

# AUSLEY & McMULLEN

ATTORNEYS AND COUNSELORS AT LAW

227 SOUTH CALHOUN STREET  
P.O. BOX 391 (ZIP 32302)  
TALLAHASSEE, FLORIDA 32301  
(850) 224-9115 FAX (850) 222-7560

May 9, 2005

HAND DELIVERED

Ms. Blanca S. Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

050319-E1

Re: Request of Tampa Electric Company to Exclude Outage Event on April 7, 2005  
from its Annual Distribution Service Reliability Report

Dear Ms. Bayo:

Enclosed for filing in the above matter are the original and fifteen (15) copies of Tampa Electric Company's Request to Exclude Outage Event of April 7, 2005 from the company's Annual Distribution Service Reliability Report.

Commission Rule 25-6.0455(1), Florida Administrative Code, requires utilities to file an annual distribution service reliability report for each calendar year by March 1 of the following year. Subsection (3) of the rule further requires utilities to file any request to exclude an outage event from the annual distribution service reliability report within 30 days of the outage event. Tampa Electric is filing this request with regard to the April 7, 2005 outage in order to comply with the 30-day deadline set forth in the rule for making such a request. However, Tampa Electric does not wish to cause the Staff or the Commission any inconvenience in processing this request at this time. Depending upon the weather and other matters beyond Tampa Electric's control, there may other similar requests the company needs to file but which can be deferred for consideration and taken up collectively after the end of this calendar year, but in advance of the March 1, 2006 due date for the company's next annual report.

This letter will serve as Tampa Electric's consent to defer consideration of this request until after the conclusion of the current calendar year. After this request is docketed, Tampa Electric would submit any additional requests to exclude outages in the same docket within 30 days of the outage event, with any such additional requests being likewise deferred for consideration after the first of next year. If this approach is acceptable to the Staff, Tampa

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Electric is agreeable to deferring its pending request in Docket No. 050254-EI and having that request taken up with this and any subsequent requests after the first of next year.

It is hoped that the above-suggested procedure is acceptable to the Commission. It will enable Tampa Electric to comply with the 30-day filing requirement but, at the same time, afford the Staff and the Commission the ease of considering all outage requests in a single Staff Recommendation at one Agenda Conference.

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning same to this writer.

Thank you for your time and attention in this matter.

Sincerely,

  
James D. Beasley

JDB/pp  
Enclosure

cc: Wm. Cochran Keating IV (w/enc.)  
Jim Breman (w/enc.)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Request of Tampa Electric Company to )  
Exclude Outage Event on April 7, 2005 from its ) DOCKET NO. \_\_\_\_\_  
Annual Distribution Service Reliability Report. ) FILED: May 9, 2005  
\_\_\_\_\_ )

**TAMPA ELECTRIC COMPANY'S  
REQUEST TO EXCLUDE OUTAGE EVENT  
FROM DISTRIBUTION RELIABILITY REPORTING**

Tampa Electric Company ("Tampa Electric" or "the company"), pursuant to Rule 25-6.0455(3), Florida Administrative Code, hereby requests the Florida Public Service Commission ("the Commission") to approve the exclusion from the company's Annual Distribution Service Reliability Report for calendar year 2005 of an outage event on April 7, 2005, resulting from a severe weather system described herein. In support of its request, Tampa Electric states as follows:

1. Tampa Electric is a public utility subject to the regulatory jurisdiction of the Commission pursuant to Chapter 366, Florida Statutes. The company's principal place of business is located at 702 North Franklin Street, Tampa, Florida 33601.

2. All notices, pleadings and correspondence required to be served on Tampa Electric should be directed to:

Lee L. Willis  
James D. Beasley  
Ausley & McMullen  
Post Office Box 391  
Tallahassee, FL 32302  
(850) 224-9115

Angela L. Llewellyn  
Administrator, Regulatory Coordination  
Tampa Electric Company  
Post Office Box 111  
Tampa, FL 33601-0111  
(813) 228-1752

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3. Commission Rule 25-6.0455(1), Florida Administrative Code, requires utilities to file an Annual Distribution Service Reliability Report for each calendar year by March 1 of the following year. The Report provides extensive distribution outage event data and related calculations of reliability indices, as specified in Commission Forms PSC/ECR 102-1 and 102-3. Subsection (2) of the Rule allows a utility to exclude from its Annual Distribution Service Reliability Report outage events caused by certain enumerated conditions. Finally, Subsection (3) of the Rule provides that a utility may also request the exclusion of an outage event not specifically enumerated in Subsection (2) from its Report, and goes on to state: "The Commission will approve the request if the utility is able to demonstrate that the outage was not within the utility's control, and that the utility could not reasonably have prevented the outage." This request by Tampa Electric is submitted for Commission approval pursuant to the provisions of Subsection (3).

