FILED
June 18, 2008
Data Center
Missouri Public
Service Commission



#### Robin Carnahan Secretary of State

## Administrative Rules Division Rulemaking Transmittal Receipt

Rule ID: 8829

Date Printed: 6/17/2008

Rule Number: 4 CSR 240-20.065

Rulemaking Type: Proposed Amendment

Date Submitted to Administrative Rules Division: 6/17/2008

Date Submitted to Joint Committee on Administrative Rules: 6/17/2008

Name of Person to Contact with questions concerning this rule:

Content: Cully Dale

Phone: 1-4255

Email: cully.dale@psc.mo.gov

Fax:

RuleDataEntry: Cully Dale

Phone: 1-4255

Email:

Fax:

Included with Rulemaking:

Cover Letter

Affidavit for public cost

6/17/2008

6/17/2008

Print Close

### Robin Carnahan

Secretary of State Administrative Rules Division

**RULE TRANSMITTAL** 

Administrative Rules Stamp



SECRETARY OF STATE ADMINISTRATIVE RULES

Rule Number 4 CSR 240-2	0.065			
Use a "SEPARATE" rule tran	smittal sheet	for EACH individ	lual rulemaking.	
Name of person to call with q	uestions abo	ut this rule:		
Content Cully Dale	Phone	751-4255	FAX	
Email address cully.dale@p				
Data Entry same	Phone		FAX	
Email address				
Interagency mailing address  TYPE OF RULEMAKING AC			ernor Bldg, 9 <sup>th</sup> Fl, JC,MO	
Emergency rulemaking, include effective date				
Proposed Rulemaking		. •		
☐ Withdrawal ☐ Rule Ac	ction Notice	In Addition	Rule Under Consideration	
Order of Rulemaking				
Effective Date for the Order				
Statutory 30 days OR Spe	cific date	_		
Does the Order of Rulemakin	g contain ch	anges to the rule te	xt? 🔲 NO	
YES—LIST THE SECTION	ONS WITH	CHANGES, includ	ling any deleted rule text:	

Small Business Regulatory Fairness Board (DED) Stamp

RECEIVED

JUN 1 7 2008

REC LATORY FAIRNESS BOARD

JCAR Stamp

JOINT COMMITTEE ON

JUN 17 2008

ADMINISTRATIVE RULES



Commissioners

JEFF DAVIS Chairman

Missouri Public Service Commission

CONNIE MURRAY ROBERT M. CLAYTON III TERRY JARRETT

**KEVIN D. GUNN** 

POST OFFICE BOX 360 JEFFERSON CITY MISSOURI 65102 573-751-3234 573-751-1847 (Fax Number) http://www.psc.mo.gov WESS A. HENDERSON
Executive Director

DANA K. JOYCE Director, Administration

ROBERT SCHALLENBERG Director, Utility Services

NATELLE DIETRICH Director, Utility Operations

COLLEEN M. DALE
Secretary/Chief Regulatory Law Judge

KEVIN A, THOMPSON
General Counsel

June 17, 2008

Honorable Robin Carnahan Secretary of State Administrative Rules Division 600 West Main Street Jefferson City, Missouri 65101

Dear Secretary Carnahan:

Re: Proposed Amendment to 4 CSR 240-20.065

#### CERTIFICATION OF ADMINISTRATIVE RULE

I do hereby certify that the attached is an accurate and complete copy of the proposed amendment lawfully submitted by the Missouri Public Service Commission for filing on this 17<sup>th</sup> day of June, 2008.

Statutory Authority: Sections 386.250, RSMo 2000 and 386.887, RSMo Supp. 2007.

Executive Order 93-13 requires state agencies to undertake a "takings analysis" of each proposed rulemaking in light of the United States Supreme court decision in Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886 (1992). Pursuant to that order, I have undertaken a "takings analysis" of the above-referenced proposed rulemaking. In Lucas, the Court held that state regulation depriving an owner of real property of all economically beneficial use of that property constitutes a "taking" under the Fifth and Fourteenth Amendments of the U.S. Constitution, for which the property owner must be compensated. Adopting the proposed rulemaking does not implicate the takings clause of the U.S. Constitution, because the proposed rulemaking does not involve the taking of real property.

