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 Duke Energy Florida, Inc.	DOCKET NO. 130129-EI ORDER NO. PSC-13-0637-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 DUKE ENERGY FLORIDA, INC.'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:

> 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 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.

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

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

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.

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 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 FPSC. 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 NESC.

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.

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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.

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 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

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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.

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.

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 the IOUs' 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 the 2010-2012 approved and updated 2013-2015 storm hardening plans, and the cost of implementing the approved and updated plans.

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[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.

[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).

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

Decision

Approval of DEF's Updated Plan

Attachment B provides a summary of DEF's currently approved storm hardening plan and the proposed changes contained in its updated plan. In addition, where available, the costs associated with the 2010-2012 and 2013-2015 plans are shown. Components of DEF's updated plan are summarized below.

I. Wooden Pole Inspection Program

DEF 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] DEF will continue to file the results of these inspections in DEF's Annual Electric Utility Distribution Reliability Report.

II. Ten Initiatives

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

DEF proposes to continue its previously approved plan for this initiative. DEF has a three-year average trim cycle for feeders and a five-year trim cycle for distribution laterals.

Initiative Two – Audits of Joint-Use Attachment Agreements

DEF proposes to continue performing joint-use pole loading analyses on an eight-year cycle in conjunction with its wooden pole inspection program. DEF will continue, in 2014, a new eight-year cycle starting with poles last inspected in 2007.

Initiative Three – Six-Year Transmission Structure Inspection Program

DEF proposes to continue its existing transmission structure inspection program, which is on a five-year cycle for structures. DEF proposes to continue conducting monthly inspections of its substations.

Initiative Four – Hardening of Existing Transmission Structures

DEF proposes performing system upgrades due to system growth on several lines over the next ten years. This, on average, will result in approximately 250-350 wooden structures per year being changed out and replaced with concrete or steel poles. DEF also estimates that it will be adding 300-400 structures per year due to system expansion and growth. DEF estimates the

[11] Docket No. 060531-EU, In re: Review of all electric utility wooden pole inspection program.

program will reduce its percentage of wooden transmission structures from 75 percent to less than 50 percent.

Initiative Five – Transmission and Distribution Geographic Information System (GIS)

DEF's current distribution GIS system does not provide asset specific information. DEF proposes to implement an enhanced system for distribution. In order to fully implement this strategy, DEF will need to invest in several systems and perform additional field inspections and audits on its assets. DEF's transmission GIS is fully functioning and linked to DEF's work management system. However, DEF proposes that over the next six years to populate its transmission GIS with maintenance data such as: inspection dates, type of inspections, conditional assessment of the transmission facility, and status of remediation or repair work orders.

Initiative Six – Post-Storm Data Collection and Forensic Analysis

DEF proposes to continue its previously approved plan for Initiative Six. DEF currently has data gathering procedures, which are able to provide DEF Forensic Assessors (distribution) and Consultants (transmission) with information to facilitate their ability to make recommendations for improvements to DEF's system when needed. DEF did not experience a hurricane event during 2010-2012; 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

DEF's updated plan continues to assess differences in damage sustained by underground and overhead facilities, and determine whether customer outages are caused by failures in underground or overhead components. In addition, as proposed in Initiative Five, DEF's new GIS system would allow DEF the ability to collect data relevant to asset performance, and DEF would use this information to analyze and compare performance of its overhead and underground systems.

Initiative Eight – Increased Coordination with Local Governments

DEF seeks to continue coordinating year-round with local governments through its community relations team. DEF representatives will continue to hold various meetings and expositions with local governments, county Emergency Operations Centers, and first responders. DEF also proposes to continue working with counties and cities on projects such as: briefings in counties where they provide service, annual storm planning, and collaborating on vegetation management issues.

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 Utility 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. DEF 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

DEF seeks to continue refining its storm recovery plan. This plan is reviewed and updated annually based on lessons learned from the previous storm seasons and organizational needs.

III. National Electric Safety Code (NESC) Compliance

DEF's updated plan addresses the extent to which, at a minimum, DEF complies with the NESC pursuant to Rule 25-6.0342(2), F.A.C.

IV. Extreme Wind Loading (EWL) Standards

New Construction

DEF's updated plan continues its approved approach which adheres to current NESC requirements, executes maintenance plans, and adopts prudent end-of-life equipment replacement programs. DEF has not adopted EWL standards for new distribution construction. DEF reasoned that its own experience coupled with industry experience shows that flying debris and vegetation are the primary causes of distribution pole damage; and these are conditions that EWL standards, and any other overhead construction standard, cannot address. With respect to transmission, however, DEF does apply EWL criteria to its new construction of poles, rebuilds, and relocations of existing facilities.

Major Planned Work

In its updated plan, DEF continues its approach of not applying EWL standards to major planned distribution work, including expansions, rebuilds, or relocations of existing facilities. Staff notes 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. However, consistent with NESC Rule 250C, DEF will continue to use the EWL standards for all major planned transmission work, including expansions, rebuilds, and relocations of existing facilities.

Critical Infrastructure

DEF proposes to continue its approach of not applying EWL standards to any of its distribution level critical infrastructure. With respect to transmission, DEF proposes to continue the use of EWL standards for all major planned transmission work, including expansions,

rebuilds, and relocations of existing facilities, irrespective of whether they can be classified as "critical" or "major."

V. Mitigation of Flooding and Storm Surge Damage

DEF seeks to continue to use its prioritization model to identify areas where certain mitigation projects will be put into place to test whether flood mitigation techniques and devices can be used to protect equipment such as switchgears, pad-mounted transformers, and pedestals. Based on data collected and analyzed, DEF will continue to learn and adapt its flood and storm surge strategies as needed.

