RULE NO. 18

Net Energy Metering

A. ELIGIBLE CUSTOMER-GENERATOR

Net energy metering is available to permanent customers who own (or lease from a third party) and operate (or contract to operate with a third party) a solar, wind turbine, biomass, or hydroelectric energy generating facility, or a hybrid system consisting of two or more of these facilities, with a capacity of not more than one hundred kilowatts (100 kW) or greater amount as approved by Commission rule or order, that is:

1. located on the customer's premises,

2. operated in parallel with the Company's transmission and distribution facilities,

3. in conformance with the Company's interconnection requirements provided in Rule 14, Section H, and

4. intended primarily to offset part or all of the customer's own electrical requirements.

B. NET ENERGY METERING AGREEMENT AND INTERCONNECTION REQUIREMENTS

1. Eligible Customer-Generator with a generating facility with a capacity of 10 kW or Less shall complete and sign a standard Net Energy Metering Agreement Form (10 kW or Less) provided in Appendix I of this Rule, to receive net energy metering service. The Net Energy Metering Agreement shall not be effective until approved and executed by the Company. The Customer-Generator facility and interconnection systems must be in compliance with all applicable safety and performance standards of the National Electric Code (NEC), the Institute of Electrical and Electronic Engineers (IEEE), accredited testing laboratories such as Underwriters Laboratories (UL), and with Rule 14, Section H, Appendix I.

2. Eligible Customer-Generator with a generating facility with a capacity greater than 10 kW but not exceeding 100 kW shall complete and sign a standard Net Energy Metering and Interconnection Agreement (Greater than 10 kW But Less Than or Equal to 100 kW) provided in Appendix II of this Rule. The Net Energy Metering Agreement shall not be effective until approved and executed by the Company. The Customer-Generator facility and interconnection systems must be in compliance with all applicable safety and performance standards of the National Electric Code (NEC), the Institute of Electrical and Electronic Engineers (IEEE), accredited testing laboratories such as Underwriters Laboratories (UL), the Company’s interconnection requirements provided in Rule 14, Section H, Appendix I, and subject to any other requirements provided in the standard Net Energy Metering and Interconnection Agreement.

Decision and Order No. 31901; Filed January 31, 2014.
Transmittal Letter Dated February 6, 2014.

RULE NO. 18 – Continued

Net Energy Metering

C. METERING AND BILLING

1. The Company, at its expense, may install meter(s) to record the flow of electric power in each direction. The customer shall, at its expense, provide, install and maintain all conductors, service switches, fuses, meter sockets, meter instrument transformer housing and mountings, switchboard meter test buses, meter panels and similar devices required for service connection and meter installations on the customer's premises in accordance with the Company's Rule 14, Section A.2.

2. Customers with Net Energy Metering service shall be billed monthly for the billing period, in accordance with the Company's Rule 8. Every 12 months, a reconciliation of the customer's net energy consumption supplied by the Company with the net energy produced by the Eligible Customer-Generator generating facility for that 12-month period will be performed as described in Section C.5.

   For customers with existing Net Energy Metering service, the measurement of kilowatthours supplied by the Company and the kilowatthours produced by the Eligible Customer-Generator for the first bill of the initial 12-month period under 2005 Haw. Sess. Laws Act 104 (effective July 1, 2005) shall begin at the start date of the billing period following the effective date of this tariff. For all other customers requesting Net Energy Metering service, the measurement of kilowatthours supplied by the Company and the kilowatthours produced by the Eligible Customer-Generator for the first bill of the initial 12-month period shall begin on the start date of the first billing period after the installation of the required meter(s).

3. When the electricity produced by the Eligible Customer-Generator generating facility during a billing period exceeds the electricity supplied by the Company for the same period, the customer is deemed to be a net electricity producer.

Docket No. 05-0037, D&O No. 22313 Dated March 9, 2006,
Transmittal Letter Dated March 16, 2006.

RULE NO. 18 – Continued

Net Energy Metering

In a billing period when the customer is deemed to be a net electricity producer, the customer will not be billed for the kilowatthours supplied by the Company during that billing period. For billing purposes, the customer shall instead be charged the Minimum Charge provided in the applicable rate schedule in effect during the billing period.

The excess kilowatthours produced by the Eligible Customer-Generator in each billing period, shall be carried over to the next billing period(s) within the current 12-month period, as a monetary credit and applied only to the Energy Charge, plus adjustments applicable to the Energy Charge, as well as adjustments based on kWh consumption, if any, for the customer's net kilowatthour consumption in the succeeding billing period within the current 12-month period. Adjustments applicable to the Energy Charge include the Power Factor Adjustment, the Supply Voltage Delivery Adjustment, the IRP Cost Recovery Adjustment, the Firm Capacity Surcharge, the Firm Capacity Surcharge Adjustment and other similar adjustments applicable to the Energy Charge that are in effect. Adjustments based on kWh consumption include the Energy Cost Adjustment, the Residential DSM Adjustment, the Commercial & Industrial DSM Adjustment, and other similar adjustments based on kWh consumption that are in effect. When the customer is billed the Minimum Charge in any billing period, the customer's cumulative net monetary credit shall not be applied to the Minimum Charge.

The customer's cumulative net monetary credit shall also not be applied to the Demand Charge, Customer Charge, Grid Access Charge, Green Infrastructure Fee, adjustments applicable to the Demand Charge, Customer Charge, and Grid Access Charge, and Green Infrastructure Fee, and other similar rate adjustments applicable to the Demand Charge, Customer Charge, Grid Access Charge, and Green Infrastructure Fee that are in effect.

Decision and Order No. 40044 filed on June 29, 2023 in Docket No. 2019-0323.
Transmittal Letter Dated August 15, 2023.

RULE NO. 18 – Continued

Net Energy Metering

a. For customers served under Schedule R, Schedule TOU-R, Schedule TOU-RI, or Schedule ARD TOU R, the monetary credit for the excess kilowatthours produced by the Eligible Customer-Generator shall be calculated by multiplying the number of excess kilowatthours produced by the Eligible Customer-Generator by the Energy Charge (i.e., Non-Fuel Energy Charge or applicable TOU Energy Charge) provided in Schedule R, Schedule TOU-R, Schedule TOU-RI, or Schedule ARD TOU R as applicable, plus the adjustments applicable to the Energy Charge and the adjustments based on kWh consumption.

Decision and Order No. 40044 filed on June 29, 2023 in Docket No. 2019-0323.
Transmittal Letter Dated August 15, 2023.

RULE NO. 18 – Continued

Net Energy Metering

b. For customers served under Schedule G, Schedule TOU-G, or Schedule ARD TOU G, the monetary credit for the excess kilowatthours produced by the Eligible Customer-Generator shall be calculated by multiplying the excess kilowatthours produced by the Eligible Customer-Generator by the Non-Fuel Energy Charge or applicable TOU Energy Charge provided in Schedule G, Schedule TOU-G, or Schedule ARD TOU G as applicable, plus the adjustments applicable to the Energy Charge and the adjustments based on kWh consumption.

c. For customers served under Schedule J, Schedule TOU-J, or Schedule ARD TOU J, including those customers served under the load management Riders T, M, and I the monetary credit for the excess kilowatthours produced by the Eligible Customer-Generator shall be calculated by multiplying the excess kilowatthours produced by the Eligible Customer-Generator by the Non-Fuel Energy Charge or applicable TOU Energy Charge provided in Schedule J, Schedule TOU-J, or Schedule ARD TOU J as applicable, plus the adjustments applicable to the Energy Charge and the adjustments based on kWh consumption.

d. For customers served under Schedule U, the monetary credit for the excess kilowatthours produced by the Eligible Customer-Generator shall be calculated by multiplying the excess kilowatthours produced by the Eligible Customer-Generator by the weighted average energy rate of Schedule P, plus the adjustments applicable to the Energy Charge and the adjustments based on kWh consumption.

e. For customers served under the load management riders such as Rider T which provides energy rate adjustments to the Energy Charge in the applicable rate schedule, the customer’s net monetary credit, if any, shall be applied to the customer’s Energy Charge including the Energy Charge in the applicable rate schedule and the energy rate adjustments provided in the Rider, plus the adjustments applicable to the Energy Charge and the adjustments based on kWh consumption.

Decision and Order No. 40044 filed on June 29, 2023 in Docket No. 2019-0323.
Transmittal Letter Dated August 15, 2023.

RULE NO. 18 – Continued

Net Energy Metering

4. When the electricity supplied by the Company to the customer during a billing period exceeds the electricity produced by the Eligible Customer-Generator generating facility for the same period, and also exceeds any unused

Decision and Order No. 40044 filed on June 29, 2023 in Docket No. 2019-0323.
Transmittal Letter Dated August 15, 2023.

RULE NO. 18 – Continued

Net Energy Metering

cumulative credits for excess electricity supplied by the Eligible Customer-Generator carried over from the prior months since the last 12-month reconciliation period, the customer is deemed to be a net electricity consumer.

For billing purposes, the customer shall be charged for the excess kilowatthours supplied by the Company based on the applicable rate schedule in effect during the billing period. The payment for excess kilowatthours supplied by the Company, however, will take into consideration any unused cumulative credits to the extent provided for in Section C.3. of this Rule 18.

In a billing period in which the customer is deemed to be a net electricity consumer, the customer will also be billed for other applicable charges, base rate adjustments and non-base rate adjustments, to the extent the amount exceeds the Minimum Charge; if such amount does not exceed the Minimum Charge, the customer will be billed the Minimum Charge, plus any rate adjustment that may apply to the Minimum Charge.

5. The kilowatthours supplied by the Company and the kilowatthours produced by the Eligible Customer-Generator for each billing period shall be recorded in each billing period of the 12-month period. Coincident with the last bill of the 12-month period following the start date of the customer's billing under the net energy metering contract, and for each 12-month period thereafter, the (i) Energy Charge plus adjustments applicable to the Energy Charge and adjustments based on kWh consumption, less any monetary credits applied during the 12-month period for net kilowatthours produced by the Eligible Customer-Generator ("Remaining Energy Charge Balance"), and (ii) the available cumulative credit balance (i.e., cumulative net monetary credit for net kilowatthours produced by the Eligible Customer-Generator for the 12-month period remaining after the subtraction of the monetary credits previously credited to the customer during the 12-month period for net kilowatthours produced by the Eligible Customer-Generator) will be compared to determine whether the customer is entitled to a refund of remaining Energy Charges plus adjustments applicable to the Energy Charge and adjustments

Docket No. 05-0037, D&O No. 22313 Dated March 9, 2006,
Transmittal Letter Dated March 16, 2006.

RULE NO. 18 – Continued

Net Energy Metering

based on kWh consumption. If the available cumulative credit balance equals, or exceeds the Remaining Energy Charge Balance, the Remaining Energy Charge Balance will be refunded. If the Remaining Energy Charge Balance is greater than the available cumulative credit balance at the end of the 12-month period, the amount of the refund will be capped at the available cumulative credit balance.

The Energy Charge shall include the customer's Energy Charge for each billing period within the 12-month period, plus adjustments applicable to the Energy Charge and adjustments based on kWh consumption, except for those billing periods when the customer was billed the Minimum Charge provided in the applicable rate schedule. Any monetary credits for excess kilowatthours produced by the Eligible Customer-Generator that remain unused at the end of each 12-month period shall expire and not be carried over to the next 12-month period. The customer shall not be compensated for such excess kilowatthours produced by the Eligible Customer-Generator unless the Company enters into a purchase power agreement with the Eligible Customer-Generator.

If an Eligible Customer-Generator terminates its Net Energy Metering service under Rule 18 prior to the end of any 12-month period, the Company shall reconcile the Energy Charge plus adjustments applicable to the Energy Charge and adjustments based on kWh consumption, less monetary credits previously applied, to the cumulative credit balance at the end of the billing period when service was terminated, similar to the reconciliation that would have been performed at the end of the normal 12-month period.

6. The kilowatthours supplied by the Company and, if any, the kilowatthours produced by the Eligible Customer-Generator, including an accounting of the cumulative monetary credits for the excess kilowatthours produced by the Eligible Customer-Generator since the last 12-month period reconciliation, the credits applied in each billing period of the current 12-month period and the remaining unused credits, if any, will be included in the customer's regular billing statement.

