INTERCONNECTION & PARALLEL OPERATION AGREEMENT

CUSTOMER-OWNED BEHIND THE METER RENEWABLE ENERGY INSTALLATIONS

Name: _____

Service Address: _____

System Size/Type: _____kW _____(solar, wind, hydro)

Electric Account number: _____

Now, therefore, for and in consideration of the mutual covenants and agreements set forth herein, the Parties agree as follows:

1. Scope of Agreement

1.1

Execution of this agreement acknowledges the customer has purchased and installed a renewable energy system (solar, wind, hydro, etc.) at their home or business for the purposes of self-generation and/or energy storage. Customer is not allowed to proceed with parallel operation until BrightRidge has received a completed Final Electrical Inspection, BrightRidge has conducted an onsite inspection and witnessed any required commissioning test or waived such test and has given customer written authorization to proceed with parallel operation. By signing this agreement, the customer understands they shall not qualify for any bill credit for exported energy to the electrical distribution system. In addition, the customer acknowledges and understands "net metering" is not allowed, therefore the meter will not deduct from the register for any exported energy. Lastly, BrightRidge will provide no additional data via metering or billing to the customer on any energy (kilowatt-hours) exported to the electric grid.

The customer may not add generation capacity that has the ability to flow back to the BrightRidge meter or impact the BrightRidge electrical network without the express written consent of BrightRidge. Examples of possible generation would be photovoltaic systems, low impact hydro, wind generation, and combustion generation of any type. BrightRidge may discontinue service in order to protect its network, or until such time the customer meets all BrightRidge, local, state, Tennessee Valley Authority, and Federal Energy Regulatory Agency requirement. For approved installations, any additional capacity added at a later date must be approved by BrightRidge in advance.

General Responsibilities of the Parties

2.1. Customer-Owned generation will need to have a plan review by the BrightRidge Engineering Department to determine if the BrightRidge electrical system can support the new generation source or an update to an existing system. Customer will be financially responsible, at time of installation or in the future, for any upgrades to the BrightRidge system that are necessary to keep the electrical system operating within NESC requirements. This may include any system impact studies for renewable energy systems exceeding 50 kilowatts (kW), of which the customer will be responsible for all costs associated with said study.

BrightRidge has reviewed the proposed generation and related equipment and approved the system for interconnection based on one of the following conditions:

2.1.1. The generation system has been certified as meeting the applicable codes and standards.

2.1.2. For systems with a nameplate capacity of greater than 50 kW, a system impact study has been conducted.

2.2. Customer shall comply with all applicable laws, regulations, zoning codes, building codes, safety rules and environmental restrictions, including the latest version of the National Electrical Code applicable to the design, installation, operation and maintenance of its system.

2.3. Customer shall provide Local Building Code Official inspection and certification of installation forms to BrightRidge. The certification shall reflect that the code official has inspected and certified that the installation was permitted, has been approved, and has met all electrical and mechanical qualifications.

2.4. After installation, the customer or its representatives shall return the completed State of Tennessee Final Electrical Inspection. Prior to installation, BrightRidge may inspect the system for compliance with standards which may include a witness test. BrightRidge must provide written authorization before customer can activate generation system.

2.5. Customer shall conduct operations of its system in compliance with all aspects of the Rules and in accordance with industry standard prudent engineering practice and must comply with the latest version of IEEE 1547.

2.6. Customer shall be responsible for protecting its renewable generation equipment, inverters, protective devices, and other system components from damage from the normal and abnormal conditions and operations that occur on the system in delivering and restoring power; and shall be responsible for ensuring that the system is inspected, maintained, and tested on an ongoing basis in accordance with the manufacturer's instructions to ensure that it is operating correctly and safely. BrightRidge will have the right to request and receive copies of the test results.

