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TITLE 815 - DIVISION OF PUBLIC UTILITIES AND CARRIERS

CHAPTER 30 - ELECTRIC UTILITIES

SUBCHAPTER 00 - GENERAL ADMINISTRATION

Part 1 - Standards for Electric Utilities

1.1 Purpose and Authority

A. These rules shall apply to every public utility as hereinafter defined doing business as such, or authorized to do so, within the State of Rhode Island.

B. These rules shall be amended or repealed, and applications therefore shall be made, in accordance with provisions of R.I. Gen. Laws Chapter 42-35 entitled "Administrative Procedures".

1.2 Definitions

A. "Division" means the Rhode Island Division of Public Utilities and Carriers.

B. "Administrator" means Public Utility Administrator of the Division of Public Utilities and Carriers.

C. "Public utility" means and apply to every corporation, company, person, association of persons, their lessees, trustees, or receivers appointed to any court whatsoever, that now or hereafter may own, lease, operate, manage or control any electric plant or equipment or any part of any electric plant or equipment, within this State, for the production, transmission, delivery or furnishing of electricity, light, heat or power, either directly or indirectly, to or for the public.

D. "Electric plant" means all real estate, fixtures, equipment and personal property owned, controlled, operated or managed in connection with or to facilitate the production, generation, transmission, delivery or furnishing of electric energy.

E. "Customer" means and applies to every corporation, company, person, association of persons, their lessees, trustees or receivers appointed by any court whatsoever, that now or hereafter, may be supplied with electric service by any public utility as herein defined.

F. "Service" means, in its broadest and most inclusive sense, the furnishing of electricity to a customer by a public utility.

G. The term "Meter", without other qualification, shall mean a device or appliance for the measurement of electrical quantities to be used as a basis for determining charges by a public utility for furnishing or rendering electric service to a customer.

H. The term "creep" means the motion of the rotor of a meter with normal operating voltage applied and the load terminals open-circuited.

1.3 Service Provisions

A. Filing of Rates Schedules.

1. Schedules showing all rates, tolls and charges by a public utility shall be filed and kept open to public inspection in accordance with the provisions of R.I. Gen. Laws § 39-3-10.

B. Application for Service.

1. An Applicant desiring service under a public utility's filed rate schedules may be required to make application in writing, in accordance with the forms prescribed by the public utility.

C. Information to Customers - Rate Selection.

1. Each public utility shall, upon request, provide a customer with such information and assistance as is necessary to enable the customer to secure the most advantageous rate or rates. Further, each utility shall inform the applicant of any service connection and/or installation charge to be applied to the bill. Each customer shall be responsible for selecting, and taking service at the most advantageous rate or rates.

2. Each public utility shall, upon request, explain to a customer the method of reading meters and how the billing is calculated.

3. Where special charges for construction, maintenance, replacement costs, expenses or overtime work are not specifically set forth in a utility's tariff, the utility shall, before performing non-emergency work, provide the applicant or customer with an estimate of charges to be levied, in writing if requested.

4. In addition, the utility shall make available free information concerning the utility's programs, services, rights and responsibilities, and complaint procedures for the general public.

D. Deposits.

1. A public utility, as security for prompt payment of a customer's indebtedness to it, may require a cash deposit or other collateral

satisfactory to it before rendering, or as a condition of continuing to render service to such customer. This deposit shall not be more than the estimated bill for two times the normal billing period. Interest shall be paid on deposits held six (6) months or more in accordance with applicable rate schedules or the terms and conditions of the public utility. Deposits, plus accrued interest thereon, less any amount due the public utility, will be refunded upon termination of service. When a deposit is applied against an account that has been terminated, interest shall cease to be accumulated on the balance at the date of termination.

E. Meter Reading and Bill Forms.

1. The metering equipment for each service shall be such as to register the number of kilowatt-hours (kwh) delivered during any period, and to the extent applicable, the number of Kilo-Var Hours (KvarH) and the Kilowatt (Kw) and Kilo-Volt Amperes (Kva) demand.

2. All service meters shall be read at regular intervals and on the corresponding day of each meter reading period insofar as practicable within regularly scheduled work days.

3. Bills shall be rendered at regular intervals and shall show the date of the current meter reading and the amount or quantity of service for the billing period; and shall also show any applicable discount or penalty date.

