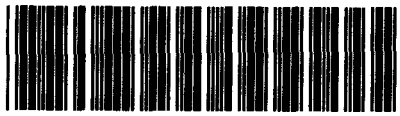

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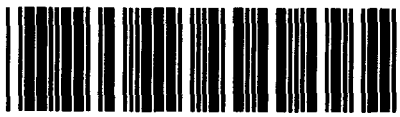

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PROJECT NO. 32182

INVESTIGATION OF METHODS TO IMPROVE ELECTRIC AND TELECOM INFRASTRUCTURE THAT WILL MINIMIZE LONG TERM OUTAGES AND RESTORATION COSTS ASSOCIATES WITH GULF COAST HURRICANES	§ § § § § §	**PUBLIC UTILITY COMMISSION OF TEXAS**

CAP ROCK ENERGY CORPORATION'S COMMENTS ON STAFF'S DRAFT EXECUTIVE SUMMARY DATED JUNE 9, 2006

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CAP ROCK ENERGY CORPORATION'S COMMENTS ON STAFF'S DRAFT EXECUTIVE SUMMARY DATED JUNE 9, 2006

TO DAVID FEATHERSTON, DIRECTOR, INFRASTRUCTURE RELIABIITY DIVISION, PUBLIC UTILITY COMMISSION OF TEXAS:

Cap Rock Energy Corporation ("Cap Rock") submits the following comments concerning the Staff's Draft Executive Summary, distributed by a letter dated June 9, 2006.

I. INTRODUCTION

This project was initiated on December 19, 2005 and designated as applicable to utilities located in Gulf Coast region. Cap Rock does not have any service territory in the Gulf Coast area or within any of the hurricane zones designated by the Governor's Division of Emergency Management.[1] In a letter dated May 9, 2006, Cap Rock was notified for the first time that the recommendations being considered in this project were to be applicable to all of the electric utilities in Texas, not just those with service areas in Gulf Coast. Cap Rock appreciates the opportunity to provide comments on the important issues considered in this project.

On May 15, 2006, Staff held a workshop to review the initial draft executive summary and to gather comments from industry personnel. There were a number of concerns raised in that workshop which were further included in written comments filed later with the Commission. Cap Rock is pleased that the Staff has reflected many of the comments and suggestions presented

[1] See, http://www.txdps.state.tx.us/dem/pages/publicinformation.htm#hurricanemap.

both at the workshop and in written comments in their current executive summary. The focus is more on hardening the wires in those hurricane prone areas which was the original parameter of the project. Cap Rock shares the desire to have the system as stable and secure as possible such that there are no interruptions. However, building a system that is completely weather-proof is not realistic. It would be cost-prohibitive to consider such a result.

The implementation of any recommendations should be tailored to the geographic location of each respective utility's service territory. The impact of shear winds, tornado related winds, and hurricanes are all very different. Also, system improvements for compact urban areas are different than those for sparsely populated areas such as West Texas. Cap Rock's non-contiguous service territory experiences a wide range of weather related events. For example, in West and North Texas ice events require different engineering standards than those for areas that do not experience significant icing. Because of the West Texas terrain, tree related damage is not as much of a problem as it is in other areas. The engineering design for each utility must respect the wind loading and all other weather related conditions that are unique to each geographic region in its service territory.

There appears to be general agreement that most of the Hurricane Rita outages were related to the impact of trees and flying debris (including tree limbs and portions of trees). There is a question as to the effectiveness of increasing the electrical system's structural strength against these causes. Increasing the number of poles per mile to harden the system means that in the event of failure there are more poles or structures to replace. This may not minimize the downtime as there may be more poles to be replaced and/or structures to be rebuilt. Using a breakaway model to preserve the poles could result in more downed wires and potential public threats. Also, the impact of ice loading in a winter event may cause more downed wires due to

the breakaway design respecting wind loads, but not ice loads. These recommendations must continue to recognize the potential results as well as the desired end-state to ensure that they are indeed in the public interest. All recommendations need to be cost effective solutions in achieving the desire for minimizing downtime related to weather events.

II. RESPONSE TO STAFF'S JUNE 9, 2006 RECOMMENDATIONS

1. **Require electric and telephone utilities without a vegetation management program to develop and implement a vegetation management program for all overhead facilities/lines (structures, pole, cross arms, insulators, etc.). This program should consider the growth rates of common vegetation in the service area. Each utility should provide the Commission with the details of its existing or newly developed vegetation management program by April 1, 2007.**

Staff believes vegetation management is a key component for addressing outages. Any management program must consider the type of vegetation, the concerns of the landowners, and the rights of the utility to implement a program depending upon the ownership of the land in and near the ROW. The cost of an effective program must be borne by the ratepayers and recovered through traditional rate making procedures.

Comment: Cap Rock believes that it can provide a description of its vegetation management program by April 1, 2007. However, the number of reports that may be required as a result of this project should be considered in determining the time for providing each report. The number of and timing of additional reports may impact Cap Rock's ability to provide the information requested by the Commission.

