State of Florida

Public Service Commission

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TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: November 20, 2007

TO: Office of Commission Clerk (Cole)

FROM: Division of Economic Regulation (Breman, Ballinger, Draper, Kummer, Lewis, McNulty)
Division of Competitive Markets & Enforcement (Fisher, Harvey, Moses, Vinson)
Office of the General Counsel (Young, Bennett, Fleming, Mann, Teitzman)
Division of Regulatory Compliance & Consumer Assistance (Mills)

RE: Docket No. 070297-EI – Review of 2007 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Tampa Electric Company.
Docket No. 070298-EI – Review of 2007 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Progress Energy Florida, Inc.
Docket No. 070299-EI – Review of 2007 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Gulf Power Company.
Docket No. 070301-EI – Review of 2007 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Florida Power & Light Company.

AGENDA: 12/04/07 –Regular Agenda – Issue 27A – Motion to Reopen the Record – Oral Argument Not Requested; All Other Issues Are Posthearing Decisions – Participation is Limited to Commissioners and Staff

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Argenziano

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

FILE NAME AND LOCATION: S:\PSC\ECR\WP\070297.RCM.DOC

Case Background

The hurricanes of 2004 and 2005 that made landfall in Florida resulted in extensive storm restoration costs and long-term electric service interruptions for millions of electric investor-owned utility (IOU) customers. On January 23, 2006, the Commission conducted a workshop to discuss the damage to electric utility facilities resulting from the recent 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, the Commission 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, the Commission 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 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.

(PSC-06-0144-PAA-EI, page 2) Also, in a separate order, the Commission required Florida's local exchange telecommunications companies to implement an eight-year inspection cycle of their wooden poles.[2]

At a February 27, 2006, internal affairs conference, the Commission was briefed on recommended additional actions to address the effects of extreme weather events on electric infrastructure. The Commission also heard comments from interested persons and Florida's electric utilities regarding staff's recommended actions. Ultimately, the Commission decided the following:

1) All Florida electric utilities, including municipal utilities and rural electric cooperative utilities, would provide an annual Hurricane Preparedness Briefing;

[1] Docket No. 060078-EI, In re: Proposal to require investor-owned electric utilities to implement ten-year wood pole inspection program.
[2] Order No. PSC-06-0168-PAA-TL, issued March 1, 2006, in Docket No. 060077-TL, In re: Proposal to require local exchange telecommunications companies to implement ten-year wood pole inspection program.

2) Staff would file a proposed agency action recommendation for the April 4, 2006, agenda conference requiring each investor-owned electric utility 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); and

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, the Commission issued Order No. PSC-06-0351-PAA-EI, requiring the investor-owned electric utilities to file plans and estimated implementation costs for ten ongoing storm preparedness initiatives (Ten Initiatives) on or before June 1, 2006.[3] 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; and
10) A Natural Disaster Preparedness and Recovery Program.

These Ten Initiatives were not intended to encompass all reasonable ongoing storm preparedness activities. Rather, the Commission viewed these initiatives as the starting point of an ongoing process.[4] By Order Nos. PSC-06-0781-PAA-EI (TECO, Florida Public Utilities Company), PSC-06-0947-PAA-EI (Progress, Gulf), and PSC-07-0468-FOF-EI (FPL), the Commission addressed the adequacy of the IOUs' plans for implementing the Ten Initiatives.

Separate from the Ten Initiatives, the Commission pursued rulemaking to address distribution construction standards that are more stringent than the minimum safety requirements of the NESC and the identification of areas and circumstances where distribution facilities

[3] 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-06-0947-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.

should be required to be constructed underground.[5] Rule 25-6.0342, Florida Administrative Code (F.A.C.) was adopted as a result of these rulemaking efforts.[6]

Rule 25-6.0342, F.A.C., requires each IOU to file an Electric Infrastructure Storm Hardening Plan (Plan) for review and approval by the Commission. The Rule also requires the Plan to contain a description of construction standards, policies, practices, and procedures to enhance the reliability of overhead and underground electrical transmission and distribution facilities. At a minimum, the Plan shall address the following:

(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.
(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, Florida Power & Light Company (FPL), Gulf Power Company (Gulf), Progress Energy Florida, Inc. (Progress), and Tampa Electric Company (TECO) each filed its 2007 Electric Infrastructure Storm Hardening Plan. Docket Nos. 070297-EI (TECO), 070298-EI (Progress), 070299-EI (Gulf), and 070301-EI (FPL) were opened to address each filing. On June 19, 2007, the Commission voted to set the dockets directly for a formal administrative hearing, with the additional mandate for Commission 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, these dockets were consolidated for purposes of the hearing with the understanding that each utility's Plan would be ruled on separately.

Intervention in all four dockets was granted to the following parties: BellSouth Telecommunications, Inc., D/B/A AT&T Florida (AT&T);[7] Embarq Corporation (Embarq);[8]

[5] 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.
[6] Order Nos. PSC-07-0043-FOF-EU and PSC-07-0043A-FOF-EU.
[7] Order No. PSC-07-0611-PCO-EI, issued: July 30, 2007
[8] Order No. PSC-07-0637, issued August 6, 2007

Florida Cable Telecommunication Association, Inc. (FCTA).[9] Intervention in Docket 070297-EI was granted to TCG South Florida, Inc. (TCG).[10] Intervention in Dockets 070297-EI, 070298-EI, and 070301-EI was granted to Verizon Florida, LLC (Verizon).[11] AT&T, Embarq, FCTA, TCG, and Verizon are collectively referred to as the Attachers. Intervention in Docket 070301-EI was granted to the following parties: the Municipal Underground Utilities Consortium (MUUC);[12] the Town of Palm Beach, Florida (Palm Beach);[13] and the Town of Jupiter Island (Jupiter Island).[14] Intervention in Docket No. 070299-EI was granted to the City of Panama City Beach, Florida and the Panama City Beach Community Redevelopment Agency (Collectively, PCB).[15] Intervention in Docket No. 070299-EI was granted to the Municipal Underground Utilities Consortium (MUUC).[16]

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 in each of the four dockets, resulting in multiple issues being stipulated. All the stipulated issues are contained in Appendix 1. Also, at the hearing, the Commission voted to approve all stipulations in each of the four dockets. This resulted in all the issues (Issue Nos. 1-13) in Docket 070297-EI (TECO) being stipulated and all the issues (Issues Nos. 14-26) in Docket 070298-EI (Progress) being stipulated. Consequently, all the issues for Docket 070297-EI (TECO) and Docket 070298-EI (Progress) were resolved and the Commission found that TECO and Progress' storm hardening plans met the requirements of Rule 25-6.0342, F.A.C. There are still remaining issues for Gulf (Issues 28-30, 34-37, and 39) and FPL (Issues 41-44, 46-50, and 52) that are the subject of this recommendation.

Also, at the hearing, the Commission approved the parties stipulated agreement called a "Process to Engage Third-Party Attachers." This process is designed to allow for the exchange of information between the parties. Per the stipulation, information will be shared among the parties and annual status reports will be filed with the Commission. Disputes or challenges to issues related to a utility's Plan shall be resolved by the Commission in accordance with Rule 25-6.0342(7), F.A.C. A request for dispute resolution can be filed at any time by a customer, applicant for service, or attaching entity.

On November 9, 2007, Gulf filed an unopposed motion to reopen the record. In its motion, Gulf requested that the Commission reopen the record for the limited purpose of entering its Amended Storm Hardening Plan that was filed in Docket No. 070299-EI on August 15, 2007. Gulf did not request oral argument on this motion. Staff addresses Gulf's motion in Issue 27A.

[9] Order No. PSC-07-0612-PCO-EI, issued July 30, 2007
[10] Order No. PSC-07-0623-PCO-EI, issued July 31, 2007
[11] Order No. PSC-070622-PCO-EI issued July 31, 2007
[12] Order No. PSC-07-0658-PCO-EI issued August 15, 2007
[13] Order No. PSC-07-0619-PCO-EI, issued July 31, 2007
[14] Order No. PSC-07-0620-EI, issued July 31, 2007
[15] Order No. PSC-07-0621-EI, issued July 31, 2007
[16] Prehearing Conference held September 21, 2007 (TR 9)

Each Issue in the recommendation addresses a specific provision of the Rule, as indicated within brackets following the Issue. Appendix 2 is a copy of Rule 25-6.0342, F.A.C. The Commission has jurisdiction to address this matter pursuant to Sections 366.04, and 366.05, Florida Statutes.

Executive Summary

As stated, all of the utility's plans contain the previously approved Ten Initiatives and pole inspection requirements.

TECO's Plan (EXH 8) continues the company's practice of building to the NESC Grade B construction for all new major planned expansions, rebuild or relocation of distribution facilities. With respect to transmission, all new transmission structures are constructed using the NESC EWL criteria, as well as rebuilds, and relocations of existing facilities. TECO's Plan also includes: (1) two targeted pilot projects to upgrade its Grade B construction to extreme wind on the circuits serving critical facilities in the city of Tampa; (2) one project to upgrade the transmission circuit feeding Tampa International Airport to current extreme wind standards; and (3) upgrades to specific targeted areas in its service area.

Progress' Plan (EXH 9) relies on the company's experience with Grade C and Grade B construction standards for distribution poles and the performance of these poles during the prior severe weather events. Progress has chosen not to adopt extreme wind standards for all new distribution construction. Progress has no current data or research supporting the application of an extreme wind standard to typical distribution pole construction, but will analyze the extreme wind standard, along with other grades of distribution construction, and consider implementing it in selected locations. Progress estimates that 74% of its current distribution system already meets or exceeds Grade B construction standards. With respect to transmission, all new transmission structures are constructed using the NESC EWL criteria, as well as rebuilds, and relocations of existing facilities. Another feature of Progress's Plan is the Asset Investment Strategy (AIS), a proprietary model developed by Davies Consulting that Progress will use to identify and prioritize potential hardening projects, procedures, and strategies. Progress's Plan identifies multiple locations where various hardening projects will be undertaken for transmission and distribution facilities.

During the hearing, the parties stipulated to all issues for TECO's Plan (Issues 1-13) and Progress's Plan (Issues 14-26). The Plans of TECO and Progress included all previously approved Commission storm hardening activities and meet the requirements of Rule 25-6.0342, F.A.C. Staff recommended approval of the stipulations and the Commission voted to approve the stipulations, including the approval of TECO and Progress' Plans.

Another significant stipulation in all four dockets resolved an important provision in Rule 25-6.0342, F.A.C., requiring each utility to have Attachment Standards and Procedures that meet or exceed the NESC standards as part of their storm hardening Plans. (Issue Nos. 12 [TECO], 25 [Progress], 38 [Gulf], 51 [FPL]) The Attachers argued that portions of the Attachment Standards and Procedures are either irrelevant to these Plans or beyond the Commission's jurisdiction. Therefore, the IOUs and Attachers entered into agreements that stated the required Attachment Standards and Procedures have been provided. Additionally, the parties did not seek nor does the Rule require Commission approval of the actual Attachment Standards and Procedures. Consequently, the Commission approved that the utilities provided the required Attachment Standards and Procedures. The Commission did not rule on the content of the Attachment Standards and Procedures.

The Commission recognizes that electric utilities must work in concert with the Attachers when proceeding with any system expansion or storm hardening project. Since storm hardening is a step beyond the business as usual approach, the Commission required the electric utilities to seek input from third-party attachers prior to submitting their Plans. At the hearing, the Commission approved the parties stipulated agreement called a "Process to Engage Third-Party Attachers." This process is designed to allow for the exchange of information between the parties. Per the stipulation, each IOU will share information with the parties and file an annual status report with the Commission. Disputes or challenges to issues related to a utility's Plan shall be resolved by the Commission in accordance with Rule 25-6.0342(7), F.A.C. A request for dispute resolution can be filed at any time by a customer, applicant for service, or attaching entity.

The issues for Gulf's Amended Storm Hardening Plan (Amended Plan) are Issues 27-39. Issues 27, 31-33, and 38 were stipulated and approved at hearing. The remaining issues for Gulf are addressed in this recommendation.

Gulf's Amended Plan adopts Grade B construction standards on all new distribution, construction, maintenance work and major distribution rebuilds. Gulf is using an extreme wind load (EWL) pilot project approach to determine the effectiveness of EWL on critical infrastructure facilities. All of Gulf's transmission construction is designed using extreme wind loading criteria. Gulf's Amended Plan emphasizes learning from experience by gathering and evaluating 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. Undergrounding facilities is one of the potential damage mitigation techniques that Gulf indicates it will consider on a project specific basis.

MUUC and PCB urge denial of Gulf's Amended Plan because they believe Gulf should have more aggressively used underground construction as a storm hardening option. Staff believes the record shows significant use of underground construction as a system-wide storm hardening options for Gulf is cost prohibitive. In addition, Gulf's Amended Plan contemplates the use of pilot projects to gather additional performance data for underground versus overhead construction. As part of the previously approved Ten Initiatives, Gulf is coordinating with local governments for such projects. Therefore, staff recommends approval of Gulf's Amended Plan.

FPL's Plan is addressed in Issues 40-52. Issues 40, 45, and 51 were stipulated and approved at hearing. The remaining issues for FPL are addressed in this recommendation.

FPL's Plan proposes a three-prong approach to hardening its distribution infrastructure: proactive implementation of EWL for critical facilities; Incremental Hardening for commercial facilities that serve important roles following a storm; and revised Design Guidelines that are designed to move FPL's system toward overall EWL hardening gradually over time. All of FPL's transmission construction is designed using extreme wind loading criteria.

FCTA urges denial of FPL's Plan because FPL is proposing to implement an extreme wind load criteria for the design and construction of its distribution facilities. FCTA contends FPL's forensic data is insufficient to justify the costs. Many of the suggestions made by FCTA

as alternatives to an EWL criteria are incorporated in FPL's Plan. Staff believes the record shows over 50 percent of the pole failures during Hurricane Wilma were due to wind-only causes and that absent FPL's new program, storm damages similar to those incurred during Hurricane Wilma are likely to reoccur. Therefore, staff recommends approval of FPL's Plan.

