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PROJECT NO. 32182

PUC INVESTIGATION OF METHODS §  
TO IMPROVE ELECTRIC AND §  
TELECOM INFRASTRUCTURE THAT §  
WILL MINIMIZE LONG TERM §  
OUTAGES AND RESTORATION §  
COSTS ASSOCIATED WITH §  
GULF COAST HURRICANES §

PUBLIC UTILITY COMMISSION  
OF TEXAS

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COMMENTS OF  
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC  
TO STAFF'S DRAFT EXECUTIVE SUMMARY  
FILED ON JUNE 9, 2006

Contact: DeAnn T. Walker  
CenterPoint Energy  
(512) 397-3032  
(512) 397-3050 (Fax)  
[deann.walker@CenterPointEnergy.com](mailto:deann.walker@CenterPointEnergy.com)

June 23, 2006

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<b>INVESTIGATION OF METHODS TO</b>	<b>§</b>	<b>PUBLIC UTILITY COMMISSION</b>
<b>IMPROVE ELECTRIC AND</b>	<b>§</b>	
<b>TELECOMMUNICATIONS</b>	<b>§</b>	<b>OF TEXAS</b>
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<b>HURRICANES</b>	<b>§</b>	

**COMMENTS OF  
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC  
TO STAFF'S DRAFT EXECUTIVE SUMMARY  
FILED ON JUNE 9, 2006**

On May 10, 2006, the Staff of the Public Utility Commission of Texas (the Commission) filed an executive summary and recommendations in this proceeding. A workshop to discuss the document was held on May 15, 2006, and written comments were filed on May 30, 2006. On June 9, 2006, the Staff of the Commission filed a second draft of the executive summary and recommendations in this proceeding. A workshop to discuss the document was held on June 15, 2006, and written comments are due on June 23, 2006.

CenterPoint Energy Houston Electric, LLC (CenterPoint Energy) appreciates the Staff's efforts to address the previous comments received by interested persons. There continue to be recommendations that need clarification or elimination from the recommendations. CenterPoint Energy's specific requests will be discussed below.

**I. Comments on Executive Summary**

The Executive Summary contains the following statement: "Staff recommends that the utilities report on the amount of pre-1977 facilities and to project the cost and time to upgrade the facilities to meet current wind loading standards to improve the likelihood that

infrastructure facilities will be able to withstand severe weather events.” The recommendations of the Commission Staff only apply to transmission facilities as discussed in Recommendation 5. Therefore, CenterPoint Energy requests that the Commission Staff clarify this sentence so as to limit its applicability to only transmission infrastructure. CenterPoint Energy recommends the following statement: “Staff recommends that the utilities report on the amount of pre-1977 transmission facilities and to project the cost and time to upgrade these facilities to meet current wind loading standards to improve the likelihood that pre-1977 transmission infrastructure facilities will be able to withstand severe weather events.”

## **II. Comments on Recommendations**

**Recommendation 5** *Each electric utility should provide the Commission by August 1, 2007 with a report identifying all of the utility’s transmission lines that were built to pre-1977 NESC wind loading standards. For each identified line, the report should provide the number of miles of ROW, a description of the types of structures used in the line, and an estimated cost and reasonable time required to upgrade the line to the NESC standards in effect at the time the upgrade starts. For each identified line within 10 miles of the Texas coastline, the report should include an estimated cost and reasonable time required to upgrade the line to the NESC standards in effect at the time of the upgrading assuming 140 mile-per-hour wind speed.*

CenterPoint Energy requests that several points within this recommendation be amended or clarified.

1. CenterPoint Energy applauds the Commission Staff for the changes made in this recommendation from the previous Recommendation 10. CenterPoint Energy supports the use of a study to analyze the transmission structures that do not meet current wind standards and the use of a cost benefit analysis to determine whether replacement of

certain transmission facilities is beneficial based upon the costs incurred. CenterPoint Energy believes that there will be instances in which the costs to replace these facilities will outweigh the benefit to be received by such upgrades.

In addition, CenterPoint Energy agrees that only transmission facilities built prior to the adoption of the wind standards in the 1977 edition of the National Electrical Safety Code (NESC) should be studied. In 1977, the NESC first introduced Rule 250C for Extreme Wind Loading. The rule is based on the fastest mile of wind and wind pressures and noted that the wind pressures specified may need to be further increased, recognizing that wind velocity usually increases with height. Major revisions have been made to NESC Rule 250C since 1977, most notably in 1987 (i.e. basic wind speeds) and in 2002 (i.e. 3-second gust wind speeds). 2002 NESC Rule 250C also incorporated the specific ACSE 7-98 requirements for adjusting wind loads according to height above ground and deleted the prior general note. Prior to 1977, CenterPoint Energy utilized other industry accepted design standards for extreme wind loading conditions on its transmission facilities. With the advent of the 1977 NESC wind loading criteria, transmission facilities built since that time have complied with applicable NESC standards and thus should be exempted from the study.

