

**RULES REGULATING THE SERVICE
OF
ELECTRIC UTILITIES**

Case No. 5320 Decision No. 68572

**EFFECTIVE JANUARY 1, 1967
AND AS AMENDED AS FOLLOWS:**

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RULE 1

Application of Rules.—(a) The following rules shall apply to any person, co-partnership, cooperative electric association, non-profit electric corporation or association, firm, corporation, their lessees, trustees, or receivers appointed by any court, now or hereafter engaged in the business of a public utility furnishing electricity to domestic, commercial or industrial customers, operating under the jurisdiction of The Public Utilities Commission of the State of Colorado.

(b) The adoption of these rules shall in no way preclude the Commission from altering or amending the same in whole or in part or from requiring any other additional service equipment, facility or standard, either upon complaint or upon its own motion, or upon the application of any utility. In special cases, for good cause shown, not contrary to statute, the Commission may permit deviation from these rules insofar as it may find compliance therewith to be impossible, impracticable or unnecessary. If, for good cause shown, any utility is permitted a deviation from any of these rules, such modified rules as authorized by the Commission shall be set forth in the filed tariffs of the utility. Furthermore, these rules shall not in any way relieve any utility from any of its duties under the laws of this State.

RULE 2

Definitions.—(a) The word "Utility" as used in these rules shall be construed to mean any person, co-partnership, cooperative electric association, non-profit electric corporation or association, firm, corporation, whether privately owned or otherwise, when subject to the jurisdiction of this Commission, their lessees, trustees or receivers appointed by any court whatsoever that may now or hereafter be engaged as a public utility in the business of furnishing electricity to domestic, commercial or industrial customers in the State of Colorado.

(b) The word "Commission" as used in these rules shall be construed to mean the Public Utilities Commission of the State of Colorado.

(c) The word "Customer" as used in these rules shall be construed to mean any person, group of persons, co-partnership, firm, corporation, institution, any agency of the Federal, State or local governments, their lessees, trustees, or receivers appointed by any court, contracting for electric service from any utility for consumptive domestic, commercial, or industrial use, or at wholesale.

RULE 3

Operating Schedules and Interruption of Service.—(a) Each utility shall adopt an operating schedule, and shall report the same, or any changes therein, to this Commission, indicating in any case where service is not rendered continuously, the time at which service is commenced, and the time at which it is discontinued. Any changes in such operating schedules shall be made only with the approval of this Commission. The operating schedules may be filed as a part of the utility rate schedules.

(b) Each utility shall keep a record of all interruptions of service upon its entire system or major divisions thereof, including a statement of the time, duration and cause of any such interruption. Each utility shall, except for stations operated without attendants, also keep a record of the time of starting up or shutting down the central station or substations. This record shall include the readings taken periodically of station meters and switch-

board instruments, which readings shall be taken with such frequency as the utility or the Commission may from time to time require.

(c) The record of interruptions of service and a statement of the operating schedules of the utility shall be open at all times to the inspection of the duly authorized representatives of this Commission.

(d) All records under this rule shall be retained by the utility for a period of three years.

RULE 4

Inspection of Plant and Equipment.—Each utility shall inspect its plant and distributing equipment and facilities in such manner and with such frequency as is in accord with good practice, in order that the same may be maintained in proper condition for use in rendering safe and adequate service.

RULE 5

Meter Testing Facilities and Equipment.—(a) Each utility furnishing metered electric service shall, unless specifically excused by the Commission, provide such meter laboratory, standard meters, instruments, and other equipment and facilities as may be necessary to make the tests required by these rules. Such equipment and facilities shall be acceptable to the Commission and shall be available at all reasonable times for the inspection of its authorized representatives.

(b) Each utility shall make such tests as are prescribed under these rules with such frequency and in such manner and at such places as may be approved by this Commission.

(c) Each utility furnishing metered electric service shall provide such portable indicating electrical testing instruments or watt-hour meters of suitable range and type for testing service watt-hour meters, switchboard instruments, recording volt-meters, and other electrical instruments in use, as may be deemed necessary and satisfactory by the Commission.

(d) For testing the accuracy of portable watt-hour meters, commonly called "rotating standards," and other portable instruments used for testing service meters, each utility not specifically excused by the Commission, as provided for in Section (a) of this rule, shall provide as reference or check standards suitable indicating electrical instruments, watt-hour meters, or any or all of them hereafter called "reference standards." Such reference standards may be of the service type of watt-hour meters, but if so, such watt-hour meters shall be permanently mounted in the meter laboratory of the utility and be used for no other purpose than for checking rotating standards.

(e) Reference standards shall be submitted at least once each year to a laboratory of recognized standing, for the purpose of test and adjustment. Utilities maintaining standardizing laboratories will be permitted to make their own tests and certification of reference standards, provided the instruments and methods in use are acceptable to this Commission.

