BEFORE THE PUBLIC SERVICE COMMISSION

In re: Review of 2007 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Tampa Electric Company.	DOCKET NO. 070297-EI
In re: Review of 2007 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Progress Energy Florida, Inc.	DOCKET NO. 070298-EI
In re: Review of 2007 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Gulf Power Company.	DOCKET NO. 070299-EI
In re: Review of 2007 Electric Infrastructure Storm Hardening Plan filed pursuant to Rule 25-6.0342, F.A.C., submitted by Florida Power & Light Company.	DOCKET NO. 070301-EI ORDER NO. PSC-07-0569-FOF-EI ISSUED: July 9, 2007

The following Commissioners participated in the disposition of this matter:

LISA POLAK EDGAR, Chairman
MATTHEW M. CARTER II
KATRINA J. McMURRIAN
NANCY ARGENZIANO
NATHAN A. SKOP

ORDER SETTING DOCKETS FOR HEARING

BY THE COMMISSION:

BACKGROUND

In order to address the vulnerabilities of the State of Florida's electric distribution and transmission system to powerful storms, this Commission has initiated a multi-faceted approach to address storm preparation and has made significant progress. One area we have pursued is "storm hardening." Storm hardening entails upgraded design and construction practices, as well as maintenance practices, so that electric facilities are better able to withstand extreme weather such as high wind speeds and flooding. The purpose of implementing storm hardening activities is to reduce outages from storms and lower the cost of restoring service. We initiated several proceedings directed at providing a higher level of preparedness and hardening of the electric infrastructure throughout the state to prepare for future storm events. In one of our rulemaking

proceedings, we adopted Rule 25-6.0342, Florida Administrative Code, which requires each investor-owned utility (IOU) to file a comprehensive storm hardening plan for our review and approval.

Rule 25-6.0342, Florida Administrative Code - Electric Infrastructure Storm Hardening

Pursuant to Rule 25-6.0342, Florida Administrative Code, each IOU is required to file a comprehensive storm hardening plan for our review and approval by May 7, 2007, and every three years thereafter. Upon petition or on our own motion, we may review and approve changes to the storm hardening plans more frequently than every three years.

Pursuant to the rule, each IOUs' storm hardening plan is explicitly required to address all the key elements associated with facility hardening, including:

- Compliance, at a minimum, with the National Electrical Safety Code.
- The applicability of extreme wind loading standards for new and replacement distribution facilities.
- Mitigation of damage to underground facilities and supporting overhead facilities due to flooding and storm surges.
- Safe and efficient access for the installation and maintenance of new and replacement distribution facilities.

The plans must also include a detailed explanation of each utility's deployment strategy. Each plan must contain a description of the facilities affected and the technical design specifications, standards, and construction methodologies to be used. The communities and areas within the utility's service area affected by the plan must be identified. Critical infrastructure must also be defined.

To gain our approval of its storm hardening plan, each IOU must demonstrate that its plan is prudent, practical, and cost-effective for all affected parties, including third-party attachers. Each storm hardening plan must identify the extent to which collocation facilities are affected. Attachment Standards and Procedures governing the safety, reliability, pole loading capacity, and engineering standards and procedures for third-party attachments must be included. Each plan must contain an estimate of the costs and benefits to the IOU, such as reductions in storm restoration costs and outages. Further, each plan must provide an estimate of the costs and benefits to third-party attachers, with such information to be provided to the IOU by the affected third-party attachers.

When we approved Rule 25-6.0342, Florida Administrative Code, we found that requiring the IOUs to submit storm hardening plans for our approval will meet the objectives of enhancing reliability and reducing restoration costs and outage times. At the same time, we would be able to fully address the concerns over potential undue cost incurrence by or cost shifting to third-party attachers.

On May 7, 2007, Florida Power & Light Company (FPL), Progress Energy Florida, Inc., (PEF), Tampa Electric Company (TECO), and Gulf Power Company (Gulf) each filed its 2007 Electric Infrastructure Storm Hardening Plans (Storm Hardening Plan). Each utility's Storm Hardening Plan incorporates its respective reliability report filed March 1, 2007, as required by Rule 25-6.0455, Florida Administrative Code. Docket Nos. 070297-EI (TECO), 070298-EI (PEF), 070299-EI (Gulf), and 070301-EI (FPL) were opened to address each filing.

On May 14, 2007, a Request for Preliminary Comments from Interested Persons and Third-Party Attachers regarding each Storm Hardening Plan was issued. Response to the request was voluntary. Comments were received from the following entities:

- TECO (Docket No. 070297-EI) – Verizon Florida LLC, BellSouth Communications d/b/a AT&T Florida and TCG South Florida, Inc., Embarq Florida, Inc., Florida Cable Telecommunication Association, Inc., and Time Warner of Florida, LLP.

- PEF (Docket No. 070298-EI) – Verizon Florida LLC, BellSouth Communications d/b/a AT&T Florida, Embarq Florida, Inc., Florida Cable Telecommunication Association, Inc., and Time Warner of Florida, LLP.

