

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Review of 2010 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Gulf Power Company.	DOCKET NO. 100265-EI ORDER NO. PSC-10-0688-PAA-EI ISSUED: November 15, 2010
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The following Commissioners participated in the disposition of this matter:

ART GRAHAM, Chairman
LISA POLAK EDGAR
NATHAN A. SKOP
RONALD A. BRISÉ

NOTICE OF PROPOSED AGENCY ACTION
ORDER APPROVING GULF POWER COMPANY'S
STORM HARDENING PLAN

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, we 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, we issued Order No. PSC-06-0144-PAA-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 seasons 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

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

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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 are acceptable, which poles must be treated or braced, and which poles must be replaced is through periodic inspections.

At the February 27, 2006 internal affairs meeting, we took comments from our staff, interested persons, and Florida's electric utilities regarding the need to address the effects of extreme weather events on electric infrastructure. Ultimately, we decided:

1. All Florida electric utilities, including municipal utilities and rural electric cooperative utilities, would provide an annual Hurricane Preparedness Briefing.
2. A proposed agency action recommendation would be filed by our staff for the April 4, 2006 Agenda Conference requiring each IOU to file plans and estimated implementation costs for ongoing storm preparedness initiatives.
3. A docket would be opened to initiate rulemaking to adopt distribution construction standards that are more stringent than the minimum safety requirements of the National Electrical Safety Code (NESC).
4. A docket would be opened to initiate rulemaking to identify areas and circumstances where distribution facilities should be required to be constructed underground.

On April 25, 2006, we issued Order No. PSC-06-0351-PAA-EI, requiring all IOUs to file plans and estimated implementation costs for 10 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

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 the 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 IOUs' 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 the NESC.
- (b) Extreme wind loading (EWL) standards for: (i) new construction; (ii) major planned work, including expansion, rebuild, or relocation of existing facilities; and (iii) critical infrastructure facilities and along major thoroughfares.
- (c) Mitigation of damage due to flooding and storm surges.

³ Order No. PSC-06-0947-PAA-EI, page 2, issued November 13, 2006, in Docket No. 060198-EI, In re: Requirement for investor-owned electric utilities to file ongoing storm preparedness plans and implementation cost 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 including: (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. (PEF), 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 a formal administrative hearing, with the additional mandate to 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. FPUC requested to file its storm hardening plan as part of its petition for a general rate increase and have it addressed in its rate case.⁶ FPUC's storm hardening plan was approved May 19, 2008.⁷

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. The parties also presented us 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, information would be shared among the parties and annual status reports would be filed with us.⁸ In addition, the stipulation stated that we would resolve any disputes or challenges to issues related to a utility's plan in accord 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, Gulf filed 2010-2012 its storm hardening plan update as required by Rule 25-6.0342(2), F.A.C. Docket No. 100265-EI was opened to address the updates. On June

⁶ Order No. PSC-08-0019-PCO-EI, issued January 4, 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.

⁷ 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.

⁸ 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, 070298-EI, 070299-EI, and 070301-EI, and Order No. PSC-08-0327-FOF-EI, issued May 19, 2008, in Docket No. 070300-EI.

10, 2010, we conducted a workshop to better understand Gulf's plan. In addition to the workshop, we sent data requests to Gulf to obtain clarification and additional information. We considered Gulf's plan updates at our October 26, 2010 Commission Conference. This Order addresses Gulf's plan updates as required by Rule 25-6.0342. Attachment A to this Order describes the storm hardening requirements. Attachment B contains a comparison of the provisions of Gulf's previously approved and updated storm hardening plans, and the costs of implementing the approved and updated plans. Attachment C is a glossary of terms used in this Order. We have jurisdiction over this matter pursuant to Sections 360.04 and 366.05, Florida Statutes (F.S.).

Review of Gulf's Plan Updates

Wooden Pole Inspection Program

Gulf will continue its wooden pole inspection program on an eight-year cycle utilizing the same inspection matrix we approved in 2007, with one minor exception. Gulf has performed full excavations and treatments on 954 poles over the past three years. Some of the poles showed minor decay but no excavated poles were rejected for defects. Therefore, Gulf will discontinue the 1% sample of non-excavated poles program because the sample did not identify any poles that required a full excavation or treatment. Discontinuation of the 1% sample program will save approximately \$22,500 over the next three years. Gulf will continue to file the results of these inspections in Gulf's Annual Electric Utility Distribution Reliability Report.

