

ARKANSAS PUBLIC SERVICE COMMISSION JUN 3 8 37 AM '02

FILED

IN THE MATTER OF A GENERIC )  
PROCEEDING TO ESTABLISH )  
NET METERING RULES )

DOCKET NO. 02-046-R  
ORDER NO. 3

**ORDER**

Appearances: Ms. Valerie Boyce for the General Staff of the Arkansas Public Service Commission ("Staff"), Mr. Jeff Broadwater for Entergy Services, Inc. ("Entergy"), Mr. David Matthews for American Electric Power SWEPSCO ("AEP/SWEPSCO"), Mr. Larry Chisenhall for Oklahoma Gas and Electric ("OG&E"), Mr. Harold Hamlin and Mr. Stephen Williams for Arkansas Electric Cooperative Corporation ("AECC"), Mr. Jeffrey Dangeau for Arkansas Western Gas Company ("AWG"), Mr. William Ball of National Environments, Inc., and Mr. Shawn McMurray for the Arkansas Attorney General's Office ("AG").

Background

This docket was prompted by Act 1781 of 2001, the Arkansas Renewable Energy Development Act (the "Act"), see Attachment 1. Section 2 of the Act as follows, states the intent of the Act.

- (a) Net energy metering encourages the use of renewable energy resources and renewable energy technologies by reducing utility interconnection and administrative costs for small consumers of electricity. More than thirty (30) other states have passed similar laws or regulations in support of net energy metering programs. Increasing the consumption of renewable resources promotes the wise use of Arkansas' natural energy resources to meet a growing energy demand; increases Arkansas' use of indigenous energy fuels while reducing dependence on imported fossil fuels; fosters investments in emerging renewable technologies to stimulate economic development and job creation in the state, including the agricultural sectors; reduces environmental stresses from energy production; and provides greater consumer choices.

- (b) Arkansas has actively encouraged the manufacture of new technologies in the state through promotion of the Arkansas Emerging Technology Development Act of 1999, § 15-4-2101 et seq. Net metering would help to further attract energy technology manufacturers, to provide a foothold for these technologies in the Arkansas economy, and to make it easier for customer access to these technologies.

Section 4 of the Act requires Arkansas public utilities to allow customer owned and operated net-metering facilities to interconnect using a standard meter capable of registering electricity flow in two directions. It also authorizes the Arkansas Public Service Commission ("Commission") to establish the rates, terms and conditions for net-metering contracts. Further, it authorizes a utility to charge net-metering customers an additional fee if the utility's direct and administrative costs associated with net-metering outweigh the distribution system, environmental, and public policy benefits of allocating the costs among the electric utility's entire customer base. In addition, the Act authorizes the Commission to expand the scope of net metering to include facilities that do not use a renewable energy resource or may increase the peak limits for individual net-metering facilities, if so doing results in desirable distribution system, environmental, or public benefits.

Thus, net metering provides customers who install renewable resource-fueled electric generators with the opportunity to run their meters backwards when they generate more electricity than they consume. Allowing meters to run backward and only billing for net consumption may encourage some customers to install these generators and thereby promote the use of renewable fuels.

Staff initiated this docket to adopt rules and regulations to facilitate implementation of the Act. Staff filed proposed Net Metering Rules (“NMRs” or “Rules”) on March 15, 2002. Section One of the Rules provides definitions and the purpose of the Rules. Section Two establishes the net-metering requirements of the utility, and billing and metering requirements. It also provides that if any net kWh are delivered to the utility the customer will not receive compensation. Section Three provides requirements the net-metering customer must meet to interconnect with the utility. Section Four provides the Standard Interconnection Agreement and the Standard Net Metering Tariff.

Initial and/or reply comments were filed by Staff, Entergy, AEP/SWEPCO, OG&E, AECC, AWG, Mr. Ball, and the AG. In its Reply Comments, Staff adopted certain changes to the proposed rules that had been suggested by various parties in their initial comments and filed conforming amended Rules, see Attachment 2. The definitions of “biomass facility” and “solar facility” were modified at the request of Mr. Ball and the AG. Taking service under the net-metering tariff and simultaneously under any other cogeneration or alternative generation tariff would be barred, as suggested by Entergy.

