



Net-Metering Highlights

For residential customers

May 17, 2023, revision

1. Dual Meter Base Required, existing meter base to be replaced.
2. All solar panel generation will be metered separately.
3. All Solar generation will be credited at PMU's current Avoided Cost (\$0.03445/kWh)*.
4. Customer actual usage will be billed at PMU's current rate schedule, including PCA.
5. Appendix – A and B are required to be filled out and signed by the customer.
6. After installation plan approval by PMU, See City Hall for required permits.
7. PMU total Net-Metering fee is \$542 for residential installations.

Mail check to

Attention: Kim Campbell, Solar Desk
Paragould Municipal Utilities
PO Box 9
Paragould, AR 72451

* Avoided cost for 2024, Changes on January 31st every year based on the previous year's average cost.



PARAGOULD
MUNICIPAL UTILITIES

Net-Metering and Distributed Generation Rules

Revised: May 17, 2023

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INTRODUCTION

These Net-Metering and Distributed Generation Rules (“Rules”) are intended to assist customers who desire to construct their own renewable energy facilities while protecting customers who wish to avoid cost increases that may result from renewable energy subsidies. In addition to balancing affordability and renewable energy, these Rules support and reaffirm the longstanding commitment of the City of Paragould and PMU to the safe and reliable operation of our local electric distribution system.

These Rules were prompted by changes in net-metering laws applicable to all utilities in Arkansas. In many ways, they are similar to regulations approved by the Arkansas Public Service Commission (“APSC”) after extensive public hearings and argument. While the APSC lacks jurisdiction over PMU, many of the arguments that were raised during hearings before the APSC were considered in the development of these Rules.

SECTION 1. GENERAL PROVISIONS

Rule 1.01 **Definitions**

The following definitions shall apply throughout these Rules except as otherwise required by the context, and any references to these Rules shall include these definitions:

A. *Accumulated Net Excess Generation* means any Net Excess Generation Credits generated during the same calendar year as the applicable billing period that have not been credited to the Net-Metering Customer's Account associated with the Net-Metering Facility that generated the Net Excess Generation Credits.

B. *Annual Billing Cycle* means the normal annual fiscal accounting period used by PMU which begins on January 1st and ends on December 31st each year.

C. *Avoided Cost* has the meaning assigned in Rule 1.05.

D. *Billing Period* means, for net-metering purposes, the same billing period under the customer's applicable standard rate schedule.

E. *Biomass Resource* means a resource 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.

F. *Council* means the Paragould City Council.

G. *Distributed Generation Facility* means the real and personal property comprising an electric generation resource that:

1. 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;
2. Does not qualify for Net-Metering;
3. Will not generate more energy (kWh) than is consumed by the Distributed Generation Customer during an annual fiscal cycle;
4. Is located in the PMU service territory;
5. Can operate in parallel with PMU's existing transmission and distribution facilities; and
6. Is primarily intended to advance the Distributed Generation Customer's renewable energy goals and offset the Distributed Generation Customer's cost of electricity.

- H. *Distributed Generation Customer* means the owner of a Distributed Generation Facility.
- I. *Fuel Cell Resource* means a resource that converts the chemical energy of a fuel directly to direct current electricity without intermediate combustion or thermal cycles.
- J. *Geothermal Resource* means a resource in which the prime mover is a steam turbine. The steam is generated in the earth by heat from the earth's magma.
- K. *Hydroelectric Resource* means a resource in which the prime mover is a water wheel. The water wheel is driven by falling water.
- L. *Illegal Facility* means any generating facility that is connected to the PMU distribution system without a permit or proper authority.
- M. *Interconnecting Customer* means either a Net Metering Customer or a Distributed Generation Customer.
- N. *Interconnecting Facility* means either a Net-Metering Facility or a Distributed Generation Facility.
- O. *Micro Turbine Resource* means a resource that uses a small combustion turbine to produce electricity.
- P. *Monthly Grid Charge* means a charge expressed in dollars per kilowatt (kW) applied to the nameplate or measured alternating current (AC) capacity of the net-metering facility.
- Q. *Net Excess Generation Credits* means the dollar value of electricity (kWh) generated by Net-Metering Customer's Net-Metering Facility and provided to PMU during an applicable billing cycle that exceeds the dollar value of the electricity (kWh) consumed by the Net-Metering Customer where the Net-Metering Facility is located..
- R. *Net-Metering* means a billing option that measures the amount of electricity as measured in kilowatt hours supplied by PMU to a Net-Metering Customer and separately measuring the electricity as measured in kilowatt hours generated by a Net-Metering Customer's Net-Metering Facility and fed back to PMU.
- S. *Net-Metering Customer* means an owner, lessee or service contract recipient of a Net-Metering Facility, as defined by Ark. Code Ann. § 23-18-603(9), except a customer that takes service under a PMU rate schedule for interruptible service.
- T. *Net-Metering Facility* means a facility for the production of electric energy to meet all or part of a Net-Metering Customer's need for electric energy within PMU's service territory that:
1. 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;
 2. Has a generating capacity of not more than:

- a. For residential use, the lesser of: (i) twenty-five kilowatts alternating current (25 kW (AC)); or (ii) the capacity that will produce no more than 100% of the energy needed by the Net-Metering Customer during a calendar year; or
 - b. For non-residential use, the lesser of: (i) three hundred kilowatts alternating current (300 kW (AC)); (ii) the capacity that is calculated to produce no more than 100% of the energy (kWh) needed by the Net-Metering Customer during a calendar year; or (iii) the average peak demand (kW) during any billing cycle in the year prior to installation.
3. Is located at a Net-Metering Customer’s service location within the PMU service territory;
 4. Is capable of safely operating in parallel with PMU’s existing distribution facilities;
 5. Is primarily intended to advance the Net-Metering Customer’s renewable energy goals and offset the Net-Metering Customer’s requirements for electricity; and
 6. May include an energy storage device that is configured to receive electric energy solely from a facility meeting the requirements of subsections 1 through 5, above.

