BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for approval of 2013-2015 storm hardening plan, pursuant to Rule 25-6.0342, F.A.C., by Tampa Electric Company.	DOCKET NO. 130138-EI ORDER NO. PSC-13-0640-PAA-EI ISSUED: December 3, 2013

The following Commissioners participated in the disposition of this matter:

RONALD A. BRISÉ, Chairman
LISA POLAK EDGAR
ART GRAHAM
EDUARDO E. BALBIS
JULIE I. BROWN

NOTICE OF PROPOSED AGENCY ACTION
ORDER APPROVING TAMPA ELECTRIC COMPANY'S UPDATED STORM HARDENING PLAN FOR 2013-2015

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code (F.A.C.).

Background

The hurricanes of 2004 and 2005 that made landfall in Florida resulted in extensive storm restoration costs and lengthy electric service interruptions for millions of electric investor-owned utility (IOU) customers. On January 23, 2006, Commission staff conducted a workshop to discuss the damage to electric utility facilities resulting from these hurricanes and to explore ways of minimizing future storm damages and customer outages. State and local government officials, independent technical experts, and Florida's electric utilities participated in the workshop.

On February 27, 2006, this Commission issued Order No. PSC-06-0144-PAA-EI, in Docket No. 060078-EI, requiring the IOUs to begin implementing an eight-year inspection cycle of their respective wooden poles.[1] In that Order, we noted:

[1] Docket No. 060078-EI, In re: Proposal to require investor-owned electric utilities to implement ten-year wood pole inspection program.

> The severe hurricane season of 2004 and 2005 have underscored the importance of system maintenance activities of Florida's electric IOUs. These efforts to maintain system components can reduce the impact of hurricanes and tropical storms upon utilities' transmission and distribution systems. An obvious key component in electric infrastructure is the transmission and distribution poles. If a pole fails, there is a high chance that the equipment on the pole will be damaged, and failure of one pole often causes other poles to fail. Thus, wooden poles must be maintained or replaced over time because they are prone to deterioration. Deteriorated poles have lost some or most of their original strength and are more prone to fail under certain environmental conditions such as high winds or ice loadings. The only way to know for sure which poles must be replaced is through periodic inspections.

Order No. PSC-06-0144-PAA-EI, p. 2.

At the February 27, 2006, internal affairs meeting, we were briefed by Commission staff on additional actions to address the effects of extreme weather events on electric infrastructure. We also heard comments from interested persons and Florida's electric utilities regarding staff's recommended actions.

On April 25, 2006, this Commission issued Order No. PSC-06-0351-PAA-EI, in Docket No. 060198-EI, requiring all IOUs to file plans and estimated implementation costs for ten ongoing storm preparedness initiatives (Ten Initiatives) on or before June 1, 2006.[2] The Ten Initiatives are:

1. A Three-Year Vegetation Management Cycle for Distribution Circuits.
2. An Audit of Joint-Use Attachment Agreements.
3. A Six-Year Transmission Structure Inspection Program.
4. Hardening of Existing Transmission Structures.
5. A Transmission and Distribution Geographic Information System.
6. Post-Storm Data Collection and Forensic Analysis.
7. Collection of Detailed Outage Data Differentiating Between the Reliability Performance of Overhead and Underground Systems.
8. Increased Utility Coordination with Local Governments.
9. Collaborative Research on Effects of Hurricane Winds and Storm Surge.

[2] Docket No. 060198-EI, In re: Requirement for investor-owned electric utilities to file ongoing storm preparedness plans and implementation cost estimates.

10. A Natural Disaster Preparedness and Recovery Program.

These Ten Initiatives were not intended to encompass all reasonable ongoing storm preparedness activities. Rather, we viewed these initiatives as a starting point of an ongoing process.[3] By Order Nos. PSC-06-0781-PAA-EI (addressing Tampa Electric Company and Florida Public Utilities Company), PSC-06-0947-PAA-EI (addressing Progress Energy Florida, Inc. and Gulf Power Company), and PSC-07-0468-FOF-EI (addressing Florida Power & Light Company), we addressed the adequacy of the IOU's plans for implementing the Ten Initiatives.