A public hearing was convened on April 24, 2002, pursuant to Order No. 1. The following issues were contested:

1. Determination of distribution system, environmental and public policy benefits
2. Avoided cost payments for net-metering output
3. Credit carry-forward allowance or “banking”

4. Installation of a Redundant Lockable Switch
5. Indemnification and/or insurance requirements
6. Natural gas as an eligible fuel
7. Size limits of net metering facility

#### Discussion

#### **Determination of Distribution System, Environmental and Public Policy**

**Benefits:** Entergy asks that the Rules be expanded to include a more objective standard by which to conduct the cost/benefit analysis referenced in Section 4(b)(2) of the Act for the purpose of supporting additional charges and fees to be assessed against net-metering customers.

The Commission recognizes that Section 4(b)(2) is somewhat subjective. However, the Commission does not need to define the three enumerated benefits of net metering at this time. A utility may charge an additional fee to the net metering customer only after notice and an opportunity for public comment and a determination by the Commission that the direct and administrative costs of serving such customers exceeds the distribution system benefits, environmental benefits and public policy benefits derived from the net metering program. These benefits can be more fully defined when a utility files with the Commission a formal request to charge an additional fee.

**Avoided Cost Payments for Net Metering Output:** Entergy, AEP/SWEPCO and OG&E contend that the output of net metering customers should be credited at the avoided cost rates established in the Commission's *Cogeneration Rules* to prevent subsidization

of net metering customers (Tr at 71). Use of avoided cost rates would mean that net-metering customers would continue to pay the utility's full unbundled rate, including transmission, distribution and fixed generation costs, for all electricity provided by the utility, while the customer credit for net metering output would only be at the lower avoided cost rate. Mr. Ball states that the experience of other states indicates that the avoided cost rate is too low to stimulate renewable resource use (Tr at 23). Staff asserts that, by definition, the utility should credit net metering output at the full bundled rate in order to promote the use of renewables, consistent with the purposes of the Act (Tr at 187).

As noted above, the investor-owned utilities would prefer to treat net metering customers as Qualifying Facilities subject to the *Cogeneration Rules*, and in turn to establish the rate for all generation at the avoided cost rate. While this rate is still available, few customers appear to use it. However, due to Act 1781, net metering customers are instead eligible for net metering benefits, which are greater than avoided cost payments for this size of generators. The Commission agrees with Staff that the net metered kWh greater than zero should be billed to the customer at the otherwise applicable tariffed rate. The Commission will revisit this issue, if, at some point in the future, the number of net metering customers creates a materially significant problem for utilities.

**Credit Carry-Forward Allowance:** To expand the customer benefits associated with net metering, Mr. Ball and the AG support the carry-forward of the credit generated by the net metering customer, also known as "banking" the credit (Tr at 187). This occurs when a self-generating customer generates more electricity in a billing period than it consumes (i.e., net excess generation). When net excess generation occurs in a billing

period, the monthly meter-reading number during the current month is lower than the meter-reading number of the previous month. By banking the credit, the utility would not bill the customer for any kWh until the meter reading is greater than its highest previous reading. Without banking, net-metering begins anew with each billing period.

Mr. Ball further advocates the adoption of an "annual reset" which would clear any unused credits at year-end. (Tr at 23). Annual banking would benefit those renewable resources that have seasonality, or the ability to generate more electricity during one season than another. The AG prefers using banking on a billing month to billing month basis (Tr at 30). The Staff contends that net metering is intended to offset all or part of the customer's demand and not to provide a source of revenue to the customer or serve as utility capacity or as a utility energy resource (Tr at 163). Net excess generation is, in effect, to be donated. The donation accrues initially to the utility in the form of reduced energy production costs, but eventually to all ratepayers through the benefits identified in Act 1781. In opposing banking, Staff asserts that the Act limits the credit to the "applicable billing period" (Section 4(b)(1), and that General Service Rule 5.03. (A)(2), see Attachment 3, defines a billing period as 25 to 35 days in length. Therefore, the net metering starts over at the end of each billing period and any positive kWh are billed in the following month even if the meter reading still does not reach its previous higher reading.

