

*Vice President Regulatory Policy,
General Counsel & Secretary*

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August 14, 2003

FILED⁴

AUG 19 2003

Missouri Public
Service Commission

Mr. Dale Hardy Roberts
Secretary/Chief Regulatory Law Judge
Missouri Public Service Commission
200 Madison Street, Suite 100
Jefferson City, MO 65102-0360

Dear Mr. Roberts:

The accompanying tariff sheets, issued by Union Electric Company d/b/a AmerenUE (“AmerenUE”), are being transmitted to you for filing as a revision of Schedule No. 1, Schedule of Rates for Electric Power Purchases:

Filed

Canceling

12th Revised Sheet No. 1
1st Revised Sheet No. 2
2nd Revised Sheet No. 3
1st Revised Sheet No. 4
1st Revised Sheet No. 5
1st Revised Sheet No. 6
Original Sheet No. 7
Original Sheet No. 8
Original Sheet No. 9
Original Sheet No. 10
Original Sheet No. 11
Original Sheet No. 12
Original Sheet No. 13
Original Sheet No. 14
Original Sheet No. 15
Original Sheet No. 16
Original Sheet No. 17
Original Sheet No. 18

11th Revised Sheet No. 1
Original Sheet No. 2
1st Revised Sheet No. 3
Original Sheet No. 4
Original Sheet No. 5
Original Sheet No. 6

These sheets are issued August 14, 2003 to become effective on and after September 13, 2003. However, the Company is requesting that the Commission approve these tariffs on an expedited basis.

Union Electric hereby requests that these tariff sheets take effect on less than thirty days' notice, pursuant to Section 393.140 (11) RSMo 1994 and 4 CSR 240-2.065 (2). These revised sheets reflect the addition of Net Metering tariffs to the Company's

Mr. Dale Hardy Roberts

August 14, 2003

Page 2

Schedule 1. As Section 386.887, RSMo Supp. 2002 – The Consumer Clean Energy Act and Commission Rule 4 CSR 240-20.065 - Net Metering require adoption of same by Company on August 28, 2003, the Company believes good cause exists for this request.

The following housekeeping changes were necessary to accommodate the addition of the Net Metering tariffs to the Company's Schedule 1:

- Sheet 1 was converted to a Table of Contents for Schedule 1
- Sheets 2 through 7 contain the currently approved Qualified Facilities tariff sheets and are being reissued using different sheet numbers

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Sullivan", with a long horizontal line extending to the right.

Steven R. Sullivan

Enclosures

cc: w/ encl.: Office of the Public Counsel
Warren Wood
Tom Imhoff

P. S. C. MO. SCHEDULE NO. 1 12th Revised SHEET NO. 1CANCELLING SCHEDULE NO. 1 11th Revised SHEET NO. 1 (M)

APPLYING TO

MISSOURI SERVICE AREA

*TABLE OF CONTENTSELECTRIC POWER PURCHASES

<u>Sections</u>	<u>Sheet No.</u>
A. Electric Power Purchases from Qualifying Facilities	2
B. Electric Power Purchases from Qualified Net Metering Units	8

*Indicates Change

P.S.C. Mo. DATE OF ISSUE August 14, 2003 DATE EFFECTIVE September 13, 2003ISSUED BY C. W. Mueller Chairman & CEO St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

P.S.C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 1 1st Revised SHEET NO. 2
CANCELLING SCHEDULE NO. 1 ORIGINAL SHEET NO. 2 (M)
APPLYING TO MISSOURI SERVICE AREA

*A. ELECTRIC POWER PURCHASES FROM QUALIFYING FACILITIES

I. Application. This tariff applies to purchases of electric energy or electric energy and capacity from Qualifying Facilities (hereinafter referred to as "Customer") under the provisions of Rule 4 CSR 240-20.060 of the Missouri Public Service Commission.

II. Standard Rates for Purchase. The standard rates for purchase from a customer with a design capacity of 100 kW or less are as follows:

1. Non-Time - Differentiated Energy Rate

Summer Rate (Applicable during 4 monthly billing periods of June through September)

Summer 1.78¢ per kWh

Winter Rate (Applicable during 8 monthly billing periods of October through May)

Winter 1.42¢ per kWh

2. Time-Differentiated Energy Rate

Summer Rate (Applicable during 4 monthly billing periods of June through September)

Weekday (10 AM - 10 PM) 2.40¢ per kWh

Weekday (10 PM - 10 AM) 1.39¢ per kWh

Saturday, Sunday, Holiday (1) 1.52¢ per kWh

Winter Rate (Applicable during 8 monthly billing periods of October through May)

Weekday (10 AM - 10 PM) 1.51¢ per kWh

Weekday (10 PM - 10 AM) 1.41¢ per kWh

Saturday, Sunday, Holiday (1) 1.34¢ per kWh

(1) Legal Holidays of New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Thanksgiving Friday, Christmas Eve Day, and Christmas Day.