Docket No. 05-0037, D&O No. 22313 Dated March 9, 2006,
Transmittal Letter Dated March 16, 2006.

RULE NO. 18 – Continued

Net Energy Metering

D. MAXIMUM NET ENERGY METERING CAPACITY

Net energy metering will be made available to customers on a first come first serve basis, and until the sum of the total rated generating capacity of all net metered customer facilities equals approximately 4.0% of the Company's current system peak demand or different level as approved by Commission rule or order, with 30% of the 4.0% system peak reserved for eligible Customer Generators with a generator capacity size of 10 kW or less.

E. INTERCONNECTION PROCESS

1. Eligible Customer-Generator requests to interconnect and operate a generating facility in parallel with the Company’s electric system will be processed in accordance with the procedures in the Interconnection Process Overview provided in Appendix III of this Rule. Under no circumstances shall a Customer-Generator interconnect and operate a generating facility in parallel with the Company’s electric system without prior written approval by the Company in the form of a fully executed Net Energy Metering Agreement.

2. Generating facilities that incorporate the use of an energy storage device, e.g. battery storage, regardless of whether such energy storage device is intended to operate in parallel with the Company’s transmission and/or distribution facilities, shall obtain an interconnection review by the Company pursuant to this Rule.

3. Energy storage systems that are intended to be installed by an Eligible Customer-Generator after Company’s execution of a Net Energy Metering Agreement shall constitute a material change and addition to a generating facility and shall require interconnection review pursuant to this Rule prior to installation.

4. The Interconnection Process Overview addresses the steps in the interconnection process, the technical review process, the need for additional study, and the resolution of the disputes.

Decision and Order No. 31901; Filed January 31, 2014.
Transmittal Letter Dated February 6, 2014.

RULE NO. 18 – Continued

Net Energy Metering

F. MICROGRIDS

1. Capitalized terms used in this section are as defined in Rule No.30, Microgrid Services Tariff.

2. During Grid-Connected Mode, the Microgrid will be operated in parallel with the Company's System.

3. A Customer may operate its Generating Facility as part of a Customer Microgrid or be a participant in a Hybrid Microgrid.

4. A Customer who intends to operate its Generating Facility within a Customer Microgrid, or as a participant in a Hybrid Microgrid, shall notify the Company in its application through the Customer Interconnection Tool.

5. A Customer who operates its Generating Facility as part of a Microgrid after obtaining interconnection approval from the Company shall update its application through the Customer Interconnection Tool. Such notification and revision shall satisfy the Customer's notice requirements set forth in Tariff Rule 3B (Change in Customer's Equipment or Operations).

6. Customer Microgrids and Hybrid Microgrid Participants shall comply with the requirements of Rule No.30, Microgrid Services Tariff, including Section H, Microgrid Operation.

Docket No. 2018-0163; Decision and Order No. 37786; Filed May 17, 2021.
Transmittal Letter Dated May 27, 2021.

APPENDIX I

NET ENERGY METERING AGREEMENT
10 kW or Less

Section 1. Applicant Information
Customer-Generator

Name: _____

Mailing Address: _____

City/State: _____ , Zip Code: _____

Generating Facility Location (if different from above)/Tax map key _____

Daytime Phone #: _____ Evening/Cell Phone #: _____

Electric Service Account #: _____

Owner of Generating Facility (if different from Customer-Generator)

Name: _____

Mailing Address: _____

City/State: _____ , Zip Code: _____

Daytime Phone #: _____ Evening/Cell Phone #: _____

Operator of Generating Facility (if different from Customer-Generator)

Name: _____

Mailing Address: _____

City/State: _____ , Zip Code: _____

Daytime Phone #: _____ Evening/Cell Phone #: _____

Section 2. Generating Facility Information **Power Conditioning Equipment** **Energy Storage**

Solar: Rated generator capacity in kW _____ Generator/Inverter Make/Model _____ . _____ kWh.

Rated photovoltaic module capacity in kW_{DC} _____

Wind: Rated generator capacity in kW _____ Generator/Inverter Make/Model _____ . _____ kWh.

Biomass: Rated generator capacity in kW _____ Generator/Inverter Make/Model _____ . _____ kWh.

Hydro: Rated generator capacity in kW _____ Generator/Inverter Make/Model _____ . _____ kWh.

Hybrid: Rated generator capacity in kW _____ Generator/Inverter Make/Model _____ . _____ kWh.

Total rated capacity in kW _____ (Shall not exceed 10 kW) Attach specification sheet if available.

Generating System Building Permit # (Certificate of Completion or Notice of Electrical Inspection?): _____
Is system self-excited with potential to island: Yes No
Please submit a single line diagram. Submitted: Yes No

Section 3. Certification by Licensed Electrical Contractor:

Generating and interconnection systems must be compliant with all applicable safety and performance standards of the National Electrical Code (NEC), Institute of Electrical and Electronic Engineers (IEEE), and accredited testing laboratories such as the Underwriters Laboratories (UL), and where applicable, the rules of the Public Utilities Commission of the State of Hawaii ("Commission"), or other applicable governmental laws and regulations, and the Electric Company's (Company) interconnection requirements, in effect at the time of signing this agreement. The following certifies that the proposed generating system, once approved by the Company, shall be installed to meet all preceding requirement(s).

Signed (Licensed Electrical Contractor): _____ Date: _____

License Holder (printed) _____ Hawaii License #: _____

Mail Address: _____

City: _____ , Hawaii, Zip Code: _____

Daytime Phone #: _____ Proposed Installation date*: _____

*Under no circumstances shall a Customer-Generator interconnect and operate a generating facility in parallel with the Company's electric system without prior written approval by the Company in the form of a fully executed Net Energy Metering Agreement.

Generating facilities that incorporate the use of an energy storage device, e.g. battery storage, regardless of whether such energy storage device is intended to operate in parallel with the Company's transmission and/or distribution facilities, shall obtain an interconnection review by the Company pursuant to this Rule. Energy storage systems that are intended to be installed by an Eligible Customer-Generator after Company's execution of a Net Energy Metering Agreement shall constitute a material change and addition to a generating facility and shall require interconnection review pursuant to this Rule prior to installation.

Section 4. Installation: Design, installation, operation and maintenance of the Generating Facility shall include appropriate control and protection equipment and a manual load-break disconnect device lockable in the open position and accessible by the Company, as a means of electrically isolating the Generating Facility from the Company's system, and to establish working clearance for maintenance and repair work in accordance with the Company's safety rules and practices. This load-break disconnect device shall be furnished and installed by the Customer-Generator and is to be connected between the Generating Facility and the Company's electric system. The disconnect device shall preferably be located in the immediate vicinity of the electric meter serving the Customer-Generator. With permission of the Company, the disconnect device may be located at an alternate location which is accessible to utility company personnel on a 24-hour basis. The Customer-Generator and/or Owner/Operator grants access to the Company to utilize the disconnect device, if needed. The Customer-Generator shall obtain the authorization from the owner and/or occupant of the premises where the Generating Facility is located that allows the Company access to the Generating Facility for the purposes specified in this Agreement. The disconnect device shall be clearly labeled "Customer-Generator System Disconnect".
Location of lockable disconnect device, adjacent to meter? yes

If not, please describe location: _____

Section 5. Notice: A Customer-Generator shall provide the Company with an advance 30-day written notice of any proposed material changes made to the Generating Facility, for example, a change in ownership or an increase in capacity. In no event may the rated generator capacity of the Generating Facility exceed 10 kW. If a Generating Facility changes ownership, the Company may require the new owner to complete a new Net Energy Metering Agreement.

Section 6. Permits and Licenses: The Customer-Generator shall obtain, at its expense, any and all authorizations, permits and licenses required for the construction and operation of its facility.

Section 7. Metering: The Company will supply, own, and maintain all necessary meters and associated equipment utilized for billing. The meters will be tested and read in accordance with the rules of the Commission and the Company. The Customer-Generator shall supply, at no expense to the Company, a suitable location for meters and associated equipment used for billing and in accordance with the Company's tariffs. The Customer-Generator shall, at its expense, provide, install and maintain all conductors, service switches, fuses, meter sockets, meter instrument transformer housing and mountings, switchboard meter test buses, meter panels and similar devices required for service connection and meter installations on the Customer-Generator's premises in accordance with the Company's Rule 14, Section A.2.

Section 8. Indemnification: Each party as indemnitor shall hold harmless and indemnify the other party and the directors, officers, authorized agents, and employees of such other party against and from any and all loss and liability for injuries to persons including employees and authorized agents of either party, and damages, including property of either party, resulting from or arising out of (i) the engineering, design, construction, maintenance, or operation of, or (ii) the making of replacements, additions, or betterments to the indemnitor's facilities which are required for the interconnection and parallel operation of the Generating Facility with the Company's electric system and the generation of energy by the Generating Facility. Neither party shall be indemnified for liability or loss resulting from its sole negligence or willful misconduct. Nothing in this agreement shall create any duty to, any standard of care with reference to, or any liability to any person not a party to it.

Provided, however, where the Customer-Generator is an agency of the United States, the United States understands that it may be held liable for loss, damages expense and liability to third persons and injury to or death of persons or injury to property caused by the United States in its engineering design, construction ownership or operations of, or the making of replacements, additions betterment to, or by failure of, any of such party's works or facilities used in connection with this Agreement to the extent allowed by the Federal Tort Claims Act 28 U.S.C. § 2671 et seq. and the Contract Disputes Act of 1978, 41 U.S.C. §§ 601-613.

Company shall be responsible for damages or injury caused by Company, Company's agents, officers, and employees in the course of their employment to the extent permitted by law.

Provided, however, where the Customer-Generator is an agency of the State of Hawaii (the "State"), the State shall be responsible for damages or injury caused by the State's agents, officers, and employees in the course of their employment to the extent that the State's liability for such damage or injury has been determined by a court or otherwise agreed to by the State. The State shall pay for such damage and injury to the extent permitted by law. The State shall use reasonable good faith efforts to pursue any approvals from the Legislature and the Governor that may be required to obtain the funding necessary to enable the State to perform its obligations or cover its liabilities hereunder. The State shall not request Company to indemnify the State for, or hold the State harmless from, any claims for such damages or injury.

Company shall be responsible for damages or injury caused by Company, Company's agents, officers, and employees in the course of their employment to the extent that Company's liability for such damage or injury has been determined by a court or otherwise agreed to by Company, and Company shall pay for such damage and injury to the extent permitted by law. Company shall not request the State to indemnify Company for, or hold Company harmless from, any claims for such damages or injury.

[FOR OWNER / OPERATOR OTHER THAN STATE AGENCY]
The Owner/Operator shall indemnify, defend and hold harmless the Company and its officers, directors, agents and employees, from and against all liabilities, damages, losses, fines, penalties, claims, demands, suits, costs and expenses (including reasonable attorney's fees and expenses) to or by third persons, including the Company's employees or subcontractors, for injury or death, or for injury to property, arising out of the actions or inactions of the Owner/Operator (or those of anyone under their control or on their behalf) with respect to their obligations under this Agreement, and/or arising out of the installation, operation and maintenance of the Facility and/or the Facility Parties Interconnection Facilities, except to the extent that such injury, death or damage is attributable to the gross negligence or intentional act or omission of the Company or its officers, directors, agents or employees.

Section 9. Continuity of Service: The Company may require that the Generating Facility be temporarily curtailed, interrupted or deliveries of energy reduced: (a) when necessary in order for the Company to construct, install, maintain, repair, replace, remove, investigate or inspect any of its equipment or any part of its system; or (b) if the Company determines that such curtailment, interruption or reduction is necessary because of a system emergency, forced outage, or compliance with good engineering practices. Whenever feasible, Company shall give Customer-Generator reasonable notice of the possibility that interruption or reduction of deliveries may be required. In any such event, the Company shall not be obligated to accept any energy from the Generating Facility except for such energy that the Company notifies the Customer-Generator that it is able to take during this period due to the aforesaid circumstances. The Company shall take all reasonable steps to minimize the number and duration of interruptions, curtailments or reductions.

