



ELECTRIC WATER SEWER STORMWATER

3 Industrial Loop Drive | PO Box 1589 | Hannibal, MO 63401 | (573)-221-8050

www.HANNIBALBPW.org



POLICY:	<u>INTERCONNECTION / NET METERING</u>	DEPARTMENT:	<u>ELECTRIC</u>
APPROVED:	_____	REVIEWED / REVISED:	<u>08/09/17</u>

INTERCONNECION APPLICATION/AGREEMENT FOR NET METERING SYSTEMS WITH CAPACITY OF 100 kW OR LESS

For Customers Applying for Interconnection:

If you are interested in applying for interconnection to the Hannibal Board of Public Works' electrical system, you should first contact the Hannibal Board of Public Works and ask for information related to the interconnection of parallel generation equipment to the Hannibal Board of Public Works' system, and you should understand this information before proceeding with this Application. If you wish to apply for interconnection to the Hannibal Board of Public Works' electrical system, please complete sections A, B, C, and D, and attach plans and specifications describing the net metering, parallel generation, and inter-connection facilities (hereinafter collectively referred to as the "Customer-Generator's System") and submit them to the Hannibal Board of Public Works at:

Hannibal Board of Public Works
3 Industrial Loop Drive
Hannibal, MO 63401

You will be provided with an approval or denial of this Application within ninety (90) days of receipt by the Hannibal Board of Public Works. If this Application is denied, you will be provided with the reason(s) for the denial. If this Application is approved and signed by both you and the Hannibal Board of Public Works, it shall become a binding contract and shall govern your relationship with the Hannibal Board of Public Works.

For Customers Who Have Received Approval of Customer-Generator System Plans and Specifications:

After receiving approval of your Application, it will be necessary to construct the Customer-Generator System in compliance with the plans and specifications described in the Application, complete sections E and F of this Application, and forward this Application to the Hannibal Board of Public Works for review and completion of section G at:

Hannibal Board of Public Works
3 Industrial Loop Drive
Hannibal, MO 63401

The Hannibal Board of Public Works will complete the utility portion of section G and, upon receipt of a completed Application/Agreement form and payment of any applicable fees, permit interconnection of the Customer-Generator System to the Hannibal Board of Public Works' electrical system within fifteen (15) days of receipt by the Hannibal Board of Public Works if electric service already exists to the premises, unless the Customer-Generator and the Hannibal Board of Public Works agree to a later date. Similarly, upon receipt of a completed Application/Agreement form and payment of any applicable fees, if electric service does not exist to the premises, the Hannibal Board of Public Works will permit interconnection of the Customer-Generator System to the Hannibal Board of Public Works' electrical system no later than fifteen (15) days after service is established to the premises, unless the Customer-Generator and the Hannibal Board of Public Works agree to a later date.

For Customers Who Are Assuming Ownership or Operational Control of an Existing Customer-Generator System:

If no changes are being made to the existing Customer-Generator System, complete sections A, D and F of this Application/Agreement and forward to the Hannibal Board of Public Works at:

Hannibal Board of Public Works
3 Industrial Loop Drive
Hannibal, MO 63401

The Hannibal Board of Public Works will review the new Application/Agreement and shall approve such, within fifteen (15) days of receipt if the new Customer-Generator has satisfactorily completed Application/Agreement, and no changes are being proposed to the existing Customer-Generator System. There are no fees or charges for the Customer-Generator

who is assuming ownership or operational control of an existing Customer-Generator System if no modifications are being proposed to that System.

A. Customer-Generator's Information

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Service/Street Address (if different from above): _____

City: _____ State: _____ Zip: _____

Phone Number: _____ Email: _____

Emergency Contact Phone: _____

Hannibal Board of Public Works Account No. _____

B. Customer-Generator's System Information

Manufacturer Name Plate (if applicable) AC Power Rating: _____ kW Voltage: _____

System Type: Solar Wind Biomass Fuel Cell Other (Describe) _____

Service / Street Address: _____

Inverter / Interconnection Equipment Manufacturer: _____

Inverter / Interconnection Equipment Model No.: _____

Are Required System Plans & Specifications Attached? Yes No

Inverter / Interconnection Equipment Location (describe): _____

Outdoor Manual / Utility Accessible & Lockable Disconnect Switch Location (describe): _____