(f) All working rotating standards (portable watt-hour meters) shall be compared with the reference standards at least once a week for commutator types, and once in two weeks for induction types, during the time such working standards are being regularly used. If working rotating standards (portable watt-hour meters) are in error of not more than one per cent, plus or minus, at any load at which the standard shall be used, the standard may be adjusted by comparison with the utility's reference stan-

dards. However, if working rotating standards test in error of more than one per cent, plus or minus, such standards shall be tested, adjusted, and certified in a standardizing laboratory of recognized standing. Where a utility does not have a reference standard of its own but has an exemption as provided in Part (a) herein, it shall have its working rotating standards (portable watt-hour meters) tested by a standardizing laboratory of recognized standing at least once a year. Each rotating standard (portable watt-hour meters) shall at all times be accompanied by a certificate or calibrating card signed by the standardizing laboratory, giving the date when it was last certified and adjusted. Records of certification and calibrations shall be kept on file in the office of the utility, for the life of the instruments.

(g) All portable indicating electrical testing instruments, such as volt-meters, ammeters and wattmeters, when in regular use for testing purposes, shall have their calibration regularly and frequently determined, using suitable reference standards. Instruments in constant use should be checked at least every two weeks, and if found appreciably in error at zero, or more than one per cent of full scale value at commonly used scale deflection shall, unless accompanied by a calibration card, be adjusted and certified by a laboratory acceptable to this Commission. This two-week interval may be lengthened if the instrument is used infrequently and is carefully handled, but in any case the instrument shall be checked at least annually.

RULE 6

Records of Tests and of Meters.—(a) A "meter record card" shall be maintained on each meter owned or used by the utility. Such records shall show the date of purchase, manufacturer's serial number, record of the present location, and date and results of the last test performed by the utility, which record shall be retained for the life of the meter.

(b) Whenever a meter is tested either on request or upon complaint the test record shall include the information necessary for identifying the meter, the reason for making the test, the reading of the meter if removed from service, the result of the test, together with all data taken at the time of the test in sufficiently complete form to permit the convenient checking of the methods employed and the calculations made. Such record shall be retained for a period of two years.

RULE 7

Accidents.—(a) Each utility shall, as soon as possible, report to this Commission each accident happening in connection with the operation of its property, facilities or service, wherein any person shall have been killed or seriously injured, or whereby any serious property damage shall have resulted. Such report to this Commission shall describe in detail:

- (1) Date, time, place, location
- (2) Extent of injuries and other damage
- (3) Names of all parties involved
- (4) Type of accident

In addition to the above, all utilities shall immediately upon the setting of any formal investigation of the accident, notify the Commission of the date, time and place of such investigation.

(b) All accident reports submitted to the Commission by the utility

shall be treated by the Commission, its staff and employees as confidential and shall not be made available to the public.

RULE 8

Complaints.—Each utility shall make a full and prompt investigation of all complaints made to it by its customers, either directly or through the Commission, and it shall keep a record of all written complaints received which shall show the name and address of the complainant, the date and character of the complaint, and the adjustment or disposal made thereof. This record shall be open at all times to the inspection of the duly authorized representatives of this Commission, and unless otherwise specified in these rules shall be retained by the utility for a period of two years.

RULE 9

Information for Customers.—(a) Each utility shall at any time, on request, give its customers such information and assistance as is reasonably possible in order that customers may secure safe and efficient service and may secure lamps and appliances properly adapted to the service furnished. Each utility shall inform each customer of any such change made or proposed to be made in any condition as to its service as would affect the efficiency of the service or the operation of the appliances or equipment which may be in use by said customer.

(b) Each utility supplying metered service, on request, shall explain to its customers the method of reading meters.

RULE 10

Meter Readings and Bill Forms.—(a) Each service meter shall indicate clearly the kilowatt hours and units of demand where applicable for which service the charge is made to the customer. In cases where the register and/or chart reading must be multiplied by a constant or factor to obtain the units consumed, the factor, factors or constant shall be clearly marked on the register or face of the meter.

(b) At the time of the reading of the customer's meter or thereafter, upon the customer's request, the utility will provide a card or slip showing the date of the reading, and either the total usage expressed in kilowatt hours or other unit of service recorded, or the position of the hands upon the dial of such meter at the time of the reading.

(c) All bills rendered to customers for metered service furnished shall show:

- (1) Net amount due;
- (2) Dates and meter readings beginning and ending the period during which service was rendered;
- (3) A distinct marking to identify an estimated bill;
- (4) An appropriate rate or rate code identification;
- (5) Last date payable after which the bill becomes past due; and
- (6) All other essential facts upon which the bill is based, including factors and/or constants where practical as in (a) above.

(d) Where a utility has the customer read the meter and submit the data to the utility, the tariff of the utility shall clearly state what areas

provide for customer meter reading and what areas are to be read by the utility. The tariff shall also state whether all meters in a particular area are to be read by the customer or if special conditions apply to certain classes of service, such as residential, commercial, industrial or seasonal. The tariff shall also specify in detail the procedure to be followed for customer meter reading.

(e) Any customer shall be permitted to make installment payments if a bill includes amounts from past billing period, arising solely from events under control of the utility such as meter malfunctions, billing errors, utility meter reading errors or failure to read the meter, which failure shall not apply where the meter is not readily accessible to the utility and the customer refuses to read his own meter. Any installment payments under the provisions of this rule may extend over a period equal in length to the period during which the errors were accumulated and shall bear no interest.