3. Inspection and On-Going Compliance

3.1. BrightRidge will provide customer with as much notice as reasonably practicable; either in writing, e-mail, facsimile or by phone as to when BrightRidge may conduct inspection and/or document review. Upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, BrightRidge shall have access to the customer's premises for the purpose of accessing the manual disconnect switch, performing an inspection or disconnection, or, if necessary, to meet BrightRidge's legal obligation to provide service to its customers.

4. Manual Disconnect Switch

4.1. Customer must install a manual, lockable, visible load break disconnect switch between the generation source and the BrightRidge system that is visibly marked "**Generation Disconnect**." The disconnect shall be mounted separately from, but adjacent to the BrightRidge meter socket. The customer shall ensure that such manual disconnect switch shall remain readily accessible to BrightRidge and be capable of being locked in the open position with a single utility padlock. A permanent, weatherproof single line diagram of the facility must be located adjacent to the disconnect switch. Names and current telephone numbers of at least two persons authorized to provide access to the facility that have authority to make decisions regarding the interconnection and operation of the system will be included.

5. Disconnection / Reconnection

5.1. BrightRidge may open the manual disconnect switch or disconnect the customer's meter, isolating the system, without prior notice to the customer. To the extent practicable, however, prior notice shall be given. If prior notice is not given, BrightRidge shall at the time of disconnection leave a door hanger notifying the customer that it's customer - owned renewable generation has been disconnected, including an explanation of the condition necessitating such action. As soon as practicable after the condition(s) necessitating disconnection has been remedied, BrightRidge will unlock the disconnect switch so customer may reenergize the system.

5.2. BrightRidge has the right to disconnect the customer - owned renewable generation at any time. Some examples of situations that may require disconnect are:

5.2.1. Emergencies or maintenance requirements on the BrightRidge electric system;

5.2.2. Hazardous conditions existing on the BrightRidge system due to the operation of the customer's generating or protective equipment as determined by BrightRidge; and

5.2.3. Adverse electrical effects, such as power quality problems, on the electrical equipment of BrightRidge's other electric consumers caused by the customer - owned renewable generation as determined by BrightRidge.

6. Modifications/Additions to Participant-owned Renewable Generation

6.1. If the system is subsequently modified in order to increase or decrease its Gross power rating or any components are changed, the customer must provide BrightRidge with written notification that fully describes the proposed modifications at least thirty (30) calendar days prior to making the modifications.

7. Indemnity

7.1. Customer agrees to release, indemnify, and save harmless BrightRidge, and the United States of America, and their respective agents and employees from all liability, claims, demands, causes of action, costs, or losses for personal injuries, property damage, or loss of life or property, sustained by customer, customer's agents and family, or third parties arising out of or in any way connected with the installation, testing, operation, maintenance, repair, replacement, removal, defect, or failure of customer's system. The obligations of this section 8.1 shall survive termination of this agreement.

8. Assignment

8.1. The Interconnection Agreement shall not be assignable by either party without thirty (30) calendar days' notice to the other Party and written consent of the other Party, which consent shall not be unreasonably withheld or delayed.

8.2. An assignee to this Interconnection Agreement shall be required to assume, in writing, the customer's rights, responsibilities, and obligations under this Interconnection Agreement.

9. Insurance

9.1 BrightRidge requires the following levels of Liability Insurance for Personal Injury and Property damage during the entire term of this Agreement.

9.2 Generation over 10 kW but less than 50kW – Interconnection Customer maintains an amount of not less than $500,000.

9.3 Generation greater than 50 kW – Interconnection Customer maintains an amount of not less than $1,000,000.

10. Excess Generation

Excess Generation is defined as the Generation in excess of the customer's instantaneous usage that flows beyond the point of interconnection with Local Power Company and into Local Power Company's distribution system. BrightRidge is under no obligation to purchase excess generation.

10.1 **Excess Generation Agreements**:

Check the box that applies:

☐ Interconnection Customer does not have an agreement to sell generation to TVA.

☐ Interconnection Customer has entered into an agreement to sell all, or excess generation (**TVA Dispersed Power Production**).

