Control Number: 32182

Item Number: 2

Addendum StartPage: 0

32182

2005 DEC 13 PM 1:04

OPEN MEETING COVER SHEET

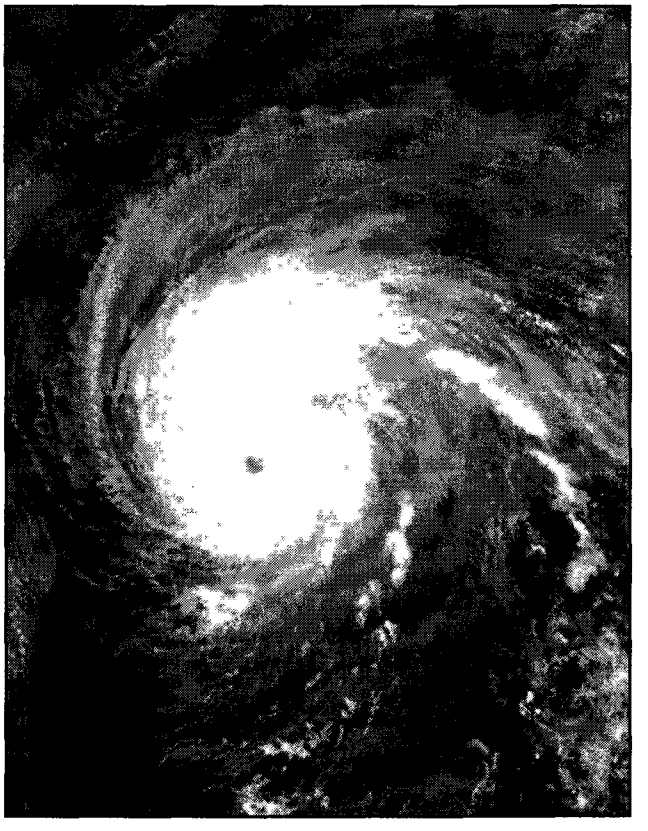
MEETING DATE:	December 15, 2005
DATE DELIVERED:	December 13, 2005
AGENDA ITEM NOS.:	9 & 39
CAPTION:	Infrastructure Reliability, Emergency Management, and Homeland Security matters. Hurricane Rita After Action Report and Recommendations.
ACTION REQUESTED:	Discussion and possible action.

Distribution List:
- Commissioners' Office (7)
- Central Records
- Adib, Parviz
- Cooper, Tammy
- Featherston, David
- Gage, Theresa
- Hunter, Tom (2)
- Journeay, Stephen
- Lanford, Lane
- Luna, Beverly
- Mueller, Paula
- Renfro, Mike
- Tietjen, Darryl
- Totten, Jess
- Whittington, Pam

2

Hurricane Rita

After Action Report and Recommendations



By David Featherston
Infrastructure Reliability Division Director &
Homeland Security Coordinator

Assisted by the Hurricane Rita Tiger Team &
The PUC Emergency Management Response Team

December 15, 2005

PUC EMRT Report
Summary of events

Prior to Landfall

On September 19, 2005 the PUC emergency management response team sent out a mass email to all utilities in Texas asking them to review their emergency plans, check inventories, and prepare their crews for Hurricane Rita. All of the major utilities along the coast responded promptly with a summary of their emergency plans. All of the companies had crews prepared, inventories stocked, generators gassed up, in addition to activating their emergency centers.

Landfall

Hurricane Rita made landfall in the early morning hours of September 24, 2005 in the Beaumont/Port Arthur area as a strong category 3 hurricane. This was less than one month after Hurricane Katrina made landfall in the New Orleans area as a category 4.

