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OFFICE OF THE GENERAL COUNSEL
HAROLD A. MCLEAN
GENERAL COUNSEL
(850) 413-6199

Public Service Commission

October 9, 2002

Mr. Carroll Webb
Joint Administrative Procedures Committee
Room 120 Holland Building
Tallahassee, FL 32399-1300

Dear Mr. Webb:

RE: Docket No. 011351-EI - Rule Nos. 25-6.044 and 25-6.0455, Service Reliability Rules

Dear Mr. Webb:

The Commission has approved the adoption of Rule 25-6.044 and 25-6.0455 without changes.

We plan to file the rule for adoption on October 18, 2002.

Sincerely,

Christiana T. Moore
Senior Attorney

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Enclosure

cc: Division of the Commission Clerk
and Administrative Services

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1 25-6.044 Continuity of Service.

2 (1) Definitions applicable to this part:

3 (a) "Area of Service." A geographic area where a utility
4 provides retail electric service. An Area of Service can be the
5 entire system, a district, or a region into which a utility
6 divides its system. ~~"Service Interruption".~~ An unplanned
7 ~~interruption of electric service greater than or equal to one~~
8 ~~minute due to a malfunction on the distribution system or a~~
9 ~~distribution-related outage caused by events on the utility's~~
10 ~~side of customer meters which is triggered by load management~~
11 ~~restoration.~~ The term does not include interruptions due to
12 ~~momentary circuit breaker operations, hurricanes, tornados, ice~~
13 ~~on lines, planned load management, or electrical disturbances on~~
14 ~~the generation or transmission system.~~

15 (b) "Average Duration of Outage Events (L-Bar)." The sum
16 of each Outage Event Duration for all Outage Events occurring
17 during a given time period, divided by the Number of Outage
18 Events over the same time period within a specific Area of
19 Service. ~~"Customer Interruption Duration" (L).~~ The time
20 ~~interval, in minutes, between the time when a utility first~~
21 ~~becomes aware of a service interruption and the time of~~
22 ~~restoration of service to a customer affected by that service~~
23 ~~interruption.~~

24 (c) "Customer Average Interruption Duration Index (CAIDI)."
25 The average time to restore service to interrupted retail

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1 customers within a specified Area of Service over a given period
2 of time. It is determined by dividing the sum of Customer
3 Minutes of Interruption by the total number of Service
4 Interruptions for the respective Area of Service. "System
5 Interruption Time". ~~The total customer minutes of service~~
6 ~~interruption experienced on a utility's system during a given~~
7 ~~time period, determined by summing the total minutes of Customer~~
8 ~~Interruption Duration for all interruptions during that time~~
9 ~~period. The total minutes of Customer Interruption Duration for~~
10 ~~an individual interruption is calculated by summing the Customer~~
11 ~~Interruption Duration for each customer affected by that~~
12 ~~individual interruption (estimated if actual data is not~~
13 ~~available).~~

14 (d) "Customers Experiencing More Than Five Interruptions
15 (CEMI5)." The number of retail customers that sustain more than
16 five Service Interruptions for a specified Area of Service over a
17 given period of time. "Number of Service Interruptions (N)."
18 ~~The sum of service interruptions for the entire distribution~~
19 ~~system, or whichever portion of the distribution system which is~~
20 ~~being reviewed.~~

21 (e) "Customer Minutes of Interruption (CMI)." For a given
22 Outage Event, CMI is the sum of each affected retail customer's
23 Service Interruption Duration. "Average length of a Service
24 Interruption (L-Bar)." ~~The time interval, in minutes, between~~
25 ~~the time when the utility first becomes aware of a service~~

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1 ~~interruption and restoration of service to the last customer~~
2 ~~affected by that service interruption, summed for all service~~
3 ~~interruptions occurring during a given time period, and divided~~
4 ~~by the Number of Service Interruptions in the same time period.~~

5 (f) "Momentary Average Interruption Event Frequency Index
6 (MAIFIE)." The average number of Momentary Interruption Events
7 recorded on primary circuits for a specified Area of Service over
8 a given period of time.

