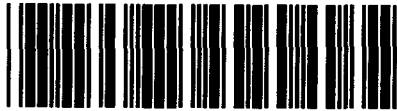




Control Number: 32182



Item Number: 56

Addendum StartPage: 0

PROJECT NO. 32182

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

**PUBLIC UTILITY
COMMISSION
OF TEXAS**

RECEIVED
PUBLIC UTILITY COMMISSION
MAY 16 2006

COMMENTS OF VERIZON SOUTHWEST

Verizon Southwest ("Verizon") respectfully files these comments on the Staff's recommendations in the above-referenced projected, distributed on May 10, 2006 and discussed at the workshop held on May 15, 2006.

Verizon notes initially that the recommendations are both extraordinarily overinclusive because they address problems not pertinent to the project, and extraordinarily underinclusive because they ignore key questions that are critical to it. The entire thrust of the project to date has been Gulf Coast hurricane-related, including an examination of the causes of problems encountered during the 2005 hurricane season and the ways to avoid future problems. The recently promulgated recommendations, however, addresses statewide remedies to concerns that have surfaced neither as major reasons for outages nor as critical demands that require immediate (and expensive) solutions. Verizon recommends that the project be brought back within its banks by focusing solely on the Gulf Coast and the special concerns to which hurricanes give rise.

While the recommendations are extremely broad in scope, they wholly omit three of the most important questions associated with any project: (1) how much will it cost; (2) how will those costs be funded or recovered; and, (3) is the benefit worth the burden? It is not at all clear that there is an effective mechanism in place for telecommunications utilities (who cannot simply pass costs on to their customers) to fund the enormous costs associated with the recommendations, nor is there any empirical evidence that even suggests the presence of a problem necessitating such draconian measures to solve. Verizon recommends that each recommendation be vetted based on its cost and its likelihood of

meaningfully reducing future outages, before serious consideration is given to implementation. Recommending changes to infrastructure in a cost-benefit vacuum serves no relevant purpose, and certainly does not advance the goal of greater network reliability in the hurricane-prone regions of our state.

With those overarching concerns, Verizon comments on the individual recommendations.

Immediate (within six months)

1. **Require the development and implementation of an inspection cycle for vegetation management for all overhead electrical and telecommunication lines. This cycle should consider the growth rates of common vegetation in the service area. Utilities should provide the Commission with the details of its vegetation inspection program within six months.**

Comment - In general, telecommunications utilities do not require vigorous, routinized vegetation management programs, because vegetation does not pose a serious danger to outside plant or to customers or bystanders. This is because vegetation rarely brings telecommunications facilities down. Generally, there is no serious risk of injury (e.g., electrocution) if a fallen telephone line comes in contact with a person or automobile. Moreover, the time spent on repair of downed lines is minimal and the relative infrequency of purely vegetation-related damage to outside plant has never made routine vegetation management cost-efficient for most telecommunications carriers.

Further, while transformer stations and substations must be kept free of vegetation to prevent short circuits and to minimize fire hazards, the ground under electric power and telephone lines, on the other hand, should not be bare. Instead, the soil should be stabilized by vegetation to prevent erosion and to support maintenance equipment.

Needless to say, whenever work is performed on outside plant, a visual inspection of the surrounding vegetation is performed, and in the infrequent instances in which a dangerous or threatening condition exists, it is promptly addressed. This procedure has worked well in the past. Verizon is unaware of any data that would support the establishment of a dedicated inspection team to continually monitor the vegetation along our cable routes and clear any

overgrown vegetation. Indeed, the evidence suggests the opposite; analysis suggests that pole remediation for the 231,000 Verizon-owned poles in Texas would increase labor and disposal costs, but would have little effect on actually prolonging pole life.

Verizon recommends that the requirement be reworded to reflect: For telecommunications utilities, it is recommended that procedures be in place to inspect vegetation in conjunction with the repair, installation or modification of outside plant facilities. Any vegetation that reasonably appears to present a risk to telecommunication facilities is to be reported to and promptly addressed by the utility.