- Gulf (Docket No. 070299-EI) –the City of Panama City Beach and the Panama City Beach Community Redevelopment Agency, BellSouth Communications d/b/a AT&T Florida, Embarq Florida, Inc., and Florida Cable Telecommunication Association, Inc.

- FPL – (Docket No. 070301-EI) – Verizon Florida LLC, the Municipal Underground Utilities Consortium, the Town of Palm Beach, the Town of Jupiter Island, BellSouth Communications d/b/a AT&T Florida, Embarq Florida, Inc., Florida Cable Telecommunication Association, Inc., and Time Warner of Florida, LLP.

On May 25, 2007, the City of Panama City Beach and the Panama City Beach Community Redevelopment Agency filed a Petition to Intervene in Docket No. 070299-EI (Gulf); on May 25, 2007, the Town of Palm Beach and the Town of Jupiter Island each filed a Petition to Intervene in Docket No. 070301-EI (FPL); On May 29, 2007, Verizon Florida LLC filed separate Petitions to Intervene in Docket Nos. 070297-EI (TECO), 070298-EI (PEF), and 070301-EI (FPL); on May 30, 2007, BellSouth Communications d/b/a AT&T Florida and TCG South Florida, Inc. filed a Petition to Intervene in Docket No. 070297-EI (TECO); and also on May 30, 2007, BellSouth Communications d/b/a AT&T Florida filed Petitions to Intervene in Docket Nos. 070298-EI (PEF), 070299-EI (Gulf), 070300-EI (FPUC), and 070301-EI (FPL).

We have jurisdiction to address these matters pursuant to Sections 366.04 and 366.05, Florida Statutes.

SCHEDULING DOCKETS DIRECTLY FOR HEARING

As set forth in more detail below, our staff has identified several areas in which additional support for each IOUs' Storm Hardening Plan will be necessary to verify that the scope of each Plan satisfies the intent of Rule 25-6.0342, Florida Administrative Code. Accordingly, Docket Nos. 070297-EI, 070298-EI, 070299-EI, and 070301-EI shall be scheduled directly for a formal administrative hearing, thereby allowing our staff to conduct formal discovery and to ensure adequate participation by intervenors and third-party attachers. As part of the hearing process, our staff shall conduct a series of informal workshops to allow parties and staff to identify disputed issues and potential areas for stipulation.

Table 1 is a summary of the elements contained in each of the Storm Hardening Plans. In addition, an analysis is provided below for each Plan identifying areas in which further support may be necessary to verify that the scope of the Plan satisfies the intent of Rule 25-6.0342, Florida Administrative Code.

TABLE 1
Rule 25-6.0342 F.A.C. Compliance Filings and Summary

UTILITY / PLAN COMPONENTS	FPL	PEF	TECO	GULF
Extreme Wind Loading (EWL)	Adopted for all existing and new feeders and laterals serving Critical Infrastructure Facilities.	Not adopted system wide.	Experimental basis on three feeders serving Critical Infrastructure Facilities only.	Adopted for all existing and new feeders and laterals serving Critical Infrastructure Facilities.
Incremental Hardening	Targeted existing feeders – initial focus on Community Projects.	Initial projects PEF identified using its AIS model and/or storm experiences.	Consists of implementing the Commission's 10 initiatives.	Targeting 11 existing sites over 3 years.
Design Guidelines	Applying EWL to all new overhead facilities, major planned work, relocations, and daily work activities. Focus on pole class, pole type, and span lengths.	PEF's default distribution design criteria is 60 mph (NESC Grade C) unless otherwise explicitly required by the NESC (Grade B = 116 mph). Applying the Asset Investment Strategy Model.	Applying NESC construction grade B (116 mph).	GULF's default distribution wind loading design criteria is 60 mph (NESC Grade C) unless otherwise explicitly required by the NESC. Applying EWL to only Critical Infrastructure Facilities.
Distribution Projects	2007: 145 circuit miles. Costs ranging from $40 to $70 million. 2008: 300-600 miles 2008: $75-$125million 2009: $100-$150 million	Multiple projects 2007: $43 million 2008: $43 million 2009: $43 million	2007: 3-5 projects, total costs: $1million 2008 and 2009: Continued 2007 projects and includes 2 new projects. $1million in 2008; $1million in 2009.	2007: 149 poles, total costs: $523,000. 2008 and 2009: Additional 140 and 161 poles. $499,229 in 2008; $563,479 in 2009.
Transmission Projects	Replace single pole un-guyed wood transmission structures and ceramic post insulators on concrete poles to meet higher standards. Replacement over 10-15 year period. Estimated cost from $5-8 million; $7 million for 2007.	Systemic changing out wood pole to either concrete or steel. 66 transmission projects listed for the next three years. Includes 20 governmental relocations. 2007: $49 million 2008: $56 million 2009: $56 million	10 Commission initiatives - $8 million annually	Ongoing 10 Commission initiatives.
Third-Party Collaboration	Dialog with Third-Parties occurred and modifications reflect consideration of input. Complete comments received from attaching entities attached and included in the Plan	Dialog with Third-Parties occurred. FCTA questions the sufficiency of the details provided and permitting requirements for overlashing.	Dialog with Third-Parties omitted. Requirements and process is discussed.	Dialog with Third-Parties occurred. FCTA appears to believe GULF's revised collocation process is excessive.