RULE 11

Customer Deposits.—(a) Any utility may require at any time from any customer or prospective customer, a cash deposit intended to guarantee payment of current bills only in accordance with this rule. Such required deposit shall not exceed the amount of an estimated ninety days' bill of such customer, or in the case of a customer whose bills are payable in advance, it shall not exceed an estimated sixty days' bill for such customer. The deposit pursuant to this rule may be in addition to any advance, contribution, or guarantee in connection with construction of lines or facilities as provided for in the extension policy as stated in the utility's tariffs. Simple interest shall be paid by the utility upon such deposits at the rate of seven percent per annum, payable upon the return of the deposit, or annually upon request of the customer, for the time such deposit was held by the utility and the customer was served by the utility, unless such period be less than six months. Interest payments may, at the option of the utility, be made either in cash, or by a credit to the customer's account. In computing interest, no consideration need be given to fractional parts of months.

(b) Customers who have previously received service from the utility shall be required to make a new or additional deposit only if previous payment record includes recent or substantial delinquencies. Customers who have not previously been served by the utility shall be treated uniformly within each rate classification so that either all or none of the new customers within such classification will be required to make a deposit.

(c) Each utility having on hand such deposits from customers, or hereafter receiving such deposits from customers, shall keep records to show:

- (1) The name of each customer making a deposit;
- (2) The premises occupied by the customer when making the deposit and each successive premises occupied while the deposit is retained by the utility;
- (3) The amount and date of making the deposit; and
- (4) A record of each transaction, such as the payment of interest, interest credited, etc., concerning such deposit.

(d) Each utility shall issue to every customer from whom such deposit is received a certificate of deposit.

(e) No utility shall refuse to return a deposit or any balance to which a customer may be entitled solely upon the basis that the customer is unable to surrender his certificate of deposit.

(f) Each utility shall file as part of its tariffs a brief statement setting forth its deposit requirement policy, explaining under what circumstances a deposit shall be required and when such deposit shall be returned.

(g) The making of a deposit shall not relieve any customer from payment of current bills as they become due and no deposit shall be applied by the utility to any indebtedness of the customer to the utility except to a bill for utility services due or past due after service is terminated.

(h) No utility shall require any security other than a cash deposit to secure payment for utility services except that a utility may provide for an acceptable third party guarantee of payment instead of a cash deposit requirement under this rule. In no event shall the furnishing of utility services or extension of utility facilities or any indebtedness in connection therewith result in a lien, mortgage or other security interest in any real or personal property of the customer, unless such indebtedness has been reduced to judgment.

RULE 12

Filing of Rate Schedules, Rules and Regulations.—(a) Copies of all schedules of rates and individual contracts for service, forms of routine contracts, charges for service connections and extensions of lines and of all rules and regulations covering the relations of customer and utility shall be filed by each utility in the office of this Commission.

(b) **Advice Notices:** Advice Notices, numbered serially, shall accompany each tariff sheet filing with the Commission. This notice shall list all sheets included in the filing by number and showing the sheet or sheets, if any, being cancelled. The purpose of the filing shall be explained in a brief statement as well as a statement concerning the extent to which customers will be affected by such filing. The Advice Notice shall be in substantially the following form:

NAME OF PUBLIC UTILITY

Advice No. _____ Date _____

The Public Utilities Commission
of the State of Colorado
500 Columbine Building
1845 Sherman Street
Denver, Colorado 80203

The accompanying tariff sheet(s) issued by _____ (name of utility) is (are) sent you for filing in compliance with the requirements of the Public Utilities Law:

Colo. P.U.C. No. _____ Electric _____

(Tabulate sheets attached as follows:)

Colo. P.U.C. Sheet Number	Title of Sheet	Cancels Colo. P.U.C. Sheet Number
_____	_____	_____
_____	_____	_____

Etc.

(Here give purposes to be accomplished by the filing and direct attention generally to the changes being made; also, state the amounts, if any, by which the utility's revenues will be affected. If customers are not adversely affected, so state).

It is desired that this filing shall become effective on statutory (30 days) notice. (If special short term authority has been sought, pursuant to Rule 17 B (2) of the Commission's Rules of Practice and Procedure, appropriately change language).

(Name and title of issuing officer)

(c) **Revised Tariff Sheets:** Each tariff sheet, not an original, shall be designated 1st revised sheet No. _____ cancels original sheet No. _____ or 2nd revised sheet No. _____ cancels 1st revised sheet No. _____, etc., shall direct attention to the changes contained therein by the use of suitable symbols in the right margin. These symbols may be "I" increase, "D" decrease, "C" change in text, "N" new text, etc. On a contents or index page the utility shall show the meaning of the symbols used by it to point out changes contained in its revised tariff filings.

If a tariff sheet is issued under a specific authority or decision of this Commission, each sheet so affected shall show the correct number in the space provided at the foot of the sheet.

(d) **Number of copies to be filed:** An original and one copy of each advice letter and tariff sheet shall be filed. The copy will be stamped as filed and returned to the utility.

NOTE: The utility may file as many additional copies as it wishes which will also be stamped and returned.

(e) **Schedules of rates, forms of contracts and rules and regulations** as filed with the Commission and available in the territory concerned shall also be on file in the local office of the utility and shall be open to inspection by the public during regular business hours.

