Hz                      The Facility shall disconnect from the Company System within 0.1667 seconds (10 cycles).

(k) 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".

(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". Seller 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) Frequency Response.

Seller 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 wind resource.

- (i) The Facility 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 B (Facility Owned by Seller), the Facility's net real power export when system frequency is not 60 Hz based on frequency deadband and frequency droop settings specified by the Company.
- (ii) The Facility frequency response control shall be allowed to increase the net real power export above the Power Reference Limit set under Section 1(g) (viii) of this Attachment B (Facility Owned by Seller) or further decrease the net real power export from the Power Reference Limit in its operations.

- (iii) 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%.
- (iv) The Facility frequency response control shall be in continuous operation when the Facility is exporting energy to the Company unless directed otherwise by the Company.

(n) Inertia Constant.

Synchronous Generator(s) must have an inertia constant (H) between 4 to 6 seconds. **[TO BE REVIEWED BY COMPANY FOLLOWING THE IRS. WITHOUT LIMITATION TO THE FOREGOING, IF THE FACILITY LACKS INHERENT INERTIAL CAPABILITIES BUT IS CAPABLE OF PRODUCING SYNTHETIC INERTIA, COMPANY SHALL REVISE THIS SECTION TO APPROPRIATELY REFLECT SUCH OPERATIONAL CONSIDERATIONS.]**

4. Maintenance of Seller-Owned Interconnection Facilities.

- (a) Seller must address any Disconnection (as defined below) according to the requirements of this Section 4 (Maintenance of Seller-Owned Interconnection Facilities) of Attachment B (Facility Owned by Seller). For this purpose, a Disconnection is a disconnection from Company System of at least [REDACTED] MW **[TO BE DETERMINED BY COMPANY FOLLOWING THE IRS]** from the Facility over a "rolling 120-second period", if such disconnection is due to a defect in or a failure of Seller-Owned Interconnection Facilities. 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.
- (b) For every disconnection from the Company System of at least [REDACTED] MW **[TO BE DETERMINED BY THE COMPANY UPON COMPLETION OF THE IRS]** from Facility over a rolling 120-second period ("Disconnection Event"), Seller shall investigate the cause of the Disconnection Event, and determine if it is a Disconnection as defined in Section 4(a) of this Attachment B (Facility Owned by Seller). Within three (3) Business Days of the Disconnection

Event, Seller shall provide, in writing to Company, an incident report that summarizes the sequence of events and probable cause of the Disconnection Event, and states whether the Seller believes the Disconnection Event is a Disconnection.

- (c) Within forty-five (45) Days of a Disconnection, Seller shall provide, in writing to Company, Seller's findings, data relied upon for such findings, and proposed actions to prevent reoccurrence of a Disconnection ("Proposed Actions"). Company may assist Seller in determining the causes of and recommendations to remedy or prevent a Disconnection ("Company's Recommendations"). Seller 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 Seller 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) whether the Disconnection Event is a Disconnection, (iv) the Proposed Actions, (v) Company's Recommendations, and/or (vi) 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 B (Facility Owned by Seller).
- (e) Upon the fourth (4th) Disconnection (and each subsequent Disconnection) within any Contract Year, the Parties shall follow the procedures set forth in Section 4(a) and Section 4(d) of Attachment B (Facility Owned by Seller), to the extent applicable. If after following the procedures set forth in this Section 4 (Maintenance of Seller-Owned Interconnection Facilities) of Attachment B (Facility Owned by Seller), Seller and Company continue to have a disagreement as to (1) the probable cause of the Disconnection, (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 Agreement as Attachment D (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 Seller-Owned Interconnection Facilities ("Study"). Seller 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 (and each subsequent Disconnection) within any Contract Year, unless otherwise agreed to in writing by Seller and Company. The Qualified Consultant shall send the Study to Company and Seller. Seller (and/or its Third-Party consultants and contractors), at Seller's expense, shall change the design of, change the operating and maintenance procedures dealing with, implement modifications to, and/or perform the maintenance on Seller-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 otherwise agreed to in writing by Company. In the event the time requirement for the (i) commissioning of the Study, (ii) completion of the Study, or (iii) completion of the design change, operating and maintenance procedure change, modifications, and/or maintenance recommended by the Study is not achieved, Company may limit the total Allowed Capacity to a level that maintains reliable operations in accordance with Good Engineering and Operating Practices for the period that such requirement has not been achieved. Nothing in this provision shall affect Company's right to dispatch the Facility as provided for in this Agreement.