*Indicates Reissue

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 1 2nd Revised SHEET NO. 3
CANCELLING SCHEDULE NO. 1 1st Revised SHEET NO. 3 (M)
APPLYING TO MISSOURI SERVICE AREA

*A. ELECTRIC POWER PURCHASES FROM QUALIFYING FACILITIES - (CONTINUED)

3. Customer Charge (per meter required for parallel operation)

Non-Time Differentiated Energy

\$4.00 per month - Single Phase

\$6.00 per month - Three Phase

Time Differentiated Energy

\$13.00 per month - Single Phase

\$15.00 per month - Three Phase

4. Billing

Monthly billing between Company and Customer shall be in accordance with the Contract between the parties.

* Indicates Reissue

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*A. ELECTRIC POWER PURCHASES FROM QUALIFYING FACILITIES - (CONTINUED)

- III. Contract. Whether or not purchases are made by Union Electric Company under the standard rates, Union Electric Company shall not be required to make any purchase from Customer until Union Electric Company and Customer have entered into a written contract for such purchases.
- IV. All provisions of this tariff are subject to all Commission rules and regulations as may be revised from time-to-time. All terms of the tariff are also subject to the Commission's normal complaint and arbitration procedures.
- V. Guideline Technical Requirements for Parallel Operation with the Union Electric System.

1. Introduction

The minimum technical requirements for safe parallel operation of Customer-owned electrical generating facilities with the UE system are set forth below. These requirements will serve as a guide for UE and Customer engineering when planning such an installation; however, it is recognized that each installation may have specific requirements other than those set forth herein as a result of each installation's unique nature.

2. General Technical Requirements

A. Protection

- (1) Customer shall install protective devices capable of detecting fault conditions on both his system and the UE system. These devices will separate Customer's system from the UE system either directly or through an auxiliary device such as a circuit breaker. The separating device must be capable of interrupting the available fault current. The detection sensitivity and operating speed of these devices must be compatible with protective devices on the UE system.
- (2) The Customer shall install equipment designed to automatically separate his system from the UE system upon loss of the normal UE supply.
- (3) The Customer is responsible for protecting Customer-owned equipment in such a manner that faults or other disturbances on the UE system or on Customer's system do not cause damage to his equipment.

* Indicates Reissue

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 1 1st Revised SHEET NO. 5
CANCELLING SCHEDULE NO. 1 ORIGINAL SHEET NO. 5 (M)
APPLYING TO MISSOURI SERVICE AREA

*A. ELECTRIC POWER PURCHASES FROM QUALIFYING FACILITIES - (CONTINUED)

- (4) Customer shall furnish information to UE regarding his proposed generation equipment and protective devices prior to parallel operation. UE will check the adequacy of this proposed equipment and its compatibility with protective devices on the UE system and will either approve as submitted or specify additional equipment which will be required in order to begin parallel operation with the UE system.
- (5) All protective relay settings that would affect any UE system relay settings will be specified by UE. These relays will be initially calibrated by UE to assure proper operation.
- (6) A manual visible disconnect switch must be provided which is under the exclusive jurisdictional control of the UE dispatcher. This manual switch must have the capability to be locked out of service by a UE-authorized switchman.
- (7) The above statements are the basic minimum protection requirements that would be associated with parallel generation. Additional requirements and/or equipment would depend on an in-depth study of each proposed connection.

B. Operation

- (1) Under certain conditions the intertie breaker (if one is required) must be operated by Customer in order for UE to operate the manual disconnect switch. UE may request this action for any of the following reasons:
 - a. System emergency.
 - b. Inspection of Customer's generating equipment or protective equipment reveals an unsafe condition.
 - c. Customer's generating equipment interferes with other customers or with the operation of the UE system.
 - d. An outage is scheduled on the UE supply circuit or feeder.

