

INDEPENDENCE POWER & LIGHT DEPARTMENT  
Independence, Missouri

Schedule NM-1  
Customer-Generator Net Metering Contract Service Rider

AVAILABLE

Electric Service is available under this schedule in the entire area served by the Department's existing secondary and primary voltage distribution systems.

APPLICABLE

To any customer normally served under the Department's other customer class rate schedules that has a Qualifying Net Metering Unit, as defined below, which is connected for parallel operation with the Department's electric system as provided for in the Consumer Clean Energy Act (Missouri Revised Statutes, 386.887, RSMo Supp. 2002) and the Missouri Public Service Commission Net Metering Rule (4CSR 240-20.065). Customer-generators served under this schedule shall be limited to a generator capacity size of not more than 100 kilowatts. Service under this schedule shall be provided to customer-generators on first come, first served basis until the cumulative customer-generator capacity (in kilowatts) totals not more than one-tenth of one percent of the Department's previous year's system peak load (in kilowatts). This schedule is not applicable to breakdown, standby or resale electric service.

QUALIFYING NET METERING UNIT

A "Qualifying Net Metering Unit" means an electric generator unit which:

- is owned by the customer-generator;
- is a hydrogen fuel cell or is powered by sun, wind or biomass;
- has an electrical generating system with a capacity of not more than one hundred kilowatts (100 KW);
- is located on premises that are owned, operated, leased or otherwise controlled by the customer-generator;
- is interconnected with and operated in parallel and in synchronization with the Department's distribution power supply system; and
- is intended primarily to offset part of all of the customer-generator's own electric power requirements.

CHARACTER OF SERVICE

Alternating current, 60 cycles; at supply voltages, single or three phase, that apply to the customer-generator under the Department's appropriate customer class rate schedules.

NET METERED ENERGY AMOUNT

The Department will install metering equipment capable of measuring bi-directional electric power flow separately as follows: (a) the electrical energy delivered by the Department to the customer-generator, and (b) the electrical energy delivered by the customer-generator to the Department. Such metering equipment shall be capable of metering both energy (in kilowatt-hours) and demand (in kilowatts), if necessary, to bill customer under the Department's appropriate customer class rate schedule. The "Net Metered Energy Amount" in kilowatt-hours is the difference between the amount of energy metered by provisions (a) and (b) above.

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NET MONTHLY BILL

- a) When the Net Metered Energy Amount for the billing month is from the Department to the customer-generator, such Net Metered Energy Amount (KWH) and metered demand (KW), if applicable, will be billed under the Net Monthly Bill provisions of Department's retail customer class rate schedule applicable to customer-generator specific class of service.
- b) When the Net Metered Energy Amount for the billing month is from the customer-generator to the Department, the customer-generator shall be billed as follows:
  - The appropriate minimum bill charges and demand charges, if applicable, that are included in the Department's retail customer class rate schedule applicable to the customer-generator specific class of service; and
  - A credit dollar amount for the Net Metered Energy Amount (KWH) supplied by the customer-generator to the Department at the Department's average avoided power supply energy costs as detailed as follows:
    - 1) On-Peak Season Period  
2.51¢ per KWH per Net Metered Energy Amount delivered to the Department's electric system.
    - 2) Off-Peak Season Period  
2.64¢ per KWH per Net Metered Energy Amount delivered to the Department's electric system.
    - 3) The On-Peak Season Period is for the five consecutive months from May through September. The Off-Peak Season Period is for the seven consecutive months from October through April.
    - 4) The credit dollar amount for the net energy supplied by customer-generator to the Department's electric system will be itemized on the customer-generator electric bill for the current month's billing period.
    - 5) The On-Peak Season and Off-Peak Season avoided cost energy rates per KWH included herein are effective for the 12-month period ending April 2018 and are based on the Department's average avoided seasonal power supply energy costs for the preceding 12 months ending April 2018.