U. *Parallel Operation* means the operation of on-site generation by a customer while the customer is connected to PMU’s distribution system.

V. *PMU* means the Paragould Municipal Utilities Commission d/b/a Paragould Municipal Utilities.

W. *Renewable Energy Credit* means 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.

X. *Residential Use* means service provided under PMU’s standard rate schedules applicable to residential service.

Y. *Solar Resource* means a resource in which electricity is generated through the collection, transfer and/or storage of the sun's heat or light.

Z. *Wind Resource* means a resource in which an electric generator is powered by a wind-driven turbine.

Rule 1.02 Purpose

The purposes of these Net-Metering Rules (“Rules”) are to regulate the interconnection, metering, and financial consideration given to Interconnecting Facilities by PMU.

Rule 1.03 Statutory Provisions

A. These Rules are developed pursuant to the Cost-Shifting Prevention Act of 2023 (Ark. Code Ann. § 23-18-601, et seq., as amended.)

B. These Rules are promulgated pursuant to the Council’s authority under Ark. Code Ann. §§ 14-54-701, et seq., 14-200-112, and 14-201-201, et seq., as delegated to PMU.

C. Nothing in these Rules shall govern, limit, or restrict the authority of the Council or PMU under Ark. Code Ann. § 23-18-601, et seq., or any other provision of law.

Rule 1.04 Other Provisions

A. These Net-Metering Rules apply to PMU and customers of PMU.

B. These Net-Metering Rules are not intended to, and do not affect or replace any general service regulation, policy, procedure, rule, or service application which addresses items other than those covered in these Rules.

C. These Net-Metering Rules do not apply to requests to interconnect generating facilities pursuant to the Public Utility Regulatory Policies Act of 1978 ("PURPA") and the rules and regulations of the Federal Energy Regulatory Commission.

Rule 1.05 Avoided Cost

PMU will periodically determine and establish its Avoided Cost giving due consideration to the cost of (i) energy, (ii) capacity, (iii) delivery of energy and capacity, (iv) line losses and other inefficiencies, (v) administrative and ancillary expenses, or (vi) any combination thereof. The methodology used to determine Avoided Cost may change from time to time based on regulatory changes, public policy, or the needs of PMU, as allowed by law.

Rule 1.06 Illegal Facilities

In addition to all other remedies available, PMU may completely disconnect (load and generation) any person or customer who owns, operates, maintains, or connects an Illegal Facility and keep them disconnected until:

1. The Illegal Facility has been dismantled or a proper application for connection has been submitted to PMU; and
2. The customer has paid a reconnection fee of two hundred fifty dollars (\$250.00) per location disconnected pursuant to this Rule 1.06.

Rule 1.07 Grandfathering

A. Any customer who submitted a signed Standard Interconnection Agreement (Rule 4.02B) before to June 15, 2022 and properly interconnects a Net Metering Facility before December 31, 2022 may continue to operate under the rules that were effective at the time of installation for twenty (20) years following the installation of the Net Metering Facility or ten (10) years following the adoption of these Rules, whichever ends soonest.

B. The grandfathering provision found in Rule 1.07A shall constitute an affirmative defense to any enforcement action under these Rules.

Rule 1.08 Monthly Grid Charge

As needed, PMU will calculate a Monthly Grid Charge expressed in dollars per kilowatt (kW) to be applied to the nameplate or measured alternating current (AC) capacity of a Net-Metering Facility under Rule 2.05.A(2)(b). The Monthly Grid Charge will be calculated as follows:

$$\text{Monthly Grid Charge} = (8760 \text{ hours} \times \text{Capacity Factor} \times (\text{Retail Rate} - \text{Avoided Cost})) \div 12$$

Where:

Capacity Factor = The capacity factor of the Net Metering Facility as shown on the Standard Interconnection Agreement or measured by PMU.

Retail Rate = The rate charged to the Net-Metering Customer for energy (kWh)

Avoided Cost = See Rule 1.05

SECTION 2. NET-METERING REQUIREMENTS

Rule 2.01 PMU Requirements

A. PMU shall allow Net-Metering Facilities to be interconnected. PMU will perform such interconnection using two (2) meters that separately measure electric consumption and generation.

Rule 2.02 Metering Requirements

A. Metering equipment shall be installed to accurately measure electricity supplied by PMU to each Net-Metering Customer and the electricity generated by each Net-Metering Customer that is fed back to PMU over the applicable Billing Period. The Net-Metering Customer is responsible for the cost of the additional meter used to measure generation. If nonstandard metering equipment is required, the Net-Metering Customer is responsible for the cost differential between the required metering equipment and PMU’s standard metering equipment for the Net-Metering Customer’s current rate schedule.

B. Accuracy requirements shall be the same as those applied to other PMU meters. A test to determine compliance with this accuracy requirement may be made either before or at the time the Net-Metering Facility is placed in operation. Additional tests may thereafter be conducted as may be reasonably necessary or advisable to verify meter accuracy.

