

# ARKANSAS PUBLIC SERVICE COMMISSION



## NET METERING RULES

REDLINE VERSION

# **NET METERING RULES**

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## **DEFINITIONS**

### **Billing period**

The billing period for net metering will be the same as the billing period under the customer's applicable standard rate schedule.

### **Biomass facility**

A facility that may use one or more organic fuel sources that can either be processed into synthetic fuels or burned directly to produce steam or electricity, provided that the resources are renewable, environmentally sustainable in their production and use, and the process of conversion to electricity results in a net environmental benefit. This includes, but is not limited to, dedicated energy crops and trees, agricultural food and feed crops, agricultural crop wastes and residues, wood wastes and residues, aquatic plants, animal wastes, and other accepted organic, renewable waste materials.

### **~~Commercial customer~~**

~~A customer served under a utility's standard rate schedule applicable to commercial service.~~

### **Commission**

The Arkansas Public Service Commission.

### **Electric utility**

A public or investor-owned utility, an electric cooperative, municipal utility, or any private power supplier or marketer that is engaged in the business of supplying electric energy to the ultimate customer or any customer class within the state.

### **Fuel cell facility**

A facility that converts the chemical energy of a fuel directly to direct current electricity without intermediate combustion or thermal cycles.

### **Geothermal facility**

An electric generating facility in which the prime mover is a steam turbine. The steam is generated in the earth by heat from the earth's magma.

## **Hydroelectric facility**

An electric generating facility in which the prime mover is a water wheel. The water wheel is driven by falling water.

## **Micro turbine facility**

A facility that uses a small combustion turbine to produce electricity.

## **Net excess generation**

The amount of electricity that a net metering customer has fed back to the electric utility that exceeds the amount of electricity used by that customer during the applicable period.

## **Net metering**

Measuring the difference between electricity supplied by an electric utility and the electricity generated by a net metering customer and fed back to the electric utility over the applicable billing period.

## **Net metering facility**

A facility for the production of electrical energy that:

- (A) Uses solar, wind, hydroelectric, geothermal, or biomass resources to generate electricity including, but not limited to, fuel cells and micro turbines that generate electricity if the fuel source is entirely derived from renewable resources; and,
- (B) Has a generating capacity of not more than twenty-five (25) kilowatts for residential use or three hundred (300) kilowatts ~~one hundred (100) kilowatts~~ for any other commercial or agricultural use; and,
- (C) Is located in Arkansas; and,
- (D) Can operate in parallel with an electric utility's existing transmission and distribution facilities; and,
- (E) Is intended primarily to offset part or all of the net-metering customer requirements for electricity; or,
- (F) Is designated by the Commission as eligible for net metering service pursuant to Ark. Code Ann. 23-18-604(~~Bb~~)(34).

## **Parallel operation**

The operation of on-site generation by a customer while the customer is connected to the utility's distribution system.

## **Renewable energy credit**

The environmental, economic, and social attributes of a unit of electricity, such as a megawatt hour generated from renewable fuels that can be sold or traded separately.

**Residential customer**

A customer served under a utility's standard rate schedules applicable to residential service.

**Solar facility**

A facility in which electricity is generated through the collection, transfer and/or storage of the sun's heat or light.

**Wind facility**

A facility in which an electric generator is powered by a wind-driven turbine.

## **SECTION 1. GENERAL PROVISIONS**

### **Rule 1.01. Purpose**

The purpose of these Rules is to establish rules for net energy metering and interconnection.

### **Rule 1.02. Statutory Provisions**

- A.** These Rules are developed pursuant to the Arkansas Renewable Energy Development Act of 2001 (~~Act 1781 of 2001~~ A.C.A. §23-18-603 and §23-18-604 as amended by Act 1024 of 2007).
- B.** These Rules are promulgated pursuant to the Commission's authority under Ark. Code Ann. 23-2-301, 23-2-304 (3), and 23-2-305, ~~and 23-18-604~~.
- C.** Nothing in these Rules shall govern, limit, or restrict the Commission's authority under Ark. Code Ann. 23-18-604.

### **Rule 1.03. Other Provisions**

- A.** These Rules apply to all electric utilities, as defined in these Rules, that are jurisdictional to the Commission.
- B.** The Net Metering Rules are not intended to, and do not affect or replace any Commission approved general service regulation, policy, procedure, rule, or service application of any utility which addresses items other than those covered in these Rules.
- C.** Net metering customers taking service under the provisions of the Net Metering Tariff may not simultaneously take service under the provisions of any other alternative source generation or cogeneration tariffs except as provided herein.