2. **Require the development and implementation of a regular, ground-based inspection cycle for all overhead electrical telecommunication facilities, including a condition-based assessment of wood pole suitability for continued service. Utilities should provide the Commission with the details of this inspection program within six months.**

Comment - Verizon has not identified any necessity for this sort of dedicated outside plant inspection program. At the time work is performed on the outside plant, inspection of the facilities takes place, and no work aloft is started unless the technician is satisfied (1) that the pole line structure has adequate strength to support the load resulting from working aloft and (2) with the overall structural soundness of the facilities. This includes a visual inspection of the cable and poles as well as a sound and probe test on poles to check for defective conditions before climbing. This procedure has worked well for Verizon and any poles that appear "unsafe" during these inspections are marked for replacement and replaced. Verizon does not have any data that would support the establishment of a dedicated inspection team to continually monitor outside plant conditions, as they fail with insufficient frequency to warrant the expense that would be associated with such a project. Indeed, the cost of a system-wide inspection is estimated between \$2 million and \$5 million, while the average cost of a typical pole replacement is about \$900 for material and labor.

Verizon recommends that the requirement be reworded to reflect: For telecommunication utilities, it is recommended that procedures be in place to inspect poles in

conjunction with repair, installation or modification of outside plant facilities. Any poles that appear unsafe, in poor condition or noncompliant with load standards are to be reported to and promptly addressed by the utility.

3. **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.**

Comment - Such processes are generally in place for all pole owners and users. The appropriate place for the process to be documented and administered is in pole-attachment agreements, rather than tariffs. Among other things, coordination between the pole owner and any attachers to it is best coordinated on a contractual, negotiated basis between those parties than in generic tariff language.

Short-Term (one year)

4. **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 - This appears to be solely an electric utility requirement as telecommunications utilities have no transmission facilities.

5. **Require removal within one year of all trees that could potentially damage electrical or telecommunication structures or facilities and that are located within the right of way (ROW) easement.**

Comment - This requirement is impractical and unnecessary. In the first instance, it is overbroad, in that it requires "removal" rather than remediation of trees, which are themselves a cherished resource of the state. Next, it fails to limit action to limbs or trees that are reasonably likely to damage facilities; instead, using the vague and unusable standard of "could potentially damage." Finally, as noted above, the likelihood of damage to telecommunications structures or facilities – and the likelihood of injury from such damage – is relatively low, considering (1) the cost of implementing such a requirement; (2) the relatively low incidence of damage, and the lack of emergent danger from such damage; and (3) the relatively quick repairs that can be effected to damage in the infrequent instances in which it occurs. Verizon, for example, has over 230,000

company-owned telephone poles in the state, and attachments to over 397,000 power company owned poles. Addressing "potential" damage to facilities within that universe would be extraordinarily expensive, as well as a daunting task to manage.

Verizon recommends deletion of this requirement.

6. **Require each utility to perform a study within one year that evaluates the 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 and provide the Commission with its evaluation and any recommendations.**

Comment - Telecommunications cables and strands are, in fact, more likely to fail than either the hanger giving way or the pole breaking. In that respect, by all indications, Verizon is already meeting this requirement. Moreover, broken poles and downed telecommunication cables do not necessarily even result in out of service conditions. The cost of hardening facilities in excess of normal construction practices is excessive when compared to the relatively low cost for repair and change out of broken poles and strands when such conditions require.

Verizon does not support such a study, but suggests that a university or NARUC-sponsored inquiry is more appropriate than utility-by-utility analysis of this sort.

7. **Require utilities to perform a study within one year that evaluates the current practice of automatically sectionalizing a distribution line to improve reliability and examines a practice of increasing the number of automatic sectionalizing to gain additional enhancements to reliability. The utilities should provide the Commission with this study and any recommendations.**

Comment - This requirement is for electric utilities.

8. **Require utilities to conduct inspections of all distribution circuits to determine whether the amount of non-electric equipment on structures is causing an overload on those structures. If overloads are identified utilities should be required to correct the problem. Furthermore, utilities should be required to institute practices that will prevent such overloads in the future. The results of this initial inspection should be reported to the Commission within a year.**

Comment - All carriers should (and presumably do) conduct pre-construction surveys to determine the adequacy of poles to accommodate any proposed added attachments. This survey is performed jointly by the pole owner and any users. If the pole is deemed inadequate to support the added attachment, it would not be allowed until the pole was replaced. Verizon is aware of

no data that would support a requirement for a system-wide inspection for overloaded poles, and, indeed, is aware of no indication that any of its poles are or may be overloaded.