We also pursued rulemaking to address the adoption of distribution construction standards more stringent than the minimum safety requirements of the National Electric Safety Code (NESC) and the identification of areas and circumstances where distribution facilities should be required to be constructed underground.[4] Rule 25-6.0342, F.A.C., was ultimately adopted.[5]

Rule 25-6.0342, F.A.C., requires each IOU to file an Electric Infrastructure Storm Hardening Plan for review and approval by the Commission. The rule also requires a description of construction standards, policies, practices, and procedures to enhance the reliability of overhead and underground electrical transmission and distribution facilities. The rule requires, at a minimum, that each IOU's plan address the following items.

a. Compliance with National Electric Safety Code.

b. Extreme wind loading (EWL) standards for: (i) new construction; (ii) major planned work, including expansion, rebuild, or relocation of existing facilities; (iii) critical infrastructure facilities and along major thoroughfares.

c. Mitigation of damage due to flooding and storm surges.

d. Placement of facilities to facilitate safe and efficient access for installation and maintenance.

e. A deployment strategy that includes: (i) the facilities affected; (ii) technical design specifications, construction standards, and construction methodologies; (iii) the communities and areas where the electric infrastructure improvements are to be

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[3] Order No. PSC-06-0947-PAA-EI, p.2, issued November 13, 2006, in Docket No. 060198-EI, In re: Requirements for investor-owned electric utilities to file ongoing storm preparedness plans and implementation costs estimates.

[4] Order No. PSC-06-0556-NOR-EU, issued June 28, 2006, in Docket No. 060172-EU, In re: Proposed rules governing placement of new electric distribution facilities underground, and conversion of existing overhead distribution facilities to underground facilities, to address effects of extreme weather events; and Docket No. 060173-EU, In re: Proposed amendments to rules regarding overhead electric facilities to allow more stringent construction standards than required by National Electric Safety Code.

[5] Order No. PSC-07-0043A-FOF-EU, issued January 17, 2007, in Docket No. 060172-EU, In re: Proposed rules governing placement of new electric distribution facilities underground, and conversion of existing overhead distribution facilities to underground facilities, to address effects of extreme weather events; and Docket No. 060173-EU, In re: Proposed amendments to rules regarding overhead electric facilities to allow more stringent construction standards than required by National Electric Safety Code.

made; (iv) the impact on joint-use facilities on which third-party attachments exist; (v) an estimate of the costs and benefits to the utility of making the electric infrastructure improvements; and (vi) an estimate of the costs and benefits to third-party attachers affected by the electric infrastructure improvements.

f. The inclusion of Attachment Standards and Procedures for Third-Party Attachers.

On May 7, 2007, the storm hardening plans were filed by Tampa Electric Company (TECO), Progress Energy Florida, Inc. (formerly PEF, now Duke Energy Florida, Inc., or DEF), Gulf Power Company (Gulf), and Florida Power & Light Company (FPL). Docket Nos. 070297-EI (TECO), 070298-EI (PEF), 070299-EI (Gulf), and 070301-EI (FPL) were opened to address each filing. On June 19, 2007, we voted to set the dockets directly for an informal administrative hearing with the additional mandate for our staff to conduct a series of informal workshops to allow the parties and staff to identify disputed issues and potential areas for stipulation. By Order No. PSC-07-0573-PCO-EI, issued July 10, 2007, the dockets were consolidated for purposes of the hearing with the understanding that each utility's plan would be ruled on separately.[6] Florida Public Utilities Company (FPUC) requested to file its storm hardening plan as part of its petition for general rate increase and have it addressed concurrently.[7] FPUC's storm hardening plan was approved May 19, 2008.[8]

A formal administrative hearing was held October 3-4, 2007. During the course of the hearing, the parties reached agreement on a number of issues and the dockets were subsequently stipulated. We were also presented with a stipulated agreement entitled "Process to Engage Third-Party Attachers." This process, as designed, would allow for the exchange of information between the parties. Per the stipulation, annual status reports would be filed with this Commission.[9] In addition, the stipulation stated that any disputes or challenges to issues related to a utility's plan would be resolved by the Commission in accordance with Rule 25-6.0342(7), F.A.C. A customer, applicant for service, or attaching entity could file a request for dispute resolution at any time.

