State of Florida

Public Service Commission

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-M-E-M-O-R-A-N-D-U-M-

DATE: AUGUST 7, 2003

TO: DIRECTOR, DIVISION OF THE COMMISSION CLERK & ADMINISTRATIVE SERVICES (BAYÓ)

FROM: DIVISION OF ECONOMIC REGULATION (BREMAN, D.LEE, MATLOCK, MCNULTY)
OFFICE OF THE GENERAL COUNSEL (C. KEATING, VINING)

RE: DOCKET NO. 030270-EI - REQUEST FOR EXCLUSION UNDER RULE 25-6.0455(3), F.A.C., CONCERNING OUTAGE EVENTS ASSOCIATED WITH STORM ON 2/22/03, BY GULF POWER COMPANY.

AGENDA: 08/19/03 - REGULAR AGENDA - PROPOSED AGENCY ACTION - INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: NONE

FILE NAME AND LOCATION: S:\PSC\ECR\WP\030270.RCM

CASE BACKGROUND

On March 17, 2003, Gulf Power Company ("Gulf" or "Company") filed a petition pursuant to Rule 25-6.0455(3), Florida Administrative Code, seeking to exclude from its 2003 Annual Distribution Service Reliability Report the service interruptions that occurred on February 22, 2003, due to weather-related events. Gulf has filed another petition in Docket No. 030312-EI that also seeks an exclusion under Rule 25-6.0455(3), Florida Administrative Code. These petitions represent the first instance where a utility has sought an exclusion under the rule.

Rule 25-6.0455, Florida Administrative Code, requires each investor-owned electric utility to file annually a Distribution Service Reliability Report containing data that the Commission uses to assess changes in distribution reliability. Under subsection (2) of the rule, a utility may exclude the specified outage events,

such as a storm named by the National Hurricane Center, a tornado recorded by the National Weather Service, ice on lines, and an extreme weather event causing activation of the county emergency operation center. In addition, under subsection (3), a utility may petition the Commission to exclude an outage event not specifically enumerated in subsection (2). However, the utility must "demonstrate that the outage was not within the utility's control, and that the utility could not reasonably have prevented the outage." Rule 25-6.0455(3), Florida Administrative Code.

The Commission has jurisdiction over this matter pursuant to Chapter 366, Florida Statutes, including Sections 366.04, 366.041, and 366.05, Florida Statutes.

Section 366.05(1), Florida Statutes, gives the Commission the power to prescribe standards of quality and measurements for public utilities. Further, Section 366.041(1), Florida Statutes, provides that the Commission, in setting rates for a public utility, is authorized to consider, among other things, the adequacy of service rendered. Hence, whether an outage event is included or not included in measuring Gulf's electric distribution reliability may have material consequences for the utility and its ratepayers in a future rate proceeding. No specific rate action is currently associated with approval or denial of this petition.

DISCUSSION OF ISSUES

ISSUE 1: Should the Commission grant Gulf's petition to exclude 96 outage events due to weather-related events on February 22, 2003 from its 2003 Annual Distribution Service Reliability Report?

PRIMARY RECOMMENDATION: No. The weather in Gulf's service area on February 22, 2003 was not so unique to warrant an exclusion similar to the weather events explicitly listed in Rule 25-6.0455(2), Florida Administrative Code. (Breman, D. Lee, Matlock, McNulty, Vining)

ALTERNATIVE RECOMMENDATION: Significant and unusual weather occurred on February 22, 2003, causing outages that Gulf could not reasonably have prevented. Gulf's petition should be approved

conditioned on Gulf filing its 2003 Annual Distribution Service Reliability Report with and without the requested exclusion to enable assessment of trends in distribution reliability. (McNulty, Breman,C. Keating)

PRIMARY STAFF ANALYSIS:

Gulf's Position

Gulf seeks exclusion for ninety-six outage events that it alleges were not within its control and could not reasonably have been prevented because of the severe weather that occurred on February 22, 3003. The resulting system-level impact related to this weather event is an estimated 2.976 minutes added to Gulf's System Average Interruption Duration Index (SAIDI). SAIDI is an index most commonly used by utilities to measure distribution service reliability performance. A SAIDI value of 100 means that customers experienced on average 100 minutes of service interruption during the year.

