

Susan D. Ritenour
Secretary and Treasurer
and Regulatory Manager

One Energy Place
Pensacola, Florida 32520-0781

Tel 850.444.6231
Fax 850.444.6026
SDRITENO@southernco.com

060172



May 2, 2006

Ms. Blanca S. Bayo, Director
Division of the Commission Clerk and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee FL 32399-0870

Dear Ms. Bayo:

Attached are Gulf Power Company's written comments to Staff's April 17, 2006 Rule Development Workshop on Electric Utility Transmission and Distribution Facility Storm-Hardening (Docket Nos. 060172-EU and 060173-EU). Please call me at 850-444-6231 if you have any questions.

Sincerely,

Susan D. Ritenour (lw)

lw

Enclosure

cc: Beggs and Lane
Jeffrey A. Stone, Esquire

DOCUMENT NUMBER / DATE

03899 MAY-3 06

FPSC-COMMISSION CLERK

Gulf Power Company

RE: Post-Workshop Comments to Staff's April 17, 2006 Rule Development Workshop on
Electric Utility Transmission and Distribution Facility Storm-Hardening
(Docket Nos. 060172-EU and 060173-EU)

May 3, 2006

Purpose of Memorandum

The purpose of this Memorandum is to summarize Gulf Power Company's comments to Staff's April 17, 2006 Rule Development Workshop (Docket Nos. 060172-EU and 060173-EU).

A. Should the National Electric Safety Code be adopted as the minimum construction standard for all electric utility overhead and underground transmission and distribution facilities, including substations?

Yes. The National Electrical Safety Code could be adopted as the basis for the development of standards by each electric utility.

B. Should existing transmission and distribution facilities continue to be governed by the edition of the NESC in effect at the time of initial construction? Should existing facilities be upgraded to the current NESC standards at the time of major expansions, maintenance/rebuild, or relocation?

Yes. Existing facilities should be governed by the version of the code in effect at the time of initial construction, except existing distribution facilities should continue to be exempt with the exception of those poles located within ½ mile of the Atlantic Ocean or Gulf of Mexico coastline or are within the expected flood zone of a category 3 event.

Existing transmission facilities should be brought up to current standards when:

- (a) Expansions increase the length of the line by 50% or,
- (b) Planned rebuilds exceed 50% of the structures in the line, or
- (c) More than 50% of the structures are being relocated.

C. Should electric utilities be required to exceed the minimum requirements of the NESC to address known "hot spots" subject to repeated storm damage? If so, under what circumstances? What reporting and demonstration of prudence should be required? How should costs be recovered?

Gulf's position is that adherence to current design standards using generally accepted engineering practices in conjunction with the current pole inspection requirements and the other requirements of these rule changes will effectively harden the system in all areas. Gulf has implemented some undergrounding hardening efforts on a pilot basis and proposes to target other vulnerable areas as additional pilot projects.

The results could be reported in the Annual Distribution Reliability Review filed with the Commission each year. Costs associated with these pilot programs could be:

- a). recovered through a rate case
- b). billed to the direct beneficiaries of the hardening project, or
- c). recovered through a Storm Hardening Cost Recovery Clause.

DOCUMENT NUMBER-DATE

03899 MAY-3 8

FPSC-COMMISSION CLERK

D. Should all electric utilities be required to adhere to the extreme wind loading standards contained in the NESC in the design and construction of all transmission and distribution facilities, including substations?

Yes. Gulf Power currently uses extreme wind loading standards in the design and construction of new transmission lines and substations.

No. Distribution facilities are currently exempt from this requirement and it is Gulf's position that this exemption should remain in effect. Gulf Power has estimated that adoption of this requirement will increase distribution capital construction costs by 30% for all new construction and there will be no appreciable increase in reliability during storms. Based on experience, debris and tree failure outside the road right-of-ways were the major causes of pole failures during the past hurricanes.

E. Should all electric utilities be required to establish construction standards for underground facilities capable of protecting such facilities from flooding and storm surges in areas designated as Category 3 Surge Zones by the Department of Community Affairs, Division of Emergency Management?

No. Gulf Power has piloted several construction methods and designs for underground facilities in an attempt to protect them from flooding and storm surge. We have had some success, but no design to date could be deemed capable of "protecting" underground facilities from a Category 3 storm. Gulf Power suggest that the electric utilities be encouraged to continue trying new designs and sharing information regarding results and best practices rather than developing standards at this time.

F. How should the costs associated with meeting storm-hardened overhead and underground construction standards be reflected in Contribution-In-Aid-of-Construction (CIAC) calculations for (i) new construction, and (ii) conversion of existing overhead facilities to underground?