Rule 2.03 New or Additional Charges

Any new or additional rate, charge, or fee imposed on Net Metering Customers, other than those described in these Rules, shall be approved by PMU with notice provided to affected customers. No rate, charge, or fee shall reduce the value of electric energy from a Net-Metering Facility below the Avoided Cost rate.

Rule 2.04 Net-Metering Application

A. A customer may file an application with PMU to install a Net-Metering Facility that complies with the requirements for a Net-Metering Facility described in Rule 1.01.T, except that a customer that takes service under a PMU rate schedule for interruptible service may not submit an application to install a Net-Metering Facility.

B. The application shall be submitted on PMU’s forms and shall, at a minimum, include:

1. A description of the proposed Net-Metering Facility including:
 - a. Project narrative and construction plans;
 - b. Project location (street address);
 - c. Generator type (wind, solar, hydro, etc.);
 - d. Generator capacity rating in kW (AC);
 - e. Capacity factor;
 - f. Point of interconnection with PMU;
 - g. Single Phase or Three Phase interconnection;
 - h. Planned method of interconnection; and
 - i. Expected facility performance calculated using an industry recognized simulation model (PVWatts, etc.).
2. The capacity factor submitted under Rule 2.04B(1)(e) must be supported by manufacturer data unless presumed valid. Capacity factors of solar arrays that are within the parameters shown below will be presumed valid:
 - a. Fixed-tilt: 15% - 19%
 - b. Single-axis tilt: 18% - 22%
 - c. Dual-axis tilt: 20% - 24%
3. Evidence that the Net-Metering Facility will comply with capacity restrictions described in Rule 1.01T(2).
4. If applicable, a copy of the Preliminary Interconnection Review Request (see Rule 4.01), with applicable fees, submitted to PMU and the results of PMU's interconnection site review.

Rule 2.05 Billing for Net-Metering

A. On a monthly basis, PMU will bill each Net-Metering Customer according to the currently effective standard rate schedule and any appropriate rider schedules applicable to the Net-Metering Customer. The value of the energy (kWh) generated by a Net-Metering Facility will only be credited against the energy charges incurred by the Net-Metering Customer at or adjacent to the Net-Metering Facility. For clarity, demand charges, service charges, and other charges that are not calculated based upon current kWh consumption will not be reduced by Net Metering. Power cost adjustments that reflect variations in the market price of power from one month to the next may be reduced by Net Metering; however, power cost adjustments intended to offset broad system costs, including power costs incurred during the 2021 winter storm, will not be reduced by Net Metering.

1. *Residential and Non-demand billed Customers.* PMU will credit at PMU's Avoided Cost rate the value of all electricity generated by a residential or non-demand billed Net-Metering Customer's Net-Metering Facility and fed back to PMU. If the amount of credit exceeds the customer's energy charges during the applicable Billing Period, PMU will apply the Accumulated Net Excess Generation Credit in the next Billing Period, subject to the limitation found in Rule 2.05B.

2. *Demand-billed Customers.* Customers whose bill includes a demand charge may elect one of the following billing options:

a. Avoided Cost Credit. Demand-billed Customers may elect to receive credit from PMU at PMU's Avoided Cost rate for the value of all electricity generated by the Net-Metering Customer's Net-Metering Facility and fed back to PMU. If the amount of credit exceeds the customer's energy charges during the applicable Billing Period, PMU will apply the Accumulated Net Excess Generation Credit in the next Billing Period, subject to the limitation found in Rule 2.05B.

b. Monthly Grid Charge. Demand-billed Customers may elect to receive: (i) a Monthly Grid Charge from PMU; and (ii) credit from PMU at PMU's currently effective rate schedule for the demand-billed Customer for the value of all electricity generated by the Net-Metering Customer's Net-Metering Facility and fed back to PMU. If the amount of credit exceeds the customer's energy charges during the applicable Billing Period, PMU will apply the Accumulated Net Excess Generation Credit in the next Billing Period, subject to the limitation found in Rule 2.05B.

B. On January 31st of each year, Net Excess Generation Credits earned during the previous calendar year and remaining in a Net-Metering Customer's account shall expire.

C. Net-Excess Generation Credits are not transferable.

Rule 2.06 Renewable Energy Credits

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 Energy Credit.

Rule 2.07 Generation above Net Metering Limits

Net-Metering is prohibited for any facility with an electric generating capacity that is greater than the limits identified in Rule 1.01S(2). PMU shall not credit any customer for electricity generated by capacity that exceeds authorized limits.

Rule 2.08 Use of Distribution System

PMU is not required to interconnect any Net-Metering Facility that is not collocated with a Net-Metering Customer's load. Any Net-Metering Customer that is allowed to interconnect a Net-Metering Facility that is not collocated with the Net-Metering Customer's load must pay such charges as may be assessed by PMU for wheeling power across the distribution system.

SECTION 3. DISTRIBUTED GENERATION REQUIREMENTS

Rule 3.01 Permission to Interconnect

PMU may allow Distributed Generation Facilities to be interconnected using separate meters for load and generation. PMU will not allow a Distributed Generation Facility to be interconnected using a meter that measures both electric consumption and generation. PMU will not allow a Distributed Generation Facility to be interconnected that will jeopardize reliability of the distribution system, back feed electricity on the bulk electric system, or otherwise affect the rights and obligations of other customers of PMU.