Section 10. Personnel and System Safety: If at any time the Company determines that the continued operation of the Generating Facility may endanger any person or property, the Company's electric system, or have an adverse effect on the safety or power quality of other customers, the Company shall have the right to disconnect the Generating Facility from the Company's electric system. The Generating Facility shall remain disconnected until such time as the Company is satisfied that the endangering or power quality condition(s) has been corrected, and the Company shall not be obligated to accept any energy from the Generating Facility during such period. The Company shall not be liable directly or indirectly for permitting or continuing to allow an attachment of a net metering facility or for the acts or omissions of the Customer-Generator that cause loss or injury, including death, to any third party.

Section 11. Additional Information: The Company reserves the right to require additional information, where necessary, to serve the Customer-Generator under net energy metering service.

Section 12. Term:
This agreement shall not be effective until approved and executed by the Company and a Customer-Generator shall not interconnect and operate the generating facility in parallel with the Company's system prior to such approval and execution, except for testing purposes. This agreement shall continue in effect on a month-to-month basis. The Customer-Generator may terminate the agreement at any time. Company may terminate the agreement at any time if the Customer-Generator fails to comply with the terms of this agreement or meet the definition of Eligible Customer-Generator under the Company's Rule 18 relating to Net Energy Metering.

Section 13. Net Energy Metering and Billing:

A. General:

(1) The net energy metering and billing arrangement covered by the Net Energy Metering Agreement shall be governed by the Company's Rule 18, as may be amended, revised and/or updated from time to time. If there is a conflict between any provision in the Net Energy Metering Agreement and the Company's Rule 18, as may be amended, revised and/or updated, the provisions of the Company's Rule 18 shall control.

(2) Customer-Generator's with Net Energy Metering service, pursuant to the Company's Rule 18, shall be billed monthly for the billing period, in accordance with the Company's Rule 8. Every 12 months, a reconciliation of the Customer-Generator's net energy consumption supplied by the Company with the net energy produced by the Generating Facility for that 12-month period will be performed as described in Section C.5. of the Company's Rule 18.

(3) For Customer-Generators with existing Net Energy Metering service, the measurement of kilowatthours supplied by the Company and the kilowatthours produced by the Customer-Generator for the first bill of the initial 12-month period under 2005 Haw. Sess. Laws Act 104 (effective July 1, 2005) shall begin at the start date of the billing period following the effective date of the Company's Rule 18. For all other Customer-Generators

requesting Net Energy Metering service, the measurement of kilowatthours supplied by the Company and the kilowatthours produced by the Customer-Generator for the first bill of the initial 12-month period shall begin on the start date of the first billing period after the installation of the required meter(s).

B. Net Electricity Producer:

(1) When the electricity produced by the Generating Facility during a billing period exceeds the electricity supplied by the Company for the same period, the Customer-Generator is deemed to be a net electricity producer.

(2) In a billing period when the Customer-Generator is deemed to be a net electricity producer, the Customer-Generator will not be billed for the kilowatthours supplied by the Company during that billing period. For billing purposes, the Customer-Generator shall instead be charged the Minimum Charge provided in the applicable rate schedule in effect during the billing period.

(3) The excess kilowatthours produced by the Customer-Generator in each billing period, shall be carried over to the next billing period(s) within the current 12-month period, as a monetary credit and applied only to the Energy Charge, plus adjustments applicable to the Energy Charge, as well as adjustments based on kWh consumption, if any, for the Customer-Generator's net kilowatthour consumption in the succeeding billing period within the current 12-month period. Adjustments applicable to the Energy Charge include the Power Factor Adjustment, the Supply Voltage Delivery Adjustment, the IRP Cost Recovery Adjustment, the Firm Capacity Surcharge, the Firm Capacity Surcharge Adjustment and other similar adjustments applicable to the Energy Charge that are in effect. Adjustments based on kWh consumption include the Energy Cost Adjustment, the Residential DSM Adjustment, the Commercial & Industrial DSM Adjustment, and other similar adjustments based on kWh consumption that are in effect. When the Customer-Generator is billed the Minimum Charge in any billing period, the Customer-Generator's cumulative net monetary credit shall <u>not</u> be applied to the Minimum Charge.

(4) The Customer-Generator's cumulative net monetary credit shall also not be applied to the Demand Charge, Customer Charge, adjustments applicable to the Demand and Customer Charges and other similar rate adjustments applicable to the Demand and Customer Charges that are in effect. See Section C.3. (a-e) of the Company's Rule 18 for the determination of monetary credit as applicable to the Customer-Generator's rate schedule.

C. Net Electricity Consumer:

(1) When the electricity supplied by the Company to the Customer-Generator during a billing period exceeds the electricity produced by the Generating Facility for the same period, and also exceeds any unused cumulative credits for excess electricity supplied by the Customer-Generator carried over from the prior months since the last 12-month reconciliation period, the Customer-Generator is deemed to be a net electricity consumer.

(2) For billing purposes, the Customer-Generator shall be charged for the excess kilowatthours supplied by the Company based on the applicable rate schedule in effect during the billing period. The payment for excess kilowatthours supplied by the Company, however, will take into consideration any unused cumulative credits to the extent provided for in Section C.3. of the Company's Rule 18.

(3) In a billing period in which the Customer-Generator is deemed to be a net electricity consumer, the Customer-Generator will also be billed for other applicable charges, base rate adjustments and non-base rate adjustments, to the extent the amount exceeds the Minimum Charge; if such amount does not exceed the Minimum Charge, the Customer-Generator will be billed the Minimum Charge, plus any rate adjustment that may apply to the Minimum Charge.

(4) The kilowatthours supplied by the Company and the kilowatthours produced by the Customer-Generator for each billing period shall be recorded in each billing period of the 12-month period. Coincident with the last bill of the 12-month period following the start date of the Customer-Generator's billing under the Net Energy Metering contract, and for each 12-month period thereafter, the (i) Energy Charge plus adjustments applicable to the Energy Charge and adjustments based on kWh consumption, less any monetary credits applied during the 12-month period for net kilowatthours produced by the Customer-Generator ("Remaining Energy Charge Balance"), and (ii) the available cumulative credit balance (i.e., cumulative net monetary credit for net kilowatthours produced by the Customer-Generator for the 12-month period remaining after the subtraction of the monetary credits previously credited to the Customer-Generator during the 12-month period for net kilowatthours produced by the Customer-Generator) will be compared to determine whether the Customer-Generator is entitled to a refund of remaining Energy Charges plus adjustments applicable to the Energy Charge and adjustments based on kWh consumption. If the available cumulative credit balance equals, or exceeds the Remaining Energy Charge Balance, the Remaining Energy Charge Balance will be refunded. If the Remaining Energy Charge Balance is greater than the available cumulative credit balance at the end of the 12-month period, the amount of the refund will be capped at the available cumulative credit balance.

(5) The Energy Charge shall include the Customer-Generator's Energy Charge for each billing period within the 12-month period, plus adjustments applicable to the Energy Charge and adjustments based on kWh consumption, except for those billing periods when the Customer-Generator was billed the Minimum Charge provided in the applicable rate schedule. Any monetary credits for excess kilowatthours produced by the Customer-Generator that remain unused at the end of each 12-month period shall expire and not be carried over to the next 12-month period. The Customer-Generator shall not be compensated for such excess kilowatthours produced by the Customer-Generator unless the Company enters into a purchase power agreement with the Customer-Generator.

D. Other:

(1) If a Customer-Generator terminates its Net Energy Metering service under Rule 18 prior to the end of any 12-month period, the Company shall reconcile the Energy Charge, plus adjustments applicable to the Energy Charge and adjustments based on kWh consumption, less monetary credits previously applied, to the cumulative credit balance at the end of the billing period when service was terminated, similar to the reconciliation that would have been performed at the end of the normal 12-month period.

(2) The kilowatthours supplied by the Company and, if any, the kilowatthours produced by the Customer-Generator, including an accounting of the cumulative monetary credits for the excess kilowatthours produced by the Customer-Generator since the last 12-month period reconciliation, the credits applied in each billing period of the current 12-month period and the remaining unused credits, if any, will be included in the Customer-Generator's regular billing statement.

Section 14. Customer-Generator (and/or Owner/Operator) Signature: I agree to be bound by the terms of this Net Energy Metering Agreement, and I understand that all aspects of billing for electric service will conform with existing Company Rules, the Commission's general orders, and the applicable provisions of Hawaii Revised Statutes, Chapter 269, Part VI. I also certify that, to the best of my knowledge, all the information provided in this agreement, is true and correct.

Customer-Generator _____ Date _____

Owner/Operator of Generating Facility _____ Date _____

Section 15. Company Signature:
I hereby acknowledge receipt and completeness of the Net Energy Metering Agreement.

Company _____ By _____

Title _____ Date _____

APPENDIX II

NET ENERGY METERING AND INTERCONNECTION AGREEMENT (Greater Than 10 kW But Not More Than 100 kW)

This Net Energy Metering and Interconnection Agreement ("Agreement") is made on _____, and entered into by and between _____ ("Customer-Generator") and _____ ("Owner/Operator") and Maui Electric Company, Limited ("Company"), sometimes also referred to herein jointly as "Parties" or individually as "Party." This Agreement provides for Customer-Generator to interconnect and operate a Generating Facility in parallel with Company's distribution system. This Agreement is applicable only to Company's customers who satisfy all requirements of the definition of an "Eligible Customer-Generator" set forth in the Company's Rule 18 relating to net energy metering, and only to the Generating Facility described and installed at the location listed below. The Generating Facility may not be relocated or connected to Company's system at any other location without Company's express written consent. A description of the Generating Facility including a summary of its significant components shown in Exhibit A, (DESCRIPTION OF CUSTOMER-GENERATOR'S GENERATING FACILITY), Exhibit B, (GENERATING FACILITY OWNED BY THE CUSTOMER-GENERATOR OR THIRD PARTY OWNER) including a single line diagram and three-line diagram (if Generating Facility's Total Rated Capacity is greater than or equal to 30kW but not more than 100 kW) showing the general arrangement of how the Generating Facility and loads are interconnected with Company, and Exhibit C, (INTERCONNECTION FACILITIES OWNED BY THE COMPANY), are attached to and made a part of this Agreement.

Section 1. Permits and Licenses: Customer-Generator shall be responsible for the design, installation, operation, and maintenance of the Generating Facility and shall obtain at its expense, and maintain any required governmental authorizations and/or permits for the construction and operation of the Generating Facility. Customer-Generator shall not commence parallel operation of the Generating Facility until Company has provided written approval. Company shall provide such written approval within thirty (30) business days from Company's receipt of a copy of the final inspection or approval of the Generating Facility, which has been issued by the governmental authority having jurisdiction to inspect and approve the installation. Company's written approval shall not be unreasonably withheld. Company shall have the right to have its representatives present at the final inspection made by the governmental authority having jurisdiction to inspect and approve the installation of the Generating Facility. Customer-Generator shall be required to notify Company in accordance with the terms of Section 14, herein, at least five (5) business days prior to such inspection. Customer-Generator shall not add generation capacity in excess of the Total Rated Capacity set forth in Section 2 of this Agreement, or otherwise modify the Generating Facility without the prior written permission of Company. In no event may the Total Rated Capacity of the Generating Facility exceed 100 kW.

Section 2. Interconnection of Facilities: Pursuant to Rule 18, Paragraph B.2. of the Company's tariff, as authorized by the Public Utilities Commission of the State of Hawaii ("Commission"), Company will study and assess the projected interaction of Customer-Generator's Generating Facility with the

Company's system including a review of the equipment and devices required to permit Customer-Generator's Generating Facility to operate in parallel with and deliver electric energy to Company's system, such as, but not limited to, transmission lines, distribution lines, transformers, switches, relays, and circuit breakers.

A. Facilities: (1) For the purposes of this Agreement, the "Generating Facility" is defined as the equipment and devices, and associated appurtenances, owned by the Customer-Generator or leased by the Customer-Generator, which produce electric energy for use by the Customer-Generator and are to be interconnected and operated in parallel with the Company's system.