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[6] Docket Nos. 070297-EI, In re: Review of 2007 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Tampa Electric Company; 070298-EI, In re: Review of 2007 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Progress Energy Florida, Inc.; 070299-EI, In re: Review of 2007 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Gulf Power Company; 070301-EI, In re: Review of 2007 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Florida Power & Light Company.

[7] Order No. PSC-08-0019-POC-EI, issued January 4, 2008, in Docket No. 070300-EI, In re: Review of 2007 Electric Infrastructure Storm Hardening Plans files pursuant to Rule 25-6.0342 F.A.C., submitted by Florida Public Utilities Company, and in Docket No. 070304-EI, In re: Petition for rate increase by Florida Public Utilities Company.

[8] Order No. PSC-08-0327-FOF-EI, issued May 19, 2008, in Docket No. 070300-EI, In re: Review of 2007 Electric Infrastructure Storm Hardening Plan files pursuant to Rule 25-6.0342 F.A.C., submitted by Florida Public Utilities Company, and in Docket No. 070304-EI, In re: Petition for rate increase by Florida Public Utilities Company.

[9] Order Nos. PSC-07-1020-FOF-EI, PSC-07-1021-FOF-EI, PSC-07-1022-FOF-EI, PSC-07-1023-FOF-EI, issued December 28, 2007, in Docket Nos. 070297-EI, 070299-EI, and 070301-EI, and Order No. PSC-08-0327-FOF-EI, issued May 19, 2008, in Docket No. 070300-EI.

On May 3, 2010, FPL, PEF, TECO, Gulf, and FPUC each filed 2010-2012 storm hardening plan updates as required by Rule 25-6.0342(2), F.A.C.. Docket Nos. 100262-EI (PEF), 100263-EI (TECO), 100264-EI (FPUC), 100265-EI (Gulf), and 100266-EI (FPL) were opened to address the updates. FPUC filed an amended storm hardening update on May 28, 2010. On June 10, 2010, Commission staff conducted a workshop to better understand each IOU's plan. We approved the first updated storm hardening plans for PEF, TECO, Gulf, and FPUC at our October 26, 2010 Commission Conference. FPL's recommendation was deferred until the January 11, 2011 Commission Conference.[10]

On May 3, 2013, the five IOU's filed 2013-2015 storm hardening plan updates as required. Docket Nos. 130129-EI (DEF), 130131-EI (FPUC), 130132-EI (FPL), 130138-EI (TECO), and 130139-EI (Gulf) were opened. Staff did not conduct a workshop for these updated storm hardening plans; data request responses were sufficient in understanding the updated plans.

This Order addresses TECOs' plan updates as required by Rule 25-6.0342, F.A.C. This Order will address:

I. Wooden Pole Inspection Program

II. Ten Initiatives

III. National Electric Safety Code (NESC) Compliance

IV. Extreme Wind Loading (EWL) Standards

V. Mitigation of Flooding and Storm Surge Damage

VI. Facility Placement

VII. Deployment Strategies

Attachment A to this Order describes the storm hardening requirements for each IOU. Attachments B contains a comparison of the provisions of TECO's 2010-2012 approved and updated 2013-2015 storm hardening plan, and the cost of implementing the approved and updated plans.

This Commission has jurisdiction over this matter pursuant to Sections 360.04 and 366.05, Florida Statutes (F.S.).

