

Ruth Nettles

From: Stright, Lisa [Lisa.Stright@pgnmail.com]
Sent: Thursday, October 02, 2008 9:20 AM
To: Filings@psc.state.fl.us
Cc: Burnett, John
Subject: PEF Response to TS Fay Data Request - Dkt# 080000
Attachments: PEF Response to TS Fay Data Request (signed).pdf

This electronic filing is made by:

John T. Burnett
299 First Ave North
St. Petersburg, FL 33733
(727) 820-5184
john.burnett@pgnmail.com

Docket No. 080000-EI

On behalf of Progress Energy Florida

Consisting of 3 pages.

The attached document for filing in the above referenced docket is PEF's response to Staff's Data Request dated September 3, 2008 pertaining to TS Fay "post-storm data collection and forensic analysis".

<<PEF Response to TS Fay Data Request (signed).pdf>>

Lisa Stright

Regulatory Affairs Analyst - Legal Dept.
Progress Energy Svc Co.
106 E. College Ave., Suite 800
Tallahassee, FL 32301
Telephone: (850) 521-1425 direct line
lisa.stright@pgnmail.com

10/2/2008

DOCUMENT NUMBER-DATE

09320 OCT-2 8

FPSC-COMMISSION CLERK



October 2, 2008

VIA ELECTRONIC FILING

Ms. Ann Cole, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: *Tropical Storm Fay "Post-Storm Data Collection and Forensic Analysis";
Undocketed*

Dear Ms. Cole:

Per the letter from Dave Dowds dated September 3, 2008, please find attached for filing in Docket No. 080000-EI, Progress Energy Florida, Inc.'s ("PEF") "post-storm data collection and forensic analysis" from Tropical Storm Fay.

Thank you for your assistance in this matter.

Sincerely,

A handwritten signature in black ink that reads "John T. Burnett" followed by the initials "JMS".