Verizon recommends that the requirement be reworded to reflect: For telecommunications utilities, it is recommended that processes and procedures be in place to conduct joint inspections and develop engineering data on pole integrity prior to any additions of pole attachments. The joint inspections involve the pole owner and the party requesting the cable attachment. No attachments will be allowed if the result of such inspection reveals an overload situation will occur. Inspection of existing poles to ensure proper standards are being met will occur during the normal course of the utilities business associated with repair, installation or modification of outside plant facilities. If an unsafe condition is detected, parties are to be notified and corrective action is taken.

9. **Require telecommunications utilities to install onsite generators with a minimum of seventy-two hours of fuel in all central offices in hurricane prone areas. Utilities should also be required to have processes in place to ensure refueling of these generators for extended periods of time.**

Comment - Verizon addressed this requirement at the May 16 meeting. It has 28 exchanges in the hurricane prone area, of which, 20 have emergency generators on site with fuel storage sufficient to provide 72 hours of power to the Central Office under 90% load conditions. The other 8 exchanges, all very small, are scattered along the Gulf Coast from the Valley (Lyford) to the Corpus Christi area (Bishop, Taft, and Odem) to around Calhoun County (Tivoli, Vanderbilt, Port O'Conner and Port Comfort). For those exchanges, the Central Offices are equipped with 8 hour battery reserves; portable generators, equipped with 50 gallons of fuel, are within a very short distance away. (For example, Weslaco has a portable generator stored on site that can be moved into Lyford, less than 50 miles away in less than 2 hours.) Verizon arranges for fuel trucks to be available to provide fuel to all locations with emergency generators even when a portable generator is deployed to a location in preparation for a hurricane. This practice of maintaining a mix of on site generators with portable generators within easy delivery distance to

sites, whose size does not warrant on-site emergency power capabilities, has provided excellent coverage in the several years that it has been in place. Importantly, during the last hurricane season, while Verizon sustained some damage (including loss of the roof of a major facility), it did not lose a Central Office. To provide on-site generators at the 8 locations equipped with 72 hour fuel capacity would cost Verizon over \$860,000, and likely raise local concerns about placement of underground storage tanks.

Verizon recommends that the requirement be reworded to reflect: It is recommended that telecommunications utilities have on-site generators with a minimum of seventy-two hours of fuel under 90% load conditions in all central offices in hurricane prone areas. For those central offices not having on-site generators, portable generators must be readily available for immediate deployment and stored no further away than 100 miles. Processes are to be in place to ensure refueling of these generators, on site or portable, for extended periods of time.

Long Term (more than one year, ongoing)

- 10. Require annual upgrades to current National Electric Safety Code (NESC) wind loading standards of at least 10% of the 230 kV or greater above-ground transmission infrastructure and 5% of the 138 kV or less starting with the highest voltage lines.**

In addition, all transmission infrastructure upgrades within ten (10) miles of the Texas coastline should be required to meet current NESC standards assuming 140 mile-per-hour wind speed. Annual reports on the utilities' upgrading programs should be reported to the Commission.

Comment - This requirement is for the electric utilities.

- 11. Require all new and replacement transmission structures to be pre-stressed concrete or steel.**

Comment - This requirement is for the electric utilities.

- 12. Require utilities, through negotiation with landowners, to remove all trees that have limbs extending into, or those that may potentially extend into, the transmission and distribution ROW easements under high wind conditions.**

Comment - As with the requirements within the right of way, this requirement seems overbroad.

In the first instance, removal should be replaced by "remediate" or "remove or trim" as, often, an entire tree is not endangering the facility, merely a limb.