Decision

Attachment B provides a summary of TECO's currently approved storm hardening plan and the proposed changes in its updated plan. In addition, where available, the costs associated

[10] See Order Nos. PSC-10-0684-PAA-EI (DEF), PSC-10-0686-PAA-EI (TECO), PSC-10-0687-PAA-EI (FPUC), PSC-10-0688-PAA-EI (Gulf), PSC-11-0082-PAA-EI (FPL).

with the 2010-2012 and 2013-2015 plans are shown. Components of TECO's updated plan are summarized below.

I. Wooden Pole Inspection Program

TECO is continuing its eight-year wooden pole inspection as required by Commission Order No. PSC-07-0078-PAA-EU, issued January 29, 2007, in Docket No. 060531-EU.[11] TECO will continue to file the results of these inspections in TECO's Annual Electric Utility Distribution Reliability Report.

II. Ten Initiatives

Initiative One – Three-Year Vegetation Management cycle for Distribution Circuits

TECO proposes no changes to its previously approved trim cycle in Order No. PSC-12-0303-PAA-EI, issued June 12, 2012, in Docket No. 120038-EI. Currently, both feeder and lateral circuits are trimmed, on average, every four years.[12]

Initiative Two – Audits of Joint-Use Attachment Agreements

Pursuant to Order No. PSC-06-0351-PAA-EI, issued April 25, 2006, in Docket No. 060198-EI,[13] TECO will conduct an audit of all pole attachments on an eight-year cycle at a minimum. However, for some licensees, TECO reserves the right to complete this audit annually based on need and cost-effectiveness.

Initiative Three – Six-Year Transmission Structure Inspection Program

TECO performs multi-pronged inspections on a one, six, or eight-year cycle, depending on the individual transmission inspection activity. TECO also conducts annual ground patrol, aerial infrared patrol, and substation inspections. TECO proposes to continue these practices in its updated plan. The six-year cycle will continue to include above ground inspections, while groundline inspections will be performed on an eight-year cycle. In 2012, the number of groundline inspections performed on TECO's transmission poles enabled the company to complete the eight-year cycle in seven years. The next eight-year inspection cycle will begin in 2014. In addition, TECO proposes to continue its review of sites located in Flood Zone 1 (as defined in Hillsborough County's hazard flood maps). The major focus will continue to be on the elevation and water resistance of control cabinets and related equipment. However, practical modifications will be made if necessary.

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[11] Docket No. 060531-EU, In re: Review of all electric utility wooden pole inspection programs.
[12] Docket No. 120038-EI, In re: Petition to modify vegetation management plan by Tampa Electric Company.
[13] Docket No. 060198-EI, In re: Requirement for investor-owned electric utilities to file ongoing storm preparedness plans and implementation cost estimates.

Initiative Four – Hardening of Existing Transmission Structures

TECO currently upgrades its existing transmission structures during roadway relocation projects and as other maintenance activities provide cost-effective opportunities. TECO's updated plan continues replacement of wooden transmission structures with non-wooden structures based primarily on pole inspection results. Additionally, the company will continue to utilize non-wood structures for all new transmission line construction projects, as well as system rebuilds and line relocation.

Initiative Five – Transmission and Distribution Geographic Information System

TECO established and accepted its Geographic Information System in September 2009. TECO's Geographic Information System databases contain all facility data for transmission, substation, distribution, and lighting facilities. This system will enhance post-storm damage assessment, forensic analysis, joint-use administration, and the evaluation of construction standards and potential hardening projects.

Initiative Six – Post-Storm Data Collection and Forensic Analysis

TECO has hired a consultant to perform forensic analysis and data collection, such as identifying the type of damage to poles, structures, conductors, equipment, and hardware. This consultant is to provide a report containing data collected, results of its findings and recommendations on improving system performance. However, TECO did not experience any weather events significant enough to require forensic data. Therefore, no significant forensic data is available at this time.