It is staff's understanding that the cost/benefit estimates provided in all of the utilities' Plans are non-binding and subject to change. In keeping with past practices, the Commission expects the utilities to prudently manage their resources and assets for the benefit of the general body of ratepayers. The actual expenditures resulting from each utility's storm hardening Plan will be reviewed when cost recovery is requested.

Discussion of Issues

DOCKET NO. 070297-EI – TAMPA ELECTRIC COMPANY

Issues 1-13 are stipulated issues shown in Appendix 1. The Commission approved all stipulated issues, including approval of TECO's Plan. (TR 16, 542)

DOCKET NO. 070298-EI – PROGRESS ENERGY FLORIDA, INC.

Issues 14-26 are stipulated issues shown in Appendix 1. The Commission approved all stipulated issues, including approval of Progress's Plan. (TR 24)

DOCKET NO. 070299-EI – GULF POWER COMPANY

Issues 27, 31-33, and 38 are stipulated and shown in Attachment 1.were stipulated and approved at hearing. The remaining issues for Gulf are addressed below.

Issue 27A: Should Gulf Power Company's unopposed motion to reopen the record in Docket No. 070299-EI for the limited purpose to include Gulf Power Company's Amended Storm Hardening Plan be granted?

Recommendation: Yes. The record in Docket No. 070299-EI should be reopened for the limited purpose of admitting Gulf's Amended Storm Hardening Plan as Exhibit No. 54. (Young, Fleming, Bennett, Teitzman, and Mann)

Discussion: On August 15, 2007, Gulf's Amended Storm Hardening Plan was filed in Docket No. 070299-EI and a copy of the Amended Plan was served on all the parties in Docket No. 070299-EI. However, Gulf did not enter its Amended Storm Hardening Plan into the record of the proceeding in Docket No. 070299-EI.

On November 9, 2007, Gulf filed an unopposed motion to reopen the record. In support of its motion, Gulf states that no party will be prejudiced by the relief sought through this motion, the parties in Docket No. 070299-EI have relied on Gulf's Amended Storm Hardening Plan both in testimony and in post-hearing briefs, and the position of the parties and Gulf are based on the Amended Plan. Moreover, all the parties in Docket No. 070299-EI were contacted and do not oppose Gulf's motion.

The Commission is generally hesitant to reopen the record of any proceeding. However, it may do so under limited circumstances. Generally, the Commission may reopen the record when new evidentiary proceedings are warranted based on a change of circumstance not present at the time of the proceeding, or a demonstration that a great public interest will be served.[17]

[17] Order No. PSC-07-0483-PCO-EU, issued June 8, 2007, in Docket No. 060635-EU, In re: Petition for Determination of Need for Electrical Power Plant in Taylor County be Florida Municipal Power Agency, JEA, Reedy Creek Improvement District, and Coty of Tallahassee.

Here, Gulf's Amended Plan serves a great public interest, thus warranting reopening the record to admit its Amended Plan.

Rule 25-6.0342, F.A.C., is intended to ensure the provisions of safe, adequate, and reliable electric transmission and distribution service for operational as well as emergency purposes. Also, Rule 25-6.0342, F.A.C., is intended to require the cost-effective strengthening of critical electric infrastructure to increase the ability of transmission and distribution facilities to withstand extreme weather conditions and reduce restoration cost and outage times to end-use customers associated with extreme weather conditions. Placing the Amended Plan in the record to satisfy the intended purposes of Rule 25-6.0342, F.A.C., furthers a great public interest.

Moreover, failure to grant the motion would result in undue delay in resolving whether Gulf's Amended Storm Hardening Plan meets the requirement of Rule 25-6.0342, F.A.C. Gulf would most likely file the same plan and all the parties in the docket would most likely present the same testimony at a later proceeding. Additionally, all the parties in Docket No. 070299-EI have been contacted and do not oppose Gulf's motion.

Therefore, based on the discussion above, Staff recommends that the Commission reopen the record for the limited purpose of admitting Gulf's Amended Storm Hardening Plan that was filed on August 15, 2007 in Docket No. 070299-EI as Exhibit No. 54. Gulf has shown that a great public interest would be served by admitting its Amended Plan into the record.

Issue 28: Does the Company's Plan address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for new distribution facility construction? [Rule 25-6.0342(3)(b)l]

Recommendation: Yes. Gulf will begin applying EWL standards to critical infrastructure facilities and major thoroughfares as pilot projects, and will use Grade B for all new distribution facility construction. (Breman/Lewis/Ballinger)

Position of Parties

GULF: Yes. Gulf proposes to adopt Grade B construction standards for new construction, major expansions, rebuilds, and relocations of distribution facilities. Grade B construction addresses approximately 80% of the storms likely to impact Gulf's system. Gulf's Amended Plan includes targeted pilot Extreme Wind Loading projects focusing on critical infrastructure and major thoroughfares.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: The Plan does not adopt EWL for new distribution facility construction and thus, FCTA takes no position on this issue.

MUUC: Joins and adopts the positions and arguments set forth in the Posthearing Statement of the City of Panama City Beach, Florida, and the Panama City Beach Community Redevelopment Agency.

PCB: Technically, Gulf's Plan "addresses" the extent to which it adopts the NESC extreme wind loading ("EWL") criteria, but PCB believes that Gulf's consideration and very limited adoption of the EWL criteria are inadequate.

Staff Analysis: Gulf's Amended Storm Hardening Plan (Amended Plan) includes pole inspections and the Ten Initiatives that were approved by the Commission in Order Nos. PSC-06-0781-PAA-EI and PSC-06-0947-PAA-EI. Gulf's Amended Plan also adopts Grade B construction standards on all new distribution, construction, maintenance work, and major distribution rebuilds. Gulf is using an Extreme Wind Load (EWL) pilot project approach to determine the effectiveness of EWL on critical infrastructure facilities. All of Gulf's new transmission construction is designed using extreme wind loading criteria. Gulf's Amended Plan emphasizes learning from experience by gathering and evaluating 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. Undergrounding facilities is one of the potential damage mitigation techniques that Gulf indicates it will consider on a project specific basis.

Section 5.0 of Gulf's Amended Plan, addresses the adoption of EWL standards specified by Figure 250-2(d) of the 2007 Edition of the NESC for distribution facilities. (EXH 54, p. 23-24) Gulf believes 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 into the application of EWL standards. (EXH 54, p. 23) Therefore, Gulf has chosen to focus first on critical infrastructure facilities and major thoroughfares, by implementing pilot EWL projects, as discussed in Issue 30. Gulf's pilot EWL projects will enable the company to collect additional data regarding cost and benefits of applying the EWL standard. (TR 98) Witness Battaglia stated that it was not cost effective to adopt EWL standards for all of the company's overhead distribution lines at this time. (TR 99) Battaglia estimated the costs of doing so would be approximately $437.2 million plus annual costs of $2 million, while the benefits in possible avoided storm restoration cost were estimated at approximately $1.1 million. (TR 99)

However, Gulf has changed its design standard for new distribution from Grade C construction to Grade B construction. Gulf's current standard, Grade C construction, results in an equivalent wind load design of 88 miles per hour. (TR 96) Gulf's current design addresses nearly 50% of the storms occurring in its service area. (TR 97) The new Grade B construction standard results in an equivalent wind load of 118 MPH. (TR 97) Adopting Grade B construction will strengthen Gulf's distribution system to address 80% of the storms in Gulf's service area. (TR 97)

Gulf analyzed 155 years of hurricanes impacting Northwest Florida. (TR 96) Based on Gulf's recent storm experience, according to witness Battaglia, the pure wind impacts of a hurricane are not the predominant cause of damage to the distribution system based on Gulf's recent storm experience. (TR 93, 97) Gulf is adopting a pilot based approach to EWL, which staff finds reasonable at this time because Gulf needs to develop EWL cost/benefit data for its service area. Staff notes that Gulf will review its Amended Plan to address possible future application of EWL standards as storm forensic data is gathered. (EXH 54)

PCB and MUUC's position that Gulf's consideration of EWL is inadequate is based upon their belief that Gulf failed to give adequate consideration to undergrounding as an effective storm hardening technique. PCB contends that Gulf ignored data that would show that placing distribution lines underground is a better way to harden its system than strengthening overhead distribution lines. (TR 433, 434) However, PCB's Brief at page 12, noted that its own comparisons of historical reliability data between Panama City Beach and Pensacola were inconclusive. Though PCB witness Rant's testimony generally discussed undergrounding, neither Rant's testimony nor PCB's Brief provided specific quantification of costs and benefits comparing undergrounding to EWL or Grade B construction on a system-wide basis.

Witness Battaglia testified that in developing its Plan Gulf considered transitioning to undergrounding as a system-wide storm hardening option. (TR 93, 515) Witness Battaglia testified that "At this time, Gulf's experience with underground distribution does not support its use as a storm hardening activity." [emphasis supplied] (TR 93, 504, 505, 516) Gulf based its decision not to pursue the widespread use of undergounding as a storm hardening option on both experience and costs. (TR 93, 505) Witness Battaglia testified that Gulf considers both cost-effectiveness and whether an activity meets the goals of reduced customer outages and

restoration times both in the aftermath of a storm occurrence and also on a day-to-day basis compared to overhead construction. (TR 93, 505) Witness Battaglia testified that undergrounding construction has increased costs both with initial installation, normal operation and maintenance and during restoration on both a day-to-day basis and after a storm event. (TR 93, 94, 515, 516) If Gulf were to replace the overhead system with underground in Pensacola, Ft. Walton Beach, and Panama City Beach, the estimated costs are $780 million. (TR 515) This estimate is approximately 150% higher than the amount of Gulf's total system net distribution investment at the end of 2006. (TR 515) Also, witness Battaglia stated that underground facilities are susceptible to storm surges and to damage during clean-up after storms. (TR 94, 515) In his rebuttal testimony, witness Battaglia testified that underground facilities also presented safety challenges to both utility workers and the public during restoration and the clean-up process after storm events. (TR 506) These limitations, along with the increased costs, contributed to Gulf's decision that use of undergrounding as a system-wide storm hardening technique was not presently the best option for the company. (TR 505, 506, 516)

Staff disagrees with PCB regarding the adequacy of Gulf's consideration of undergrounding as a storm hardening technique. In staff's view, PCB's witnesses Willoughby and Rant did not refute Gulf's assertions. Gulf's witness Battaglia pointed out that the assessments of witnesses Willoughby and Rant were not based on any first-hand knowledge of Gulf's system or its service territory or any experience with electric facilities in Florida. (TR 508, 509) Furthermore, in coming to their conclusion that undergrounding would be an effective storm hardening activity for Gulf, neither Willoughby nor Rant discussed the differences in terrain, age of the system, storm intensity experienced, level of storm surge experienced, seawall protected areas versus those with no seawall, or proximity of beach waterline to facilities. (TR 509) There are many factors which make an "apples to apples" comparison difficult, if not impossible, including the age of facilities, vegetation, yearly storm patterns, geographic differences, traffic, and construction activities. (TR 513) Staff concludes that the appropriate analysis supporting undergrounding as a system-wide storm hardening technique is not available at this time.

Moreover, though Gulf has not chosen to adopt undergrounding as a system-wide storm hardening technique at this time, staff notes that Gulf's Amended Plan establishes methodologies for collecting the needed metrics, including cost and engineering data to enable Gulf to better evaluate the effectiveness of undergrounding going forward. (TR 512) Gulf's Amended Plan, at Appendix 6, discusses pilot underground projects as a potential storm hardening technique. (TR 506) Gulf is also a participant in a collaborative research project on storm hardening, including the cost and benefits of undergrounding, being coordinated through the Public Utilities Research Center. (TR 512) Consequently, staff believes that Gulf has a sound basis for its decision not to pursue undergrounding as a system-wide storm hardening option at this time, and instead, to continue its study and analysis of the effectiveness, as well as the cost and benefits of undergrounding as a storm hardening technique. Staff believes that Gulf's decision is a reasonable one.

Staff recommends that the Commission find that Gulf's Amended Plan does address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for new distribution facility construction.

Issue 29: Does the Company's Plan address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for major planned work on the distribution system, including expansion, rebuild, or relocation of existing facilities, assigned on or after the effective date of this Rule for distribution facility construction? [Rule 25-6.0342(3)(b)2]

Recommendation: Yes. Gulf will begin applying EWL standards to critical infrastructure facilities and major thoroughfares as pilot projects, and will use Grade B for all new distribution facility construction. (Breman/Lewis/Ballinger)

Position of Parties

GULF: Yes. Gulf proposes to adopt Grade B construction standards for new construction, major expansions, rebuilds, and relocations of distribution facilities. Grade B construction addresses approximately 80% of the storms likely to impact Gulf's system. Gulf's plan includes Extreme Wind Loading pilot projects that focus on critical infrastructure and major thoroughfares.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: The Plan does not adopt EWL criteria for major planned work and thus, FCTA takes no position on this Issue.

MUUC: Joins and adopts the positions and arguments set forth in the Posthearing Statement of the City of Panama City Beach, Florida, and the Panama City Beach Community Redevelopment Agency.

PCB: Technically, Gulf's Plan addresses this Issue, but PCB believes that Gulf's consideration was and is inadequate.

Staff Analysis: As discussed in the staff analysis of Issue 28, Gulf's Amended Plan does not adopt EWL standards for all new and major distribution rebuilds as it has not been determined to be cost-effective. Rather, Gulf adopts Grade B construction standards for all new and major distribution rebuilds (TR 103) and will apply EWL standards to critical infrastructure facilities and major thoroughfares on a pilot basis. (TR 99)

In staff's view, the Rule requires that a utility company's plan address the extent to which EWL standards are adopted for various types of facilities. It does not require a utility company to adopt a particular standard. As stated in Issue 28, PCB's main argument is based on PCB's desire for Gulf to increase its use of undergrounding as a storm hardening technique. Rather than providing reasons for rejecting Gulf's adoption of Grade B construction standards and EWL pilot projects, PCB's Brief and the testimony of its witnesses focuses on the perceived superiority of undergrounding as a storm hardening technique. As stated in the staff analysis of

Issue 28, staff believes that Gulf's consideration of adopting EWL standards for major planned work on the distribution system, including expansion, rebuild, or relocation of existing facilities is adequately addressed in its plan. Therefore, staff concludes Gulf has met the requirements of Rule 25-6.0342(3)(b)2, F.A.C.