A complete study would be difficult to achieve in one year. Therefore, to facilitate the one year study schedule, CenterPoint Energy recommends limiting the study to a small sample (e.g. 5% of circuits) of the utility's transmission infrastructure.

2. CenterPoint Energy requests that the recommendation be amended to limit its application to transmission facilities located within 50 miles of the Texas coastline. The Commission Staff has provided such a limit in Recommendation 6. As stated by the

Commission Staff, "the effort to strengthen facilities should be focused along the Gulf Coast where major storms are more likely."

**Recommendation 6**      *Require, after January 1, 2007, all new and replacement permanent transmission structures within 50-miles of the Texas coastline to be prestressed concrete, steel, or other engineered products that are more resistant to high wind and deterioration than wood.*  
*Require, after January 1, 2007, all new and replacement permanent transmission structures within 10 miles of the Texas coastline to be designed assuming a maximum wind loading of 140 mile-per-hour.*

CenterPoint Energy estimates that this requirement will increase the Company's construction costs by \$700,000 to \$900,000 million annually without significant benefit. The recommendation should be revised to recognize the cost versus benefit differences between routine maintenance and the majority upgrading of existing transmission lines. CenterPoint Energy requests that the requirement be amended to apply to all new transmission lines and the majority upgrading of existing transmission lines, excluding routine maintenance.

CenterPoint Energy has over 3,800 multi-pole wooden H-frame structures. The H-frame structures are low-profile structures with storm guy provisions for added strength in high winds. It is typical to replace one pole in a structure at a time during maintenance cycles and to replace entire structures for major ampacity increases that incorporate re-conductoring with new high-temperature conductors. The recommendation as stated in the report would require installing a completely new steel or concrete structure at a much higher expense than just replacing the single wood pole without a significant benefit to the strength of the structure.

**Recommendation 7**     *Require each electric utility to identify and maintain records regarding each instance in which damage of transmission or distribution facilities occurred due to a weather event other than lightning. Require each electric utility to provide an annual report to the Commission that includes, for each such weather event, the date and type of weather event causing the damage, an identification and description of each facility damaged (by distribution feeder or transmission line, not by pole or structure), a description of the nature and extent of damage to each facility (feeder or line), the voltage of each facility damaged, and the approximate age (by 5-yr increments) of each facility damaged. The first report is due February 15, 2008 for calendar year 2007.*

The recommendation should be deleted. Reports submitted pursuant to PUC Subst. R. 25.52(f)(1) for distribution and PUC Subst. R. 25.83(d) for transmission are adequate for the purposes of identifying damage to facilities. The existing reports should be utilized for information on restoration events in lieu of this recommendation.

In addition, the responsibility to gather information necessary for the report will slow the restoration process. During storms, the crews that are in the field are focused on the restoration of service. Instead of a focus on restoration, the crews will be required to determine and document the causes of the damage to the facilities. CenterPoint Energy believes that this recommendation is counterproductive to the stated purpose of the investigation “to minimize the utilities’ downtime occurring as a result of Gulf Coast hurricanes.”

In the event that the recommendation is not deleted, CenterPoint Energy proposes that the recommendation be amended to require the reporting of summary data for sustained line outages for events causing repairs greater than \$250,000. As the current recommendation is drafted, there is no limit to the level of “damage” that must be reported. Yet, there is a significant range of damage that can occur to electric delivery

facilities. CenterPoint Energy's proposed amendment would provide a reasonable limit on the amount of damage to be reported. In addition, the current draft is ambiguous as to what would constitute "a weather event". CenterPoint Energy recommended language negates the necessity to define the term.

**Recommendation 9**      *If new underground distribution facilities are to be installed in the rear of residential lots, require electric utilities to work with developers and homeowners to establish buffer zones of not less than 10 feet around the facilities in which no trees or structures will be placed. Such buffer zones will ensure suitable access to the facilities for any future repair work.*

The recommendation should be deleted. CenterPoint Energy believes that the practicality of obtaining such cooperation from developers and homeowners is unlikely and would be costly. This recommendation has an economic and aesthetics impact to developers and homeowners for which they would likely want compensation. For instance, complete adherence with the recommendation would ban the use of fences in the backyards.