Ten Initiatives

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

Gulf will continue its three-year trim cycle for feeders. However, in its updated plan, Gulf will shorten the trim cycle on lateral lines to four years from the current six-year trim cycle, and will reduce the emphasis on danger tree removal in residential areas. Gulf states that the decrease spending on danger tree removal will transfer to increased spending on lateral trimming. In addition, Gulf will place greater emphasis on removal of overhanging limbs that are located outside the normal trim zone. Gulf states that sixty-five percent of tree-related main line outages are now being caused by large overhanging limbs coming in contact with power lines. Gulf plans to evaluate reliability data at the end of each year to determine if this change is successful in improving system performance.

Initiative Two – Audit of Joint-Use Attachment Agreements

Gulf will discontinue its random pole strength test pilot project. This change is based on the low failure rates observed during the three-year pilot project and changes to construction standards that require stronger Grade B construction. In 2007, five hundred poles were analyzed in this pilot project and forty-three poles failed. However, in 2008, five hundred and sixteen poles were analyzed with only one pole failure. In 2009, zero poles failed out of the five hundred poles tested. Discontinuation of the pole strength pilot program will save approximately \$100,000 over the next three years.

Initiative Three – Six-Year Transmission Structure Inspection Program

Gulf will continue its approved plan for Initiative Three. Under the previously approved plan, Gulf inspects all of its substations annually, and schedules inspections of its transmission structures based on achieving a six-year inspection cycle of these facilities.

Initiative Four – Hardening of Existing Transmission Structures

Gulf will continue its existing plan for hardening transmission facilities. It is Gulf's position that adherence to the current design and construction standards, along with the recommended six-year structure inspection program, will provide for sufficient hardening of the system throughout its service territory.

Initiative Five – Transmission and Distribution Geographic Information System

Gulf has established GIS databases for distribution, transmission, and land records. Gulf will maintain and update data for its asset management programs and forensic data analysis in its GIS.

Initiative Six – Post-Storm Data Collection and Forensic Analysis

In 2008, contractors were retained to collect information on a sample of poles and to transfer data to a data analysis agent. However, since recent storm seasons have been uneventful, Gulf states that there is no need for a forensic collection team at this time.

Should a storm event occur, Gulf intends to retain contractors to gather and evaluate storm forensic data to determine the benefits of particular approaches to hardening as they might be applied to new construction and major planned work, including expansion, rebuilding, and relocation of existing facilities. Gulf will have a contractor conduct refresher training courses for proper forensic collection procedures. These courses will continue as needed over the next three years.

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

Gulf will continue recording the number of overhead and underground customers to calculate reliability indices. In addition, data obtained on outages will be collected and stored for future analysis. Since recent storm seasons have been uneventful, no outage data differentiating between the reliability performance of overhead and underground systems have been reported.

Initiative Eight – Increased Utility Coordination with Local Governments

Gulf will continue working with the county EOCs in its service area through numerous programs in order to keep the community and local governments informed of storm occurrences and restoration activities. In addition, Gulf will maintain year-round contact with city and county officials to ensure cooperation in planning, communicating, and coordinating for storm-related activities.

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 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. Gulf entered into a Memorandum of Understanding with PURC that extends PURC's research efforts for the IOUs through December 31, 2011.

Initiative Ten – Natural Disaster Preparedness and Recovery Program

Gulf will continue refining its Storm Recovery Plan, which identifies planning procedures and preparations for natural disasters within Gulf's service area. This plan builds on lessons learned and encompasses recovery effort experiences within its service area as well as knowledge gained from assisting other utilities that have suffered weather-related natural disasters. This plan is reviewed and revised annually. No major revisions were submitted in the company's March 1, 2010 annual filing.

Additional Projects

In addition to the Ten Initiatives required by our order, Gulf included four additional projects to its updated plan that concentrate on reliability. First, Gulf will convert its remaining three 4 kV distribution feeders to its standard 12.47 kV distribution voltage. Gulf believes this conversion will reduce potential outages and improve restoration time. Second, Gulf will install reclosers or automated switches at approximately the mid-way point on distribution feeders. This process would be deployed on long and critical feeders and would protect feeders from temporary faults. Third, Gulf will install 20 automatic overhead faulted circuit indicators (FCIs). Doing this would reduce customer outage time because these devices indicate the passage of fault current that is greater than a predetermined current magnitude. Last, Gulf will develop and begin implementation of the systems and applications that would permit the remote control of distribution line devices such as reclosers and switches and the acquisition of operational data.