Issue 30: Does the Company's Plan address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for distribution facilities serving critical infrastructure facilities and along major thoroughfares taking into account political and geographical boundaries and other applicable operational considerations? [Rule 25-6.0342(3)(b)3]

Recommendation: Yes. Extreme Wind Loading (EWL) standards are adopted for targeted distribution facilities serving critical infrastructure facilities and along major thoroughfares. (Breman/Lewis/Ballinger)

Position of Parties

GULF: Yes. Gulf is adopting Grade B construction standards for all new and major rebuilds of existing distribution facilities that serve critical infrastructure facilities or cross major thoroughfares. Gulf proposes a pilot program adopting Extreme Wind Loading standards for main feeder distribution systems that serve critical infrastructure or cross major thoroughfares.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: The Plan only adopts EWL for limited critical infrastructure pole projects and thus, FCTA takes no position on this Issue.

MUUC: Joins and adopts the positions and arguments set forth in the Posthearing Statement of the City of Panama City Beach, Florida, and the Panama City Beach Community Redevelopment Agency.

PCB: Technically, Gulf's Plan addresses this subject. However, Gulf's Plan lists the projects in a table and includes a one-page map of Gulf's entire service area. The Plan does not include any discussion of political and geographic boundaries nor of operational considerations.

Staff Analysis: As discussed in the staff analysis of Issue 28, Gulf's Amended Plan will apply EWL standards to critical infrastructure and major thoroughfares on a pilot basis. Witness Battaglia testified that Gulf will apply the EWL standards to targeted facilities serving critical loads such as hospitals, major sewage treatment plants, fuel depots, and interstate road crossings. (TR 97; EXH 54, p. 24) Gulf's Amended Plan describes its coordination with local governments, including County Emergency Management representatives. (TR 103; EXH 54, p. 15-17) Witness Battaglia testified that input was solicited from County Emergency Operating Centers to help determine where Gulf should begin focusing its storm hardening efforts. (TR 98) The location of the targeted facilities is shown on Appendix 1 of Gulf's Amended Storm Hardening Plan. (TR 97)

As a pilot program, Gulf proposes to adopt EWL standards specified by Figure 250-2(d) of the 2007 edition of the NESC for main feeder distribution systems that serve critical facilities

such as hospitals, sewer treatment plants, fuel depots, and feeders that cross major thoroughfares (specifically Interstates 10 and 110). (TR 97) The chart below shows the projects that Gulf has planned for the pilot program and the estimated cost for these projects.

Planned Projects for Providing Extreme Wind Loading to Distribution Facilities
Chart from page 24 of Gulf's Amended Plan (EXH 54)

2007	District	Critical Load	Feeder ID	Total Main Miles	Estimated Cost
	Central	Hospital	8162	0.27	$34,038
	Eastern	I-10 Crossings	Various	N.A.	$52,000
	Central	I-10 Crossings	Various	N.A.	$45,500
	Western	Sewage Plant	5912	0.37	$46,645
	Western	Sewage Plant	7402	1.36	$171,453
	Western	Fuel Depot	6522	1.38	$173,974
TOTAL 2007					$523,610
2008	District	Critical Load	Feeder ID	Total Main Miles	Estimated Cost
	Central	Hospital	9132	1.13	$142,457
	Central	Fuel Depot	9252	2.83	$356,772
TOTAL 2008					$499,229
2009	District	Critical Load	Feeder ID	Total Main Miles	Estimated Cost
	Western	Hospital	7512 & 7522	1.06	$133,633
	Central	Sewage Plant	9342	2.43	$306,346
	Western	I-10 Crossings	Various	N.A.	$123,500
TOTAL 2009					$563,479
	Company	Three Year Plan Totals			$1,586,318

Though PCB acknowledges that Gulf's Amended Plan does address Rule 25-6.0342(3)(b)3, F.A.C., PCB also contends that Gulf's Amended Plan does not include any discussion of political and geographic boundaries nor of operational considerations. (PCB BR 20) Gulf provided a map showing the location of the facilities addressed in EWL pilot projects. (EXH 18, Schedule 2; EXH 54, Appendix 1) The map also shows the community and specific areas where the pilot projects will be undertaken. (EXH 54, Appendix 1) Staff notes that though Gulf's Amended Plan did provide information about political and geographic boundaries, perhaps more detail should have been provided, such as the specific hospitals, sewage plants, fuel depots and roads that will be impacted. However, staff notes that additional maps with detailed facility and location data were made available to third-party attachers and other interested parties before and after Gulf filed its Plan. (TR 161; Gulf BR 22) Staff presumes that Gulf is still willing to provide this information to interested parties.

Therefore, as Gulf's Amended Plan adopts EWL standards for targeted distribution facilities serving critical infrastructure facilities and along major thoroughfares, staff concludes that Gulf has met the requirements of Rule 25-Rule 25-6.0342(3)(b)3.

Issue 34: Does the Company's Plan provide a detailed description of the communities and areas within the utility's service area where the electric infrastructure improvements, including facilities identified by the utility as critical infrastructure and along major thoroughfares pursuant to subparagraph (3)(b)3 are to be made? [Rule 25-6.0342(4)(b)]

Recommendation: Yes. Gulf's Amended Plan provides a detailed description of the communities and areas within the utility's service area where electric infrastructure improvements, including facilities identified by the utility as critical infrastructure and along major thoroughfares are to be made. (Breman/Lewis/Ballinger)

Position of Parties

GULF: Yes. Section 9.1 of Gulf's Storm Hardening Plan identifies the proposed critical infrastructure project locations. In addition, Appendix 1 of the Plan is a map that shows the location of the proposed critical infrastructure projects in relation to the communities in N.W. Florida.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: The Company's Plan provides a description of the communities and areas within the utility's service area where the electric infrastructure improvements, as required. Moreover, the approved Process to Engage Third Party Attachers alleviates FCTA's concerns regarding the level of detail currently missing from Gulf's Plan pertinent to this Issue.

MUUC: Joins and adopts the positions and arguments set forth in the Posthearing Statement of the City of Panama City Beach, Florida, and the Panama City Beach Community Redevelopment Agency.

PCB: No. Gulf's Plan identifies the 11 EWL distribution projects that it has planned for 2007-2009 in a table and contains a one-page map of its service area. Gulf's Plan includes no description of the communities or the areas served by the facilities to be upgraded, nor of the facilities themselves.

Staff Analysis: Gulf's Amended Plan provides an adequate description of the communities and areas within its service area where electric infrastructure improvements will be made, including facilities identified by the utility as critical infrastructure and along major thoroughfares. (TR 101; EXH 18, Schedule 2; EXH 54, p. 26-27; EXH 54, Appendix 1) As discussed in Issue 30, staff believes Gulf could have provided more detailed descriptions and maps of the electric infrastructure hardening projects within its Amended Plan. However, no evidence was provided that Gulf was not responsive to requests for additional information. Staff believes the type of summary information provided in Exhibit 54 is sufficient for local governmental officials to determine whether additional discussion with Gulf is warranted. Also, Gulf did make available additional maps with detailed facility and location data to third-party

attachers and other interested parties before and after Gulf filed its Plan. (TR 161; Gulf BR 22) Therefore, staff concludes that Gulf's Amended Plan provides a description of the communities and areas within Gulf's service area where electric infrastructure improvements are to be made that is adequate to meet the requirements of Rule 25-6.0342(4)(b), F.A.C.

Issue 35: Does the Company's Plan provide a detailed description of the extent to which the electric infrastructure improvements involve joint use facilities on which third-party attachments exist? [Rule 25-6.0342(4)(c)]

Recommendation: Yes. Gulf has provided attachers with detailed descriptions and maps of electric infrastructure hardening projects within its Amended Plan. Also, sufficient information exchange and dispute resolution mechanisms are provided by the Process To Engage Third-Party Attachers. (Fisher, Vinson)

Position of Parties

GULF: Yes. Gulf's Storm Hardening Plan sufficiently describes the proposed storm-hardened facilities such that third-party attachers can determine whether their facilities are affected. Gulf provided sufficiently detailed location maps of potentially-impacted joint use facilities to all interested third-party attachers. No dispute exists between Gulf and interested third-party attachers on this Issue.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: In view of the approved Process to Engage Third Party Attachers, FCTA has no objection pertinent to this Issue.

MUUC: Joins and adopts the positions and arguments set forth in the Posthearing Statement of the City of Panama City Beach, Florida, and the Panama City Beach Community Redevelopment Agency.

PCB: No.

Staff Analysis: Gulf testified that it 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. (TR 161) Detailed location maps of potentially-impacted joint use facilities have been provided to all interested third-party attachers. (TR 161) The locations identified on the maps indicate a third-party attacher has one or more attachments on one or more poles shown on each map they received. Gulf stated that it continues to provide additional information as it becomes available. (TR 161)

PCB and MUUC are the only two parties contending that Gulf's Amended Plan has not met this obligation. However, no evidence for this position is provided by either party.

All other parties either agreed that Gulf's Amended Plan met its obligation as it relates to this Issue, or have taken no position. Further, all parties have stipulated to the Process To Engage Third-Party Attachers as a means to receive ongoing detailed information and input their concerns regarding the utility's Hardening Plans. (TR 12) The Process requires the electric

utility to annually provide detailed information for upcoming storm hardening projects. Thus, exchange of information allows third-party attachers to conduct a more current cost/benefit analysis. If concern regarding cost/benefits exists, third-party attachers can provide comments to the electric utility, which will be incorporated in comments within its annual plan status report to the Commission. In addition, Rule 25-6.0342(7), F.A.C., provides that any dispute to a utility's storm hardening plan can be brought before the Commission for remedy. Staff believes these two mechanisms provide attachers sufficient opportunity to resolve future issues with utility hardening plans.

Staff believes that Gulf has met the requirements of Rule 25-6.0342, F.A.C., as Gulf's Amended Plan provides detailed descriptions and maps for hardening projects to the attachers, and the Process to Engage Third-Party Attachers provides sufficient information exchange and dispute resolution mechanisms. Staff notes that third-party attachers have no objections to Gulf's description of electric infrastructure improvements involving joint use facilities on which they are attached.

Issue 36: Does the Company's Plan provide an estimate of the costs and benefits to the utility of making the electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages? [Rule 25-6.0342(4)(d)]

Recommendation: Yes. Gulf's Amended Plan provides an estimate of the costs and benefits of making electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages. (Breman/Lewis/Ballinger)

Position of Parties

GULF: Yes. Total storm hardening costs for Gulf are estimated to be $20 million per year for 2007-2009 with a per-customer cost of $46. Potential benefits achievable through storm hardening cannot be determined at this time. Gulf has activities in place to determine those benefits as more detailed information becomes available.

AT&T: No position.

EMBARQ: No position.

FCTA: The approved Process to Engage Third Party Attachers alleviates FCTA's concerns regarding the level of detail currently missing from Gulf's Plan pertinent to this Issue.

MUUC: Joins and adopts the positions and arguments set forth in the Posthearing Statement of the City of Panama City Beach, Florida, and the Panama City Beach Community Redevelopment Agency.

PCB: Gulf's Amended Plan includes estimates of the costs and benefits of Gulf's limited proposal to use Extreme Wind Loading standards in a limited number of instances. However, Gulf's Plan is inadequate because Gulf has performed no cost-effectiveness analysis of undergrounding nor of the majority of Gulf's storm hardening initiatives.

Staff Analysis: An estimate of the cost and benefits of Gulf's Amended Plan is included in Appendix 7 of the Amended Plan. While it is not possible to know the frequency and category of storms that could impact Gulf's service territory over the next three years, the company has estimated that it could possibly avoid approximately $1.1 million in storm restoration cost due to the implementation of storm hardening initiatives. (TR 99) Gulf's methodology for determining potential benefits is based on the company's past experience with pole losses due to hurricanes. Gulf has concluded that wind-blown debris has been the predominate cause of damage to its facilities during extreme weather events. (TR 99) Gulf estimates its total storm hardening costs for the 2007 to 2009 time period at approximately $20 million per year. (TR 101, Gulf BR 28, 29) On a per customer basis, the cost for 2007 is approximately $46 per customer. (TR 102, Gulf BR 29)

None of the Plans filed by utilities contain data at a level sufficient for them to identify the exact cause of damage to a distribution facility by a hurricane or identify specific costs for the damaged distribution facilities. (TR 88-89, 505, 531-32) In staff's view, it is not troublesome

that Gulf's Amended Plan only provides non-binding estimates of storm hardening costs and benefits. Gulf's Amended Plan, like the plans of other utilities, is capable of incorporating input from the Commission, attachers, local governments and other interested parties as more information is gathered on the costs and benefits of hardening. Gulf has acknowledged this as well. (Gulf BR 30; TR 97) As more experience is gained, it is expected that revisions to plans will take place. (Gulf BR 30; TR 97) Consequently, cost and benefits will also change.

Staff believes PCB incorrectly asserts Gulf's Amended Plan inadequately assesses the cost-effectiveness of undergrounding as a storm hardening technique. As noted in Issue 28, if Gulf were to replace the overhead system with underground in Pensacola, Ft. Walton Beach, and Panama City Beach, the estimated costs is $780 million. (TR 515) This estimate is approximately 150% higher than the amount of Gulf's total system net distribution investment at the end of 2006. (TR 515) Staff believes Gulf's analysis demonstrates that system-wide undergrounding as a storm hardening technique is not cost-effective. Nevertheless, Gulf's Amended Plan proposes pilot projects to continue assessing underground construction as a potential storm hardening technique. (TR 506) Gulf is also a participant in a collaborative research project on storm hardening, including the cost and benefits of undergrounding, which is being coordinated through the Public Utilities Research Center. (TR 512)

Staff believes to be successful, the process for developing, implementing, and reviewing storm hardening plans must remain fluid and dynamic. Therefore, staff does not share PCB's opinion that Gulf's cost-effectiveness analysis is inadequate. Furthermore, the adequacy of Gulf's consideration of undergrounding is evident by Gulf's estimated cost to underground three communities at 150% of Gulf's current plant investments. (TR 515) However, staff notes that Gulf believes that undergrounding of distribution facilities should be further investigated as a storm mitigation technique on a pilot basis. (TR 506, Gulf BR 32) Staff believes this is a reasonable approach and would urge Gulf and PCB to cooperate towards this end.