In the alternative, the recommendation should be clarified. The recommendation is not clear as to the standard of conduct to which the TDUs will be held. What actions by the TDUs satisfy the requirement to "work with developers and homeowners"? The Commission needs to provide clearer standards for the TDUs to meet. While the Commission Staff's comments state that presentations to homeowner associations is not sufficient, the use of bill inserts cannot be accomplished by the TDU, which is the entity required to comply with the recommendation.



**Recommendation 11**     *Staff recommends that electric utilities in Texas jointly sponsor a research project/study that evaluates the effectiveness, reasonableness and costs of retrofitting overhead distribution facilities so that, under conditions of high wind and/or ice loading, the conductors and/or support hardware will fail before the structures fail. A final project/study report, including conclusions and recommendations, should be provided to the Commission by January 1, 2007.*

CenterPoint Energy requests that this recommendation be deleted. The underlying premise for performing the study is a concept that should not be adopted; therefore, the study is unnecessary. Significant distribution safety issues are related to this recommendation. Currently, when a distribution structure fails, the conductor does not always contact the ground, but the failure mode will cause the wires to bounce together and operate the breaker and the current does not continue to flow through the conductor. Yet, if the facilities are constructed so that the conductor and its support fail first, due to winding loading, then it is likely that live conductor will be on or near the ground.

In addition, this recommendation will extend the time of outages. Currently, if a pole is leaning, the workers will straighten and brace the pole, which is not very time consuming. If the conductor support structures are designed to fail, additional time and effort will be necessary to replace the support structures and the conductor also.

Lastly, this recommendation will require the retrofitting of CenterPoint Energy's entire overhead distribution system, which will be very difficult and expensive. For these reasons, CenterPoint Energy does not believe that there is a benefit to this proposal. In fact, due to the safety concerns for the public and utility restoration workers, CenterPoint Energy believes that there are significant detriments that should eliminate the recommendation from consideration.

**Recommendation 12**     *Staff recommends initiation of a rulemaking by January 1, 2007 that directs each electric utility to conduct inspections (during the utility's regular, ground-based inspection cycle) of its distribution facilities to determine whether the amount of non-electric equipment on structures is causing an overload on those structures. The rulemaking should also direct each utility to correct all such identified overloading problems within a reasonable amount of time and to institute practices that will prevent such overloads in the future.*

CenterPoint Energy requests that this recommendation be amended as follows:

Staff recommends initiation of a rulemaking by January 1, 2007 that directs each ~~electric-utility~~ pole owner to conduct inspections (during the ~~utility~~pole owner's regular, ground-based inspection cycle) of its distribution facilities to determine whether the amount of ~~non-electric~~ equipment on structures is causing an overload on those structures. The rulemaking should also direct each ~~entity~~utility causing the overloading to correct all such identified overloading problems within a reasonable amount of time by either (a) reducing the amount of load to acceptable levels, or (b) paying the pole owner to expand capacity of the pole to support the loading condition, and to institute practices that will prevent such overloads in the future. The rulemaking shall also direct telecommunications and cable companies to prevent overloading situations by following loading standards defined by the TDU pole owners.

Both electric and telecommunication companies should be responsible for inspecting the poles owned by the entity. There are poles that are owned by telecommunication companies that are used by electric utilities and those poles should also be inspected for structural soundness. The owner of the pole should be responsible for inspection of the facilities. Likewise, the entity that owns the cable that is causing the overloading situation should be the responsible party for correcting the situation.

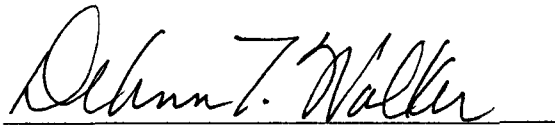
In the case where a TDU is the pole owner and a telecommunication company is the non-pole-owner utility causing the overloading, if the communication facilities need to be removed, the TDU should not be responsible for the cost of such removal. In the event that the pole needs to be replaced, even though the TDU should be responsible for the actual work to replace the pole, the TDU should not be responsible for the costs

associated with the replacement. Instead, the entity placing facilities on the pole that cause the need for the replacement should be responsible for the costs.

### **III. Conclusion**

CenterPoint Energy requests that the Commission Staff make the proposed deletions or amendments to the proposals in this proceeding.

Respectfully submitted,

A handwritten signature in black ink, reading "Deann T. Walker", is written over a horizontal line.

SCOTT E. ROZZELL  
Executive Vice President and General Counsel  
State Bar No. 17359800  
DEANN T. WALKER  
State Bar No. 20696840  
1005 Congress, Suite 650  
Austin, Texas 78701  
(512) 397-3032  
(512) 397-3050 (fax)

ATTORNEYS FOR CENTERPOINT  
ENERGY