Section 536.300, RSMo Supp. 2007, requires state agencies to "determine whether the proposed rule amendments affect small businesses and, if so, the availability and practicability of less-restrictive alternatives that could be implemented to achieve the same results of the proposed rulemaking." Executive Order 03-15, which similarly addresses the impacts of rulemakings on small businesses, defines a small business to be "a for-profit enterprise consisting of fewer than one hundred full- or part-time employees" and elaborates

that a proposed rule "affects" a small business if it "impose[s] any potential or actual requirement" that "will cause direct and significant economic burden upon a small business, or that is directly related to the formation, operation, or expansion of a small business." Section 536.300.3, RSMo Supp. 2007, in part, provides: "If the state agency determines that its proposed rule does not affect small business, the state agency shall so certify this finding in the transmittal letter to the secretary of state, stating that it has determined that such proposed rule will not have an economic impact on small business . . ."

Proposed amendment 4 CSR 240-20.065 does not impose requirements that have an economic impact on small businesses, that "will cause direct and significant economic burden upon a small business, or that is directly related to the formation, operation, or expansion of a small business." The Commission certifies that is has determined that the proposed rule will not have an economic impact on small businesses.

If there are any questions, please contact:

Colleen M. Dale, Secretary Missouri Public Service Commission 200 Madison Street P.O. Box 360 Jefferson City, MO 65102 (573) 751-4255 cully.dale@psc.mo.gov

THE COMMISSION

Secretary



## Division 240. Public Service Commission Chapter 20. Electric Utilities Chapter 20. Electric Utilities

#### Proposed Amendment

JUN 1 7 2008

SECRETARY OF STATE ADMINISTRATIVE RULES

4 CSR 240-20.065 Net Metering

PURPOSE: This [rule implements] amendment modifies the commission's net metering rule to conform to the [Consumer Clean Energy Act] Net Metering and Easy Connection Act (section [386.887] 386.890, RSMo Supp. [2002] 2007) and establishes standards for interconnection of qualified net metering units (generating capacity of one hundred kilowatts (100 kW) or less) with distribution systems of [retail] electric utilities [power suppliers].

#### (1) Definitions.

(A) Avoided fuel cost means the current annual average cost of fuel for the electric utility as calculated from information contained in the most recent annual report submitted to the commission pursuant to 4 CSR 240-3.165. Annual average cost of fuel will be calculated from information on the Steam-Electric Generating Plant Statistics Sheets of the annual report. This annual average cost of fuel shall be identified in the net metering tariffs on file with the commission and shall be updated annually within thirty (30) days after the electric utility's annual report is submitted;

- ([A]B) Commission means the Public Service Commission of the state of Missouri.
- ([B]C) Customer-generator means [a consumer of electric energy who purchases electric energy from a retail electric power supplier and is the owner of a qualified net metering unit] the owner or operator of a qualified electric energy generation unit that meets all of the following criteria:
  - 1. Is powered by a renewable energy resource;
  - 2. Is an electrical generating system with a capacity of not more than one hundred kilowatts (100 kW);
  - 3. Is located on premises that are owned, operated, leased, or otherwise controlled by the customer-generator;
  - 4. Is interconnected and operates in parallel phase and synchronization with an electric utility and has been approved for interconnection by said electric utility;
  - 5. Is intended primarily to offset part or all of the customergenerator's own electrical energy requirements;
  - 6. Meets all applicable safety, performance, interconnection, and reliability standards established by the National Electrical Code, the National Electrical Safety Code, the Institute of Electrical and Electronics Engineers, Underwriters Laboratories, the Federal