Initiative Seven – Collection of Detailed Outage Data Differentiating Between the Reliability Performance of Overhead and Underground Systems

TECO has had no storm activity requiring an overhead and underground performance review or report. However, TECO asserts it has measures in place to track initiatives related to GIS, post-storm data collection, and outage data should it experience any major storm events in the future.

Initiative Eight – Increased Coordination with Local Governments

TECO proposes to continue conducting workshops with local governments and county Emergency Operating Centers to discuss pre-storm preparedness and hazard mitigation, and to set common priorities to be applied during emergency events. In addition, the company will continue to conduct damaged facility reporting training, and to share information on the costs and benefits of undergrounding electric facilities.

Initiative Nine – Collaborative Research on Effects of Hurricane Winds and Storm Surge

The electric utilities previously established a non-profit, member-financed organization to coordinate all research efforts through the Public Utilities Research Center (PURC), located in the Warrington College of Business at the University of Florida. PURC's work is focused on three main areas of concern: hurricane wind effects, vegetation management, and undergrounding of electric infrastructure. TECO entered into a Memorandum of Understanding with PURC that extends PURC's research efforts for the IOUs through December 31, 2013.

Initiative Ten – Natural Disaster Preparedness and Recovery Program

TECO proposes to continue working with county Emergency Operating Centers to review restoration priorities in the Company's service areas. TECO's Energy Delivery department will continue many activities throughout the storm season. These activities include facilitating training sessions, staging sites to ensure primary and backup locations for distribution and transmission facilities, holding conference calls, and reviewing all employees' storm assignments and communication roles. In addition, TECO will continue to conduct mock drills that address hurricane issues.

III. National Electric Safety Code Compliance

TECO's updated plan addresses the extent to which, at a minimum, TECO complies with the NESC pursuant to Rule 25-6.0342(2), F.A.C. TECO's distribution facilities comply with, and in most cases exceed, the minimum NESC requirements. TECO's transmission structures also comply with the NESC.

IV. Extreme Wind Loading (EWL) Standards

New Construction

TECO proposes to continue its practice for distribution and transmission facilities based on National Electric Safety Code Grade B construction. In addition, the extreme wind loads are applied to all attachments on the transmission structures regardless of attachment height.

Major Planned Work

TECO proposes to continue building to Grade B construction for all major planned expansions, rebuilds, or relocations of distribution facilities. We note that while Rule 25-6.0342, F.A.C., requires that a utility's plan address the extent to which EWL standards are adopted for various types of facilities, it does not require a utility to adopt a particular standard.

Critical Infrastructure

TECO's downtown network is considered critical infrastructure due to the high concentration of business and governmental buildings in the area. TECO proposes to test approximately eight network protectors per year in the 12 low-lying vaults downtown. In addition, for 2013 a restoration plan for the downtown network will be developed to ensure that

an efficient network distribution system recovery takes place in the event of total power loss. The company also provided information on other projects currently being completed for the Port of Tampa and Saint Joseph's Hospital.

V. Mitigation of Flooding and Storm Surge Damage

TECO proposes to continue its current standard for all new and maintenance replacement of underground distribution facilities located in Flood Zone 1. TECO will focus on elevation and water resistance of control cabinets and related equipment.

VI. Facility Placement

TECO proposes to continue placement of all new distribution facilities in the public right-of-way. In addition, TECO proposes to continue evaluating community and customer requests to relocate overhead facilities from rear lot locations to the front of a customer's property on a case-by-case basis.

VII. Deployment Strategies

Facilities Affected, Including Specifications and Standards

TECO's updated plan contains a detailed three-year deployment strategy, which includes a description of facilities affected by inspection programs, technical design specification, construction standards and methodologies.

Areas of Infrastructure Improvements

TECO's updated plan provides a detailed description of the communities and areas where electric infrastructure improvements will be made, including facilities identified by the utility as critical infrastructure and along major thoroughfares.