National Electric Safety Code Compliance

Gulf's updated plan addresses the extent to which, at a minimum, Gulf complies with the NESC pursuant to Rule 25-6.0345(2), F.A.C. Gulf's distribution facilities comply with, and in most cases exceed, the minimum requirements of NESC. Gulf's transmission structures also comply with NESC.

Extreme Wind Loading Standards

New Construction – Gulf's updated plan adopts Grade B construction standards on all new distribution, construction, maintenance work, and major distribution rebuilds. All of Gulf's new transmission construction is designed using EWL criteria. Gulf will change its approach to the EWL pilot projects by expanding its Grade B initiative to include a storm hardening initiative that has the potential to minimize possible outages due to both a major storm event and routine

outage events through the year. Although Gulf has completed the implementation of Grade B construction into its construction practices and completed the extreme wind loading pilot projects outlined in its 2007-2009 Storm Hardening Plan, Gulf still lacks the data to support the benefits associated with the upgrades due to a lack of major storms during this time period to test the construction practices. Gulf believes it is prudent to move cautiously into further application of the extreme wind loading standards until it is able to determine the cost and outage benefits.

Major Planned Work – In order to obtain the most potential cost/benefit, Gulf will target critical pole lines with multiple feeders on them and convert them to Grade B construction. In addition, its existing wooden poles will be replaced with concrete poles from the substations to strategic operational points on the feeders. Gulf has installed meteorological wind stations in close proximity to several of these pilot projects to collect granular wind data to help determine the effectiveness of these facility upgrades in future storm events.

Critical Infrastructure – In the current plan, Gulf performed EWL pilot projects for distribution facilities serving critical infrastructures such as hospitals, fuel depots, sewage treatment plants, and major roadway crossings across the its service area. Gulf will continue applying EWL standards to critical infrastructure facilities and major thoroughfares as pilot projects, and will use Grade B for all new distribution facility construction.

Mitigation of Flooding and Storm Surge Damage

Gulf will continue to adhere to its current overhead and underground storm hardening specifications to minimize damage in areas subject to flooding and storm surges. These specifications will evolve as Gulf continues to seek out best practices and learns from the review of gathered forensic data. Gulf's updated plan shows projects completed during the 2007-2009 plan and projects schedule for 2010 through 2012. For example, Gulf will harden the Pensacola downtown underground network, which is subject to flooding during major storms due to its proximity to Pensacola Bay. Gulf also will replace network protectors over three years. Future underground transmission projects will be engineered to consider the impact of flooding or storm surges from weather events; however, Gulf does not currently have any such new projects planned.

Facility Placement

Gulf will continue promoting proper placement of facilities adjacent to public roads. Pursuant to Rule 25-6.0341, F.A.C., Gulf's updated plan proposes safe and efficient access for installation and maintenance placement of new and replacement distribution facilities.

Deployment Strategies

Facilities Affected, Including Specifications and Standards – Gulf's updated plan provides a detailed description of its deployment strategy, including a description of the facilities affected, technical design specifications, construction standards, and construction methodologies to be employed. Gulf states that its entire transmission system is affected by the installation of storm guying on wooden H-frame structures and with the replacement of wooden cross arms on

H-frame structures. In addition, Gulf will upgrade construction standards to Grade B which has the potential to minimize possible outages and improve restoration efforts to its ratepayers.

Areas of Infrastructure Improvements – Gulf’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 – Gulf has worked with all third-party attachers to provide sufficient details of proposed electric infrastructure improvements and to determine potential impacts to joint-use facilities. Detailed location maps of potentially-impacted joint-use facilities have been provided to all interested third-party attachers. Gulf stated that it continues to provide additional information as it becomes available.

Utility Cost/Benefit Estimates – In Gulf’s updated plan, a spreadsheet was provided of all costs relating to implementation of the proposed updated plan. Please refer to Attachment B, which shows costs associated with implementing Gulf’s updated plan. In addition, Gulf asserts that until it is able to develop data to determine the costs and benefits associated with applying EWL standards to distribution poles, it is prudent to move cautiously in the application of EWL standards.

Attachers Cost/Benefit Estimates – Gulf’s attachers have not provided their cost and benefit data at this time. Gulf sought input regarding its 2010-2012 updated plan by supplying drafts and conducting face-to-face meetings with attaching entities. However, Gulf was not contacted by any attaching entities.