VI. Facility Placement

DEF proposes to continue to use front lot construction for all new distribution facilities and all replacements of distribution facilities unless a specific operational, safety, or other site-specific reason exists for not using such construction at a given location. In the updated plan, DEF provided its Distribution Engineering Manual as an aid to facilitate a better understanding of its construction method.

VII. Deployment Strategies

Facilities Affected, Including Specifications and Standards

DEF previously engaged industry expert Davies Consulting to develop a comprehensive prioritization model that has helped DEF identify potential hardening projects, procedures, and strategies. The model has since been improved and enhanced to better reflect the changes in DEF's overall storm hardening strategy. As more data becomes available, DEF proposes to continue to adjust its prioritization model as appropriate.

Areas of Infrastructure Improvements

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

Joint-Use Facilities

DEF proposes to continue performing joint-use pole loading analyses on an eight-year cycle in conjunction with its wooden pole inspection programs. DEF proposes to continue to meet with all joint-use attachers and provide attachers with information on when pole change outs are conducted.

Utility Cost/Benefit Estimates

DEF provided estimates of costs to be incurred in connection to its updated plan. These costs seem to be reasonable as compared to the last approved storm hardening plan. However, no quantification on benefits was included in its filing. Since DEF has not experienced any major storms since the implementation of its plan the company has minimal evidence of improved network performance from storm hardening projects. However, DEF states that any entity jointly attached to DEF's equipment would enjoy any benefits that DEF would enjoy from that same application. Attachment B provides a comparison of the cost associated with implementing DEF's current and updated storm hardening plans.

Attachers Cost/Benefit Estimates

DEF provided its Joint-Use Pole Attachment Guidelines with its updated plan. The report details contractual agreements, permits, pole attachment and over-lash attachment procedures, costs, and other guidelines.

VIII. Attachment Standards and Procedures

DEF's updated plan includes written Attachment Standards and Procedures addressing safety, reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. These standards meet or exceed those of the NESC pursuant to Rule 25-6.034, F.A.C.

IX. Conclusion

DEF'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, data are not available to evaluate the effects of hardening efforts on DEF's infrastructure. However, we find that DEF 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 DEF's updated 2013-2015 storm hardening plan.

Based on the foregoing, it is

ORDERED that Duke Energy Florida, Inc.'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
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399
(850) 413-6770
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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.

Duke Energy Florida, Inc.

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 $7,537,995.	3. Costs for 2013 are estimated to be $2,399,772.

Initiative 1 – A Three-Year Vegetation Management Cycle for Distribution Circuits	
Current Plan	Updated Plan
1. Implement a three-year average trim cycle for feeders with targeted feeder trims based on prioritization.	1. No change
2. Implement an average five-year trim cycle for laterals.	2. No change
3. Costs for 2010-2012 were $73,992,778.	3. Costs for 2013 are estimated to be $25,193,043.

Initiative 2 – Audit of Joint-Use Attachment Agreements	
Current Plan	Updated Plan
1. (a) Perform a Comprehensive Loading Analysis and annual partial system audits.	1. (a) No change
(b) Audit all DEF-owned and joint-use poles during eight-year wooden pole inspection cycle.	(b) No change
2. All required data collected on select poles and stored in electronic format.	2. No change
3. Verify attachments have been made pursuant to current joint-use agreements.	3. No change
4. Stress calculations performed on select poles during eight-year wooden pole inspection cycle.	4. No change
5. Cost for 2010-2012 were $1,511,045	5. Costs for 2013 are estimated to be $553,564.

Initiative 3 – Six-Year transmission Inspection Program	
Current Plan	Updated Plan
1. Inspection program is multi-pronged approach with inspection cycles of one,	1. No change

six, or eight years depending on the goals or requirements of the individual inspection activity.	
2. Annual substation inspections.	2. No change
3. Costs for 2010-2012 were $52,330,307.	3. Costs for 2013 are estimated to be $20,240,334.

Initiative 4 – Hardening of Existing Transmission Structures	
Current Plan	Updated Plan
1. Incremental upgrades during relocations, replacement of existing wooden transmission pole, and other maintenance.	1. No change
2. Plan completed in 10 or more years starting in 2007.	2. No change
3. Costs for 2010-2012 were $279,637,118.	3. Costs for 2013 are estimated to be $93,495,002.

Initiative 5 – Transmission and Distribution Geographic Information System	
Current Plan	Updated Plan
1. Plan includes forensic review.	1. No change
2. Plan includes underground system relative to overhead.	2. No change
3. Plan includes determination of appropriate maintenance.	3. No change
4. Plan includes evaluation of storm hardening options.	4. No change
5. Continue use of G-electric system	5. No change

Initiative 6 – Post-Storm Data Collection and Forensic Analysis	
Current Plan	Updated Plan
1. DEF has forensic teams in place and will collect and analyze samples.	1. No change
2. Plan continues to be implemented as severe weather events occur.	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. DEF's Storm Preparedness Plan has been initiated.	1. No change
2. Implement in 2007. Storm performance results are obtained from PEF's GIS.	2. No change

Initiative 8 – Increased Coordination with Local Governments	
Current Plan	Updated Plan
1. DEF focuses on year-round communication with local governments. In addition, DEF implements meetings to discuss city and county projects.	1. No change
2. Costs for 2010-2012 are unknown at this time.	2. Costs for 2013 were estimated to be $114,295*.

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. DEF will solicit participation from other utilities and organizations.	3. No change
4. Implementation is ongoing	4. DEF 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 unknown at this time.

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.

*DEF has estimated the amount of time that each member of the governmental coordination team allocated to that function and multiplied each member's base salary by the estimated percentage, resulting in an estimated allocation for each member's base salary to their role on the governmental coordination team.