On February 22, 2003, a line of thunderstorms, oriented north to south, moved eastward across Gulf' entire service area. Gulf's restoration efforts included replacement of three broken poles and eight transformers, repair of fifteen conductors, re-fuse or close sixty protective devices, and replacement of four cutouts and a lightning arrester.

Gulf believes the three exhibits attached to its petition also show the unusual nature of the weather event and that Gulf could not have reasonably avoided the outages. Exhibit A consists of copies of two news articles that discuss wind gusts, severe wind damage to a building complex on Okaloosa Island, and a possible tornado. Exhibit B consists of eleven photographs of the debris around the damaged building complex on Okaloosa Island including several broken utility poles and service restoration efforts. Exhibit C is a synopsis by ImpactWeather addressing the weather Gulf experienced on February 22, 2003, and includes two doppler radar images. ImpactWeather is a weather alert and information service of Universal Weather and Aviation, Inc. ImpactWeather's synopsis shows that wind gusts accompanied the thunderstorms that moved across Gulf's service area, especially near Okaloosa Island. Gulf believes the three exhibits prove that an unusual weather event occurred in all of Gulf's service area and specifically on

Okaloosa Island. Gulf believes general tornado-like damages to distribution facilities occurred. Therefore, Gulf argues the 96 outage events of February 22, 2003, could not reasonably have been prevented.

In its petition, Gulf compares the outage statistics for February 22, 2003, with a four year historical average for February. The comparison shows that the weather of February 22, 2003, is an apparent variance from the historical average for a typical February day. The SAIDI for February 22, 2003, of 2.976 minutes is thirty-four times greater than the SAIDI for an average February day and the total number of outages on February 22, 2003, is seven times greater than the number of outages on an average February day. Gulf presents the variances from the historical averages for February to show the extent of outages, the unusual nature of the weather event, and that Gulf could not have reasonably avoided the outages.

Uniqueness of the Weather Event

Gulf asks the Commission to conclude that extreme and unique weather existed throughout its service area based in part on a statistical review of the February outage data over the past four years. Gulf does not show whether the February outage data is similar to annual outage data. This is a specific concern because February is historically the month with the fewest weather-related outage events. Gulf's customers experience the most weather-related outages during the months of June, July, and August. A statistical evaluation based on a low weather event month will show a variance in weather patterns but not a variance from what is typical on a year-round basis. Gulf's February outage review is not conclusive regarding the uniqueness of the weather event because Gulf has ignored data from typical thunderstorm months.

Instead, the appropriate scope of review for a weather-related exclusion should be the historical frequency of similar events, and the damages caused by similar historical events. Gulf represented to staff that the historical frequency of similar weather events and related outage data is not reasonably available. It would require manual review and analysis of distribution trouble tickets and correlation with weather data to gather such information.

It is understood that no one can control the weather. If Gulf's petition is granted, the bar for seeking a weather-related exclusion would be greatly diminished because all a utility would need to show is that the weather event was not within the utility's control. Instead, staff believes justification for a weather-related exclusion should be based on a weather event so severe that reasonable countermeasures to avoid widespread outages would be prohibitively expensive. This is consistent with Rule 25-6.0455(3), Florida Administrative Code, which requires a utility seeking an exclusion to show that the outage event could not reasonably have been prevented. Further, to allow exclusions for any weather-related event without such justification would render pointless the weather-related exclusions allowed under subsection (2) of the rule.

