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June 5, 2014

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COMMISSION
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Ms. Carlotta S. Stauffer
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Tampa Electric Company's Petition to Modify
Transmission Structure Inspection Cycle

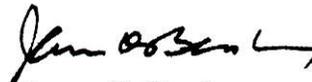
Dear Ms. Stauffer:

Enclosed for filing in the above docket are the original and fifteen (15) copies of Tampa Electric Company's Petition to Modify Transmission Structure Inspection Cycle.

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

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Tampa Electric Company's)
Petition to Modify Transmission)
Structure Inspection Cycle.)
_____)

DOCKET NO. _____

FILED: June 5, 2014

**TAMPA ELECTRIC COMPANY'S PETITION
TO MODIFY TRANSMISSION STRUCTURE INSPECTION CYCLE**

Tampa Electric Company ("Tampa Electric" or "the company") hereby petitions the Commission to approve modifications to the company's transmission structure inspection cycle from the current six-year cycle to an eight-year cycle and, as grounds therefore, says:

1. Tampa Electric is a Commission regulated investor-owned electric utility serving customers in Hillsborough and portions of Polk, Pinellas and Pasco Counties in Florida. The company's principal offices are located at 702 N. Franklin Street, Tampa, Florida 33601.

2. The names and addresses of Tampa Electric's representatives to receive communications regarding this docket are:

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J. Jeffrey Wahlen
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Paula K. Brown, Administrator
Regulatory Affairs
Tampa Electric Company
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3. In the aftermath of the destructive hurricane seasons of 2004 and 2005 the Commission conducted workshops and ultimately required investor-owned electric utilities in Florida to file plans and estimated implementation costs for ongoing storm preparedness for ten initiatives designed to strengthen or "harden" the state's utility infrastructure to better withstand

future storms. One of the ten initiatives was the implementation of a six-year transmission structure inspection cycle.

4. In the order requiring implementation of the ten hardening initiatives, Order No. PSC-06-0351-PAA-EI, issued April 25, 2006 in Docket No. 060198-EI, the Commission required investor-owned utilities to provide a plan and estimated costs for a six-year transmission structure inspection program. In that order the Commission stated that any additional alternatives proposed by the utility shall be compared to a six-year inspection cycle and must be shown to be equivalent or better in terms of costs and reliability for purposes of preparing for future storms.

5. As subsequently reflected in Order No. PSC-06-0781-PAA-EI, issued September 19, 2006 in Docket No. 060198-EI, Tampa Electric thereafter set about to implement the transmission inspection protocols delineated in its overall storm plan. As the Commission found in that order, Tampa Electric's plan would comply with the six-year transmission structure inspection requirement when fully implemented. The Commission also noted in that order that the investor-owned electric utilities plans for implementing the ten initiatives required by the Commission were "living documents" and subject to constant revision as new lessons are learned. (Order at p. 20).

6. As part of its ongoing efforts to monitor and evaluate the appropriateness of its transmission structure inspection program, Tampa Electric recently reviewed the transmission system reliability performance after having completed a full cycle of transmission structure inspections on schedule and a full cycle of ground line wood and non-wood transmission pole inspections one year ahead of the planned schedule. In addition, in response to a North American Electric Reliability Corporation ("NERC") order affecting all electric utilities, starting

in 2011 Tampa Electric began an aerial survey of all 72 of its transmission circuits with an operating voltage greater than 100 kV. These circuits fall under the NERC definition of Bulk Electric System (“BES”). This aerial survey is an assessment of more than 430 miles of the company’s BES circuits. These 72 circuits represent 37 percent of Tampa Electric’s transmission system mileage. During this assessment, which has focused on actual versus design field conditions, structures have been evaluated by engineering and operations personnel and any damage found has been repaired. This NERC inspection protocol will be completed later this year at a projected cost of \$9 million.

7. The result of the aforementioned transmission system reliability review is telling. Since 2006, Tampa Electric’s transmission system performance has had a consistent low impact on overall system reliability. Exhibit A attached to this petition provides the stark difference in the System Average Interruption Duration Index (“SAIDI”) minutes between the overall SAIDI value for the distribution system versus the overall SAIDI value for the transmission system. Further, it’s important to understand the overall small SAIDI value for the transmission system is comprised of outages that were preventable (e.g., equipment failure) and non-preventable (e.g., car hit pole). Exhibit B attached to this petition provides a clear summary of the overall decline in the number of outages on the company’s transmission system due to preventable equipment failures.

8. This strong reliability performance of Tampa Electric’s transmission system is due to the multi-pronged inspection approach the company has applied to the system. The approach includes the current six-year above ground structure inspection cycle, eight-year ground line wood and non-wood inspection cycle, annual ground patrol, annual aerial infrared patrol, annual substation inspection cycle and the pre-climb inspection requirement. When

evaluated in sum, the preventable transmission outages on the transmission system from 2006-2013 have averaged just eight preventable transmission outages annually. Those preventable transmission outages are defined as equipment failures which would include pole issues as well as failures of insulators, switches, conductors, static wire, grounding provisions, crossarms, guying and hardware issues.

9. Additionally, Tampa Electric has a total transmission pole population of 25,700 which is now comprised of 15,300 non-wood poles due to the replacement of 5,000 wood poles which were found to be unable to sustain adequate reliability through their next eight-year ground line inspection cycle. The cost for these pole replacements was \$87 million and included replacing the full accompaniment of pole hardware thereby bringing the poles to their maximum point of reliability.