However, if banking would cause more customers to begin self-generating electricity with renewables fuels, then banking should, perhaps, be reconsidered. If banking just provides more benefits to customers who would generate with renewables anyway, and not draw in more renewable generation, then banking should be rejected. The existing record

does not support a finding at this time that banking would advance the intent of the Act, therefore, the Commission will not authorize banking initially, but reserves the right to revisit this issue as an additional incentive if the benefits contemplated by the Act fail to materialize.

**Installation of a Redundant Lockable Switch:** Every utility asks, and Staff agrees in proposed Rule 3.01.B., that a redundant visible, manual, lockable disconnect switch be installed at each net metering facility, accessible by utility personnel, to prevent a net metering customer from back-feeding a de-energized line.<sup>1</sup> Mr. Ball asserts that net-metering inverter equipment<sup>2</sup> is designed to avoid back feeding and meets the Institute of Electrical and Electronics Engineers (“IEEE”) standards without a separate redundant switch. Entergy agrees that most of these systems recognize immediately when a power outage occurs on the utility side of the meter (Tr at 245). The AG also expresses some doubt as to the need for a redundant disconnect switch (Tr at 31).

With regard to the expense of installing the redundant utility accessible, lockable switch, it might be in the self-interest of the net metering customer to have such a disconnect switch to enable the continued self generation during utility outages, if the generating equipment will allow that. However, at this time the Commission accepts the position of Mr. Ball and the AG that a redundant switch is not necessary under certain

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<sup>1</sup> Utilities are used to thinking of power moving from their generators across transmission line segments and distribution line segments to reach the customer load in predictable and stable patterns. When a distribution line is loaded from a different direction than normal, it is often called “back-feeding.” A “de-energized” line is a distribution or transmission line segment that is switched open at both ends so that current does not flow.

<sup>2</sup> Many small generators produce electricity in direct current form, and an “inverter” will convert this form of energy to current that alternates polarity at the same frequency as the utility.

conditions. The first condition is that the inverter equipment must be designed to shut down or disconnect when utility voltage drops off and cannot be manually overridden by the customer. Second, the inverter must be warranted by the manufacturer to shut down or disconnect. Third, the inverter must be properly installed and operated, and inspected and/or tested by utility personnel.

**Indemnification and/or Insurance Requirements:** The proposed *Interconnection Agreement Terms and Conditions*, in Section 7, requires each party—the net metering customer and the interconnecting utility—to indemnify the other. AECC recommends that, as a matter of allocation of risk, net metering customers should be required to carry \$1 million of insurance coverage for their indemnification liabilities, with the utility named in the policy as the additional insured (Tr at 19). Entergy and AECC both state that \$1 million of insurance is the minimum that contractors working for the utility must carry (Tr at 73, 19). Mr. Ball asserts that it is unfair to require standard industry-levels of insurance or indemnification of homeowners operating small residential size systems (Tr at 27). The AG does not support the requirement of indemnification and contends that the cost of \$1 million insurance coverage will have a chilling effect on the development of renewables (Tr at 31). Staff responds that by requiring indemnification but not insurance, the Rules take a middle-of-the-road approach (Tr at 33).

No party indicated that damage to any utility electrical equipment from a 25 kW generator would likely occur (Tr at 239). Harm to linemen due to back-feeding of a de-energized line by a net metering facility was the one concern expressed that could justify the need for insurance. There are three possibilities that could give rise to non-utility power



feeding a de-energized line. One would be net-metered equipment failure, where the facility is designed to automatically shut off or disconnect when utility service is interrupted. Another would be failure of utility personnel to lock open the disconnect switch of a net metered facility. The third would occur when a customer who is not a net-metering customer but is a customer who connects a portable generator to a building wiring circuit during an outage. It seems that the risk of the latter occurrence would be much greater than the first two, given that the net metering customer has signed a contract regarding his potential liability and has had the facility inspected by utility personnel. Further, to ensure the safety of utility personnel, a net-metering customer's electric meter could always be removed by the lineman to prevent any potential backfeed during line repairs. The Commission finds Staff's position convincing, and, therefore, indemnity will be required but insurance will not.