Therefore, staff concludes that Gulf's Amended Plan contains an estimate of the costs and benefits to the utility of making electric infrastructure improvements that meets the requirements of Rule 25-6.0342(4)(d), F.A.C.

Issue 37: Does the Company's Plan provide an estimate of the costs and benefits, obtained pursuant to subsection (6) below, to third-party attachers affected by the electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages realized by the third-party attachers? [Rule 25-6.0342(4)(e)]

Recommendation: Yes. Gulf has provided an estimate of costs and benefits for storm hardening improvements and reduced storm restoration outages for third-party attachers. Also, sufficient information exchange and dispute resolution mechanisms are provided by the Process To Engage Third-Party Attachers. (Fisher, Vinson)

Position of Parties

GULF: Yes. Gulf's Storm Hardening Plan includes sufficient data to allow third-party attachers to estimate their costs and benefits resulting from the implementation of Gulf's Storm Hardening Plan. Section 12 of Gulf's Storm Hardening Plan contains the information received from the third-party attachers regarding potential costs and benefits.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and as it is understood to affect Embarq.

FCTA: In view of the approved Process to Engage Third-Party Attachers, FCTA has no objection pertinent to this Issue.

MUUC only: The Municipal Underground Utilities Consortium ("MUUC") hereby gives notice that it joins and adopts the positions and arguments set forth in the Post-Hearing Statement of the City of Panama City Beach, Florida, and the Panama City Beach Community Redevelopment Agency filed in this consolidated docket with respect to Gulf's storm hardening plan (Docket No. 070299-EI).

PCB: No. Gulf's Plan reports cost information furnished by AT&T, FCTA, and Embarq, and reports that AT&T, FCTA, and Embarq have each identified potential generic benefits from implementation of Gulf's Plan: reduced commercial power outages (AT&T), enhanced pole reliability (FCTA), and reduced customer outages and restoration costs (Embarq).

Staff Analysis: Sections 11.0 and 12.0 of Gulf's Amended Plan address storm-hardening as it relates to third-party attachers. (TR 91) Pages 29-34 describe Gulf's efforts to seek input from third-party attachers in the development of its Amended Plan. Approximately 25 attachers were notified by Gulf and ten participated in the development of the Plan. Gulf requested that each participant provide an estimate of costs and benefits expected as a result of the proposed Plan. While Gulf received several letters and timely responses regarding the Plan, just three attachers responded back with cost/benefit estimates. Gulf provides those three responses from AT&T, FCTA, and Embarq within its Plan.

Through the stipulation of the Process To Engage Third-Party Attachers, AT&T, FCTA, and Embarq appear to have resolved their concerns about further detailed information necessary to provide an accurate cost/benefit analysis of the impacts on their company. The Process requires the electric utility to annually provide detailed information for upcoming storm hardening projects. (EXH 27) Thus, exchange of information allows third-party attachers to conduct a more current cost/benefit analysis. If concern regarding cost/benefits exists, third-party attachers can provide comments to the electric utility, which will incorporate comments in the annual plan status report to the Commission. In addition, Rule 25-6.0342(7), F.A.C., provides that any dispute to a utility's storm hardening plan can be brought before the Commission for remedy. Staff believes these mechanisms provide attachers sufficient opportunity to resolve future issues with utility hardening plans.

PCB and MUUC maintain that Gulf did not conduct a cost/benefit analysis to the third-party attachers. Instead, they contend that Gulf merely accepted the attachers' estimates and included them in its Plan. However, staff notes that no other parties voiced this concern, and that the Process To Engage Third-Party Attachers is available to resolve any concern in this Issue.

PCB stated in its prehearing statement regarding Issue 37 that, "in fairness to Gulf, it is probably not Gulf's job to estimate third-party attacher benefits." Staff agrees Gulf has included the third-party attachers' own cost/benefit estimates, however staff believes this approach is consistent with Rule 25-6.0342(4)(e), F.A.C., which requires, "An estimate of the costs and benefits, *obtained pursuant to subsection (6) below,* to third-party attachers affected by the electric infrastructure improvements." (Emphasis added.) The referenced subsection (6) pertains to the IOUs seeking input from third-party attachers, instructing that "each utility shall seek input from and attempt in good faith to accommodate concerns raised [by the attachers]."

Therefore, based on the evidence in the record, staff concludes that Gulf has met the requirements of Rule 25-6.0342(4)(e), F.A.C., to provide an estimate of costs and benefits for storm hardening improvements and reduced storm restoration outages for third-party attachers, and that sufficient information exchange and dispute resolution mechanisms are provided by the Process To Engage Third-Party Attachers.

Issue 39: Based on the resolution of the preceding issues, should the Commission find that the Company's Plan meets the desired objectives of enhancing reliability and reducing restoration costs and outage times in a prudent, practical, and cost-effective manner to the affected parties? [Rule 25-6.0342(1) and (2)]

Recommendation: Yes. Gulf's Amended Plan meets the desired objectives of enhancing reliability and reducing restoration costs and outage times and, therefore, the Amended Plan should be approved. (Breman/Lewis/Ballinger)

Position of Parties

GULF: Yes. By adopting Grade B construction standards on all new and major distribution rebuilds, along with utilizing an EWL pilot project approach on critical infrastructure facilities and performing underground storm hardening projects where appropriate, Gulf's Storm Hardening Plan is prudent, practical, and cost-effective.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: In recognition of the fact that the Process to Engage Third Party Attachers resolves FCTA's concerns regarding the level of detail in the Plan, as well as Gulf's clarified position on Issue 38 and other changes resolved through stipulation, FCTA has no objection to the approval of Gulf's Plan.

MUUC: Joins and adopts the positions and arguments set forth in the Posthearing Statement of the City of Panama City Beach, Florida, and the Panama City Beach Community Redevelopment Agency.

PCB: No. The Commission should find that Gulf's Plan is inadequate because it does not adequately consider available data and does not analyze the benefits and costs of undergrounding as a storm hardening measure. For these reasons, Gulf's Plan cannot be considered prudent, practical, or cost-effective.

Staff Analysis: Staff believes Gulf's Amended Plan presents a reasonable approach to storm hardening that has the potential to enhance reliability and reduce restoration costs and outage times.

Staff recommends that the Commission approve Gulf's Amended Plan. The cost/benefit estimates provided in Gulf's Amended Plan are non-binding and subject to change, as are those in the plans of TECO and Progress that the Commission has previously approved. The Commission expects Gulf to prudently manage its resources and assets for the benefit of the general body of ratepayers. Gulf's actual expenditures resulting from implementation of its storm hardening plan will be reviewed in its next base rate proceeding or through a different mechanism, such as a cost recovery clause, if requested. Additionally, the "Process to Engage

Third-Party Attachers," which all parties previously stipulated to, facilitates information sharing among the parties and requires regular status reports to be filed with the Commission staff. An additional level of protection is provided by Rule 25-6.0342(7), F.AC., which provides for any disputes or challenges to issues related to Gulf's storm hardening plan, including the Attachment Standards and Procedures, shall be resolved by the Commission. Furthermore, a request for dispute resolution can be filed at any time by a customer, applicant for service, or attaching entity.

Gulf's Amended Plan includes many ongoing storm hardening activities that are expected to produce valuable data upon which to base further modifications to its Plan. For example, Gulf will record the number of overhead and underground customers on its system at the end of each year. This data will allow the company to calculate the SAIDI[18] and SAIFI[19] indices as experienced by overhead and underground customers. (EXH 54, p. 15) Appendices 5 and 6 of Gulf's Amended Plan include overhead and underground storm hardening specifications which the company developed to minimize damage to underground facilities and supporting overhead transmission and distribution facilities due to flooding and storm surges. These specifications will continue to evolve as Gulf continues to seek out best practices and learns from the review of gathered forensic data. (EXH 54, p. 24) Staff expects Gulf to continue working with local communities and develop pilot projects that will best address specific community needs with the most appropriate and cost-effective storm hardening techniques. Similarly, staff would encourage PCB to share with Gulf any of the relevant information its expert witnesses have developed that might be applicable to Gulf's service area.

In conclusion, staff believes that Gulf's Amended Plan meets the desired objectives of enhancing reliability and reducing restoration costs and outage times and, therefore, the Amended Plan should be approved.

[18] System Average Interruption Duration Index (SAIDI) is a composite indicator of outage frequency and duration and is calculated by dividing the customer minutes of interruptions by the number of customers served on a system.
[19] System Average Interruption Frequency Index (SAIFI) is an indicator of average service interruption frequency experienced by customers on a system.

DOCKET NO. 070301-EI – FLORIDA POWER & LIGHT COMPANY

Issues 40, 45, and 51 were stipulated and are shown in Attachment 1. The remaining issues for FPL are addressed below.

Issue 41: Does the Company's Plan address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for new distribution facility construction? [Rule 25-6.0342(3)(b)l]

Recommendation: Yes. (Breman/Lewis/Ballinger)

Position of Parties

FPL: Yes. FPL's Plan applies extreme wind loading ("EWL") standards to new distribution critical infrastructure facilities ("CIF") and targeted critical poles, and to other new construction and daily work activities where feasible, practical and cost-effective. It uses extreme wind regions of 105, 130, and 145 mph (150 mph in the extreme south)

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: The Company's Plan, which proposes to adopt EWL for new distribution facility construction, is not prudent, practical or cost effective.

MUUC: Yes.

VERIZON: No objection.

Staff Analysis: FPL's Plan proposes a three-prong approach to hardening its distribution infrastructure: proactive implementation of EWL for critical facilities; Incremental Hardening for commercial facilities that serve important roles following a storm; and revised Design Guidelines that are designed to move FPL's system toward overall EWL hardening gradually over time.

Subsequent to the 2004 storms season, FPL recognized that its informal forensic system needed to be improved. (TR 553) FPL developed a forensic team with procedures and processes that were subsequently used to perform forensic evaluations of Hurricane Katrina and Wilma in 2005. (TR 554) The intent of FPL's 2005 forensic efforts was to determine why equipment failed and to use this data to help improve system performance and/or restoration time when exposed to future storms. (TR 554, 566) FPL's forensic efforts were compiled in a document titled "Technical Report: Post Hurricane Wilma Engineering Analysis by KEMA Final Report for FPL" ("KEMA Report"). (TR 566) The KEMA Report and testimony of the KEMA Report authors were not entered into evidence in this proceeding. However, the Commission has

reviewed the KEMA Report, the testimony of the principal author, and made determinations regarding the analysis provided by KEMA.[20] (TR 177)

FPL's storm damage data showed that during Hurricane Wilma distribution pole failures due to "wind-only" were two and one-half times greater than any other cause of failure identified, such as trees, deterioration, and possible overloading. (TR 177, 190, 566, 567; EXH 5, Miranda DEPO, p. 7) Transmission structure failure due to "wind-only" was approximately one percent. (TR 177, 190; EXH 5, Miranda DEPO, p. 7) FPL concluded that a large part of the storm damage to FPL's distribution poles was due to "wind-only" damage and that transmission structures which are already built to the NESC's established EWL standards performed well compared to the distribution system. (TR 176; EXH 5, Miranda DEPO, p. 7) FPL noted that other storm hardening activities being implemented did not include actions directed at reducing "wind-only" storm damages. (TR 173, 174, 190, 197)

Historically, FPL designed its distribution facilities based on the wind loading specified in NESC Rule 250B, titled "Combined Ice and Wind Loading For Grade B Construction." (EXH 20, p. 9) After participating in FPL's forensic reviews, FPL Witness McEvoy concluded "it is apparent that using the 'Combined ice and wind loading,' is inadequate and fails to produce a system that is well suited to withstanding hurricane force winds." (TR 555) Witness McEvoy explained that "the 'combined ice and wind loading' category is especially ill-suited to Florida because it is in the 'light loading' area based on the absence of significant icing risk and therefore applies wind-loading criteria that assume exposure to only relatively modest winds." (TR 556) He went on to say that "With Florida's exposure to storm winds that regularly exceed this assumption, designing to the 'combined ice and wind loading' criteria simply does not seem logical. (TR 556) FPL Witness Miranda noted that based on the feedback from customers and public officials, "we cannot continue to have a repeat of our hurricane performance going forward." (EXH 5, Miranda DEPO, p. 23) Without fundamental and significant changes, FPL believes the level of customer outages and storm damages from future storms would be much like that experienced in the 2004 and 2005 hurricane seasons. (TR 174)

The change FPL proposes is the application of a EWL criteria based on the extreme wind speeds shown in Figure 250-2(d) of the NESC. (TR 198, 570, 572; EXH 20, p. 47) In setting its EWL criteria, FPL evaluated a 50-year period of wind speed data compiled by the American Society of Civil Engineers for its entire service area at a height of 33 feet above ground level. (TR 556, 571; EXH 5, Miranda DEPO, pp. 11-16, EXH 20, p. 11) The expected extreme wind speeds ranged from 105 miles per hour to 150 miles per hour. (EXH 20, pp. 10-11) FPL evaluated each county that it serves by applying the highest wind rating for that county. (EXH 5, p. 14; EXH 20, pp. 11) FPL decided on three extreme wind levels: 105, 130, and 145 miles per hour with each extreme wind speed corresponding to unique geographic areas. (TR 178, 198, 570; EXH 5, Miranda DEPO, p. 14; EXH 20 p 11, 47, 50) FPL believes these three levels appropriately balance efficiency and the range of extreme wind speeds recorded for its service area. (EXH 5, Miranda DEPO p. 14; EXH 20, pp. 10-11, 47) Extreme wind loads for FPL's

[20] Order No. PSC-06-0464-FOF-EI, issued May 30, 2006, in Docket No. 060038-EI, In re: Petition for issuance of a storm recovery financing order, by Florida Power & Light Company.

distribution facilities are then calculated using methods established by the NESC for EWL. (EXH 5, Miranda DEPO, pp. 9-12, p. 47, pp. 49-50)

In 2007, FPL's Plan is projected to result in storm hardening approximately 145 overhead circuit miles. (TR 181) In 2008, FPL estimates the EWL criteria will be applied to approximately 45-60 feeders and that it will incrementally storm harden 15-30 additional feeders. (TR 181) Estimates for 2009 are expected to target between 80 and 150 feeders. (TR 182; EXH 20 p. 25) FPL intends to complete all EWL upgrades to infrastructure serving critical customers by the end of 2009. (TR 182) However, the activities for 2008 and 2009 are not final at this time. (TR 198) FPL's Plan provides for inclusion of new information as it becomes available, revisions, and annual updates. (TR 171, 183, 601-602)

FCTA Witness Harrelson recommends using the EWL criteria for limited pilot projects with wind speed measuring devices to enable the utilities to collect forensic data about the costs and benefits to this standard in Florida. (TR 371) His conclusions are primarily based on (i) the lack of an explicit NESC requirement for EWL criteria for structures 60 feet or less above ground, (ii) FPL's forensic information is not conclusive, and (iii) costs and benefits associated with FPL's Plan through 2009 are not available. The following analysis discusses the specific subject matter that FCTA believes support denial of FPL's Plan as filed, and applicable rebuttal testimony by FPL.