(f) If the reasonableness of any charge, rule, regulation or practice of any utility with reference to service connections or extensions, or any rule covering the relations between customer and utility, is challenged, the Commission may, upon complaint and investigation, prescribe the proper charge, rule, regulation or practice which shall thereafter be followed.

(g) The Commission may reject any filing under this rule if the utility fails to comply with the provisions as set forth in said rule.

RULE 13

Discontinuance of Service.—(a) No utility shall discontinue the service of any customer for violation of any rule of such utility and/or for non-payment of any sum due for utility service except upon written notice of at least seven days, advising the customer in what particular such rule has been violated for which service will be discontinued, and/or the amount due and the date by which the same shall be paid. This rule shall not apply where a by-pass is discovered on a customer's service meter, or short circuit on a customer's premises, or in the case of a customer utilizing service in such a manner as to make it dangerous for occupants of the premises, thus making an immediate discontinuance of service to the premises imperative.

(b) **Delinquency in payment for service rendered to a previous occu-**

pant of the premises to be served and unpaid charges for services or facilities not ordered by the present or prospective customer shall not constitute a sufficient cause for refusal of service to a present or prospective customer; provided, however, the utility may decline to furnish service at the same premises for the use of a delinquent customer by subterfuge in any manner. Subterfuge includes, but is not restricted to an application for service at a given location in the name of another party by an applicant whose account is delinquent and who continues to reside at the premises. Service shall not be discontinued or refused for failure to pay any indebtedness except as incurred for utility service rendered by the utility in the State of Colorado.

(c) In the event a utility gives notice of discontinuance of service in accordance with section (a) of this rule, said notice shall advise the customer how to contact the utility to resolve any dispute, with respect to amount or date due, and/or with respect to violation of any rule, and, in addition, said notice shall advise the customer of his rights under this rule as follows:

(1) The right to make an informal complaint to the Commission Staff by letter, telephone or in person; and/or

(2) The right to request, in writing, a hearing before the Commission. The Commission may order the utility not to terminate service pending a hearing at the discretion of the Commission. Ordinarily, such an order not to terminate service will be issued only if

(a) The customer has posted a deposit with the utility equal to the amount in dispute; or

(b) The customer has previously made an informal complaint to the Commission Staff and Staff investigation of such complaint indicates probable success of the customer.

(d) In the event a customer requests a hearing on the proposed termination of service by the utility, the Commission shall set the matter for hearing at the earliest practicable time, which hearing shall be conducted in accordance with the Rules of Practice and procedure of the Commission. Upon motion by the utility, the Commission may order the applicant for a hearing to post an additional deposit with the utility in such amount as the Commission deems reasonable under the circumstances.

(e) Service shall not be discontinued for non-payment of any utility bill more than thirty (30) days overdue if current bills are paid when due and all past due amounts are being amortized by reasonable installment payments. Current bill means that portion of the bill which is not thirty (30) days past due.

RULE 14

Meters and Service Connections.—(a) All meters used in connection with electric metered service for billing purposes shall be furnished, installed and maintained at the expense of the utility.

(b) Any equipment, devices, or facilities furnished at the expense of the utility or on which the utility bears the expense of maintenance and renewal shall remain the property of the utility and may be removed by it at any time after discontinuance of service.

(c) Service connection to the customers premises in the case of aerial equipment of electric utilities shall be installed and maintained at the expense of the utility. The utility shall file with the Commission in its tariff the conditions under which underground service connection will be made. In special cases involving either overhead or underground service connections, the Commission will, if necessary, prescribe the proper charge.

RULE 15

Practice under these Rules to be filed.—Each utility shall file with this Commission within four months after receipt of this order, a statement, typewritten, properly identified and dated, on 8½ x 11 sheets, describing its practice under these rules as follows:

(1) Description of test methods employed and frequency of tests or observations for determining voltage of electric service furnished.

(2) Description of meter testing equipment, including methods employed to ascertain and maintain accuracy of all testing equipment.

(3) Rules covering testing and adjustment of service meters when installed and periodic tests after installation.

Revisions in any portion of this statement after filing will necessitate the filing of an entire new statement, properly identified and dated, cancelling the one on file.

RULE 16

Reports to Commission.—Each utility shall make special reports at such time and in such form as the Commission may from time to time require.

RULE 17

Microfilming of Records.—Nothing in these rules shall prevent any utility from microfilming any records it desires, provided that the microfilm shall be retained by the utility for the same period of time as specified for the original records.

RULE 18

Construction Requirement.—(a) The electric plant of the utility shall be constructed, installed, maintained and operated in accordance with accepted good engineering practice in the electric industry to assure, as far as reasonably possible, continuity of service, uniformity in the quality of service furnished and the safety of persons and property.

(b) The utility shall use as the minimum standard of accepted good practice the current edition of the National Electrical Safety Code as published by the National Bureau of Standards Handbooks:

- A. NBS Handbook H 30 containing—
 USA (United States of America) Standard Safety Rules for the Installation and Maintenance of Electrical Supply Stations, C2.1-1941 (Reaffirmed 1947)
 USA Standard Safety Rules for the Installation and Maintenance of Electric Utilization Equipment, C2.3-1941 (Reaffirmed 1947)
 USA Standard Safety Rules for Operation of Electric Equipment and Lines, C2.4-1939 (Reaffirmed 1947)
 USA Standard Safety Rules for Radio Installation, C2.5-1940 (Reaffirmed 1947)

- B. NBS Handbook H81-1961 containing—
USA Standard Safety Rules for the Installation and Maintenance of Electric Supply and Communication Lines, C2.2-1960.
- C. C2.2a-1965—Supplement to C2.2-1960.
- D. C2.2b-1967—Supplement to C2.2-1960.