**Natural Gas as an Eligible Fuel:** AWG argues that natural gas should be an eligible net metering fuel and, therefore, the distribution system benefits should recognize increased use of natural gas during off-peak periods. Such usage increases the gas utilities' load factor, which benefits all customers, according to AWG. Other benefits from net metering noted by AWG include avoided electric energy cost, decreased capacity cost and possibly avoided transmission and distribution investments (Tr at 20).

The Commission recognizes its authority under Section 4(b)(3) of the Act to expand both the types of eligible fuels and size of the projects and may do so under the appropriate circumstances in the future, whether in a rule-making proceeding or on a case-by-case basis. In the future, natural gas, for instance, might be considered eligible to advance

certain developing technologies, such as fuel cells, especially those using a reformer that sequesters carbon in solid form. Fuel cells may generally advance the move to improve fuel diversity by increasing the demand for hydrogen-based generation. The concerns AWG expresses go more to advancing the use of gas-fired distributed generation than promoting the use of renewable fuels, and should be raised in the future when the issue of distributed generation is properly before the Commission.

**Size Limits of Net Metering Facility:** AWG raises issues associated with using natural gas in 1 MW or larger units to better capture the benefits associated with the use of distributed generation (Tr at 21). AWG states that larger-sized generators are needed to achieve the benefits of distributed generation and that the use of natural gas could displace existing generation with higher air emissions.

The Commission agrees with AWG that larger sized distributed generation units would provide more visible benefits. The use of distributed generation appears likely to increase over time and may require additional and specific regulatory attention. However, in this docket the focus is on encouraging the use of renewable fuels through net metering. The present limits appear to be generously sized for many applications and so the Commission agrees with those as proposed by Staff. After some experience with the developing renewables performance and technologies, it may be appropriate to revisit the size limits if, by so doing, further development of renewable resources would occur.

**Public Education:** The issue of public education was not raised by the parties, but if net metering is to be used as a vehicle for promoting the use of renewable fuels, then there is a need for public awareness. The Commission therefore directs the utilities to work

with staff toward the objective of including a billing insert to residential, commercial and agricultural customers within 90 days of Commission approval of their compliance tariff filing, describing the availability of net-metering service to their customers.


Accordingly, the Commission hereby adopts Net Metering Rules as modified herein. Further, Staff is directed to prepare and file final Net Metering Rules consistent with this Order.

BY ORDER OF THE COMMISSION.

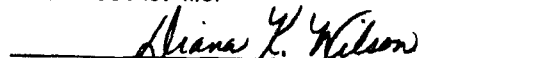
This 3<sup>rd</sup> day of July, 2002.



Diana K. Wilson  
Secretary of the Commission

  
Sandra L. Hochstetter, Chairman  
Betty C. Dickey, Commissioner  
Lavenski R. Smith, Commissioner

I hereby certify that the following order issued by the Arkansas Public Service Commission has been served on all parties of record this date by U.S. mail with postage prepaid, using the address of each party as indicated in the official docket file.

  
Diana K. Wilson

Secretary of the Commission

Date

7-3-2002

Stricken language would be deleted from and underlined language would be added to the law as it existed prior to this session of the General Assembly.

1 State of Arkansas  
2 83rd General Assembly  
3 Regular Session, 2001  
4

*As Engrossed: S4/9/01*

**A Bill**

Act 1781 of 2001  
HOUSE BILL 2325

5 By: Representatives Judy, Rodgers  
6 By: Senator Riggs  
7

**For An Act To Be Entitled**

8  
9  
10 THE ARKANSAS RENEWABLE ENERGY DEVELOPMENT ACT OF  
11 2001; AND FOR OTHER PURPOSES.  
12

**Subtitle**

13  
14 THE ARKANSAS RENEWABLE ENERGY  
15 DEVELOPMENT ACT OF 2001.  
16  
17

18 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF ARKANSAS:  
19

20 SECTION 1. This act shall be known and cited as the "Arkansas Renewable  
21 Energy Development Act of 2001".  
22

23 SECTION 2. (a) Net energy metering encourages the use of renewable  
24 energy resources and renewable energy technologies by reducing utility  
25 interconnection and administrative costs for small consumers of electricity.  
26 Over thirty (30) other states have passed similar laws or regulations in  
27 support of net energy metering programs. Increasing the consumption of  
28 renewable resources promotes the wise use of Arkansas' natural energy  
29 resources to meet a growing energy demand; increases Arkansas' use of  
30 indigenous energy fuels while reducing dependence on imported fossil fuels;  
31 fosters investments in emerging renewable technologies to stimulate economic  
32 development and job creation in the state including the agricultural sectors;  
33 reduces environmental stresses from energy production; and provides greater  
34 consumer choices.