FCTA Witness Harrelson noted that the NESC exempts from the EWL criteria any structures and its supporting facilities that are 60 feet or less above ground. (TR 362) The NESC Rule 250B addresses the effect of wind speeds on distribution poles in Florida by application of pressure equivalent to wind speeds of up to 60 miles per hour. (TR 362) Witness Harrelson opined that this standard thus takes into account the higher wind speeds expected to be experienced in Florida. (TR 362) Witness Harrelson believes that the NESC committee responsible for strengths and loadings of overhead electrical system considered and rejected the application of EWL criteria to distribution lines 60 feet or less in height. (TR 363) Witness Harrelson stated his belief that the NESC committee relied on utility industry comments that most distribution pole failures in extreme weather are the result of secondary damage effects from trees and debris, not wind alone, and that the system would have failed even if designed to the EWL criteria. (TR 363) Witness Harrelson was not aware if any of the comments to the NESC committee that included statistically valid forensic data on hurricane impacts. (EXH 6, Harrelson DEPO, p. 66) Witness Harrelson's understanding was that utility forensic analysis was more observational and not a detailed formal evaluation such as FPL's forensic analysis of Katrina and Wilma. (EXH 6, Harrelson DEPO, pp. 16-26, 65) He was not aware of any other formal attempts to collect forensic data on hurricanes. (EXH 6, Harrelson DEPO, p. 65) The FCTA did not enter into evidence any copies of storm damage analysis or written comments that may have been submitted to the NESC committee.

FPL Rebuttal Witness McEvoy noted that "the NESC is not intended as a design specification or as an instruction manual." (TR 548) He went on to say, "rather (the NESC) is a set of rules that comprise safety standards applicable on a national basis. If, as is often the case, a utility has reasons to exceed these minimum standards, it is free to do so." (TR 548) Rebuttal Witness McEvoy also stated, "After my experience in the forensic effort in Hurricane Wilma and

the conclusions of the KEMA report on that effort indicated that wind only was the predominant cause of distribution pole breakage, I no longer believe the 60-foot exemption can be used for FPL's service territory." (TR 567)

After reviewing FPL's forensic data, FCTA Witness Harrelson opined that nothing in the KEMA Report suggests that the EWL criteria is justified for distribution poles in Florida. (TR 369; EXH 6, Harrelson DEPO, p. 64) Witness Harrelson did not have any discussions with KEMA concerning information in the KEMA Report. (EXH 6, Harrelson DEPO, p. 64) The KEMA Report and testimony of the KEMA Report authors were not entered into evidence in this proceeding. However, the Commission has previously reviewed the KEMA Report and made determinations regarding the analysis provided by KEMA. (TR 177) FPL Rebuttal Witness McEvoy commented that Witness Harrelson misinterpreted much of the information in the KEMA Report. (TR 568)

Witness Harrelson also reviewed the Storm Pole Replacement Analysis by Davies Consulting, Inc. He concluded the analysis shows that stronger hurricanes generally result in more downed poles. (TR 369) He believes the analysis is inconclusive regarding an EWL criteria because outages are caused by falling trees, rotten poles, cascading breaks, imbedded tornadoes, etc. (TR 369-370)

Witness Harrelson noted various storm hardening activities he believed to be prudent, practical and cost-effective. (TR 382-383) He was unaware of any deficiencies in FPL's Plan in addressing the storm hardening activities he identified. (TR 408-13) The additional storm hardening initiatives suggested by FCTA Witness Harrelson, as alternatives to an EWL criteria, were shown to already be incorporated in FPL's Plan. (TR 179-80, 372, 383, 402, 410, 550-53; EXH 20, p. 5) Witness Harrelson believes that EWL construction is inappropriate where large trees near enough to fall on the lines exceed the height of the line. (TR 382) However, the information necessary to develop loading factor analysis on shielding effects of buildings and trees is not available. (TR 551; EXH 6, Harrelson DEPO, p. 83) FPL Rebuttal Witness McEvoy noted that in the absences of detailed statistical data analysis, consistent with the requirements of the NESC, no adjustments for these factors will be made. (TR 551)

FCTA was critical of FPL's cost and benefits analysis. (TR 360, FCTA BR 22) However, Witness Harrelson did not undertake and was not aware of anyone within FCTA or its members who was developing costs for FPL's 2007 storm hardening projects. (EXH 6, Harrelson DEPO, pp. 37-38)

Staff believes FCTA Witness Harrelson provided significant and useful point and counterpoint discussion to help qualitatively assess FPL's Plan. FCTA supports pilot EWL projects but did not identify with specificity the scope, costs, and benefits the pilot EWL projects would provide. Without such data, staff believes FCTA has not shown the cost and benefits of its alternative. Furthermore, FPL has already implemented pilot EWL projects. (EXH 20, p. 15) FPL noted that these pilot projects provided valuable insight into implementing storm hardening on a broader, system-wide basis. (EX 20 p. 15) Consequently, staff believes further EWL pilot projects are not necessary.

As noted above, Witness Harrelson's assessments of other, non-EWL alternatives for storm hardening options fail to recognize many of the storm hardening initiatives that were initiated subsequent to the KEMA Report, including pole inspections and the Ten Initiatives.

Witness Harrelson did not refute FPL's forensic data indicating that wind-only hurricane damage occurred during Hurricane Wilma. As FPL noted, none of its previous actions specifically targeted wind-only damages to distribution facilities. Staff believes this is of special interest because FPL's Plan specifically targets the causes of Hurricane Wilma storm damages in order to avoid a repeat performance. (EXH 5, Miranda DEPO, p. 23) Staff believes that pursing only additional pilot projects marginalizes a known cause of storm damage and customer outages for FPL's customers for an unspecified period of time.

Based on record evidence, staff believes FPL's Plan meets the requirements of the Rule because (a) FPL reviewed historical performance of its distribution system and damages specially resulting from EWL, (b) FPL concluded it did not have a program addressing wind-only damages, (c) FPL's customers do not want to experience a recurrence of Hurricane Wilma outages, and (d) FPL developed an EWL criteria to reduce the extent of damages and cost of restoration for future storm outages. Furthermore, FPL's Plan provides for inclusion of new information, revisions, and annual updates. Consequently, staff believes FPL's Plan incorporates the ability to pursue reasonable means to further mitigate customer outages and restoration costs due to extreme wind and other extreme weather events. Staff recommends the Commission find FPL's Plan meets the requirements of Rule 25-6.0342(3)(b)1, F.A.C.

Issue 42: Does the Company's Plan address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for major planned work on the distribution system, including expansion, rebuild, or relocation of existing facilities, assigned on or after the effective date of this Rule distribution facility construction? [Rule 25-6.0342(3)(b)2]

Recommendation: Yes, FPL's Plan meets the specific requirements of Rule 25-6.0342(3)(b)2, F.A.C, because FPL is incorporating its proposed EWL criteria into its design and construction standards for new facilities and because FPL's Plan calls for targeted incremental hardening up to and including meeting its EWL criteria. (Breman/Lewis/Ballinger)

Position of Parties

FPL: Yes. FPL will apply EWL for all distribution major planned work, including expansion, rebuild, or relocation of existing facilities, using the extreme wind regions described in Issue 41.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: The Company's Plan, which proposes to adopt EWL for all major planned work, including expansion, rebuild, or relocation of existing facilities, is not prudent, practical or cost effective.

MUUC: Yes, FPL's Plan addresses this subject. However, the MUUC believes that any section above a certain minimum number of poles (to be determined) should be upgraded to EWL standards when being rebuilt, rather than rebuilt only to its existing design level.

VERIZON: No objection.

Staff Analysis: FCTA, as stated in Issues 41, 42 and 43, recommends denial of FPL's Plan because FPL proposes implementation of an EWL criteria for its service area. FCTA's opposition to FPL's proposed EWL criteria is addressed in Issue 41.

In its brief, at page 6, MUUC seeks clarification of the incremental hardening component of FPL's Plan. MUUC believes FPL's Plan indicates that an existing line, which is built to less-than-EWL standards will be rebuilt to its existing wind-speed rating. MUUC does not specifically identify the text in FPL's Plan on which MUUC is commenting. Staff notes MUUC did not provide any witnesses, evidence, or cross examine any FPL witnesses regarding its concerns with FPL's definition or description of Incremental Hardening.

FPL's Plan, at page 11, states: "The objective of Incremental Hardening is to optimize the existing distribution infrastructure and increase the overall wind profile of a feeder to a higher wind rating, up to and including EWL." Incrementally hardening a feeder may not always achieve EWL, however, this approach will position FPL to do so in the future." (EXH 20, p. 12)

Staff believes FPL's Plan describes the Incremental Hardening activity as achieving incremental storm hardening up to an EWL criteria for individual poles and components but not necessarily an upgrade to the EWL criteria for the entire pole line or circuit.

As discussed in Issue 41, staff believes FPL's Plan meets the requirements of the Rule because (a) FPL reviewed historical performance of its distribution system and damages specially resulting from EWL, (b) FPL concluded it did not have a program addressing wind-only damages, (c) FPL's customers do not want to experience a recurrence of Hurricane Wilma outages, and (d) FPL developed an EWL criteria to reduce the extent of damages and cost of restoration for future storm outages. Furthermore, FPL's Plan provides for inclusion of new information, revisions, and annual updates. Consequently, staff believes FPL's Plan incorporates the ability to pursue reasonable means to further mitigate customer outages and restoration costs due to extreme weather events.

Therefore, staff recommends that the Commission find that FPL's Plan meets the specific requirements of Rule 25-6.0342(3)(b)2, F.A.C, because FPL is incorporating its proposed EWL criteria into its design and construction standards for new facilities and because FPL's Plan calls for targeted incremental hardening up to and including meeting its EWL criteria. (TR 177-178)

Issue 43: Does the Company's Plan address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for distribution facilities serving critical infrastructure facilities and along major thoroughfares taking into account political and geographical boundaries and other applicable operational considerations? [Rule 256.0342(3)(b)3]

Recommendation: Yes. FPL's Plan meets the specific requirements of Rule 25-6.0342(3)(b)3, F.A.C, because FPL is incorporating its proposed EWL criteria into its design and construction standards for new facilities and because FPL's Plan calls for application of EWL analysis to infrastructure that serve CIFs and overhead crossing of Interstate 75 and the Turnpike. (Breman/Lewis/Ballinger)

Position of Parties

FPL: Yes. FPL's Plan will apply EWL to all distribution CIFs, using the extreme wind regions described in Issue 41. FPL's Plan will apply Incremental Hardening to feeders serving community-needs businesses, such as grocery stores, gas stations, and pharmacies, which are typically located along or near major thoroughfares.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: The Company's Plan to use EWL criteria for critical infrastructure circuits is prudent, practical and cost-effective. However, as set forth in more detail below, the Company's deployment strategy for hardening critical infrastructure circuits is not prudent, practical or cost-effective.

MUUC: Yes.

VERIZON: No objection.

Staff Analysis: FPL defines critical infrastructure facilities (CIF) as facilities serving critical customers such as hospitals, 911 centers, special needs shelters, water treatment plants, police and fire stations. (TR 179; EX 20 p. 4, 11) FPL believes these are CIFs because these facilities are essential to the health, safety, welfare, and security of the public. (TR 179) A listing of FPL's CIF projects for 2007 is shown in Exhibit 20, page 4. Exhibit 21, pages 1-3, lists FPL's CIF projects for 2008 and 2009. To help identify CIF projects, FPL partnered with local Emergency Operations Centers. (EX 20 p. 11) FPL proposes to apply EWL analysis to existing and new feeders and associated laterals directly serving CIF. (EX 20 p. 4) Initially, FPL's Plan targets acute care facilities. (TR 179) Regarding major thoroughfares, FPL's Plan applies EWL analysis to approximately 43 overhead crossings of Interstate 75 and the Turnpike. (TR 181-182; EX 20, p. 17)

FCTA, as stated in Issues 41, 42, and 43, recommends denial of FPL's Plan because FPL proposes implementation of an EWL criteria for its service area. FCTA's opposition to FPL's proposed EWL criteria is addressed in Issue 41.

As discussed in Issue 41, staff believes FPL's Plan meets the requirements of the Rule because (a) FPL reviewed historical performance of its distribution system and damages specially resulting from EWL, (b) FPL concluded it did not have a program addressing wind-only damages, (c) FPL's customers do not want to experience a recurrence of Hurricane Wilma outages, and (d) FPL developed an EWL criteria to reduce the extent of damages and cost of restoration for future storm outages. Furthermore, FPL's Plan provides for inclusion of new information, revisions, and annual updates. Consequently, staff believes FPL's Plan incorporates the ability to pursue reasonable means to further mitigate customer outages and restoration costs due to extreme wind and other extreme weather events.

FPL is incorporating its proposed EWL criteria into its design and construction standards for new facilities and FPL's Plan calls for application of EWL analysis to infrastructure that serve CIFs and overhead crossing of Interstate 75 and the Turnpike. Therefore, staff recommends the Commission find FPL's Plan meets the requirements of Rule 25-6.0342(3)(b)3, F.A.C.

