BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: Proposed Revision of)
Rules 25-6.044 and 25-6.046,)
F.A.C., Quality of Electric)
Service; Proposed Adoption of)
Rule 25-6.0455, F.A.C., Annual)
Quality of Service Report, and)
Proposed Repeal of Rule)
25-6.045, F.A.C., Frequency)
Standards

DOCKET NO. 920228-EI

ORDER NO. PSC-93-0192-FOF-EI

ISSUED: 02/08/93

NOTICE OF ADOPTION

NOTICE is hereby given that the Commission, pursuant to section 120.54, Florida Statutes, has adopted Rule 25-6.0455, amendments of Rules 25-6.044, 25-6.046, and repealed Rule 25-6.045, F.A.C.

The rules were filed with the Department of State on February 5, 1993 and will be effective on February 25, 1993. A copy of the relevant portions of the certification filed with the Secretary of State is attached to this Notice.

This docket is closed upon issuance of this notice.

By ORDER of the Florida Public Service Commission this 8th day of February, 1993.

STEVE TRIBBLE, Director

Division of Records & Reporting

(SEAL)

adp25-61.mrd

25-6.044 Continuity of Service.

(1) Definitions:

- (a) "Service Interruption". An unplanned interruption of electric service greater than or equal to one minute due to a malfunction on the distribution system or a distribution-related outage caused by events on the utility's side of customer meters which is triggered by load management restoration. The term does not include interruptions due to momentary circuit breaker operations, hurricanes, tornados, ice on lines, planned load management, or electrical disturbances on the generation or transmission system.
- (b) "Customer Interruption Duration" (L). The time interval, in minutes, between the time when a utility first becomes aware of a service interruption and the time of restoration of service to a customer affected by that service interruption.
- minutes of service interruption experienced on a utility's system during a given time period, determined by summing the total minutes of Customer Interruption Duration for all interruptions during that time period. The total minutes of Customer Interruption Duration for an individual interruption is calculated by summing the Customer Interruption Duration for each customer affected by that individual interruption (estimated if actual data is not

available).

- (d) "Number of Service Interruptions (N)." The sum of service interruptions for the entire distribution system, or whichever portion of the distribution system which is being reviewed.
- (e) "Average length of a Service Interruption (L-Bar)." The time interval, in minutes, between the time when the utility first becomes aware of a service interruption and restoration of service to the last customer affected by that service interruption, summed for all service interruptions occurring during a given time period, and divided by the Number of Service Interruptions in the same time period.
- (2) Each utility shall keep a record of the cause of each Service Interruption, and shall categorize the cause as one or more of the following: lightning, tree or limb contacting line, animal, line downed by vehicle, dig-in, substation outage, line transformer failure, salt spray on insulator, corrosion, other, or unknown, and shall further identify whether the initiating event occurred on overhead or underground distribution lines.
- (3)(1) Each utility shall make all reasonable efforts to prevent interruptions of service and when such interruptions occur shall attempt endeavor to restore re-establish service within the shortest time practicable consistent with safety.

(4)(2) When the service is necessarily interrupted or curtailed for prolonged periods and for the purpose of working on the system, it shall be done at a time which, when at all practicable, will cause the least inconvenience to customers and all such scheduled interruptions shall be preceded by adequate notice whenever practicable to affected customers.

(5)(3) The provisions of this rule shall not apply to customers receiving service under interruptible rate classifications.

Specific Authority: 366.05(1), F.S.

Law Implemented: 366.05, F S.

History: New 7/29/69, amended 02/25/93, formerly 25-6.44.

Each utility shall file a written Distribution Service
Reliability Report with the Director of the Commission's Division
of Electric and Gas on or before March 1st of each year, covering
the preceding calendar year. The report shall contain the
following information:

- (a) the utility's total number of service interruptions (N), categorized by cause as specified in Rule 25-6.044, and the average length of service interruptions experienced (L-Bar).
- (b) identification of the three percent of the utility's feeders with the highest number of feeder breaker interruptions. Each feeder shall be identified by its number, substation, and general location as well as the estimated number of customers in each service class served by the feeder circuit, as well as the number of service interruptions (N) and average length of service interruption (L-Bar) for the feeder.

Specific Authority: 366.05(1), F.S.

Law Implemented: 366.05, F.S.

History: New 02/25/93

25-6.045 Frequency Standards.

- (1) The standard frequency for alternating current supply systems shall be sixty cycles per second. Under normal operating conditions the frequency of inter connected systems shall not vary more than plus or minus 2% from the standard frequency. The frequency of an isolated system shall not vary more than plus or minus 5% from the standard frequency of that system.
- (2) Each utility generating all or a substantial part of its requirements shall have at its main generating station or load dispatching office a master clock or will adhere to a procedure designed to indicate average frequency which shall, if necessary, be adjusted to the correct indication once a day. Every reasonable effort shall be made to operate at the standard frequency.
- (3) Variations of frequency in excess of those specified above caused by service interruptions, action of the elements, temporary separation of parts of the system or other causes beyond the control of the utility, shall not be considered a violation of these rules.

Specific Authority: 366.05(1), F.S.

Law Implemented: 366.05(1), F.S.

History: Amended 7/29/69, formerly 25-6.45. Repealed 02/25/93.

25-6.046 Voltage Standards.

- (1) Each utility shall adopt standard nominal voltages conforming to modern usage, as may be required by the design of its distributing and transmission system for its entire service area or for each of the districts into which its system may be divided.
- (a) For service rendered to customers whose principal consumption shall be for lighting and/or residential purposes, the voltage at the point of delivery shall not exceed 5% above or below the standard voltage adopted.
- (b) For service rendered principally for industrial or power purposes, excluding residential purposes, the voltage at the point of delivery shall not exceed 7 1/2% above or below the standard voltage adopted.
- (c) Sudden changes in voltage that exceed 5% of the standard voltage and occur more frequently than two times per hour, or changes of 2 1/2% that occur more frequently than once per minute shall be limited to magnitudes and frequency of occurrence compatible with the customer's requirements.
- (d) The limitations in (a), (b) and (c) may be modified for cases in which the customer specifically agrees to accept service not meeting the specified limits.
- (2) Where the utility's facilities are reasonably adequate and of sufficient capacity to carry the actual loads normally

imposed, the utility may require that the equipment on the customer's premises shall be such that the starting and operating characteristics will not cause an instantaneous voltage drop of more than 4% of the standard voltage, measured at the point of delivery, or cause objectionable flicker to other customers' service.

- above caused by service interruptions, action of the elements, temporary separation of parts of the system, infrequent and unavoidable fluctuations not exceeding five (5) minutes duration, operation of the customers' equipment at low power factor, unbalanced loading, or other causes beyond the control of the utility shall not be considered a violation of this rule.
- (4) Each utility shall make such load and voltage surveys necessary to determine the character of service furnished its customers and make such information available to the Commission upon request.

Specific Authority: 366.06(1), F.S.

Law Implemented: 366.06(1), F.S.

History: Amended 7/29/69, 02/25/93, formerly 25-6.46.