35 (b) Arkansas has actively encouraged the manufacture of new  
36 technologies in the state through promotion of the Emerging Energy Technology

1 Development Act of 1999. Net-metering would help to further attract energy  
2 technology manufacturers, to provide a foothold for these technologies in the  
3 Arkansas economy, and to make it easier for customer access to these  
4 technologies.

5 (c) Therefore, the Arkansas General Assembly finds that it is in  
6 Arkansas' long-term interest to adopt The Arkansas Renewable Energy  
7 Development Act of 2001.

8  
9 SECTION 3. For the purposes of this act:

10 (1) "Commission" means the Arkansas Public Service Commission or other  
11 appropriate governing body for an electric utility as defined in subsection  
12 (b) of this;

13 (2) "Electric utility" means a public or investor-owned utility, an  
14 electric cooperative, municipal utility, or any private power supplier or  
15 marketer that is engaged in the business of supplying electric energy to the  
16 ultimate consumer or any customer classes within the state;

17 (3) "Net metering" means measuring the difference between electricity  
18 supplied by an electric utility and the electricity generated by a net-  
19 metering customer and fed back to the electric utility over the applicable  
20 billing period;

21 (4) "Net-metering customer" means an owner of a net metering facility;  
22 and

23 (5) "Net metering facility" means a facility for the production of  
24 electrical energy that:

25 (A) Uses solar, wind, hydroelectric, geothermal, or biomass  
26 resources to generate electricity including, but not limited to, fuel cells  
27 and micro turbines that generate electricity if the fuel source is entirely  
28 derived from renewable resources;

29 (B) Has a generating capacity of not more than twenty-five (25)  
30 kilowatts for residential or one hundred (100) kilowatts for commercial or  
31 agricultural use;

32 (C) Is located in Arkansas;

33 (D) Can operate in parallel with an electric utility's existing  
34 transmission and distribution facilities; and

35 (E) Is intended primarily to offset part or all of the net-  
36 metering customer requirements for electricity.

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SECTION 4. (a) 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.

(b) The commission, following notice and opportunity for public comment:

(1) Shall establish appropriate rates, terms and conditions for net-metering contracts, including a requirement that metering equipment 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;

(2) 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; and

(3) May expand the scope of net metering to include additional facilities that do not use a renewable energy resource for a fuel or may increase the peak limits for individual net-metering facilities, if so doing results in desirable distribution system, environmental or public policy benefit.

SECTION 5. This act shall become effective on October 1, 2001.

*/s/ Judy*

APPROVED: 4/19/2001

ATTACHMENT 2

Staff's Initial Reply Comments

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# ARKANSAS PUBLIC SERVICE COMMISSION



## NET METERING RULES

**NET METERING RULES**

**TABLE OF CONTENTS**

**DEFINITIONS** ..... D-1

**SECTION 1. GENERAL PROVISIONS**

1.01. Purpose ..... 1-1

1.02. Statutory Provisions ..... 1-1

1.03. Other Provisions ..... 1-1

**SECTION 2. NET METERING REQUIREMENTS**

2.01. Electric Utility Requirements ..... 2-1

2.02. Metering Requirements ..... 2-1

2.03. New or Additional Charges ..... 2-1

2.04. Billing for Net Metering ..... 2-1

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

3.01. Requirements for Initial Interconnection of a Net Metering Facility ..... 3-1

3.02. Requirements for Modifications or Changes to a Net Metering Facility ..... 3-2

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

4.01. Standard Interconnection Agreement and Standard Net Metering Tariff ..... 4-1

4.02. Filing and Reporting Requirements ..... 4-1

**Appendix A** ..... A-1

**Appendix B** ..... B-1



## 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 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 or one hundred (100) kilowatts for 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(B)(3).