(2) The Customer-Generator shall furnish, install, operate and maintain, at its cost, the interconnection facilities (such as circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes) identified in Exhibit B hereto ("Customer-Generator Interconnection Facilities").

(3) The point of interconnection is shown on the single-line diagram and three-line diagram (provided by the Customer-Generator and reviewed by the Company) which are attached to Exhibit B (provided that the three-line diagram is not required if the Generating Facility's Total Rated capacity is less than 30 kW).

(4) The Customer-Generator agrees to test the Generating Facility, to maintain operating records, and to follow such operating procedures, as may be specified by the Company to protect the Company's system from damages resulting from the parallel operation of the Generating Facility, including such testing, records and operating procedures as more fully described in Exhibit B attached hereto and made a part hereof.

(5) The Company may inspect the Generating Facility, as more fully described in Exhibit B.

B. Interconnection Facilities Owned by the Company: The Company agrees to furnish, install, operate and maintain such interconnection facilities on its side of the point of interconnection with the Generating Facility as required for parallel operation with the Generating Facility and as more fully described in Exhibit C attached hereto and made a part hereof ("Company Interconnection Facilities"). All such interconnection facilities shall be the property of the Company. Where portions of the Company Interconnection Facilities are located on the Customer-Generator's premises, the Customer-Generator shall provide, at no expense to the Company, a suitable location for and access to all such equipment. If a 120/240 Volt power source or sources are required, the Customer-Generator shall provide these at no expense to the Company.

C. Customer-Generator Payments: The Customer-Generator agrees to pay to the Company a non-refundable contribution for the Company's investment in the interconnection facilities described in Exhibit C, subject to the terms and conditions included in Exhibit C, and to pay for other interconnection costs. The interconnection costs will not include the cost of an initial technical screening of the impact of the Generating Facility on the Company's system, but will include the actual cost (or such lesser amount as the Company may specify to facilitate the processing of interconnection requests for similarly situated facilities) of additional technical study for the Generating Facility.

Section 3. Installation: Design, installation, operation and maintenance of the Generating Facility shall include appropriate control and protection equipment, including an automatic load-break device such as a circuit breaker or inverter and a manual disconnect device that has a visible break to isolate the Generating Facility from the Company's system. The manual disconnect device must be accessible by the Company and be capable of being locked by the Company in the open position, to establish working clearance for maintenance and repair work in accordance with the Company's safety rules and practices. The disconnect devices shall be furnished and installed by the Customer-Generator and are to be connected between the Generating Facility and the Company's electric system. The disconnect devices shall preferably be located in the immediate vicinity of the electric meter serving the Customer-Generator. With permission of the Company, the disconnect devices may be located at an alternate location which is accessible to the Company on a 24-hour basis. The manual disconnect device shall be clearly labeled "Customer-Generator System Disconnect".

The Customer-Generator grants access to the Company to utilize the disconnect device, if needed. The Customer-Generator shall obtain the authorization from the owner and/or occupants of the premises where the Generating Facility is located that allows the Company to access the Generating Facility for the purpose specified in this Agreement. Company may enter premises where the Generating Facility is located at all reasonable hours without notice to Customer-Generator for the following purposes: (a) To inspect Generating Facility's protective devices and read or test meter(s); and (b) to disconnect the Generating Facility and/or service to Customer-Generator, whenever in Company's sole opinion, a hazardous condition exists and such immediate action is necessary to protect persons, Company's facilities, or property of others from damage or interference caused by the Generating Facility, or the absence or failure of properly operating protective device.

Section 4. Metering: The Company will supply, own, and maintain all necessary meters and associated equipment utilized for billing. The meters will be tested and read in accordance with the rules of the Commission and the Company. The Customer-Generator shall, at its expense, provide, install and maintain all conductors, service switches, fuses, meter sockets, meter instrument transformer housing and mountings, switchboard meter test buses, meter panels and similar devices required for service connection and meter installations on the Customer-Generator's premises in accordance with the Company's Rule 14, Section A.2. Company may, at its expense, install meter(s) to record the flow of electric power in each direction.

Section 5. Indemnification:

(a) The Customer-Generator shall indemnify, defend and hold harmless the Company and its officers, directors, agents and employees, from and against all liabilities, damages, losses, fines, penalties, claims, demands, suits, costs and expenses (including reasonable attorney's fees and expenses) to or by third persons, including the Company's employees or subcontractors, for injury or death, or for injury to property, arising out of the actions or inactions of the Customer-Generator (or those of anyone under its control or on its behalf) with respect to its obligations under this Agreement, and/or arising out of the installation, operation and maintenance of the Generating Facility and/or the Customer-Generator Interconnection Facilities, except to the extent that such injury, death or damage is attributable to the

gross negligence or intentional act or omission of the Company or its officers, directors, agents or employees.

(b) The Company shall indemnify, defend and hold harmless the Customer-Generator, and its officers, directors, agents and employees, from and against all liabilities, damages, losses, fines, penalties, claims, demands, suits, costs and expenses (including reasonable attorney's fees and expenses) to or by third persons, including the Customer-Generator's employees or subcontractors, for injury or death, or for injury to property, arising out of the actions or inactions of the Company (or those of anyone under its control or on its behalf) with respect to its obligations under this Agreement, and/or arising out of the installation, operation and maintenance of the Company Interconnection Facilities, except to the extent that such injury, death or damage is attributable to the gross negligence or intentional act or omission of the Customer-Generator or its officers, directors, agents or employees.

(c) Nothing in this Agreement shall create any duty to, any standard of care with reference to, or any liability to any person not a party to it.

Provided, however, where the Customer-Generator is an agency of the United States, the United States understands that it may be held liable for loss, damages expense and liability to third persons and injury to or death of persons or injury to property caused by the United States in its engineering design, construction ownership or operations of, or the making of replacements, additions betterment to, or by failure of, any of such party's works or facilities used in connection with this Agreement to the extent allowed by the Federal Tort Claims Act 28 U.S.C. § 2671 et seq. and the Contract Disputes Act of 1978, 41 U.S.C. §§ 601-613.

Company shall be responsible for damages or injury caused by Company, Company's agents, officers, and employees in the course of their employment to the extent permitted by law.

Provided, however, where the Customer-Generator is an agency of the State of Hawaii (the "State"), the State shall be responsible for damages or injury caused by the State's agents, officers, and employees in the course of their employment to the extent that the State's liability for such damage or injury has been determined by a court or otherwise agreed to by the State. The State shall pay for such damage and injury to the extent permitted by law. The State shall use reasonable good faith efforts to pursue any approvals from the Legislature and the Governor that may be required to obtain the funding necessary to enable the State to perform its obligations or cover its liabilities hereunder. The State shall not request Company to indemnify the State for, or hold the State harmless from, any claims for such damages or injury.

Company shall be responsible for damages or injury caused by Company, Company's agents, officers, and employees in the course of their employment to the extent that Company's liability for such damage or injury has been determined by a court or otherwise agreed to by Company, and Company shall pay for such damage and injury to the extent permitted by law. Company shall not request the State to indemnify Company for, or hold Company harmless from, any claims for such damages or injury.

[FOR OWNER / OPERATOR OTHER THAN STATE AGENCY]

The Owner/Operator shall indemnify, defend and hold harmless the Company and its officers, directors, agents and employees, from and against all liabilities, damages, losses, fines, penalties, claims, demands, suits, costs and expenses (including reasonable attorney's fees and expenses) to or by third persons, including the Company's employees or subcontractors, for injury or death, or for injury to property, arising out of the actions or inactions of the Owner/Operator (or those of anyone under their control or on their behalf) with respect to their obligations under this Agreement, and/or arising out of the installation, operation and maintenance of the Facility and/or the Facility Parties Interconnection Facilities, except to the extent that such injury, death or damage is attributable to the gross negligence or intentional act or omission of the Company or its officers, directors, agents or employees.

Section 6. Insurance: The Customer-Generator shall, at its own expense and during the term of the Agreement and any other time that the Generating Facility is interconnected with the Company's system, maintain in effect with a responsible insurance company authorized to do insurance business in Hawaii, the following insurance or its equivalent at Company's discretion that will protect the Customer-Generator and the Company with respect to the Generating Facility, the Generating Facility's operations, and the Generating Facility's interconnection with the Company's system:
A commercial general liability policy, covering bodily injury and property damage combined single limit of at least the following amounts based on the Total Rated Capacity of the generator (for solar systems—Total Rated Capacity of the generator or inverter, whichever is lower, can be used with appropriate technical documentation on inverter, if not higher Total Rated Capacity will be used) as indicated in Exhibit A, Section 3, for any occurrence.

Commercial General Liability Coverage Amount	Total Rated Capacity of the Net Energy Metering Facility
$1,000,000	Greater than 30 kW and less than or equal to 100 kW
$500,000	Greater than 10 kW and less than or equal to 30 kW

The Customer-Generator has responsibility to determine if higher limits are desired and purchased. Said insurance shall name the Company, its directors, officers, agents, and employees as additional insureds, shall include contractual liability coverage for written contracts and agreements including this Agreement, shall include provisions stating that the insurance will respond to claims or suits by additional insureds against the Customer-Generator or any other insured thereunder, and shall be non-cancelable and non-alterable without thirty (30) days prior written notice to the Company. "Claims made" policies are not acceptable, unless the Customer-Generator agrees to maintain coverage in full effect at all times during the term of this Agreement and for THREE (3) years thereafter. The adequacy of the coverage afforded by the required insurance shall be subject to review by the Company from time to time, and if it appears in such review that risk exposures require an increase in the coverages and/or limits of this insurance, the Customer-Generator shall make such increase to that extent and any increased costs shall be borne by the Customer-Generator. The insurance required hereunder shall provide that it is primary with respect to the Customer-Generator and the Company. The Customer-Generator shall provide evidence of such insurance, including insurer's acknowledgement that coverage applies with respect to this Agreement, by providing certificates of insurance to the Company within 30 days of any change. Initially, certificates of insurance must be provided to the Company prior to executing the Agreement and any parallel interconnection. The Customer-Generator's indemnity and

other obligations shall not be limited by the foregoing insurance requirements. Any deductible shall be the responsibility of the Customer-Generator.
Alternatively, to the extent applicable, as a governmental entity, Customer-Generator may elect to be self-insured for the amounts set forth above in lieu of obtaining insurance coverage to those levels from an insurance company.

Section 7. Continuity of Service: The Company may require the Customer-Generator to temporarily curtail, interrupt or reduce deliveries of energy: (a) when necessary in order for the Company to construct, install, maintain, repair, replace, remove, investigate or inspect any of its equipment or any part of its system; or (b) if the Company determines that such curtailment, interruption or reduction is necessary because of a system emergency, forced outage, or compliance with good engineering practices. Whenever feasible, Company shall give Customer-Generator reasonable notice of the possibility that interruption or reduction of deliveries may be required.
In any such event, the Company shall not be obligated to accept any energy from the Generating Facility except for such energy that the Company notifies the Customer-Generator that it is able to take during this period due to the aforesaid circumstances. The Company shall take all reasonable steps to minimize the number and duration of interruptions, curtailments or reductions.

Section 8. Personnel and System Safety: If at any time the Company determines that the continued operation of the Generating Facility may endanger any person or property, the Company's electric system, or have an adverse effect on the safety or power quality of other customers, the Company shall have the right to disconnect the Generating Facility from the Company's electric system. The Generating Facility shall remain disconnected until such time as the Company is satisfied that the endangering or power quality condition(s) has been corrected, and the Company shall not be obligated to accept any energy from the Generating Facility during such period. The Company shall not be liable directly or indirectly for permitting or continuing to allow an attachment of the Generating Facility for the acts or omissions of the Customer-Generator that cause loss or injury, including death, to any third party.

Section 9. Prevention of Interference: The Customer-Generator shall not operate equipment that superimposes a voltage or current upon the Company's system that interferes with the Company's operations, service to the Company's customers, or the Company's communication facilities. Such interference shall include, but not be limited to, overcurrent, voltage imbalance, and abnormal waveforms. If such interference occurs, the Customer-Generator must diligently pursue and take corrective action at its own expense after being given notice and reasonable time to do so by the Company. If the Customer-Generator does not take timely corrective action, or continues to operate the equipment causing interference without restriction or limit, the Company may, without liability, disconnect the Customer-Generator's equipment from the Company's system.