Ten Point Initiatives part of Hardening Plan	Yes	Yes	Yes	Yes

Florida Power & Light Company's Plan (Docket No. 070301-EI)

In its Storm Hardening Plan, FPL proposes to continue implementing pole inspections, the required ten ongoing storm hardening initiatives, and implementation of a new extreme wind loading (EWL) criteria throughout its service area for the distribution system. FPL proposes to establish three different EWL zones:

- A 145 miles per hour EWL zone for the following eight southern coastal counties: Broward, Dade, Collier, Indian River, Monroe, Palm Beach, and St Lucie.
- A 130 miles per hour EWL zone throughout FPL's central Florida counties of Alachua, Brevard, Charlotte, Clay, De Soto, Duval, Flagler, Glades, Hardee, Hendry, Highlands, Lee, Manatee, Nassau, Okeechobee, Osceola, Orange, Putnam, Sarasota, Seminole, St. Johns, and Volusia.
- A 105 miles per hour EWL zone for the extreme northern and inland counties of Baker, Bradford, Columbia, Suwannee, and Union.

FPL's focus is placed on upgrading electric distribution facilities serving critical infrastructure facilities (CIF). CIFs are identified in coordination with Florida's Emergency Operations Center and include hospitals, 911 centers, ports, special needs shelters, water treatment plants, fire stations, and similar sites. Additionally, FPL proposes incremental hardening of targeted electrical facilities that are located at key locations such as interstate crossings, grocery stores, gas stations, pharmacies, and FPL control systems.

FPL's proposed design guidelines for distribution facilities apply the three EWL zone criteria to all new construction, major planned work, relocations, and daily work activities. FPL's distribution design guidelines implement its three EWL zone standard by using a designing toolkit that evaluates site specific costs for options such as stronger poles, shorter distances between poles, additional support guys, and underground construction. FPL's minimum construction standard will be Grade B as identified by the National Electrical Safety Code (NESC). Grade B construction is equivalent to designing for a wind load of 116 miles per hour.

Additionally, FPL's proposed Plan requires continued implementation of the ten storm hardening initiatives and wooden pole inspection program, which have been reviewed by Order Nos. PSC-06-0144-PAA-EI, PSC-07-0078-PAA-EU, PSC-06-781-PAA-EI, and PSC-06-0947-PAA-EI. FPL filed an update and status report to each of these activities on March 1, 2007. FPL's Storm Hardening Plan incorporates the March 1, 2007, report by reference.

FPL clarified that the total estimated costs for implementing its Plan for 2007 range from $160 to $205 million based on a review of both the May 2007 and March 2007 filings. The range in cost estimates is dependent on the scope of EWL upgrade activities and post-inspection follow-up work associated with pole inspections and transmission facility inspections.

Cost Estimates for FPL's Proposed Storm Hardening Plan

	Extreme Wind Loading (Dollars in Millions)	Implementing Storm Surge and Flooding Mitigation (Dollars in Millions)	Pole Inspections and Ten Other Hardening Initiatives (Dollars in Millions)	Estimated Total Cost (Dollars in Millions)	Number of Customers Year-End 2006	Estimated Plan Cost per Customer
2007	$ 40 - $ 70	$0.5 – $2	$119.7 – $133	$160 – $205	4,415,411	$36 - $46
2008	$ 75 - $125	Not Reported	Not Reported			
2009	$100 - $150	Not Reported	Not Reported			

Preliminary Analysis

Our staff has identified the following areas in which FPL should provide additional support for its Storm Hardening Plan:

Mitigation of Flood and Storm Surge Damages to Underground Facilities

FPL identifies only two activities related to mitigating flood and storm surge damages and costs. One activity, on Jupiter Island, is a field test of a specific vendor's product. FPL's other activity is promotion of a pilot Governmental Adjustment Factor (GAF) tariff. Thus, our staff believes FPL's Plan is limited in scope and relies on a "trial-by-experience" approach because the Plan does not address a comprehensive proactive effort to assess options to mitigate flood and storm surge issues that impact underground electric infrastructure.

Cost-effective Reduction of Storm Damage Costs and Outages

FPL's report does not include an estimate of storm restoration cost reduction and an estimate of reduced storm caused outages. Our staff believes that FPL has the skills, expertise, and data to make estimates of potential reduction in storm restoration costs and outages that may occur in response to increases in various storm hardening options. Therefore, our staff believes excluding estimated benefit data does not appear to be reasonable because FPL has the opportunity and the resources to make estimates of reduced storm restoration costs and outages.