#### **Details of the Outage Event**

4. On April 7, 2005 Tampa Electric experienced a storm front which presented a significant squall line with varied rotating excessive wind conditions estimated at 80 miles an hour together with hail and lightning. This weather condition damaged roofs and windows, uprooted trees which destroyed power lines and poles resulting in widespread electric outages across Tampa Electric's service territory. These outages occurred at approximately 5:27 p.m. on April 7, 2005 and were clearly beyond the control of Tampa Electric.

5. The above-described high winds impacted Tampa Electric's customers within Hillsborough and Polk Counties causing non-preventable damage to the electric system serving these areas.

### **Impact of the Outage Event**

6. As noted in Figure 1 below, 14,188 customers were interrupted as a result of the severe weather event accounting for 1,385,798 customer minutes of interruption. This caused 74 interruptions including 13 distribution circuit outages and widespread distribution equipment damage. The storm resulted in a 2:11 (min:sec) impact to the annual distribution SAIDI index, or 90% of the total SAIDI index for the period from April 7, 2005 at approximately 5:27 p.m. up to April 8, 2005 at 1:11 a.m.

7. Set forth below as Figure 1 is a chart reflecting the impact of April 7, 2005 weather event:

**Figure 1: April 7, 2005 Storm Impact**

	<b>Partial</b>	<b>System Total</b>
SAIDI (min:sec)	2:11 (System Impact)	2:26
Interruption	74	105
Customers Interrupted	14,188	14,597
Customer Minutes of Interruption	1,385,798	1,538,325

8. As a result of the damage caused by this weather event, Tampa Electric's storm response team replaced transformers, wire and related pole and line hardware. Active and off duty line distribution crews, support staff, and management and supervisory personnel were utilized to restore electric service. Figure 2, below, is a listing of the personnel response team.

**Figure 2: Response Personnel**

Management and Supervision	11
Staff Support	9
Line Resources	55
Total Personnel	75

9. The majority of restoration was completed by late evening on April 7, with the final customers being restored by 9:20 a.m. on April 8, 2005.

#### **Results of Weather Analysis**

10. To better understand the extent of the weather conditions that resulted in the above-referenced outages, Tampa Electric contacted Impact Weather. Impact Weather's analysis, performed by Meteorologist Robert Mullenax, involved the review of radar and upper-air observations. Mr. Mullenax concluded that the weather conditions impacting Hillsborough County were more likely attributable to a bow echo developing into the comma phase. Attached hereto as Composite Exhibit A are two letters from Impact Weather dated April 28 and May 6, 2005, describing the weather event of April 7, 2005.

#### **Conclusion**

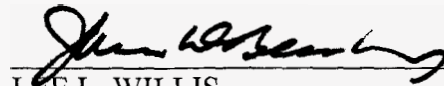
11. Tampa Electric's Hillsborough and Polk County service areas experienced severe weather conditions on April 7, 2005 and into the early morning hours of April 8, 2005. The weather condition created non-preventable damage to public and private property and also impacted customers and their electric service. An independent weather organization has analyzed and provided the professional opinion that the event was a classic bow echo which most likely produced small tornadoes. As a result of the damage to the electric system and length of time required to restore power, this event significantly affected the company's reliability indices. These events were beyond the reasonable control of Tampa Electric. Accordingly, the company respectfully requests exclusion of this outage event from its annual distribution reliability reporting.

WHEREFORE, based on the information set forth above, Tampa Electric respectfully requests that the Commission grant this request and approve the exclusion of the outage event on

April 7, 2005 from the company's reliability indices reported in the company's distribution service reliability report for calendar year 2005.

DATED this 9<sup>th</sup> day of May 2005.

Respectfully submitted,



LEE L. WILLIS  
JAMES D. BEASLEY  
Ausley & McMullen  
Post Office Box 391  
Tallahassee, FL 32302  
(850) 224-9115

ATTORNEYS FOR TAMPA ELECTRIC COMPANY

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April 28, 2005

Mr. Scott H. Smith  
Manager, System Reliability  
Tampa Electric, Co.

Greetings Mr. Smith,

This document is the result of a study of the weather events of April 7, 2005 over the Tampa Electric service area. There were several reports of damage in the Tampa Electric service area between 6:40 pm EDT and 7:10 pm EDT.