Section 10. Limitation of Liability: Neither by inspection, if any, or non-rejection, nor in any other way, does the Company give any warranty, express or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Customer-Generator or leased by the Customer-Generator from third parties, including without limitation the Generating Facility and any structures, equipment, wires, appliances or devices appurtenant thereto.
Section 11. Additional Information: The Company reserves the right to require additional information, where necessary, to serve the Customer-Generator under net energy metering service.

Section 12. Notice: The Customer-Generator shall provide the Company with an advance 30-day written notice of any proposed change in ownership of the Generating Facility. The Customer-Generator agrees that no material changes or additions to the Generating Facility (except with respect to a change in ownership of the Generating Facility) as reflected in the single-line diagram, relay list, trip scheme and settings of the Generating Facility, Generating Facility Equipment List, and three-line diagram (if the Generating Facility's capacity is greater than or equal to 30 kW), shall be made without having obtained prior written consent from the Company, which consent shall not be unreasonably withheld. In no event may the Total Rated Capacity of the Generating Facility exceed 100 kW. If a Generating Facility changes ownership, the Company may require the new owner to complete a new Net Energy Metering Agreement. Any notice required under this Agreement shall be in writing and mailed at any United States Post Office with postage prepaid and addressed to the Party, or personally delivered to the Party, at the address below. Changes in such designation may be made by notice similarly given. All written notices shall be directed as follows:

Customer-Generator

_____

_____

_____

Company

_____

_____

_____

Section 13. Term: This agreement shall not be effective until approved and executed by the Company and a Customer-Generator shall not interconnect and operate the generating facility in parallel with the Company's system prior to such approval and execution, except for testing purposes. This agreement shall continue in effect on a month-to-month basis, unless terminated by either party on 30 days' written notice in accordance with Section 14. The Customer-Generator may terminate the agreement at any time. Company may terminate the agreement at any time if the Customer-Generator fails to comply with any and all terms of this agreement or meet the definition of Eligible Customer-Generator under the Company's Rule 18 relating to Net Energy Metering. This Agreement shall terminate, without notice, upon: (a) termination of the electric service provided to Customer-Generator by Company; or (b) changes to Customer-Generator's electric load which cause Customer-Generator to no longer satisfy all requirements of the definition of an Eligible Customer-Generator set forth in the Company's Rule 18 relating to Net Energy Metering.

Section 14. Governing Law: This Agreement was executed in the State of Hawaii and must in all respects be interpreted, governed, and construed under the laws of the State of Hawaii. This Agreement is subject to, and the parties' obligations hereunder include, operating in full compliance with all valid, applicable federal, state, and local laws or ordinances, and all applicable rules, regulations, orders of, and tariffs approved by, duly constituted regulatory authorities having jurisdiction.

Section 15. Amendment, Modifications, or Waiver: This Agreement may not be altered or modified by either of the Parties, except by an instrument in writing executed by each of them. None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect. This Agreement shall supersede any existing agreement under which Customer-Generator is currently operating the Generating Facility identified in Section 2, herein, and any such agreement shall be deemed terminated as of the date this Agreement becomes effective. This Agreement contains the entire agreement and understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement.

Section 16. Limitations: Nothing in this Agreement shall limit the Company's ability to exercise its rights or expand or diminish its liability with respect to the provision of electrical service pursuant to the Company's Tariff as filed with the Commission, or the Commission's Standards for Electric Utility Service in the State of Hawaii, which currently are included in the Commission's General Order Number 7, as either may be amended from time to time.

Section 17. Certification by Licensed Electrical Contractor: Generating and interconnection systems must comply with all applicable safety and performance standards of the National Electrical Code (NEC), Institute of Electrical and Electronic Engineers (IEEE), and accredited testing laboratories such as the Underwriters Laboratories (UL), and where applicable, the rules of the Commission, or other applicable governmental laws and regulations, and the Company's interconnection requirements, in effect at the time of signing this agreement. This requirement shall include, but not be limited to, the interconnection provisions of the Company's Rule 14, Paragraph H. of the Company's tariff, as authorized by the Commission. Licensed Electrical Contractor, as agent for Customer-Generator, certifies in Exhibit A that once approved by the Company, the proposed Generating Facility will be installed to meet all preceding requirement(s).

Section 18. Net Energy Metering and Billing:

A. General:

(1) The net energy metering and billing arrangement covered by the Net Energy Metering Agreement shall be governed by the Company's Rule 18, as may be amended, revised and/or updated from time to time. If there is a conflict between any provision in the Net Energy Metering Agreement and the Company's Rule 18, as may be amended, revised and/or updated, the provisions of the Company's Rule 18 shall control.

(2) Customer-Generator's with Net Energy Metering service, pursuant to the Company's Rule 18, shall be billed monthly for the billing period, in accordance with the Company's Rule 8. Every 12 months, a reconciliation of the Customer-Generator's net energy consumption supplied by the Company with the net energy produced by the Generating Facility for that 12-month period will be performed as described in Section C.5. of the Company's Rule 18.

(3) For Customer-Generators with existing Net Energy Metering service, the measurement of kilowatthours supplied by the Company and the kilowatthours produced by the Customer-Generator for the first bill of the initial 12-month period under 2005 Haw. Sess. Laws Act 104 (effective July 1, 2005) shall begin at the start date of the billing period following the effective date of the Company's Rule 18. For all other Customer-Generators requesting Net Energy Metering service, the measurement of kilowatthours supplied by the Company and the kilowatthours produced by the Customer-Generator for the first bill of the initial 12-month period shall begin on the start date of the first billing period after the installation of the required meter(s).

B. Net Electricity Producer:

(1) When the electricity produced by the Generating Facility during a billing period exceeds the electricity supplied by the Company for the same period, the Customer-Generator is deemed to be a net electricity producer.

(2) In a billing period when the Customer-Generator is deemed to be a net electricity producer, the Customer-Generator will not be billed for the kilowatthours supplied by the Company during that billing period. For billing purposes, the Customer-Generator shall instead be charged the Minimum Charge provided in the applicable rate schedule in effect during the billing period.

(3) The excess kilowatthours produced by the Customer-Generator in each billing period, shall be carried over to the next billing period(s) within the current 12-month period, as a monetary credit and applied only to the Energy Charge, plus adjustments applicable to the Energy Charge, as well as adjustments based on kWh consumption, if any, for the Customer-Generator's net kilowatthour consumption in the succeeding billing period within the current 12-month period. Adjustments applicable to the Energy Charge include the Power Factor Adjustment, the Supply Voltage Delivery Adjustment, the IRP Cost Recovery Adjustment, the Firm Capacity Surcharge, the Firm Capacity Surcharge Adjustment and other similar adjustments applicable to the Energy Charge that are in effect. Adjustments based on kWh consumption include the Energy Cost Adjustment, the Residential DSM Adjustment, the Commercial & Industrial DSM Adjustment and other similar adjustments based on kWh consumption that are in effect. When the Customer-Generator is billed the Minimum Charge in any billing period, the Customer-Generator's cumulative net monetary credit shall <u>not</u> be applied to the Minimum Charge.

(4) The Customer-Generator's cumulative net monetary credit shall also not be applied to the Demand Charge, Customer Charge, adjustments applicable to the Demand and Customer Charges and other similar rate adjustments applicable to the Demand and Customer Charges that are in effect. See Section C.3. (a-e) of the Company's Rule 18 for the determination of monetary credit as applicable to the Customer-Generator's rate schedule.

C. Net Electricity Consumer:

(1) When the electricity supplied by the Company to the Customer-Generator during a billing period exceeds the electricity produced by the Generating Facility for the same period, and also exceeds any unused cumulative credits for excess electricity supplied by the Customer-Generator carried over from the prior months since the last 12-month reconciliation period, the Customer-Generator is deemed to be a net electricity consumer.

(2) For billing purposes, the Customer-Generator shall be charged for the excess kilowatthours supplied by the Company based on the applicable rate schedule in effect during the billing period. The payment for excess kilowatthours supplied by the Company, however, will take into consideration any unused cumulative credits to the extent provided for in Section C.3. of the Company's Rule 18.

(3) In a billing period in which the Customer-Generator is deemed to be a net electricity consumer, the Customer-Generator will also be billed for other applicable charges, base rate adjustments and non-base rate adjustments, to the extent the amount exceeds the Minimum Charge; if such amount does not exceed the Minimum Charge, the Customer-Generator will be billed the Minimum Charge, plus any rate adjustment that may apply to the Minimum Charge.

(4) The kilowatthours supplied by the Company and the kilowatthours produced by the Customer-Generator for each billing period shall be recorded in each billing period of the 12-month period. Coincident with the last bill of the 12-month period following the start date of the Customer-Generator's billing under the Net Energy Metering contract, and for each 12-month period thereafter, the (i) Energy Charge plus adjustments applicable to the Energy Charge and adjustments based on kWh consumption, less any monetary credits applied during the 12-month period for net kilowatthours produced by the Customer-Generator ("Remaining Energy Charge Balance"), and (ii) the available cumulative credit balance (i.e., cumulative net monetary credit for net kilowatthours produced by the Customer-Generator for the 12-month period remaining after the subtraction of the monetary credits previously credited to the Customer-Generator during the 12-month period for net kilowatthours produced by the Customer-Generator) will be compared to determine whether the Customer-Generator is entitled to a refund of remaining Energy Charges plus adjustments applicable to the Energy Charge and adjustments based on kWh consumption. If the available cumulative credit balance equals, or exceeds the Remaining Energy Charge Balance, the Remaining Energy Charge Balance will be refunded. If the Remaining Energy Charge Balance is greater than the available cumulative credit balance at the end of the 12-month period, the amount of the refund will be capped at the available cumulative credit balance.

(5) The Energy Charge shall include the Customer-Generator's Energy Charge for each billing period within the 12-month period, plus adjustments applicable to the Energy Charge and adjustments based on kWh consumption, except for those billing periods when the Customer-Generator was billed the Minimum Charge provided in the applicable rate schedule. Any monetary credits for excess kilowatthours produced by the Customer-Generator that remain unused at the end of each 12-month period shall expire and not be carried over to the next 12-month period. The Customer-Generator shall not be compensated for such excess kilowatthours produced by the Customer-Generator unless the Company enters into a purchase power agreement with the Customer-Generator.

D. Other:

(1) If a Customer-Generator terminates its Net Energy Metering service under Rule 18 prior to the end of any 12-month period, the Company shall reconcile the Energy Charge plus adjustments applicable to the Energy Charge and adjustments based on kWh consumption, less monetary credits previously applied, to the cumulative credit balance at the end of the billing period when service was terminated, similar to the reconciliation that would have been performed at the end of the normal 12-month period.

(2) The kilowatthours supplied by the Company and, if any, the kilowatthours produced by the Customer-Generator, including an accounting of the cumulative monetary credits for the excess kilowatthours produced by the Customer-Generator since the last 12-month period reconciliation, the credits applied in each billing period of the current 12-month period and the remaining unused credits, if any, will be included in the Customer-Generator's regular billing statement.

SIGNATURES:

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Agreement to be executed by their duly authorized representatives. This Agreement is effective as of the latter of the two dates set forth below.