- (f) The Consultants List attached hereto as Attachment D (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 Seller regarding (i) Seller's compliance with the standards set forth in Section 3 (Performance Standards) of this Attachment B (Facility Owned by Seller), and/or (ii) Section 4 (Maintenance of Seller-Owned Interconnection Facilities) of this Attachment B (Facility Owned by Seller) such as (aa) whether a Disconnection Event occurred, (bb) the sequence of events and/or probable cause of the Disconnection Event, (cc) whether the Disconnection Event is a Disconnection, (dd) the Proposed Actions, (ee) the Company's Recommendations, and (ff) the time period to implement the Proposed Actions and/or the Company's Recommendations, then authorized representatives from Company and Seller, 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 either Party may pursue the dispute resolution procedure set forth in Article 28 (Dispute Resolution) of this Agreement.

6. Modeling.

(a) Seller's Obligation to Provide Models. Within 30 Days of Company's written request, but no later than the Commercial Operations Date, Seller 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 WTGS(s) 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 WTGS(s) 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, Seller shall provide working updates of any Required Model within 30 Days of (i) Company's written request, or (ii) Seller 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) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned by Seller), the Required Models are provided to the Company in a form other than Source Code, Seller 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)(i) (Source Code Escrow) no later than the time periods set forth in Section 6(a) (Seller's Obligation to Provide Models) for delivery of the Required Models. Seller shall be responsible for all costs associated with establishing and maintaining the Source Code Escrow. If, however, Seller is unable to deposit the required Source Code into the Source Code Escrow within the time periods set forth in Section 6(a) (Seller's Obligation to Provide Models), Seller shall, no later than such time periods, instead establish a monetary escrow as set forth below in Section 6(b)(ii) (Monetary Escrow) of this Attachment B (Facility Owned by Seller).

(i) 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) of this Attachment B (Facility Owned by Seller), Seller 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:

(i) A receiver, trustee, or similar officer is appointed, pursuant to federal, state or applicable foreign law, for the Source Code Owner;

(ii) 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

(iii) Failure of the Source Code Owner to function as a going concern or operate in the ordinary course; or

(iv) Seller and the Source Code Owner fail to provide to Company the Required Models or updated Required Models within the time periods set forth in Section 6(a) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned by Seller), Company gives written notice of such failure to Seller and the Source Code Owner, and Seller 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)(i)(B) (Release Conditions) of Attachment B (Facility Owned by Seller), and Company finds that Seller 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)(i) (Establishment of Source Code Escrow) of Attachment B (Facility Owned by Seller) or that the Source Code for the Required Models is incomplete or otherwise unusable, Seller shall be liable to Company for liquidated damages in the amount of \$500 per day for each day Seller 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)(i)(A) (Establishment of Source Code Escrow) of Attachment B (Facility Owned by Seller) shall constitute an Event of Default pursuant to Section 15.2(F) (Events of Default by a Party) under the Agreement.

(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)(i)(B) (Release Conditions) of Attachment B (Facility Owned by Seller) of the Power Purchase Agreement 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 Seller under Section 6(a) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned By Seller) (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 Authorized Use. Promptly upon Seller's request, Company shall provide Seller 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.

(ii) Monetary Escrow.

(A) Establishment of Monetary Escrow. 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) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned by Seller) and if the Seller 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)(i) (Source Code Escrow) of this Attachment B (Facility Owned by Seller) then, no later than the time periods set forth in Section 6(a) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned by Seller) for delivery of the Required Models and Source Code, Seller shall provide an irrevocable standby letter of credit 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 Agreement as Attachment M (Form of Letter of Credit) from a bank or other financial institution located 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. 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 Seller 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 Seller.

(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 Seller fails to provide the Company the Required Models or updated Required Models within the time periods set forth in Section 6(a) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned by Seller), Company gives written notice of such failure to Seller, and Seller fails to remedy such breach within five (5) days following receipt of such notice.

(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 Seller's cost, in an escrow account in accordance with Section 6(b)(ii)(D) (Proceeds Escrow), until and unless Seller provides a substitute form of letter of credit meeting the requirements of this Section 6(b)(ii) (Monetary Escrow) of this Attachment B (Facility Owned by Seller).

