## INTERCONNECTION APPLICATION FOR NET METERING SYSTEMS WITH CAPACITY OF ONE HUNDRED KILOWATTS (100 kW) OR LESS

[Utility Name and Mailing Address]

#### For Customers Applying for Interconnection:

If you are interested in applying for interconnection to [Utility Name]'s electrical system, you should first contact [Utility Name] and ask for information related to interconnection of parallel generation equipment to [Utility Name]'s system and you should understand this information before proceeding with this Application.

This Application contains multiple parts. Part 1 of the application requires basic contact information for the customer and their installer, system information including plans, specifications, and a wiring diagram, and contains important terms and conditions. Part 2 requires an electrical inspection to be complete and acknowledgment of testing and other requirements of the customer. Part 3 is the final approval from the utility and contains a signature page for the customer and installer to indicate acknowledgment of the application. Part 4 is for customers applying for a solar rebate.

If you wish to apply for interconnection to [Utility Name]'s electrical system, please complete Part 1 of the Interconnection Application, and attach the plans and specifications, including, but not limited to, describing the net metering, parallel generation, and interconnection facilities (hereinafter collectively referred to as the "Customer- Generator's System") and submit them to [Utility Name] at the address above. The company will provide notice of approval or denial within thirty (30) days of receipt by [Utility Name] for Customer-Generators of ten kilowatts (10 kW) or less and within ninety (90) days of receipt by [Utility Name] for Customer-Generators of greater than ten kilowatts (10 kW). 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 [Utility Name], it shall become a binding contract and shall govern your relationship with [Utility Name].

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

After receiving approval of Part 1 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 Part 2 this Application, and forward this Application to [Utility Name] for review and completion of Part 3 at the address above. Prior to the interconnection of the qualified generation unit to [Utility Name] system, the Customer-Generator will furnish [Utility Name] a certification from a qualified professional electrician or engineer that the installation meets the plans and specification described in the application. If a local Authority Having Jurisdiction (AHJ) requires permits or certifications for construction or operation of the qualified generation unit, a customer generator must show the permit number and approval certification to the [Utility Name] prior to interconnection. If the application for interconnection is approved by [Utility Name] and the Customer-Generator does not complete the interconnection within one (1) year after receipt of notice of the approval, the approval shall expire and the Customer-Generator shall be responsible for filing a new application.

Within 21 days of when the customer-generator completes submission of all required post construction documentation, including Part 2 of this Application, other supporting documentation and local AHJ inspection approval (if applicable) to the electric utility, the electric utility will make any inspection of the customer-generators interconnection equipment or system it deems necessary and notify the customer-generator:

1. That the net meter has been set and parallel operation by customer-generator is permitted; or

2. That the inspection identified no deficiencies and the net meter installation is pending; or 3. That the inspection identified no deficiencies and the timeframe anticipated for the electric utility to complete all required system or service upgrades and install the meter; or

4. Of all deficiencies identified during the inspection that need to be corrected by the customergenerator before parallel operation will be permitted; or

5. Of any other issue(s), requirement(s), or condition(s) impacting the installation of the net meter or the parallel operation of the system.

## For Customers Who Are Installing Solar Systems:

Customer-Generators who are Missouri electric utility retail account holders will receive a solar rebate, if available, based on the capacity stated in the application, or the installed capacity of the Customer-Generator System if it is lower, if the following requirements are met:

a. The [Utility Name] must have confirmed the Customer-Generator's System is operational; and

b. Part 4 of this Application must be completed.

The amount of the rebate will be based on the system capacity measured in direct current. The rebate will be based on the schedule below up to a maximum of 25,000 watts (25kW).

\$2.00 per watt for systems operational on or before June 30, 2014;

\$1.50 per watt for systems operational between July 1, 2014 and June 30, 2015;

\$1.00 per watt for systems operational between July 1, 2015 and June 30, 2016;

\$0.50 per watt for systems operational between July 1, 2016 and June 30, 2019;

\$0.25 per watt for systems operational between July 1, 2019 and June 30, 2020;

\$0.00 per watt for systems operational after June 30, 2020.