Attachment Standards and Procedures

Gulf’s updated plan includes Attachment Standards and Procedures. These standards and procedures encompass information governing safety, reliability, pole loading capacity, and engineering standards and procedures for third party attachments.

Conclusion

Gulf’s updated plan is largely a continuation of much of its previously-approved plan. Gulf’s updated plan also includes improvements to many ongoing storm hardening activities, additions to the Ten Initiatives, as well as continued practices that have enhanced reliability. 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 Gulf’s infrastructure. However, Gulf is taking proactive steps to improve its system to withstand severe weather events and presents a reasonable approach to storm hardening that has the potential to enhance reliability and reduce restoration costs and outage times. Therefore, we approve Gulf’s updated storm hardening plan.

Based on the foregoing, it is

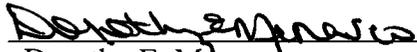
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ORDERED by the Florida Public Service Commission that Gulf Power Company's Updated Storm Hardening Plan is hereby approved as set forth in this Order. It is further

ORDERED that if no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, this docket should be closed upon the issuance of a consummating order.

By ORDER of the Florida Public Service Commission this 15th day of November, 2010.

ANN COLE
Commission Clerk

By: 
Dorothy E. Menasco
Chief Deputy Commission Clerk

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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 6, 2010.

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, 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 and 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
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| 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

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| 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

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| 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
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| 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, multihazard infrastructure issues such as flood zones, areas 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
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| 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.

Gulf Power 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 2007-2009 were \$5,007,243.	3. Costs for 2010-2012 are estimated to be \$7,500,000.

Initiative 1- A Three-Year Vegetation Management Cycle for Distribution Circuits

Current Plan	Updated Plan
1. Implement a three-year trim cycle on all main line feeders	1. No change
2. Lateral distribution lines managed on a reliability-based program to achieve a six-year trim cycle.	2. Shorten the trim-cycle length on lateral lines to four years and reduce the emphasis on danger tree removal in residential areas.
3. Costs for 2007-2009 were \$12,118,517	3. Costs for 2010-2012 are estimated to be \$15,067,734.

Initiative 2- Audit of Joint-Use Attachment Agreements

Current plan	Updated Plan
1. Pole strength assessment on 5% random sample of Gulf-owned poles that are 20 years old or more and with 3 or more attachments.	1. Gulf proposes to discontinue the pole strength assessment on 5 % random sample.
b. Auditing all Gulf-owned poles and third-party poles per Joint-Use contract agreements on a five-year cycle.	b. No change
2. All required data collected and stored during the five-year inspection cycle.	2. No change
3. Verify attachments have been made pursuant to current joint-use agreements through a five-year cycle.	3. No change
4. Stress assessment performed on 5% random sample of Gulf owned poles that are 20 years old or more and with three or more attachments.	4. Gulf proposes to discontinue the 5% random sample due to low failure rates over the three-year pilot project.
5. Costs for 2007-2009 were \$334,325.	5. Costs for 2010-2012 are estimated to be \$400,000.

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). All other portions of the system: Gulf does not hold itself to a rigid number of annual inspections. Period of 12 years will show that on average a six-year cycle is achieved.	1. No change
2. Substations at least annually. Structures inside new substations built to withstand wind speed in excess of 150 MPH.	2. No change
3. Actual costs for 2007-2009 were \$762,451.	4. Estimated costs for 2010-2012 are \$1,050,000.

Initiative 4- Hardening of Existing Transmission Structures	
Current Plan	Updated Plan
1. Install storm guy H-Frames. Replace wooden cross-arms with steel cross-arms and other activities.	1. No change
2. Adhere to current design and construction standards using generally accepted engineering practices, in conjunction with the recommended six-year structure inspection program.	2. No change
3. The costs for 2007-2009 were \$11,296,154.	3. The estimated costs for 2010-2012 are \$9,000,000.

Initiative 5- Transmission and Distribution Geographic Information System	
Current plan	Updated Plan
1. Gulf's plan includes forensic reviews.	1. No change
2. Gulf's plan includes underground versus overhead.	2. No change
3. Gulf's plan includes determination of appropriate maintenance.	3. No change
4. Gulf's plan includes evaluation of storm hardening options.	4. No change
5. Data is currently being captured.	5. No change

Initiative 6- Post-Storm Data Collection and Forensic Analysis	
Current plan	Updated Plan
1. Distribution & Transmission: Concurrent with storm restoration, crews of contractors to survey a sample of lines affected by the storm. Inland and coastal areas to be surveyed.	1. No change
2. Costs for 2007-2009 were \$115,948.	3. Estimated costs for 2010-2012 are undetermined.