JOINT COMMITTEE ON

JUN 17 2008

ADMINISTRATIVE RULES

**Energy Regulatory Commission, and any local governing authorities;** and

- 7. Contains a mechanism that automatically disables the unit and interrupts the flow of electricity back onto the electric utility's electrical lines in the event that service to the customer-generator is interrupted
- ([C]  $\underline{\mathbf{D}}$ ) [Local] [d]  $\underline{\mathbf{D}}$  istribution system means facilities for the distribution of electric energy to the ultimate consumer thereof.
  - [(D) Qualified net metering unit means an electric generation unit which-
    - 1. Is owned by a customer generator;
    - 2. Is a hydrogen fuel cell or is powered by sun, wind or biomass;
  - 3. Has an electrical generating system with a capacity of not more than one hundred kilowatts (100 kW);
  - 4. Is located on premises that are owned, operated, leased or otherwise controlled by the customer-generator;
  - 5. Is interconnected with, and operates in parallel and in synchronization with a retail electric power supplier; and
  - 6. Is intended primarily to offset part or all of the customergenerator's own electric power requirements.]
- (E) Electric utility means every electrical corporation as defined in section 386.020(15), RSMo 2000, subject to commission regulation pursuant to Chapter 393, RSMo 2000.
- (F) Net metering means using metering equipment sufficient to measure the difference between the electrical energy supplied to a customer-generator by an electric utility and the electrical energy supplied by the customer-generator to the electric utility over the applicable billing period.
- (G) Renewable energy resources means electrical energy produced from wind, solar thermal sources, hydroelectric sources, photovoltaic cells and panels, fuel cells using hydrogen produced by one (1) of the abovenamed electrical energy sources, and other sources of energy that become available after August 28, 2007, and are certified as renewable by the Missouri Department of Natural Resources.
- [(E) Retail electric power supplier means any entity that sells electric energy to the ultimate consumer thereof.]
- [(F) Value of electric energy means the total resulting from the application of the appropriate rates, which may be time of use rates at the option of the retail electric power supplier, to the quantity of electric energy delivered to the retail electric power supplier from a qualified net metering unit or to the quantity of electric energy sold to a customer generator.]
- (2) Applicability. [(A)] This rule applies to [retail] electric <u>utilities</u> [power suppliers] and customer-generators.
- (3) [Retail] Electric Utility [Power Supplier] Obligations.

- [(A) Each retail electric power supplier shall develop a tariff or rate schedule applicable to net metering customer generators that shall—
  - 1. Be made available to qualifying customer generators upon request; and
  - 2. Shall be posted with any other tariffs or rate schedules on the retail electric power supplier's website.]
- [(B) Each retail electric power supplier shall provide net metering service on a first-come, first-served basis, until the total rated generating capacity used by customer generators is equal to or in excess of the lesser of ten thousand kilowatts (10,000 kW) or one-tenth of one percent (0.1%) of the capacity necessary to meet the retail electric power supplier's aggregate customer peak demand for the preceding calendar year.]
- [(C) Each retail electric power supplier shall notify the commission when total generating capacity of customer-generators is equal to or in excess of the lesser of ten thousand kilowatts (10,000 kW) or one-tenth of one percent (0.1%) of the capacity necessary to meet the retail electric power supplier's aggregate customer peak demand for the preceding calendar year.]
- [(D) Each retail electric power supplier shall maintain and make available to the public, records of the total generating capacity of customer-generators, the type of generating systems and the energy sources used.]
- [(E) The retail electric power supplier's tariff, tariff rider, or rate schedule used to provide service to the customer-generator shall be identical in rate structure, all retail rate components, and any monthly charges, to the tariff or rate schedule provisions to which the same customer would be assigned if that customer were not a customer generator.
  - 1. Time of use rates, which may be applied at the option of the retail electric power supplier, shall be the time of use rates applicable to the customer generator's assigned rate classification, absent the output of the net metering unit.]
- [(F) No retail electric power supplier's tariff or rate schedule for net metering shall require customer generators to—
  - 1. Perform or pay for additional tests or analysis beyond those required to determine the effect of the operation of the net metering system on the local distribution system; or
  - 2. Purchase additional liability insurance beyond that required by section (4) of this rule.]