No specific revisions need to be made to the CIAC calculations uniquely for storm-hardening efforts. The underground construction standards may cause an increase in the cost differential between overhead and underground, but not to the extent to significantly change the proportions of new or conversion underground construction that the utilities will experience. A more likely impact will be in the determination of CIAC for added overhead facilities -- some additions may now require a CIAC contribution where they would not have without the additional costs of storm-hardening of overhead facilities. Even though overhead construction costs will now likely be higher, they will still reflect the cost to make the improvement under the new (storm-hardening) rules, hence, the applicant should still be required to pay. This prospect, however, does suggest the opportunity to look at the basic concepts of CIAC, even absent storm-hardening efforts, to determine if the 4 times revenue rule is still appropriate under the present ratios of capital investment, capital costs, margins contributing to return-on-capital, etc.. If nothing else, the CIAC rule should be revised to only give credit for "base" revenue (where "base" is defined as those charges exclusive of fuel clause, ECCR, hurricane recovery and other clauses designed to directly recover specific, actual expenses) in the revenue credit portion of the calculation.

It may be more appropriate to consider revisions to CIAC rules and Underground Differential rules separately from this consideration of specific storm-hardening activities.

G. What are the costs, benefits, and rate impacts of implementing storm-hardened overhead construction standards?

Gulf Power currently uses extreme wind loading criteria for design and construction of new transmission lines and substations, so there would be no increase in costs. However, if all

existing transmission lines are required to be brought up to current wind loading requirements, Gulf Power estimates it would spend approximately \$300 million to meet that requirement. If the rule is changed as Gulf Power has suggested, there would be no significant increases in costs.

Distribution would incur an estimated 30% increase in new overhead construction costs to meet the extreme wind loading requirements. It would require \$487 million to upgrade existing overhead distribution facilities.

Although impossible to quantify or confirm at this time, possible expected benefits of a storm-hardened overhead construction standard could be less-frequent outages and improved continuity of service during major storm-related events. These expected benefits, if proven to be valid, could possibly result in improved customer satisfaction. Collaborative research efforts with the universities may be better-able to quantify these possible benefits using utility pilot projects before major changes are made to overhead construction standards.

It is difficult to accurately define rate impacts to overhead hardening construction standards until we get clarification on the details of what is actually required.

H. What are the costs, benefits, and rate impacts of implementing storm-hardened underground construction standards?

On the basis of currently available information, it is extremely difficult to quantify the costs of implementing storm-hardened distribution underground construction standards. As discussed in Item E above, Gulf Power Company has piloted several construction methods and designs for underground facilities in an attempt to protect them from flooding and storm surge. We have had some success, but no design to date could be deemed capable of "protecting" underground facilities in all circumstances. We are hopeful that this research, along with other collaborative research in this area, will allow us to quantify expected costs associated with storm-hardened underground construction standards in the future. As a general reference, the cost of a flush-mounted, single-phase transformer is double that of a conventional, single-phase pad-mount transformer.

Gulf Power Company is not in a position at this time to confidently address expected benefits to implementing new storm-hardening underground construction standards, although we are hopeful that research (pilot) initiatives will eventually lead to improved customer benefits during a major storm-related event.

It is difficult to accurately define rate impacts to underground hardening construction standards until we get clarification on the details of what is actually required.

Specific Rule Comments

Rule 25-6.034 Standard of Construction

Subsection (2) - Suggested Re-write.

The Commission adopts and incorporates by reference the 2002 edition of the National Electric Safety Code (ANSI C-2), published August 1, 2001, as the basis for development of construction standards for the safe construction of transmission and distribution facilities built by each electric utility. Except as otherwise provided for in this rule, the standards shall be applicable to (a) new construction (b) the expansion or relocation of existing facilities, and (c) rebuild of more than 50% of the structures in a transmission segment for which a work order number is assigned on or after the effective date of this rule. A copy of the 2002 NESC, ISBN number 0-7381-2778-7, may be obtained from the Institute of Electric and Electronic Engineers, Inc. (IEEE)

Subsection (5) - Suggested Re-write.

Notwithstanding the exception contained in Section 25.250.C., Extreme Wind Loading, National Electric Safety Code, structures of 18 meters or less shall be designed to withstand extreme wind speeds as specified by Figure 250-2(d) of the 2002 edition of the National Electric Safety Code. The extreme wind loading standard shall be applicable to (a) distribution facilities located within ½ mile of the Atlantic Ocean or Gulf of Mexico coastlines or are within the expected flood zone of a category 3 event and (b) other targeted critical infrastructure facilities and major thoroughfares taking into account political and geographical boundaries and other applicable operational considerations

Rule 25-6.0345 Safety Standards for Construction of New Transmission and Distribution Facilities

No suggested changes.

Rule 25-6.064 Extension of Facilities; Contribution in Aid of Construction

Subsection (2). In CIAC formula - delete the phrase "over the new facilities"

Subsection (2)(b). Delete "There shall be no charge for". Instead, these calculation criteria (a) through (f) should be preceded by "where cost of installing the facilities: "

Subsection (2)(c). The words "standard service" are unclear; how does this definition relate to "standard installation" in Subsection (1) above?

Subsection (4). Retain the word "requiring" rather than change to "requesting".

Subsection (6). End the first sentence after the word "produce" and delete second sentence.

Subsection (8). Retain the word "may" rather than change to "shall"

Rule 25-6.078 Schedule of Charges

No suggested changes.

Rule 25-6.115 Facility Charges for Providing Underground Facilities of Public Distribution Facilities

No suggested changes.