Existing Electrical Service Capacity: _____ Amperes Voltage: _____ Volts

Service Character: Single Phase Three Phase

C. Installation Information / Hardware and Installation Compliance

Person or Company Installing: _____

Contractor's License No. (if applicable): _____

Approximate Installation Date: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Service/Street Address (if different from above): _____

City: _____ State: _____ Zip: _____

Phone Number: _____ Email: _____

Person or Agency Who Will Inspect / Certify Installation: _____

Hannibal Board of Public Works Account No. _____

The Customer-Generators proposed System hardware complies with all applicable National Electrical Safety Code (NESC), National Electric Code (NEC), Institute of Electrical and Electronics Engineers (IEEE) and Underwriters Laboratories (UL) requirements for electrical equipment and their installation. As applicable to System type, these requirements include, but are not limited to, UL 1741 and IEEE 929-2000. The proposed installation complies with all applicable local electrical codes and all reasonable safety requirements of the Hannibal Board of Public Works. The proposed System has a lockable, visible disconnect device, accessible at all times to the Hannibal Board of Public Works Utility personnel. The System is only required to include one lockable, visible disconnect device, accessible to the Hannibal Board of Public Works. If the interconnection equipment is equipped with a visible, lockable, and accessible disconnect, no redundant device is needed to meet this requirement.

The Customer-Generators proposed System has functioning controls to prevent voltage flicker, DC injection, overvoltage, undervoltage, overfrequency, underfrequency, and overcurrent, and to provide for System synchronization to the Hannibal Board of Public Works' electrical system.

The proposed System does have an anti-islanding function that prevents the generator from continuing to supply power when the Hannibal Board of Public Works' electric system is not energized or operating normally. If the proposed System is designed to provide uninterruptible power to critical loads, either through energy storage or back-up generation, the proposed System includes a parallel blocking scheme for this backup source that prevents any backflow of power to the Hannibal Board of Public Works' electrical system when the electrical system is not energized or not operating normally.

Signed (Installer): _____ Date: _____

Name (Print): _____

D. Additional Terms and Conditions

In addition to abiding by the Hannibal Board of Public Works' other applicable rules and regulations, the Customer-Generator understands and agrees to the following specific terms and conditions:

1. Operation/Disconnection

If it appears to the Hannibal Board of Public Works, at any time, in the reasonable exercise of its judgment, that operation of the Customer-Generator's System is adversely affecting safety, power quality or reliability of the Hannibal Board of Public Works' electrical system, the Hannibal Board of Public Works may immediately disconnect and lock-out the Customer-Generator's System from the Hannibal Board of Public Works' electrical system. The Customer-Generator shall permit the Hannibal Board of Public Works' employees and inspectors reasonable access to inspect, test, and examine the Customer-Generator's System.

2. Liability

The Customer-Generator agrees to carry no less than \$100,000 (each person/each occurrence) of liability insurance that provides for coverage of all risk of liability for personal injuries (including death) and damage to property arising out of or caused by the operation of the Customer-Generator System. Insurance may be in the form of an existing policy or an endorsement on an existing policy.

3. Interconnection Costs

The Customer-Generator shall, at the Customer-Generator's cost and expense, install, operate, maintain, repair, and inspect, and shall be fully responsible for the Customer-Generator's System. The Customer-Generator further agrees to pay or reimburse to the Hannibal Board of Public Works all of the Hannibal Board of Public Works Interconnection Costs. Interconnection Costs are the reasonable costs incurred by the Hannibal Board of Public Works for: (1) additional tests or analyses of the effects of the operation of the Customer-Generator's System on the Hannibal Board of Public Works' local distribution system, (2) additional metering, and (3) any necessary controls. These Interconnection Costs must be related to the installation of the physical facilities necessary to permit interconnected operation of the Customer-Generator's System with the Hannibal Board of Public Works' system and shall only include those costs, or corresponding costs, which would not have been incurred by the Hannibal Board of Public Works in providing service to the Customer-Generator solely as a consumer of electric energy from the Hannibal Board of Public Works pursuant to the Hannibal Board of Public Works' standard cost of service policies in effect at the time the Customer-Generator's System is first interconnected with the Hannibal Board of Public Works' system. Upon request, the Hannibal Board of Public Works shall provide the Customer-Generator with a not-to-exceed costs statement for interconnection with the Hannibal Board of Public Works' Interconnection Costs based upon the plans and specifications provided by the Customer-Generator to the Hannibal Board of Public Works.