Rule 3.02 Metering Requirements

A. Metering equipment shall be installed to both accurately measure the electricity supplied by PMU to each Distributed Generation Customer and the electricity generated by each Distributed Generation Customer that is fed to PMU. The customer is responsible for the cost of the additional meter used to measure generation, as well as any nonstandard metering configurations.

B. Metering equipment will be verified for accuracy prior to installation according to PMU's normal accuracy verification procedures. A test to determine compliance with this accuracy requirement shall be made either before or at the time the Distributed Generation Facility is placed in operation. Additional tests may thereafter be conducted as may be reasonably necessary or advisable to verify meter accuracy.

Rule 3.03 Distributed Generation Application

A. A customer may file an application with PMU to install a Distributed Generation Facility so long as the proposed Distributed Generation Facility will not generate more electricity (kWh) than is consumed by the Distributed Generation Customer during any Billing Period.

B. The application shall, at a minimum, include:

1. A description of the proposed Distributed Generation Facility including:
 - a. Project narrative and construction plan;
 - b. Project location (street address);
 - c. Generator type (wind, solar, hydro, etc.);
 - d. Generator rating in kW (DC or AC);
 - e. Capacity factor;
 - f. Point of interconnection with PMU;
 - g. Single Phase or Three Phase interconnection;
 - h. Planned method of interconnection consistent with Rule 4.01.B.;

- i. Expected facility performance calculated using an industry recognized simulation model (PVWatts, etc.);
 2. The capacity factor submitted under Rule 3.03B(1)(e) must be supported by manufacturer data unless presumed valid. Capacity factors of solar arrays that are within the parameters shown below will be presumed valid:
 - a. Fixed-tilt: 15% - 19%
 - b. Single-axis tilt: 18% - 22%
 - c. Dual-axis tilt: 20% - 24%
 3. Evidence that the Distributed Generation Facility will comply with capacity restrictions described in Rule 3.03A. Evidence will be in the form of:
 - a. The monthly electric bills for the 12 months prior to filing the Distributed Generation application, or
 - b. In the absence of historical data, reasonable estimates for the class and character of service may be made.
2. If applicable, a copy of the Preliminary Interconnection Review Request, with applicable fees, submitted to PMU and the results of PMU's interconnection site review.

Rule 3.04 Billing for Distributed Generation

A. On a monthly basis, PMU shall bill each Distributed Generation Customer for all charges applicable under the currently effective standard rate schedule and any appropriate rider schedules.

B. On a monthly basis, PMU shall credit at PMU's Avoided Cost rate, all kWhs supplied to PMU by a Distributed Generation Customer, provided that PMU shall not, during any Billing Period, provide credit for energy generated that exceeds the energy that was consumed by the Distributed Generation Customer.

C. PMU shall not provide generation credit to any Distributed Generation Customer with a delinquent account or that ceases to consume electricity.

Rule 3.05 Use of Distribution System

Distributed Generation Facilities must typically be collocated with a Distribution Generation Customer's load within the service territory of PMU. Customers that own Distributed Generation Facilities that are not collocated with the customer's load must pay applicable costs as may be assigned by PMU for wheeling power across the PMU distribution system.

Rule 3.06 Renewable Energy Credits

Any Renewable Energy Credit created as a result of electricity supplied by a Distributed Generation Customer is the property of the Distributed Generation Customer that generated the Renewable Energy Credit.

SECTION 4. INTERCONNECTION OF FACILITIES TO THE PMU DISTRIBUTION SYSTEM

Rule 4.01 Requirements for Preliminary Interconnection Review Request

A. An Interconnecting Customer may execute a Preliminary Interconnection Review Request (Appendix A) and pay the designated application fee at least sixty (60) days prior to the date the customer intends to commence construction of the Interconnecting Facilities, and construction shall not commence until approved. The customer shall submit a separate Preliminary Interconnection Review Request for each point of interconnection if information about multiple points of interconnection is requested. Part A, Standard Information, Sections 1 through 3 of the Preliminary Interconnection Review Request must be completed for the notification to be valid. If mailed, the date of notification shall be the third day following the mailing of the Preliminary Interconnection Review Request. PMU shall provide a copy of the Preliminary Interconnection Review Request to the customer upon request.

B. Any costs incurred by PMU in reviewing a Preliminary Interconnection Review Request must be paid by the customer requesting the review. PMU may require customers to pay the estimated cost of review in advance.

C. Following notification by the customer as specified in Rule 4.01.A., PMU will seek to review the plans of the facility interconnection and provide the results of its review to the customer, in writing, within 30 calendar days. If the customer requests that multiple interconnection site reviews be conducted PMU shall make reasonable efforts to provide the customer with the results of the review within 30 calendar days. Any items that would prevent Parallel Operation due to violation of safety standards and/or power generation limits will be identified. PMU will identify distribution system upgrades, if any, that are necessary to interconnect the proposed system. PMU will respond to the Preliminary Interconnection Review Request with: (1) approval subject to these Rules; (2) approval subject to these Rules and additional conditions, such as payment of distribution system upgrades; or (3) denial.

D. Approval of a preliminary interconnection review is valid for one calendar year. Approval does not relieve a customer from other regulations governing permitting, construction, operation, lawful uses of property, and the like. Preliminary interconnection review is only performed on existing data and does not require PMU to conduct a study or other analysis of the proposed interconnection site in the event that data is not readily available. Additional data or changes in data may invalidate approval of a preliminary interconnection review.

