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July 12, 2010

HAND DELIVERED

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

Re: Docket No. 100263-EI, Tampa Electric Company's updated 1010-2012 Storm Hardening Plan

Dear Ms. Cole:

Enclosed for filing in the above proceeding are the original and five copies of Tampa Electric Company's answers to Staff's First Data Request Nos. 1-7.

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 assistance in connection with this matter.

Sincerely,

James D. Beasley

JDB/pp
Enclosure

COM ____ ec: Melissa L'Amoreaux
APA ____ Office of General Counsel (Bennett)
ECR ____ Paula Brown
GCL 2
RAD ____
SSC ____
ADM ____
OPC ____
CLK ____

For the following questions, please refer to the 2010-2012 Storm Hardening Plan filed May 3, 2010.

1. How does TECO determine the amount of feeder and lateral miles the company must trim in a given year if there is an increase or decrease in feeder or lateral miles within a given year?

A. Tampa Electric amends its vegetation management plan annually. As the following year's plan is under development, the company uses the current system total of feeder and lateral mileage to calculate the number of miles needed to accomplish a three-year plan. Additional amendments may be made to the annual plan if a significant change in feeder and/or lateral miles occurs within a given year.

For the following questions, please refer to the 2010-2012 Storm Hardening Plan filed May 3, 2010.

2. On page 15 of the updated storm hardening plan, TECO states that customer-owned electrical panels are not waterproof and will likely be severely impacted by saltwater intrusion.

a. Why are these panels particularly vulnerable?
b. Where are these electrical panels located?

A. a. The customer-owned panels are not designed to withstand water intrusion.

b. The customer-owned panels are typically located within the same vault as Tampa Electric's equipment; however, occasionally the customer's panels may be located at the same elevation within an adjacent electrical room.

For the following questions, please refer to the 2010-2012 Storm Hardening Plan filed May 3, 2010.

3. On page 19, TECO states that prior to 1991, wood poles, aluminum and lattice steel structures were used for transmission structures.

a. How many transmission structures of these material types does TECO still have in use?
b. How many of TECO's transmission structures are pre-stressed spun concrete, tubular steel, or a composite?
c. Please clarify the materials used for a "composite pole structure."

A. a. Tampa Electric has approximately 15,890 wood, 41 aluminum and 217 lattice steel structures still in use.

b. Tampa Electric has approximately 6,830 pre-stressed spun concrete, 3,770 tubular steel and 8 composite transmission structures.

c. Tampa Electric's composite pole structures are constructed of a fiber-reinforced polymer materials system using polyurethane resin.

For the following questions, please refer to the 2010-2012 Storm Hardening Plan filed May 3, 2010.

4. Please describe the two methodologies used to analyze pole strength as indicated on page 20, section 6.1.3.3.

A. There are two methodologies described in Section 26 of the 2007 National Electric Safety Code ("NESC") available to analyze pole strength. Paragraph 261.A.1.a of the code details the ultimate strength method which states that "structures shall be designed to withstand the loads in Rule 252 multiplied by the appropriate load factors in Table 253-1 or 253-2 without exceeding the permitted stress." Paragraph 261.A.2.a. of the code details the working stress method which states that "the wood structures shall be designed to withstand the loads in Rule 252 multiplied by the alternate load factors of Table 253-2 and strength factors of Table 261-B." After July 31, 2010 the working stress method will no longer be available for design use. As stated in the company's 2010-2012 Storm Hardening Plan, Tampa Electric uses the ultimate strength analysis method for all wood and non-wood structures.

For the following questions, please refer to the 2010-2012 Storm Hardening Plan filed May 3, 2010.

5. Please refer to page 20, section 6.1.3.3 for the following questions.

a. Why does TECO believe it is appropriate to continue applying EWL standards that exceed NESC requirements for transmission facilities?
b. Is this more cost-effective then applying the basic NESC requirement?
c. If the response to (b) is negative, please explain the company's rationale to continue applying EWL standards that exceed NESC requirements.

A. a. Tampa Electric's service area is located primarily within two extreme wind contours identified in the 2007 NESC, namely, the 110 and 120 miles per hour ("mph") zones on Figure 250-2(b) of the code. The company has concluded that the slightly higher 120 mph wind standard is to be applied for all 69 kV and 138 kV designs throughout its service area. Tampa Electric believes the 120 mph wind standard is a conservative approach that allows for a stronger overall system design and provides a single, consistent approach for securing resources and material necessary to repair and maintain the company's transmission facilities.

Tampa Electric's 230 kV bulk transmission system is the backbone of the company's energy delivery system and is an integral component of Florida's bulk transmission grid designed to reliably deliver power throughout the state under the most adverse conditions. Given the criticality of this 230 kV system, Tampa Electric has applied a 133 mph design standard that pre-dates the inception of the NESC's EWL standards.

For these reasons, Tampa Electric believes its design standards for its entire transmission system are appropriate and necessary to maintain a reliable electric supply to its customers as well as all other customers in Florida that depend on the state's bulk transmission system to maintain its integrity under a myriad of weather conditions.

b. For the reasons stated above, Tampa Electric believes its design standards are prudent and time tested. The consequences of system failure and subsequent delays in power restoration will not only affect the company's customers but potentially customers of other utilities around the state; therefore, design and construction of strategic transmission systems is paramount.

c. See responses to Parts a and b above.

For the following questions, please refer to the 2010-2012 Storm Hardening Plan filed May 3, 2010.

6. On page 23, E C O states that recently the company's design standard has been increased to 150 mph for control buildings to better withstand wind. Please clarify when this change was made and if this is a change to the previously approved plan.

A. Tampa Electric installed its first pre-fabricated metal control building designed to withstand 150 mph winds in July, 2008. On page 25 of the 2007-2009 Storm Hardening Plan, Tampa Electric stated that, "Recently the company design standard has been increased to 150 mph."

For the following questions, please refer to the 2010-2012 Storm Hardening Plan filed May 3, 2010.

7. Please refer to section 7 of the updated storm hardening plan.

a. The company stated that construction of 45 miles of 230kV and 36 miles of 69kV lines had a completion date of 2010 but have been deferred beyond the time frame of this plan. Please clarify when these projects will be completed.
b. Besides the deferred projects stated above, has TECO's deployment strategy for transmission or distribution changed from the approved storm hardening plan? If so, please state where these changes were made and how it affects the costs to enhance system reliability.
c. Please explain why the majority of new distribution facilities are placed underground.
d. Please clarify the types of locations TECO plans to convert from fuses or ground switch protection, to circuit switchers over the next three years.

A. a. Currently, there is not a completion date for the projects that include 45 miles of 230kV and 36 miles of 69kV lines. In 2007 the projected load growth and generation expansion within the state were causing these projects to be completed in 2010. Given the economical and housing market downturn, the projects have been deferred until the need materializes again.

b. No. The deferred projects described in Part a above are the only modifications to the company's transmission and distribution deployment strategies found in the currently approved storm hardening plan.

c. The majority of Tampa Electric's new distribution facilities are placed underground due to the historical requests of subdivision developers to have power delivered by that method.

d. The conversions will entail replacing fuses and ground switches with circuit switchers on the 69 kV side of 69/13 kV transformers.