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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

COMMENTS OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

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On February 3, 2006, the Public Utility Commission of Texas ("the Commission") filed three questions in this Project and invited interested persons to comment on those questions. CenterPoint Energy Houston Electric, LLC ("CenterPoint Energy") appreciates the opportunity to participate in this Project and submits the following comments.

I. BACKGROUND

CenterPoint Energy's responses to the Commission's questions address the wind impacts of a major hurricane on the CenterPoint Energy service territory. As discussed at the workshops in this project, there are certain occurrences from which the transmission and distribution utility ("TDU") cannot protect the electric delivery system. Such occurrences include, but are not limited to, storm surge, tornadoes, flooding, flying debris, falling trees located outside of the TDU's right-of-way, and lightning. Indeed, protecting the delivery system against one event can make the system more susceptible to another event. For instance, if the TDU places the facilities underground to avoid wind damage, the system becomes more vulnerable to flooding. These concepts are important

as can be learned from the New Orleans flood that severely affected the underground system.

CenterPoint Energy's service territory is diverse within itself and in comparison to other utilities providing electric delivery service. Portions of CenterPoint Energy's service territory are located on the Gulf Coast and would be directly impacted by the highest strength winds, storm surge, and flooding, while the northern portions of the service territory contain large wooded areas. A large portion of the service territory is populated with bayous, which leads to areas being prone to flooding. Therefore, one strategy for "hardening" the system could not be used throughout the entire service territory.

CenterPoint Energy's existing electric delivery system is designed and constructed to meet or exceed National Electrical Safety Code ("NESC") standards; therefore, any modifications to minimize outages and accelerate restoration of service would be additional measures from those required by the NESC. In addition to designing and constructing the facilities in accordance with NESC standards, CenterPoint Energy currently has several practices and projects that address the reduction of outages and accelerate restoration. These practices and projects include, but are not limited to, the following:

- Construction of the Hillje Project, which is a 68 mile transmission line from the South Texas Nuclear Project to the W. A. Parish generation station in Fort Bend, County. This project will ensure another delivery route for power into the Houston area. CenterPoint Energy estimates the cost of the transmission and substation project to be approximately $94 million. The facilities are expected to be in service by the summer of 2007.

- Installation and implementation of an Intelligent Grid on the distribution system. The use of an Intelligent Grid within the distribution system will allow for accelerated restoration by isolating the portion of the electrical grid that caused the outage and automatically restoring service to the unaffected portions. CenterPoint Energy estimates the cost of the total project to be approximately $325 million. The program will be deployed beginning in 2006.

- Utilization of specific design criteria.
  - Transmission System Network Design includes few single-tap or radial services.
  - Majority of substations have at least two lines serving them.
  - Anti-cascade design conditions for the transmission system.
  - Post insulators with fail-safe bases or load limiters for the transmission system.
  - Storm guys or deadends in H-frame lines for the transmission system.
  - Arms of steel transmission structures designed to fail before the structure fails.
  - Use PLS-CADD transmission line design software.
  - Use LD-Pro distribution line design software.

- Employ a proactive inspection and maintenance program.
  - Five-year cycle for strategic transmission circuits.
  - Inspect rights-of-way for encroachments and remove any encroachments or obstructions.
  - Groundline treatment of transmission wood poles on a ten-year cycle to retard rot.
  - Targeted painting program for galvanized structures in highly corrosive areas to avoid loss of steel.
  - Monitor circuit outages and investigate outages for root cause and potential mitigation on the distribution system.
  - Perform 15-year cycle-based distribution line maintenance and replace rotten poles or perform groundline treatment.
  - Use automated equipment for servicing and testing distribution system.
  - Inspect 10% worst circuits and perform maintenance or replacement of deteriorated components.
  - Perform targeted infrared inspections of devices (e.g. terminals, cap banks, switches).

- Employ a proactive vegetation management program.
  - Five-year cycle for all transmission circuits.
  - Tree removal is the primary method of control within transmission rights-of-way.
  - Annual aerial inspection of transmission system to identify danger trees for removal.
  - Tree trimming efforts on the distribution facilities are focused on circuits that maximize the benefits toward achieving system SAIDI targets.
  - Tree trimming dollars are also provided to Service Centers to handle spot tree trimming problems on a reactive basis.

While CenterPoint Energy provides below certain suggested modifications that can be implemented on an electric delivery system to address the wind effects of the landfall of Category 4 hurricane in the Houston area in response to the Commission's questions, these modifications are not included in any current plans of CenterPoint Energy. These are possible answers to the question of how to modify the delivery system, but cannot be funded under the current rate structure for CenterPoint Energy. Additional rate recovery would be necessary to implement any plans to modify the delivery system to address Category 4 hurricane strength winds.