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EFFECTIVE AVERAGE AVOIDED COST RATES FOR EACH 12 MONTH PERIOD AFTER APRIL 30, 2005

Each year at the end of April, the Department will determine its average avoided power supply energy costs for the previous Off-Peak Season Period and On-Peak Season Period which will apply to customer-generators subsequent monthly billing periods after April 2005 in accordance with the following formula:

$$A = \frac{B + C}{(D + E) \times F \times G}$$

where:

- A = Average adjusted Off-Peak Season Period or On-Peak Season Period power supply energy costs per kilowatt hour
- B = FOB cost of fuel used at Department's Generating Stations including storage and handling costs for Off-Peak Season Period or On-Peak Season Period
- C = The cost of purchased electric energy from other utilities less any demand or capacity charges, exclusive of border customers purchases, for Off-Peak Season Period or On-Peak Season Period
- D = The net kilowatt-hour generation of the Department's generating plants for Off-Peak Season Period or On-Peak Season Period
- E = The delivered kilowatt-hour purchased electric energy into Department's system from other utilities, exclusive of border customers purchases, for Off-Peak Season Period or On-Peak Season Period
- F = System loss factor of 0.95
- G = Department's gross receipts tax payment factor of 0.9092 payable to City of Independence

CUSTOMER-GENERATOR MONTHLY METER READING PERIODS

The Department will generally read customer-generator meters on the nearest working day at the end of each calendar month. The Off-Peak Season Period starts with the first meter reading at the end of October and continues for the next six end-of-month readings through the month of April. The On-Peak Season Period starts with the first meter reading at the end of May and continues for the next four end-of-month readings through the month of September.

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SPECIAL CONDITIONS

- The customer-generator must execute the Interconnection Application/Agreement for Net Metering Systems with the Department which further details the terms and conditions of service under this Schedule NM-1.
- The customer-generator shall carry no less than one hundred thousand dollars (\$100,000) of liability insurance that provides for coverage of all risk liability for personal injuries (including death) and damage to property arising out of or caused by customer-generator or the Qualifying Net Metering Unit. Insurance may be in the form of an existing insurance policy or an endorsement on an existing insurance policy.
- The customer-generator is responsible for all costs associated with its generating facility.
- The customer-generator is responsible for all costs related to any modifications to the Department's facilities that may be required by the Department such as additional meter installation costs and costs for upgraded service line capacity that may be required by the Department for purposes of safety or reliability, or both.
- The Qualifying Net Metering Unit shall meet all applicable installation, safety and performance standards by the National Electrical Safety Code, the National Electric Code, the Institute of Electrical and Electronics Engineers (IEEE), and Underwriters Laboratory (UL). These requirements include, but are not limited to UL 1741, IEEE 929-2000, and IEEE 1547.
- Electric service rendered under this schedule is subject to the Department's standard rules and regulations.
- This Schedule NM-1 shall remain in effect until terminated in accordance with Terms and Termination Rights under the Interconnection Application/Agreement for Net Metering Services or if terminated, replaced, or revised by City Council ordinance. In such case where this schedule is replaced or revised, the Customer-Generator will have the option to continue taking service under the new schedule or terminating such service.

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INTERCONNECTION APPLICATION/AGREEMENT  
FOR  
NET METERING SYSTEMS

For Customers Applying for Interconnection

If you are interested in applying for interconnection to City of Independence, Missouri - Power & Light Department's ("Department") electrical system, you should first contact the Department and ask for information related to interconnection of parallel generation equipment to Department's system and you should understand this information before proceeding with this Application. If you wish to apply for interconnection to Department'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 the Department at:

Independence Power & Light Department  
Attn: Power & Light Director  
21500 E. Truman Rd.  
P.O. Box 1019  
Independence, MO 64051

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

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

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

Independence Power & Light Department  
Attn: Power & Light Director  
21500 E. Truman Rd.  
P.O. Box 1019  
Independence, MO 64051

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

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

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

Independence Power & Light Department  
Attn: Power & Light Director  
21500 E. Truman Rd.  
P.O. Box 1019  
Independence, MO 64051

The Department will review the new Application/Agreement and shall approve such, within fifteen (15) days of receipt by the Department 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: \_\_\_\_\_

Department's Electric Utility 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.: \_\_\_\_\_

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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: \_\_\_\_\_

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, IEEE 929-2000, and IEEE 1547. The proposed installation complies with all applicable local electrical codes and all safety requirements of the City of Independence and the Department. The proposed System has a lockable, visible disconnect device, accessible at all times to Department's personnel. The System is only required to include one lockable, visible disconnect device, accessible to the Department. 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 Department's electrical system. The proposed System does have an anti-islanding function that prevents the generator from continuing to supply power when Department's electric system is not energized or operating normally. If the proposed System is