(A) Net metering shall be available to customer-generators on a first-come, first-served basis until the total rated generating capacity of net metering systems equals five percent (5%) of the electric utility's Missouri jurisdictional single-hour peak load during the previous year. The commission may increase the total rated generating capacity of net metering systems to an amount above five percent (5%). However, in a given calendar year, no electric utility shall be required to approve any application for interconnection if the total rated generating capacity of all applications for interconnection already approved to date by said electric

utility in said calendar year equals or exceeds one percent (1%) of said electric utility's single-hour peak load for the previous calendar year;

- (B) A tariff or contract shall be offered that is identical in electrical energy rates, rate structure, and monthly charges to the contract or tariff that the customer would be assigned if the customer were not an eligible customer-generator but shall not charge the customer-generator any additional standby, capacity, interconnection, or other fee or charge that would not otherwise be charged if the customer were not an eligible customer-generator;
- (C) The availability of the net metering program shall be disclosed annually to each of its customers with the method and manner of disclosure being at the discretion of the electric utility:
- (D) For any cause of action relating to any damages to property or person caused by the generation unit of a customer-generator or the interconnection thereof, the electric utility shall have no liability absent clear and convincing evidence of fault on the part of the supplier;
- (E) Any costs incurred under this rule by an electric utility not recovered directly from the customer-generator, as identified in (5) (F), shall be recoverable in that electric utility's rate structure;
- (F) No fee, charge, or other requirement not specifically identified in this rule shall be imposed unless the fee, charge, or other requirement would apply to similarly situated customers who are not customer-generators.
- (4) Customer-Generator Liability Insurance Obligation.
- (A) [The c] Customer-generator systems greater than ten kilowatts (10kW) shall 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 net metering unit. Insurance may be in the form of an existing policy or an endorsement on an existing policy.
- (B) Customer-generator systems ten kilowatts (10kW) or less shall not be required to carry liability insurance.

#### [(5) Determination of Net Value of Energy.]

- [(A) Each retail electric power supplier shall calculate the net value of energy for a customer generator in the following manner—
  - 1. The retail electric power supplier shall individually measure both—
    - A. The electric energy delivered by the customer-generator to the retail electric power supplier; and
    - B. The electric energy provided by the retail electric power supplier to the customer generator during each billing period by using metering capable of such function—either by a single meter capable of registering the flow of electricity in two (2) directions, or by using two (2) meters. The customer generator is responsible for

the costs of the metering described in this subsection beyond those a retail electric power supplier would incur in providing electric service to a customer in the same rate class as the customer-generator but who is not a customer-generator.

- 2. If the value of the electric energy supplied by the retail electric power supplier exceeds the value of the electric energy delivered by the customer-generator to the retail electric power supplier during a billing period, then the customer-generator shall be billed for the net value of the electric energy supplied by the retail electric power supplier in accordance with the rates, terms and conditions established by the retail electric power supplier for customer-generators.
- 3. If the value of the electric energy delivered by the customergenerator to the retail electric power supplier exceeds the value of the electric energy supplied by the retail electric power supplier, then the customer-generator—
  - A. Shall be billed for the appropriate customer charges for that billing period; and
  - B. Shall be credited for the net value of the electric energy delivered to the retail electric power supplier during the billing period, calculated using the retail electricpower supplier's avoided cost (time of use or non-time of use), with this credit appearing on the customer-generator's bill no later than the following billing period.]
- [(B) The retail electric power supplier, at its own expense, may install additional special metering (e.g. load research meter) to monitor the flow of electricity in each direction, not to include meters needed to comply with subsection (5)(A) of this rule.]

### (5) Qualified Electric Customer-Generator Obligations.

- (A) Each qualified electric energy generation unit used by a customer-generator shall meet all applicable safety, performance, interconnection, and reliability standards established by any local code authorities, the National Electrical Code, the National Electrical Safety Code, the Institute of Electrical and Electronics Engineers, and Underwriters Laboratories for distributed generation; including, but not limited to IEEE 1547 and UL 1741;
- (B) The electric utility may require that a customer-generator's system contain a switch, circuit breaker, fuse, or other easily accessible device or feature located in immediate proximity to the customer-generator's metering equipment that would allow an electric utility worker the ability to manually and instantly disconnect the unit from the electric utility's distribution system;
- (C) No consumer shall connect or operate an electric generation unit in parallel phase and synchronization with any electric utility without written approval by said electric utility that all of the requirements under subsection (7)(B) of this rule have been met. For a customer-generator

who violates this provision, an electric utility may immediately and without notice disconnect the electric facilities of said customer-generator and terminate said customer-generator's electric service;