* Indicates Reissue

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P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 1 1st Revised SHEET NO. 6
CANCELLING SCHEDULE NO. 1 ORIGINAL SHEET NO. 6 (M)
APPLYING TO MISSOURI SERVICE AREA

*A. ELECTRIC POWER PURCHASES FROM QUALIFYING FACILITIES - (CONTINUED)

- (2) Customer shall be solely responsible for properly synchronizing his generating equipment with the UE frequency and voltage. This includes resynchronizing his generator(s) after system outages or disturbances.

C. Quality of Service

- (1) The interconnection of Customer's generating equipment with the UE system shall not cause any reduction in the quality of service being provided to other customers or cause any undesirable effect on any UE facilities. In order to achieve this objective, wave form guidelines presently applicable to Customer's facility and which are measured at the point of interconnection between the utility and the qualifying facility are as follows:

- a. The phase unbalance must be less than 1%,
- b. The arithmetic sum of harmonics in the current or voltage must be less than 10%, and
- c. The root of the sum of the squares of harmonics in the current or voltage must be less than 5%.

The above lists should be viewed as general guidelines which are subject to change as dictated by experience as well as the unique nature of the electrical system at each point of interconnection.

- (2) The power factor of Customer's load with his generating equipment connected shall not be less than that specified by retail tariff for his applicable customer class.

D. Metering

Parallel generating facilities connected to UE's system are divided into two groups: (1) "Two-way Power Flow," and (2) "One-way Power Flow." "Two-way Power Flow" would apply to Customer's facilities whose load is sufficiently variable or smaller than its generating capacity so that excess Customer-generated power could flow into the UE system. "One-way Power Flow" would apply to Customer's facilities whose load is significantly larger than their generating capacity so that no Customer-generated power would flow into the UE system except under fault conditions.

* Indicates Reissue

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 1 ORIGINAL SHEET NO. 7

CANCELLING SCHEDULE NO. _____ SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREA*A. ELECTRIC POWER PURCHASES FROM QUALIFYING FACILITIES - (CONTINUED)

(1) Two-way Power Flow

This type of installation provides for the interchange of energy in either direction as a normal operating mode.

The revenue metering for Two-way Power Flow installations shall include two series connected watthour meters with detents. One meter shall be connected to measure energy supply to Customer from UE; the other meter shall measure Customer-generated energy supplied to UE. The meter detents prevent operation of either meter in the reverse direction.

Additional metering may or may not be required depending on the terms of the contract between UE and Customer.

(2) One-way Power Flow

This type of installation does not allow the interchange of energy from Customer to the utility.

The intertie circuit breaker will be tripped by equipment capable of detecting the reverse power flow condition toward the UE system.

This type installation requires a single revenue meter installation with detent to prevent operation of the meter in the reverse direction.

Additional metering may or may not be required depending on the terms of a contract between UE and Customer.

E. Other Requirements

(1) All Customer installations shall adhere to any applicable requirements of the National Electrical Safety Code, the National Electric Code, applicable NEMA codes, OSHA, and UE's Electric Service Rules as set forth in published tariffs.

(2) Customer will bear all interconnection costs of parallel operation over and above the normal cost to serve his load.

* Indicates Reissue

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P.S.C. MO. SCHEDULE NO. 1 Original SHEET NO. 8

CANCELLING SCHEDULE NO. _____ SHEET NO. _____

APPLYING TO

MISSOURI SERVICE AREAB. ELECTRIC POWER PURCHASES FROM QUALIFIED NET METERING UNITS

- I. Application. This tariff applies to Company or UE purchases of electric energy from Qualified Net Metering Units (hereinafter referred to as "Customer-Generator") under the provisions of Rule 4 CSR 240-20.065 of the Missouri Public Service Commission. The Customer-Generator must meet the general technical requirements, testing requirements, and liability requirements listed under the provisions of Rule 4 CSR 240-20.065 as well as the requirements specified in the Customer-Generators' applicable rate class under the Company's Schedule 5 - Schedule of Rates for Electric Service. Service under this rate shall be evidenced by a contract between Customer-Generator and the Company per the Interconnection Application/Agreement for Net Metering Systems With Capacity of 100 kW or less. Company will provide net metering service 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 Company's aggregate customer peak demand for the preceding calendar year.