4. Each public utility shall keep an accurate account of all charges for service billed each customer and shall maintain records showing information from which each bill rendered may be readily computed.

F. Customer Complaints.

1. Each public utility shall make a full and prompt investigation of customer complaints made either directly or through the Division. A record of complaints received, other than those of a minor nature shall be kept for at least two years and shall show the name and address of the complainant, the date and character of the complaint and the disposition thereof.

2. Each public utility shall endeavor to keep its appointments. In the event cancellation of appointment is unavoidable, every reasonable effort should be made to promptly notify the customer.

3. During an abnormal service outage the utility shall make reasonable efforts to inform the general public about the areas affected, the progress of service restoration, and anticipated restoration schedules when available. Information for the general public shall be made through advisories to the news media. Business offices shall make similar information available to callers, using appropriate communications systems.

G. Change in Character of Service.

1. If a change in character of service to a customer is brought about for the convenience or benefit of the public utility, the public utility shall pay such part of the cost of changing the equipment of the customer affected as shall be determined by mutual agreement. An equitable settlement would normally be on the following basis: Payment by the public utility to the customer of:

    a. The cost of the customer's electrical utilization and equipment that is made obsolete, less proper allowance for depreciation.

    b. The cost of installing the new equipment and removing the old, less the salvage value of such equipment as the customer retains.

    c. The cost of making the necessary change in customer's wiring.

H. Discontinuance of Service

1. By Customer: A customer shall be required to give at least twenty four (24) hour notice of its intention to discontinue service in accordance with the provisions of the applicable rate or terms and conditions of service and shall be responsible for all charges until expiration of such notice period.

2. By the Public Utility:

    a. Non-Payment of Bills. In accordance with the provisions of the applicable rate or terms and conditions of service, a public utility may require that bills be paid within a specified time after presentation. On and after thirty (30) days from the date of presentation service may be discontinued for non-payment provided written notice to the customer has been deposited in the U.S. mail at least ten (10) days prior to the date of discontinuance. In lieu of the discontinuance, or upon reconnection, the public utility may require payments at less than monthly intervals. If service is discontinued for non-payment, the public utility may make a reasonable charge for reconnection. Service must not be discontinued on a Friday, a Saturday, or the day before a holiday.

    b. For Violation of Rules: No public utility shall discontinue service to a customer for violation of any rule unless it shall first have deposited in the U.S. mail written notice to the customer at least ten (10) days prior to the date of discontinuance advising the customer of the particular rule that has been violated, except that service may be discontinued immediately when continuance of the service would endanger life or property, or when ordered to do so by any governmental agency or official having jurisdiction.

c. For Fraudulent Use of Service: A public utility may discontinue service without notice whenever a fraudulent use of the service by the customer is detected.

1.4 Quality of Electric Service

A. Standard Frequency - The standard frequency for alternating current distribution systems shall be sixty (60) Hertz, with permissible variations not exceeding maximum and minimum values of 60.3 and 59.7 Hertz.

B. Service Voltage - The following service voltage standards shall be maintained at the point where the electrical system of the supplier and the electrical system of the user are connected.

1. Table 1 (These values are ANSI C84.1 (1989). Values shall change if ANSI adopts new standards.)

Established Standard Service Voltage	Minimum Voltage	Maximum Voltage	Type of Service
120	114	126	Single Phase
120/240	114/228	126/252	Single or Polyphase
208Y/120	197Y/114	218Y/126	Single or Polyphase
240	228	252	Single or Polyphase
480Y/277	456Y/263	504Y/291	Single or Polyphase
480	456	504	Single or Polyphase
600	570	630	Single or Polyphase
2400	2340	2520	Single or Polyphase

4160Y/2400	4050Y/2340	4370Y/2520	Single or Polyphase
12470Y/7200	12160Y/7020	13090Y/7560	Single or Polyphase

2. For distances exceeding a 2-mile radius from any distribution sub-station serving the customer, the minimum permissible voltage shall not be less than 97% of the minimum values shown in Table 1, § 1.4(B)(1) of this Part.