Outages

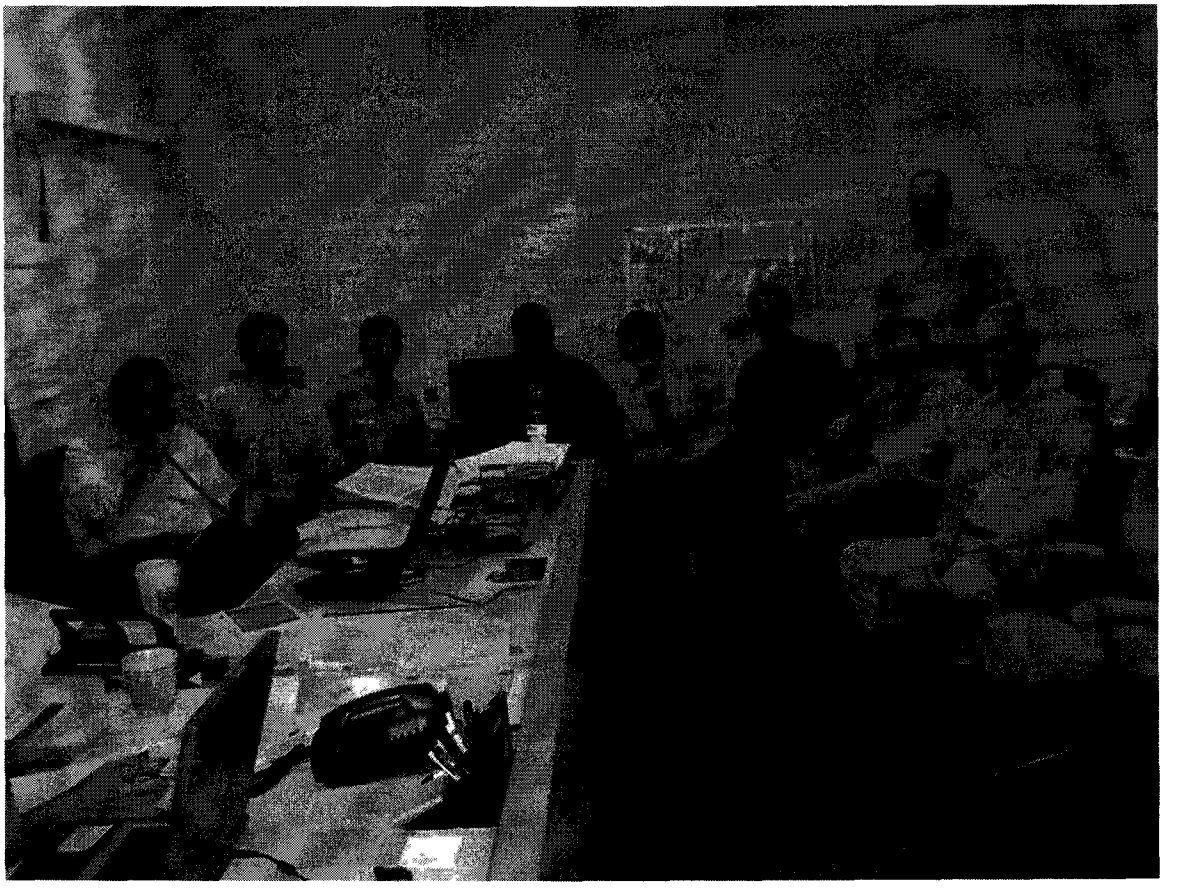
At the outage peak 1,500,244 customers in Texas were without power. Power was declared to be fully restored in Texas on October 8, 2005 (see attached outage reports).

Presidential Visit

On September 24, 2005, President George W. Bush stopped by the State Operations Center to discuss Hurricane Rita restoration efforts and to thank the state and federal employees working in the SOC on Hurricane Rita restoration.

Tiger Team

On September 26, 2005 Jack Colley, State Coordinator of the Division of Emergency Management, appointed a "Tiger Team" to coordinate the electric service restoration effort. The Tiger Team was headed up by David Featherston and David Abernathy, of the Texas Forest Service and consisted of representatives from Entergy, CenterPoint, AEP, TXU, the Department of Energy, FEMA, and the Corps of Engineers. The goals of the Tiger Team were to expedite the restoration effort and to help facilitate coordination between electric utilities.



The Tiger Team members were, from left to right, Nelson Nease, representing the East Texas Cooperatives; Gilbert Hughes, AEP; David Abernathy, Texas Forest Service; David Featherston, PUC; DeAnn Walker, Centerpoint; Pete Carhart, TXU; Al Courts (standing), DOE; Barry Howell, Entergy; and Steve Owens, Entergy.

