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PROJECT NO. 32182

PROCEEDING TO REVIEW INFRASTRUCTURE RELIABILITY, EMERGENCY MANAGEMENT AND HOMELAND SECURITY MATTERS	§ § § §	**PUBLIC UTILITY COMMISSION OF TEXAS**

RESPONSES OF ENTERGY GULF STATES, INC. TO THE COMMISSION'S QUESTIONS CONCERNING INFRASTRUCTURE RELIABILITY, EMERGENCY MANAGEMENT AND HOMELAND SECURITY

Entergy Gulf States, Inc. ("EGSI" or "the Company") files the following responses to the questions of the Public Utility Commission of Texas ("Commission") filed in this project on February 3, 2006. At the outset, EGSI appreciates the opportunity to look at these matters. EGSI also appreciates the previous dialogue of the parties, as well as the information exchanged during the workshops in Austin, Houston and Beaumont. The ideas discussed and the priorities identified will prove helpful in planning for the Company's infrastructure as well as for the restoration of service in response to future calamities, such as Hurricane Rita. However, it is important to remember that no amount of hardening can guarantee against destruction of the electric grid in the event of certain catastrophes and the Company is mindful that hardening efforts must be weighed against the rate effect on customers.

EGSI has increased its efforts to improve service quality over recent years and reliability has improved as a result of those efforts. It is also accurate to describe EGSI's efforts as the "hardening" of its system. Prior to this project, the Entergy system had begun a study of its electric grid to determine what could be done to mitigate the effect of hurricanes. Such study is complicated by uncertainties with respect to the assumptions underlying the study.

Assumptions as to intensity and effect of natural disasters (i.e. wind speeds, rainfall, storm surge, and damage to facilities caused by flying debris and trees outside of the utility's right of way, etc), can greatly affect the study. Further, it is extremely difficult to factor into a cost benefit analysis the situation where electricity may be timely restored, but the remaining non-utility facilities and buildings in the affected area are so devastated that repair or rebuilding may not be forthcoming in the near future. Moreover, the overall cost/benefit analysis related to restoration should consider that customers are capable of taking steps—such as self generation—beyond the actions taken by utilities. It may well be that some costs may not be worth the claimed benefits. For instance, customers may not be willing to pay significantly higher year-round rates for the possibility of reducing the duration of an outage that may not occur but once in a period of time that can easily reach into the decades.

There is one certainty: no one can predict what storms will occur, where they will occur and what damage they will cause. This is evidenced by the diversity of opinions on this issue in rate cases where the parties have rebuffed utilities' attempts to obtain an increased level of insurance reserve accrual to pay for major storm costs because of the uncertainty associated with the severity and frequency of storms. Utilities have been harmed because they could not know the unknowable—the future. As a result, very few funds have been set aside for storm reserves. This diversity of opinion and skepticism can also be expected to be raised in rate cases in which a utility is seeking to recover its hardening costs. Accordingly, determinations regarding the activities that need to be performed and the infrastructure investments that are to be made must be based on reasonable assumptions and data today and in the future.

The Legislature of the State of Texas, the Commission, and the parties should proceed in evaluating this issue but should not rush to judgment on what is and isn't required toward infrastructure improvement. EGSI believes that there are short term and long term tasks that can be accomplished outside of this project, with the expensive improvements that are likely to result from this project being deferred until adequate studies have been accomplished and public policy changes made to insure that the any requirements and costs imposed as a result of this project are achievable, sustainable and recoverable. To that end, EGSI has already committed resources to evaluate its options and detail the costs to achieve these improvements. Public policy should address issues such as how the costs should be paid for (including state funding), implementation of surcharges for improvements prior to the expenditure by the utilities, assurances provided as to the level and timing of cost recovery, landowner issues regarding right of way and tree trimming policies, and legislative changes necessary to allow the Commission and the utilities to meet requirements imposed, and recovery of costs that might result from this project.