E. The preliminary interconnection review does not relieve the customer of the requirement to execute a Standard Interconnection Agreement prior to interconnection of the facility or to pay the costs associated with required distribution system upgrades in advance.

F. The Interconnecting Facility, at the Interconnecting Customer's expense, shall meet all safety and performance standards adopted by PMU and pursuant to these Rules that are necessary to ensure safe and reliable operation of the Interconnecting Facility in parallel with PMU's system. This includes but is not limited to the satisfactory completion of the annual inspection and filing of that inspection with PMU.

Rule 4.02 Requirements for Initial Interconnection

A. An Interconnecting Facility shall be capable of operating in parallel and safely commencing the delivery of power to the PMU distribution system at the designated point of interconnection. To prevent an Interconnecting Customer from back-feeding a de-energized line, each Interconnecting Facility shall have:

1. An automatic switching scheme as described in IEEE 1547 that senses when a loss of power from PMU has occurred and immediately disconnects the Interconnecting Facility from PMU's electric distribution system until PMU has restored power; and
2. A visibly open, lockable, manual disconnect switch which is clearly labeled and accessible by PMU at all hours.

B. The customer shall submit a Standard Interconnection Agreement (Appendix B) to PMU at least sixty (60) days prior to the date the customer intends to interconnect the Interconnecting Facilities to the PMU Distribution System. Part A, Standard Information, Sections 1 through 3 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. PMU shall provide a copy of the Standard Interconnection Agreement to the customer upon request.

C. Any costs incurred by PMU in reviewing a Standard Interconnection Agreement must be paid by the customer submitting the Standard Interconnection Agreement. PMU may require customers to pay the estimated cost of review in advance.

D. Following notification by the customer as specified in Rule 4.02.B., PMU will seek to review the plans of the facility and provide the results of its review to the customer, in writing, 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. If the customer has not previously submitted a Preliminary Interconnection Review Request, PMU shall be afforded an additional forty-five (45) days to perform necessary reviews.

E. The Interconnecting Facility, at the Interconnecting 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), and shall be inspected annually by the customer's professional installer, or other qualified person.

F. The Interconnecting Facility, at the Interconnecting Customer's expense, shall meet all safety and performance standards adopted by PMU and pursuant to these Rules that are necessary to assure safe and reliable operation of the Interconnecting Facility when operating in parallel with PMU's system. This includes but is not limited to the satisfactory completion of the annual inspection and filing of that inspection with PMU.

G. If PMU's existing distribution facilities are not adequate for interconnection, the Interconnecting Customer shall pay the cost to improve and/or modify PMU's electric distribution

facilities prior to the improvement and/or modification of PMU's electric distribution facilities. No Interconnecting Facility shall be connected to the PMU electric distribution system unless and until any necessary improvements or modifications to the PMU electric distribution system have been made.

H. The Interconnecting Customer shall execute a Standard Interconnection Agreement (Appendix B) and pay the designated interconnection fee prior to connecting to the PMU Distribution System.

Rule 4.03 Requirements for Commissioning Test and Report.

A. A commissioning test and report shall be performed by the installation contractor of the Interconnecting Facility. The tests described in this Rule 4.03 must be documented and performed by using written test procedures established by the manufacturer(s) of the interconnecting equipment. At a minimum the following tests and their results must be documented in a report and submitted to PMU prior to PMU final inspection.

1. *Visual Inspection.* A visual inspection shall be made to ensure that the grounding scheme of the interconnection shall not cause overvoltages that exceed the rating of the equipment connected to PMU's distribution system and shall not disrupt the coordination of the ground fault protection on PMU's Distribution System. The visual inspection must confirm the presence of the isolation devices described in 4.02 A.

2. *Performance Tests.* The following commissioning tests shall be performed on the installed Interconnecting Facility and interconnection system equipment prior to the initial parallel operation of the Interconnecting Facility. The following are required:

- a. Operability test on the isolation device mentioned in 4.02A.
- b. Unintentional islanding functionality as specified in IEEE 1547 Clause 5.4.1.
- c. Cease to energize functionality as specified in IEEE 1547 Clause 5.4.2.
- d. Any tests of IEEE 1547 Section 5.1 that have not been previously performed on a representative sample and formally documented. These are tests that should be completed by the manufacturer of the Interconnecting Facility equipment and submitted as part of the report for the Commissioning test to PMU. For reference these include Clauses 5.1.1 thru 5.1.6 in the IEEE Standard 1547:
 - (i) Response to abnormal voltage and frequency;
 - (ii) Synchronization;
 - (iii) Interconnect Integrity test;
 - (iv) Unintentional islanding;
 - (v) Limitation of DC injection; and
 - (vi) Harmonics.
- e. Any tests of IEEE 1547 Section 5.2 that have not been previously performed on the interconnection systems. These tests are the same response to abnormal voltage and frequency and synchronization tests listed previously covered in IEEE Standard 1547 Clause 5.1.1 and 5.1.2.

Rule 4.04 Requirements for Modifications or Changes to an Interconnecting Facility

A. Prior to being made, the Interconnecting Customer shall notify PMU of, and PMU shall evaluate, any modifications or changes to the Interconnecting Facility described in Part A, Standard Information, Section 2 of the Standard Interconnection Agreement. The notice provided by the Interconnecting Customer shall provide detailed information describing the modifications or changes to PMU in writing, including a revised Standard Interconnection Agreement that clearly identifies the changes to be made. PMU will seek to review the proposed changes to the facility and provide the results of its evaluation to the customer, in writing, 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 identified.