RULE 19

Standard Voltage, Frequency and Permissible Variations.—(a) Each utility shall adopt and file with this Commission a standard average voltage, or voltages, and frequency, or frequencies, as may be required by its distribution system, for its entire system, or for each of the several districts into which the system may be divided.

(b) Every reasonable effort shall be made by the use of proper equipment and operation to maintain such voltage practically constant at all times. The suitability and adequacy of these service voltages may be determined at any time by this Commission. The voltage maintained at the utility's main service terminals* as installed for individual customers or groups of customers shall be reasonably constant as follows:

(1) For service rendered under a lighting contract or primarily for lighting purposes the voltage shall be within five per cent plus or minus of the standard adopted.

(2) For service rendered under a power contract or primarily for power purposes the voltage variation shall not exceed ten per cent above or ten per cent below the standard average voltage at any time when the service is furnished.

(3) A greater variation of voltage than that specified above may be allowed when service is furnished directly from a transmission line or in a limited or extended area where customers are widely scattered and the business done does not justify close voltage regulation. In such cases the best voltage regulation should be provided that is practicable under the circumstances. This clause refers particularly to individual customers or small groups of customers whose service from a transmission line is incidental, and does not refer to the voltage regulation in communities, cities or towns for which the transmission line was primarily built.

(c) Variations in voltage in excess of those specified caused by the operation of power apparatus on the customer's premises, which necessarily requires large starting currents, by the action of the elements, by infrequent and unavoidable fluctuations of short duration due to necessary station or line operations, shall not be considered a violation of this rule.

(d) Utilities supplying power to one or more other electric utilities may make application to the Commission for a specific ruling applicable to each particular case.

*The term "service terminal" refers to the point at which the utility's service connections terminate, at which point connection is made with the customer's wiring, and beyond which the utility has no responsibility.

RULE 20

Pole Identification.—(a) In the case of two or more utilities jointly owning or using a pole or pole line structure, each of these utilities shall

mark each such pole or structure with the initials of its name, abbreviation of its name, corporate symbol, or other distinguishing mark by which the ownership of such structure may be readily and definitely determined.

(b) Each utility shall in the future mark each such pole, post or other structure used for supporting electrical conductors with "dating nails" or other approved devices which will indicate the year in which such structures were installed. It is suggested that a different type of dating nail be used for new poles or structures and for poles re-used. All poles or structures known to have been installed or replaced during the preceding year shall likewise be so marked.

(c) The requirements herein shall apply to all existing and future erected structures and to all changes in ownership.

RULE 21

Pole Inspection.—Each pole, post, tower or other structure used for the support or attachment of electrical conductors, guys, or lamps, must be inspected by the utility owning or using it with sufficient frequency to determine the necessity for replacement or repair.

RULE 22

Voltage Surveys and Records.—Each utility shall provide itself with one or more portable indicating volt-meters and each utility serving more than 200 customers shall have one or more recording volt-meters of the curve drawing type suitable for the service voltages furnished. Each utility shall make a sufficient number of voltage surveys to indicate the character of service furnished from each center of distribution and to satisfy this Commission, upon request, of its compliance with the above voltage requirements. Utilities having curve drawing volt-meters shall keep at least one of these instruments in continuous service at the plant, office or some customer's premises. All volt-meter records shall be available for inspection by the authorized representatives of this Commission for a period of at least one year from the date of such records.

RULE 23

Location of meters.—(a) Meters shall be located in accordance with the pertinent rules of the utility as filed with the Commission and in accordance with accepted safe practice.

(b) Meters shall not be installed where they will interfere with traffic in halls or passageways, if indoors, or sidewalks or driveways, if outdoors, or where they will obstruct the opening of doors or windows; or in any location considered hazardous or where reading, testing or servicing of the meter may become impracticable; or where damage may be caused to any part of customer's premises. Meters shall not be installed in coal or wood bins or on partitions forming such bins or on any unstable partitions or supports. Meters shall not be located where visits of meter reader or servicemen will cause unreasonable annoyance or inconvenience to customer.

(c) Meter locations shall be such that the meters are easily accessible for reading, testing and servicing in accordance with the requirements of the utility.

RULE 24

Accuracy Requirements for Service Watt-Hour Meters.—(a) No service watt-hour meter that has an incorrect register constant, test constant,

gear ratio or dial train, or that registers upon no load ("creeps"), shall be placed in service or allowed to remain in service without proper adjustment and correction.

(b) No service watt-hour meter that has an error in registration of more than plus or minus two per cent at light load, or at heavy load, shall be placed in service. Demand meters may have an allowable error of not more than 2% of full scale deflection except that the allowable error for thermal type meters may be 3%. Whenever on installation, periodic or any other tests a meter is found to exceed these limits, it must be adjusted. A meter creeps when, with all load wires disconnected, the moving element makes one complete revolution in ten minutes or less.