C. Momentary Fluctuations - Momentary fluctuations of voltage and/or frequency at the customer's service shall not be construed as non-compliance with this Section (§ 1.4 of this Part) and for the purposes of these Rules a momentary fluctuation of voltage and/or frequency shall be defined as a change in voltage and/or frequency not exceeding a three (3) second time interval of a non-periodic recurring cycle; provided, however, that fluctuations in frequency and/or voltage having continuous and/or recurring periodic time cycles shall not be considered as compliance with this Section (§ 1.4 of this Part); and the public utility shall immediately initiate and complete all necessary action to eliminate and/or correct the cause of such fluctuations, if found to originate directly or indirectly within the public utility's system.

D. Abnormal Conditions - These Rules shall not apply to temporary conditions due to acts of God, windstorm, fire, strikes, insurrections, construction and/or maintenance or other disruptions of service beyond the immediate control of the public utility; provided, however, that all public utilities shall initiate immediate action and proceed without delay and perform all necessary work to restore its system and/or customers' services to normal operating conditions.

E. Special Provisions - No public utility shall be required to maintain service voltage according to Table I, at any point beyond the point where the electrical system of the supplier connects to the electrical system of the user if the wire or cables of the customer are

1. inadequate or undersized

2. not capable of delivering the customer's normal requirements for electricity, or

3. not in conformance with the requirements of the National Electric Code or any applicable statute, ordinance, rule or regulation of any authority having jurisdiction.

1.5 Voltage Surveys and Records

A. Each public utility shall make a sufficient number of voltage tests for the areas (cities, villages and rural areas) served to indicate compliance with voltage requirements contained in Table 1 (§ 1.4(B)(1) of this Part).

B. All voltage test records shall be retained by the public utility for at least two (2) years and shall be available for inspection by the Division.

1.6 Interruptions of Service

A. Each public utility shall use all reasonable means to avoid interruption of service but should an interruption occur, service shall be re-established within the shortest time practicable, consistent with safety requirements.

B. Each public utility shall make a record of all interruptions of service of more than five (5) minutes' duration affecting the entire distribution system of a single community or the entire distribution circuit serving a division of a community and shall include in such record the date and time of interruption, approximate number of customers affected, the date and time of service restoration, and, when known, the cause of such interruption. Reports with reference to such service interruption shall be made monthly to the Division on Form E-1.

C. Each utility shall notify the ~~Commission~~ Administrator (or a designated member of the staff) by telephonic means of any major interruption of service when the interruption results in 1000 or more customer hours between normal working hours increasing to 3000 or more customer hours after normal business hours. A company having less than 5,000 customers will notify the ~~Commission~~ Administrator when outages exceed 100 customer hours during normal working hours and increasing to 200 customer hours after normal business hours.

D. When service is interrupted to perform work on lines or equipment, such work shall be done at a time causing minimum inconvenience to customers consistent with the circumstances. Customers seriously affected by such interruption shall, whenever reasonably possible, be notified of the time and expected duration of the service interruption.

1.7 Meter Accuracy and Testing

1.7.1 Inspection of Meters

A. Meters removed from service. All meters removed from service, which are to be reinstalled, shall be inspected and tested for correctness. In addition, worn or damaged parts shall be replaced.

B. Meter installations. All polyphase meters and demand devices shall be tested before installation to ensure accuracy of operation when installed. In connection

with installation an electrical check shall be made of all instrument transformer connections.

C. Test and Calibration of Meters.

1. Polyphase Meters. All polyphase meters shall be tested at loads and adjusted to tolerances as follows:

Test Load in Rated Meter Capacity	Power Factor	to Tolerance of
100%	1.0	Plus/Minus 1%
10%	1.0	Plus/Minus 1%
100%	0.5	Plus/Minus 2%

a. Meters also shall be checked for "creep" at no load and rated voltage.

2. Demand Devices. All indicating and recording demand devices shall be adjusted as follow:

a. Zero Adjustment - No demand device that fails to reset properly to zero shall be placed in service or allowed to remain in service without adjustment.

b. Up-Scale Check - Tests to determine the accuracy of a demand device shall be made at a point approximately mid-scale. No demand under test having an error in indication or registration of more than 2% plus or minus (in terms of full scale deflection) shall be placed, or allowed to remain, in service without readjustment.

c. Time Cycle Devices - All motors used to maintain a timing cycle where such timing cycle directly affects meter registration, shall be tested to insure operation at the proper speed.