B. If the Interconnecting Customer makes modification or changes to the Interconnecting Facility without PMU's prior written authorization and the execution of a new Standard Interconnection Agreement, PMU shall have the right to suspend service due to unsafe conditions until resolved.

C. Interconnecting Customers may be required to make modifications or changes to the Interconnecting Facility at any time when such modifications or changes are necessary to prevent serious harm to persons or property. Such modifications or changes shall be performed within thirty (30) days of notice by PMU at the expense of the Interconnecting Customer, or sooner when the threat of harm is imminent.

Rule 4.05 Requirements for Periodic testing.

The customer shall complete a visual inspection of the Interconnecting Facility and conduct a Cease to Energize functionality test every year on or before the anniversary of the Interconnecting Facility's initial approval by PMU. The customer shall also perform any other periodic tests as recommended by the manufacturer(s) of the Interconnecting equipment. The customer shall have these tests performed by a qualified person, keep a log of the inspection and the results, and submit this log to PMU upon completion every year. PMU may elect to witness these tests at its own discretion to ensure that the tests are being completed. PMU may perform an inspection or test of any Interconnecting Facility at intervals of no less than three (3) years, or upon the reasonable belief of a safety or operational risk, at the expense of the Interconnecting Facility Owner.

SECTION 5. ADMINISTRATIVE IMPLEMENTATION

Rule 5.01 Standard Interconnection Agreement and Preliminary Interconnection Site Review Request

Typical standard agreements used by PMU for interconnection are attached as annexes to these Rules as the Preliminary Interconnection Site Review Request (Appendix A) and the Standard Interconnection Agreement (Appendix B). The PMU General Manager may administratively update or improve these forms from time-to-time, in a manner consistent with this regulation.

Rule 5.02 Filing and Reporting Requirements

The PMU General Manager shall periodically report the number of facilities interconnected with the PMU distribution system.

Rule 5.03 Customer Notifications of Consumer Protection Laws.

The PMU General Manager will establish processes to provide customers general information about consumer protection laws related to net metering.

PRELIMINARY INTERCONNECTION REVIEW REQUEST

A. Standard Information

1. Customer Information:

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____ Email: _____

Project Manager/Contractor: _____

Phone Number: _____ Email: _____

2. Generation Facility Information:

Location (if different from above): _____

System Type (select one): Solar Other: _____

Generator Type: Single Phase -or- Three Phase

Report data below in Alternating Current (AC).

Expected Generator Power Rating (kW): _____

Expected Annual Energy Production (kWh): _____

NOTICE: AN ADDITIONAL METER IS REQUIRED FOR INTERCONNECTION.

3. Interconnection Information

Attach a detailed electrical diagram showing the configuration of all generating facility equipment, including protection and control schemes.

Requested Point of Interconnection: _____

Customer-Site Load (kW) at Interconnecting Facility location (if none, so state): _____

Interconnection Request: Single Phase -or- Three Phase

NOTICE

PMU PROHIBITS CUSTOMERS FROM CONSTRUCTING NET-METERING GENERATION FACILITIES THAT HAVE A GENERATING CAPACITY (KW) THAT IS GREATER THAN THE ASSOCIATED CUSTOMER'S AVERAGE MONTHLY PEAK ELECTRICAL DEMAND FOR THE PREVIOUS YEAR OR THAT WILL PRODUCE MORE ENERGY (KWH) THAN THE CUSTOMER WILL CONSUME. EXCESS GENERATION MAY BE CARRIED FORWARD BUT WILL EXPIRE AS DESCRIBED IN THESE RULES. PMU WILL NOT PURCHASE EXCESS GENERATION CREDITS.

B. Preliminary Interconnection Terms & Conditions

1. *Requirements for Request.* For the purpose of requesting that PMU conduct a preliminary interconnection site review for a proposed Interconnecting Facility, or as otherwise requested by the customer, the customer shall notify PMU by submitting a completed Preliminary Interconnection Site Review Request. The customer shall submit a separate Preliminary Interconnection Site Review Request for each point of interconnection if information about multiple points of interconnection is requested. Part A, Standard Information, Sections 1 through 3 of the Preliminary Interconnection Site Review Request must be completed for the notification to be valid. If mailed, the date of notification shall be the third day following the mailing of the Preliminary Interconnection Site Review Request. PMU shall provide a copy of the Preliminary Interconnection Site Review Request to the customer upon request.

2. *Review by PMU.* Following submission of the Preliminary Interconnection Site Review Request by the customer, PMU will seek to review the plans of the facility interconnection and provide the results of its review to the customer, in writing, within 30 calendar days. If the customer requests that multiple interconnection site reviews be conducted PMU will make reasonable efforts to provide the customer with the results of the review within a timely fashion. If PMU cannot provide results within 90 days, PMU will provide the customer with an estimated date by which it will complete the review. 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.

3. *Fee.* Any person submitting a preliminary interconnection site review shall pay a fee equal to the amount shown on Appendix C.

4. *Nonbinding Report.* The preliminary interconnection site review is non-binding and need only include existing data and does not require PMU to conduct a study or other analysis of the proposed interconnection site in the event that data is not readily available. PMU shall notify the customer if additional site screening may be required prior to interconnection of the facility.