In addition, the benefits from any modifications to the system will not be realized for several years. All modifications would be implemented on a going forward basis and would have to be implemented through a systematic strategy. Therefore, until there is sufficient saturation of the modifications throughout the system, outage impacts and restoration times will not be significantly affected.

II. RESPONSES TO QUESTIONS

1. ***What are your company's proposals for hardening the network infrastructure, and modifying utility operations to minimize outages and speed up restoration for the next 1 to 5 year time frame? Please include the applicable financial data to show how the utility intends to fund these proposals.***

2. ***What are your company's long-term plans to modify your network infrastructure to minimize outages and speed-up restoral in the areas prone to hurricane in Texas? Please provide detailed information outlining your plans for the next 5 to 10 years and 11 to 20 years and beyond. Please include financial data to show how the utility intends to fund these proposals.***

The following modifications are reasonable alternatives to "harden" the electric delivery system against the wind impacts from a hurricane in the Houston service territory. The appropriate time frame for use of the alternative is provided as well as a cost estimate. While these are reasonable alternatives, CenterPoint Energy does not have any current plans to implement them. As time passes, new or enhanced technologies will emerge and any plans should remain flexible to accommodate such changes in technologies.

- Design strategic new distribution feeder poles to extreme wind loading.
  - Use in all years.
  - Estimated additional annual cost of $3.4 million.

- Replace strategic wood transmission structures.
  - Use in years one through ten.
  - Estimated annual cost of $3.5 million.

- Replace strategic existing freeway crossings to underground.
  - Use in years one through ten.
  - Estimated annual cost of $2.5 million.

- Install new freeway crossings underground.
  - Use in all years.
  - Estimated annual cost of $1.5 million.

- ❖ Design new overhead transformers installations larger than 3-167kVA with pad-mounted transformers. This would only be done on such facilities located outside of a high surge area due to the effects of flooding.
  - — Use in all years.
  - — Estimated additional annual cost of $1.1 million.

- ❖ Additional use of insulated covering to protect strategic substation buses from debris.
  - — Use in all years.
  - — Estimated additional annual cost of $.5 million.

- ❖ Modify the groundline treatment program for the distribution system to a ten year cycle.
  - — Use in all years.
  - — Estimated additional annual cost of $3.8 million.

- ❖ Increase the distribution tree trimming budget by 25%.
  - — Use in all years.
  - — Estimated additional annual cost of $4.8 million.

- ❖ Recommend that the Commission mandate other utilities in the Houston area perform groundline treating equivalent to CenterPoint Energy's program for joint use facilities. CenterPoint Energy has distribution facilities located on 157,335 poles belonging to other utilities under joint use arrangements. This represents 16% of the total poles used on the distribution system.
  - — Use in all years.
  - — Estimated annual cost of $1.8 million for CenterPoint Energy.

- ❖ Expand the area rehabilitation program for the distribution system.
  - — Use in all years.
  - — Estimated additional annual cost of $1.5 million.

- ❖ Expand availability of strategic spares for substation equipment.
  - — Use in the first through five year time frame.
  - — Estimated one time capital expense of $5.1 million.

In order to adequately fund the programs, it would be necessary for CenterPoint Energy to receive timely recovery of costs identified with "hardening" the transmission

and distribution system. There are three methods in which a TDU could be allowed to timely recover such costs: self-insurance, Commission authorized rider, and Interim Transmission Cost of Service Update.

- **Self-Insurance**

Section 36.064(a) of PURA specifically authorizes an electric utility to "self-insure all or part of the utility's potential liability or catastrophic property loss, including windstorm, fire, and explosion losses". Further, the Legislature expressed its desire to allow companies to self-insure against catastrophic storm losses when it mandated the following:

> The commission shall approve a self-insurance plan . . . if the commission finds that: (1) the coverage is in the public interest; (2) the plan, considering all costs, is a lower cost alternative to purchasing commercial insurance; and (3) ratepayers will receive the benefits of the savings.[1]

Because of the high cost of commercial storm insurance for transmission and distribution assets, the vast majority of TDUs, including CenterPoint Energy, self-insure against extraordinary storm damage losses.

The current levels of self-insurance reserve recovered through the TDUs' rates are not sufficient to cover the costs of significant events. In future rate proceedings, the Commission should remain cognizant of the magnitude and severity of damages sustained by Gulf Coast electric utilities in establishing future storm reserve account funding levels.

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[1] PURA § 36.064(b).

- **Commission Authorized Rider**

The Commission has discretion to consider the recovery of major storm damage replacement and repair costs without the need for the TDU to file a complete rate proceeding. When costs are "an easily segregated expense component", the Commission can provide for the recovery of such costs through a rider or surcharge without convening a full base rate proceeding.[2] Costs associated with major storms are maintained in separate accounts; therefore, these costs are "an easily segregated expense component" from the other capital and operating expenses of the TDU. The Commission can review the costs in a docketed proceeding that is similar to proceedings held for the review of rate case expenses. CenterPoint Energy believes that such costs should be surcharged over a fixed time period for recovery.

- **Interim Transmission Cost of Service Update**

P.U.C. Subst. R. 25.192(g) provides a mechanism for a transmission service provider ("TSP") that is within the Electric Reliability Council of Texas ("ERCOT") to update its transmission rates to reflect changes in its invested capital on an annual basis. The rule provides that "[t]he new rates shall reflect the addition and retirement of transmission facilities and include appropriate depreciation, federal income tax and other associated taxes, and the commission-allowed rate of return on such facilities as well as changes in loads." Increases in invested capital necessitated by the replacement and repair of facilities damaged or destroyed by major storm events would qualify for

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[2] *Railroad Comm 'n of Texas v. City of Fort Worth,* 576 S.W.2d 899, 902 (Tex. Civ. App.-Austin 1979, writ refd n.r.e,); *Cherokee County Electric Cooperative Assoc. v. Public Utility Comm 'n of Texas,* 618 S.W.2d 127, 130 (Tex. Civ. App.-Austin 1981, writ ref d n.r.e.).

treatment under the Substantive Rule. This is only a partial solution because the rule addresses transmission capital costs only and does not include transmission operating costs nor any costs associated with the distribution function of the TDU.

3. Please explain what your expectations are as to the actions of this Commission, the state and local government, the affected community and any other entity to facilitate your proposals described under items 1 and 2 above.

CenterPoint Energy's foremost expectation of the Commission would be to provide adequate and timely cost recovery of the expenditures incurred to implement any changes to the electric delivery system to "harden" against devastating events, such as hurricanes. While technical solutions are important in order to accomplish the "hardening" of the delivery system, equally important is the "financial hardening" of the utility's ability to fund such projects. Without the provisions of adequate funds, CenterPoint Energy would not be able to accomplish any goals established by the Commission.

There are several changes that can be made by the Commission that are either traditional ratemaking or alternative forms of regulation. First, CenterPoint Energy recommends that the Commission modify the Substantive Rules to allow for the timely recovery of capital and operating expenses for transmission and distribution system replacement or repairs associated with "hardening" of the system. Many of the costs are associated with operating and maintenance expenses such as tree trimming. Additionally, the Substantive Rules should provide for relief associated with increases in distribution plant investment or operating costs. The Commission should also consider approving accelerated depreciation for such facilities over a 15-year time period.

The Commission should also contemplate the use of incentive ratemaking for projects to "harden" the delivery system. Pursuant to the Energy Policy Act of 2005, the Federal Energy Regulatory Commission ("FERC") will consider allowing a higher rate of return for certain projects. CenterPoint Energy's Hillje Project would qualify for such incentive ratemaking at the FERC. Modifications to "harden" the system could also be allowed a higher rate of return based on a 50/50 debt to equity ratio.

The Commission should also consider increasing rates for distribution service by a small incremental amount to be designated for utilities to place main distribution facilities underground. The funds could be used by the utilities to offer an incentive to developers and governmental entities for offsetting of a specified percentage of the cost of constructing the distribution facilities underground. An example of the use of such funds would be to coordinate the construction of underground improvements in conjunction with road improvement projects.

CenterPoint Energy suggests that the Commission should explore alternative methods of funding the development of an underground distribution system through developers, utilities, and governmental entities. One possibility is the use of tax incentives that would have to be enacted by the legislature. A possible incentive would be to allow taxing districts to use incremental tax revenue to pay for underground distribution systems. Another possible incentive would be for the State to establish a low interest bond fund for developers and governmental entities to borrow funds in order to place distribution facilities underground.

Another consideration for the Governor, Legislature, and Commission is whether the costs to "harden" the electric delivery system to the Gulf Coast are a societal cost that should be borne by the population of the entire State. CenterPoint Energy's service territory includes many petroleum refineries as well as other industries that are necessary to the State and national economy. From the experience of Hurricane Rita, it is clear that governmental leaders place high importance on returning service to such industries. If the benefits for the system modifications are provided to a greater audience than the customers within the service territory, perhaps the costs should likewise be shared by those beneficiaries. The concept is compatible with that of how the Commission allocates the transmission service providers cost of service throughout the Electric Reliability Council of Texas region.

CenterPoint Energy recommends that the Commission be proactive in requiring other utilities, such as telecommunication utilities, to maintain poles owned by that utility. CenterPoint Energy jointly uses poles owned by other utilities. Those company's do not maintain the poles to the same standards; therefore, when there is a failure related to such a pole the electric system will also suffer. In addition, the Commission should

require that all utilities provide notice to the "hosting" utility of the placement of facilities on that utility's poles. This will allow the "hosting" utility to ensure that the pole is designed for the placement of the additional facilities.

III. CONCLUSION

CenterPoint Energy appreciates the opportunity to file these comments and looks forward to continued participation in this project.

Respectfully submitted,

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