9 (g) "Momentary Interruption." The complete loss of voltage
10 for less than one minute. This does not include short duration
11 phenomena causing waveform distortion.

12 (h) "Momentary Interruption Event." One or more Momentary
13 Interruptions recorded by the operation of a utility distribution
14 interrupting device within a five minute period. For example,
15 two or three operations of a primary circuit breaker within a
16 five minute period that did not result in a Service Interruption
17 is one Momentary Interruption Event.

18 (i) "Number of Customers Served (C)." The sum of all
19 retail customers on the last day of a given time period within a
20 specific Area of Service.

21 (j) "Number of Outage Events (N)." The sum of Outage
22 Events for an Area of Service over a specified period of time.

23 (k) "Outage Event." An occurrence that results in one or
24 more individual retail customer Service Interruptions.

25 (l) "Outage Event Duration (L)." The time interval, in

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1 minutes, between the time when a utility first becomes aware of
2 an Outage Event and the time of restoration of service to the
3 last retail customer affected by that Outage Event.

4 (m) "Service Interruption." The complete loss of voltage
5 of at least one minute to a retail customer.

6 (n) "Service Interruption Duration." The time interval, in
7 minutes, between the time a utility first becomes aware of a
8 Service Interruption and the time of restoration of service to
9 that retail customer.

10 (o) "System Average Interruption Duration Index (SAIDI)."
11 The average minutes of Service Interruption Duration per retail
12 customer served within a specified Area of Service over a given
13 period of time. It is determined by dividing the total Customer
14 Minutes of Interruption by the total Number of Customers Served
15 for the respective Area of Service.

16 (p) "System Average Interruption Frequency Index (SAIFI)."
17 The average number of Service Interruptions per retail customer
18 within a specified Area of Service over a given period of time.
19 It is determined by dividing the sum of Service Interruptions by
20 the total Number of Customers Served for the respective Area of
21 Service.

22 (q) Planned Service Interruption." A Service Interruption
23 initiated by the utility to perform necessary scheduled
24 activities, such as maintenance, infrastructure improvements, new
25 construction due to customer growth. Customers are typically

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1 notified in advance of these events.

2 (2) Each utility shall keep a record of its system
3 reliability and continuity of service data, customers' Service
4 Interruption notifications, and other data necessary for the
5 reports filed under these rules. The utility shall record each
6 Outage Event as planned or unplanned and shall identify the point
7 of origination such as generation facility, transmission line,
8 transmission substation equipment, or distribution equipment.
9 The cause of each Outage event shall be determined and recorded
10 in a standardized manner throughout the utility. The date and
11 time of the Outage Event and the number of Service Interruptions
12 for the Outage Event shall also be recorded ~~the cause of each~~
13 ~~Service Interruption, and shall categorize the cause as one or~~
14 ~~more of the following: lightning, tree or limb contacting line,~~
15 ~~animal, line downed by vehicle, dig-in, substation outage, line~~
16 ~~transformer failure, salt spray on insulator, and corrosion,~~
17 ~~other, or unknown, and shall further identify whether the~~
18 ~~initiating event occurred on overhead or underground distribution~~
19 ~~lines.~~

20 (3) Each utility shall make all reasonable efforts to
21 prevent interruptions of service and when such interruptions
22 occur shall attempt to restore service within the shortest time
23 practicable consistent with safety.

24 (4) When the service is necessarily interrupted or
25 ~~curtailed for prolonged periods and for the purpose of working on~~

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1 ~~the system~~, it shall be done at a time which, when at all
2 practicable, will result in~~cause~~ the least inconvenience to
3 customers and all such scheduled interruptions shall be preceded
4 by reasonable~~adequate~~ notice whenever practicable to affected
5 customers. Each utility shall maintain a current copy of its
6 noticing procedures with the Division of Economic Regulation.

7 (5) The provisions of this rule shall not apply to a
8 curtailment or an interruption of service to customers receiving
9 service under interruptible rate classifications when the
10 curtailment or interruption of service occurs pursuant to the
11 affected retail customer's service agreement.