(D) A customer-generator's facility shall be equipped with sufficient metering equipment that can measure the net amount of electrical energy produced and consumed by the customer-generator. If the customer-generator's existing meter equipment does not meet these requirements or if it is necessary for the electric utility to install additional distribution equipment to accommodate the customer-generator's facility, the customer-generator shall reimburse the electric utility 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 the electric utility, 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;

[Note: (E) and (F) were previously in (8)(A) and (B)] (E) Each customer-generator shall, at least once every year, conduct a test to confirm that the net metering unit automatically ceases to energize the output (interconnection equipment output voltage goes to zero (0)) within two (2) seconds of being disconnected from the electric utility's system. Disconnecting the net metering unit from the electric utility's electric system at the visible disconnect switch and measuring the time required for the unit to cease to energize the output shall satisfy this test; and

- (F) The customer-generator shall maintain a record of the results of these tests and, upon request, shall provide a copy of the test results to the electric utility.
  - 1. If the customer-generator is unable to provide a copy of the test results upon request, the electric utility shall notify the customer-generator by mail that the customer-generator has thirty (30) days from the date the customer-generator receives the request to provide the results of a test to the electric utility;
  - 2. If the customer-generator's equipment ever fails this test, the customer-generator shall immediately disconnect the net metering unit;
  - 3. If the customer-generator does not provide the results of a test to the electric utility within thirty (30) days of receiving a request from the electric utility or the results of the test provided to the electric utility show that the unit is not functioning correctly, the electric utility may immediately disconnect the net metering unit; and
  - 4. The net metering unit shall not be reconnected to the electric utility's electrical system by the customer-generator until the net metering unit is repaired and operating in a normal and safe manner.

- (6) Determination of Net Electrical Energy. Net electrical energy measurement shall be calculated in the following manner:
- (A) For a customer-generator, a electric utility 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 electric utility 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 electric utility during a billing period, the customer-generator shall be billed for the appropriate customer charges for that billing period in accordance with section (3) of this rule and shall be credited an amount at least equal to the avoided fuel cost of the excess kilowatt-hours generated during the billing period, with this credit applied to the following billing period.
- (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 electric utility.
- ([6] 7) Interconnection Agreement.
- (A) Each customer-generator and retail electric power supplier <u>utility</u> shall enter into the interconnection agreement included herein.
- (B) Applications by a customer-generator for interconnection of a qualified electric energy generation unit to the distribution system shall be accompanied by the plan for the customer-generator's electrical generating system, including but not limited to, a wiring diagram and specifications for the generating unit, and shall be reviewed and responded to by the electric utility within thirty (30) days of receipt for systems ten kilowatts (10 kW) or less and within ninety (90) days of receipt for all other systems. Prior to the interconnection of the qualified generation unit to the electric utility's system, the customer-generator will furnish the electric utility a certification from a qualified professional electrician or engineer that the installation meets the requirements of subsections (5)(A) and (5)(B). If the application for interconnection is approved by the electric utility 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.

- (C) Upon the change in ownership of a qualified electric energy generation unit, the new customer-generator shall be responsible for filing a new application.
- ([7] 8) [Retail] Electric <u>Utility</u> [Power Supplier] Reporting Requirements.[(A)] Each <u>year prior to April 15, every</u> [retail] electric <u>utility</u> [power supplier] shall: [—]
- (A) Submit an annual net metering report to the commission and make said report available to a consumer of the electric utility upon request, including the following information for the previous calendar year:
  - 1. The total number of customer-generator facilities connected to its distribution system;
  - 2. The total estimated generating capacity of customergenerators that are connected to its distribution system; and
  - 3. The total estimated net kilowatt-hours received from customer-generators; and
- (B) [4-] Supply to the <u>manager of the energy department of the commission</u> [commission staff] a copy of the standard information regarding net metering and interconnection requirements provided to customers or posted on the retail electric power supplier's website. [; and]
- [2. Supply the commission staff with a description of additional requirements, if these additional requirements are applicable to all net metering customers and not specific to individual interconnection situations, beyond those needed to meet the specific requirements outlined in section C of the interconnection agreement included herein.]

[Note: These substantive requirements are moved to new (5)(E) and (F)] [(8) Customer Generator Testing Requirements.