## **SECTION 2. NET METERING REQUIREMENTS**

### **Rule 2.01. Electric Utility Requirements**

An electric utility ~~that offers residential or commercial electrical service, or both,~~ shall allow net metering facilities to be interconnected using a standard meter capable of registering the flow of electricity in two (2) directions.

### **Rule 2.02. Metering Requirements**

- A. Metering equipment shall be installed to both accurately measure the electricity supplied by the electric utility to each net-metering customer and also to accurately measure the electricity generated by each net-metering customer that is fed back to the electric utility over the applicable billing period.
- B. Accuracy requirements for a meter operating in both forward and reverse registration modes shall be as defined in the Commission's Special Rules - Electric. A test to determine compliance with this accuracy requirement shall be made by the utility either before or at the time the net metering facility is placed in operation in accordance with these Rules.

### **Rule 2.03. New or Additional Charges**

- A. Any new or additional charge that would increase a net metering customer's costs beyond those of other customers in the rate class shall be filed by the electric utility with the Commission for approval. The filing shall be supported by the cost/benefit analysis described in Rule 2.03.B.
- B. Following notice and opportunity for public comment, the Commission may authorize an electric utility to assess a net metering customer a greater fee or charge, of any type, if the electric utility's direct costs of interconnection and administration of net-metering outweigh the distribution system, environmental and public policy benefits of allocating the costs among the electric utility's entire customer base.

### **Rule 2.04. Billing for Net Metering**

- A. On a monthly basis, the net metering customer shall be billed the charges applicable under

the currently effective standard rate schedule and any appropriate rider schedules. Under net metering, only the kilowatt\_hour (kWh) units of a customer's bill are affected.

- B.** If the kWhs supplied by the electric utility exceeds the kWhs generated by the net metering facility and fed back to the electric utility during the billing period, the net metering customer shall be billed for the net kWhs supplied by the electric utility in accordance with the rates and charges under the customer's standard rate schedule.
- C.** If the kWhs generated by the net metering facility and fed back to the electric utility exceeds the kWhs supplied by the electric utility to the net metering customer during the applicable billing period, the utility shall credit the net metering customer with any accumulated net excess generation in the next applicable billing period month to month until the close of an annual billing cycle, at which time any net excess generation credit shall expire. ~~the customer shall not receive any compensation from the utility for such net metering excess delivered kWhs during the billing period.~~
- D.** Any renewable energy credit created as a result of electricity supplied by a net-metering customer is the property of the net-metering customer that generated the renewable credit.



### **SECTION 3. INTERCONNECTION OF NET METERING FACILITIES TO EXISTING ELECTRIC POWER SYSTEMS**

#### **Rule 3.01. Requirements for Initial Interconnection of a Net Metering Facility**

- A.** A net metering customer shall execute a Standard Interconnection Agreement for Net Metering Facilities (Appendix A) prior to interconnection with the utility's facilities.
- B.** A net metering facility shall be capable of operating in parallel and safely commencing the delivery of power into the utility system at a single point of interconnection. To prevent a net metering customer from back-feeding a de-energized line, a net metering facility shall have a visibly open, lockable, manual disconnect switch which is accessible by the electric utility and clearly labeled. This requirement for a manual disconnect switch shall be waived if the following three conditions are met: 1) The inverter equipment must be designed to shut down or disconnect and cannot be manually overridden by the customer upon loss of utility service; 2) The inverter must be warranted by the manufacturer to shut down or disconnect upon loss of utility service; and 3) The inverter must be properly installed and operated, and inspected and/or tested by utility personnel.
- C.** The customer shall submit a Standard Interconnection Agreement to the electric utility at least thirty (30) days prior to the date the customer intends to interconnect the net metering facilities to the utility's facilities. Part I, Standard Information, Sections 1 through 4 of the Standard Interconnection Agreement must be completed for the notification to be valid. The customer shall have all equipment necessary to complete the interconnection prior to such notification. If mailed, the date of notification shall be the third day following the mailing of the Standard Interconnection Agreement. The electric utility shall provide a copy of the Standard Interconnection Agreement to the customer upon request.
- D.** Following notification by the customer as specified in Rule 3.01.C, the utility shall review the plans of the facility and provide the results of its review to the customer within 30 calendar days. Any items that would prevent parallel operation due to violation of safety standards and/or power generation limits shall be explained along with a description of the modifications necessary to remedy the violations.
- E.** The net metering facility, at the net metering customer's expense, shall meet safety and performance standards established by local and national electrical codes including the National Electrical Code (NEC), the Institute of Electrical and Electronics Engineers (IEEE), the National Electrical Safety Code (NESC), and Underwriters Laboratories (UL).
- F.** The net metering facility, at the net metering customer's expense, shall meet all safety and performance standards adopted by the utility and filed with and approved by the Commission pursuant to these Rules that are necessary to assure safe and reliable operation of the net metering facility to the utility's system.