In addition, FPL does not fully explain the process of how it will monitor the various programs and activities to ensure that the overarching goals of lower storm restoration costs and fewer storm outages are achieved economically. While certain aspects of verifying customer benefits depend on future storm experiences, it is possible to test elements of a utility's planned activities through simulated extreme weather events and thereby avoiding complete reliance on a "trial-by-experience" approach.

Details of Storm Hardening Activities

While FPL provides costs estimates of its EWL activities and transmission activities through 2009, FPL fails to separately identify ongoing costs to mitigate flood and storm surge impacts on underground systems, and costs beyond 2007 for other ongoing storm hardening initiatives. At a minimum, our staff believes that FPL should specifically provide the location, scope, and cost of each storm hardening project scheduled for 2007, as well as the criteria for selecting that site for storm hardening.

Consideration of Input from Interested Parties

FPL solicited and considered input from collocated utilities and third-party attachers. Comments by these affected parties suggests to staff that the 90-day period set by rule may have limited the level of dialog between FPL and affected parties. FPL represents that dialog with these parties is ongoing. However, the nature of that dialog is primarily on aspects of the pole owner/attacher processes and is not expected to materially impact the scope of FPL's storm hardening activities.

Operational Expense Differential Between Overhead and Underground Distribution Systems required for Calculation of Contribution-In-Aid-of-Construction (CIAC) pursuant to Rules 25-6.078 and 25-6.115, Florida Administrative Code

In its CIAC tariff docket, FPL represented that it would be providing operational expense differential between overhead and underground distribution systems in its May 7, 2007, Storm Hardening Plan. In our Order approving the CIAC tariff, we acknowledged:

> FPL states that its May 7, 2007, storm hardening plans will include standardized values to capture differences in operational costs between overhead and underground facilities. FPL states that until this Commission approves its operational costs, CIAC calculations do not include an amount to reflect operational costs . . . These issues can and likely will be raised in the near future, in a new docket, now that the May 7, 2007, storm hardening plans have been filed.

(See Order No. PSC-07-0442-TRF-EI, page 10) However, FPL's filed Storm Hardening Plan contains no support for assessing the operational expense differential between overhead and underground distribution systems, yet FPL asserts it has proposed a cost-effective plan. Staff believes FPL has the information necessary to determine the operation expense differential between FPL's overhead and underground systems, and should provide us with that information.

Progress Energy Florida, Inc's Plan (Docket No. 070298-EI)

PEF's Storm Hardening Plan proposes to continue implementing pole inspections, the ten ongoing storm hardening initiatives already required, and to continue maintaining its existing minimum distribution wind load design standard of NESC construction grade "C" (60 miles per hour) for distribution facilities throughout its service area.

PEF asserts there is no objective data supporting application of EWL criteria to electric distribution facilities. Thus, PEF proposes no change to its EWL criteria throughout its service area. Notwithstanding, PEF has proposed to convert nineteen existing major highway crossings from overhead facilities to underground facilities. This activity ensures that high wind events will not cause downed power lines that could impede use of major transportation routes. PEF also developed a proprietary project evaluation tool called Asset Investment Strategy (AIS) which is used to screen each project for potential storm hardening opportunities. The AIS tool may result in the expansion or modification of projects based on storm hardening benefits. PEF is using the AIS tool throughout its service area to ensure a systematic and analytical approach is used to deploy storm hardening options.

PEF's proposed design guidelines for distribution facilities apply the NESC construction Grade C as the standard throughout its service area. PEF's guidelines also require implementing Grade B construction (116 miles per hour wind loading) consistent with the requirements of the NESC. Any change from these standards must be supported by an analysis using the AIS tool.

PEF's estimated costs for implementing its Plan for the years 2007, 2008 and 2009, are $91 million, $98.7 million, and $99.3 million, respectively. PEF's Plan does not separately identify EWL and underground project costs from general storm hardening costs.

Cost Estimates for PEF's Proposed Storm Hardening Plan

	Extreme Wind Loading (Dollars in Millions)	Implementing Storm Surge and Flooding Mitigation (Dollars in Millions)	Pole Inspections and Ten Other Hardening Initiatives (Dollars in Millions)	Transmission & Distribution Hardening (Dollars in Millions)	Estimated Total Cost (Dollars in Millions)	Number of Customers Year-End 2006	Estimated Plan Cost per Customer
2007	Not Reported	Not Reported	$42.6	$48.6	$91	1,615,514	$56
2008	Not Reported	Not Reported	$42.8	$55.9	$99		
2009	Not Reported	Not Reported	$43.2	$56.1	$99		

Preliminary Analysis

Our staff has identified the following areas in which PEF should provide additional support for its Storm Hardening Plan:

Extreme Wind Load Criteria

Our staff believes substantive support for PEF's 60 mile per hour wind speed loading criteria has not been justified. PEF's Storm Hardening Plan generally refers to its historical field experiences and that PEF has plans to gain more experience. However, PEF does not address any specific efforts to verify or test its proposition that a 60 mile per hour wind speed loading criteria is appropriate for all of its service area. Thus, our staff is not convinced that PEF's Plan

adequately addresses an EWL criteria for PEF's service area. This is of specific concern because adjacent utilities, FPL and TECO, support a minimum extreme wind load criteria of 116 miles per hour in areas where PEF's service area abuts that of the other utility's service area. Additionally, we note that PEF sustained higher damage costs on a per customer basis than either FPL or TECO.