CUSTOMER-GENERATOR		**MAUI ELECTRIC COMPANY, LIMITED**	
By:	_____	By:	_____
Name:	_____	Name:	_____
Title:	_____	Title:	_____
Date:	_____	Date:	_____

OWNER/OPERATOR OF GENERATING FACILITY

By: _____
Name: _____
Title: _____
Date: _____

EXHIBIT A

DESCRIPTION OF GENERATING FACILITY
(To Be Filled Out By Customer-Generator)

Section 1, Applicant Information

Customer-Generator

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): Area Code _____ Number _____ (Evening) Area Code _____ Number _____

Generating Facility Location (if different from above)/Tax Map Key: _____

Electric Service Account or Meter #: _____

Owner (if different from Customer-Generator)

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): Area Code _____ Number _____ (Evening) Area Code _____ Number _____

Operator (if different from Customer-Generator)

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): Area Code _____ Number _____ (Evening) Area Code _____ Number _____

Section 2, Generator Qualifications

Type of Generating Facility or Nonfossil Fuel Source

☐ Solar ☐ Wind ☐ Hydro

☐ Biomass ☐ Hybrid System (consisting of 2 or more other types of systems)

Maximum Site Load without Generation: _____ kW Maximum Generating Capability: _____ kW

Minimum Site Load without Generation: _____ kW Maximum Export: _____ kW

Section 3, Generator Technical Information

Type of Generator: ☐ Synchronous ☐ Induction ☐ DC Generator or Solar with Inverter

Generator (or solar collector) Manufacturer, Model Name & Number: _____
(A copy of Generator Nameplate and Manufacturer's Specification Sheet may be substituted)

_____ Total Capacity Rating in kW (for solar kW_{DC}): _____

Inverter Manufacturer, Model Name & Number (if used): _____
(A copy of Inverter Nameplate and Manufacturer's Specification Sheet may be substituted)

_____ Rating in kW: _____

Energy Storage Device Capacity (if used): Rating in kW: _____

Fault Current Contribution of Generator: _____ Amps

[If generator type is DC Generator or Solar with Inverter, example – photovoltaic (PV) system, go to Section 5.]

Section 4, Technical Information for Synchronous and Induction Generators

Number of Starts Per Day: _____ Maximum Starting kVA: _____
Generator Operating Power Factor:_____
Generator Grounding Method:

☐ Effectively Grounded ☐ Resonant Grounded
☐ Low-Inductance Grounded ☐ High-Resistance Grounded
☐ Low-Resistance Grounded ☐ Ungrounded

Generator Characteristic Data
(Not needed if Generator Nameplate and Manufacturer's Specification Sheet are provided)

Direct Axis Synchronous Reactance, X_d: _____ P.U. Negative Sequence Reactance: _____ P.U.
Direct Axis Transient Reactance, X'_d: _____ P.U. Zero Sequence Reactance: _____ P.U.
Direct Axis Subtransient Reactance, X''_d: _____ P.U. KVA Base: _____
Inertia Constant, H: _____ P.U.
Excitation Response Ratio: _____
Direct Axis Open-Circuit Transient Time Constant, X_d: _____ Seconds

Direct Axis Open-Circuit Subtransient Time Constant, T"do: _____ Seconds

Section 5, Interconnecting Equipment Technical Data

Will an interposing transformer be used between the generator and the point of interconnection? ☐ Yes ☐ No

Transformer Data (if applicable):
(A copy of transformer Nameplate and Manufacturer's Test Report may be substituted)

Size: _____ KVA. Transformer Primary: _____ Volts ☐ Delta ☐ Wye ☐ Wye Grounded

Transformer Secondary: _____ Volts ☐ Delta ☐ Wye ☐ Wye Grounded

Transformer Impedance: _____ % on _____ KVA Base

Transformer Fuse Data (if applicable):
(Attach copy of fuse manufacturer's Minimum Melt & Total Clearing Time-Current Curves)

At ☐ Primary Voltage ☐ Secondary Voltage

Manufacturer: _____ Type: _____ Size: _____ Speed: _____

Transformer Protection (if not fuse):

Please describe: _____

Generator Circuit Breaker (if applicable):
(A copy of circuit breaker's Nameplate and Specification Sheet may be substituted)

Manufacturer: _____ Type: _____

Continuous Load Rating: _____ **(Amps)** Interrupting Rating: _____ **(Amps)** Trip Speed: _____ **(Cycles)**

Circuit Breaker Protective Relays (if applicable):
(Enclose copy of any proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____

Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____

Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____

Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____

Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____

Current Transformer Data (if applicable):
(Enclose copy of Manufacturer's Excitation & Ratio Correction Curves)

Manufacturer: _____ Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____ /5

Manufacturer: _____ Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____ /5

Generator Disconnect Switch:

A generator disconnect device (isolation device) must be installed with features as described in the "HECO, HELCO, MECO Distributed Generating Facility Interconnection Standards, Technical Requirements" as set forth in Rule 14 (Paragraph H.1) of the Company's tariff, and which is accessible to Company.

Manufacturer: _____ Type: _____ Catalog No.: _____ Rated Volts: _____ Rated Amps: _____

Single or 3 Phase: _____ Mounting Location: _____

Section 6, General Technical Information

Enclose copy of site single-line diagram showing configuration and interconnection of all equipment, current and potential circuits and protection and control schemes.

Is Single-Line Diagram Enclosed? Yes ☐

Enclose copy of site relay list and trip scheme, which shall include all protection, synchronizing and auxiliary relays that are required to operate the Generating Facility in a safe and reliable manner.

Are Relay List and Trip Scheme Enclosed? Yes ☐

Enclose copy of site three-line diagram (if the Generating Facility's capacity is greater than or equal to 30 kW) showing potential transformer and current transformer ratios, and details of the Generating Facility's configuration, including relays, meters, and test switches.

Is Three-Line Diagram Enclosed? Yes ☐

Section 7, Installation Details

Installing Electrical Contractor: _____ License Holder: _____

Hawaii License #: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: Area Code: _____ Number: _____

Proposed Installation Date: _____
Interconnection Date*: _____
(To be filled out by the Company upon the Company's approval and execution of Net Energy Metering Agreement).

* Under no circumstances shall a Customer-Generator interconnect and operate a generating facility in parallel with the Company's electric system without prior written approval by the Company in the form of a fully executed Net Energy Metering Agreement.

Generating facilities that incorporate the use of an energy storage device, e.g. battery storage, regardless of whether such energy storage device is intended to operate in parallel with the Company's transmission and/or distribution facilities, shall obtain an interconnection review by the Company pursuant to this Rule. Energy storage systems that are intended to be installed by an Eligible Customer-Generator after Company's execution of a Net Energy Metering Agreement shall constitute a material change and addition to a generating facility and shall require interconnection review pursuant to this Rule prior to installation.

Supply certification that the generating system has been installed and inspected in compliance with the local Building/Electrical code of the county of _____

Generating System Building Permit # (Certificate of Completion or Notice of Electrical Inspection?)(to be filled out by the Company upon the Company's approval and execution of Net Energy Metering Agreement): _____

Signed (Inspector): _____ Date: _____
(In lieu of signature of Inspector, a copy of the final inspection certificate may be attached)

Section 8, Generator/Equipment Certification

Generating systems that utilize inverter technology must be compliant with *Institute of Electrical and Electronics Engineers IEEE Std 1547* and *Underwriters Laboratories UL 1741* in effect at the time this Agreement is executed. Generating systems that use a rotating machine must be compliant with applicable National Electrical Code, Underwriters Laboratories, and Institute of Electrical and Electronics Engineers standards and rules and orders of the Public Utilities Commission of the State of Hawaii in effect at the time this Agreement is executed**. By signing below, the Applicant certifies that the installed generating equipment meets the appropriate preceding requirement(s) and can supply documentation that confirms compliance.**

Signed (Customer-Generator): _____ Date: _____

Section 9, Insurance

Insurance Carrier: _____

EXHIBIT B

GENERATING FACILITY OWNED BY THE CUSTOMER-GENERATOR OR THIRD PARTY OWNER

(To Be Filled Out by Customer-Generator)

1. Generating Facility

a. Compliance with laws and standards. The Generating Facility, Generating Facility design, and Generating Facility design drawings shall meet all applicable national, state, and local laws, rules, regulations, orders, construction and safety codes, and shall satisfy the Company's Distributed Generating Facility Interconnection Standards, Technical Requirements ("Interconnection Standards"), as set forth in Rule 14, Paragraph H.1 of the Company's tariff.

b. Avoidance of adverse system conditions. The Generating Facility shall be designed, installed, operated and maintained so as to prevent or protect against adverse conditions on the Company's system that can cause electric service degradation, equipment damage, or harm to persons, such as:

(i) Unintended islanding.

(ii) Inadvertent and unwanted re-energization of a Company dead line or bus.

(iii) Interconnection while out of synchronization.

(iv) Overcurrent.

(v) Voltage imbalance.

(vi) Ground faults.

(vii) Generated alternating current frequency outside of permitted safe limits.

(viii) Voltage outside permitted limits.

(ix) Poor power factor or reactive power outside permitted limits.

(x) Abnormal waveforms.

c. Specification of protection, synchronizing and control requirements. The Customer-Generator shall provide the design drawings, operating manuals, manufacturer's brochures/instruction manual and technical specifications, manufacturer's test reports, bill of

material, protection and synchronizing relays and settings, and protection, synchronizing, and control schemes for the Generating Facility to the Company for its review, and the Company shall have the right to specify the protection and synchronizing relays and settings, and protection, synchronizing and control schemes that affect the reliability and safety of operation and power quality of the Company's system with which the Generating Facility is interconnected ("Facility Protection Devices/Schemes"). After the implementation of the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, the Company may require changes in the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, when required by the Company's system operations, at the Company's expense.

d. Generating Facility protection. The Customer-Generator is solely responsible for providing adequate protection for the Generating Facility.

e. Customer-Generator Interconnection Facilities.

(i) The Customer-Generator shall furnish, install, operate and maintain interconnection facilities (such as circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes) designated by or acceptable to the Company as suitable for parallel operation of the Generating Facility with the Company's system ("Customer-Generator Interconnection Facilities"). Such facilities shall be accessible at all times to authorized Company personnel.

(ii) The Customer-Generator shall comply with the Company's Interconnection Standards. If a conflict exists between the Interconnection Standards and this Agreement, this Agreement shall control.

(iii) 1) Single-line diagram of the Generating Facility, 2) relay list, trip scheme and settings of the Generating Facility, 3) Generating Facility Equipment List, and 4) three-line diagram (if the Generating Facility's capacity is greater than or equal to 30 kW), which identify the circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes, shall, after having obtained prior written consent from the Company, be attached to this Exhibit B and made a part hereof at the time the Agreement is signed. The single-line diagram shall include pertinent information regarding operation, protection, synchronizing, control, monitoring and alarm requirements. The single-line diagram and three-line diagram shall expressly identify the point of interconnection of the Generating Facility to the Company's system. The relay list, trip scheme and settings shall include all protection, synchronizing and auxiliary relays that are required to operate the Generating Facility in a safe and reliable manner. The three-line diagram shall show potential transformer and current transformer ratios, and details of the Generating Facility's configuration, including relays, meters, and test switches.

f. Approval of Design Drawings. If the Generating Facility's capacity is greater than or equal to 30 kW, the single-line diagram, relay list, trip scheme and settings of the Generating Facility, and three-line diagram shall be approved by a Professional Electrical Engineer registered in the State of Hawaii prior to being submitted to the Company. Such approval shall be indicated by the engineer's professional seal on all drawings and documents.

2. Verification Testing.

a. Upon initial parallel operation of the Generating Facility, or any time interface hardware or software is changed, a verification test shall be performed. A licensed professional engineer or otherwise qualified individual shall perform verification testing in accordance with the manufacturer's published test procedure. Qualified individuals include professional engineers, factory trained and certified technicians, and licensed electricians with experience in testing protective equipment. The Company reserves the right to witness verification testing or require written certification that the testing was performed.

b. Verification testing shall be performed every four years. All verification tests prescribed by the manufacturer shall be performed. If wires must be removed to perform certain tests, each wire and each terminal shall be clearly and permanently marked. The Customer-Generator shall maintain verification test reports for inspection by the Company.

c. Inverters shall be verified once per year as follows: once per year the Customer-Generator shall operate the customer generator system disconnect switch and verify the Generating Facility automatically shuts down and does not reconnect with the Company's system until the Company's system continuous normal voltage and frequency have been maintained for a minimum of 5 minutes. The Customer-Generator shall maintain a log of these operations for inspection by the Company.

d. Any system that depends upon a battery for trip power shall be checked once per month for proper voltage. Once every four (4) years the battery shall either be replaced or have a discharge test performed. The Customer-Generator shall maintain a log of these operations for inspection by the Company.

e. Tests and battery replacements as specified in this section 2 of Exhibit B shall be at the Customer-Generator's expense.