1.7.2 Test Schedules for all Watthour Meters and Demand Devices

A. New Meters. The manufacturer's test on all new meters will be accepted as a first test on a meter and so recorded if built to the EEI-AEIC-NEMA or ANSI standard for Polyphase meters.

B. All alternating current watthour meters and demand devices in service shall be tested in accordance with the following requirements.

1. Meters up to and including 12KVA shall be tested in accordance with either §§ 1.7.2(B)(1)(a) or (b) of this Part. The Schedule initially adopted by the public utility shall not be changed without notifying the Division.

   a. Periodic Test Schedule. Watthour meters may be tested on periodic basis by which every meter shall be tested at least once every twelve (12) years.

   b. Selective Test Plan. Watthour meters may be tested under a selective plan as follows.

      (1) Selective Test Population. This shall include those single-phase common or residential type meters of 0-12 KVA capacity. It shall not include those specific meter groups known to be adversely affecting overall meter accuracy, if these meters are placed on a fixed retirement program not exceeding five (5) years. Meters removed due to a fixed retirement program need not be tested by the utility.

      (2) Sample Test Group. A Sample Test Group representing a cross-section of the meters in the Selective Test Population on company lines shall be selected at random and tested each year. The Sample Test Group shall be at least 1% of meters in the Selective Test Population, but not less than 500 meters. For a company having less than five thousand meters, the Sample Test Group shall be at least 2% of meters in the Selective Test Population, but not less than 40 meters.

      (3) Cumulative Sample Test Group. The Cumulative Sample Test Group includes the Sample Test Group of the current year plus those of the immediately preceding years to a maximum of five Sample Test Groups.

      (4) Number of Meters to be Tested. The percentage of meters in the Cumulative Sample Test Group which displays a weighted average accuracy outside the limits of 98% to 102% shall be used to determine from the test Ratio Curve the minimum number of meters to be tested (Total Meter Test Group) in the ensuing year.

      (5) Supplemental Test Group. The Supplemental Test Group is the difference between the Total Meter Test Group and the Sample Test Group.

         (AA) Supplemental = (Total) - (Sample)

(BB) Tests of meters which are part of the Selective Test Population and which are returned to the shop for maintenance may be credited toward completion of the Supplemental Test quota. Additional meters selected to fill the Supplemental Test quota shall be either:

(CC) Meters in service without a test, or meters of specific types which are contributing a greater than average percentage of the meters outside the limits of 98% to 102%.

(DD) Specific meter groups known to be adversely affecting over-all meter accuracy, if placed on a fixed retirement program not exceeding five years may be excluded from the Selective Test Population. Meters removed due to a fixed retirement program need not be tested by the utility.

(EE) Such meters on a retirement program shall be junked at a uniform annual rate to eliminate them from Company lines in five years or less from the start of the program. If the retirement rate is not maintained, all remaining meters in the group must become part of the Selective Test Population and subject to the Selective Test Procedure.

C. Meters in excess of 12KVA and not exceeding 100 KVA shall be tested on a periodic basis by which every meter shall be tested at least once every six (6) years.

D. Meters in excess of 100 KVA shall be tested on a periodic basis by which every meter shall be tested at least once every (5) years.

E. In lieu of the periodic and selective test plans described in §§ 1.7.2(B), (C) and (D) of this Part, a utility may, after notifying the Division, implement a statistical sample testing program based on the provisions of the most current version of ANSI/ASQC Z1.9, American National Standard Sampling Procedures and Tables for Inspection by Variables for Percent Nonconforming or on the provisions of a comparable nationally recognized statistical sampling methodology.

F. Integrated demand meters shall be subject to the same periodic tests or sample tests as the meters with which they are associated.

G. For the purpose of § 1.7.2(C) of this Part, the KVA rating of a Self-contained AC Watthour Meter is the product of the rated voltage in Kilo-volts, the rated test amperes and the number of stators. The KVA rating of an instrument transformer

classed watthour meter is the product of the primary voltage in Kilo-volts, the nameplate rating of the current transformers, and the number of stators.