5. *Standard Interconnection Agreement.* The preliminary interconnection site review does not relieve the customer of the requirement to execute a Standard Interconnection Agreement prior to interconnection of the facility.

I hereby certify that, to the best of my knowledge, all of the information provided in this Preliminary Interconnection Site Review is true and correct and that I am authorized to execute this document on behalf of the Customer identified in Part A, Section 1.

CUSTOMER

Signature: _____

Printed Name: _____

Date: _____

| | |
|--------------------------------|--|
| <u>FOR PMU USE ONLY</u> | |
| <input type="checkbox"/> | APPROVED, subject to rule compliance |
| <input type="checkbox"/> | APPROVED subject to rule compliance and attached conditions |
| <input type="checkbox"/> | DISAPPROVED |
| Upgrade Cost: \$ _____ | |
| Signature _____ | |
| Name: _____ | |
| Date: _____ | |

STANDARD INTERCONNECTION AGREEMENT

A. Standard Information

1. Customer Information:

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____ Email: _____

Electric Account Number to which the Interconnecting Facility is associated: _____

2. Generation Facility Information:

Location (if different from above): _____

System Type (select one): Solar Other: _____

Generation Type: Single Phase -or- Three Phase

Report data below in Alternating Current (AC).

Generation Power Rating (kW): _____ Capacity Factor: _____

Inverter Manufacturer: _____ Inverter Model: _____

Inverter Power Rating (kW) _____

Inverter Location: _____

Manual Disconnect Location: _____

NOTICE: AN ADDITIONAL METER IS REQUIRED FOR INTERCONNECTION.

Attach a detailed electrical diagram of the Interconnecting Facility

3. Installation Information

Electrical Contractor: _____ License Number: _____

Installed by: _____ Qualifications/Credentials: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____ Email: _____

4. Certification & Approval

This system has been installed in compliance with the local Building/Electrical Code of the City of Paragould, Arkansas.

Inspector Signature: _____ Date: _____

(In lieu of signature of inspector, a copy of the final inspection certificate may be attached)

Facility Interconnection Approved: _____ Date: _____

Metering Facility Verified: _____ Date: _____

B. Interconnection Agreement **Terms & Conditions**

1. *Customer Assurances.* By executing this document below, Customer assures PMU that the system has been installed in accordance with PMU Net Metering Rules, that the Customer has been given system warranty information and operation manual, and that Customer has been instructed in the safe operation of the system.

2. *Interruption or Reduction of Deliveries.* PMU shall not be obligated to accept and may require Customer to interrupt or reduce deliveries when necessary 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, PMU shall give 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 PMU reasonably determines that either the facility may endanger the PMU's personnel or other persons or property, or the continued operation of the Customer's facility may endanger the integrity or safety of PMU's electric system, PMU shall have the right to disconnect and lock out Customer's facility from the PMU electric system. Customer's facility shall remain disconnected until PMU is reasonably satisfied that the conditions referenced in this Section have been corrected.

3. *Interconnection.* Customer shall deliver the as-available energy to PMU at PMU's meter. PMU shall furnish and install one standard kilowatt hour meter. Customer shall provide and install a suitable meter socket for PMU's meter and any related interconnection equipment per PMU's technical requirements, including safety and performance standards. Customer shall submit a Standard Interconnection Agreement to PMU at least sixty (60) days prior to the date the customer intends to interconnect to PMU's

facilities. Part A, Standard Information, Sections 1 through 3 of the Standard Interconnection Agreement must be completed and valid. Customer must 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.

4. *Timely Review.* Following submission of the Standard Interconnection Agreement by Customer, PMU will seek to review the facility plans and provide the results of its review to Customer, in writing, within thirty (30) calendar days. Any items that would prevent Parallel Operation due to violation of applicable safety standards and/or power generation limits will be explained along with a description of the modifications necessary to remedy the violations.

5. *Required Upgrades.* If PMU's existing facilities are not adequate for interconnection, the Customer shall pay the cost of additional or reconfigured facilities prior to the installation or reconfiguration of the facilities.

6. *Manual Disconnect.* To prevent an Interconnecting Customer from back-feeding a de-energized line, Customer must install a manual disconnect switch with lockout capability that is accessible to PMU personnel at all hours.

7. *National Safety Standards.* 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).

8. *Local Safety Standards.* Customer, at his own expense, shall meet all safety and performance standards adopted by PMU that are necessary to assure safe and reliable operation of the Interconnecting Facility to PMU's system.

9. *Operation Contingent on Inspection and Approval.* Customer shall not commence Parallel Operation of an Interconnecting Facility until the Facility has been inspected and approved by PMU. Such approval shall not be unreasonably withheld or delayed. Notwithstanding the

foregoing, PMU's approval to operate the Customer's Interconnecting Facility in parallel with the PMU's electrical system should not be construed as an endorsement, confirmation, warranty, guarantee, or representation concerning the safety, operating characteristics, durability, or reliability of Customer's Net-Metering Facility.

10. *Modifications or Changes.* Prior to being made, Customer shall notify PMU of, and PMU shall evaluate, any modifications or changes to the Interconnecting Facility described in Part A, Standard Information, Section 2 of the Standard Interconnection Agreement. The notice provided by Customer shall provide detailed information describing the modifications or changes to PMU in writing, including a revised Standard Interconnection Agreement that clearly identifies the changes to be made. PMU will seek to review the proposed changes to the facility and provide the results of its evaluation to Customer, in writing, within thirty (30) calendar days of receipt of 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. If Customer makes such modification without PMU's prior written authorization and the execution of a new Standard Interconnection Agreement, PMU shall have the right to suspend all services.