- G. If the utility's existing facilities are not adequate to interconnect with the net metering facility, any changes will be performed in accordance with the Utility's Extension of Facilities Tariff.

**Rule 3.02. Requirements for Modifications or Changes to a Net Metering Facility**

Modifications or changes made to a net metering facility shall be evaluated by the electric utility prior to being made. The net metering customer shall provide detailed information describing the modifications or changes to the electric utility in writing prior to making the modifications to the net metering facility. The utility shall review the proposed changes to the facility and provide the results of its evaluation to the customer within thirty (30) days of receipt of the customer's proposal. Any items that would prevent parallel operation due to violation of applicable safety standards and/or power generation limits shall be explained along with a description of the modifications necessary to remedy the violations.

## **SECTION 4. STANDARD INTERCONNECTION AGREEMENT AND STANDARD NET METERING TARIFF FOR NET METERING FACILITIES**

### **Rule 4.01. Standard Interconnection Agreement and Standard Net Metering Tariff**

Each electric utility shall file, for approval by the Commission, a Standard Interconnection Agreement for Net Metering Facilities (Appendix A), and a Net Metering Tariff in standard tariff format (Appendix B).

### **Rule 4.02. Filing and Reporting Requirements**

Each electric utility shall file in Docket No. 86-033-A by March 15 of each year, a report listing all existing net metering facilities and the generator rating and, where applicable, the inverter power rating of each net metering facility as of the end of the previous calendar year.

**STANDARD INTERCONNECTION AGREEMENT FOR NET METERING FACILITIES****I. STANDARD INFORMATION****Section 1. Customer Information**

Name: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Facility Location (if different from above): \_\_\_\_\_  
 Daytime Phone: \_\_\_\_\_ Evening Phone: \_\_\_\_\_  
 Utility Customer Account (from electric bill): \_\_\_\_\_

**Section 2. Generation Facility Information**

System Type: Solar Wind Hydro Geothermal Biomass Fuel Cell Micro turbine  
 Generator Rating (kW): \_\_\_\_\_ AC or DC (circle one)  
 Describe Location of Accessible and Lockable Disconnect: \_\_\_\_\_  
 Inverter Manufacturer: \_\_\_\_\_ Inverter Model: \_\_\_\_\_  
 Inverter Location: \_\_\_\_\_ Inverter Power Rating: \_\_\_\_\_

**Section 3. Installation Information**

**Attach a detailed electrical diagram of the net metering facility.**

Installed by: \_\_\_\_\_ Qualifications/Credentials: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Daytime Phone: \_\_\_\_\_ Installation Date: \_\_\_\_\_

**Section 4. Certification**

1. The system has been installed in compliance with the local Building/Electrical Code of \_\_\_\_\_.  
 (City/County)

Signed (Inspector): \_\_\_\_\_ Date: \_\_\_\_\_  
 (In lieu of signature of inspector, a copy of the final inspection certificate may be attached.)

2. The system has been installed to my satisfaction and I have been given system warranty information and an operation manual, and have been instructed in the operation of the system.

Signed (Owner): \_\_\_\_\_ Date: \_\_\_\_\_

**Section 5. Utility Verification and Approval**

1. Facility Interconnection Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
 Metering Facility Verification by: \_\_\_\_\_ Verification Date: \_\_\_\_\_

## **II. INTERCONNECTION AGREEMENT TERMS AND CONDITIONS**

This Interconnection Agreement for Net Metering Facilities (“Agreement”) is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by \_\_\_\_\_ (“Utility”) and \_\_\_\_\_ (“Customer”), a \_\_\_\_\_ (specify whether corporation or other), each hereinafter sometimes referred to individually as “Party” or collectively as the “Parties”. In consideration of the mutual covenants set forth herein, the Parties agree as follows:

### **Section 1. The Net Metering Facility**

The Net Metering Facility meets the requirements of Ark. Code Ann. § 23-18-603(56) and the Arkansas Public Service Commission’s Net Metering Rules.