## 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 and forward to [Utility Name] at the address above. [Utility Name] will review the new Application and shall approve such, within fifteen (15) days of receipt by [Utility Name] if the new Customer-Generator has satisfactorily completed Application, and no changes are being proposed to the existing Customer-Generator System. There are no fees or charges for the Customer-Generator System if no modifications are being proposed to that system.

## INTERCONNECTION APPLICATION PART 1 Attach required System Plans, Specifications, and Wiring Diagram

## A. Customer-Generator's Information

Name on [Utility Name] Electric Account:

Service/Street Address:		
City:	State:	Zip Code:
Mailing Address (if different from above):		-
City:	State:	Zip Code:
E-mail address (if available):		_
Electric Account Holder Contact Person:		
Daytime Phone: Fax: _		_
Email:		
Emergency Contact		
Phone:		
[Utility Name] Account No. (from Utility Bi	11):	

If account has multiple meters, provide the meter number to which generation will be connected:

[Utility Name] Account No. (from Utility Bill): [Shall be inserted at the top of each page.]

## **B.** Customer-Generator's System Information

Manufacturer Name Plate Power Rating: \_\_\_\_\_\_ kW AC or DC (circle one) [Voltage: \_\_\_\_\_ Volts] System Type: \_\_Wind \_\_Fuel Cell \_\_Solar Thermal \_\_Photovoltaic \_\_Hydroelectric \_\_Other (describe)

Inverter/Interconnection Equipment Manufacturer:

Inverter/Interconnection Equipment Model No.:

Outdoor Manual/Utility Accessible & Lockable Disconnect Switch Distance from Meter:

Certify that the disconnect switch will be located adjacent to the Customer-Generator's electric service meter or explain where and why an alternative location of disconnect switch is being requested:

Existing Electrical Service Capacity: \_\_\_\_\_ Amperes Voltage: \_\_\_\_\_ Volts

Service Character: \_\_\_ Single Phase \_\_\_ Three Phase

Total capacity of existing Customer-Generator System (if applicable):\_\_\_\_\_kW

<b>C. Installation</b>	Information	/Hardware and	Installation	Compliance
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Company Installing System:				
Contact Person of Company Installing System:				
Phone Number:				
Contractor's License No. (if applicable):				
Approximate Installation Date:				
Mailing Address:				
 City:	State:			
Zip Code:				
Daytime Phone: Fax:				
Email:				
Person or Agency Who Will Inspect/Certify Install	ation:			

The Customer-Generator's proposed System hardware complies with all applicable National Electrical Safety Code (NESC), National Electrical 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 1703-2002, UL 1741-2010 and IEEE 1547a-2014.

The proposed installation complies with all applicable local electrical codes and all reasonable safety requirements of [Utility Name]. The proposed system has a lockable, visible AC disconnect device, accessible at all times to [Utility Name] personnel and switch is located adjacent to the Customer-Generator's electric service meter (except in cases where the Company has approved an alternate location). The system is only required to include one lockable, visible disconnect device, accessible to [Utility Name].

If the interconnection equipment is equipped with a visible, lockable, and accessible disconnect, no redundant device is needed to meet this requirement. The Customer-

Generator's proposed system has functioning controls to prevent voltage flicker, DC injection, overvoltage, undervoltage, overfrequency, underfrequency, and overcurrent, and to provide for system synchronization to [Utility Name]'s electrical system. The proposed system does have an anti-islanding function that prevents the generator from continuing to supply power when [Utility Name]'s 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 [Utility Name]'s electrical system when the electrical system is not energized or not operating normally.

Signed (Installer): Printed Name\_\_\_\_\_\_
Signature:\_\_\_\_\_\_
Date:\_\_\_\_\_

## **D.** Additional Terms and Conditions

In addition to abiding by [Utility Name]'s 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 [Utility Name], 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 [Utility Name]'s electrical system, [Utility Name] may immediately disconnect and lock-out the Customer-Generator's System from [Utility Name]'s electrical system. The Customer-Generator shall permit [Utility Name]'s employees and inspectors reasonable access to inspect, test, and examine the Customer-Generator's System.