10. Due to the maintenance activity stemming from the inspection protocols identified above, the System Average Interruption Duration Index ("SAIDI") value for preventable transmission outages from 2006-2013 has averaged 1.82 minutes per year. This small SAIDI value clearly demonstrates the inspection cycle change to eight years will have minimal, if any, impact on overall reliability. This is due to the overall system improvements during the past eight years and the continuation of all other inspection protocols. Finally, the loop design and remote sectionalizing capability of the transmission system helps minimize the impact to customer SAIDI. This is due to substation source redundancy and the ability to quickly identify and isolate circuit faults.

11. By adopting an eight-year transmission structure inspection cycle, Tampa Electric will save \$108,000 annually. The company plans to reallocate the savings to a new reliability activity for its transmission system. Beginning in 2015, Tampa Electric will further optimize its

State Estimator model in its Energy Management System to provide better situational awareness to the Energy System Operators to ensure safe and reliable operation of the BES. In addition, the model will be utilized for the Dispatcher Training Simulator. This will improve operator performance for various system conditions and ensure the continued safe and reliable operation of Tampa Electric's transmission system.

12. All other inspection activities associated with the transmission system, including substations, will remain on their current inspection cycles. Each inspection activity is an integral component to the company's overall commitment to providing safe, reliable electricity to its customers.

13. Investor-owned utilities are encouraged to reduce the cost of providing electric service to their customers to the extent they are able to do so while insuring that the services they provide are safe and reliable. In prescribing hardening activities the Commission has adopted a flexible approach to allow for proposed changes depending upon the experience and "lessons learned" the utilities are able to develop over time.

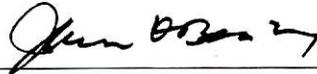
14. Tampa Electric believes its proposed shift to an eight-year transmission structure inspection cycle will reduce the cost of this inspection activity while enabling the company to repurpose the cost savings to a valuable new activity that will enhance the company's efforts to continue to provide safe and reliable electric service to its customers. Furthermore, aligning the above ground transmission structure and ground line inspections to the same eight-year inspection cycle will provide efficiency gains in the overall inspection scheduling process as well as data integration.

15. Tampa Electric is not aware of any disputed issues of material fact relative to the matters stated herein or the relief requested.

WHEREFORE, Tampa Electric requests that the Commission approve the company's proposed modification of its transmission structure inspection cycle to provide for an eight-year inspection cycle.

DATED this 5th day of June, 2014.

Respectfully submitted,



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ATTORNEYS FOR TAMPA ELECTRIC COMPANY

Distribution SAIDI vs Transmission SAIDI

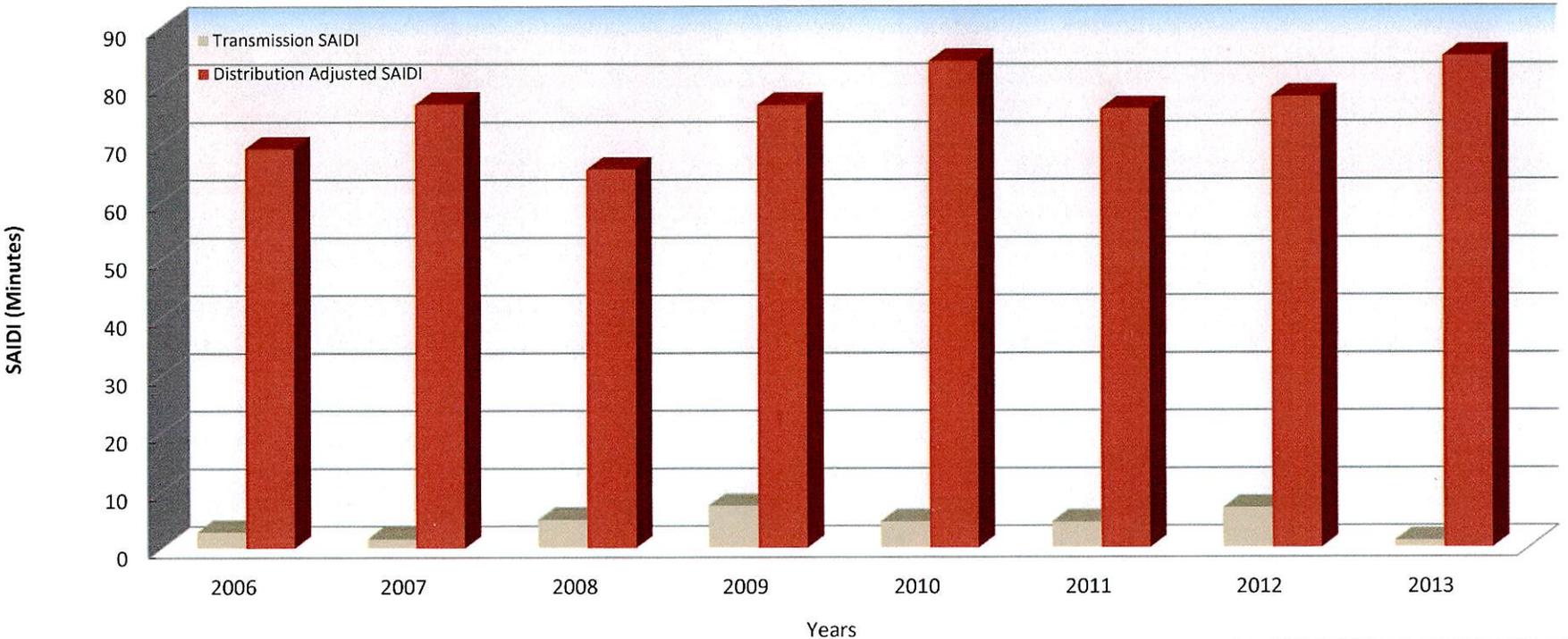


Exhibit A