### **Section 2. Governing Provisions**

The parties shall be subject to the provisions of Ark. Code Ann. § 23-18-604 and the terms and conditions set forth in this Agreement, the Net Metering Rules, and the Utility’s applicable tariffs.

### **Section 3. Interruption or Reduction of Deliveries**

The Utility shall not be obligated to accept and may require Customer to interrupt or reduce deliveries when necessary in order to construct, install, repair, replace, remove, investigate, or inspect any of its equipment or part of its system; or if it reasonably determines that curtailment, interruption, or reduction is necessary because of emergencies, forced outages, force majeure, or compliance with prudent electrical practices. Whenever possible, the Utility shall give the Customer reasonable notice of the possibility that interruption or reduction of deliveries may be required. Notwithstanding any other provision of this Agreement, if at any time the Utility reasonably determines that either the facility may endanger the Utility’s personnel or other persons or property, or the continued operation of the Customer’s facility may endanger the integrity or safety of the Utility’s electric system, the Utility shall have the right to disconnect and lock out the Customer’s facility from the Utility’s electric system. The Customer’s facility shall remain disconnected until such time as the Utility is reasonably satisfied that the conditions referenced in this Section have been corrected.

### **Section 4. Interconnection**

Customer shall deliver the as-available energy to the Utility at the Utility’s meter.

Utility shall furnish and install a standard kilowatt-hour meter. Customer shall provide and install a meter socket for the Utility’s meter and any related interconnection equipment per the Utility’s technical requirements, including safety and performance standards.

The customer shall submit a Standard Interconnection Agreement to the electric utility at least thirty (30) days prior to the date the customer intends to interconnect the net metering facilities to the utility’s facilities. Part I, Standard Information, Sections 1 through 4 of the Standard Interconnection Agreement must be completed for the notification to be valid. The customer shall have all equipment necessary to complete the interconnection prior to such notification. If mailed, the date of notification shall be the third day following the mailing of the Standard Interconnection Agreement. The electric utility shall provide a copy of the Standard Interconnection Agreement to the customer upon request.

Following notification by the customer as specified in Rule 3.01.C, the utility shall review the plans of the

facility and provide the results of its review to the customer within 30 calendar days. Any items that would prevent parallel operation due to violation of applicable safety standards and/or power generation limits shall be explained along with a description of the modifications necessary to remedy the violations.

To prevent a net metering customer from back-feeding a de-energized line, the customer shall install a manual disconnect switch with lockout capability that is accessible to utility personnel at all hours. This requirement for a manual disconnect switch will be waived if the following three conditions are met: 1) The inverter equipment must be designed to shut down or disconnect and cannot be manually overridden by the customer upon loss of utility service; 2) The inverter must be warranted by the manufacturer to shut down or disconnect upon loss of utility service; and 3) The inverter must be properly installed and operated, and inspected and/or tested by utility personnel.

Customer, at his own expense, shall meet all safety and performance standards established by local and national electrical codes including the National Electrical Code (NEC), the Institute of Electrical and Electronics Engineers (IEEE), the National Electrical Safety Code (NESC), and Underwriters Laboratories (UL).

Customer, at his own expense, shall meet all safety and performance standards adopted by the utility and filed with and approved by the Commission pursuant to Rule 3.01.F that are necessary to assure safe and reliable operation of the net metering facility to the utility's system.

Customer shall not commence parallel operation of the net metering facility until the net metering facility has been inspected and approved by the Utility. Such approval shall not be unreasonably withheld or delayed. Notwithstanding the foregoing, the Utility's approval to operate the Customer's net metering facility in parallel with the Utility's electrical system should not be construed as an endorsement, confirmation, warranty, guarantee, or representation concerning the safety, operating characteristics, durability, or reliability of the Customer's net metering facility.

Modifications or changes made to a net metering facility shall be evaluated by the Utility prior to being made. The Customer shall provide detailed information describing the modifications or changes to the Utility in writing prior to making the modifications to the net metering facility. The Utility shall review the proposed changes to the facility and provide the results of its evaluation to the Customer within thirty (30) calendar days of receipt of the Customer's proposal. Any items that would prevent parallel operation due to violation of applicable safety standards and/or power generation limits shall be explained along with a description of the modifications necessary to remedy the violations.

### **Section 5. Maintenance and Permits**

The customer shall obtain any governmental authorizations and permits required for the construction and operation of the net metering facility and interconnection facilities. The Customer shall maintain the net metering facility and interconnection facilities in a safe and reliable manner and in conformance with all applicable laws and regulations.