Eminent Domain Order from Governor

On September 26, 2005 Governor Rick Perry issued an on order allowing electric utilities to construct facilities over private land without the need to obtain an order of eminent domain from a court of competent jurisdiction.

Action of Public Utility Commission

The PUC voted on September 27, 2005 to allow electric utilities in the ERCOT grid to provide service and construct facilities into the Entergy service territory. The order should waive the service area certificate requirements and CCN certification requirements of the PUC to accomplish emergency work in the Entergy service territory.

Action of DOE and FERC

DOE issued an order on September 28, 2005 pursuant to 202(c) and (d) to allow the ERCOT utilities to provide service into the Entergy service territory without becoming FERC jurisdictional. The order declared that an emergency exists and power can be interconnected between the regions without the ERCOT utilities becoming "public utilities" as defined by Federal law.

PUC EMRT

The PUC emergency management response team logged over 750 hours on Hurricane Rita restoration efforts. This was the largest restoration effort in the PUC's history.

PUC EMRT Recommendations

- That the PUC EMRT increase its staffing of the SOC during hurricanes to two members during daytime hours once landfall occurs. One staff member will continue to staff evening and overnight shifts.
- That the Tiger Team concept be continued. However, Tiger Teams should only be formed to address emergencies that are large scale and affect multiple utilities over an extended period of time.
- That the PUC staff open an investigation to determine what is the appropriate infrastructure to deploy in hurricane-prone areas. This investigation would look at the infrastructure that was in place prior to Hurricane Rita, what infrastructure was installed to restore service post Hurricane Rita, and what infrastructure should be installed in the future to prevent similar damage from future hurricanes (monopoles vs. H-frame and lattice towers vs. underground facilities). This investigation will also examine the costs of hardening the network and who should pay (see the attached investigation outline). The Florida PSC has launched a similar investigation.

Investigation of Methods to Improve Electric and Telecom Infrastructure that Will Minimize Long Term Outages and Restoration Costs

Goals

- Minimize damage due to hurricanes that strike the Texas coast
- Minimize restoration times following major hurricanes
- Minimize the impact of rate increases resulting from hurricane damage

Process

Solicit information in the form of workshops and request for information from electric and telecommunication utilities concerning damages and outages resulting from Hurricane Rita.

1. For utilities seriously affected by Rita, an assessment of actual damages, costs, and outage causes/durations.
2. Utilities expectation on the duration of outages and amount of damage from a storm of Hurricane Rita's magnitude before the storm developed.
3. Lessons learned from the actual damages caused by Rita and the efforts required for system repair and restoration of service to affected customers.
4. Planned improvements and changes to utility systems and practices resulting from lessons learned.
5. Improvements and changes to utility systems and practices that have been identified but not thoroughly evaluated and tested that might reduce restoration time and system damages (mono-poles vs. H Frames and Lattice Towers vs. undergrounding).
6. For each utility, an estimated cost of infrastructure improvements/upgrades required for the system to meet the following criteria.
    a. To meet current reliability expectations if not met during and after Hurricane Rita
    b. To lessen the likelihood of outages on strategic parts of the utility system
    c. To improve overall system protection in order to endure a direct hit by a Category 4 hurricane and sustain only minor outages and damage

Steps

Solicit public input through a series of public meetings in Beaumont, Houston, and Corpus Christi. Invite public officials, business owners, and residents of Gulf coast areas

to express views about information provided by the utility companies including improvement costs and the need to reduce restoration time and lessen storm damage.

Review industry practices and research concerning infrastructure improvements to protect system from major storms.

Monitor relevant investigations and studies being conducted by state officials in other states.

