

Rule No. 9

METERING

- 9-1 Meter Installation - The Utility shall furnish, set, and maintain the meter; and the Customer shall provide and maintain, free of expense to the Utility, an unobstructed location, satisfactory to the Utility, for placement of metering equipment including meter sockets, instrument transformers, conduit, etc. The Utility will provide and own metering transformers that are to be installed by the Customer in a manner satisfactory to the Utility. Metering transformer enclosures, boxes, and necessary conduit will be provided, installed, and owned by the Customer. All such equipment shall conform to Utility specifications and shall be installed in a manner that will provide for convenient operation, replacement of equipment, testing, and reading of the meter.
- 9-2 Customer's Responsibility - Customer shall exercise reasonable care in protecting the Utility's meter and other Utility-owned equipment located on Customer's premises. Only duly authorized employees or agents of the Utility, or persons authorized by law, are permitted to inspect or handle it.
- 9-3 Meter Installation and Removal - Meters shall be installed or removed only by duly authorized employees or agents of the Utility.
- 9-4 Meter Seals - All meters shall be sealed by the Utility. Law prohibits the breaking of seals by unauthorized persons, or tampering with the meter installation or wiring.
- 9-5 Schedule of Meter Tests - The utility shall test its meters in accordance with the following procedure:
- A. Self contained single-phase watt-hour meter used on continuous loads of 160 amps or less.
1. New Meters – The Company purchases meters with accuracy certified by the manufacturer to be in compliance with the American National Standard Code for Electricity Metering (ANSI C12.1). New meters will be visually inspected prior to installation at a customer facility and only be subject to testing should damage be detected.
  2. Meters In Service - All active meters will be assigned to a meter family type based on the vintage year, model type, and know manufacture changes. Each year, samples will be selected from each family type and tested at full and light load. The sample will include meters removed from service for cause (i.e. service upgrades, high bill complaint investigation, building demolition, inactive service etc.) within the previous twelve-month timeframe with the balance consisting of randomly selected in-service meters. The

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number of samples and the pass/fail status of the tested lot will be determined by the ANSI/ASQC Z1.9-1993 standard. The method used will be the variability unknown, single specification Form-2 standard deviation method, with and acceptable quality level (AQL) of 10 % and an inspection level of II. Classification of the meter family under test will be determined under the following criteria:

- a) A meter family deemed satisfactory by the ANSI test standard will stay in service subject to continued yearly testing.
  - b) A meter family that fails the initial ANSI standard will remain in service if it passed the previous years testing however the family will be placed on a tightened inspection practice for the following year. In addition, the failed family will be analyzed and may be broken into sub-families to isolate specific make and model related problems.
  - c) All meters within the original family or refined sub-families will be recalibrated or replaced if the lot fails for two consecutive years. Corrective action will begin in the next budget cycle with completion occurring within a four-year timeframe.
- B. Polyphase watt-hour meters and single-phase watt-hour meters equipped with demand registers or using instrument transformers.
- 1. New Meters – All meters received from manufactures will be tested for accuracy and inspected for mechanical defects.
  - 2. Meters In Service – All active meters will be assigned to a meter family type based on the vintage year, model type, and know manufacture changes. Each year, samples will be selected from each family type and tested at full and light load. The sample will include meters removed from service for cause (i.e. service upgrades, high bill complaint investigation, building demolition, inactive service etc.) within the previous twelve-month timeframe with the balance consisting of randomly selected in-service meters. The number of samples and the pass/fail status of the tested lot will be determined by the ANSI/ASQC Z1.9-1993 standard. The method used will be the variability unknown, single specification Form-2 standard deviation method, with and acceptable quality level (AQL) of 10 % and an inspection level of II. Classification of the meter family under test will be determined under the following criteria:
    - a) A meter family deemed satisfactory by the ANSI test standard will stay in service subject to continued yearly testing.