Issue 44: Does the Company's Plan address the extent to which its distribution facilities are designed to mitigate damage to underground and supporting overhead transmission and distribution facilities due to flooding and storm surges? [Rule 25-6.0342(3)(c)]

Recommendation: Yes. FPL reasonably assessed what actions to pursue to reduce customer outages and restoration time resulting from damages incurred to underground and supporting distribution facilities from flooding and storm surges. (Breman/Lewis/Ballinger)

Position of Parties

FPL: Yes. For new URD construction, FPL utilizes "dead front" equipment that is more resistant to weathering, corrosion and flooding. Due to previous reliability concerns, FPL has not adopted submersible equipment as a standard but offers customers an optional submersible switch. FPL participates in research to identify other improvement opportunities.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: No position.

MUUC: No. FPL's Plan does not adequately address underground design issues, nor does it provide adequate analysis of the costs and benefits of undergrounding as a hardening technology, as compared to alternate construction modes.

VERIZON: No objection.

Staff Analysis: FPL's Plan expands on previously initiated underground storm hardening activities by implementing an EWL criteria to reduce wind-only damages to its distribution facilities. (TR 172-173; EXH 20, pp. 5, 22-23) FPL's other storm hardening activities include promoting underground construction. (EXH 20 p. 8)

MUUC's position, asserting FPL did not adequately analyze the costs and benefits of undergrounding, is not explained in MUUC's Brief. Staff notes that potential deficiencies, if any, in FPL's design of underground systems were not specifically challenged. Consequently, there is no record evidence supporting MUUC's position that FPL's Plan does not adequately address underground design issues. MUUC may be implying that FPL should increase the number of projects where existing overhead facilities are converted to underground facilities (undergrounding). However, there is no record evidence to support a finding that the level of FPL's efforts are insufficient.

Thus, staff believes that FPL reasonably assessed what actions to pursue to reduce customer outages and restoration time resulting from damages incurred to underground and supporting distribution facilities from flooding and storm surges. FPL's Plan provides for inclusion of new information, revisions, and annual updates. (TR 171, 601-602) Therefore, staff

recommends the Commission find FPL's Plan meets the requirements of Rule 25-6.0342(3)(c), F.A.C.

Issue 46: Does the Company's Plan provide a detailed description of its deployment strategy including a description of the facilities affected, including technical design specifications, construction standards, and construction methodologies employed? [Rule 25-6.0342(4)(a)]

Recommendation: Yes. FPL's Plan includes updates to technical design specifications, construction standards, and construction methodologies employed implementing its EWL criteria. (Breman/Lewis/Ballinger)

Position of Parties

FPL: Yes. FPL's Plan includes its three-prong deployment strategy. FPL provided engineering drawings for all 2007 CIF and Incremental Hardening projects, as well as a listing and primary maps of 2008-2009 CIF projects. Further 2008-2009 details will be provided pursuant to the stipulated Process to Engage Third Party Attachers.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: FPL's Plan does not provide the required detailed description of its deployment strategy. Based upon the information in the Plan and information made available during this proceeding, the Company's Plan to harden its infrastructure is not being deployed in a prudent, practical or cost effective manner.

MUUC: Yes, especially FPL's Addendum for Extreme Wind Loading to its Distribution Engineering Reference Manual.

VERIZON: No objection.

Staff Analysis: FPL's Plan discusses FPL's 2006 pilot EWL projects. (EWH 20, p. 15) FPL noted that these pilot projects provided valuable insight into implementing storm hardening on a broader, system-wide effort. (EX 20 p. 15) FPL listed 186 projects for 2007 through 2009. (EX 20 p. 41-42; EX 21) FPL updated its distribution engineering reference manual to include its EWL criteria. (EX 20 pp. 43-88) FPL also updated its distribution construction standards for hardening applications. (EX 20 pp. 89-186)

FCTA is critical of FPL's deployment strategy because FCTA opposes FPL's proposed EWL criteria and suggests alternative actions are available. (FCTA BR 6) As stated in Issue 41, FCTA Witness Harrelson identified various storm hardening activities he believed to be prudent, practical, and cost-effective. (TR 382-383) Harrelson was unaware of any deficiencies in FPL's Plan to address the activities. (TR 408-13) Additionally, alternatives to an EWL criteria were shown to already be incorporated in FPL's Plan. (TR 179-80, 372, 383, 402, 410, 550-53) FCTA's opposition and alternative to FPL's Plan is addressed in Issue 41.

Staff believes FPL's 2006 pilot projects enabled FPL to reasonably gauge which activities were technically practical, the scope of activities that FPL could address within the foreseeable future, the resources FPL would require for those activities, and also identify which construction standards and procedures required updating to allow a coordinated implementation. Therefore, staff recommends the Commission find FPL's Plan meets the requirements of Rule 25-6.0342(4)(a,) F.A.C.

Issue 47: Does the Company's Plan provide a detailed description of the communities and areas within the utility's service area where the electric infrastructure improvements, including facilities identified by the utility as critical infrastructure and along major thoroughfares pursuant to subparagraph (3)(b)3, are to be made? [Rule 25-6.0342(4)(b)]

Recommendation: Yes. FPL's Plan lists 186 project sites for the period 2007 through 2009. (Breman/Lewis/Ballinger)

Position of Parties

FPL: Yes. FPL's Plan included the following for 2007: the customer, name, county, and region for each CIF project; and the feeder number, county and region for each Incremental Hardening project. FPL has also provided a listing and primary maps showing the location of 2008-2009 CIF projects.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: No position.

MUUC: No. FPL's Plan includes a one-page list of "circuits planned for hardening to EWL" by county and by identity of the customer. This information includes no description of the communities or the areas served by the circuits, nor of the circuits themselves.

VERIZON: No objection.

Staff Analysis: FPL provided a detailed description of the location and the routes for critical infrastructure projects (CIF) to all parties in this proceeding. (TR 621-622; EXH 21; EXH 41-43) FPL's filing lists a total of 186 project sites for the period 2007 through 2009. (EXH 20, pp. 41-42; EXH 21) Staff believes the type of summary information provided in Exhibit 21 is sufficient for local governmental officials to determine whether additional discussion with FPL is warranted. Also, FPL was responsive to the parties interested in additional details. Based on the information FPL provided, staff believes FPL would be similarly responsive to inquiries for additional data from local governments who are not parties to this case because of FPL's Storm Preparedness Initiatives. (EXH 20, p. 5) FPL's Storm Preparedness Initiatives, which are incorporated into FPL's Plan by reference, are established pursuant to Order No. PSC-06-0781-PAA-EI. (EXH 20, p. 5) Pages 15 and 16 of the Order address FPL's initiative to increase utility coordination with local governments. Therefore, staff believes FPL's Plan does not require any expansion to address FPL's provision of detailed data to officials and representatives of the communities impacted by FPL's storm hardening projects because such a requirement already exists.

MUUC opines that FPL's Plan should be expanded to include sufficiently detailed information MUUC believes is required by the Rule and required for local governmental

officials to understand the work contemplated. (MUUC BR 7) Staff believes MUUC seeks a requirement for FPL to initially file more detailed data with the Plan. Staff recommends against such burdensome filing requirements because there is no evidence that FPL was not responsive to interested individuals.

Staff recommends the Commission find that FPL provided sufficient detailed information, thus, meeting the requirements of Rule 25-6.0342(4)(b), F.A.C.

Issue 48: Does the Company's Plan provide a detailed description of the extent to which the electric infrastructure improvements involve joint use facilities on which third-party attachments exist? [Rule 25-6.0342(4)(c)]

Recommendation: Yes. FPL has provided detailed descriptions and maps of electric infrastructure improvements, including joint use facilities to the extent possible, and sufficient information exchange and dispute resolution mechanisms are provided by the Process To Engage Third-Party Attachers. (Fisher, Vinson)

Position of Parties

FPL: Yes. For 2007, all Attachers were provided engineering drawings and line diagrams for all CIF and Incremental Hardening Projects. Similar details are not yet available for 2008-2009 but will be provided pursuant to the stipulated Process to Engage Third-Party Attachers.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and as it is understood to affect Embarq.

FCTA: Because the proposed Process to Engage Third-Party Attachers has been agreed to by FPL (as well as the other IOUs) and was approved at the hearing, FCTA changes its position on Issue 48 to "no objection."

MUUC: No.

VERIZON: No position.

Staff Analysis: FPL states that all Attachers were provided engineering drawings and line diagrams for all 2007 Community of Interest Facilities (CIF) and Incremental Hardening Projects. (TR 181) For 2007, all attachers actively participating in the proceeding acknowledged that sufficient details had been provided. Similar details for 2008 and 2009 are not available at this time, since detailed plans for these two later years have not been developed and approved. (TR 181) However, details for these years will be provided to attachers when FPL annually updates its Plan. FPL intends to file annual updates to its Plan to provide detailed engineering and construction information and costs for 2008 projects before the end of 2007. (TR 182)

All parties other than MUUC either have no objection to FPL's Plan as it relates to the requirements of Issue 48, or they take no position. MUUC contends that FPL has not met the requirements of Rule 25-6.0342(4)(c). F.A.C., but did not elaborate on its position, nor did it offer any testimony regarding this Issue.

All other parties have stipulated to the Process To Engage Third-Party Attachers as a means to receive ongoing detailed information regarding the utility's hardening plans. The Process allows electric utilities to receive attacher input regarding possible cost-effective

alternatives to accomplish storm hardening projects affecting their company's interests. In addition, Rule 25-6.0342(7), F.A.C., provides that any dispute to a utility's storm hardening plan can be brought before the Commission for remedy. Staff believes these mechanisms provide attachers sufficient opportunity to resolve future issues with utility hardening plans.

Staff believes that FPL has provided detailed descriptions and maps of electric infrastructure improvements, including joint use facilities to the extent possible. Staff also believes, that the Process To Engage Third-Party Attachers provides an ongoing forum for detailed information to mutually flow back and forth between the utilities and interveners. Staff believes that FPL has met its obligation to provide a detailed description of the extent to which the electric infrastructure improvements involve joint use facilities on which third-party attachments exist and sufficient information exchange and dispute resolution mechanisms are provided by the Process To Engage Third-Party Attachers. Staff recommends that the Commission find that the Plan meets the requirements of Rule 25-6.0342(4)(c), F.A.C.

Issue 49: Does the Company's Plan provide an estimate of the costs and benefits to the utility of making the electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages? [Rule 25-6.0342(4)(d)]

Recommendation: Yes. (Breman/Lewis/Ballinger)

Position of Parties

FPL: Yes. FPL estimates the following costs: $48.5 million - $61.5 million for 2007; $75 million - $125 million for 2008; and $100 million - $150 million for 2009. FPL estimates restoration cost savings of approximately 45% - 70% of the hardening costs, with savings equaling costs with more frequent storms. FPL's Plan should reduce the frequency and duration of storm outages.

AT&T: No position.

EMBARQ: No position.

FCTA: No position.

MUUC: No. FPL's Plan does not adequately address the total costs and benefits of storm hardening, especially as regards the use of undergrounding as a hardening technique or technology.

VERIZON: No objection.

Staff Analysis: FPL, in developing its Plan, comparably and independently assessed EWL and undergrounding in terms of storm hardening costs and benefits. (TR 218-219) FPL Witness Miranda was questioned regarding cost data and analysis pertaining to a Rule 25-6.115, F.A.C., contribution-in-aid-of-construction (CIAC) calculation and a Governmental Adjustment Factor (GAF) tariff. (TR 213-216) FPL responded that it is working to provide the information as quickly as it can. (TR 216) FPL believes that the benefit/cost analysis of undergrounding that supports the GAF is comparable to FPL's benefit/cost analysis for EWL. (TR 218-219)

MUUC maintains that FPL's Plan does not adequately address the total costs and benefits of using undergrounding (the conversion of existing overhead facilities to underground facilities) as a storm hardening technique or technology. Staff notes that the term "total costs and benefits" is not defined within the record. Consequently, MUUC has stated a standard of review after the fact without defining the standard. Staff believes the Rule clearly requires a reasonable estimate of known costs and benefits be made. Staff believes that FPL has provided the information it has and has also made clear what information it does not currently have.

Staff believes that if FPL's benefit/cost analysis for GAF was adequate, then FPL's benefit/cost analysis for an EWL criteria should be adequate. Consequently, FPL's Plan adequately addresses alternative construction modes on a comparable basis. FPL does not currently have sufficient information to distinguish between the benefits attributable to one type

of hardening activity versus another. (TR 184) FPL also stated that there is little directly measured data on the improved resilience and hence storm restoration costs savings resulting from increasing the storm resilience. (TR 184) FPL's testimony on the lack of ability to directly measure storm performance data, including benefits, was not disputed.

FPL's Plan implementation costs for 2007 range from $48.5 million to $61.5 million. (TR 182) Projects on infrastructure serving critical customers and crossing major thoroughfares are estimated to be between $29 million and $37 million. (TR 192) Major planned expansion, rebuild or relocations are estimated to be between $14 million and $16.5 million. New distribution facilities construction costs are expected to be between $5.5 million and $8 million. (TR 182) In 2008 and 2009, FPL expects to continue a similar deployment. (EXH 20 p. 25) Projected costs for 2008 and 2009 are between $75 million and $125 million and $100 million to $150 million, respectively. (TR 183; EXH 20 p. 25)

The estimated benefits from FPL's Plan are: (i) reduced damage to electrical infrastructure for Category 1, 2, and 3 hurricanes, (ii) less restoration time, and (iii) less restoration costs. (TR 183-187; EXH 20 p. 26) The full extent of the benefits is impossible to estimate at this time. (EXH 20 p. 26) Presently, there is limited or no historical data available for purposes of conducting overall cost/benefit analyses on many of these new actions and little directly measured data on improved storm resilience. (TR 184; EXH 20 p. 26) To estimate the improved storm resilience resulting from its Plan, FPL relied on the 2004-2005 hurricane season experiences, forensic analysis of damaged facilities, and an independent analysis prepared by Davies Consulting, Inc. for FPL. (TR 184-185; EXH 7) Assuming a hurricane frequency of once every 3-5 years, FPL estimates a storm restoration cost savings, on a net present worth basis, of approximately 70% to 45% of the hardening costs over a 30 year period. (TR 186, 194) FPL's assumptions regarding the average frequency of hurricanes is based on statements from the National Hurricane Center and the historical frequency of storms impacting FPL. (TR 195)

FPL believes the Plan is cost-effective because the Plan produces the desired results of reduced customer outages and reduced overall restoration time as efficiently as possible from an economic perspective. (TR 187-188) FPL's approach allows for modifications and refinements as more experience is gained, more and better forensics data and analysis becomes available, and new systems and technologies enter the market. (TR 188)

Consequently, staff believes FPL made a reasonable effort to assess the costs and benefits consistent with the requirements of Rule 25-6.0342(4)(d), F.A.C. Staff recommends the Commission find FPL's Plan meets the requirements of Rule 25-6.0342(4)(d), F.A.C.