II. Billing.

- a) Energy Pricing and Billing. The value of the electric energy delivered to the Customer-Generator shall be billed in accordance with the Company's applicable Schedule 5 - Schedule of Rates for Electric Service, Service Classification with the application of the Time-of-Day billing provisions. The value of the electric energy delivered by the Customer-Generator to Company shall be credited under the Time-Differentiated Energy Rates contained in Section A.II.2. herein. Customer-Generator's monthly bill shall be the total of these calculations.

b) Customer Charge

The amount listed for the customer's current rate schedule for delivery of electric power and energy.

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B. ELECTRIC POWER PURCHASES FROM QUALIFIED NET METERING UNITS -
(CONTINUED)

- III. Contract. Whether or not purchases are made by Union Electric Company under the standard rates, Union Electric Company shall not be required to make any purchase from Customer-Generator until Union Electric Company and Customer-Generator have entered into a written contract for such purchases.
- IV. All provisions of this tariff are subject to all Commission rules and regulations as may be revised from time-to-time. All terms of the tariff are also subject to the Commission's normal complaint and arbitration procedures.
- V. Guideline Technical Requirements for Parallel Operation with the Union Electric System.

1. Introduction

The minimum technical requirements for safe parallel operation of Customer-Generator's electrical generating facilities with the UE system are set forth below. These requirements will serve as a guide for UE and Customer-Generator engineering when planning such an installation; however, it is recognized that each installation may have specific requirements other than those set forth herein as a result of each installation's unique nature.

2. General Technical Requirements

A. Protection

- (1) Customer-Generator shall install protective devices capable of detecting fault conditions on both his system and the UE system. These devices will separate Customer-Generator's system from the UE system either directly or through an auxiliary device such as a circuit breaker. The separating device must be capable of interrupting the available fault current. The detection sensitivity and operating speed of these devices must be compatible with protective devices on the UE system.
- (2) The Customer-Generator shall install equipment designed to automatically separate his system from the UE system upon loss of the normal UE supply.
- (3) The Customer-Generator is responsible for protecting Customer-Generator's equipment in such a manner that faults or other disturbances on the UE system or on Customer-Generator's system do not cause damage to his equipment.

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 1 ORIGINAL SHEET NO. 10

CANCELLING SCHEDULE NO. _____ SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREAB. ELECTRIC POWER PURCHASES FROM QUALIFIED NET METERING UNITS -
(CONTINUED)

- (4) Customer-Generator shall furnish information to UE regarding his proposed generation equipment and protective devices prior to parallel operation. UE will check the adequacy of this proposed equipment and its compatibility with protective devices on the UE system and will either approve as submitted or specify additional equipment which will be required in order to begin parallel operation with the UE system.
- (5) All protective relay settings that would affect any UE system relay settings will be specified by UE. These relays will be initially calibrated by UE to assure proper operation.
- (6) A manual visible disconnect switch must be provided which is under the exclusive jurisdictional control of the UE dispatcher. This manual switch must have the capability to be locked out of service by a UE-authorized switchman.
- (7) The above statements are the basic minimum protection requirements that would be associated with parallel generation. Additional requirements and/or equipment would depend on an in-depth study of each proposed connection.

B. Operation

- (1) Under certain conditions the intertie breaker (if one is required) must be operated by Customer-Generator in order for UE to operate the manual disconnect switch. UE may request this action for any of the following reasons:
 - a. System emergency.
 - b. Inspection of Customer-Generator's generating equipment or protective equipment reveals an unsafe condition.
 - c. Customer-Generator's generating equipment interferes with other customers or with the operation of the UE system.
 - d. An outage is scheduled on the UE supply circuit or feeder.

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B. ELECTRIC POWER PURCHASES FROM QUALIFIED NET METERING UNITS -
(CONTINUED)

- (2) Customer-Generator shall be solely responsible for properly synchronizing his generating equipment with the UE frequency and voltage. This includes resynchronizing his generator(s) after system outages or disturbances.

C. Quality of Service

- (1) The interconnection of Customer-Generator's generating equipment with the UE system shall not cause any reduction in the quality of service being provided to other customers or cause any undesirable effect on any UE facilities. Such interconnection shall be pursuant to the latest revision of IEEE 519 and 1547.
- (2) The power factor of Customer-Generator's load with his generating equipment connected shall not be less than that specified by retail tariff for his applicable customer class.

D. Metering

The revenue metering for Net Metering shall include two series connected watthour meters with detents. One meter shall be connected to measure energy supply to the Customer-Generator from Company during the billing period; the other meter shall measure Customer-Generator generated energy from the Customer-Generator to Company during the billing period. The meter detents prevent operation of either meter in the reverse direction. The Customer-Generator is responsible for additional metering costs for the metering equipment required for metering the energy from the Customer-Generator to Company. In order to properly measure the net energy from the Customer-Generator to Company, meters capable of measuring 15 minute interval usage may be required.