H. All meters over 12 KVA capacity removed from service and not yet due for testing must be tested and recalibrated before being put back into service. These tests may be included as a part of the periodic or statistical sampling test populations.

1.7.3 Request Tests

A. All request tests must be made with the meter in its service location whenever practicable to do so.

B. Tests by public utility. When requested by a customer, each public utility shall test the accuracy of the customer's meter within fifteen (15) days from the time the request is made. If the meter has been tested during the preceding thirty-six (36) months, a public utility may require the deposit of a fee of Twenty-five dollars ($25) for such a test. If on testing the meter is found to be fast by more than 2%, the deposit shall be promptly refunded. If the meter is not found to be fast by more than 2% the public utility shall retain the amount deposited for the test. A customer may be represented in person or by an agent when the public utility conducts the test on the customer's meter. A report giving the name of the customer requesting the test, the date of the request, the location, the type, make size, the serial number of the meter, the date tested, and the result of the test shall be supplied to such customer within a reasonable time after the completion of the test.

C. Tests by Division. Upon written application to the Division by a customer, a test will be made of the customer's meter in the presence of the Division's representative as soon as practicable. Each application to the Division for test of a meter shall be accompanied by a fee of twenty-five dollars ($25). If upon testing, the meter is found to be fast by more than 2%, the Division shall return to the customer the amount of fee paid by the customer to the Division. When notified of an application submitted to the Division by a customer for a referee test as herein provided, the public utility shall not knowingly remove, interfere with, or adjust the meter to be tested without the written consent of the customer and approved by the Division.

1.7.4 Reporting Requirements

A. For utilities that test according to the periodic test schedules or selective tests plans described in §§ 1.7.2(B), (C) and (D), reports of periodic and sample tests of meters shall be reported to the Division on Form E-2 and Form E-2A once a year, or on the public utility's Standard Meter Test Report Form.

B. For utilities that implement the statistical sample testing program as described in subparagraph § 1.7.2(E), reports of in-service and request tests of watthour meters shall be made each year and filed with the Division not later than the 15th

day of March the following year. All reports of in-services tests are to include the number of meters tested, the number of meters found outside of limits, and the size of the population. Where appropriate, the reports should break down the population of meters by type and be accompanied by appropriate performance parameters for that type.

C. A complete record of the latest test made on a meter shall be retained in the public utility's files for three years.

1.7.5 Billing Adjustments

A. Calculation of Error. The accuracy of registration of the meter and its performance in service shall be determined by its average error, as follows:

1. The average error shall be the weighted average of its error at light load with a weighting of one and its error at heavy load with a weighting of four.

2. Any adjustment of charges that is made in accordance with this rule shall be based on such average error.

B Adjustments.

1. Fast Polyphase Meters. Whenever a polyphase meter is found to be fast in excess of 2% of the correct amount, the Company shall refund to the customer an amount equal to the charge for the excess kilowatt hours billed for the twelve (12) month period immediately preceding such test, unless the time when the error first developed, or occurred can be definitely fixed, in which case the amount to be refunded shall be calculated from that time. Under no circumstances will an adjustment of a customer's bill be made if there is evidence that the meter has been tampered with.

2. Slow Polyphase Meters. Whenever a polyphase meter is found to be slow in excess of 2%, the Company may make a charge to the customer for the unbilled kilowatt hours supplied for the previous twelve (12) months or since the last test, whichever is the shorter period. However, where there is evidence that the meter has been tampered with, the Company may charge the customer for all unbilled kilowatt-hours supplied since the estimated data of the tampering.

3. Non-Registration. If a meter is found which does not register, the bill for the period of non-registration shall be based upon information recorded prior or subsequent to the period of non-registration and by any other pertinent information supplied by the customer or known to the public utility.

1.7.6 Testing Facilities and Equipment:

A. Single Polyphase Standards.

1. Laboratory Standards. Every public utility shall have available one or more laboratory standards for the sole purpose of checking working standards. All standards shall be certified at least once each year in a laboratory acceptable to the Division. Each standard shall be accompanied by calibration tables noting the corrections at various working loads. These calibration tables when superseded shall be kept on file in the office of the public utility for a period of two (2) years.