3. Inspection of the Generating Facility.

a. The Company may, in its discretion and upon reasonable notice not to be less than 24 hours (unless otherwise agreed to by the Company and the Customer-Generator), observe the construction of the Generating Facility (including but not limited to relay settings and trip schemes) and the equipment to be installed therein.

b. Within fourteen days after receiving a written request from the Customer-Generator to begin producing electric energy in parallel with the Company's system, the Company may inspect the Generating Facility (including but not limited to relay settings and trip schemes) and observe the performance of the verification testing. The Company may accept or reject the request to begin producing electric energy based upon the inspection or verification test results.

c. If the Company does not perform an inspection of the Generating Facility (including but not limited to relay settings and trip schemes) and observe the performance of verification testing within the fourteen-day period, the Customer-Generator may begin to produce energy after certifying to the Company that the Generating Facility has been tested in accordance with the verification testing requirements and has successfully completed such tests. After receiving the certification, the Company may conduct an inspection of the Generating Facility (including but not limited to relay settings and trip schemes) and make reasonable inquiries of the Customer-Generator, but only for purposes of determining whether the verification tests were properly performed. The Customer-Generator shall not be required to perform the verification tests a second time, unless irregularities appear in the verification test report or there are other objective indications that the tests were not properly performed in the first instance.

d. The Company may, in its discretion and upon reasonable notice not to be less than 24 hours (unless an apparent safety or emergency situation exists which requires immediate inspection to resolve a known or suspected problem), inspect the Generating Facility (including but not limited to relay settings and trip schemes) and its operations (including but not limited to the operation of control, synchronizing, and protection schemes) after the Generating Facility commences operations.

4. Operating Records and Procedures.

a. The Company may require periodic reviews of the maintenance records, and available operating procedures and policies of the Generating Facility.

b. The Customer-Generator must separate the Generating Facility from the Company's system whenever requested to do so by the Company's System Operator pursuant to Sections 9, 10 and 11 of the Agreement. It is understood and agreed that at times it may not be possible for the Company to accept electric energy due to temporary operating

conditions on the Company's system, and these periods shall be specified by the Company's System Operator. Notice shall be given in advance when these are scheduled operating conditions.

c. Logs shall be kept by the Customer-Generator 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. The Company shall have the right to review these logs, especially in analyzing system disturbance.

5. Changes to the Generating Facility, Operating Records, and Operating Procedures.

a. The Customer-Generator agrees that no material changes or additions to the Generating Facility as reflected in the single-line diagram, relay list, trip scheme and settings of the Generating Facility, Generating Facility Equipment List, and three-line diagram (if the Generating Facility's capacity is greater than or equal to 30 kW), shall be made without having obtained prior written consent from the Company, which consent shall not be unreasonably withheld.

b. As a result of the observations and inspections of the Generating Facility (including but not limited to relay list, trip scheme and settings) and the performance of the verification tests, if any changes in or additions to the Generating Facility, operating records, and operating procedures and policies are required by the Company, the Company shall specify such changes or additions to the Customer-Generator in writing, and the Customer-Generator shall, as soon as practicable, but in no event later than thirty (30) days after receipt of such changes or additions, respond in writing, either noting agreement and action to be taken or reasons for disagreement. If the Customer-Generator disagrees with the Company, it shall note alternatives it will take to accomplish the same intent, or provide the Company with a reasonable explanation as to why no action is required by good engineering practice.

(Additional terms and provisions to be added as necessary. Note: This parenthetical phrase should be deleted when the agreement is finalized.)

Generating Facility Equipment List

The Generating Facility shall include the following equipment:

(Specific items to be added as necessary. Note: This parenthetical phrase should be deleted when the agreement is finalized.)

(This Generating Facility Equipment List, together with the single-line diagram, relay list and trip scheme, and three-line diagram (if the Generating Facility's capacity is greater than or equal to 30 kW), should be attached behind Exhibit B. Note: This parenthetical phrase should be deleted when the agreement is finalized.)

EXHIBIT C

INTERCONNECTION FACILITIES OWNED BY THE COMPANY
(To Be Filled Out By Company)

1. Description of Company Interconnection Facilities

The Company will purchase, construct, own, operate and maintain all interconnection facilities required to interconnect the Company's system with the Generating Facility at ___ volts, up to the point of interconnection.

The Company Interconnection Facilities, for which the Customer-Generator agrees to pay, include:

[Need to specify the interconnection facilities. If no interconnection facilities, state "None".]

2. Customer-Generator Payment to Company for Company Interconnection Facilities, Review of Generating Facility, and Review of Verification Testing

The Customer-Generator shall pay to the Company the total estimated interconnection cost to be incurred by the Company (Total Estimated Interconnection Cost), which is comprised of (i) the estimated cost of the Company Interconnection Facilities, (ii) the estimated engineering costs associated with a) developing the Company Interconnection Facilities and b) reviewing and specifying those portions of the Generating Facility which allow interconnected operations as such are described in Exhibit B, and iii) reviewing the verification testing. The following summarizes the Total Estimated Interconnection Cost:

Description	Estimated Cost ($)

[Need to specify the estimated interconnection cost. If no cost, state "None".]

Total Estimated Interconnection Cost $

The Total Estimated Interconnection Cost, which, except as otherwise provided herein, is non-refundable, shall be paid by the Customer-Generator fourteen (14) days after receipt of an invoice from the Company, which shall be provided not less than thirty (30) days prior to start of procurement of the Company Interconnection Facilities.

Within thirty (30) days of receipt of an invoice, which shall be provided within fourteen (14) days of the final accounting, which shall take place within sixty (60) days of completion of construction

of the Company Interconnection Facilities, the Customer-Generator shall remit to the Company the difference between the Total Estimated Interconnection Cost paid to date and the total actual interconnection cost (Total Actual Interconnection Cost). The latter is comprised of (i) the total costs of the Company Interconnection Facilities, and (ii) the total engineering costs associated with a) developing the Company Interconnection Facilities and b) reviewing and specifying those portions of the Generating Facility which allow interconnected operations as such are described in Exhibit B, and iii) reviewing the verification testing. If in fact the Total Actual Interconnection Cost is less than the payments received by the Company as the Total Estimated Interconnection Cost, the Company shall repay the difference to the Customer-Generator within thirty (30) days of the final accounting.

If the Agreement is terminated prior to the Customer-Generator's payment for the Total Actual Interconnection Cost (or the portion of this cost which has been incurred) or prior to the Company's repayment of the overcollected amount of the Total Estimated Interconnection Cost (or the portion of this cost which has been paid), such payments shall be made by the Customer-Generator or Company, as appropriate. If payment is due to the Company, the Customer-Generator shall pay within thirty (30) days of receipt of an invoice, which shall be provided within fourteen (14) days of the final accounting, which shall take place within sixty (60) days of the date the Agreement is terminated. If payment is due to the Customer-Generator, the Company shall pay within thirty (30) days of the final accounting.

All Company Interconnection Facilities shall be the property of the Company.

3. <u>Operation, Maintenance and Testing Costs</u>

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

APPENDIX III

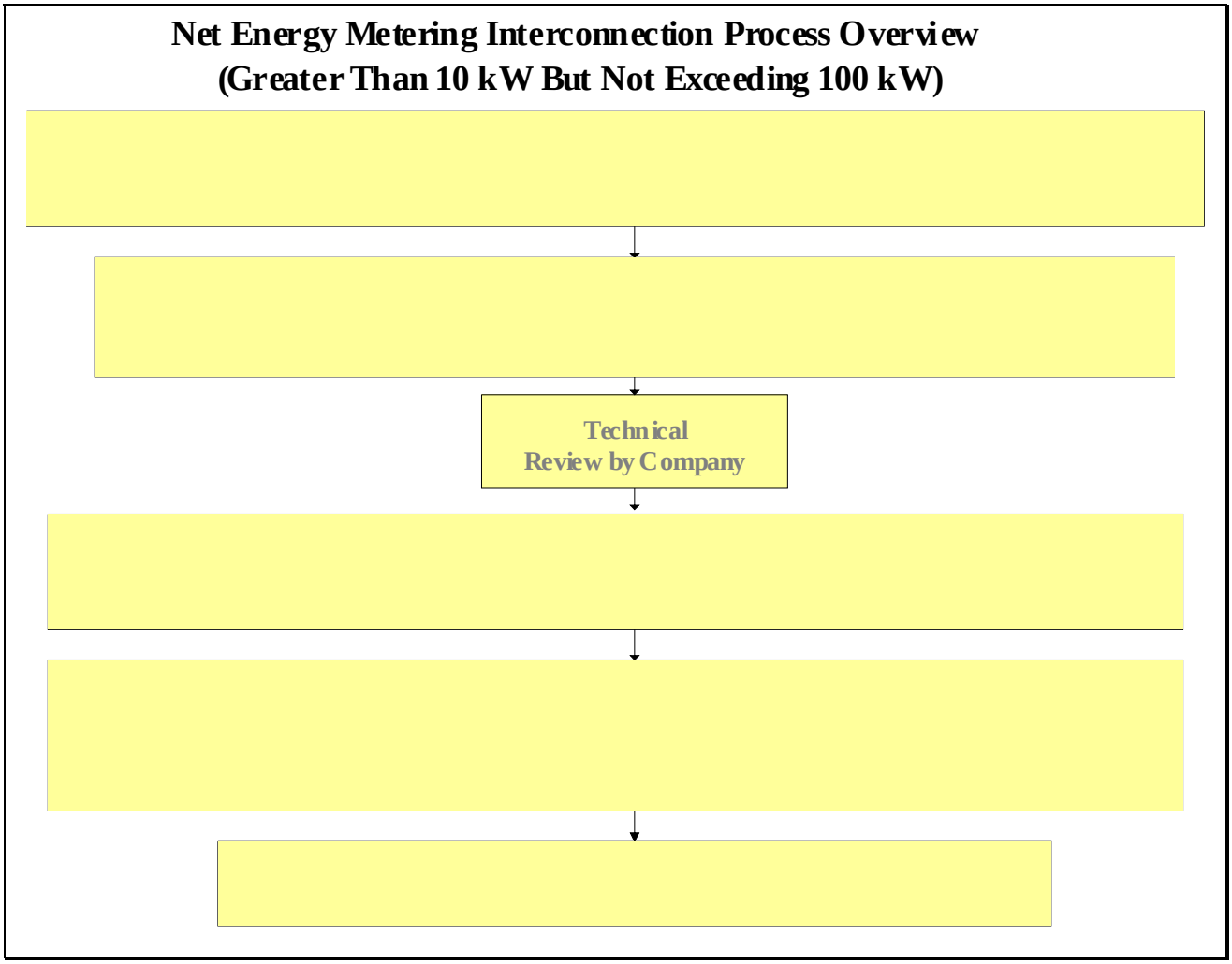
NET ENERGY METERING INTERCONNECTION PROCESS OVERVIEW

1. Steps in the Interconnection Process

a. The interconnection process will generally be initiated when a Customer approaches or contacts the Company to discuss the procedure involved to interconnect an eligible Net Energy Metering Generating Facility that meets the eligibility requirements set forth in the Company's Rule 18, Section A, and operate it in parallel with the Company's system. For eligible Generating Facilities with a capacity of 10 kW or less, the Company will provide the Customer with the Net Energy Metering Agreement 10 kW or Less (Appendix I). The Customer shall submit the completed agreement and a single-line diagram of the Generating Facility's electrical interconnection to the Company's system.

For eligible Generating Facilities with a capacity greater than 10 kW but not exceeding 100 kW, the Customer shall follow the procedure described in part b.

b. The following flowchart provides for illustrative purposes the major steps in the finalization of a Net Energy Metering Interconnection Agreement for eligible Net Energy Metering Generating Facilities with a capacity greater than 10 kW but not exceeding 100 kW:



c. The activities in each step shown in the flowchart include the following:

Step 1: The Customer is provided with the Rule 14H Distributed Generating Facility Interconnection Standards Technical Requirements (Rule 14H - Appendix I), Net Energy Metering and Interconnection Agreement (Greater Than 10 kW But Not More Than 100 kW) (Appendix II), and Net Energy Metering Interconnection Process Overview (Appendix III). These documents normally will be transmitted to the Customer within 5 business days of receiving a Customer request.