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 1 ORIGINAL SHEET NO. 12

CANCELLING SCHEDULE NO. _____ SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREAB. ELECTRIC POWER PURCHASES FROM QUALIFIED NET METERING UNITS -
(CONTINUED)

E. Other Requirements

- (1) All Customer-Generator installations shall adhere to any applicable requirements of the National Electrical Safety Code, the National Electric Code, applicable NEMA codes, OSHA, and UE's Electric Service Rules as set forth in published tariffs.
- (2) Customer-Generator will bear all interconnection costs of parallel operation over and above the normal cost to serve his load.

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**INTERCONNECTION APPLICATION/AGREEMENT FOR NET METERING
SYSTEMS WITH CAPACITY OF 100 kW OR LESS****For Customers Applying for Interconnection:**

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

One Ameren Plaza
1901 Chouteau Avenue
St. Louis MO 63103

Att: Manager Regulatory Development

You will be provided with an approval or denial of this Application within ninety (90) days of receipt by Company. 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 Company, it shall become a binding contract and shall govern your relationship with Company.

**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 Company for review and completion of section G at:

One Ameren Plaza
1901 Chouteau Avenue
St. Louis MO 63103

Att: Manager Regulatory Development

Company will complete the utility portion of section G and, upon receipt of a completed Application/Agreement form and payment of any applicable fees, permit interconnection of the Customer-Generator System to Company's electrical system within fifteen (15) days of receipt by Company if electric service already exists to the premises, unless the Customer-Generator and Company 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, Company will permit interconnection of the Customer-Generator System to Company's electrical system no later than fifteen (15) days after service is established to the premises, unless the Customer-Generator and Company 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 Company at:

One Ameren Plaza
1901 Chouteau Avenue
St. Louis MO 63103

Att: Manager Regulatory Development

**INTERCONNECTION APPLICATION/AGREEMENT FOR NET METERING
SYSTEMS WITH CAPACITY OF 100 kW OR LESS – (CONTINUED)**

Company will review the new Application/Agreement and shall approve such, within fifteen (15) days of receipt by Company if the new Customer-Generator has satisfactorily completed Application/Agreement, and no changes are being proposed to the existing Customer-Generator System. There are no fees or charges for the Customer-Generator who is assuming ownership or operational control of an existing Customer-Generator System if no modifications are being proposed to that System.

A. Customer-Generator's Information

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Service/Street Address (if different from above): _____
City: _____ State: _____ Zip Code: _____
Daytime Phone: _____ Fax: _____ E-Mail: _____
Emergency Contact Phone: _____
Company Account No. (from Utility Bill): _____

B. Customer-Generator's System Information

Manufacturer Name Plate (if applicable) AC Power Rating: _____ kW Voltage: _____ Volts
System Type: Solar _____ Wind _____ Biomass _____ Fuel Cell _____ Other (describe) _____
Service/Street Address: _____
Inverter/Interconnection Equipment Manufacturer: _____
Inverter/Interconnection Equipment Model No.: _____
Are Required System Plans & Specifications Attached? Yes _____ No _____
Inverter/Interconnection Equipment Location (describe): _____
Outdoor Manual/Utility Accessible & Lockable Disconnect Switch Location (describe): _____
Existing Electrical Service Capacity: _____ Amperes Voltage: _____ Volts
Service Character: Single Phase _____ Three Phase _____

C. Installation Information/Hardware and Installation Compliance

Person or Company Installing: _____
Contractor's License No. (if applicable): _____
Approximate Installation Date: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Daytime Phone: _____ Fax: _____ E-Mail: _____
Person or Agency Who Will Inspect/Certify Installation: _____

**INTERCONNECTION APPLICATION/AGREEMENT FOR NET METERING
SYSTEMS WITH CAPACITY OF 100 kW OR LESS - (CONTINUED)**

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. The proposed installation complies with all applicable local electrical codes and all reasonable safety requirements of Company. The proposed System has a lockable, visible disconnect device, accessible at all times to Company personnel. The System is only required to include one lockable, visible disconnect device, accessible to Company. 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 Company's electrical system. The proposed System does have an anti-islanding function that prevents the generator from continuing to supply power when Company'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 Company'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 Company'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 Company, 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 Company's electrical system, Company may immediately disconnect and lock-out the Customer-Generator's System from Company's electrical system. The Customer-Generator shall permit Company's employees and inspectors reasonable access to inspect, test, and examine the Customer-Generator's System.