The Company is currently engaged in a study which outlines issues the Company has identified. These issues should be incorporated into the Commission's policy evaluation in this project. These are challenging times, particularly for EGSI, since the Company has been forced to expend so much of its resources and efforts in restoring service to its customers after Hurricane Rita. It is incumbent upon the Commission and the State to proceed in a judicious manner that is consistent with both good service, timely recovery and result in reasonable rates to the customers.

With these comments in mind, EGSI submits the following responses to the questions presented by the PUCT.

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*

EGSI has consistently met or exceeded the strength requirements of the National Electric Safety Code ("NESC"). In the wake of Hurricane Rita, Entergy is evaluating the storm performance of its structures, conductors and hardware to determine what hardening measures, if any, would yield cost savings that are justified by the initial investment. Hardening strategies that could be implemented in the next 5 years currently under investigation include the following:

- Adopt "extreme wind" load design as detailed in the NESC for new distribution construction located in specific targeted areas. EGSI currently designs and builds all of its facilities to meet or exceed NESC loading specifications. While this practice exceeds the NESC requirements for certain coastal regions, EGSI believes the more stringent "extreme wind" specification may provide some hardening benefits in select areas. EGSI transmission lines are already designed to wind speeds that exceed the NESC requirements in certain coastal areas. Entergy is investigating the incremental cost of designing transmission lines of 69kV, 138kV, and 230kV to yet higher wind speeds. Additionally, adopting the "extreme wind" load design for distribution facilities or adopting higher wind speed designs for transmission facilities may offer some hardening benefits. However, neither approach will provide significant protection against damage caused by flying debris and falling trees and objects located outside the right of way.

- Select upgrades of targeted vintage distribution and transmission lines built under older codes in the coastal regions to higher design wind speeds. All existing EGSI overhead lines were built in accordance to all codes, standards, and regulatory requirements in place at the time of their construction. The rebuilding of these circuits is usually facilitated by the need for additional capacity due to increased load or select bad or damaged pole change out. EGSI is considering a program of selecting targeted high impact or critical circuits for rebuild to meet the NESC "extreme wind" loading design for distribution, and possibly higher wind speed designs for transmission. Again, adopting the "extreme wind" load design for distribution facilities, or adopting higher wind speed designs for transmission facilities may offer some hardening benefits but it will not provide significant protection against damage caused by flying debris and falling trees and objects located outside the rights of way. The estimated cost for distribution is $70,000/mile, and the estimated cost for transmission is still to be determined.
- Systematic upgrades of vintage flood prone substations. Entergy will examine flood zone maps produced by the Sea, Lake and Overland Surges from Hurricanes ("SLOSH") flooding models under various storm scenarios to identify substations most at risk for potential flooding.
- Programmatic conversion of wood substation and transmission line structures to concrete or steel construction. This program targets vintage wood structures for change out to concrete or steel. These new structures are designed for wind speeds that exceed the NESC requirements for certain costal regions.
- Modify grid operations to ensure that at least one cycle of transmission aerial inspections are completed prior to June each year.

- Continue transmission pole inspection and replacement/reinforcement program. Continue EGSI's current distribution pole inspection practice consists of a visual and sounding inspection to determine pole quality.
- Continue the current practice of identifying the worst performing distribution circuits and devices and take appropriate steps to improve the performance of these facilities. EGSI has numerous ongoing programs to continuously monitor the reliability of our electric system down to the individual devices. Once a threshold for any circuit or device is reached, a detailed inspection and analysis is performed and recommended corrections or adjustments are implemented.
- Develop a circuit criticality score for transmission lines that targets increased maintenance for those lines that impact the most customer load during an outage of that line.
- Recommend a targeted approach for conversion of overhead lines to underground construction when appropriate. While EGSI supports the idea of converting select overhead lines to underground to enhance reliability for extreme weather events, careful cost to benefit analysis should be considered prior to committing to any project due to the very high cost involved. The estimated cost for distribution circuit conversion is $175,000 - $380,000/mile. The estimated cost for transmission circuit conversion is still to be determined.
- Target danger trees outside of rights of way for removal. EGSI's vegetation management and field operations personnel continuously patrol our circuits and identify trees located outside our rights of way that pose a danger to the operation of our system. This includes trees that are dead or leaning toward our lines. EGSI is usually successful removing

these trees without conflicts with property owners, however obtaining favorable legislation as detailed below would provide a much needed support to this activity.

- Develop cost estimates for widening transmission line rights of way to gain access to and control over more vegetation that threatens to interrupt transmission circuit operation.
- Purchasing portable batteries and mobile substation equipment for quick restoration of power.
- Programmatic replacements of vintage transmission and substation insulators and surge arresters that may be prone to cause problems.
- Upgrade of material and construction standards that will allow for greater wind resistance ratings, flooding and corrosion protection, and increased lightning protection.
- Programmatic upgrades of communications, protection and control to allow remote readying of substations for major storms. This program allows us to improve the monitoring of our transmission system and provides additional intelligence capabilities to locate faults for the purposes of sectionalizing and/or the redirection of power flow.

A study to estimate the costs for the strategies listed above is being conducted and is scheduled for completion on July 15, 2006. EGSI respectfully urges the Commission to wait for the results of this study before mandating any specific hardening programs. EGSI believes that various components of each hardening program may be prudent for specific targeted areas, but not for all. Additional studies may be required to identify the areas and structure types most suited to specific hardening strategies.

EGSI will continue to work with local governments that request lines be relocated underground. Our current policy is to require the requesting entity to pay the incremental cost of

underground construction. When investigating the cost of underground conversion, the customer's cost associated with the conversion of electric services must be included in the evaluation. Additional consideration must be given to the cost borne by third party attachment utilities, such as cable and telephone lines, to adjust their facilities presently attached to poles on circuits that will be converted.

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*

Many of the programs currently in place and including many of those recommended in response to question 1 above are ongoing and will continue beyond 5 years. The continuance of any program in place is contingent upon favorable cost to benefit analysis and adequate investment recovery.

A large number of the tree related outages were due to fallen trees and limbs from trees outside of the utility rights of way. Acquiring additional rights of way and easements for wider clearing of vegetation near transmission and distribution lines is a long term initiative that will be ongoing 20 years and beyond. Obtaining favorable legislation as described below will directly affect the success of this initiative. EGSI will also continue to work with local governments to develop tree ordinances that facilitate EGSI's vegetation management activities.

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*

EGSI fully supports action from the PUCT and state and local governments on the following:

- A declaration from the PUCT that the hardening strategies as proposed by EGSI and accepted by the PUCT will be deemed prudent and recoverable through rates or riders in a timely fashion.
- The PUCT working with utilities to develop recommendations for prioritization of portions of the electric system where underground construction would be beneficial to increasing the resistance to storm outages. Promote incentives and funding mechanisms to finance underground projects.
- The Texas State legislature enacting legislation that will:
  1) Preempt local government green space ordinances that require tree planting in conflict with utility infrastructure operation.
  2) Streamline the process for utilities to secure rights of way and authorize them to condemn and remove danger trees.
  3) Allow tree-trimming to NESC standards and preempt inconsistent local ordinances.
  4) Give the Texas Department of Transportation the authority to acquire public utility easements when securing rights of way for new and existing road projects and require these easements to be along all state road rights of way.
- Support legislation and ordnances that will:

1) Require or facilitate all new residential developments to be constructed underground with the incremental cost difference shared by the customer or developer and municipal or state programs.

2) Regulate the practice of locating electric utilities in the rear of lots in new residential developments. It is the desire of many municipalities, home owner's associations, developers, and customers to locate electric distribution lines in the rear of the lots being served. While this practice has certain aesthetic advantages, little consideration is given to the accessibility of these facilities which directly effects restoration time for outages caused by any reason.

Conclusion

EGSI will continue its review of Hurricane Rita and its effects as well as completing a review of its infrastructure and update the Commission and the Staff concerning its findings. This effort should remain a collaborative effort that stays flexible and not result in immediate fixed mandates that may not prove out to be accurate.