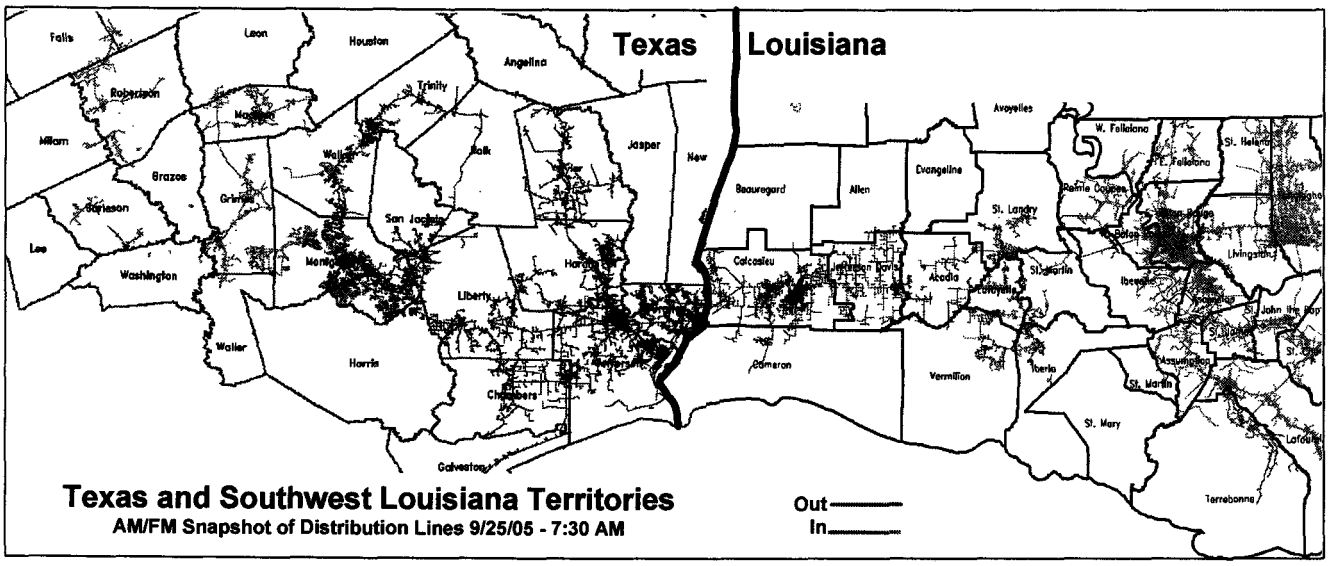
Obtain information and make recommendations if required to improve utility operations planning activity based on meteorological data.

Develop recommendations for improvements and changes to utility infrastructure and practices and for cost recovery methodologies to be considered by the Commission.

Company Summaries of Hurricane Rita Restoration Efforts

Entergy Gulf States

Hurricane Rita wreaked havoc across a huge swath of Entergy's service territory. In addition to the significant damages inflicted on the Texas and Southwest Louisiana areas, lingering bands of severe weather also impacted North Louisiana, Arkansas and Mississippi service areas.



Impact statistics:

- 766,410 customers out of service at peak due to Rita, not including the 212,000 still out in the greater New Orleans area due to Katrina. (286,609 in Texas)
- 343 transmission lines out of service, many with extensive damage.
- 436 substations out of service
- Heavy damage to distribution and transmission systems and generation plants
    - 12 of 14 generation units damaged and taken off-line
    - All transmission connections from Louisiana to Texas severed -- 3,803 miles of transmission lines out at peak
    - Nearly 10,000 distribution poles down in Texas -- many snapped in half

Rita represents the 2nd biggest storm in Entergy's history. While the number of customers affected by Katrina was higher by virtue of striking our densest population area, the infrastructure damage from this storm, particularly to the transmission grid, was much greater.

Rita inflicted extensive damage to the transmission grid, severing east-west connections between Lafayette, Louisiana and Conroe, Texas and isolating all Entergy generation in the area from the grid. The entire geographic area between these points was out. All transmission lines to the major industrial loads (7 refineries) in the Lake Charles – Port Arthur area had extensive damage.

The 500 kV line from Hartburg to Nelson had thirteen structures down and damaged equipment in the Hartsburg substation. Utilization of generation assets in the impact area is constrained by severe damage to the transmission grid, including separation of the west of the Atchafalya basin (WOTAB) transmission area from the eastern half of the system and isolation of Nelson and Sabine. Lewis Creek remained fully operational and the Frontier IPP provided an additional source into the "islanded" west Texas service area. Sabine, Nelson Station and the remaining IPP's and QF's are unavailable.