2. **Require electric and telephone utilities without a cyclical ground-based facilities inspection program to develop and implement a regular, ground- based inspection cycle for all overhead facilities (structures, pole, cross arms, insulators, etc.), including a condition-based assessment of wood pole suitability for continued service. Each utility should provide the Commission with the details of its existing or newly developed facilities inspection program by April 1, 2007.**

Staff believes that a regular inspection cycle for overhead facilities is necessary to ensure that the facilities are maintained in a manner that will provide a reasonable level of service to the customers.

Comment: Cap Rock does not currently have a regular inspection program for *all* of its overhead facilities. This recommendation would require Cap Rock to either use outside consultants and/or increase staffing. Cap Rock's current practice is to rely upon reports of its line crews. In the course of day-to-day operations and maintenance, line crews may visually review segments of the network as they are performing other maintenance and construction related activities. If needs are identified, then work orders are prepared to address those concerns. Reporting on ground-based pole conditions identifying poles with rotting concerns is generally not an issue in West Texas. The dry conditions there greatly reduce the pole rot problem which is the common cause of pole failure.

While Cap Rock's current practice may not meet the requirements outlined in Staff's recommendation, Cap Rock believes that its practice is a cost effective process that also provides adequate protection against service interruptions. Establishing a program that meets all of the elements of the recommendation must be viewed in the context of benefits to the customers for these incremental expenses. Cap Rock does not believe that the additional cost that would be required to implement this recommendation is justified. This recommendation needs to be assessed against the current practice.

Cap Rock believes that it can provide a report on the current practices and any proposed changes by April 1, 2007. However, the number of reports that may be required as a result of this project should be considered in determining the time for providing each report. The number of and timing of additional reports may impact Cap Rock's ability to provide the information requested by the Commission.

3. **Require each electric utility to trim or remove (during the normal vegetation management cycle) all trees that are located within right of way (ROW) controlled by the utility and that compromise NESC clearance limits.**

Staff believes that ROW under the control of the utility must be clear of trees as much as possible to minimize outages and to allow quick and unhindered access during restoration activities. Staff also believes that removal of trees will be more cost-effective than periodic trimming, but Staff realizes that public resistance may prevent 100% removal.

Comment: There are certain ROWs which include other state agencies who control the vegetation management aspects of that ROW. This concern may be addressed in Recommendation 14. Otherwise, Cap Rock is in agreement that a tree trimming and removal program should be incorporated into each utility's vegetation management program. Most trees in West Texas do not grow tall enough to be a problem. There generally is not sufficient rain fall for the mesquite trees to grow to a height that is problematic. There are areas where zoning requirements for new construction include the planting of trees and other vegetation. Tree trimming has been done for many years for these areas in order to meet the zoning requirements. This recommendation, as well as others, may need to be modified to recognize that state, county and municipal governments may require businesses to plant a certain number of trees in their landscaping package as structures are built. Modifications are required to avoid a situation where a company plants trees and other vegetation on Monday to meet landscaping requirements and then the utility shows up on Tuesday to remove those items that were deemed to have a future growth rate sufficient to possibly reach the wires. The use of trimming instead of removal, as allowed in the recommendation, should be maintained even though Cap Rock understands the comments submitted by Staff and their desire to have removal as the best option.

4. **Require telecommunications utilities to ensure that all central offices in hurricane- prone areas be capable of full operation without interruption for at least 72 hours after loss of electric utility power.**

Staff recognizes that the requirement for sufficient fuel storage for a generator to meet this requirement may not be cost effective and that there are other ways to assure a 72-hour operation Require utilities to establish processes, and incorporate these requirements into their existing contracts or tariffs, to ensure the structural integrity of poles and attachments in situations where utilities augment or add cable facilities to existing poles.

Not Applicable to Cap Rock.

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 a 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.**

Staff believes the upgrading lines built before the NESC's 1977 wind loading standards will decrease damage and improve restoration time. The cost of the upgrading should be identified to require each utility to provide the Commission with a report within one year that evaluates the level of inventory for transmission facilities considering the requirements of staff's recommendations.

Comment: Most, if not all, of Cap Rock's transmission lines were built or rebuilt after 1977. It should be noted that excessive high winds from wind shear or tornados will damage the lines regardless of NESC Standards.

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

Staff believes the effort to strengthen facilities should be focused along the Gulf Coast where major storms are more likely and were wood structures deteriorate quicker than in other parts of the state.

Not Applicable to Cap Rock.

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.**

Staff believes more detailed information is needed to determine how to design facilities to lessen the impact from weather related events. By understanding what damage is caused by particular weather events, the electric utilities and Commission staff will be able to conclude what are the reasonable, cost effective improvements needed for the electric system. Staff does not believe all facilities can be protected against all possible weather events, but some changes can be identified through this effort.