## 2) Liability

Liability insurance is not required for Customer-Generators of ten kilowatts (10 kW) or less. For generators greater that ten kilowatts (10 kW), the Customer-Generator agrees to carry no less than one hundred thousand dollars (\$100,000) 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's System. Insurance may be in the form of an existing policy or an endorsement on an existing policy. Customer-Generators, including those whose systems are ten kilowatts (10 kW) or less, may have legal liabilities not covered under their existing insurance policy in the event the Customer-Generator's negligence or other wrongful conduct causes personal injury (including death), damage to property, or other actions and claims.

## 3) Metering and Distribution Costs

A Customer-Generator's facility shall be equipped with sufficient metering equipment that can measure the net amount of electrical energy produced or consumed by the Customer-Generator. If the Customer-Generator's existing meter equipment does not meet these requirements or if it is necessary for [Utility Name] to install additional distribution equipment to accommodate the Customer-Generator's facility, the Customer-Generator shall reimburse [Utility Name] for the costs to purchase and install the necessary additional equipment. At the request of the Customer-Generator, such costs may be initially paid for by [Utility Name], and any amount up to the total costs and a reasonable interest charge may be recovered from the Customer-Generator over the course of up to twelve (12) billing cycles. Any subsequent meter testing, maintenance, or meter equipment change necessitated by the Customer-Generator shall be paid for by the Customer-Generator.

# 4) Ownership of Renewable Energy Credits or Renewable Energy Certificates (RECs)

RECs created through the generation of electricity by the Customer-Owner are owned by the Customer-Generator; however, if the Customer-Generator receives a solar rebate, the Customer-Generator transfers to the [Utility Name] all right, title, and interest in and to the RECs associated with the new or expanded solar electric system that qualified the Customer-Generator for the solar rebate for a period of ten (10) years from the date the electric utility confirms the solar electric system is installed and operational.

## 5) Energy Pricing and Billing

The net electric energy delivered to the Customer-Generator shall be billed in accordance with the Utility's Applicable Rate Schedules [Utility's Applicable Rate Schedules]. The value of the net electric energy delivered by the Customer-Generator to [Utility Name] shall be credited in accordance with the net metering rate schedule(s)

[Utility's Applicable Rate Schedules]. The Customer-Generator shall be responsible for all other bill components charged to similarly situated customers.

Net electrical energy measurement shall be calculated in the following manner:

(a) For a Customer-Generator, a retail electric supplier shall measure the net electrical energy produced or consumed during the billing period in accordance with normal metering practices for

customers in the same rate class, either by employing a single, bidirectional meter that measures the amount of electrical energy produced and consumed, or by employing multiple meters that separately measure the Customer-

Generator's consumption and production of electricity;

(b) If the electricity supplied by the supplier exceeds the electricity generated by the Customer-Generator during a billing period, the Customer-Generator shall be billed for the net electricity supplied by the supplier in accordance with normal practices for customers in the same rate class;

(c) If the electricity generated by the Customer-Generator exceeds the electricity supplied by the supplier during a billing period, the Customer-Generator shall be billed for the appropriate customer charges as specified by the applicable Customer-Generator rate schedule for that billing period and shall be credited an amount for the excess kilowatt-hours generated during the billing period at the net metering rate identified in [Utility Name]'s tariff filed at the Public Service Commission, with this credit applied to the following billing period; and

(d) Any credits granted by this subsection shall expire without any compensation at the earlier of either twelve (12) months after their issuance, or when the Customer-Generator disconnects service or terminates the net metering relationship with the supplier.

#### 6) Terms and Termination Rights

This Agreement becomes effective when signed by both the Customer-Generator and [Utility Name], 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 [Utility Name] 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 [Utility Name]'s 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 [Utility Name]. 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.