Upper air soundings from the morning of April 7, 2005 indicated that the atmosphere was conducive to the development of strong thunderstorms with hail, strong winds, and possibly tornadoes. Radar data indicates that a strong squall line did move onto the southwestern Florida Gulf Coast around 6:00pm EDT, moving to the northeast at 30 to 35 mph. At approximately 6:25 pm EDT the squall line was located on a line from Sarasota to Tampa and had begun to develop what is known as a bow echo. A bow echo is a classic and definitive signature of a damaging squall line that will produce strong straight-line winds and occasionally tornadoes. By this time, the forward movement of the bowing portion of the line was near 50 mph. This means that at a minimum the winds along the leading edge of the line were 50 mph. Radar velocity data at this time indicated areas where wind speeds were 55 to 60 mph. At approximately 6:40 pm EDT the leading edge of the bow echo (also known as the leading edge of the gust front) reach Hillsborough County, near Wimauma, which is precisely when the public reported wind damage in Wimauma in the form of snapped trees, roof damage, and an RV that had been tipped over. While there were no estimates of wind speed, the tipping over a large RV speaks volumes about the character of the gust front. The reported damage correlates very well with the available radar data.

The squall line continued to move to the northeast, and by 6:55 pm EDT the bow echo had matured into what is known as the comma phase. The northern end of the squall line (over Hillsborough County) had begun to wrap back to the west and southwest, forming a comma shape. This is indicative of a large amount of turning of the wind in the vertical as well as horizontal. At approximately this same time, the NWS radar in Tampa began to detect the presence of rotation in the squall line. While the radar did not detect an actual tornado there were very positive signs of rotation. A few minutes later, between 7:00 pm EDT and 7:10 pm EDT, trees and power lines were reported to be blown down near Fort Lonesome and near Bradley Junction. Radar continued to detect signs of rotation in the line while this damage was occurring. Radar velocity data during this period indicated wind speeds of 70 to 75 mph in the vicinity of the reported damage. These winds were occurring above the surface, and it is quite likely that winds at the surface were near 80 mph.

In summary, I believe with certainty that this was a classic bow echo that would have produced damaging straight-line winds along the edge of the gust front, possibly as high as 80 mph, and also very likely produced small tornadoes that were undetected by the public and radar. Every aspect of this event, from the atmospheric soundings, to the radar echo signature, to the Doppler radar rotation detection algorithm fit squarely in line with the features of a textbook bow echo. I am confident that the damage seen in the Tampa Electric service area on April 7, 2005 was caused by this squall line.

Regards,

Robert Mullenax  
Meteorologist  
ImpactWeather, Inc.





May 6, 2005

Mr. Scott H. Smith  
Manager, System Reliability  
Tampa Electric, Co.

Greetings Mr. Smith,

This document is an addendum to the previous report concerning weather events of April 7, 2005 over the Tampa Electric service area. This summary details thunderstorm activity that occurred prior to the squall line that produced the bow echo. This activity affected the service area between 5:00pm EDT and 6:00pm EDT, mainly over the northern half of Hillsborough County.

At approximately 5:00pm EDT a large area of rain with embedded showers and thunderstorms moved into the service area, moving towards the northeast at 30 mph. A vertical wind profile from the Tampa radar indicated very strong low-level winds over the area, with wind speeds of 50 to 60 mph just a few thousand feet above the surface. The development of showers and thunderstorms within the large rain area moving into the northern portions of Hillsborough county indicated unstable air was present over the area. At approximately 5:25 pm EDT radar velocity data began showing areas of 55 to 60 mph winds over northern portions of Tampa Bay, eastward to Palm River. These strong winds were occurring as instability caused the 50-60 mph winds at 2-3,000 feet to mix down to the surface and the lowest 500 to 1,000 feet where they would be seen by the nearby Tampa radar. This pocket of 50-60 mph winds continued to spread to the east and northeast and by 5:30 to 5:45 pm EDT was approaching the Orient Park and Brandon areas. At such a short distance from the radar, the velocity data was definitely showing very near surface winds, meaning that surface winds were at least 45-55 mph. While not a classic squall line event, this event was a classic case of very strong low-level winds being brought to the surface by the overturning, or mixing, associated with unstable air.

In summary, I believe with certainty that the very strong low-level winds present over the Tampa area during the late afternoon of April 7, 2005 were mixed to the surface and very low-levels of the atmosphere by instability that led to thunderstorm development. Radar velocity data from the Tampa radar clearly indicated 50-60 mph winds over the northern portions of Hillsborough County between 5:00pm EDT and 6:00pm EDT, in advance of the even more powerful squall line.

Regards,

Robert Mullenax  
Meteorologist  
ImpactWeather, Inc.