John T. Burnett

Associate General Counsel

JTB/lms
Attachment

DOCUMENT NUMBER-DATE

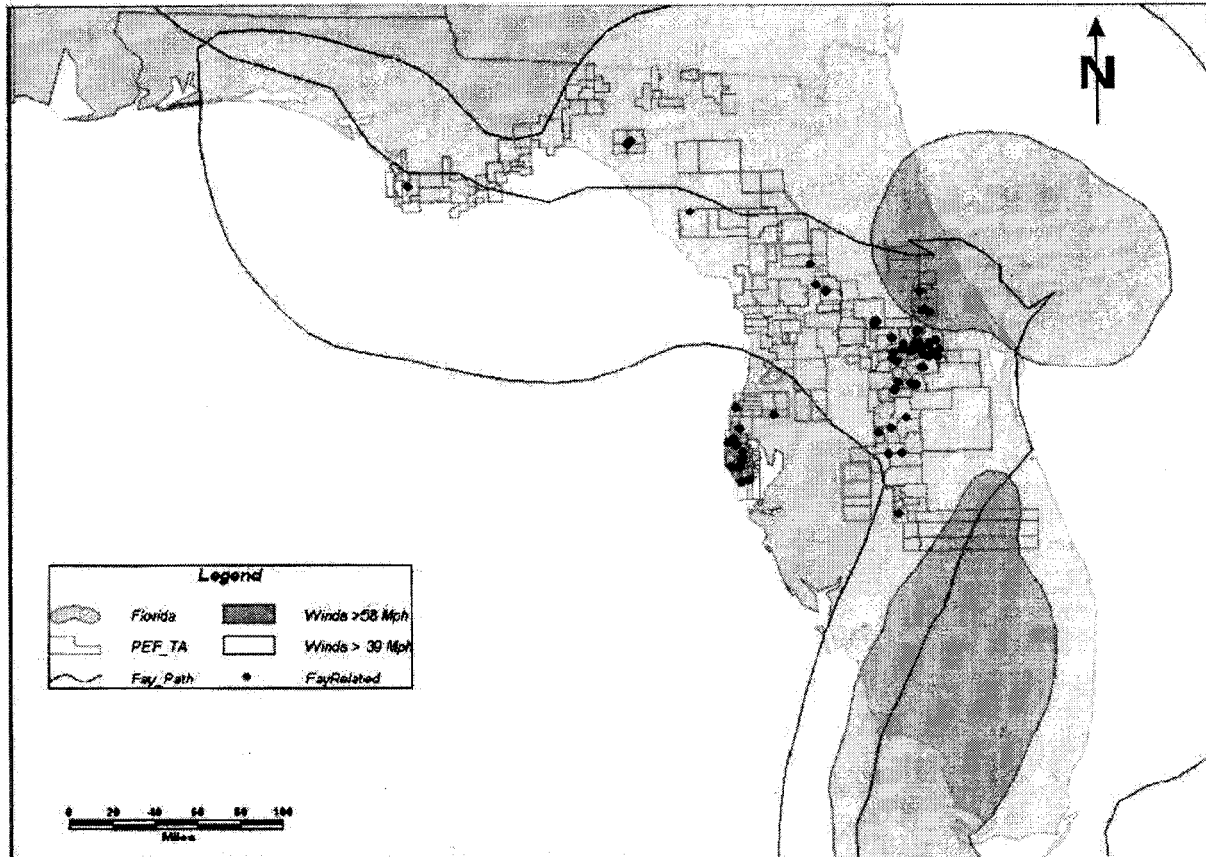
09320 OCT-28

FPSC-COMMISSION CLERK.

PROGRESS ENERGY FLORIDA, ANALYSIS OF TROPICAL STORM FAY

While PEF did not experience any coastal underground system damage during this event, Tropical Storm Fay proved to be useful in the data collection process for the population of the underground costs benefits analysis model done as part of the collaborative research with PURC and the other utilities. The data collected during Fay is a good first step in the lengthy and resource intensive process needed for this collaborative research.

Progress Energy Florida performed a geospatial analysis of the outages occurring during Tropical Storm Fay. The map below identifies the outages occurring to the distribution underground equipment during the time period that Tropical Storm Fay impacted Progress Energy Florida's territory. Most of the outages shown below are the result of overhead equipment failure at the overhead to underground transition point.



As expected, the majority of the outages occurred in our North Central Region. This area of our territory experienced the biggest impact from the storm due to the prolonged exposure to tropical storm force winds and rain. The North Central Region of our territory is also very densely populated with underground facilities serving the Orlando area and surrounding communities. Our transmission system did not experience any damage to underground facilities.

Of particular interest is the resulting pattern of outages from underground secondary or service cable (low voltage cable between the transformer and the meter) failures. The three maps that follow identify these outages across PEF's territory for the time period two weeks before Fay, the time period during Fay (six days), and the time period two weeks after Fay.

DOCUMENT NUMBER-DATE

09320 OCT-28

FPSC-COMMISSION CLERK

Figure 1 - Two weeks prior to Fay

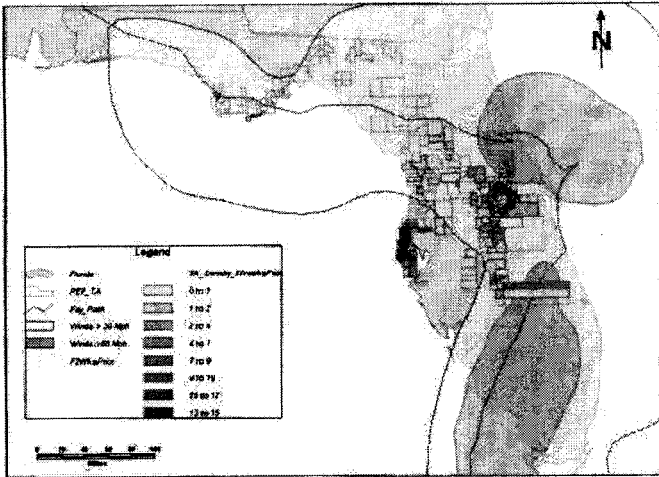


Figure 2 - During Fay (six days)