**Parallel operation**

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

**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 ~~also including photovoltaic systems 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).
- B. These Rules are promulgated pursuant to the Commission's authority under Ark. Code Ann. §§23-2-301, 23-2-304 (3), 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 customer shall not receive any compensation from the utility for such net metering excess delivered kWhs during the billing period.

**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. A net metering facility shall have a visibly open, lockable, manual disconnect switch which is accessible by the electric utility and clearly labeled.
- 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 ~~applicable~~ 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 ~~all applicable~~ 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

**Staff's Initial Reply Comments**  
**Attachment 1**  
**Redlined Copy**

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.

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

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

\_\_\_\_\_  
Name of Company

Kind of Service: Electric Class of Service: \_\_\_\_\_

Part III. Rate Schedule No.: X \_\_\_\_\_

Title: **NET METERING**

PSC File Mark Only

1 **X. NET METERING**

2 **X.1. AVAILABILITY**

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

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

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

10 **X.2. MONTHLY BILLING**

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

14  
15 X.2.2. If the electricity supplied by the electric utility exceeds the electricity generated by the net metering customer  
16 and fed back to the electric utility during the billing period, the net metering customer shall be billed for the net  
17 billable kWhs supplied by the electric utility in accordance with the rates and charges under the Utility's  
18 standard rate schedule applicable to the customer.

19  
20 X.2.3. If the electricity generated by the net metering customer and fed back to the electric utility during the billing  
21 period exceeds the electricity supplied by the electric utility, the customer shall not receive any compensation  
22 from the utility for such net metering excess delivered kWhs during the billing period.

# ARKANSAS PUBLIC SERVICE COMMISSION



## GENERAL SERVICE RULES

*Revised 2002*

- (4) Customer or minimum charges;
  - (5) Taxes, listed by kind;
  - (6) Charges for other utility service;
  - (7) Charges for non-utility merchandise, service, or equipment;
- J. If a utility estimates usage, this fact shall be clearly shown on the bill;
- K. If a utility uses industry-specific abbreviations for terms that explain the billing, it shall identify them on the bill;
- L. A statement that the customer may contact the utility about any problem with billing or service, or for a delayed payment agreement. The statement shall include an address and a telephone number where customers can call the utility without charge.

**Rule 5.02. Bill Form - Submission Requirements**

A current copy of the form to be used for billing and any revisions to that form shall be provided to the Commission's Consumer Services Office.

**Rule 5.03. Billing Periods and Standards**

- A. (1) Utilities shall bill customers regularly.
- (2) The billing period shall be no less than 25 days and no more than 35 days unless it is the first or final bill.
- B. Utilities shall bill customers within 30 days after a meter reading.
- C. If a utility changes a meter reading route or schedule which results in an alteration of a billing cycle of more than 5 days, it shall notify affected customers 30 days before the change in the billing cycle. A utility may notify affected customers by bill insert with the bill preceding the change.

- D. If payment is initially made at a business office, billing records shall show the date payment is received. If payment is initially made to an authorized payment agent before the utility's close of business on the due date, billing records may show the date the payment was posted as long as the account record shows that the payment was not late.
- E. If a utility discovers a billing error, it shall promptly notify customers who may be affected.

**Rule 5.04. Mailing Date**

Utilities shall not mail bills later than the mailing date printed on the bill.

**Rule 5.05. Due Dates**

- A. If no late charge is imposed, the due date of a bill shall not be less than 14 calendar days after the date a bill is mailed.
- B. If a utility imposes a late payment charge, the due date of the bill shall not be less than 22 calendar days after the date the bill is mailed.

**Rule 5.06. Late Payment**

- A. Payment may be considered late if the utility or its authorized agent for payment gets the payment after the utility's close of business on the due date on the bill.
- B. If the utility is not open on the due date, customers may pay by the utility's close of business on the next day the utility's business offices are open, without being late.
- C. Payment shall be considered late if a check is postdated beyond the due date or returned unpaid for reasons other than bank error.
- D. If a bank error causes a late payment, the utility shall correct its records to show that the customer paid the bill on time.