Joint-Use Facilities

TECO continues to conduct an inspection of all poles on its system on an eight-year cycle. TECO proposes to continue to meet with all joint-use attachers and provide attachers with information preformed from pole testing and any cost or impact to those joint-use attachers.

Utility Cost/Benefit Estimates

TECO's updated plan includes estimates of costs to be incurred in connection with its updated plan for 2013 through 2015. This includes pole replacement, inspections of distribution and transmission facilities, vegetation management, and other projects. These costs seem to be reasonable as compared to the last approved storm hardening plan. Since TECO has not experienced any major storms since implementation of its plan the company has minimal

evidence of benefits from storm hardening projects. Attachment B shows a comparison of the costs associated with implementation of TECO's current and updated storm hardening plans.

Attachers Cost/Benefit Estimates

TECO's updated plan provided attachment standards procedures that will benefit at minimal cost to all third-party attachers. However, TECO did not state in its updated plan whether the company had sought input or received estimate benefit information from attachers.

VIII. Attachment Standards and Procedures

TECO's updated plan includes Attachment Standards and Procedures addressing safety, reliability, and pole loading capacity. The updated plan also addresses engineering standards and procedures for attachments by others to the utility's transmission and distribution poles that meet or exceed the National Electric Safety Code (ANSI C-2) pursuant to Rule 25-6.034, F.A.C.

IX. Conclusion

TECO's updated plan is largely a continuation of its current Commission-approved plan. Since Florida has not been affected by any named storms in the past few years, no data are available to evaluate the effects of hardening efforts on TECO's infrastructure. However, we find that TECO is taking proactive steps to improve its system to withstand severe weather events and thus presents a reasonable approach to storm hardening that has the potential to enhance reliability and reduce restoration costs and outage times. Therefore, we hereby approve TECO's updated 2013-2015 storm hardening plan.

Based on the foregoing, it is

ORDERED that Tampa Electric Company's updated 2013-2015 Storm Hardening Plan is hereby approved. It is further

ORDERED that the findings set forth in the body of this Order are hereby approved. It is further

ORDERED that the provisions of this Order, issued as proposed agency action, shall become final and effective upon the issuance of a Consummating Order unless an appropriate petition, in the form provided by Rule 28-106.201, Florida Administrative Code, is received by the Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings" attached hereto. It is further

ORDERED that in the event this Order becomes final, this docket shall be closed upon the issuance of a consummating order.

By ORDER of the Florida Public Service Commission this 3rd day of December, 2013.

Carlotta S Stauffer

CARLOTTA S. STAUFFER
Commission Clerk
Florida Public Service Commission
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Copies furnished: A copy of this document is provided to the parties of record at the time of issuance and, if applicable, interested persons.

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NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing that is available under Section 120.57, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, in the form provided by Rule 28-106.201, Florida Administrative Code. This petition must be received by the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on December 24, 2013.

In the absence of such a petition, this order shall become final and effective upon the issuance of a Consummating Order.

Any objection or protest filed in this/these docket(s) before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

Storm Hardening Requirements: Wooden Pole Inspection Program & 10 Initiatives

Eight-Year Wooden Pole Inspection Program
1. Implement an eight-year wooden pole inspection cycle by Order Nos. PSC-06-0144-PAA-EI and PSC-07-0078-PAA-EU.
2. File an annual report with the Commission.
3. Provide cost estimates.

Initiative 1 – A Three-Year Vegetation Management Cycle for Distribution Circuits
1. Three-year tree trim cycle for primary feeders (minimum).
2. Three-year cycle for laterals as well, if not cost-prohibitive.
3. Provide cost estimate.