#### 7) Transfer of Ownership

If operational control of the Customer-Generator's System transfers to any other party than the Customer-Generator, a new Application must be completed by the person or persons taking over operational control of the existing Customer-Generator System. [Utility Name] 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, and must receive authorization from [Utility Name], before the existing Customer-Generator System can remain interconnected with [Utility Name]'s electrical system. The new Application 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 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 will satisfy this requirement. If no changes are being proposed to the Customer-Generator System, [Utility Name] will assess no charges or fees for this transfer. [Utility Name] will review the new Application and shall approve such, within fifteen (15) days if the new Customer-Generator has satisfactorily completed the Application, and no changes are being proposed to the existing Customer-Generator System. [Utility Name] will then complete Part 3 and forward a copy of the completed Application 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 [Utility Name]'s 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 [Utility Name] a new Application for the entire Customer-Generator System and all portions of the Application must be completed.

#### 8) Dispute Resolution

If any disagreements between the Customer-Generator and [Utility Name] 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.

#### 9) Testing Requirement

IEEE 1547 requires periodic testing of all interconnection related protective functions. The Customer-Generator must, at least once every year, conduct a test to confirm that the Customer-Generator's net metering unit automatically ceases to energize the output (interconnection equipment output voltage goes to zero) within two (2) seconds of being disconnected from [Utility Name]'s electrical system. Disconnecting the net metering unit from [Utility Name]'s 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 [Utility Name], shall provide a copy of the test results to [Utility Name].

If the Customer-Generator is unable to provide a copy of the test results upon request, [Utility Name] 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 [Utility Name], the results of a test. If the Customer-Generator's equipment ever fails this test, the Customer-Generator shall immediately disconnect the Customer-Generator's System from [Utility Name]'s system. If the Customer-Generator does not provide results of a test to [Utility Name] within thirty (30) days of receiving a request from [Utility Name] or the results of the test provided to [Utility Name] show that the Customer-Generator's net metering unit is not functioning correctly, [Utility Name] may immediately disconnect the Customer-Generator's System from [Utility Name] system.

The Customer-Generator's System shall not be reconnected to [Utility Name]'s electrical system by the Customer-Generator until the Customer-Generator's System is repaired and operating in a normal and safe manner.

## 10) Possible Future Rules and/or Rate Changes

Your PV system is subject to the Commission's current rates, rules and regulations. The Missouri Public Service Commission ("Commission") may alter its rules and regulations and/or change rates in the future. If this occurs, your PV system is subject to those changes, and you will be responsible for paying any future increases to electricity rates, charges, or service fees from the Company.

The Company's electricity rates, charges, and service fees are determined by the Commission and are subject to change based upon the decisions of the Commission. These future adjustments may positively or negatively impact any potential savings or the value of your PV system.

Any future electricity rate projections which may be presented to you are not produced, analyzed, or approved by the Company or the Commission. They are based on projections formulated by external third parties not affiliated with the Company or the Commission.

I have read and understand the terms and conditions contained in Section D of this Application

Printed name (Customer-Generator):

Signed (Customer-Generator): \_\_\_\_\_\_ Date:\_\_\_\_\_

# INTERCONNECTION APPLICATION PART 2

## **E. Electrical Inspection**

If a local Authority Having Jurisdiction (AHJ) governs permitting/inspection of
project:
Authority Having Jurisdiction (AHJ):
Permit Number:

## Applicable to all installations:

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

Inspector Name (print):	
Inspector Certification: Licensed Engineer in Missouri Licen	sed 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 [Utility Name]'s 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 and I agree to operate and maintain the Customer-Generator System in accordance with the manufacturer's recommended practices as well as [Utility Name]'s 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 [Utility Name]'s electrical system, I shall disconnect the Customer-Generator System and not reconnect it to [Utility Name]'s electrical system until the Customer-Generator System is operating normally after repair or inspection. Further, I agree to notify [Utility Name] 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 to [Utility Name].