Issue 50: Does the Company's Plan provide an estimate of the costs and benefits, obtained pursuant to subsection (6) below, to third-party attachers affected by the electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages realized by the third-party attachers? [Rule 25-6.0342(4)(e)]

Recommendation: Yes. FPL has provided an estimate of the costs and benefits, including reduced storm restoration costs and customer outages, for third-party attachers to the extent possible. Staff also believes sufficient information exchange and dispute resolution mechanisms are provided by the Process To Engage Third-Party Attachers. (Fisher, Vinson)

Position of Parties

FPL: Yes. FPL's Plan includes Attachers' costs and benefits, to the extent they were provided.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and as it is understood to affect Embarq.

FCTA: There is insufficient information about the costs and benefits of FPL's storm hardening plan to affected third-party attachers. Given the lack of such information, the Commission should only approve limited pilot projects, which will enable affected parties to better understand the true costs and potential benefits of FPL's planned hardening activities.

MUUC: Yes. FPL's Plan reports costs as reported to FPL by AT&T and Embarq, and the attachers' generic recognition of storm hardening benefits, but its Plan cannot be said to adequately provide an estimate of the benefits to third-party attachers of storm hardening efforts.

VERIZON: Has no position for FPL Plan.

Staff Analysis: FPL states that all Attachers were provided engineering drawings and line diagrams for all 2007 Community of Interest Facilities (CIF) and Incremental Hardening Projects. (TR 181) For 2007, all attachers actively participating in the proceeding acknowledged that sufficient details had been provided. Similar details for 2008 and 2009 are not available at this time, since detailed plans for these two later years have not been developed and approved. (TR 181) However, details for these years will be provided to attachers when FPL annually updates its Plan. FPL intends to file annual updates to its Plan to provide detailed engineering and construction information and costs for 2008 projects before the end of 2007. (TR 182)

FCTA contends that it does not yet have enough detailed information to provide a specific estimate of the costs and benefits that FPL's Plan will have on its cable operator members. Further, it states that given the uncertainty about the specific cost benefit impact on third-party attachers, FCTA supports limited pilot projects and continued monitoring to enable affected parties to study the potential benefits of FPL's planned hardening activities.

MUUC notes that FPL's Plan "reports costs as reported to FPL by AT&T and Embarq," apparently contending that FPL should have developed its own cost and benefit analyses. MUUC also takes the position that FPL's Plan does not adequately provide an estimate of the benefits to third-party attachers of storm hardening efforts.

Staff agrees that FPL has included the third-party attachers' own cost/benefit estimates. However, staff believes this approach is consistent with Rule 25-6.0342(4)(e), F.A.C., which requires, "An estimate of the costs and benefits, *obtained pursuant to subsection (6) below,* to third-party attachers affected by the electric infrastructure improvements." (Emphasis added.) The referenced subsection (6) pertains to the utilities seeking input from and attempts in good faith to accommodate concerns raised [by the attachers]. Staff believes the fact that FPL, AT&T, and Embarq were able to identify costs and benefits from the hardening efforts outlined in FPL's Storm Hardening Plan 2007-2009 indicates sufficient data was available to complete an initial estimate.

Staff believes the Process To Engage Third-Party Attachers, stipulated by the parties, provides a beneficial ongoing forum for 2008-2009 Plan data to flow between the utilities and attachers. The Process ensures that each party can request and receive detailed information necessary to determine hardening costs and benefits for its company. Further, attachers can evaluate detailed information of utility hardening activities to reduce restoration time frames and determine the potential impacts. In staff's view, the Process To Engage Third-Party Attachers allows FCTA and MUUC to request and receive detailed data necessary to complete a cost/benefit estimate for each year, and to determine the benefits of anticipated reduced restoration time frames.

Additionally, Rule 25-6.0342(7), F.A.C., provides that the parties may bring future disputes related to the Plan and its implementation to the Commission for resolution. Therefore, staff concludes that FPL has met the requirements of Rule 25-6.0342(4)(e), F.A.C. to provide an estimate of storm hardening costs and benefits, including reduced storm restoration costs and customer outages for third-party attachers and sufficient information exchange and dispute resolution mechanisms are provided by the Process To Engage Third-Party Attachers.

Issue 52: Based on the resolution of the preceding issues, should the Commission find that the Company's Plan meets the desired objectives of enhancing reliability and reducing restoration costs and outage times in a prudent, practical, and cost-effective manner to the affected parties? [Rule 25-6.0342(1) and (2)]

Recommendation: Yes. Staff believes that FPL's Plan meets the desired objectives of enhancing reliability and reducing restoration costs and outage times and, therefore, the Plan should be approved. (Breman/Lewis/Ballinger)

Position of Parties

FPL: Yes. Unlike FPL's and the Commission's other storm initiatives, the Plan directly addresses "wind only" damage, which accounted for more than half the distribution pole failures in Hurricane Wilma. Based on FPL's storm experience and forensics data, the Plan is prudent, practical and cost-effective in FPL's service territory.

AT&T: No position.

EMBARQ: Embarq has no objection to the Company's Plan as it is currently proposed and it is understood to affect Embarq.

FCTA: The Commission should not find that FPL's storm hardening plan is prudent, practical, or cost-effective. Accordingly, the Company's Plan should not be approved.

MUUC: No. FPL's Plan is practical, as far as it goes. However, the MUUC believes that additional efforts, especially with regard to encouraging and implementing underground facilities would be cost-effective and therefore prudent.

VERIZON: No objection.

Staff Analysis: FPL's plan presents a reasonable approach to storm hardening that has the potential to enhance reliability and reduce restoration costs and outage times. Staff recommends that the Commission approve FPL's Plan.

The cost/benefit estimates provided in FPL's Plan are non-binding and subject to change, as are those in the plans of TECO and Progress that the Commission has previously approved. The Commission expects FPL to prudently manage its resources and assets for the benefit of the general body of ratepayers. FPL's actual expenditures resulting from implementation of its storm hardening plan will be reviewed in its next base rate proceeding or through a different mechanism, such as a cost recovery clause, if requested. Additionally, the "Process to Engage Third-Party Attachers," which all parties previously stipulated to, facilitates information sharing among the parties and requires regular status reports to be filed with the Commission staff. An additional level of protection is provided by Rule 25-6.0342(7), F.A.C., which provides for any disputes or challenges to issues related to FPL's storm hardening plan, including the Attachment Standards and Procedures, shall be resolved by the Commission. Furthermore, a request for

dispute resolution can be filed at any time by a customer, applicant for service, or attaching entity.

FPL's Plan includes many ongoing storm hardening activities that are expected to produce valuable data upon which to base further modifications to its Plan. For example, the gathering and review of forensic data and performing cost/benefit analysis. (EXH 20 p. 6) Staff expects FPL to continue working with local communities and develop pilot projects that will best address specific community needs with the most appropriate and cost-effective storm hardening techniques.

In conclusion, staff believes that FPL's Plan meets the requirements of enhancing reliability and reducing restoration costs and outage times and therefore the Plan should be approved.

Issue 53: Should this docket be closed?

Recommendation: Yes. If the Commission approves FPL's Storm Hardening Plan and Gulf's Amended Storm Hardening Plan, no further action is required and these dockets should be closed. (Young, Fleming, Bennett, Teitzman, Mann)

Staff Analysis: If the Commission approves FPL's Storm Hardening Plan and Gulf's Amended Storm Hardening Plan, no further action is required and these dockets should be closed.

List of Approved Stipulated Issues

DOCKET NO. 070297-EI – TAMPA ELECTRIC COMPANY

ISSUE 1: Does the Company's Plan address the extent to which, at a minimum, the Plan complies with the National Electric Safety Code (ANSI C-2) [NESC] that is applicable pursuant to subsection 25-6.0345(2), F.A.C.? [Rule 25-6.0342(3)(a)]

Stipulation: Yes. The Company's Plan addresses the extent to which, at a minimum, the Plan complies with the NESC and yes, the Plan complies at a minimum with NESC. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, TCG) (TR 16)

ISSUE 2: Does the Company's Plan address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for new distribution facility construction? [Rule 25-6.0342(3)(b)l]

Stipulation: Yes. Tampa Electric's Plan reasonably addresses the extent to which the extreme loading standards are adopted for new distribution facility construction. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, Embarq, TCG, Verizon) (TR 16)

ISSUE 3: Does the Company's Plan address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for major planned work on the distribution system, including expansion, rebuild, or relocation of existing facilities, assigned on or after the effective date of this rule distribution facility construction? [Rule 25-6.0342(3)(b)2]

Stipulation: Yes. Tampa Electric's Plan reasonably addresses the extent to which the extreme loading standards are adopted for major planned work on the distribution system. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, Embarq, TCG, Verizon) (TR 16)

ISSUE 4: Does the Company's Plan reasonably address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for distribution facilities serving critical infrastructure facilities and along major thoroughfares taking into account political and geographical boundaries and other applicable operational considerations? [Rule 256.0342(3)(b)3]

Stipulation: Yes. Tampa Electric's Plan reasonably adopts EWL only for limited critical infrastructure pilot projects identified in its Plan. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, Embarq, TCG, Verizon) (TR 16)

List of Approved Stipulated Issues

ISSUE 5: Does the Company's Plan address the extent to which its distribution facilities are designed to mitigate damage to underground and supporting overhead transmission and distribution facilities due to flooding and storm surges? [Rule 25-6.0342(3)(c)]

Stipulation: Yes. Tampa Electric reasonably addresses the extent to which its distribution facilities are designed to mitigate damage to underground and supporting overhead transmission and distribution facilities due to flooding and storm surges. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, Embarq, TCG, Verizon) (TR 16)

ISSUE 6: Does the Company's Plan address the extent to which the placement of new and replacement distribution facilities facilitate safe and efficient access for installation and maintenance pursuant to Rule 25- 6.0341, F.A.C? [Rule 25-6.0342(3)(d)]

Stipulation: Yes. Tampa Electric's Plan reasonably addresses the extent to which the placement of new and replacement distribution facilities facilitate safe and efficient access for installation and maintenance. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, Embarq, TCG, Verizon) (TR 16)

ISSUE 7: Does the Company's Plan provide a detailed description of its deployment strategy including a description of the facilities affected; including technical design specifications, construction standards, and construction methodologies employed? [Rule 25-6.0342(4)(a)]

Stipulation: Yes. Tampa Electric's Plan contains a detailed three-year deployment strategy which includes a description of the facilities affected, technical design specifications, construction standards and methodologies. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, FCTA, TCG, Verizon) (TR 541)

ISSUE 8: Does the Company's Plan provide a detailed description of the communities and areas within the utility's service area where the electric infrastructure improvements, including facilities identified by the utility as critical infrastructure and along major thoroughfares pursuant to subparagraph (3)(b)3 are to be made? [Rule 25-6.0342(4)(b)]

Stipulation: Yes, assuming the process to engage third party attachers is approved. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, TCG) (TR 16)

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ISSUE 9: Does the Company's Plan provide a detailed description of the extent to which the electric infrastructure improvements involve joint use facilities on which third-party attachments exist? [Rule 25-6.0342(4)(c)]

Stipulation: Yes, assuming the process to engage third party attachers is approved. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, TCG) (TR 16)

ISSUE 10: Does the Company's Plan provide a reasonable estimate of the costs and benefits to the utility of making the electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages? [Rule 25-6.0342(4)(d)]

Stipulation: Yes, assuming the process to engage third party attachers is adopted. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, Embarq, TCG, Verizon) (TR 16)

ISSUE 11: Does the Company's Plan provide an estimate of the costs and benefits, obtained pursuant to subsection (6) below, to third-party attachers affected by the electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages realized by the third-party attachers? [Rule 25-6.0342(4)(e)]

Stipulation: Yes, assuming the process to engage third party attachers is adopted. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, TCG) (TR 16)

ISSUE 12: Does the Company's Plan include 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 that meet or exceed the edition of the National Electrical Safety Code (ANSI C-2) that is applicable pursuant to Rule 25-6.034, F.A.C.? [Rule 25-6.0342(5)]

Stipulation: Yes, with the understanding that Tampa Electric is not seeking the approval of the Florida Public Service Commission of its attachment standards and procedures for third-party attachers beyond a finding that Tampa Electric has attachment standards and procedures for third-party attachers that meet or exceed the NESC. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, FCTA, TCG, Verizon) (TR 494-495, 541)

ISSUE 13: Based on the resolution of the preceding issues, should the Commission find that the Company's Plan meets the desired objectives of enhancing reliability and

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reducing restoration costs and outage times in a prudent, practical, and cost-effective manner to the affected parties? [Rule 25-6.0342(1) and (2)]

Stipulation: Yes. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, FCTA, TCG, Embarq, Verizon) (TR 541)

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DOCKET NO. 070298-EI – PROGRESS ENERGY FLORIDA, INC.