Further, it is extremely likely that many landowners will balk at removing trees merely because they have limbs that “may potentially extend into . . . ROW easements.” The customer or property owner, not the utility company, is responsible for maintaining trees and vegetation around secondary lines and outside of utility easements. These also include service drops that lead to the home or business. Tree trimming should be conducted for safety and reliability reasons and not for potential threats of nature.

The problem is exacerbated by the many city and county ordinances which require permits to cut trees in excess of 6” in diameter in their communities. Depending on the density of tree growth, environmental impact statements may also be required regarding the effect that tree removal may have on ground water recharge and runoff.

Finally, almost by definition, utilities lack the authority to remove or trim trees outside their rights of way easements. It is inappropriate to deem this a “requirement” when the utilities are unable to carry out the mandate.

Verizon recommends that the requirement be reworded to reflect: It is recommended that utilities negotiate with land owners to remove or trim all trees that have limbs extending into, or that may reasonably be expected to extend into, transmission or distribution ROW easements under high wind conditions.

13. **Require utilities to identify any damage of transmission and distribution facilities that occurs as the result of a weather event other than lightning, and provide an annual report to the Commission that includes; the cause of the damage, the type of facility involved and the voltage, and age of the structure or facility.**

Comment - This requirement appears to be for electric utilities. To the extent it is not, it seems an inappropriate use of limited resources in emergency conditions. To the extent that the Commission seeks data regarding the root cause of weather-related damage to outside plant facilities, this seems more appropriately the subject for analysis by a university engineering department than utilities field-personnel whose primary mission and training is to restore service promptly and safely.

14. **Require utilities to design and construct all substations so that no water enters the control house or damage any electrical equipment in the substation during a 500-year rain event rendering electrical equipment inoperable due to accumulated water.**

Comment - This requirement is for the electric utilities. Technological advances render it unlikely that any central offices will be constructed in the future, and smaller remote equipment, like pair-gain devices or remote terminals, are installed based on proximity to served areas.

15. **Electric utilities have embarked on projects to modernize the electric grid by deploying intelligent devices on the network. These deployments will enable 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 incentives to encourage such deployments by electric utilities.**

Comment - This requirement is for electric utilities.

16. **If new underground distribution facilities must be installed in the rear of residential lots, require developers and homeowners to provide at least a 10-foot ROW restriction upon the inclusion of trees or other structures so the suitable access is available for any future repair work.**

Comment - Verizon supports this requirement and incorporates it into its current practice; however, it is beyond the authority of both the Commission and utilities to enforce. Homeowners often fence, landscape, or place portable buildings or other structures in these areas to enhance their property.

Verizon recommends that the requirement be reworded to reflect: If new underground distribution facilities must be installed in the rear of residential lots, *work with* developers and homeowners to provide at least a 10-foot ROW restriction upon the inclusion of trees or other structures so the suitable access is available for any future repair work.

17. **Require burial of all new distribution lines serving new residential developments.**

Comment - Verizon supports this requirement and incorporates it into its current practice wherever possible. Many factors such as soil type, depth to bedrock, vegetation, water levels, and labor costs are also considered prior to facilities being placed (e.g., aerial cable in the Hill Country area) Labor costs associated with the placement of underground utilities are generally 2-3

times the cost of aerial labor. The mandating of buried distribution lines in all new residential developments may be prohibitive solely based upon terrain conditions.

Verizon recommends that the requirement be reworded to reflect: *Where possible, seek* burial of all new distribution lines serving new residential developments.

18. Encourage developers of new residential developments to locate underground facilities in front of homes or in accessible alleyways.

Comment - Verizon supports this requirement whenever possible although most city and county entities have no requirements in place for prior approval by utility companies as to design and placement of easements. Development notification to utilities is typically after final platting and recording has taken place. The establishment of local city and county ordinances would be required for complete compliance. This requirement is much more in the hands of developers than it is the utilities.

Respectfully submitted,

VERIZON SOUTHWEST

By: Bruce D. Cohen *ra*
BRUCE D. COHEN
Texas Bar No. 24014866
816 Congress Avenue, Suite 1500
Austin, TX 78701
512-370-4231
Fax: 512-370-4275

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the Comments of Verizon was hand-delivered to the General Counsel this 30th day of May 2006.

Emma R. Azarani