4. Energy Pricing and Billing

Section 386.887, RSMo Supp. 2002 sets forth the valuation and billing of electric energy provided by the Hannibal Board of Public Works to the Customer-Generator and to the Hannibal Board of Public Works from Customer-Generator. The value of the electric energy delivered to the Customer-Generator shall be billed in accordance with rate schedule(s) the Hannibal Board of Public Works' Applicable Rate Schedules. The value of the electric energy delivered by the Customer-Generator shall be credited in accordance with the Hannibal Board of Public Works' Applicable Rate Schedules.

5. Terms and Termination Rights

This Agreement becomes effective when signed by both the Customer-Generator and the Hannibal Board of Public Works, and shall continue in effect until terminated. After fulfillment of any applicable initial tariff or rate schedule term, the Customer-Generator may terminate this Agreement at any time by giving the Hannibal Board of Public Works at least thirty (30) days prior written notice. In such event, the Customer-Generator shall, no later than the date of termination of Agreement, completely disconnect the Customer-Generator's System from parallel operation with the Hannibal Board of Public Works' system. Either party may terminate this Agreement by giving the other party at least thirty (30) days prior written notice that the other party is in default of any of the terms and conditions of this Agreement, so long as the notice specifies the basis for termination, and there is an opportunity to cure the default. This Agreement may also be terminated at any time by mutual agreement of the Customer-Generator and the Hannibal Board of Public Works. This agreement may also be terminated by approval of the Commission, if there is a change in statute that is determined to be applicable to this contract and necessitates its termination.

6. Transfer of Ownership

If operational control of the Customer-Generator's System transfers to any other party than the Customer-Generator, a new Application/Agreement must be completed by the person or persons taking over operational control of the existing Customer-Generator System. The Hannibal Board of Public Works shall be notified no less than thirty (30) days before the Customer-Generator anticipates transfer of operational control of the Customer-Generator's System. The person or persons taking over operational control of Customer-Generator's System must file a new Application/Agreement, and must receive authorization from the Hannibal Board of Public Works, before the existing Customer-Generator System can remain interconnected with the Hannibal Board of Public Works' electrical system. The new Application/Agreement will only need to be completed to the extent necessary to affirm that the new person or persons having operational control of the existing Customer-Generator System completely understand the provisions of this Application/Agreement and agree to them. If no changes are being made to the Customer-Generator's System, completing sections A, D and F of this Application/Agreement will satisfy this requirement. If no changes are being proposed to the Customer-Generator System, the Hannibal Board of Public Works will assess no charges or fees for this transfer. The Hannibal Board of Public Works will review the new Application/Agreement and shall approve such, within fifteen (15) days if the new Customer-

Generator has satisfactorily completed the Application/Agreement, and no changes are being proposed to the existing Customer- Generator System. The Hannibal Board of Public Works will then complete section G and forward a copy of the completed Application/Agreement back to the new Customer-Generator, thereby notifying the new Customer-Generator that the new Customer-Generator is authorized to operate the existing Customer-Generator System in parallel with the Hannibal Board of Public Works' electrical system. If any changes are planned to be made to the existing Customer-Generator System that in any way may degrade or significantly alter that System's output characteristics, then the Customer-Generator shall submit to the Hannibal Board of Public Works a new Application/Agreement 'or the entire Customer-Generator System and all portions of the Application/Agreement must be completed.

7. Dispute Resolution

If any disagreements between the Customer-Generator and the Hannibal Board of Public Works arise that cannot be resolved through normal negotiations between them, the disagreements may be brought to the Missouri Public Service Commission by either party, through an informal or formal complaint. Procedures for filing and processing these complaints are described in 4 CSR 240-2.070. The complaint procedures described in 4 CSR 240-2.070 apply only to retail electric power suppliers to the extent that they are regulated by the Missouri public Service Commission.