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- b) A meter family that fails the initial ANSI standard will remain in service if it passed the previous years testing however the family will be placed on a tightened inspection practice for the following year. In addition, the failed family will be analyzed and may be broken into sub-families to isolate specific make and model related problems.
  - c) All meters within the original family or refined sub-families will be recalibrated or replaced if the lot fails for two consecutive years. Corrective action will begin in the next budget cycle with completion occurring within a four-year timeframe.
- 9-6 Special Meter Tests - At the request of the Customer, the Utility shall, within ten days after receipt of such request, make special meter tests. Customer shall bear the cost of such tests, including meter removal and replacement, if the meter is found to be within the limits of acceptable accuracy as defined below in Rule No. 9-8. In all other cases, the Utility shall bear the cost of the test.
- 9-7 Replacement of Meter - Whenever a Customer requests the replacement of the service meter on Customer's premises, such request shall be treated as a request for a test of such meter and, as such, shall fall under the provisions of preceding Rule No. 9-6.
- 9-8 Standard of Meter Accuracy - The Utility shall not place in service or knowingly allow to remain in service, without adjustment, any meter that has a known error in registration of more than plus or minus two percent (2%) at light load or at full load and, in both cases, unity power factor; or more than plus or minus three percent (3%) at full load and fifty percent (50%) power factor.
- 9-9 Adjustment for Inaccurate Meter Registration - Whenever a tested meter in service is found to be fast or slow beyond the limit of accepted accuracy as defined in preceding Rule No. 9-8, the Utility shall make an adjustment based on the corrected registration for the period in which the meter was registering incorrectly, if such period is known; but for a period not to exceed six months where an undercharge has occurred. The six-month limitation does not apply in those instances where the adjustment is the result of an overcharge. In those instances, where the period of adjustment can be determined with a reasonable degree of accuracy, Customer shall be refunded all overcharges that occurred over the entire period of the incorrect meter registration. Whenever any bill or bills have been adjusted or corrected, as provided above, and whenever such adjustment amounts to \$1 or more, the Utility shall refund to Customer, or credit to Customer's account, any amount found to have been collected in excess of the proper amount; or the Utility may, within the limitations set forth above, require Customer to pay, or add to

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Customer's account, additional amounts due. In no event shall the period of adjustment, for either undercharges or overcharges, exceed the duration of the present Customer's occupancy. Where actual recorded data identifying errors of this nature are not available, it may be difficult, if not impossible, to determine the amount of such errors with any great degree of precision. In such instances, both the amount of meter error and the period of time over which the meter was registering incorrectly may be determined by engineering estimate.

- 9-10 Incorrect Meter Installation - In the event a Customer has been overcharged or undercharged as a result of an incorrect meter installation, the amount of the overcharge shall be adjusted and refunded to the Customer, or credited to Customer's account, if in excess of \$1. The amount of any undercharge may be adjusted and billed to Customer, provided that in no event shall such period of adjustment exceed the length of time the service has been supplied to Customer through the incorrect metering installation at the present location, or six months, whichever is less. The six-month limitation does not apply in those instances where the adjustment is the result of an overcharge. In such instances, the present Customer shall be refunded all overcharges that occurred during the Customer's occupancy.
- 9-11 Non Registering Meter - Where a meter has failed to register for any period, for reasons beyond reasonable control of the Utility, the Utility may estimate the charge for service during such period. Such estimate to be based upon the best available data, provided that the period for such estimated charges shall not exceed six months, and in no event for a period longer than the present Customer's occupancy.
- 9-12 Bypassing or Tampering with Metering Facilities - Customers shall not interfere in any way with the metering facilities after they have been set in place. In cases where the meter seal is broken or the working parts of the meter have been tampered with or the meter damaged or there is evidence that a bypass has been used, the Utility may render a bill for the current billing period based upon the estimated use, considering past experience under similar conditions and may, in addition thereto, charge for the actual cost of repairing or replacing said meter and connections. Service may be discontinued or refused at the premises where such bypassing or tampering has occurred until all such charges are paid; provided, however, that during the winter moratorium on termination of service (Rule No. 13-10), service shall be reconnected after the interfered with installation has been repaired; and the Utility shall continue to provide service until Commission approval of termination is obtained.

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