(D) Proceeds Escrow. If Company draws on the letter of credit pursuant to Section 6(b)(ii)(C) (Extend Letter of Credit) of this Attachment B (Facility Owned by Seller), 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)(ii)(D) (Proceeds Escrow) of this Attachment B (Facility Owned by Seller) 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 Proceeds as necessary to recover amounts Company is owed pursuant to this Section 6 (Modeling) of this Attachment B (Facility Owned by Seller). To that end, 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 account. Seller shall not be a party to such documentation and shall have no rights to the Proceeds. Upon full satisfaction of Seller's obligations under Section 6 (Modeling) of this Attachment B (Facility Owned by Seller), Company shall instruct the 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) Seller'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, Seller shall pay to Company the difference within ten (10) Days of Company's written notice to Seller.

(F) Model Verification. Seller 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. Seller shall also arrange for and ensure that Company may obtain new Required Models directly from the Source Code Owner in the event that Seller 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 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)(ii)(B) (Release Conditions) of Attachment B (Facility Owned by Seller) of the Power Purchase Agreement dated as of \_\_\_\_\_, between \_\_\_\_\_, and Maui Electric.

(H) Authorized Use. If Company becomes entitled to a release of funds from 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 Seller under Section 6(a) (Seller's Obligation to Provide Models) of this Attachment B (Facility Owned by Seller) (the "Monetary Authorized Use").

(iii) Supplementary Agreement. The parties stipulate and agree that the escrow provisions in this Attachment B (Facility Owned By Seller), Section 6(b) (Escrow Establishment) and the Source Code Escrow Agreement and

Monetary Escrow Agreement are "supplementary agreements" as contemplated in Section 365(n)(1)(B) of the Code. In any voluntary or involuntary bankruptcy proceeding involving Seller, 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 monetary 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, Seller shall not replace and/or change the configuration of the Facility Control, [**inverter control settings**] [**wind turbine controls**] 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 Seller-Attributable Non-Generation status until the new relevant tests of the Control System Acceptance Test have been successfully passed.
- (b) Periodic Testing. Seller shall coordinate periodic testing of the Facility with Company to ensure that the Facility is meeting the performance standards specified under this Agreement.

8. Data and Forecasting.

Seller shall provide Site, meteorological and production data in accordance with the terms of Article 6 (Forecasting) of this Agreement and the following requirements:

- (i) Physical Site Data: Seller shall provide Company with an accurate description of the physical Site, including but not limited to the following, which may not be changed during the Term without Company's prior written consent:



- A. Location Facility map showing the layout of the Facility (coverage area or footprint), coordinates (latitude and longitude) and height above ground of each Wind Turbine hub.
- B. Location (latitude and longitude) of each MMT and elevation (above ground) of each field measurement device for, e.g., air density, ambient air pressure and ambient air temperature, located at each MMT.

(ii) Meteorological and Production Data:

- A. Seller shall install and maintain at least one multi-level MMT on the prevailing, upstream side of the Facility to elevate the field measurement devices for the "other meteorological conditions" identified in Section 6.2(ii) of this Agreement. At a minimum, such measuring devices shall be placed at approximately "hub height" of the Wind Turbines, typically using a boom extension off the MMT. Typically, additional measuring devices for such "other meteorological conditions" shall be placed on boom extensions off the MMT at appropriate heights above and below "hub height" as such "appropriate heights" are agreed to between Company and Seller. For facilities with a Contract Capacity of 5 MW and greater, Company may require Seller to install and maintain additional MMTs and additional field measurement devices.
- B. For purposes of calculating Facility PBAF, the Seller shall provide (i) the wind speed and Actual WTGS Production at each WTGS within the Facility and (ii) the data on the other meteorological conditions (e.g. air density, ambient air pressure and ambient air temperature) at approximately "hub height" at each MMT.
- C. Seller 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 Agreement updated every 2 seconds.

- D. For facilities with a Contract Capacity greater than 1 MW, Seller shall arrange for a dedicated 12 kV 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 both the nacelle anemometers at the WTGS(s) and the field measuring devices at the MMTs. 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 MMTs as needed by the Facility.