(c) Light load shall be construed to mean approximately five to ten per cent of the nameplate rated capacity of the meter. Heavy load shall be construed to mean not less than sixty per cent nor more than one hundred per cent of the nameplate rated capacity of the meter.

(d) Meters used with instrument transformers or shunts shall be adjusted so that the overall accuracy of the metering installation will meet the requirements of this rule.

RULE 25

Meter Testing on Request.—Each utility furnishing metered electric service shall make a test of the accuracy of any electric service meter free of charge upon request of a customer; provided that the meter has not been tested within the twelve months period prior to such request and provided that the customer will accept the results of such test as a basis for the settlement of the difference claimed. A written report giving the result of such test shall be made to the customer requesting same, the original record being kept on file at the office of the utility for a period of at least two years.

RULE 26

Tests by Commission.—(a) Any service watt-hour meter will be tested by an employee of the Commission upon written application by the customer. For such test a fee shall be forwarded to the Commission by the party making application for the test, which fee shall be refunded to the customer by the utility if the meter be found fast beyond the limits prescribed in Rule 27. The schedule of fees for Commission tests of watt-hour meters is as follows:

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| (1) For continuous current and single phase meters operating at 600 volts or less, up to and including 25 amperes rated capacity of the meter element, each | \$2.00 |
| (2) For each additional 50 amperes or fraction thereof | 0.50 |
| (3) For single phase meters above 600 volts and for polyphase meters with or without instrument transformers up to and including 25 kilowatt rated capacity | 3.00 |
| (4) For each additional 25 kilowatts rated capacity or fraction thereof | 3.00 |

(b) Upon written application to the Commission by any electric utility, the Commission will make a test on any of the utility's service meters upon payment of the scheduled fee. This rule and the above schedule of fees

apply only when there is a dispute between the customer and the company regarding the accuracy of the meter.

RULE 27

Adjustment of Bills for Meter Errors.—(a) If on test of any service watt-hour meter, made upon the request of the customer, by either the utility or the Commission, it is found to be more than two per cent fast at any load, additional tests shall be made to determine the average error of the meter.

(b) Average error: The average error of the meter in tests made by the Commission or the utility at the request of the customer shall be defined as the arithmetic average of the per cent registration at light load and at heavy load, giving the heavy load registration a weight of four and the light load registration a weight of one.

(c) When a meter is found to have a positive average error; that is, is fast in excess of two per cent in tests made at the request of the customer by either the Commission or the utility, the utility shall refund to the customer an amount equal to the excess charged for the kilowatt-hours incorrectly metered for a period equal to one-half of the time elapsed since the last previous test, but not to exceed six months.

(d) When a meter is found to have a negative average error; that is, is slow in excess of the two per cent in tests made at the request of the customer by either the Commission or the utility, the utility may make a charge to the customer for the kilowatt hours incorrectly metered for a period equal to one-half of the time elapsed since the last previous test, but not to exceed six months.

(e) If a meter is found to have an incorrect register ratio or multiplier, the error shall be corrected. Where the error is adverse to the customer, the utility shall refund to the customer an amount equal to the excess charged for the kilowatt-hours incorrectly metered for the period of time the meter was used in billing the customer. Where the error is adverse to the company, the utility may make a charge to the customer for the kilowatt-hours incorrectly metered for the period of time the meter was used in billing the customer.

(f) If a meter is found not to register, to register intermittently, or to partially register for any period, the utility shall estimate a charge for the kilowatt-hours used by averaging the amounts registered over similar periods, or over corresponding periods in previous years or such other acceptable information available.

RULE 28

Installation Tests.—All service watt-hour meters shall be tested and adjusted to register accurately to within the limits specified in Rule 24 and to otherwise conform with the requirements of that rule, either before installation or within sixty days after installation.

RULE 29

Periodic Test Schedule.—In the test intervals specified below, the word "years" means calendar years and the word "months" means calendar months. The basic periodic test interval shall not be longer than provided for in the following schedule:

- a. Alternating current watt-hour meters:
1. Meters used with instrument transformers:
 - a. Polyphase meters 4 years
 - b. Single phase meters 8 years
 2. Self-contained polyphase meters 8 years
 3. Self-contained single phase meters and three wire network meters 8 years
- b. Direct current watt-hour meters:
1. Up to and including 6-KW 42 months
 2. Over 6 KW up to including 100 KW 18 months
 3. Over 100 KW 12 months
- c. Var-hour Meters: Same as the schedule for associated watt-hour meters,
- d. Demand meters:
1. Integrated (block interval) demand meters including demand registers and associated control devices. Same as the schedule for associated watt-hour meters, but not to exceed 6 years.
 2. Lagged demand meters Same as the schedule for associated watt-hour meters.

RULE 30

Station Instruments and Watt-Hour Meters.—Each utility shall install such wattmeters, indicating instruments or watt-hour meters as may be necessary to obtain a daily record of the load, and a monthly record of the output of its plants. Each utility purchasing electrical energy shall install such instruments or watt-hour meters as may be necessary to furnish full information as to the monthly purchases.

RULE 31

EXTENSION OF SERVICE, LINES AND FACILITIES

SECTION 1 — GENERAL

Applicable to all service.