Restoration Assessment and Overall Effort

The initial challenge was to restore the bulk transmission east-west interconnect in order to stabilize the grid, provide station service to restart generating units, and reconnect the limited substations where a source of supply and connection to load was available.

Entergy used its proven strategy of working from the "outside-in," concentrating first on restoring fringe areas where transmission/generation could support load, damage was lighter, and customer expectations were higher. Areas with heavily damaged transmission grid that can be bypassed will be restored last. Priority restoration was to company control points, pumping stations, hospitals, water systems, fire & police stations, telecommunications, refineries & petro-chemical plants. Generation, transmission and distribution had to be carefully coordinated to balance generation-to-load during recovery to assure grid stability. Public appeals and rolling outages in the western areas of the Texas service territory were necessary in the early stages of restoration to maintain that balance.

In addition, customer contact resources had to be ramped up to coordinate with customers.

Outside the Southeast Texas/Southwest Louisiana area the impact to the transmission system was less severe.

Restoration Details

- 4,000 personnel pre-staged to respond to Rita
- Procured 5,000 additional personnel
- Established command centers: Texas (Beaumont); Texas alternate (Conroe); System (Jackson, MS)
- Resources
- Core team designated to remain at a local safe site during the event and manage the restoration immediately after the storm

- Evacuation team designated to drive company vehicles to a pre-designated staging area and immediately return after the event to begin restoration
- Additional crew procurement via mutual assistance agreements
- Pre-storm material and fuel ordering and staging
- Pre-agreements for staging sites
- Reviewed pre-storm checklists at 72, 48, 36 and 24 hours before projected storm landfall
- Informed state and local government officials and public of potential long-term outages
- Enlisted support from other Entergy areas, such as fossil and nuclear
- Designated 2 super staging sites and 14 regular staging sites
- Held numerous operations and storm center conference calls daily
- Held daily conference calls with local officials and news media
- Over 9,200 line, support and vegetation personnel employed
- Utilized specialized equipment, including cranes and helicopters, to expedite restoration
- Used Automated Mapping/Facilities Management (AM/FM) outage management maps to assist in managing restoration
- Ramped up Call Centers to handle increased call volume
- Opened 9 Customer Information Centers (CIC) to allow public to locally review the status of their affected area's restoration

Wholesale Meter Points – Cooperatives and Municipal Customers

- Hurricane Rita impacted 55 of the 66 wholesale meter points on the Entergy System. These meter points serve cooperatives and municipal customers of Entergy Texas.
- By October 3rd, restoration had recovered all but 22 of those meter points.
- By the end of the day on October 8 all but one of those meter points had a source of energy with Deweyville being the only point without an energy source.
- On October 11, the Deweyville meter point was restored. At that time, two of the meter points were being served by ERCOT via the CenterPoint Energy tie to the Entergy Texas transmission system.

CENTERPOINT ENERGY TO ENTERGY TEXAS TIE

- Entergy and CenterPoint Energy used some unprecedented solutions to provide assistance in providing a limited 138kV transmission source to the

Gordon substation. This unique solution was used for electric service to a pumping station for the potable water supply for the City of Houston and additional loads in the Southeast areas of the Texas service territory. In addition, Entergy worked closely with TXU and the Coops in switching some of the Jasper/Newton Coop loads from Entergy to TXU during the restoration. This flexibility also helped in speeding restoration to the northern portion of the Texas service territory

- Between 10:30 pm on October 18 and 12:30 am on October 19, Entergy Texas and CenterPoint Energy personnel managed the elimination of the Crosby tie to the Entergy Texas transmission system and all customers being served at that time by ERCOT were converted to service via the Entergy system.