- (A) Each customer-generator shall, at least once every year, conduct a test to confirm that the 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 retail electric power supplier's system. Disconnecting the net metering unit from the retail electric power supplier's electric system at the visible disconnect switch and measuring the time required for the unit to cease to energize the output shall satisfy this test.
- (B) The customer-generator shall maintain a record of the results of these tests and, upon request, shall provide a copy of the test results to the retail electric supplier.
  - 1. If the customer-generator is unable to provide a copy of the test results upon request, the retail electric power-supplier shall notify the customer generator by mail that the customer generator has thirty (30) days from the date the customer-generator receives the request to provide the results of a test to the retail electric power supplier.
  - 2. If the customer-generator's equipment ever fails this test, the customer-generator shall immediately disconnect the net metering unit.

- 3. If the customer-generator does not provide the results of a test to the retail electric power supplier within thirty (30) days of receiving a request from the retail electric power supplier or the results of the test provided to the retail electric power supplier show that the unit is not functioning correctly, the retail electric power supplier may immediately disconnect the net metering unit.
- 4. The net metering unit shall not be reconnected to the retail electric power supplier's electrical system by the customer-generator until the net metering unit is repaired and operating in a normal and safe manner.]

AUTHORITY: sections 386.250, RSMo 2000 and 386.887, RSMo Supp. 2002\*. Original rule filed March 11, 2003, effective Aug. 30, 2003. \*Original authority: 386.250, RSMo 1939, amended 1963, 1967, 1977, 1987, 1988, 1991, 1993, 1995, 1996 and 386.887, RSMo 2002.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than \$500 in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than \$500 in the aggregate.

NOTICE TO SUBMIT COMMENTS AND NOTICE OF PUBLIC HEARING: Anyone may file comments in support of or in opposition to this proposed rule with the Missouri Public Service Commission, Colleen M. Dale, Secretary of the Commission, PO Box 360, Jefferson City, MO 65102. To be considered, written comments must be received at the Commission's offices on or before September 2, 2008, and should include a reference to Commission Case No. EX-2008-0280. If comments are submitted via a paper filing, an original and eight (8) copies of the comments are required. Comments may also be submitted via a filing using the Commission's electronic filing and information system <a href="http://www.psc.state.mo.us/efis.asp">http://www.psc.state.mo.us/efis.asp</a>. A public hearing regarding this proposed rule is scheduled for September 2, 2008, at 1:00 pm in Room 310 of the Governor Office Building, 200 Madison Street, Jefferson City, Missouri. Interested persons may appear at this hearing to submit additional comments and/or testimony in support of or in opposition to this proposed rule, and may be asked to respond to commission questions. Any persons with special needs as addressed by the Americans with Disabilities Act should contact the Missouri Public Service Commission at least ten (10) days prior to the hearing at one (1) of the following numbers: Consumer Services Hotline 1-800-392-4211 or TDD Hotline 1-800-829-7541.

# INTERCONNECTION APPLICATION/AGREEMENT FOR NET METERING SYSTEMS WITH CAPACITY OF <u>ONE HUNDRED</u> <u>KILOWATTS</u> (100 kW) OR LESS

#### 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.

If you wish to apply for interconnection to [Utility Name]'s electrical system, please complete sections A, B, C, and D, 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:

#### [Utility Mailing Address]

The company [You] will [be] provide[d] notice of [with an] approval or denial [of this Application] within thirty (30) days of receipt by [Utility Name] for Customer-Generators of ten kilowatts (10kW) or less and within ninety (90) days of receipt by [Utility Name] for Customer-Generators of greater than ten kilowatts (10kW). 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 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 [Utility Name] for review and completion of section G at:

#### [Utility Mailing Address]

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 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.

[Utility Name] will complete the utility portion of section G and, upon receipt of a completed Application/Agreement form and payment of any applicable fees, schedule a date for [permit] interconnection of the Customer-

Generator System to [Utility Name]'s electrical system within fifteen (15) days of receipt by [Utility Name] if electric service already exists to the premises, unless the Customer-Generator and [Utility Name] 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, [Utility Name] will schedule a date for [permit] interconnection of the Customer-Generator System to [Utility Name]'s electrical system no later than fifteen (15) days after service is established to the premises, unless the Customer-Generator and [Utility Name] 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 [Utility Name] at:

#### [Utility Mailing Address]

[Utility Name] will review the new Application/Agreement and shall approve such, within fifteen (15) days of receipt by [Utility Name] 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.