2004 Self-Insured Storm Damage Impact
FPL, PEF, TECO, and Gulf

	Charley (Millions)	Frances (Millions)	Ivan (Millions)	Jeanne (Millions)	Total (Millions)	Millions of Customers	Cost per Customer
FPL	$ 209	$267	$ 0	$234	$ 710	4.4	$161
PEF	$ 146	$129	$ 6	$ 86	$ 367	1.6	$229
TECO	$ 14	$ 23	$ 0	$ 28	$ 65	0.7	$93
GULF	$ 0	$ 0	$ 134	$ 0	$ 134	0.4	$335

Sources: Docket No. 041291-EI for FPL; Docket No. 041272-EI for PEF; and answers to staff data requests for TECO and Gulf.

While there are many factors contributing to the level of storm damage experienced by each of these utilities, PEF's filings do not provide conclusive support for a lower EWL criteria than neighboring utilities which serve in areas that experience equivalent extreme wind speeds.

Mitigation of Flood and Storm Surge Damages to Underground Facilities

PEF's Plan appears to discourage use of underground in locations at risk for storm surge and flooding. Underground construction is promoted only in areas exposed to minor storm surge and/or short-term water intrusion. While PEF generically discusses the use of its AIS to promote storm hardened underground facilities, PEF failed to state the specific scope and cost of its storm hardening activities.

Identification of Storm Hardening Activities Resultant Costs and Benefits

Our staff believes the scope and costs of PEF's storm hardening activities are not clearly stated. PEF's Plan does not identify the incremental storm hardening activities, resultant costs, and benefits that PEF implements through the use of its proprietary project evaluation tool, AIS. Instead, PEF's storm hardening activities appear to include all projects and resultant company incurred costs for customer requests, governmental improvements, purchases of other utility facilities, growth spurred conductor upgrades, and new facilities required to address growth.

Our staff believes PEF has the skills, expertise, and data to make estimates of potential reduction in storm restoration costs and outages that may occur in response to increases in various storm hardening options. PEF's implementation of its AIS planning tool appears to demonstrate PEF's ability to estimate benefits resulting from storm hardening. Therefore, our

staff believes excluding estimated benefit data and assessment of an EWL criterion does not appear to be reasonable because PEF has the opportunity and the resources to make estimates of reduced storm restoration costs and outages.

Cost-Effective Reduction of Storm Damage Costs and Outages

Our staff believes that the cost-effectiveness of PEF's proposed Storm Hardening Plan is not fully supported because PEF's costs per customer are higher than other utilities and its EWL criterion is lower than other utilities. As noted, PEF is not proposing any changes to its EWL criteria and has not identified substantive increases promoting underground facilities. Nevertheless, PEF's cost estimates, on a per customer basis, of $56 exceed that of FPL ($36-$46) and TECO ($37). Both FPL and TECO are promoting a more robust wind standard than PEF. Therefore, it appears that PEF may be proposing higher cost programs to achieve a less robust electric infrastructure system compared to other utilities.

In general, certain aspects of verifying customer benefits depend on future storm experiences. Nevertheless, it is also possible to test elements of PEF's planned activities through simulated extreme weather events and thereby avoiding complete reliance on a "trial-by-experience" approach. Thus, our staff believes PEF's Plan does not adequately discuss a feed-back mechanism that ensures that the overarching goals of lower storm restoration costs and fewer storm outages are achieved economically.

Details of Storm Hardening Activities

Like the other utilities, PEF has not explicitly provided all cost components for deploying the Plan. While PEF provided cost estimates of its activities through 2009, PEF failed to separately identify ongoing costs to mitigate flood and storm surge impacts on underground systems and costs for extreme wind criteria. Our staff believes PEF needs to provide site-specific details for its proposed storm hardening activities. At a minimum, PEF should specifically show the location, scope, and cost of each storm hardening project scheduled for 2007 as well as the criteria for selecting that site for storm hardening.

Consideration of Input from Interested Parties

PEF solicited and considered input from collocated utilities and third-party attachers. Comment by these affected parties suggests that the 90-day period set by rule may have limited the level of dialog between PEF and affected parties. PEF asserts that dialog with these parties is ongoing. However, the nature of that dialog focuses on aspects of the pole owner/attacher processes, which is not expected to materially impact the scope of PEF's storm hardening activities.

Operational Expense Differential Between Overhead and Underground Distribution Systems required for Calculation of Contribution-In-Aid-of-Construction (CIAC) pursuant to Rules 25-6.078 and 25-6.115, Florida Administrative Code

PEF's filed Plan contains no support for assessing the operational expense differential between overhead and underground distribution systems. PEF asserts it has proposed a cost-effective plan. Thus, our staff believes PEF has the information necessary to determine the operational expense differential between PEF's overhead and underground systems.