(a) The term "distribution system" shall be interpreted to mean the utility's electric lines located on public highways, private ways, or rights-of-way owned or leased by the utility, used for the purpose of general distribution of electrical energy to its customers. Lines for transmitting electric energy from generating plants, purchase points, and other sources of supply to substations for transformation or distribution may be designated by the utility as transmission lines and not subject to the provisions of this rule.

The term "service connection" shall be interpreted to mean only the customer's "service loop" defined as the overhead span between the last pole of the utility's general distribution system and the point of attachment to the customer's installation.

When the branch of the distribution system necessary to supply service to an individual customer requires the construction of more than a service loop, although for his sole use, such construction shall be included as part of the utility's general distribution system if located on public highways or

rights-of-way acceptable to the utility, unless said distribution line is owned, operated and maintained by customer.

(b) Electric service for purposes of the extension of lines and facilities of the utility shall be classified as:

(1) "Permanent Service" construed to mean service to domestic, small commercial and rural customers when the use of service, both as to amount and permanency, can be reasonably assured.

(2) "Indeterminate Service" construed to mean service to mining, industrial, manufacturing and large commercial customers; also to domestic, commercial, power or rural customers when the use of service cannot be reasonably assured as to its amount and permanency.

(3) "Temporary Service" construed to mean the use of service for a period not to exceed eighteen months, unless otherwise specified herein. (See III, B, (e)).

(c) Every electric public utility operating in territory under jurisdiction of this Commission shall file with the Commission its electric distribution line Extension Policies, setting forth the conditions under which the utility shall, for the respective service as heretofore classified in paragraph (b), make extensions to premises not connected to its general distribution system, or make added investment in facilities for service already connected.

Such policies shall conform to the provisions hereinafter set forth under "Revenue Guarantee Plan" and "Construction Deposit Plan" in Sections II and III hereof. The utility shall, upon proper notification by the Commission, submit the information necessary to justify these policies. Any utility, however, upon proper showing that special conditions warrant, may be permitted to file extension policies, for a portion of territory served by said utility, not in conformity with said provisions.

(d) Each utility may write into its extension policy such qualifying clauses, limitations or explanations as it may find necessary to protect it against making unwarranted or uneconomical investments which might react adversely through rates or service upon existing customers. Each utility may establish separate policies for various territories and classes of service.

(e) Extension policies filed with this Commission shall be subject to the rights and practices of the Commission to refuse or to require alterations, amendments, or modifications. Standards of Construction shall be filed with the Commission within thirty days after the filing of any extension policy and thereafter shall be revised in the same general manner as rate schedules.

(f) Whenever, in considering a proposed extension, a utility finds that a fixed charge per month per customer, in addition to the general rate applicable to service on said proposed extension, is necessary for an indefinite period, nothing in this rule shall prohibit the utility from providing a special rate in its schedule applicable to said extension or territory properly designated in the rate. Said rate shall include this special charge in addition to those in the general rate applicable and the whole rate is then subject to all the provisions and procedure in effect before this Commission. Such rate may be established for said service preliminary to the building of an extension or prior to the expiration of the development period.

(g) Nothing in this rule shall be construed to prevent the Commission from considering upon its own merits and acting upon any demand for an

extension not economically sound and feasible under this rule but otherwise lawful. Such action will be taken without waiver of this rule as to other prospective extensions, in order to meet special situations likely to arise, especially in industrial and mining service. Such special extension agreements must be filed and accepted by the Commission in the manner prescribed for extension policies prior to commencing construction. Nothing in this rule shall be construed to preclude the Commission from relieving any electric utility from the obligation imposed by its extension policy in accordance with this rule should the special circumstances of the case warrant such relief nor to preclude the Commission from altering, modifying or amending this rule from time to time as the Commission may deem necessary or advisable.

SECTION II — REVENUE GUARANTEE PLAN

Applicable to "Permanent Service" as defined in Section I.

(a) Every electric public utility, operating under the jurisdiction of this Commission, shall own, build, operate and maintain every extension of its distribution system for "Permanent Service." The utility shall not require any customer or prospective customer, requesting electric service classified as "Permanent" where reasonable assurance can be furnished that the amount and permanency of service warrants the construction, and continued operation and maintenance of the facilities required, to advance all, or any part, of the cost thereof, except as authorized by this Commission for certain territories and conditions and as fully set forth in the extension policies filed by the utility with this Commission.

(b) Extensions of a utility's distribution system upon public highways or rights-of-way acceptable to the utility, shall be built within a reasonable period after request for service by bona fide applicant or applicants whenever the assured (See Rule 11 which provides for collection of a customer's deposit to guarantee payment of bills according to the terms of the utility's extension policy) monthly or annual revenue under the rates applicable to service from said extension shall be of sufficient amount and permanency to justify the existence of such extension, and shall be made strictly in accordance with the terms of its extension policy as set forth in the Rules and Regulations of its rate schedule legally in effect and on file with this Commission.

(c) Each such extension policy shall specifically set forth the relation that the investment the utility is justified in making for an extension bears to the said assured monthly or annual revenue. This relation shall be expressed as the extension percentage of said revenue to said investment, or as the extension ratio of said investment to said revenue; in urban territory this relation may be limited by a fixed minimum amount of construction to be provided by the utility. A utility may adopt separate ratios of investment to revenue for different territories and conditions of service.