(iii) Units and Accuracy:

- A. 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 (Wind)**

Parameter	Data Source	Unit	Range	Accuracy
Wind speed at nacelle of each WTGS	Cup or sonic anemometer	mph	0 to 134 mph	+/-1 mph
Wind direction at nacelle of each WTGS	Vane, sonic device or equivalent	Degrees (from True North)	360°	+/-5°
Wind speed at MMT	Cup or sonic anemometer	mph	0 to 134 mph	+/-1 mph
Wind direction at MMT	Vane, sonic device or equivalent	Degrees (from True North)	360°	+/-5°
Ambient air temperature at MMT (hub height)*	Temperature probe	°C	-20 to +50 °C	+/-1 °C
Ambient air pressure at MMT (hub height)*	Piezoresistive transducer, barometer or equivalent	mbar	150 to 1150 mbar	+/-60 mbar (0 to +50°C)
Power production for each WTGS	Measured at WTGS	MW	Up to WTGS name plate	+/-0.1 MW
Set point for each WTGS	Reported by Seller	MW	0 to WTGS name plate	Not applicable
Power production of Facility	Measured at Facility's equipment on Seller's side of POI	MW	Up to Allowed Capacity	The lesser of the tolerances of the communication / telemetry equipment or 2% of measurement

\* Plus such other "appropriate heights" as provided in Section 8(ii) (A) of this Attachment B (Facility Owned by Seller).

Facility power production ratio	Ratio of Facility's power production (MW)/Allowed Capacity (MW)	%	0 to 100%	+/-0.1%
Power Possible	Seller's Model	MW	0 to Allowed Capacity	+/-0.1 MW

(iv) Status of WTGS(s) for Purposes of Calculating Facility PBAF:

For each WTGS, Seller shall, unless agreed otherwise by Company and Seller in writing, provide to Company, via SCADA communication and protocol acceptable to Company at a continuous scan updated not less frequently than every 2 seconds, on each WTGS status itemized below:

- Full Dispatch
- Partial Dispatch
- Non-Generating
- Company-Attributable Non-Performance
- Seller-Attributable Non-Performance
- Force Majeure
- Information Unavailable

9. Technology Specific Requirements.

(a) Three-Phase Synchronous Generators.

The generating facility circuit breakers shall be 3-phase devices with electronic or electromechanical control. The Seller shall be responsible for properly synchronizing its generating facility with the Company System by means of either a manual or automatic synchronizing function. Automatic synchronizing is required for all synchronous generators which have an short circuit current rating ("SCCR") greater than 5%. For a generating facility whose SCCR exceeds 5%, the Facility shall provide protective equipment suitable for detecting loss of synchronism and automatically disconnecting the generating facility from the Company System. Unless otherwise agreed to between the Company and Seller, synchronous generators shall automatically regulate power factor, not voltage, while operating in parallel with the Company System.

(b) Induction Generators.

- (i) Induction generators may be connected and brought up to synchronous speed (as an induction motor) if it can be demonstrated that the initial voltage drop measured at the Point of Interconnection is within the visible flicker limits as defined by IEEE 519-1992 (or latest version). The same requirements also apply to induction generation connected at or near synchronous speed because a similar voltage dip is present due to an inrush magnetizing current. The Facility shall submit number of starts per specific time period and maximum starting kVA draw data for the utility to verify that the voltage dip due to starting is within the visible flicker limits and does not degrade the normal voltage provided by the utility.
- (ii) Induction generators do not require separate synchronizing equipment. Starting or rapid load fluctuations on induction generators can adversely impact the Company System voltage. Corrective step-switched capacitors or other techniques may be necessary if the voltage fluctuations measured at the Point of Interconnection are not within the visible flicker limits as defined by IEEE 519-1992 (or latest version). These measures can, in turn, cause ferroresonance. If these measures (additional capacitors) are installed on Seller's side of the Point of Interconnection, the Company will review these measures and may require Seller to install additional protective relaying equipment. Company will determine whether additional equipment is required to protect the Company System.

(c) Inverter Systems.

- (i) 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. 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 B (Facility Owned by Seller).

- (ii) 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).

EXHIBIT B-1  
REQUIRED MODELS

PSS/E

ASPEN

PSCAD

EXHIBIT B-2  
GENERATOR CAPABILITY CURVE(S)