I agree not to operate the Customer-Generator System in parallel with [Utility Name]'s electrical system until this Application has been approved by [Utility Name].

System Installation Date: \_\_\_\_\_ Printed name (Customer-Generator):

Signed (Customer-Generator): \_\_\_\_\_\_ Date:\_\_\_\_\_

## INTERCONNECTION APPLICATION PART 3

# G. Utility Application Approval (completed by [Utility Name])/ Customer and Installer Acknowledgement

[Utility Name] does not, by approval of this Application, assume any responsibility or liability for 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 [Utility Name] on this \_\_\_\_\_day of \_\_\_\_\_(month), \_\_\_\_\_(year). [Utility Name] Representative Name (print):

Signed [Utility Name] Representative:

The undersigned indicates acknowledgement of this Interconnection Application. The undersigned warrants, certifies, and represents that the information provided in this form is true and correct to the best of my knowledge; and the installation meets all Missouri Net Metering program requirements.

Print Name of Applicant

Print Installer's Name

Applicant's SignatureInstaller's SignatureMust be signature of [Utility Name] account holder (customer)

If Applicant is a Business, Print/Title/Authority of Person Signing on behalf of Applicant

Date

Date

## SOLAR REBATE APPLICATION PART 4

## H. Solar Rebate (For Solar Installations only)

## **Required documents to receive solar rebate to be attached OR provided before** [Utility Name] authorizes the rebate payment:

Copies of detail receipts/invoices with purchase date circled Copies of detail spec sheets on each component Copies of proof of warranty sheet (minimum of 10 year warranty) Photo(s) of completed system Completed Taxpayer Information Form

## I. Solar Rebate Declaration (For Solar Installations only)

I understand that the complete terms and conditions of the solar rebate program are included in [Utility Name] [solar rebate tariff name].

I understand that this program has a limited budget, and that application will be accepted on a first-come, first-served basis, while funds are available. It is possible that I may be notified I have been placed on a waiting list for the next year's rebate program if funds run out for the current year. This program may be modified or discontinued at any time without notice from [Utility Name].

I understand that the solar system must be permanently installed and remain in place on premises for a minimum of 10 years and the system shall be situated in a location where a minimum of eighty-five percent (85%) of the solar resource is available to the solar system.

I understand the equipment must be new when installed, commercially available, and carry a minimum 10 year warranty.

I understand a rebate may be available from [Utility Name] in the amount of: \$2.00 per watt for systems operational on or before June 30, 2014; \$1.50 per watt for systems operational between July 1, 2014 and June 30, 2015; \$1.00 per watt for systems operational between July 1, 2015 and June 30, 2016; \$0.50 per watt for systems operational between July 1, 2016 and June 30, 2019; \$0.25 per watt for systems operational between July 1, 2019 and June 30, 2020; \$0.00 per watt for systems operational after June 30, 2020. I understand an electric utility may, through its tariff, require applications for solar rebates to be submitted up to one hundred eighty-two (182) days prior to the applicable June 30 operational date for the solar rebate.

I understand that a maximum of 25 kilowatts of new or expanded system capacity will be eligible for a rebate.

I understand the DC wattage rating provided by the original manufacturer and as noted in section H will be used to determine rebate amount.

I understand I may receive an IRS Form related to my rebate amount. (Please consult your tax advisor with any questions.)

I understand that as a condition of receiving a solar rebate, I am transferring to [Utility Name] all right, title, and interest in and to the solar renewable energy credits (SRECs) associated with the new or expanded system for a period of ten (10) years from the date [Utility Name] confirmed that the system was installed and operational, and during this period, I may not claim credit for the SRECs under any environmental program or transfer or sell the SRECs to any other party.

The undersigned warrants, certifies, and represents that the information provided in this form is true and correct to the best of my knowledge; and the installation meets all Missouri Net Metering and Solar Electric Rebate program requirements.

Applicant's Signature	Installer's Signature	
Print Solar Rebate Applicant's Name	Print Installer's Name	