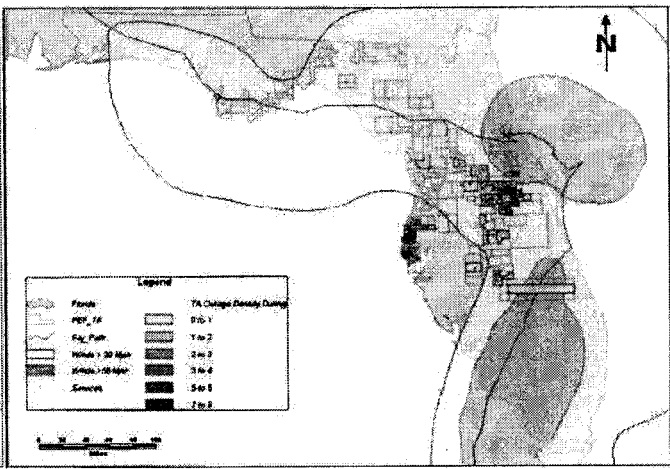


Figure 2 - Two weeks after Fay

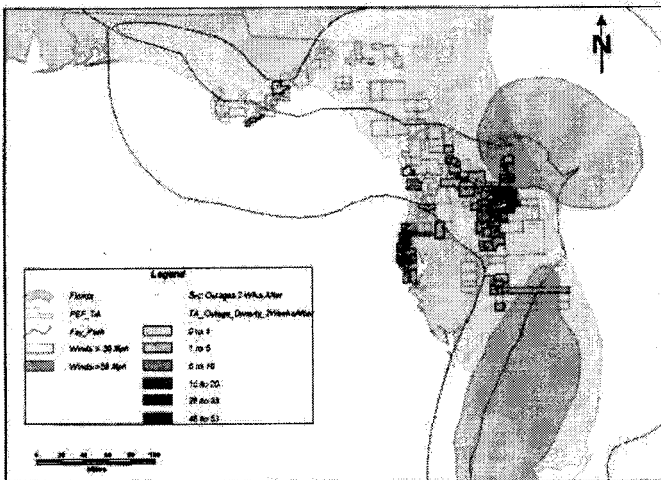
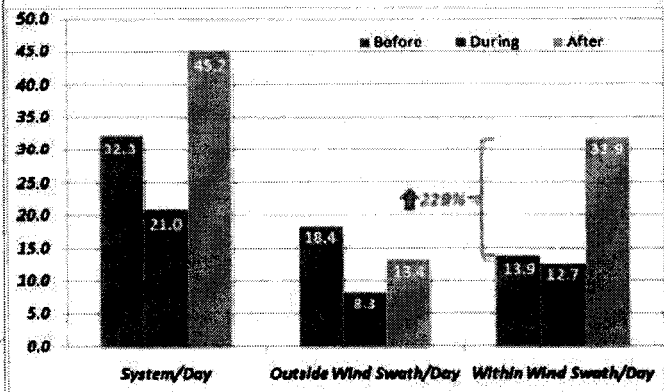


Figure 3 - Service Outage Rate



The 14 days preceding Fay resulted in 451 outages as a result of a failure in an underground secondary or service cable. The 14 days that followed Fay resulted in 632 outages of the same cause. We suspect that this 40% increase in cable failures is directly related to the experienced rainfall during the tropical storm. This highlights one of the major challenges with underground facility damage resultant from tropical storms or hurricanes; it is often times not immediately identified. In other words, storm surge aside, excessive rainfall as a result of major storms results in prolonged effects from water infiltration into the cable. The effects of such damage are often not known until several days after the storm has passed and power has been restored; well after the outside resources secured during the storm have been released and after the allowable exclusion period for the “adjusted” reliability data.