(d) Said investment shall include all costs necessary for the extension such as primary and secondary distribution, rights-of-way and tree trimming, meters, service loops, transformers completely installed including special housing, special supports, lightning arresters and other protective equipment; except that in urban territory as defined in utility's extension policy the cost of meters, service loops and transformers shall not be included in said investment. The cost of meters, service loops and/or transformers installed shall not be covered in the manner stated above in the

event the rate applicable specifically provides a method which takes care of such costs.

(e) Said investment shall be the actual necessary cost of the particular extension; it shall not include or be determined with reference to provision for additional capacity, size or strength in excess of that actually necessary to meet the requirements of the customer or customers to be then served and the requirements of the National Electrical Safety Code. Actual necessary cost may be determined in agreement with the utility's standard unit construction costs, if same are filed as a supplementary part of its extension policy or when such unit costs are not so established, an estimated cost may be used in advance of construction subject to adjustment to the actual cost thereof within a reasonable time after construction is completed.

(f) Nothing in paragraphs (d) and (e) shall be interpreted as a prohibition against the construction of an extension having more than sufficient capacity, size or strength to meet the requirements of the customers to be then served, provided all the additional capacity, size or strength is constructed by the utility without obligation to customers.

(g) In the event said assured monthly or annual revenue is less than is necessary to justify the proposed extension (as indicated by the extension percentage or extension ratio) service to such customer or customers, if still desired but subject to the provisions of paragraphs (d) and (g) of Section I, shall be classified as "Indeterminate Service" and connected under the "Construction Deposit Plan" as set forth in Section III.

(h) When more than one customer is to be served from a prospective extension, the utility's extension policy shall provide a method for apportioning the amount necessary to justify the extension among the individual customers of the group; provided any customer may assume, subject to acceptance by the utility, more than his apportionment of same amount.

(i) A utility may require payment of the required monthly or annual revenue continuously or may establish a development period dependent upon the character of load and territory served.

(j) A utility shall connect additional customers desiring Permanent Service and complying with the provisions of Sections I and II. When the connection of additional customers to an existing extension is proposed the total investment cost (e) shall be ascertained and the corresponding necessary revenue shall be recalculated to include the revenue of the then existing and the proposed new customers. If the resulting revenue to be assured by existing customers is greater than that ordinarily determined the proposed additional customers shall not be accepted as members of the original group on the existing extension but said proposed new extension shall then be considered independently as a separate extension. However, if the resulting revenue to be assured is less than that originally determined then the resultant revenue shall be assured by existing and new customers alike from date of said adjustments, but no refunds shall be made for the period prior to said date.

SECTION III — CONSTRUCTION DEPOSIT PLAN

A. Indeterminate Service

(a) "Indeterminate Service" as hereinbefore defined includes mines, quarries, oil wells, industrial and commercial enterprises of speculative character, real estate subdivisions, development of property for sale, enterprises where the applicant will not be the user of service, where there is

little or no immediate demand for service, and to other service (except that of a temporary character as hereinafter set forth) where the amount and permanency of service cannot be reasonably assured.

(b) For service of indeterminate character the utility may require the prospective customer to advance all or a portion of the total cost including service loops, meters and transformers. Such advance shall not draw interest. Each utility making extensions under this plan shall file with the Commission its extension policies applicable to said indeterminate service setting forth its method of refund, if any. Where the estimated revenue is not sufficient to warrant operation and maintenance of the extension the utility may require a fixed charge in addition to the general rate applicable to the service or may require the prospective customer to advance an amount sufficient to warrant such operation and maintenance.

B. Temporary Service

(a) "Temporary Service," as herein defined, refers to circuses, bazaars, fairs, concessions and similar enterprises, to construction works, etc., of a temporary nature and to ventures of such uncertain, speculative character that their permanency is questionable, such as coal and metal mining or oil and gas production operations during the preliminary or development period.

(b) Any utility may, if in its opinion the furnishing of such service will not work an undue hardship upon it or its then existing customers, furnish said temporary service in accordance with the terms of its extension policy for temporary service. In promulgating such extension policies the utilities should make them conform as closely as feasible to those written for permanent service except that the utility may require the customer or prospective customers to advance all, or any part of the cost thereof including the cost of dismantling less salvage. Also the utility may provide that additional customer or customers will not be connected to temporary extension, or otherwise restrict such additional service to fairly meet the essential conditions.

(c) Extension policies for temporary service shall be filed with the Commission and shall be subject to its rights and practices to refuse or to require alterations, amendments or modifications.

(d) In no event shall temporary service be supplied except in accordance with the utility's extension policy then on file and in effect.

(e) Temporary service normally shall not be continued for a period longer than eighteen months, except where heavy construction, such as dams or tunnels, etc., are involved, and where the period of service in these instances is of known duration but longer than eighteen months, in the instances cited herein, the utility may continue to render temporary service under its Agreements, but in any other instances if the period exceeds eighteen months and the customer or customers still desire and request service, it shall then be provided in accordance with all the terms of the extension policy of the utility applicable to "Permanent" or "Indeterminate Service" without further consideration of the obligations provided in the Temporary Service Agreement.