



2. The PSC may waive any requirement of paragraph (5)(B)1. of this rule if, after notice in the area served by the electric utility and after opportunity for public comment, the electric utility demonstrates and the PSC finds that compliance with that requirement will impair the electric utility's ability to render adequate service to its customers or place an undue burden on the electric utility.

(C) Rates for Sale of Back-Up and Maintenance Power. The rate for sales of back-up power or maintenance power—

1. Shall not be based upon an assumption (unless supported by factual data) that forced outages or other reductions in electric output by all qualifying facilities on an electric utility's system will occur simultaneously or during the system peak or both; and

2. Shall take into account the extent to which scheduled outages of the qualifying facilities can be usefully coordinated with scheduled outages of the utility's facilities.

(6) Interconnection Costs.

(A) If the utility and the qualifying facility cannot reach agreement as to the amount or the manner of payment of the interconnection costs to be paid by the qualifying facility, the PSC, after hearing, shall assess against the qualifying facility those interconnection costs to be paid to the utility, on a nondiscriminatory basis with respect to other customers with similar load characteristics or shall determine the manner of payments of the interconnection costs, which may include reimbursement over a reasonable period of time, or both. In determining the terms of any reimbursement over a period of time, the commission shall provide for adequate carrying charges associated with the utility's investment and security to insure total reimbursement of the utility's incurred costs, if it deems necessary.

(7) System Emergencies.

(A) Qualifying Facility Obligation to Provide Power During System Emergencies. A qualifying facility shall be required to provide energy or capacity to an electric utility during a system emergency only to the extent provided by agreement between the qualifying facility and electric utility or ordered under section 202(c) of the Federal Power Act.

(B) Discontinuance of Purchases and Sales During System Emergencies. During any system emergency, an electric utility may discontinue purchases from a qualifying facility if those purchases would contribute to the emergency and sales to a qualifying facility, provided that discontinuance is on a nondiscriminatory basis.

(8) Standards for Operating Reliability. The PSC may establish reasonable standards to ensure system safety and reliability of interconnected operations. Those standards may be recommended by any electric utility, any qualifying facility or any other person. If the PSC establishes standards, it shall specify the need for the standards on the basis of system safety and reliability.

(9) Exemption to Qualifying Facilities From the Public Utility Holding Company Act and Certain State Law and Rules.

(A) Applicability. This section applies to qualifying cogeneration facilities and qualifying small power production facilities which have a power production capacity which does not exceed thirty (30) megawatts and to any qualifying small power production facility with a power production capacity over thirty (30) megawatts if that facility produces electric energy solely by the use of biomass as a primary energy source.

(B) A qualifying facility described in subsection (1)(A) shall not be considered to be an electric utility company as defined in section 2(a)(3) of the Public Utility Holding Company Act of 1935, 15 U.S.C. 79b(a)(3).

(C) Any qualifying facility shall be exempted (except as otherwise provided) from Missouri PSC law or rule respecting the rates of electric utilities and the financial and organizational regulation of electric utilities. A qualifying facility may not be exempted from Missouri PSC law and rule implementing subpart C of PURPA.

AUTHORITY: sections 386.250 and 393.140, RSMo 2000. Original rule filed Oct. 14, 1980, effective May 15, 1981. Amended: Filed Aug. 16, 2002, effective April 30, 2003.*

**Original authority: 386.250, RSMo 1939, amended 1963, 1967, 1977, 1980, 1987, 1988, 1991, 1993, 1995, 1996 and 393.140, RSMo 1939, amended 1949, 1967.*

4 CSR 240-20.065 Net Metering

PURPOSE: This rule implements the Net Metering and Easy Connection Act (section 386.890, RSMo Supp. 2008) and establishes standards for interconnection of qualified net metering units (generating capacity of one hundred kilowatts (100 kW) or less) with distribution systems of electric utilities.

(1) Definitions.

(A) Avoided fuel cost means avoided costs described in 4 CSR 240-20.060 used to calculate the electric utility's cogeneration rate filed in compliance with 4 CSR 240-3.155.

The information used to calculate this rate is provided to the commission biennially and maintained for public inspection.

(B) Commission means the Public Service Commission of the state of Missouri.

(C) Customer-generator means 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 customer-generator'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 Energy Regulatory Commission, and any local governing authorities; and

7. Contains a mechanism that automatically disables the unit and interrupts the flow of electricity onto the electric utility's electrical lines whenever the flow of electricity to the customer-generator is interrupted.