Tampa Electric Company's Plan (Docket No. 070297-EI)

TECO's Plan proposes to continue implementing pole inspections, the ten ongoing storm hardening initiatives already required, and to continue maintaining its existing minimum distribution wind load design standard of NESC construction grade "B" (116 miles per hour) for distribution facilities throughout its service area.

TECO's service area, pursuant to the NESC Figure 250(d), has a history of extreme high wind speeds ranging between 110 and 120 miles per hour. TECO reviewed a 150-year history of hurricane events and tropical storms for wind speeds within its service area and found that the maximum sustained wind speed was 115 miles per hour. Thus, TECO concluded that their current EWL criterion is reasonable and should be maintained. However, TECO proposes to implement various site specific storm hardening projects that are focused on certain critical infrastructure.

TECO's proposed projects include testing and improving its downtown Tampa underground network for flood conditions and upgrading various old 4KV distribution circuits to current 13KV standards. TECO also plans to convert twelve existing major highway crossings from overhead distribution facilities to underground facilities and to upgrade electric facilities serving the Port of Tampa, St. Joseph's Hospital, and the Tampa International Airport.

Cost Estimates for TECO's Proposed Storm Hardening Plan

	Extreme Wind Loading	Implementing Storm Surge and Flooding Mitigation	Pole Inspections and Ten Other Hardening Initiatives	Transmission & Distribution Hardening	Number of Customers Year-End 2006	Estimated Plan Cost per Customer
2007	$760,000	$20,000	$23,177,000	$242,000	662,511	$37
2008	$310,000	$20,000	$26,461,000	$680,000		
2009	$858,000	$20,000	$27,360,000	$200,000		

TECO's estimated costs for implementing the plan for the years 2007, 2008, and 2009 are $24.2 million, $27.5 million, and $28.4 million, respectively. The costs for storm surge and flood mitigation are those estimated for TECO's downtown Tampa network project. The costs for EWL are those estimated for TECO's planned activities at the Port of Tampa, St. Joseph's Hospital, and the Tampa International Airport. TECO's planned upgrade of its 4KV circuits and

planned conversions to underground crossing of interstate highways are included in the amount shown for transmission and distribution hardening projects.

Preliminary Analysis

Our staff has identified the following areas in which TECO should provide additional support for its Storm Hardening Plan:

Mitigation of Flood and Storm Surge Damages to Underground Facilities

TECO's Plan, at pages 17 through 18, appears to discourage use of underground in coastal regions or regions prone to flooding or storm surge of 12 feet or larger which could occur during a category three hurricane. At page 11, TECO noted that its service area has experienced at least two category three hurricanes. However, TECO's Plan identifies only one activity related to mitigating flood and storm surge damages and costs which is the downtown Tampa network project.

Our staff believes TECO's efforts to mitigate flood and storm surge damages to underground facilities may be insufficient. Simply trying to discourage customers from pursuing such projects does not address mitigation of future storm damages. Customer requests can result in placing electrical facilities underground in high flood and surge risk areas. Also, TECO's project in downtown Tampa is limited and may only address highly urban areas. Our staff is concerned that TECO's Plan does not address efforts to mitigate damage to underground systems in cases where customers request to have underground systems in high flood or surge risk area.

Cost-Effective Reduction of Storm Damage Costs and Outages

Estimates of reduced storm restoration costs and outages are not quantified. Our staff believes TECO has the skills, expertise, and data to make estimates of potential reduction in storm restoration costs and outages that may occur in response to increases in various storm hardening options. Therefore, our staff believes excluding estimated benefit data does not appear to be reasonable because TECO has the opportunity and the resources to make estimates of reduced storm restoration costs and outages.

In general, certain aspects of verifying customer benefits depend on future storm experiences. Nevertheless, it is also possible to test elements of TECO's planned activities through simulated extreme weather events and thereby avoiding complete reliance on a "trial-by-experience" approach. Thus, our staff believes TECO's Plan does not adequately discuss a general feed-back mechanism that ensures the overarching goals of lower storm restoration costs and fewer storm outages are achieved economically.

Limited Storm Hardening of Critical Infrastructure

TECO's storm hardening of electric facilities serving critical infrastructure locations appears limited. Whether this is because TECO has been practicing an equivalent EWL criterion of 116 miles per hour is unclear. TECO's Plan does not fully discuss its efforts to coordinate

identification of critical infrastructure sites and how TECO makes its evaluations for storm hardening options on new construction, relocations, major rebuild projects, and daily activities.

Consideration of Input from Interested Parties

TECO solicited and considered input from collocated utilities and third-party attachers. While TECO's report does not discuss substantive considerations, TECO's petition and supplemental information is evidence that TECO took measures as required by the rule. Our staff believes the 90-day period set by rule may have limited the level of dialog between TECO and affected parties. TECO represents that dialog with these parties is ongoing. However, the nature of that dialog is primarily on aspects of the pole owner/attacher processes and is not expected to materially impact the scope of TECO's storm hardening activities.