**Section 6. Access to Premises**

The Utility may enter the Customer's premises to inspect the Customer's protective devices and read or test the meter. The Utility may disconnect the interconnection facilities without notice if the Utility reasonably believes a hazardous condition exists and such immediate action is necessary to protect persons, or the Utility's facilities, or property of others from damage or interference caused by the Customer's facilities, or lack of properly operating protective devices.

**Section 7. Indemnity and Liability**

Each party shall indemnify the other party, its directors, officers, agents, and employees against all loss, damages expense and liability to third persons for injury to or death of persons or injury to property caused by the indemnifying party's engineering design, construction ownership or operations of, or the making of replacements, additions or betterment to, or by failure of, any of such party's works or facilities used in connection with this Agreement by reason of omission or negligence, whether active or passive. The indemnifying party shall, on the other party's request, defend any suit asserting a claim covered by this indemnity. The indemnifying party shall pay all costs that may be incurred by the other party in enforcing this indemnity. It is the intent of the parties hereto that, where negligence is determined to be contributory, principles of comparative negligence will be followed and each party shall bear the proportionate cost of any loss, damage, expense and liability attributable to that party's negligence.

Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to or any liability to any person not a party to this Agreement. Neither the Utility, its officers, agents or employees shall be liable for any claims, demands, costs, losses, causes of action, or any other liability of any nature or kind, arising out of the engineering, design construction, ownership, maintenance or operation of, or making replacements, additions or betterment to, the Customer's facilities by the Customer or any other person or entity.

**Section 8. Notices**

All written notices shall be directed as follows:

Attention:

[Utility Agent or Representative]

[Utility Name and Address]

Attention:

[Customer]

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

Customer notices to Utility shall refer to the Customer's electric service account number set forth in Section 1 of this Agreement.

**Section 10. Term of Agreement**

The term of this Agreement shall be the same as the term of the otherwise applicable standard rate schedule. This Agreement shall remain in effect until modified or terminated in accordance with its terms or applicable regulations or laws.

**Section 11. Assignment**

This Agreement and all provisions hereof shall inure to and be binding upon the respective parties hereto, their personal representatives, heirs, successors, and assigns. The Customer shall not assign this Agreement or any part hereof without the prior written consent of the Utility, and such unauthorized assignment may result in termination of this Agreement.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Customer:

Utility:

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Mailing Address:

Mailing Address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Original \_\_\_\_\_ Sheet No. \_\_\_\_\_

Replacing \_\_\_\_\_ Sheet No. \_\_\_\_\_

\_\_\_\_\_  
Name of CompanyKind of Service: Electric Class of Service: \_\_\_\_\_Part III. Rate Schedule No.: X \_\_\_\_\_

Title: NET METERING

PSC File Mark Only

**X. NET METERING****X.1. AVAILABILITY**

X.1.1. To any residential or ~~any other commercial~~ customer who takes service under standard rate schedule(s) \_\_\_\_\_ (list schedules) who has installed a net metering facility and signed a Standard Interconnection Agreement for Net Metering Facilities with the Utility. Such facilities must be located on the customer's premise and intended primarily to offset some or all of the customer's energy usage at that location.

The provisions of the customer's standard rate schedule are modified as specified herein.

X.1.2 Customers may not take service under this tariff and simultaneously take service under the provisions of any other alternative source generation or co-generation tariff.

**X.2. MONTHLY BILLING**

X.2.1. On a monthly basis, the net metering customer shall be billed the charges applicable under the currently effective standard rate schedule and any appropriate rider schedules. Under net metering, only the kilowatt hour (kWh) units of a customer's bill are affected.

X.2.2. If the electricity supplied by the electric utility exceeds the electricity generated by the net metering customer and fed back to the electric utility during the billing period, the net metering customer shall be billed for the net billable kWhs supplied by the electric utility in accordance with the rates and charges under the Utility's standard rate schedule applicable to the customer.

X.2.3. If the electricity generated by the net metering customer and fed back to the electric utility during the billing period exceeds the electricity supplied by the electric utility, ~~the customer shall not receive any compensation from the utility for such net metering excess delivered kWhs during the billing period.~~ the utility shall credit the net-metering customer with any accumulated net excess generation in the next applicable billing period month to month until the close of an annual billing cycle, at which time any net excess generation credit shall expire.

X.2.4 Any renewable energy credit created as the result of electricity supplied by a net-metering customer is

the property of the net-metering customer that generated the renewable credit.

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