Initiative 2 – Audit of Joint-Use Attachment Agreements
1. (a) Each investor-owned electric utility shall develop a plan for auditing joint-use agreements that includes pole strength assessments.
(b) These audits shall include both poles owned by the electric utility poles owned by other utilities to which the electric utility has attached its electrical equipment.
2. The location of each pole, the type and ownership of the facilities attached, and the age of the pole and the attachments to it should be identified.
3. Each investor-owned utility shall verify that such attachments have been made pursuant to a current joint-use agreement.
4. Stress calculations shall be made to ensure that each joint-use pole is not overloaded or approaching overloading for instances not already addressed by Order No. PSC-06-0144-PAA-EI.
5. Provide compliance cost estimate and cost estimate for alternative action, if any.

Initiative 3 – Six-Year Transmission Inspection Program
1. Develop a plan to fully inspect all transmission towers and other transmission supporting equipment (such as insulators, guying, grounding, splices, cross-braces, bolts, etc.).
2. Develop a plan to fully inspect all substations (including relay, capacitor, and switching stations).
3. Provide compliance cost estimate and cost estimate for alternative actions, if any.

Initiative 4 – Hardening of Existing Transmission Structures
1. Develop a plan to upgrade and replace existing transmission structures. Provide a scope of activity, limiting factors, and criteria for selecting structure to upgrade and replace.
2. Provide a timeline for implementation.
3. Provide compliance cost estimate and cost estimate for alternative actions, if any.

Initiative 5 – Transmission and Distribution Geographic Information System
1. To conduct forensic review.
2. To assess the performance of underground systems relative to overhead systems.
3. To determine whether appropriate maintenance has been performed.

4. To evaluate storm hardening options.
5. Provide a timeline for implementation.
The utilities have the flexibility to propose a methodology that is efficient and cost-effective.

Initiative 6 – Post-Storm Data Collection and Forensic Analysis
1. Develop a program that collects post-storm information for performing forensic analyses.
2. Provide a timeline for implementation.
The utilities have the flexibility to propose a methodology that is efficient and cost-effective.

Initiative 7 – Collection of Detailed Outage Data Differentiating between the Reliability Performance of Overhead and Underground Systems
1. Collect specific storm performance data that differentiates between overhead and underground systems, to determine the percentage of storm-caused outages that occur on overhead and underground systems, and to assess the performance and failure mode of competing technologies, such as direct bury cable versus cable-in-conduit, concrete poles versus wooden poles, location factors such as front-lot versus back-lot, and pad-mounted versus vault.
2. Provide a timeline for implementation.
The Utilities have the flexibility to propose a methodology that is efficient and cost-effective.

Initiative 8 – Increased Coordination with Local Governments
1. Each utility should actively work with local communities year-round to identify and address issues of common concern, including the period following a severe storm like a hurricane and also ongoing, multi-hazard infrastructure issues such as flood zones, area prone to wind damage, development trends in land use and coastal development, joint-use of public right-of-way, undergrounding facilities, tree trimming, and long-range planning and coordination.
2. Incremental plan costs.

Initiative 9 – Collaborative Research
1. Must establish a plan that increases collaborative research.
2. Must identify collaborative research objective.
3. Must solicit municipals, cooperatives, educational and research institutions.
4. Must establish a timeline for implementation.
5. Must identify the incremental costs necessary to fund the organization and perform the research.

Initiative 10 – A Natural Disaster Preparedness and Recovery Program
1. Develop a formal Natural Disaster Preparedness and Recovery Plan that outlines the utility's disaster recovery procedures if the utility does not already have one.

Tampa Electric Company

Eight-Year Wooden Pole Inspection Program	
Current Plan	Updated Plan
1. Implement an eight-year wooden pole inspection cycle for distribution poles.	1. No change
2. File the progress of this inspection in the Annual Reliability Report.	2. No change
3. Costs for 2010-2012 were $91,600,000.	3. Costs for 2013 are estimated to be $41,800,000.

Initiative 1 – A Three-Year Vegetation Management Cycle for Distribution Circuits	
Current Plan	Updated Plan
1. Average three-year trim cycle for feeders.	1. Average four-year trim cycle for feeders.
2. Average three-year trim cycle for laterals. Targeted trimming is also achieved through its "mid-cycle" program that addresses critical circuits.	2. Average four year trim cycle for laterals.
3. Costs for 2010-2012 were $33,500,00.	3. Costs for 2013 are estimated to be $8,500,000.