Operational Expense Differential Between Overhead and Underground Distribution Systems required for Calculation of Contribution-In-Aid-of-Construction (CIAC) pursuant to Rules 25-6.078 and 25-6.115, Florida Administrative Code

TECO's filed plan contains no support for assessing the operational expense differential between overhead and underground distribution systems. TECO asserts it has proposed a cost-effective plan. Thus, our staff believes TECO has the information necessary to determine the operation expense differential between TECO's overhead and underground systems.

Gulf Power Company's Plan (Docket No. 070299-EI)

Gulf's Plan proposes to continue implementing pole inspections, the ten ongoing storm hardening initiatives already required, and to continue maintaining its existing minimum distribution wind load design standard of NESC construction grade "C" (60 miles per hour) for distribution facilities throughout its service area.

Gulf's Plan does not change its minimum wind loading design criterion because Gulf asserts it lacks the data to support the benefits associated with applying extreme wind load standards. Nevertheless, Gulf concluded that a targeted upgrade of facilities serving critical facilities was appropriate. Input from the County Emergency Operating Centers was used to identify key sites to be upgraded. Gulf's Storm Hardening Plan includes a map that generally indicated where the selected sites are located and tables listing the impacted feeder circuit identification numbers, an estimate of the number of poles impacted, miles of facilities, and costs.

A key component of Gulf's Plan is continued implementation of the ten storm hardening initiatives and pole inspection program which we have reviewed and approved. Gulf filed an update and status report to each of these activities on March 1, 2007.

As filed, Gulf's estimated costs for implementing its Plan contained incremental costs. Gulf defines incremental costs as costs for activities or level of activities not contemplated when Gulf's rates were last set. Gulf clarified that the incremental cost concept only applies to vegetation management, transmission structure inspections, and storm hardening of transmission

structures. We note that including the total costs for these three activities is consistent with cost estimates provided by other utilities. Each of Gulf's cost estimates are provided in the table below.

Cost Estimates for Gulf's Proposed Storm Hardening Plan Using Incremental Costs

	Extreme Wind Loading	Implementing Storm Surge and Flooding Mitigation	Pole Inspections and Ten Other Hardening Initiatives	Number of Customers Year-End 2006	Estimated Plan Cost per Customer
2007	$523,610	Not Reported	$3,687,000	418,892	$10
2008	$499,299	Not Reported	$3,738,000		
2009	$563,479	Not Reported	$3,787,000		

Cost Estimates for Gulf's Proposed Storm Hardening Plan Using Total Costs

	Extreme Wind Loading	Implementing Storm Surge and Flooding Mitigation	Pole Inspections and Ten Other Hardening Initiatives	Number of Customers Year-End 2006	Estimated Plan Cost per Customer
2007	$523,610	Not Reported	$10,560,691	418,892	$26
2008	$499,299	Not Reported	$9,986,270		
2009	$563,479	Not Reported	$10,038,275		

Preliminary Analysis

Our staff has identified the following areas in which Gulf should provide additional support for its Storm Hardening Plan:

Extreme Wind Load Criteria

Gulf did not provide substantive support for its 60 mile per hour wind speed loading criterion for distribution facilities. GULF appears to rely on the absence of benefit analysis data as support for its position. Prospectively, Gulf plans to use future storm performance assessments at its identified eleven projects to test its proposition that a 60-mile per hour wind speed loading criteria is appropriate for all of its service area. Our staff believes this apparent "trial-by-experience" approach is not proactive. Our staff also believes Gulf's approach does not materially reduce future storm restoration costs and outages that may occur within the next three years.

As shown in the table below, both Gulf and PEF, who support a lower wind speed design standard, sustained higher damage costs on a per customer basis than FPL or TECO. While there may be many factors contributing to the level of storm damage experienced by each of these utilities, Gulf's filings do not provide conclusive support for a lower wind design standard for areas within Gulf's service area that are known to experience wind speeds higher than 60 miles per hour as shown in Gulf's Appendix 1.

2004 Self-Insured Storm Damage Impact
FPL, PEF, TECO, and Gulf
Net of Insurance Reimbursements

	Charley (Millions)	Frances (Millions)	Ivan (Millions)	Jeanne (Millions)	Total (Millions)	Millions of Customers	Cost per Customer
FPL	$ 209	$267	$ 0	$234	$ 710	4.4	$161
PEF	$ 146	$129	$ 6	$ 86	$ 367	1.6	$229
TECO	$ 14	$ 23	$ 0	$ 28	$ 65	0.7	$93
GULF	$ 0	$ 0	$ 134	$ 0	$ 134	0.4	$335

Sources: Docket No. 041291-EI for FPL; Docket No. 041272-EI for PEF; and answers to staff data requests for TECO and Gulf.