8. Testing Requirement

The Customer-Generator must, at least once every year, conduct a test to confirm that the Customer- Generators net metering unit automatically ceases to energize the output (interconnection equipment output voltage goes to zero) within two (2) seconds of being disconnected from the Hannibal Board of Public Works' Electrical System. Disconnecting the net metering unit from the Hannibal Board of Public Works' electrical system at the visible disconnect switch and measuring the time required for the unit to cease to energize the output shall satisfy this test. The Customer-Generator shall maintain a record of the results of these tests and, upon request by Hannibal Board of Public Works, shall provide a copy of the test results to the Hannibal Board of Public Works. If the Customer-Generator is unable to provide a copy of the test results upon request, the Hannibal Board of Public Works shall notify the Customer-Generator by mail that Customer-Generator has thirty (30) days from the date the Customer-Generator receives the request to provide to the Hannibal Board of Public Works, the results of a test. If the Customer-Generators equipment ever fails this test, the Customer-Generator shall immediately disconnect the Customer-Generators System from the Hannibal Board of Public Works' system. If the Customer-Generator does not provide results of a test to the Hannibal Board of Public Works within thirty (30) days of receiving a request from the Hannibal Board of Public Works or the results of the test provided to the Hannibal Board of Public Works show that the Customer-Generators net metering unit is not functioning correctly, the Hannibal Board of Public Works may immediately disconnect the Customer-Generators System from the Hannibal Board of Public Works' system. The Customer-Generator's System shall not be reconnected to the Hannibal Board of Public Works' electrical system by the customer generator until the Customer-Generators System is repaired and operating in a normal and safe manner.

I have read, understand, and accept the provisions of Section D, subsections 1 through 8 of this Application/ Agreement.

Signed (Installer): _____ Date: _____

E. Electrical Inspection

The Customer-Generator System referenced above satisfies all requirements noted in Section C.

Inspector Name (print): _____

Inspector Certification: I am a Licensed Engineer in Missouri
or I am a Licensed Electrician in Missouri License No. _____

Signed (Inspector) _____ Date: _____

F. Customer-Generator Acknowledgement

I am aware of the Customer-Generator System installed on my premises and I have been given warranty information and/or an operational manual for that system. Also, I have been provided with a copy of the Hannibal Board of Public

Works parallel generation tariff or rate schedule (as applicable) and interconnection requirements. I am familiar with the operation of the Customer-Generator System.

I agree to abide by the terms of this Application/Agreement and I agree to operate and maintain the Customer-Generator System in accordance with the manufacturers recommended practices as well as the Hannibal Board of Public Works' interconnection standards. If, at any time and for any reason, I believe that the Customer-Generator System is operating in an unusual manner that may result in any disturbances on the Hannibal Board of Public Works' electrical system, I shall disconnect the Customer-Generator System and not reconnect it to the Hannibal Board of Public Works' electrical system until the Customer-Generator System is operating normally after repair or inspection. Further, I agree to notify the Hannibal Board of Public Works no less than thirty (30) days prior to modification of the components or design of the Customer-Generator System that in any way may degrade or significantly alter that System's output characteristics. I acknowledge that any such modifications will require submission of a new Application/Agreement to the Hannibal Board of Public Works.

I agree not to operate the Customer-Generator System in parallel with the Hannibal Board of Public Works' electrical system until this Application/Agreement has been approved by the Hannibal Board of Public Works.

Signed (Customer-Generator): _____ Date: _____

Name (Print): _____

G. Utility Application Approval (completed by the Hannibal Board of Public Works)

The Hannibal Board of Public Works does not, by approval of this Application/Agreement, assume any responsibility or liability or damage to property or physical injury to persons due to malfunction of the Customer-Generator's System or the Customer-Generator's negligence.

This Application is approved by the Hannibal Board of Public Works on: _____ Date: _____

Hannibal Board of Public Works Representative Name (print): _____

Hannibal Board of Public Works Representative Name (signed): _____