Attachment 1 to this recommendation is intended to contrast the widely scattered outage events with the Okaloosa Island wind event that is substantively discussed in the petition. Attachment 1 is a map on which Gulf placed ninety-six pin symbols showing the approximate locations of each of the ninety-six outage events. Staff added an "X" to show the approximate location of the Okaloosa Island wind event. The widely scattered locations of all ninety-six outage events throughout Gulf's service area are self evident in Attachment 1. If tornados had occurred at the ninety-six locations there would have been many news articles addressing the various levels of damage throughout the affected region. In addition, such an extensive weather event would have been discussed in the synopsis provided by ImpactWeather. However, the only documented weather event is the one on Okaloosa Island. Staff concludes that the weather event on Okaloosa Island is neither illustrative nor typical of the weather in Gulf's entire service area on February 22, 2003, and Okaloosa Island is not where most of the outages occurred.

The Okaloosa Island data is the only data Gulf provided that has some similarity to the weather events listed in Rule 25-6.0455(2), Florida Administrative Code. On Okaloosa Island, Feeder 9402 was out of service due to three broken poles and other damages to the distribution facilities depicted in the eleven photographs in Exhibit B attached to Gulf's petition. Feeder 9402 serves 2,187 customers. Consequently, only 36% (2,187 ÷ 6,072 x 100% = 36%) of the customers with service interruptions on February 22, 2003, can be directly associated with the broken poles on Okaloosa Island. Yet, in this instance, the pictures of broken

poles do not prove that all potential variations of weather phenomena should be excluded because, as discussed in detail below, Gulf does not have wind standards for the class of poles broken. In addition, the Okaloosa Island wind event in the general area of the "X" shown on the map in Attachment 1 does not seem typical of the weather experienced at all ninety-six locations identified by the pin symbols on the map in Attachment 1. The exclusion of outage events that occurred as much as 50 miles from Okaloosa Island is not justified based on the wind levels at the one Okaloosa Island location.

Gulf's ability to avoid outages

Typically, outages occur when a weather front passes through an area where winds push branches into the lines and lightning strikes electric facilities. The weather on February 22, 2003 is a good example. Three feeders went out of service because of wind, lightning, and trees. On Okaloosa Island, one feeder went out of service because utility poles broke due, in part, to an unspecified level of wind. A second feeder, farther inland went out of service because lightning damaged the facilities on a pole. The third feeder, located in Pensacola, went out of service because a tree was on the lines. It is not unusual for feeders to go out of service due to wind, lightning, and trees during thunderstorms. As shown below, wind, lightning and trees are not new causes of outages, nor are they unexpected causes of outages. These three types of events have typically caused 30% of the outage events for Gulf's customers between 1999 and 2002 (respectively, 18.1% + 10.3% + 1.3% = 29.7%).

Causes of Outage Events for Gulf				
	2002		1999-2002 Avg.	
Causes	No. of Events	Pct of Total	No. of Events	Pct of Total
Animal	4,074	37.1%	3,600	36.6%
Lightning	**1,865**	**17.0%**	**1,784**	**18.1%**
Deterioration	1,677	15.3%	1,591	16.2%
Unknown	1,150	10.5%	805	8.2%
Trees	**1,075**	**9.8%**	**1,015**	**10.3%**
Vehicle	246	2.2%	222	2.3%
Overload	221	2.0%	236	2.4%
Wind/Rain	**126**	**1.1%**	**130**	**1.3%**
Other	125	1.1%	242	2.5%
Vines	103	0.9%	no data	
All other causes	306	2.8%	208	2.1%
Total	10,968		9,843	

Gulf claims the broken poles on Okaloosa Island are evidence of a high wind phenomenon similar to a tornado. The broken poles were less than 65 feet in height and were broken 20 feet above ground level. Gulf has no record of the local wind speeds where the broken poles were found. Gulf does not have wind speed design requirements for poles less than 65 feet in height. Instead of local wind speed information and design standards, Gulf suggests reliance on the various exhibits to conclude that high winds exceeded Gulf's control and its ability to mitigate outages to customers. Staff disagrees because clearly Gulf has control over the establishment of wind standards and the maintenance of poles in service consistent with those standards. Even if Gulf had design standards for the broken poles on Okaloosa Island, the broken poles would only indicate high winds occurred on Okaloosa Island, and not throughout its service area. The geographical extent of the high winds at the other ninety-five outage locations is unknown.