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

13 Law Implemented: 366.03, 366.04(2)(c), 366.04(5), 366.05, F S.

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

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1 25-6.0455 Annual Distribution Service Reliability Report.

2 (1) Each utility shall file a ~~written~~ Distribution Service
3 Reliability Report with the Director of the Commission's Division
4 of Economic Regulation Electric and Gas on or before March 1st of
5 each year, for covering the preceding calendar year. The report
6 shall contain the following information:

7 (a) the utility's total number of Outage Events ~~service~~
8 ~~interruptions~~ (N), categorized by cause for the highest 10 causes of
9 Outage Events ~~as specified in Rule 25-6.044~~, and the Average
10 Duration of Outage Events ~~average length of service interruptions~~
11 ~~experienced~~ (L-Bar), and Average Service Restoration Time (CAIDI).

12 The utility shall record these data and analyses on Form PSC/ECR
13 102-1, entitled "Outage Events" which may be obtained from the
14 Division of Economic Regulation, 2540 Shumard Oak Boulevard,
15 Tallahassee, Florida 32399-0850, 850/413-6900;:-

16 (b) identification of the three percent of the utility's
17 Primary Circuits (feeders) with the highest number of feeder
18 breaker interruptions. For each primary circuit so ~~Each feeder~~
19 ~~shall be identified~~ the utility shall report the primary circuit
20 identification by its number or name, substation origin, and
21 general location, ~~as well as the estimated number of affected~~
22 customers by in each service class served by the feeder circuit,
23 Number of Outage Events ~~as well as the number of service~~
24 interruptions (N) , Average Duration of Outage Events ~~and average~~
25 length of service interruption (L-Bar) , Average Service Restoration

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1 Time (CAIDI), whether the same circuit is being reported for the
2 second consecutive year, the number of years the primary circuit
3 was reported on the "Three Percent Feeder List" in the past five
4 years, and the corrective action date of completion for the feeder.
5 The utility shall record these data and analyses on Form PSC/ECR
6 102-2, entitled "Three Percent Feeder List" which may be obtained
7 from the Division of Economic Regulation, 2540 Shumard Oak
8 Boulevard, Tallahassee, Florida 32399-0850, 850/413-6900;

9 (c) the reliability indices SAIDI, CAIDI, SAIFI, MAIFIe, and
10 CEMI5 for its system and for each district or region into which its
11 system may be divided. The utility shall report these data and
12 analyses on Form PSC/ECR 102-3, entitled "System Reliability
13 Indices" which may be obtained from the Division of Economic
14 Regulation, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-
15 0850, 850/413-6900. Any utility furnishing electric service to
16 fewer than 50,000 retail customers shall not be required to report
17 the reliability indices MAIFIe or CEMI5;

18 (d) the calculations for each of the required indices and
19 measures of distribution reliability;

20 (2) A utility may exclude from the Annual Distribution
21 Service Reliability Report the Outage Events directly caused by one
22 or more of the following: planned interruptions, a storm named by
23 the National Hurricane Center, a tornado recorded by the National
24 Weather Service, ice on lines, a planned load management event, an
25 electric generation disturbance, an electric transmission system

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1 disturbance, or an extreme weather or fire event causing activation
2 of the county emergency operation center.

3 (3) A utility may submit a request to exclude an Outage Event
4 from the Annual Distribution Service Reliability Report that is not
5 specifically provided for in Rule 25-6.0455(2). Such a request
6 must be filed with the Commission's Division of the Commission
7 Clerk and Administrative Services within 30 days of the Outage
8 Event for which an exclusion is being requested. The Commission
9 will approve the request if the utility is able to demonstrate that
10 the outage was not within the utility's control, and that the
11 utility could not reasonably have prevented the outage.

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

13 Law Implemented: 366.03, 366.04(2)(c)&(f), 366.04(5), 366.05,
14 366.05(7), F.S.

15 History: New 02/25/93, amended .

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