Initiative 7- Collection of Detailed Outage Data Differentiating between the Reliability Performance of Overhead and Underground Systems	
Current Plan	Updated Plan
1. Record numbers of overhead and underground customers and calculate SAIDI and SAIFI for each outage. As outages occur, collect data by type of buried cable and type of pole.	1. No change
2. Implementation is ongoing.	2. No change

Initiative 8- Increased Coordination with Local Governments	
Current Plan	Updated Plan
1. Gulf plan builds on existing programs of year round activities like workshops with community leaders, pre-hurricane planning with participation in all local government hurricane preparedness drills, exercises, information fairs by line clearing specialists, and a standing Emergency Operations Center staffed 24 hours a day.	1. No change
2. No incremental costs are provided since the programs are considered already ongoing.	3. No change

Initiative 9-Collaborative Research	
Current Plan	Updated Plan
1. Collaborative research efforts, led by the PURC, began in 2007. Gulf continues to participate in R&D activities that PURC initiates.	1. No change
2. Researching vegetation management during storm and non-storm times, wind during storm and non-storm events, and hurricane and damage modeling towards further understanding the costs and benefits of undergrounding.	2. No change
3. Solicit participation from municipal and rural electric cooperative utilities in addition to available educational and research organizations.	3. No change
4. Implementation is ongoing.	4. Gulf has entered into a Memorandum of Understanding with the University of Florida's PURC, which extends PURC's research efforts through December 31, 2011.
5. Cost requirements for 2007-2009 were \$47,891.	5. Costs cannot be determined 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

Glossary

1. Annual Electric Utility Distribution Reliability Report – A report, required by Rule 25-6.0455, Florida Administrative Code (F.A.C.), that contains data pertaining to distribution reliability. In the report, each utility is to provide information regarding established service reliability metrics or indices that are intended to reflect changes over time in system average performance, and sub-regional performance.
2. Extreme Wind Loading (EWL) – A construction standard defined by NESC section 25, Rule 250C. This standard details loading requirements for Grade B and Grade C construction and maps EWL standards for regions in North America.
3. Florida Emergency Operation Center (EOC) – A central command and control facility responsible for carrying out the principles of emergency preparedness and emergency management, or disaster management functions at a strategic level in an emergency situation, and ensuring the continuity of operation of a company, political subdivision or other organization.
4. Geographic Information Systems (GIS) – Any system that captures, stores, analyzes, manages, and presents data that are linked to locations.
5. Grade B Construction – In general, the National Electric Safety Code classifies Grade B construction as the highest construction grade and it is used for all supply circuits crossing over railroad tracks; for open-wire supply circuits of over 7500 volts (V) or constant-current circuits exceeding 7.5 amperes (A) where crossing over communication circuits; and in urban and suburban districts.
6. Grade C Construction – Grade C is typically the National Electric Safety Code minimum standard for most electrical distribution facilities. Grade C is specified for open-wire supply circuits of over 7,500V in rural districts where crossing over or in conflict with supply circuits of 0 to 750V, excluding services; and for open-wire supply circuits of 750V to 7,500V in urban districts under nearly all conditions except as noted for Grade B construction, and also where crossing over or in conflict with communication circuits.
7. Investor-Owned Electric Utilities (IOUs) – Utilities that are privately owned and organized as a tax paying business, usually financed by the sale of securities in the capital markets. There are five investor-owned electric utilities in Florida.
8. Mid-Cycle Trimming (also known as hot spot trimming, proactive trimming, etc) – Vegetation (e.g., tree) trimming that occurs outside of a regular schedule or cycle.

9. National Electric Safety Code (NESC) – Safety standards published exclusively by IEEE. The 2007 National Electric Safety Code, approved June 16, 2006 by the American National Standards Institute (ANSI), covers basic provisions for safeguarding of persons from hazards arising from the installation, operation, or maintenance of (1) conductors and equipment in electric supply stations, and (2) overhead and underground electric supply and communication lines. It also includes work rules for the construction, maintenance, and operation of electric supply and communication lines and equipment. The standards are applicable to the systems and equipment operated by utilities, or similar systems and equipment, of an industrial establishment or complex under control of qualified persons.

10. Public Utility Research Center (PURC) – A research institute located at the University of Florida. PURC is an internationally recognized academic center dedicated to research and providing training in utility regulation and strategy, as well as the development of leadership in infrastructure policy.