Initiative 2 – Audit of Joint-Use Attachment Agreements	
Current Plan	Updated Plan
1. (a) Perform pole strength assessment during eight-year wooden pole inspection cycle.	1. (a) No change
(b) Audit all TECO-owned poles and third-party poles per Joint-Use contract agreements on an eight-year cycle.	(b) No change
2. All required data will be collected during eight-year wooden pole inspection cycle and stored in GIS database.	2. No change
3. Verify attachments have been made pursuant to current joint-use agreements during the eight-year wooden pole inspection cycle.	3. No change
4. Stress calculations will be performed during eight-year wooden pole inspection cycle.	4. No change
5. Costs for 2010-2012 were $0.	5. Costs for 2013 are estimated to be $330,000.

Initiative 3 – Six-Year transmission Inspection Program	
Current Plan	Updated Plan
1. Wooden pole inspection activities (PSC-06-0144-PAA-EI, Docket No. 060078-EI). Structures on a six-year cycle, all other portions of the system inspected annually.	1. No change
2. Substations inspected annually.	2. No change
3. Costs for 2010-2012 were $4,000,000.	3. Costs for 2013 are estimated to be $1,100,000.

Initiative 4 – Hardening of Existing Transmission Structures	
Current Plan	Updated Plan
1. Incremental phase out of wooden transmission structures during all new construction, relocations, and other maintenance.	1. No change
2. Plan is ongoing with no completion date.	2. No change
3. Costs for 2010-2012 were $1,500,000.	3. Costs for 2013 are estimated to be $600,000.

Initiative 5 – Transmission and Distribution Geographic Information System	
Current Plan	Updated Plan
1. Forensic reviews on statistical sampled basis.	1. No change
2. Forensic review with respect to types of materials and construction, and location.	2. No change
3. Plan includes determination of appropriate maintenance.	3. No change
4. Access future preventive measures where possible.	4. No change
5. Implementation began in 2010.	5. No change

Initiative 6 – Post-Storm Data Collection and Forensic Analysis	
Current Plan	Updated Plan
1. Hire consultant to perform forensic analyses.	1. No change
2. Implementation is dependent on the severity of the weather event.	2. No change

Initiative 7 – Collection of Detailed Outage Data Differentiating between the Reliability Performance of Overhead and Underground Systems	
Current Plan	Updated Plan
1. Measures are in place should it experience a major storm.	1. No change
2. Implementation will begin when TECO experiences major storm activity.	2. No change

Initiative 8 – Increased Coordination with Local Governments	
Current Plan	Updated Plan
1. TECO's Plan calls for building on past community involvement by including local government, fire, police and water officials in storm preparation workshops, including local government in local Emergency Operations Centers, increased vegetation management including government and consumer education, undergrounding planning and education, and damage reporting prior, during, and after storms.	1. No change
2. Costs for 2010-2012 were $66,000.	2. Costs for 2013 were estimated to be $33,000.

Initiative 9 – Collaborative Research	
Current Plan	Updated Plan
1. Collaborative research efforts, led by PURC, which began in 2007.	1. No change
2. Research vegetation management during storm and non-storm times, wind during storm and non-storm events, hurricane and damage modeling towards further understanding the costs and benefits of undergrounding.	2. No change
3. TECO will solicit participation from other utilities and organizations.	3. No change
4. Implementation is ongoing	4. TECO has entered into a Memorandum of Understanding with the University of Florida's PURC, which extends research through December 31, 2013.
5. Costs for 2010-2012 were $0.	5. Costs for 2013-2015 are $0.

Initiative 10 – A Natural Disaster Preparedness and Recovery Program	
Current Plan	Updated Plan
Disaster Preparedness/Recovery Plan has been developed and filed.	Continue to refine.