2. Each public utility shall have an adequate number of working standards for testing customers' meters. These working standards shall be compared to laboratory standards at least once every twelve (12) months. Each working standard shall be accompanied by a calibration table noting the corrections at various working loads. These calibration tables, when superseded shall be retained by the public utility for a period of two (2) years. If comparisons with the laboratory standards show the working standard to be in error by 1% or over, it shall be recalibrated and/or replaced. In case a public utility does not maintain a reference watthour standard, the working standards must be checked every twelve (12) months in a laboratory acceptable to the Division.

B. Each public utility shall have an adequate number of working standards for testing customers' meters. These working standards shall be compared to laboratory standards at least once every twelve (12) months. Each working standard shall be accompanied by a calibration table noting the corrections at various working loads. These calibration tables, when superseded shall be retained by the public utility for a period of two (2) years. If comparisons with the laboratory standards show the working standard to be in error by 1% or over, it shall be recalibrated and/or replaced. In case a public utility does not maintain a reference watthour standard, the working standards must be checked every twelve (12) months in a laboratory acceptable to the Division.

1.8 Equipment and Facilities

A. Standard Practice

1. In determining standard practice, the Division will be guided by the provisions of the NATIONAL ELECTRICAL SAFETY CODE, the NATIONAL ELECTRIC CODE, and such other relevant codes as shall be approved by the American Standards Association, except as any of the foregoing may in any particular case be modified by statute, ordinance, orders, rules or regulations by governmental bodies or agencies having jurisdiction.

B. Construction and Maintenance

1. Each public utility shall construct, install, operate and maintain its plant, structures, equipment and lines in accordance with standard practice as defined in paragraph 1 above, and insofar as practical, in such a manner as best to accommodate the public, and to prevent interference with service furnished by other public utilities.

C. Joint Pole Construction

1. Except as otherwise permitted by the Division for cause shown, all installations making use of poles either for single or joint occupancy shall conform to standard practice, and current joint-owned pole agreement between various utility companies.

D. Safety Instructions

1. Each public utility shall adopt comprehensive instructions for the safety of employees, and shall supply a copy thereof to each employee before assignment to duty in generating stations, substations, on overhead or underground lines, and shall be satisfied that such employees have been properly informed of safe practices and are cognizant of all hazards involved, as per OSHA standards, 29 C.F.R. § 1910.260, *et seq*., as the same from time to time are amended.

E. Resuscitation

1. Each public utility shall instruct its employees engaged in electrical work in the practice and use of accepted rules for resuscitation from electrical shock, as per OSHA standards 29 C.F.R. § 1910.260, *et seq*., as the same from time to time are amended. Copies of such rules shall be furnished to each such employee. Electrical work as used herein shall be construed to mean work on live electric conductors and equipment energized at potential exceeding 150 volts line to ground.

F. Accidents

1. Each public utility shall report to the Division as soon as possible after each accident happening in connection with the operation of its property, facilities or service, wherein any person shall have been caused an injury requiring hospitalization in excess of 24 hours. The first report may be preliminary, but, if so, shall be followed later by as full a statement as possible of the cause and details of the accident and the precautions taken, if any, to prevent similar accidents. In case of fatal accidents, immediate notice shall be given by telephone to the Division, (Form E-3, Appendix "D").

1.9 Records and Reports

A. Station Records

1. Each public utility shall keep sufficient records of the operation of its generating units and distribution supply feeders to show the characteristics and the performance of each.

2. Unless sufficient information is furnished by the public utility supplying the energy, each public utility purchasing electric energy shall maintain adequate instruments and meters to obtain complete information as to such purchases.

B. Preservation of Records

1. All records required by these rules shall be preserved by the public utility for a period of two (2) years unless otherwise specified herein or other controlling rules or regulations require a longer period of retention. Such records shall be kept within the State of Rhode Island at the office or offices of the public utility and shall be open at all reasonable hours for examination by the Division.

C. Reports to Division

1. Each Public Utility shall file periodic reports with the Division on the following forms which will be furnished by the Division upon Request:

Form No.	Title	Period	Appendix
E-1	Interruption of Service Report	Monthly	"A"
E-2	Periodic Meter Test Report	Annually	"B"
E-2A	Selective Meter Test Report	Annually	"C"
E-3	Utility Accident Report	As Required	"D"