If this petition is approved, staff is concerned it may lead to a flood of petitions to exclude outages due to less severe storms than those of February 22, 2003. Staff recommends exclusion of outages due to weather extremes that are infrequent and for which widespread outages could be expected. Thunderstorms are not infrequent weather events based on the above data and, therefore, outages associated with thunderstorms should not be excluded.

Conclusion

Rule 25-6.0455(3), Florida Administrative Code, provides for exclusion of outage events besides the weather events listed in Rule 25-6.0455(2), Florida Administrative Code. Justification for a weather exemption under subsection (3) should be based on the extent to which the weather event exceeds company control, and the reasonable countermeasures the company should implement to avoid outages during storm fronts. Gulf has not shown that extreme weather similar to the weather events listed in Rule 25-6.0455(2), Florida Administrative Code, occurred throughout its entire service area causing the ninety-six outage events on February 22, 2003. Furthermore, the weather in Gulf's service area on February 22, 2003, was not so unique to warrant an exclusion similar to the weather events explicitly listed in Rule 25-6.0455(2). Gulf has not shown that the impacts of the weather event exceed company control. Gulf has not shown it has implemented the appropriate countermeasures to avoid outages during storm fronts. Therefore, Gulf's petition should be denied.

ALTERNATIVE STAFF ANALYSIS: Alternative and primary staff do not refute that an unusual storm caused 96 outages throughout Gulf's service area as shown by Attachment 1. Gulf has shown that the intensity of the storm was unusual for February. Another, but not dispositive, reason for approving Gulf's exclusion is that staff was unable to find vegetation in contact or in close proximity to Gulf's power lines. No information in staff's possession suggests Gulf is foregoing maintenance of its distribution system to the detriment of reliability. Thus, the outages for which Gulf requests an exclusion appear to have been out of Gulf's control.

However, as discussed by primary staff, similar weather events may already be included in the Annual Distribution Service Reliability Reports that Gulf has filed to date. Excluding data from those reports on a going-forward basis will distort the trends in the distribution reliability indices because similar weather events, if any, were not previously excluded. The trends in the reliability indices will become increasingly less meaningful as future exclusions for weather events are granted. Reconciling the effects of such exclusions three or four years from now will be almost impossible because Gulf does not retain detailed outage data for more than two years. Problems associated with reconciliation of the apparent trends and voluminous record retention can be avoided by requiring Gulf to file the Annual Distribution Service

Reliability Report both with and without any weather event exclusions that may be granted pursuant to Rule 25-6.0455(3), Florida Administrative Code. Including the effects of the approved exclusions to Gulf's Annual Distribution Service Reliability Report will ensure comparable information is readily available to assess improvements to distribution reliability.

Therefore, alternative staff recommends the petition should be approved because extreme weather did occur on February 22, 2003, causing outages throughout Gulf's service area that Gulf did not control and could not reasonably have prevented. Gulf should file their 2003 Annual Distribution Service Reliability Report with and without the requested exclusion to enable assessment of trends in Gulf's reliability indices.

ISSUE 2: Should this docket be closed?

RECOMMENDATION: Yes, this docket should be closed upon issuance of a Consummating Order unless a person whose substantial interests are affected by the Commission's decision files a protest and request for hearing within 21 days of the issuance of the Proposed Agency Action Order. (C. Keating, Vining)

STAFF ANALYSIS: As no further action will be required, this docket should be closed upon issuance of a Consummating Order unless a person whose substantial interests are affected by the Commission's decision files a protest and request for hearing within 21 days of the issuance of the Proposed Agency Action Order.

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DATE: August 7, 2003

Attachment 1
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GULF POWER COMPANY

Docket No. 030270-EI

ANSWER TO QUESTION 6: WEATHER EVENT OUTAGE PLOT FOR 2-22-03