Comment: Cap Rock believes that careful consideration should be given to imposing the cost of additional outage reporting requirements. While it is certainly possible to provide such reports, given that much of the information will of necessity consist of estimates and approximations, the value of the reports may be very limited. Furthermore, the scope of the reports needs to be clarified. For example, Cap Rock has a number of radial lines that may serve

a single hunting camp or other seasonally used facility. Many of these lines have been there for years without any problems. Lines of this nature should be excluded from any reporting.

8. **Require utilities after January 1, 2007 to design and construct all new substations that are located within a 100-yr floodplain so that the floor of the control house and all water-sensitive components of the substation operating equipment are above the elevation of the 100-yr floodplain.**

Staff believes that, if it is determined by the utility that the most suitable location of a new substation is within a 100-yr floodplain, the utility should ensure that any potential flooding will not impact the operating equipment. Staff believes that substations that are currently under construction should not be required to meet this new standard. Therefore, an effective date is recommended several months after the expected Commission approval date.

Comment: This requirement can be incorporated into the engineering of future substation design.

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.**

Staff concludes that utilities must take an active role with developers and homeowners so that everyone in new residential developments understands the need to provide access to underground electric facilities. A utility representative making presentations to homeowner associations is not sufficient to meet this requirement. The utility must use bill inserts, door hangers or other more direct methods to inform residents about this requirement.

Comment: This may be better handled in coordination with the proper zoning officials. The requirements of this recommendation go beyond the provision of electric service and impedes upon zoning requirements established by other governmental and private bodies. The utilities should work in a coordinated manner with each respective zoning agency and encourage the adoption of this recommendation. Requiring the utility to use bill inserts, door hangers, and other methods to inform residents of this requirement will require the expenditure of funds that

are not directly a function of providing electric service. If there are new housing developments being built, the homeowners are not the decision makers in the ROW requirements. These are usually established by the zoning authority, HOAs, or the developers and should be included in any covenants that are provided to the homeowners.

10. To the extent that it is not prohibited by city ordinance, electric utilities should encourage developers of new residential properties to utilize underground distribution facilities and express the preference to locate these facilities in front of homes or in accessible alleyways.

Staff believes the underground facilities, even though the initial installation expense is larger than overhead facilities, will provide better long-term reliable service to residential customers.

Comment: This may work in dense, small dimensional lot neighborhoods. For utilities in areas where lots may be a number of acres in size, there is a cost consideration since the homeowner generally has the option under current tariffs to use overhead or underground service. Since the homeowner must pay for some or all of the connection costs, the homeowners may not want to spend the extra money needed to run underground cables for a mile or more. Again, this is one recommendation that needs to recognize that there may be instances that the deciding party is not the utility, but some other party. Utilities can encourage, but the decision ultimately resides with someone else.

Another concern is that over the past years, underground cable and products (cable splices, terminators, etc.) have become faulty and the repair and/or replacement costs are significant. Implementing this recommendation will increase the day-to-day cost to both the utility and the customers. These costs will continue whether there is another hurricane event or not. While there may be an appearance of better reliability, it will come at an increased cost.

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.**

Staff believes there are instances in the United States where utilities are considering this type of installation and retrofit. If this type of installation could lessen restoration costs and recovery time, then utilities need to evaluate this technology. Utilities should consider a partnership with one or more Texas universities or with appropriate industry research groups.

Comment: Cap Rock agrees that using a group to review these issues and providing a recommendation to the Commission at a later date is a reasonable approach. The timing may need to be moved out beyond January 1, 2007, however. It would probably take more than 5 months to meet, review, discuss, and finalize a set of joint comments by the recommended timeline. It should also be recognized that such a study will take time and money as resources are diverted to participate in this process. Will the PUC fund this study group? If not, and the industry is required to fund this group, a cost recovery mechanism should be provided.

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.**

13. **Staff recommends initiation of a rulemaking by January 1, 2007 that directs each electric and telephone utility to develop (and incorporate into its existing "pole attachment" contracts and tariffs) procedures and requirements sufficient to ensure the structural integrity of the utility's overhead facilities in situations where other parties attach cables or other facilities to the utility's overhead facilities.**

14. **Staff recommends that the Commission include in the Electric and Telecommunication Scope of Competition Reports a suggestion that the State Legislature explore the issue of authorizing electric utilities to trim or remove trees that are not on ROW controlled by the utility but which threaten the utility's transmission or distribution facilities.**

15. **Several electric utilities have embarked on projects to modernize the electric grid by deploying intelligent devices on the network. These deployments will enhance real-time monitoring of outages, selective switching of electric supply routes, and preventative maintenance of protective devices to increase the reliability of the power grid. The Commission should establish through a rulemaking incentives to encourage such deployments by electric utilities.**

Comment: Cap Rock supports the use of the rulemaking process to examine infrastructure reliability issues as suggested in Recommendations 12, 13, and 15. Rulemaking proceedings would also be appropriate for most of Staff's other recommendations. Cap Rock agrees that legislative consideration of the issues concerning vegetation management would be appropriate as suggested in Recommendation 14.

Respectfully submitted,

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John W. Rainey by Joya Beasley
John W. Rainey
Chief Regulatory Officer

DATED: June 23, 2006