(D) Distribution system means facilities for the distribution of electric energy to the ultimate consumer thereof.

(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.

(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) Operational means all of the major components of the on-site system have been purchased and installed on the customer-generator's premises and the production of rated net electrical generation has been measured by the electric utility. If a customer has satisfied all of the System Completion Requirements by June 30 of indicated years, but the electric utility is not able to complete all of the company's steps needed to establish an Operational Date on or before June 30, the



rebate rate will be determined as though the Operational Date was June 30. If it is subsequently determined that the customer of the system did not satisfy all Completion Requirements required of the customer on or before June 30, the rebate rate will be determined based on the Operational Date.

(H) REC means Renewable Energy Credit or Renewable Energy Certificate which is tradable, and represents that one (1) megawatt-hour of electricity has been generated from a renewable energy resource.

(I) Renewable energy resources means, when used to produce electrical energy, the following: wind, solar thermal sources, hydroelectric sources, photovoltaic cells and panels, fuel cells using hydrogen produced by one (1) of the above-named 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 or the Missouri Department of Economic Development's Division of Energy.

(J) Staff means the staff of the Public Service Commission of the state of Missouri.

(2) Applicability. This rule applies to electric utilities and customer-generators.

(3) REC Ownership. RECs associated with customer-generated net-metered renewable energy resources shall be owned by the customer-generator; however, as a condition of receiving solar rebates for systems operational after August 28, 2013, customers transfer to the electric utility all right, title, and interest in and to the RECs associated with the new or expanded solar electric system that qualified the customer for the solar rebate for a period of ten (10) years from the date the electric utility confirmed the solar electric system was installed and operational.

(4) Electric Utility Obligations.

(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 (6)(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.

(5) Customer-Generator Liability Insurance Obligation.

(A) Customer-generator systems greater than ten kilowatts (10 kW) 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 (10 kW) or less shall not be required to carry liability insurance.

(6) 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 (IEEE), and Underwriters Laboratories (UL) for distributed generation; including, but not limited to,

IEEE 1547, UL 1703, 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 customer 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 (9)(C) 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.

(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.

(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.

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.

(7) Determination of Net Electrical Energy. Net electrical energy measurement shall be calculated in the following manner:

(A) For a customer-generator, an 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 (4) of this rule and shall be credited with the product of the excess kilowatt-hours generated during the billing period and the rate identified in the electric utility's net metering tariff sheet filed with the commission in the following billing period. This rate is calculated from the electric utility's avoided fuel cost; 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 electric utility.

(8) Net Metering Rates. Each electric utility shall file on or before January 15 of each odd-numbered year for the commission's approval in the electric utility's tariff, a rate schedule with a net metering rate that is the same rate as the utility's cogeneration rate. The electric utility's cogeneration rate is filed for the commission's approval in the electric utility's tariff on or before January 15 of every odd-numbered year as required in 4 CSR 240-3.155 Requirements for Electric Utility Cogeneration Tariff Filings section (4). The cogeneration rate is stated in dollars per kilowatt-hour or cents per kilowatt-hour on the cogeneration rate tariff sheet and, likewise, the net metering rate shall be stated in dollars per kilowatt-hour or cents per kilowatt-hour on the net metering rate tariff sheet.

(9) Interconnection Application/Agreement.

(A) Each customer-generator and electric utility shall enter into the interconnection agreement included herein.

1. If the electric utility so chooses, it may allow customers to apply electronically through the electric utility's website.

A. The interconnection application/agreement on the electric utility's website shall substantially be the same as the interconnection application/agreement included herein.

B. The electronic application/agreement shall be submitted to the manager of the Energy Unit of the staff for review by staff prior to being placed on the electric utility's website.

C. The electric utility shall notify the manager of the Energy Unit of the staff of any revisions to the electronic application/agreement on its website within ten (10) working days of when the electronic agreement is revised.

(B) References to a solar rebate in the interconnection application/agreement included herein are not required for electric utilities that are not required to offer solar rebates.

(C) 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 intercon-

nection 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 (6)(A) and (6)(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.

(D) Upon the change in ownership of a qualified electric energy generation unit, the new customer-generator shall be responsible for filing a new application/agreement.

(10) Electric Utility Reporting Requirements. Each year prior to April 15, every electric utility 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 customer-generators that are connected to its distribution system; and

3. The total estimated net kilowatt-hours received from customer-generators; and

(B) Supply to the manager of the energy department of the commission a copy of the standard information regarding net metering and interconnection requirements provided to customers or posted on the electric utility's website.