2) Liability

The Customer-Generator agrees to carry no less than \$100,000 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 Company all of Company's Interconnection Costs. Interconnection Costs are the reasonable costs incurred by Company for: (1) additional tests or analyses of the effects of the operation of the Customer-Generator's System on Company's local distribution system, (2) additional metering, and (3) any necessary controls. These Interconnection Costs must be related to the installation of the

**INTERCONNECTION APPLICATION/AGREEMENT FOR NET METERING
SYSTEMS WITH CAPACITY OF 100 kW OR LESS – (CONTINUED)**

physical facilities necessary to permit interconnected operation of the Customer-Generator's System with Company's system and shall only include those costs, or corresponding costs, which would not have been incurred by Company in providing service to the Customer-Generator solely as a consumer of electric energy from Company pursuant to Company's standard cost of service policies in effect at the time the Customer-Generator's System is first interconnected with Company's system. Upon request, Company shall provide the Customer-Generator with a not-to-exceed costs statement for interconnection with Company based upon the plans and specifications provided by the Customer-Generator to Company.

4) Energy Pricing and Billing

Section 386.887 RSMo Supp. 2002 sets forth the valuation and billing of electric energy provided by Company to the Customer-Generator and to Company from Customer-Generator. The value of the electric energy delivered to the Customer-Generator shall be billed in accordance with Company's applicable Schedule 5 – Schedule of Rates for Electric Service, Service Classification with the application of the Time-of-Day billing provisions. The value of the electric energy delivered by the Customer-Generator to Company shall be credited in accordance with Company's Schedule 1 – Electric Power Purchases, Section A.II.2.

5) Terms and Termination Rights

This Agreement becomes effective when signed by both the Customer-Generator and Company, 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 Company 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 Company'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 Company. 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. Company 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 Company, before the existing Customer-Generator System can remain interconnected with Company'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 agrees 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, Company will assess no charges or fees for this transfer. Company 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. Company will then complete section G and forward a copy of the completed

**INTERCONNECTION APPLICATION/AGREEMENT FOR NET METERING
SYSTEMS WITH CAPACITY OF 100 kW OR LESS – (CONTINUED)**

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

8) Testing Requirement

The Customer-Generator must, at least once every year, conduct a test to confirm that the Customer-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 Company's electrical system. Disconnecting the net metering unit from Company'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 Company, shall provide a copy of the test results to Company. If the Customer-Generator is unable to provide a copy of the test results upon request, Company 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 Company, 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 Company's system. If the Customer-Generator does not provide results of a test to Company within thirty (30) days of receiving a request from Company or the results of the test provided to Company show that the Customer-Generator's net metering unit is not functioning correctly, Company may immediately disconnect the Customer-Generator's System from Company's system. The Customer-Generator's System shall not be reconnected to Company'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.

Signed (Customer-Generator): _____

Date: _____

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 1 ORIGINAL SHEET NO. 18

CANCELLING SCHEDULE NO. _____ SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREA**INTERCONNECTION APPLICATION/AGREEMENT FOR NET METERING
SYSTEMS WITH CAPACITY OF 100 kW OR LESS – (CONTINUED)****E. Electrical Inspection**

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

Inspector Name (print): _____

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

Signed (Inspector): _____ Date: _____

F. Customer-Generator Acknowledgement

I am aware of the Customer-Generator System installed on my premises and I have been given warranty information and/or an operational manual for that system. Also, I have been provided with a copy of Company'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 Company'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 Company's electrical system, I shall disconnect the Customer-Generator System and not reconnect it to Company's electrical system until the Customer-Generator System is operating normally after repair or inspection. Further, I agree to notify Company 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 Company.

I agree not to operate the Customer-Generator System in parallel with Company's electrical system until this Application/Agreement has been approved by Company.

Signed (Customer-Generator): _____ Date: _____

G. Application Approval (completed by Company)

Company 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 Company on this ____ day of ____ (month), ____ (year).

Company Representative Name (print): _____

Signed Company Representative: _____

P.S.C. No. DATE OF ISSUE August 14, 2003 DATE EFFECTIVE September 13, 2003ISSUED BY C. W. Mueller Chairman & CEO St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS