



Umatilla Electric Cooperative Net Metering Rules

Version: July 2017

Umatilla Electric Cooperative

NET METERING RULES

Rule 0005

Scope and Applicability of Net Metering Facility Rules

- (1) Rule 0010 through 0045 (the "net metering rules") establish rules governing net metering facilities interconnecting to Umatilla Electric Cooperative ("UEC") as required under ORS 757.300. Net metering is available to a customer-generator only as provided in these rules.
- (2) For good cause shown, a person may request UEC waive any of the net metering facility rules.
- a. UEC and net metering applicant may mutually agree to reasonable extensions to the required times for notices and submissions of information set forth in these rules for the purpose of allowing efficient and complete review of a net metering application.
 - b. UEC may unilaterally waive the timelines set forth in these rules for good cause.
- (3) As used in Rule 0010 through 0045:
- a. "ANSI C12.1 standards" means the standards prescribed by the 2001 edition of the American National Standards Institute, Committee C12.1 (ANSI C12.1), entitled "American National Standard for Electric Meters - Code for Electricity Metering," approved by the C12.1 Accredited Standard Committee on July 9, 2001.
 - b. "Applicant" means a person who has filed an application to interconnect a net metering facility to UEC's electric distribution system.
 - c. "Customer-generator" means a customer-generator as defined in ORS 757.300(1)(a).
 - d. "Electric distribution system" means that portion of an electric system which delivers electricity from transformation points on the transmission system to points of connection at a customer's premises.
 - e. "Equipment package" means a group of components connecting an electric generator with an electric distribution system, and includes all interface equipment including switchgear, inverters, or other interface devices. An equipment package may include an integrated generator or electric production source.
 - f. "Fault current" means electrical current that flows through a circuit and is produced by an electrical fault, such as to ground, double-phase to ground, three-phase to ground, phase-to-phase, and three-phase.
 - g. "Generation capacity" means the nameplate capacity of the power generating device(s). Generation capacity does not include the effects caused by inefficiencies of power conversion or plant parasitic loads.
 - h. "Good utility practice" means a practice, method, policy, or action engaged in or accepted by a significant portion of the electric industry in a region, which a reasonable utility official would expect, in light of the facts reasonably discernable at the time, to accomplish the desired result reliably, safely and expeditiously.

- i. "IEEE standards" means the standards published in the 2003 edition of the Institute of Electrical and Electronics Engineers (IEEE) Standard 1547, entitled "Interconnecting Distributed Resources with Electric Power Systems," approved by the IEEE SA Standards Board on June 12, 2003, and in the 2005 edition of the IEEE Standard 1547.1, entitled "IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems," approved by the IEEE SA Standards Board on June 9, 2005.
- j. "Impact study" means an engineering analysis of the probable impact of a net metering facility on the safety and reliability of UEC's electric distribution system.
- k. "Interconnection agreement" means an agreement between a customer-generator and UEC, which governs the connection of the net metering facility to the electric distribution system, as well as the ongoing operation of the net metering facility after it is connected to the system.
- l. "Interconnection facilities study" means a study conducted by a utility for the customer-generator that determines the additional or upgraded distribution system facilities, the cost of those facilities, and the time schedule required to interconnect the net metering facility to UEC's distribution system.
- m. "Net metering facility" means a net metering facility as defined in ORS 757.300(1)(d).
- n. "Point of common coupling" means the point beyond the customer-generator's meter where the customer-generator facility connects with the electric distribution system.
- o. "Written notice" means a notice sent by the UEC via electronic mail if the customer-generator has provided an electronic mail address. If the customer-generator has not provided an electronic mail address, or has requested in writing to be notified by United States mail, or if UEC elects to provide notice by United States mail, then written notices from the utility shall be sent via First Class United States mail. UEC shall be deemed to have fulfilled its duty to respond under these rules on the day it sends the customer-generator notice via electronic mail or deposits such notice in First Class mail. The customer-generator shall be responsible for informing the utility of any changes to its notification address.

Rule 0010

Net Metering Kilowatt Limit

- (1) Net metering facilities are limited to nameplate generating capacity of 25 kilowatts or less.
- (2) Nothing in these rules is intended to limit the number of net metering facilities per customer-generator so long as the net metering facilities in aggregate on the customer-generator's contiguous property do not exceed the 25-kilowatt limit.
- (3) The cumulative total generating capacity of all net metering facilities connected to UEC's system shall not exceed one-half of one percent of UEC's historic single hour peak load.

Rule 0015

Installation, Operation, Maintenance, and Testing of Net Metering Facilities

(1) A customer-generator must install, operate and maintain a net metering facility in compliance with the IEEE standards and all other applicable standards, laws and regulations including the National Electrical Code, the Underwriters Laboratory standards and the Oregon State Building Code.

(2) A customer-generator must install and maintain a manual disconnect switch that will disconnect the net metering facility from UEC's system. The disconnect switch must be a lockable, load-break switch that plainly indicates whether it is in the open or closed position. The disconnect switch must be readily accessible to the public utility at all times and located within 10 feet of the public utility's meter.

- a. The disconnect switch may be located more than 10 feet from UEC's meter if permanent instructions are posted at the meter indicating the precise location of the disconnect switch. UEC must approve the location of the disconnect switch prior to the installation of the net metering facility.

(3) The customer-generator's electric service may be disconnected by UEC entirely if the net metering facility must be physically disconnected for any reason.

Rule 0020

Net Metering Facility Requirements

(1) A net metering facility must be certified as complying with the following standards, as applicable:

- a. IEEE standards; and
- b. UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems (January 2001).

(2) An equipment package will be considered certified for interconnected operation if it has been submitted by a manufacturer to a nationally recognized testing and certification laboratory, and has been tested and listed by the laboratory for continuous interactive operation with an electric distribution system in compliance with the applicable codes and standards listed in section (1) of this rule.

(3) If the equipment package has been tested and listed in accordance with this section as an integrated package, which includes a generator or other electric source, the equipment package will be deemed certified, and UEC will not require further design review, testing or additional equipment.

(4) If the equipment package includes only the interface components (switchgear, inverters, or other interface devices), an interconnection applicant must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and consistent with the testing and listing specified for the package. If the generator or electric source being utilized with the equipment package is consistent with the testing and listing performed by the nationally recognized testing and certification laboratory, the equipment package will be deemed certified, and UEC will not require further design review, testing or additional equipment.

(5) A net metering facility must be equipped with metering equipment that can measure the flow of electricity in both directions and complies with ANSI C12.1 standards. UEC will install the required metering equipment at UEC's expense.

Rule 0025

Application for Net Metering Interconnection

(1) An application for interconnection review will be submitted on a standard form, available from UEC. The application form will require the following types of information:

- a. The name of the applicant
- b. The type and specifications of the net metering facility;
- c. The contractor who will install the net metering facility;
- d. Equipment certifications;
- e. The anticipated date the net metering facility will be operational; and
- f. Other information that UEC deems is necessary to determine compliance with these net metering rules.

(2) Within ten business days after receiving an application for interconnection review, UEC will provide written or electronic mail notice to the applicant that it received the application and whether the application is complete. If the application is incomplete, the written notice will include a list of all of the information needed to complete the application.

(3) An applicant will retain its original queue position for an interconnection request if the applicant resubmits its application within 30 business days of UEC's denial of the initial application.

(4) UEC will designate an employee or office from which an applicant can obtain basic application forms and information through an informal process. On request, UEC will provide all relevant forms, documents, and technical requirements for submittal of a complete application for interconnection review under these net metering rules, as well as specific information necessary to contact UEC representatives assigned to review the application.

(5) On request, UEC will meet with an applicant for interconnection review to assist them in preparing the application.

(6) UEC will not be responsible for the cost of determining the rating of equipment owned by a customer-generator or of equipment owned by other local customers.

Rule 0030

Net Metering Interconnection Review

(1) UEC will approve interconnection if:

- a. The aggregate generation capacity on the distribution circuit to which the net metering facility will interconnect, including the capacity of the net metering facility, will not cause any distribution protective equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or customer equipment on the electric distribution system, to exceed 90 percent of the short circuit interrupting capability of the equipment. In addition, a net metering facility will not be connected to a circuit that already exceeds 90 percent of the short circuit interrupting capability, prior to interconnection of the facility.
- b. The aggregate generation capacity on the distribution circuit to which the net metering facility will interconnect, including the capacity of the net metering facility, will not contribute more than 10 percent to the distribution circuit's maximum fault current at the point on the high voltage (primary) level that is nearest the proposed point of common coupling.
- c. A net metering facility's point of common coupling will not be on a transmission line.
- d. If a net metering facility is to be connected to a radial distribution circuit, the aggregate generation capacity connected to the circuit, including that of the net metering facility, will not exceed 10 percent (15 percent for solar electric generation) of the circuit's total annual peak load, as most recently measured at the substation.
- e. If a net metering facility is to be connected to a single-phase shared secondary, the aggregate generation capacity connected to the shared secondary, including the net metering facility, will not exceed 25 kilowatt_[KMI].
- f. If a single-phase net metering facility is to be connected to a transformer center tap neutral of a 240 volt service, the addition of the net metering facility will not create a current imbalance between the two sides of the 240 volt service of more than 20 percent of nameplate rating of the service transformer.
- g. If a net metering facility is to be connected to three-phase, three wire primary distribution lines, a three-phase or single-phase generator will be connected phase-to-phase.
- h. If a net metering facility is to be connected to three-phase, four wire primary distribution lines, a three-phase or single-phase generator will be connected line-to-neutral and will be effectively grounded.
- i. The output of the net metering facility will not exceed the rating of any distribution transformer connected to the net metering facility.
- j. The net metering facility must be capable of operating in parallel with UEC's existing transmission and distribution system.

(3) Within 25 business days after notifying an applicant that the application is complete, UEC will perform an initial review of the proposed interconnection to determine whether the interconnection meets the applicable criteria. During this initial review, UEC may, at its own expense, conduct any studies or tests it deems necessary to evaluate the proposed interconnection and provide notice to the applicant of one of the following determinations:

- c. The net metering facility meets the applicable requirements and that interconnection will be approved following installation of a disconnected switch, any required inspection of the facility and receipt of a fully executed interconnection agreement. Within 10 business days after this notice, UEC will provide the applicant with an executable interconnection agreement;
- d. The net metering facility failed to meet one or more of the applicable requirements, but UEC determined that the net metering facility may be interconnected consistent with safety, reliability, and power quality. In this case, UEC will notify the applicant that the interconnection will be approved following installation of a disconnect switch, any required inspection of the facility and receipt of a fully executed interconnection agreement. Within 10 business days after this notice, UEC will provide the applicant with an executable interconnection agreement;
- e. The net metering facility failed to meet one or more of the applicable requirements, but additional review may enable UEC to determine that the net metering facility may be interconnected consistent with safety, reliability, and power quality. In such a case, UEC will offer to perform additional review to determine whether minor modifications to the electric distribution system would enable the interconnection to be made consistent with safety, reliability and power quality. UEC will provide to the applicant a nonbinding, good faith estimate of the costs of such additional review, or such minor modifications, or both. UEC will undertake the additional review or modifications only after the applicant consents to pay in advance for the review or modifications, or both; or
- f. The net metering facility failed to meet one or more of the applicable requirements, and that additional review would not enable UEC to determine that the net metering facility could be interconnected consistent with safety, reliability, and power quality. In such a case, UEC will notify the applicant that the interconnection application has been denied, and will provide an explanation of the reason(s) for the denial, including a list of additional information, or modifications to the net metering facility, or both, which would be required in order to obtain an approval.

(4) If an application for interconnection is denied because it does not meet the requirements of this rule, UEC will offer to perform such additional studies and construct required system modifications necessary to integrate applicant's net metering facility into UEC's electrical system. All costs incurred by UEC in performing this work shall be paid in advance by the applicant. Before undertaking any necessary additional studies or constructing system modifications, UEC will provide applicant with a good faith estimate of the estimated cost of such work and will obtain the applicant's approval before proceeding.

(5) An applicant that receives an interconnection agreement under subsection (3)(a) or (3)(b) of this rule must:

- a. Execute the agreement and return it to UEC at least 10 business days prior to starting operation of the net metering facility (unless UEC does not so require); and
- b. Indicate to UEC the anticipated start date for operation of the net metering facility.

(6) UEC may require an inspection of a net metering facility for compliance with these net metering rules prior to operation, and may require and arrange for witness of commissioning tests as set forth in IEEE standards. The costs incurred by UEC for such tests or inspections shall be paid by the applicant.

UEC must schedule any inspections or tests under this section promptly and within a reasonable time after submittal of the application. The applicant may not begin operating the net metering facility until after the inspection and testing is completed.

(7) Approval of interconnected operation of any net metering facility is conditioned on all of the following occurring:

- a. Approval of the interconnection by the electrical code official with jurisdiction over the interconnection;
- b. Successful completion of any UEC inspection or witnessing, or both, of commissioning tests requested by UEC; and
- c. Passing of the planned start date provided by the applicant.

Rule 0035

Net Metering Interconnection Fees and Costs

(1) For an interconnection review, UEC may charge an initial fee of up to \$200.00 based on the completeness and complexity of the application. In addition, the applicant shall pay the reasonable cost of any required modifications to the electric distribution system and the cost of additional review. Costs for engineering work done as part of any additional review will be based on UEC's actual incurred costs.

Rule 0040

Requirements After Approval of a Net Metering Interconnection

- (1) UEC will not require an applicant whose facility meets the criteria for interconnection approval to perform or pay for additional tests, except if agreed to by the applicant.
- (2) UEC will not charge any fee or other charge for connecting to UEC's distribution system or for operation of a net metering facility for the purposes of net metering, except for the fees provided for under these net metering rules.
- (3) Once a net metering interconnection has been approved under these net metering rules, UEC will not require a customer-generator to test or perform maintenance on its facility except for the following:
 - a. An annual test in which the net metering facility is disconnected from UEC's equipment to ensure that the inverter stops delivering power to the grid;
 - b. Any manufacturer-recommended testing or maintenance;
 - c. Any post-installation testing necessary to ensure compliance with IEEE standards or to ensure safety; and
 - d. Applicable testing if the customer-generator replaces a major equipment component that is different from the originally installed model.

(4) When an approved net metering facility undergoes maintenance, or testing in accordance with the requirements of these net metering rules, the customer-generator must retain written records for seven years documenting the maintenance and the results of testing.

(5) The generating capacity of the net metering facility may not be increased without submittal and approval of a new application and execution of a replacement contract.

(6) UEC has the right to inspect a customer-generator's facility after interconnection approval is granted, at reasonable hours and with reasonable prior notice to the customer-generator. If UEC discovers that the net metering facility is not in compliance with the requirements of these net metering rules, UEC may require the customer-generator to disconnect the net metering facility until compliance is achieved.

Rule 0045

Net Metering Billing

- (1) Each monthly billing period UEC will charge the customer-generator the minimum monthly charge and all applicable charges for the net electricity that UEC supplied. The Electric Service Charge shall be computed in accordance with the applicable standard rate schedule.
- (2) UEC shall measure the net electricity produced or consumed by the Customer during each billing period, in accordance with normal metering practices.
- (3) If the electricity supplied by UEC exceeds the electricity generated by the Customer-Generator during the billing period, or any portion thereof, then the Customer shall be billed for the net electricity supplied by UEC together with the appropriate customer base charge paid by other customers of UEC in the same rate class.
- (4) If the electricity generated by the Customer during the billing period, or any portion thereof, exceeds the electricity supplied by the Utility, then the Customer shall be billed for the appropriate customer service charge as other customers of the Utility in the same rate class; and credited for the net excess kilowatt-hours generated during the billing period, with this kilowatt-hour credit appearing on Customer's bill for the following billing period.
- (5) On March 31st of each calendar year, any remaining unused kilowatt-hour credit accumulated by the Customer during the previous year (April 1 through March 31), UEC will pay the Customer-Generator for such electric energy at UEC's avoided cost rate (see appendix A). Customer-Generator shall pay any amount owing for electric service provided by the Utility in accordance with applicable rates and policies.

APPENDIX A

UEC's Avoided Cost Rate Schedule

Year	Rate
2017	\$0.025
2018	\$0.027
2019	\$0.027
2020	\$0.027
2021	\$0.027