ISSUE 14: Does the Company's Plan address the extent to which, at a minimum, the Plan complies with the National Electric Safety Code (ANSI C-2) [NESC] that is applicable pursuant to subsection 25-6.0345(2), F.A.C.? [Rule 25-6.0342(3)(a)]

Stipulation: Yes. (TR 24)

ISSUE 15: Does the Company's Plan address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for new distribution facility construction? [Rule 25-6.0342(3)(b)l]

Stipulation: Yes. PEF addresses extreme wind loading standards on Pages 4-7 of its Plan and in Attachments C-E. PEF also addresses this issue in its Plan Supplement on pages 1-3, 6-8 and in Attachments A and B. (TR 24)

ISSUE 16: Does the Company's Plan address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for major planned work on the distribution system, including expansion, rebuild, or relocation of existing facilities, assigned on or after the effective date of this rule distribution facility construction? [Rule 25-6.0342(3)(b)2]

Stipulation: Yes. PEF addresses extreme wind loading standards on Pages 4-7 of its Plan and in Attachments/C-E. PEF also addresses this issue in its Plan Supplement on pages 1-3, 6-8 and in Attachments A and B. (TR 24)

ISSUE 17: Does the Company's Plan address the extent to which the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC are adopted for distribution facilities serving critical infrastructure facilities and along major thoroughfares taking into account political and geographical boundaries and other applicable operational considerations? [Rule 256.0342(3)(b)3]

Stipulation: Yes. PEF addresses extreme wind loading standards on Pages 4-7 of its Plan and in Attachments/C-E. PEF also addresses this issue in its Plan Supplement on pages 1-3, 6-8 and in Attachments A and B. (TR 24)

ISSUE 18: Does the Company's Plan address the extent to which its distribution facilities are designed to mitigate damage to underground and supporting overhead transmission and distribution facilities due to flooding and storm surges? [Rule 25-6.0342(3)(c)]

Stipulation: Yes, on Pages 7-14 of PEF's Storm Hardening Plan and on pages 4-5 of PEF's Plan Supplement and Attachments B and E to that supplement. (TR 24)

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ISSUE 19: Does the Company's Plan address the extent to which the placement of new and replacement distribution facilities facilitate safe and efficient access for installation and maintenance pursuant to Rule 25- 6.0341, F.A.C? [Rule 25-6.0342(3)(d)]

Stipulation: Yes, on pages 8 and 9 of PEF's Plan. (TR 24)

ISSUE 20: Does the Company's Plan provide a detailed description of its deployment strategy including a description of the facilities affected; including technical design specifications, construction standards, and construction methodologies employed? [Rule 25-6.0342(4)(a)]

Stipulation: Yes, on Pages 1-3 and 9-20 and Attachment A to PEF's Storm Hardening Plan and pages 5-7 of PEF's Plan Supplement and Attachment E to that Supplement. (TR 24)

ISSUE 21: Does the Company's Plan provide a detailed description of the communities and areas within the utility's service area where the electric infrastructure improvements, including facilities identified by the utility as critical infrastructure and along major thoroughfares pursuant to subparagraph (3)(b)3 are to be made? [Rule 25-6.0342(4)(b)]

Stipulation: Yes. PEF provided a detailed list of distribution and transmission projects on Pages 14-20 of its Storm Hardening Plan and in Attachment D to PEF's Plan Supplement. PEF also has ongoing dialogue and interactions with third-party attachers that are affected by projects in PEF's Plan. (TR 24)

ISSUE 22: Does the Company's Plan provide a detailed description of the extent to which the electric infrastructure improvements involve joint use facilities on which third-party attachments exist? [Rule 25-6.0342(4)(c)]

Stipulation: Yes, on pages 20-21 of PEF's Plan and Attachment D to PEF's Plan Supplement. (TR 24)

ISSUE 23: Does the Company's Plan provide an estimate of the costs and benefits to the utility of making the electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages? [Rule 25-6.0342(4)(d)]

Stipulation: Yes, at pages 21-23 of PEF's Plan and pages 5-8 of PEF's Plan Supplement and Attachments A and B to that Supplement. (TR 24)

List of Approved Stipulated Issues

ISSUE 24: Does the Company's Plan provide an estimate of the costs and benefits, obtained pursuant to subsection (6) below, to third-party attachers affected by the electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages realized by the third-party attachers? [Rule 25-6.0342(4)(e)]

Stipulation: Yes, at pages 21-23 of PEF's Plan and Attachments B and D to PEF's Plan Supplement. (TR 24)

ISSUE 25: Does the Company's Plan include 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 that meet or exceed the edition of the National Electrical Safety Code (ANSI C-2) that is applicable pursuant to Rule 25-6.034, F.A.C.? [Rule 25-6.0342(5)]

Stipulation: Progress agrees, and hereby clarifies its position on Issue 25, that Progress is not seeking the approval of the Florida Public Service Commission of its attachment standards and procedures for third party attachments beyond a finding that Progress has attachment standards and procedures for third party attachments that meet or exceed the NESC. (TR 24)

ISSUE 26: Based on the resolution of the preceding issues, should the Commission find that the Company's Plan meets the desired objectives of enhancing reliability and reducing restoration costs and outage times in a prudent, practical, and cost-effective manner to the affected parties? [Rule 25-6.0342(1) and (2)]

Stipulation: Yes, PEF's Plan meets the objectives of enhancing reliability and reducing restoration costs and outage times in a prudent, practical, and cost-effective manner. (TR24)

List of Approved Stipulated Issues

DOCKET NO. 070299-EI – GULF POWER COMPANY

ISSUE 27: Does the Company's Plan address the extent to which, at a minimum, the Plan complies with the National Electric Safety Code (ANSI C-2) [NESC] that is applicable pursuant to subsection 25-6.0345(2), F.A.C.? [Rule 25-6.0342(3)(a)]

Stipulation: Yes. Gulf's Storm Hardening Plan complies with the National Electric Safety Code. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T) (TR 17)

ISSUE 31: Does the Company's Plan address the extent to which its distribution facilities are designed to mitigate damage to underground and supporting overhead transmission and distribution facilities due to flooding and storm surges? [Rule 25-6.0342(3)(c)]

Stipulation: Yes. Gulf has developed overhead and underground distribution storm hardening specifications to mitigate damage due to flooding and storm surges. These specifications are shown in Appendices 5 and 6 of Gulf's Storm Hardening Plan. In addition, Gulf is currently working on several distribution pilot projects in potential storm surge areas to test the effectiveness of mitigation techniques. Current pilot projects include the installation of below-grade gear, along with heavy lids and anchoring systems on flush-mounted switch enclosures. Gulf will continue to utilize stainless steel equipment in all coastal areas as it's done for many years. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, Embarq) (TR 17)

ISSUE 32: Does the Company's Plan address the extent to which the placement of new and replacement distribution facilities facilitate safe and efficient access for installation and maintenance pursuant to Rule 25-6.0341, F.A.C? [Rule 25-6.0342(3)(d)]

Stipulation: Yes. Gulf Power has always recognized that accessibility to distribution facilities is essential to safe and efficient maintenance and storm restoration. Gulf continues to promote placement of facilities adjacent to public roads; to utilize easements, public streets, roads and highways; obtain easements for underground facilities; and to use right-of-ways for conversions of overhead to underground. (The following parties do not affirmatively stipulate this issue but take no position on the issue: AT&T, Embarq) (TR 17)

ISSUE 33: Does the Company's Plan provide a detailed description of its deployment strategy including a description of the facilities affected; including technical design specifications, construction standards, and construction methodologies employed? [Rule 25-6.0342(4)(a)]

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Stipulation: Yes. Section 9.1 of the Plan describes the 3 year deployment strategy for the proposed EWL critical infrastructure pilot projects. Appendices 5 and 6 of the Plan contain the design and construction specifications for the overhead and underground distribution facilities. (TR 18, 101)

ISSUE 38: Does the Company's Plan include 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 that meet or exceed the edition of the National Electrical Safety Code (ANSI C-2) that is applicable pursuant to Rule 25-6.034, F.A.C.? [Rule 25-6.0342(5)]

Stipulation: Gulf agrees, and hereby clarifies its position on Issue 38, that Gulf is not seeking the approval of the Florida Public Service Commission of its attachment standards and procedures for third party attachments beyond a finding that Gulf has attachment standards and procedures for third party attachments that meet or exceed the NESC. (TR 17)

List of Approved Stipulated Issues

DOCKET NO. 070301-EI – FLORIDA POWER & LIGHT COMPANY

ISSUE 40: Does the Company's Plan address the extent to which, at a minimum, the Plan complies with the National Electric Safety Code (ANSI C-2) [NESC] that is applicable pursuant to subsection 25-6.0345(2), F.A.C.? [Rule 25-6.0342(3)(a)]

Stipulation: Yes. FPL's distribution facilities comply with, and in most cases exceed, the minimum requirements of the NESC. FPL's transmission structures also comply with the NESC. (Prehearing Order at 55; TR 19) The following parties do not affirmatively stipulate this issue but take no position on the issue: (TR 19)

ISSUE 45: Does the Company's Plan address the extent to which the placement of new and replacement distribution facilities facilitate safe and efficient access for installation and maintenance pursuant to Rule 25- 6.0341, F.A.C? [Rule 25-6.0342(3)(d)]

Stipulation: Yes. FPL's Plan includes Distribution Guidelines which state: every attempt should be made to place new or replacement poles in private easements or as close to the front edge of property (right of way line) as practical; overhead lines should be placed in front lines or accessible locations where feasible; and concrete poles are not to be placed in inaccessible locations or locations that could potentially become inaccessible. (TR 19)

ISSUE 51: Does the Company's Plan include 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 that meet or exceed the edition of the National Electrical Safety Code (ANSI C-2) that is applicable pursuant to Rule 25-6.034, F.A.C.? [Rule 25-6.0342(5)]

Stipulation: Yes. FPL's plan includes Attachment Standards and Procedures as called for by Rule 25-6.0342. These standards and procedures reflect the attachments and standards previously in place, with the only substantive updates being made to incorporate FPL's proposed hardening construction standards and design guidelines. (TR 20)

Rule 25-6.0342 Electric Infrastructure Storm Hardening

25-6.0342 Electric Infrastructure Storm Hardening.

(1) Application and Scope. This rule is intended to ensure the provision of safe, adequate, and reliable electric transmission and distribution service for operational as well as emergency purposes; require the cost-effective strengthening of critical electric infrastructure to increase the ability of transmission and distribution facilities to withstand extreme weather conditions; and reduce restoration costs and outage times to end-use customers associated with extreme weather conditions. This rule applies to all investor-owned electric utilities.

(2) Storm Hardening Plans. Each utility shall, no later than 90 days after the effective date of this rule, file with the Commission for its approval a detailed storm hardening plan. Each utility's plan shall be updated every 3 years, unless the Commission, on its own motion or on petition by a substantially affected person or utility, initiates a proceeding to review and, if appropriate, modify the plans. In a proceeding to approve a utility's plan, the Commission shall consider whether the utility's plan meets the desired objectives of enhancing reliability and reducing restoration costs and outage times in a prudent, practical, and cost-effective manner to the affected parties.

(3) Contents of Plan: Each utility storm hardening plan shall contain a detailed description of the construction standards, policies, practices, and procedures employed to enhance the reliability of overhead and underground electrical transmission and distribution facilities in conformance with the provisions of this rule. Each filing shall, at a minimum, address the extent to which the utility's storm hardening plan:

(a) Complies, at a minimum, with the National Electric Safety Code (ANSI C-2) [NESC] that is applicable pursuant to subsection 25-6.0345(2), F.A.C.

(b) Adopts the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC for the following distribution facilities:

1. New construction;

2. Major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after the effective date of this rule; and

3. Critical infrastructure facilities and along major thoroughfares taking into account political and geographical boundaries and other applicable operational considerations.

(c) Is designed to mitigate damage to underground and supporting overhead transmission and distribution facilities due to flooding and storm surges.

(d) Provides for the placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance pursuant to Rule 25- 6.0341, F.A.C.

(4) Deployment Strategy: Each utility storm hardening plan shall explain the systematic approach the utility will follow to achieve the desired objectives of enhancing reliability and reducing restoration costs and outage times associated with extreme weather events. The utility's storm hardening plan shall provide a detailed description of its deployment strategy including, but not limited to the following:

(a) A description of the facilities affected; including technical design specifications, construction standards, and construction methodologies employed.

Rule 25-6.0342 Electric Infrastructure Storm Hardening

(b) The communities and areas within the utility's service area where the electric infrastructure improvements, including facilities identified by the utility as critical infrastructure and along major thoroughfares pursuant to subparagraph (3)(b)3. are to be made.

(c) The extent to which the electric infrastructure improvements involve joint use facilities on which third-party attachments exist.

(d) An estimate of the costs and benefits to the utility of making the electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages.

(e) An estimate of the costs and benefits, obtained pursuant to subsection (6) below, to third-party attachers affected by the electric infrastructure improvements, including the effect on reducing storm restoration costs and customer outages realized by the third-party attachers.

(5) Attachment Standards and Procedures: As part of its storm hardening plan, each utility shall maintain written safety, reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles (Attachment Standards and Procedures). The Attachment Standards and Procedures shall meet or exceed the edition of the National Electrical Safety Code (ANSI C-2) that is applicable pursuant to Rule 25-6.034, F.A.C. so as to assure, as far as is reasonably practicable, that third-party facilities attached to electric transmission and distribution poles do not impair electric safety, adequacy, or pole reliability; do not exceed pole loading capacity; and are constructed, installed, maintained, and operated in accordance with generally accepted engineering practices for the utility's service territory.

(6) Input from Third-Party Attachers: In establishing its storm hardening plan and Attachment Standards and Procedures, or when updating or modifying such plan or Attachment Standards and Procedures, each utility shall seek input from and attempt in good faith to accommodate concerns raised by other entities with existing agreements to share the use of its electric facilities. Any third-party attacher that wishes to provide input under this subsection shall provide the utility contact information for the person designated to receive communications from the utility.

(7) Dispute Resolution: Any dispute or challenge to a utility's storm hardening plan, construction standards, deployment strategy, Attachment Standards and Procedures, or any projects implementing any of the above by a customer, applicant for service, or attaching entity shall be resolved by the Commission.

(8) Nothing in this rule is intended to conflict with Title 47, United States Code, Section 224, relating to Federal Communications Commission jurisdiction over pole attachments.

Specific Authority 350.127(2), 366.05(1) FS. Law Implemented 366.04(2)(c), (5), (6), 366.05(1) FS. History–New 2-1-07.