11. *Maintenance and Permits.* Customer shall obtain any governmental authorizations and permits required for the construction and operation of the Interconnecting Facility and related equipment. Customer shall maintain the Interconnecting Facility and related equipment in a safe and reliable manner and in conformance with all applicable laws and regulations.

12. *Access to Premises.* PMU may enter the Customer's premises to inspect the Customer's protective devices and read or test the meter. PMU may disconnect the Interconnecting Facilities without notice if PMU reasonably believes a hazardous condition exists and such immediate action is necessary to protect persons, or PMU's facilities, or property of others from damage or interference caused by Customer's

facilities, or lack of properly operating protective devices.

13. *Liability and Indemnity.* NEITHER PMU, 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 THE MAKING OF REPLACEMENTS, ADDITIONS OR BETTERMENT TO, OR BY FAILURE OF, CUSTOMER'S FACILITIES BY CUSTOMER OR ANY OTHER PERSON OR ENTITY. CUSTOMER SHALL INDEMNIFY THE CITY OF PARAGOULD, ARKANSAS AND PMU (COLLECTIVELY REFERRED TO AS "CITY"), 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 CUSTOMER'S ENGINEERING, DESIGN, CONSTRUCTION, OWNERSHIP, MAINTENANCE OR OPERATIONS OF, OR THE MAKING OF REPLACEMENTS, ADDITIONS OR BETTERMENT TO, OR BY FAILURE OF, ANY OF CUSTOMER'S WORKS OR FACILITIES USED IN CONNECTION WITH THIS AGREEMENT BY REASON OF OMISSION OR NEGLIGENCE, WHETHER ACTIVE OR PASSIVE. CUSTOMER SHALL, ON CITY'S REQUEST, DEFEND ANY SUIT ASSERTING A CLAIM COVERED BY THIS INDEMNITY. CUSTOMER SHALL PAY ALL COSTS THAT MAY BE INCURRED BY THE CITY IN ENFORCING THIS INDEMNITY.

14. *Term of Agreement.* This Agreement shall be effective when signed by both parties and continue until modified or terminated in accordance with its terms or applicable ordinances, regulations or other laws.

15. *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. Customer shall not assign this Agreement or any part hereof without the prior written consent of PMU, and such unauthorized assignment may result in termination of this Agreement.

16. **WARNING.** POSSIBLE RULES OR RATE CHANGES, OR BOTH, THAT

AFFECT THE OPERATION OR FINANCIAL FEASIBILITY OF AN INTERCONNECTING FACILITY COULD OCCUR IN THE FUTURE. INTERCONNECTING FACILITY OWNERS ARE ADVISED THAT THEY MUST REMAIN AWARE OF AND COMPLIANT WITH ALL LAWS AND REGULATIONS.

Customer Certification

I hereby certify that all information provided is true and correct, to the best of my knowledge, and that I have read and understand the Terms and Conditions of this Agreement.

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

Date: _____

Print: _____

Signed: _____

PMU Certification

I hereby certify that: (1) I am a duly authorized representative of PMU; (2) I have examined the documents and generating facility proposed for interconnection described in Part A, Sections 1-3; and (3) I have determined that interconnection is authorized in accordance with PMU's regulations.

Date: _____

Print: _____

Signed: _____

NET-METERING FEES

1. **Application Fee** - *This fee is intended to recover internal costs associated with an interconnection review. This fee is in addition to any required cost of review by external professionals.*
 - Distributed Generation Application Fee (\$/MW or part thereof)\$1000.00
 - Net Metering Application Fee \$100.00
 2. **Interconnection Fee** - *This fee is intended to recover internal administrative costs associated with interconnecting the facility. This fee is in addition to any required system upgrades.*
 - Distributed Generation Interconnection Fee (\$/MW or part thereof).....\$2500.00
 - Net Metering Interconnection Fee \$250.00
 3. **Inspection Fee**.....\$100.00
This fee is intended to recover costs associated with performing inspections and re-inspections.
 4. **Standard Meter Charge** – *This fee is intended to recover the cost of the additional meter installed on an interconnecting meter.*
 - Residential.....\$92.00
 - Commercial/ Industrial \$200.00
- Note: Nonstandard metering requires reimbursement of actual cost.*

INTERCONNECTION TIMELINE

| | 60 DAYS PRIOR TO CONSTRUCTION | 60 DAYS PRIOR TO INTERCONNECTION | EVERY YEAR | EVERY 3 YEARS |
|------------------------|---|--|-----------------------|----------------------|
| CUSTOMER ACTION | SUBMIT PRELIMINARY INTERCONNECTION REVIEW REQUEST | SUBMIT STANDARD INTERCONNECTION AGREEMENT | SAFETY TEST | |
| FORM | APPENDIX A | APPENDIX B | | |
| PMU ACTION | REVIEW REQUEST FOR COMPLIANCE WITH ORDINANCE | REVIEW REQUEST FOR COMPLIANCE WITH ORDINANCE | MAY EXAMINE DOCUMENTS | SAFETY TEST |
| APPROVAL | DETERMINES UPGRADE COSTS | AUTHORIZES INTERCONNECTION | CONTINUES CONNECTION | CONTINUES CONNECTION |