Agreement: **TVA Dispersed Power Production (DPP)**
Effective Date:_____
Contract Term:_____

11. Fees

Application Fee: $500

The application fee is non-refundable and must be paid by check in advance when making an application. Also applies to DPP enrollment/participation.

Monthly Reporting Fee: A recurring monthly reporting fee of $5.00 for single-phase and $10.00 for three-phase service will be applied to the Customer's utility bill at the location of the renewable energy system. **Only applies to DPP enrollment**.

Aid to Construction (if applicable): Customer is responsible for any additional aid to construction costs related to the renewable energy system to be determined by BrightRidge.

12. Notices

12.1 Notices given under this Agreement are deemed to have been duly delivered if hand delivered or sent by United States certified mail, return receipt requested, postage prepaid, to:

(a) If to BrightRidge:

BrightRidge
Attention: Energy Services & Marketing
2600 Boones Creek Rd.
Johnson City, TN 37615

(b) If to Participant:

_____

_____

_____

The above-listed names, titles, and addresses of either Party may be changed by written notification to the other.

(See next page for signature area.)
IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed by their respective duly authorized representatives.

BrightRidge

BY: _____

(Signature)

TITLE: _____

DATE: _____

CUSTOMER NAME: _____
(Printed)

BY: _____

(Signature)

TITLE: _____

DATE: _____

BrightRidge Application for Operation of Customer-Owned Generation

This application should be completed and returned to the Energy Services representative to begin processing the request.

INFORMATION: *This application is used by BrightRidge to determine the required equipment configuration for the Customer interface. Every effort should be made to supply as much information as possible.*

PART 1

OWNER/APPLICANT INFORMATION

Owner/Customer Name:_____

Address:_____

City:_____County:_____State:_____Zip :_____

Telephone:_____ Email:_____

Electric Service Account Number_____

Owner of Building (if different than customer)_____

PROJECT DESIGN/ENGINEERING (ARCHITECT) (as applicable)

Company:_____

Mailing Address:_____

City:_____County:_____State:_____Zip:_____

Phone:_____Representative:_____

PE License:_____ State:_____

ELECTRICAL CONTRACTOR (as applicable)

Company:_____

Mailing Address:_____

City:_____County:_____State:_____Zip Code:_____

Phone Number:_____Representative:_____

Email:_____Fax Number:_____

Contractor's License #:_____State:_____

TYPE OF GENERATOR (as applicable)

Photovoltaic_____ Wind_____ Microturbine_____

ESTIMATED LOAD, GENERATOR RATING AND MODE OF OPERATION INFORMATION

The following information is necessary to help properly design the LPC customer interconnection.

This information is not intended as a commitment or contract for billing purposes.

Total Site Load _____ (kW)

Residential _____ Commercial _____ Industrial _____

Generator Rating _____ (kW) Annual Estimated Generation _____ (kWh)

Mode of Operation

Isolated _____ Paralleling _____ Power Export _____

DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION

Give a general description of the proposed installation, including a detailed description of its planned location, the date you plan to operate the generator, the frequency with which you plan to operate it,

and whether you plan to operate it during on or off-peak hours.

_____

_____

_____

_____

_____

_____

_____

_____

PART 2

(Complete all applicable items. Copy this page as required for additional generators)

SYNCHRONOUS GENERATOR DATA

Unit Number: _____Total number of units with listed specifications on site: _____

Manufacturer: _____

Type: _____Date of manufacture: _____

Serial Number (each):_____

Phases: Single Three R.P.M.: _____ Frequency (Hz): _____

Rated Output (for one unit): _____Kilowatt _____Kilovolt-Ampere

Rated Power Factor (%): _____Rated Voltage (Volts): _____Rated Amperes: _____

Field Volts: _____ Field Amps: _____ Motoring power (kW): _____

Synchronous Reactance (Xd): _____% on _____KVA base

Transient Reactance (X'd): _____% on _____KVA base

Subtransient Reactance (X'd); _____% on _____KVA base

Negative Sequence Reactance (Xs): _____% on _____KVA base

Zero Sequence Reactance (Xo): _____% on _____KVA base

Neutral Grounding Resistor (if applicable):_____

_____

I_2^2t or K (heating time constant):