Our staff believes Gulf's recent experiences during 2004 and 2005 demonstrates that Gulf's service area is likely to experience high wind speeds consistent with those shown in Gulf's filing, Appendix 1, which range from 140 to 110 miles per hour. Gulf's report, in Appendices 5 and 6, describe specific storm hardening actions for both overhead and underground facilities. Our staff believes Gulf could not have established recommended storm hardening actions without assessing possible benefits derived from such actions. Thus, staff believes that Gulf has demonstrated it has the skills, expertise, and data to make estimates of potential reduction in storm restoration costs and outages for various storm hardening options such as increased pole strength, additional guys, and short spans. Our staff believes the absence of benefit data is not reasonable because Gulf has the opportunity and the resources to make estimates of reduced storm restoration costs and outages.

Mitigation of Flood and Storm Surge Damages to Underground Facilities

Gulf's Plan, at Appendix 6, page 1, states, "Gulf Power's Underground Distribution Facilities shall, where practical, be storm hardened to the extent practical using the methods described in this section." Sections 6 and 9 of Gulf's Plan do not identify any specific effort to mitigate costs and outages on underground systems due to flooding and storm surge. While it appears that Gulf is not evaluating storm surge problems, some level of review must have occurred because Appendix 6 contains specific methods to mitigate effects of storm surge for vaults used in underground systems. Consequently, our staff believes the scope and costs of Gulf's efforts to mitigate flood and storm surge damages to underground system is unclear and requires additional support.

Identification of Storm Hardening Activities, Resultant Costs and Benefits

Our staff believes few storm hardening activities were identified in Gulf's Plan because Gulf asserts it cannot estimate the reduction in storm restoration costs and outages that will result from the proposed storm hardening initiatives. Gulf asserts it needs data to make such estimates. However, Gulf's Plan does not propose a program that substantively evaluates new projects,

relocations, and daily activities for storm hardening options. Consequently, Gulf's Plan may not provide Gulf with the missing data because Gulf is not looking for the missing data. Our staff is concerned that Gulf has implemented a circular reasoning process that may serve to indefinitely postpone any substantive identification of new storm hardening activities, benefits, or costs that may accrue to Gulf's current and future customers.

Cost-Effective Reduction of Storm Damage Costs and Outages

Our staff believes the cost-effectiveness of Gulf's proposed Plan is not fully supported because: (1) Gulf has not estimated reductions in storm restoration costs and outages and (2) Gulf has not implemented a process to assess new projects, relocations, or major rebuild projects for storm hardening options.

In general, certain aspects of verifying customer benefits depend on future storm experiences. Nevertheless, it is also possible to test elements of Gulf's planned activities through simulated extreme weather events and thereby avoiding complete reliance on a "trial-by-experience" approach. Gulf's Plan does not adequately discuss a feed-back mechanism that ensures that the overarching goals of lower storm restoration costs and fewer storm outages are achieved economically.

Consideration of Input from Interested Parties

Gulf solicited and considered input from collocated utilities and third-party attachers. Comment by these affected parties suggests that the 90-day period set by rule may have limited the level of dialog between Gulf and affected parties. Gulf represents that dialog with these parties is ongoing. However, the nature of that dialog is primarily on aspects of the pole owner/attacher processes and is not expected to materially impact the scope of Gulf's storm hardening activities.

Operational Expense Differential Between Overhead and Underground Distribution Systems required for Calculation of Contribution-In-Aid-of-Construction (CIAC) pursuant to Rules 25-6.078 and 25-6.115, Florida Administrative Code

Gulf's filed Plan contains no support for assessing the operational expense differential between overhead and underground distribution systems. Gulf asserts it has proposed a cost-effective plan. Thus, our staff believes Gulf has the information necessary to determine the operation expense differential between its overhead and underground systems.

Conclusion

As set forth above, our staff has identified several areas in which additional support for each IOUs' Storm Hardening Plan will be necessary to verify that the scope of each Plan satisfies the intent of Rule 25-6.0342, Florida Administrative Code. Accordingly, Docket Nos. 070297-EI, 070298-EI, 070299-EI, and 070301-EI shall be scheduled directly for a formal administrative hearing, thereby allowing our staff to conduct formal discovery and to ensure adequate participation by intervenors and third-party attachers. As part of the hearing process, our staff

shall conduct a series of informal workshops to allow parties and staff to identify disputed issues and potential areas for stipulation. Docket Nos. 070297-EI, 070298-EI, 070299-EI, and 070301-EI shall remain open pending our review of each 2007 Storm Hardening Plan.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that Docket Nos. 070297-EI, 070298-EI, 070299-EI, and 070301-EI shall be scheduled directly for a formal administrative hearing. It is further

ORDERED that as part of the hearing process, our staff shall conduct a series of informal workshops to allow parties and staff to identify disputed issues and potential areas for stipulation. It is further

ORDERED that Docket Nos. 070297-EI, 070298-EI, 070299-EI, and 070301-EI shall remain open pending our review of each 2007 Storm Hardening Plan.

By ORDER of the Florida Public Service Commission this 9th day of July, 2007.

ANN COLE
Commission Clerk

(SEAL)

LAH

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request: 1) reconsideration of the decision by filing a motion for reconsideration with the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Office of Commission Clerk, and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.