Step 2: The Customer submits a completed Exhibit A to the Net Energy Metering and Interconnection Agreement (Greater Than 10 kW But Not More Than 100 kW) (Description of Generating Facility), and a preliminary single-line diagram, relay list, trip scheme and settings, and three-line diagram (required in specified circumstances), which is the information required to be provided pursuant to Section 1.e.(iii) of Exhibit B to the Net Energy Metering and Interconnection Agreement (Greater Than 10 kW But Not More Than 100 kW). The Customer will also provide the Company with items required under the Net Energy Metering and Interconnection Agreement (Greater Than 10 kW But Not More Than 100 kW) that are used in determining the protection, synchronizing and control requirements, such as the operating manuals, manufacturer's brochures/instruction manual and technical specifications, manufacturer's test reports and bill of material, as referred to in Section 1.c. of Exhibit B to the Net Energy Metering and Interconnection Agreement (Greater Than 10 kW But Not More Than 100 kW).

Step 3: The Company does the technical review of the information submitted by the Customer in Step 2. The technical review process is discussed in Section 2 and 3 of this Net Energy Metering Interconnection Process Overview.

Step 4: The Customer and Company work together to finalize the single-line diagram, relay list, trip scheme and settings, and three-line diagram (required in specified circumstances). After the finalization of the single-line diagram, relay list, trip scheme and settings, and three-line diagram (required in specified circumstances), the Customer will make any revisions necessary to Exhibit A to the Net Energy Metering and Interconnection Agreement (Greater Than 10 kW But Not More Than 100 kW) and resubmit the exhibit to the Company. The Generating Facility Equipment List, identifying equipment, space and/or data at the Generating Facility to be provided by the Customer for use in conjunction with the Company Interconnection Facilities (which is part of Exhibit B to the Net Energy Metering and Interconnection Agreement (Greater Than 10 kW But Not More Than 100 kW)), is also completed by the Customer. (If necessary, the Company will provide assistance to the Customer to complete the Generating Facility Equipment List.)

Step 5: The Company completes the identification of the Interconnection Facilities owned by the Company, which are identified in Exhibit C to the Net Energy Metering and Interconnection Agreement (Greater Than 10 kW But Not More Than 100 kW). The Company shall complete the identification of the Interconnection Facilities owned by the Company within 15 business days of the completion of all activities

specified in Step 4 above.[1] The finalized Net Energy Metering and Interconnection Agreement (Greater Than 10 kW But Not More Than 100 kW) then is completed by the Customer and provided to the Company for review and execution.

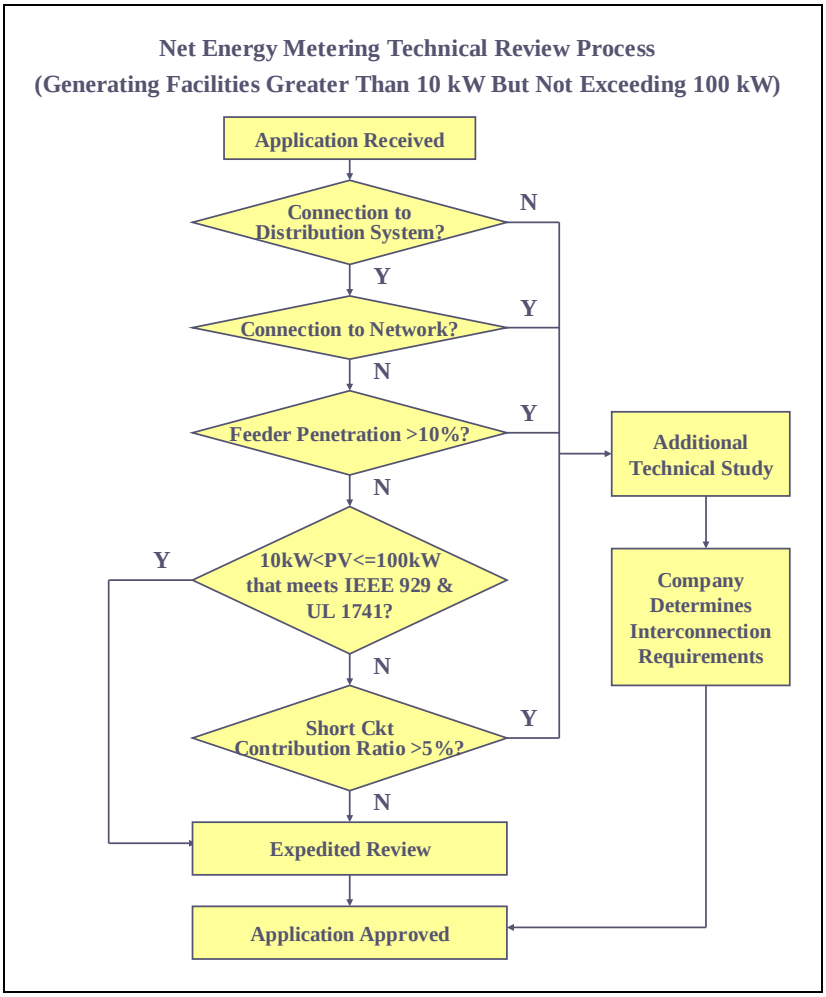
Step 6: The Customer and the Company sign the Net Energy Metering and Interconnection Agreement (Greater Than 10 kW But Not More Than 100 kW).

d. The Company and Customer shall mutually agree to a schedule by which the interconnection facilities will be constructed and when the Customer's Generating Facility shall be connected to the Company's electric system. The interconnection facilities are project-specific, and the time to complete the Generating Facilities will depend on the complexity of the required interconnection facilities.

[1] The Company, for good cause, may modify the time limit. If the Company modifies the time limit, it shall notify the Customer in writing of the modification and the cause for the modification.

2. Technical Review Process

a. The following flowchart provides for illustrative purposes the major steps in the Net Energy Metering technical review process for eligible Generating Facilities with a capacity greater than 10 kW but not exceeding 100 kW:



b. The degree of technical review required for a request for interconnection, and the extent to which additional technical study will be needed, will depend on factors such as (1) complexity of the utility system that the Generating Facility is proposed to be interconnected to that must be modeled (i.e., the distribution, subtransmission or transmission system); (2) connection to a network system; (3) feeder penetration greater than 10%; (4) type of generating facility (i.e., photovoltaic or wind); and (5) short circuit contribution ratio greater than 5%. For example, photovoltaic systems less than 100 kW interconnecting to a radial distribution feeder with an aggregate capacity of distributed generating facilities less than 10%, using inverters that meet UL 1741, or latest version (the Standard for Inverters, Converters and Controllers for Use in Independent Power Systems) and IEEE 929-2000, or latest version (the Recommended Practice for Utility Interface of Photovoltaic Systems) would qualify for an expedited review process. Self-excited synchronous generators present more interconnection issues.

c. Following submission by the Customer of all necessary information regarding the proposed Generating Facility, the Company will perform an initial technical screening of the impact of the Generating Facility on the Company's system, for which a charge will not be assessed. The Company shall respond to the Customer with the findings of the initial technical screening within 15 business days.[2] If the Company determines that additional technical study of the interconnection proposal is necessary, then the Company will notify the Customer of the Company's target date to complete any

[2] The Company, for good cause, may modify the time limit. If the Company modifies the time limit, it shall notify the Customer in writing of the modification and the cause for the modification.

required additional technical study.

3. The Need for Additional Technical Study

a. The Company's engineering department will determine if additional technical study of the interconnection proposal is necessary. The need for additional technical study of the interconnection proposal may be triggered by considerations such as: (1) complexity of the utility system that the Generating Facility is proposed to be interconnected to that must be modeled (i.e., the distribution, subtransmission or transmission system); (2) connection to a network system; (3) feeder penetration greater than 10%; (4) type of generating facility (i.e., photovoltaic or wind); and (5) short circuit contribution ratio greater than 5%.

b. Generally, the Company will perform the analyses included in the additional technical study. The analyses or parts of the analyses may be contracted to an outside consultant specializing in such analyses for complex situations or in situations where the Company's engineering department does not have available resources to conduct the analyses in a time frame mutually agreeable to both the Company and the Customer.

c. The scope and cost of the analyses will depend on the complexity of the utility system that the Generating Facility is interconnected to which must be modeled, and the degree to which the Generating Facility will affect the utility system. Examples of the analyses and/or reviews that fall within the Additional Technical Study box in the flowchart illustrating the technical review process include: (1) Feeder Load Flow; (2) Dynamic Stability Analysis; (3) Transient Overvoltage; and (4) Short Circuit and Relay

Coordination.

d. The Customer will be responsible for the cost of any additional technical study (or such lesser amount as the Company may specify to facilitate the processing of interconnection requests for similarly situated Generating Facilities) that needs to be performed in order to evaluate the impacts of the Generating Facility's interconnection to the utility system. A cost estimate and schedule for the analyses to be done as part of the additional technical study will be provided to the Customer before the overall study is started. This generally would be done when the Company responds to the Customer with the findings of the initial technical screening.

4. Resolution of Disputes

a. If there is a dispute between the Customer and the Company as to whether additional technical study is required, or as to the scope and cost of the study, then the Company generally would use the following procedures: (1) The Company's Contact Person (who generally would be from the Company's energy services department) would inform the Customer of the reasons for and scope of the study required; (2) If the Customer disagrees with the conclusion, then the Customer would meet with representatives from the Company's engineering department to discuss the matter; (3) If the Customer continues to disagree with the conclusion, then the Customer would write to the Company's Contact Person explaining the position of the Customer, and the Company's Contact Person would respond in writing within 15 business days[3] (so that any dispute is

reduced to writing); (4) If the parties continue to have a dispute, then authorized representatives from the Company and Customer (having full authority to settle the dispute) would meet in Hawaii (or by telephone conference) and attempt in good faith to resolve the dispute; and (5) If the parties continue to have a dispute, then the parties may engage in a form of alternative dispute resolution agreeable to both parties, or a party may request that the Public Utilities Commission of the State of Hawaii ("Commission") resolve the matter by filing a written request with the Commission attaching the relevant information and correspondence, and serving the request on the other party and the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs of the State of Hawaii.

b. If there is a dispute as to the need for interconnection equipment, protective devices or control systems, then the Company generally would use the following procedures: (1) The Company's Contact Person (who generally would be from the Company's energy services department) would inform the Customer of the reasons for the interconnection equipment/protective devices/control systems; (2) If the Customer disagrees with the conclusion, then the Customer would meet with representatives from the Company's engineering department to discuss the matter; (3) Additional analyses may be conducted by the Company at the request of a Customer that questions the need for particular interconnection equipment/protective devices/control systems if the Customer pays for

[3] The Company, for good cause, may modify the time limit. If the Company modifies the time limit, it shall notify the Customer in writing of the modification and the cause for the modification.

the analyses; (4) If the Customer continues to disagree with the conclusion, then the Customer would write to the Company's Contact Person explaining the position of the Customer, and the Company's Contact Person would respond in writing within 15 business days[4] (so that any dispute is reduced to writing); (5) If the parties continue to have a dispute, then authorized representatives from the Company and Customer (having full authority to settle the dispute), would meet in Hawaii (or by telephone conference) and attempt in good faith to resolve the dispute; and (6) If the parties continue to have a dispute, then the parties may engage in a form of alternative dispute resolution agreeable to both parties, or a party may request that the Commission resolve the matter by filing a written request with the Commission attaching the relevant information and correspondence, and serving the request on the other party and the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs of the State of Hawaii.

c. Customers are not required to exhaust the Company's dispute resolution procedures set forth above before proceeding under provisions applicable to informal or formal complaints under the Rules of Practice and Procedure before the Public Utilities

[4] The Company, for good cause, may modify the time limit. If the Company modifies the time limit, it shall notify the Customer in writing of the modification and the cause for the modification.

Commission, currently codified in Title 6, Chapter 61, Subchapter 5 of the Hawaii Administrative Rules. If an informal or formal complaint proceeding is initiated, the Customer would write to the Company's Contact Person and state whether the Customer desires to continue the Company's dispute resolution procedures.