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designed to provide uninterrupted 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 Department'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 Department'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 the Department, 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 Department's electrical system, the Department may immediately disconnect and lock-out the Customer-Generator's System from Department's electrical system. The Customer-Generator shall permit Department'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 the Department all of Department's Interconnection Costs. Interconnection Costs are the reasonable costs incurred by the Department for: (1) additional tests or analyses of the effects of the operation of the Customer-Generator's System on Department'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 Department's system and shall only include those costs, or corresponding costs, which would not have been incurred by the Department in providing service to the Customer-Generator solely as a consumer of electric energy from the Department pursuant to Department's standard rules and regulations in effect at the time the Customer-Generator's System is first interconnected with Department's system. Upon request, the Department shall provide the Customer-Generator with a not-to-exceed cost statement for interconnection with the Department



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based upon the plans and specifications provided by the Customer-Generator to the Department.

4. Energy Pricing and Billing

Customer-Generator shall be billed for electric service supplied by the Department and credited for net energy delivered by Customer-Generator to the Department's electric system in accordance with Independence Power & Light Department's Schedule NM-1.

5. Terms and Termination Rights

This Agreement becomes effective when signed by both the Customer-Generator and the Department, and shall continue in effect until terminated. After fulfillment of any applicable initial tariff or rate schedule term, the Customer-Generator may terminate this Agreement at any time by giving the Department 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 Department'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 the Department. This Agreement may also be terminated, if there is a change in Missouri State statutes that is determined to be applicable to this contract and authorizes its termination.

6. Transfer of Ownership

If operational control of the Customer-Generator's System transfers to any other party than the Customer-Generator, a new Application/Agreement must be completed by the person or persons taking over operational control of the existing Customer-Generator System. The Department shall be notified no less than thirty (30) days before the Customer-Generator anticipates transfer of operational control of the Customer-Generator's System. The person or persons taking over operational control of Customer-Generator's System must file a new Application/Agreement, and must receive authorization from the Department, before the existing Customer-Generator System can remain interconnected with Department'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, the Department will assess no charges or fees for this transfer. The Department will review the new Application/Agreement and shall approve such, within fifteen (15) days if the new Customer-Generator has satisfactorily completed the Application/Agreement, and no changes are being proposed to the existing Customer-Generator System. The Department will then complete section G and forward a copy of the completed Application/Agreement back to the new Customer-Generator, thereby notifying the new

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Customer-Generator that the new Customer-Generator is authorized to operate the existing Customer-Generator System in parallel with Department'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 the Department a new Application/Agreement for the entire Customer-Generator System and all portions of the Application/Agreement must be completed.

7. 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 Department's electrical system. Disconnecting the net metering unit from Department'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 the Department, shall provide a copy of the test results to the Department. If the Customer-Generator is unable to provide a copy of the test results upon request, the Department shall notify the Customer-Generator by mail that Customer-Generator has thirty (30) days from the date the Customer-Generator receives the request to provide to the Department, the results of a test. If the Customer-Generator's equipment ever fails this test, the Customer-Generator shall immediately disconnect the Customer-Generator System from Department's system. If the Customer-Generator does not provide results of a test to the Department within thirty (30) days of receiving a request from the Department or the results of the test provided to the Department show that the Customer-Generator's net metering unit is not functioning correctly, the Department may immediately disconnect the Customer-Generator System from Department's system. The Customer-Generator System shall not be reconnected to Department's electrical system by the Customer-Generator until the Customer-Generator 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 7 of this Application/Agreement.

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

E. ELECTRICAL INSPECTION

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

Inspector Name (print): \_\_\_\_\_

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

Signed (Inspector): \_\_\_\_\_ Date: \_\_\_\_\_

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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 Department's Rate Schedule NM-1 (Customer-Generator Net Metering Contract Service Rider) and interconnection requirements. I am familiar with the operation of the Customer-Generator System.

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

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

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

G. UTILITY APPLICATION APPROVAL (COMPLETED BY THE DEPARTMENT)

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

This Application is approved by the Department on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Department's Representative Name (print): \_\_\_\_\_

Signed Department's Representative: \_\_\_\_\_