Name:			
Mailing Address:			
		Zip Code:	
Service/Street Address (if	f different from above):		
City:	State:	Zip Code:	
Daytime Phone:		Fax:	
E-Mail:	·		
[Utility Name] Account No	o. (from Utility Bill):		

B. Customer-Generator's System Information  Manufacturer Name Plate (if applicable) AC Power Rating: kW				
Voltage: Volts				
System Type:SolarWindBiomassFuel CellThermal				
Photovoltaic Other (describe)				
Service/Street Address:				
Inverter/Interconnection Equipment Manufacturer:				
Inverter/Interconnection Equipment Model No:				
Are required System Plans,[&] Specifications & Wiring Diagram 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 Code:				
Daytime Phone: Fax: E-Mail:				
Person or Agency Who Will Inspect/Certify Installation:				
The Customer-Generator's 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] 1547. 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 disconnect device, accessible at all times to [Utility Name] personnel. 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):	Date:
Name (Print):	

#### 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 (10kW), [Ŧ]the Customer-Generator agrees to carry no less than \$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.

#### **[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 [Utility Name] all of [Utility Name]'s Interconnection Costs. Interconnection Costs are the reasonable costs incurred by [Utility Name] for: (1) additional tests or analyses of the effects of the operation of the Customer Generator's System on [Utility Name]'s 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 [Utility Name]'s system and shall only include those costs, or corresponding costs, which would not have been incurred by [Utility Name] in providing service to the Customer-Generator solely as a consumer of electric energy from [Utility Name] pursuant to [Utility Name]'s standard cost of service policies in effect at the time the Customer-Generator's System is first interconnected with [Utility Name]'s system. Upon request, [Utility Name] shall provide the Customer-Generator with a not-to-exceed cost statement for interconnection with [Utility Name]'s based upon the plans and specifications provided by the Customer-Generator to [Utility Name].]

#### 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) Energy Pricing and Billing

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

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 for that billing period and shall be credited an amount at least equal to the avoided fuel cost of the excess kilowatt-hours generated during the billing period, with this credit applied to the following billing period.

(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.

#### 5) 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.

#### 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. [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/Agreement, 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/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, [Utility Name] will assess no charges or fees for this transfer. [Utility Name] 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. [Utility Name] 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 [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/Agreement for 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 [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.

#### 8) 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]'s 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.

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

Date:
E. Electrical Inspection The Customer-Generator System referenced above satisfies all requirements noted in Section C. Inspector Name (print):
Inspector Certification: [ <i>I-am-a</i> ] Licensed Engineer in Missouri
[or I am a ] Licensed Electrician in Missouri
License No
Signed (Inspector):
Date:
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/Agreement 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/ Agreement to [Utility Name].  I agree not to operate the Customer-Generator System in parallel with [Utility Name]'s electrical system until this Application/Agreement has been approved by [Utility Name].

G. Utility Application Approval (completed by [Utility Name])
[Utility Name] does not, by approval of this Application/Agreement, 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:		

#### **AFFIDAVIT**

#### **PUBLIC COST**

STATE OF MISSOURI	)
	)
COUNTY OF COLE	

I, Gregory A. Steinhoff, Director of the Department of Economic Development, first being duly sworn, on my oath, state that it is my opinion that the cost of proposed amendment to 4 CSR 240-20.065, is less than five hundred dollars in the aggregate to this agency, any other agency of state government or any political subdivision thereof.

Gregory A. Steinhoff

Director

Department of Economic Development

Subscribed and sworn to before me this 5th day of tune, 2008, I am commissioned as a notary public within the County of tote, State of Missouri, and my commission expires on 17 July 2011.

Notary Public

ANNETTE KEHNER
Notary Public - Notary Seal
State of Missourt
Commissioned for Cole County
My Commission Expires: July 17, 2011
Commission Number: 07492656