_____

Additional information:

_____

INDUCTION GENERATOR DATA

Rotor Resistance (Rr):_____ ohms Stator Resistance (Rs): _____ ohms

Rotor Reactance (Xr):_____ ohms Stator Reactance (Xs): _____ ohms

Magnetizing Reactance (Xm):_____ ohms Short Circuit Reactance (Xd): _____ ohms

Design Letter:_____ Frame Size: _____

Exciting Current:_____ Temp Rise (deg C^o): _____

Reactive Power Required:_____ Vars (no load), _____Vars (full load)

Additional Information:_____

_____

PRIME MOVER (Complete all applicable items)
Unit Number: _____ Type:_____

Manufacturer:

_____

Serial Number:_____Date of manufacture:_____

H.P. Rated: _____ H.P. Max.: _____Inertia Constant: _____ lb.-ft.^{2}

Energy Source (hydro, steam, wind, etc.)

_____
_____
_____

GENERATOR TRANSFORMER (Complete all applicable items)
TRANSFORMER (between generator and utility system)
Generator unit number: _____Date of manufacturer: _____
Manufacturer:

_____
Serial Number:

_____
High Voltage: _____ KV, Connection: delta wye, Neutral solidly grounded?_____
Low Voltage: _____ KV, Connection: delta wye, Neutral solidly g rounded?

_____
Transformer Impedance(Z): _____% on _____ KVA base.
Transformer Resistance (R): _____% on _____ KVA base.
Transformer Reactance (X): _____% on _____ KVA base.
Neutral Grounding Resistor (if applicable):

_____
_____
_____

INVERTER DATA (if applicable)

Manufacturer: _____ Model: _____

Rated Power Factor (%): _____Rated Voltage (Volts): _____ Rated Amperes: _____

Inverter Type (ferroresonant, step, pulse-width modulation, etc): _____

Type commutation: forced line

Harmonic Distortion: Maximum Single Harmonic (%) _____

Maximum Total Harmonic (%) _____

Note: Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage and current waveforms.

POWER CIRCUIT BREAKER **(if applicable)**

Manufacturer: _____Model: _____

Rated Voltage (*kilovolts):* _____Rated ampacity *(Amperes)*_____

Interrupting rating (Amperes): _____BIL Rating: _____

Interrupting medium / insulating medium (ex. Vacuum, gas, oil) _____ / _____

Control Voltage (Closing): _____ (Volts) AC DC

Control Voltage (Tripping): _____ (Volts) AC DC Battery Charged Capacitor

Close energy: Spring Motor Hydraulic Pneumatic Other: _____

Trip energy: Spring Motor Hydraulic Pneumatic Other: _____

Bushing Current Transformers: _____ (Max. ratio) Relay Accuracy Class: _____

Multi ratio? No Yes: (Available taps) _____

ADDITIONAL INFORMATION

In addition to the items listed above, please attach a detailed one-line diagram of the proposed facility, all applicable elementary diagrams, major equipment, (generators, transformers, inverters, circuit breakers, protective relays, etc.) specifications, test reports, etc., and any other applicable drawings or documents necessary for the proper design of the interconnection. Also describe the project's planned operating mode (e.g., combined heat and power, peak shaving, etc.), and its address or grid coordinates.

END OF PART 2

SIGN OFF AREA

The Customer agrees to provide BrightRidge with any additional information required to complete the interconnection. The Customer shall operate his equipment within the guidelines set forth by the distributor.

_____ _____

Applicant Date

BrightRidge CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:

Energy Services and Marketing
P.O. Box 1636
Johnson City, TN 37605-1636
(423) 952-5142
contactus@brightridge.com