Customer Outage Numbers

- **Storm Peak Customers out 286,609 as of 9/25/05**

Date	Customers Out	Restored	Cumulative Restored
9/26/05	261,809	24, 800	24,800
9/27/05	253,798	8,011	32,811
9/28/05	246,827	6,971	39,782
9/29/05	232,856	13,971	53,753
9/30/05	221,683	11,173	64,926
10/1/05	201,081	20,602	85,528
10/2/05	173,920	27,161	112,689
10/3/05	158,102	15,818	128,507
10/4/05	134,598	23,504	152,011
10/5/05	107,265	27,333	179,344
10/6/05	89,461	17,804	197,148
10/7/05	62,864	26,597	223,745
10/8/05	53,123	9,741	233,486
10/9/05	43,243	9,880	243,366
10/10/05	26,203	17,040	260,406
10/11/05	23,976	2,227	262,633
10/12/05	16,031	7,945	270,578
10/13/05	7,200	8,831	279,409

10/14/05	933	7,898	287,307

CenterPoint Energy Tiger Team Report

CenterPoint Energy Territory Restoration

Tuesday, September 20, 2005:

Executives and Key Emergency Operation Plan (EOP) Council members began conducting strategy meetings.

EOP is officially activated (all vacations cancelled; personnel prepare for EOP assignments)

EOP timelines are reviewed (identified critical decision trigger points)

Employee Hotline activated

Wednesday, September 21, 2005:

Procured hotel rooms for CenterPoint Energy personnel that had to evacuate storm surge area

Began the process to obtain level one material

Preliminary contacts began for resources

Mr. McClanahan made announcement for supervision to release personnel to make arrangements for their families and homes.

Thursday, September 22, 2005:

Began the process to obtain contractors, mutual assistance crews, tree trimmers, and logistic resources.

Activated the Sam Houston Race Track staging site

Started setting up the Central Evaluation Center (CVAL) at Bellaire Service Center

Scheduled key personnel to ride out storm at key CenterPoint Energy locations

Began staging material from Central Warehouse to satellite warehouses

Friday, September 23, 2005:

Officially opened all Evaluation Centers (CVAL at Bellaire, DVAL at South Houston Bldg B, Major UG at Harrisburg, Transmission and Substation at South Houston Bldg. B and Energy Control at EC/DC.

All Service Centers began setting up and configuring facilities for storm restoration operations

All communication systems were tested

Supplemental communication devices (satellite phones) were procured

All CenterPoint Energy facilities were staffed and prepared for the storm

Saturday, September 24, 2005:

Customers without power peaked at 715,000 as of 7:10 AM.

After winds reduced to below 40 MPH, deployed line crews and patrol teams to assess damage

Determined that there was minimal damage to the Transmission and Substation facilities

By circuit priority, began cut and clear switching operations to re-energize as many circuits as possible

Tree trimming crews began tree removal and clearing on priority circuits

Started processing and orienting contractors at staging sites

Began assigning contract crews to distribution damage locations

Sunday, September 25, 2005

Customers without power was 299,600 as of 8:20 AM. There were 98 circuits and 1,808 fuses affected.

Continue to work on main feeder circuits - cut and clear switching and repair to main feeder circuit damage

Customers without power was 261,719 as of 2:30 PM. There were 68 circuits and 1,841 fuses affected.

Began re-deploying internal resources from western part of system to the more heavily damaged areas in the East

Customers without power was 205,300 as of 8:30 PM.

Monday, September 26, 2005

Customers without power was 183,235 as of 08:30. There were 27 circuits and 1,766 fuses affected.

Began concentrating on line fuses now that main feeder circuits have been completely inspected and are in process for repair

Created additional 2 man line fuse crews by placing one gas person with an electric person to expedite restoration of line fuses

Customers without power was 141,696 as of 16:00. There were 19 circuits, 1,405 fuses, and 825 transformers affected.

Tuesday, September 27, 2005

Customers without power was 95,250 as of 14:00. There were 6 circuits, 1,001 fuses, and 620 transformers affected.

Continued main feeder circuit repair

Continued to repair line fuses - refused those that had no damage behind them and reported damage areas for repair

Wednesday, September 28, 2005

Customers without power was 50,000 as of 08:30. There were 3 circuits, 625 fuses, and 288 transformers affected.

Continued main feeder circuit repair

Continued to repair line fuses - refused those that had no damage behind them and reported damage areas for repair

Began repairing single point outages that involved only transformers and drops

Customers without power was 37,500 as of 14:30. There were 2 circuits, 448 fuses, and 204 transformers affected.

Customers without power was 19,425 as of 19:30.

Thursday, September 29, 2005

Customers without power was 10,200 as of 07:30. There were 2 circuits, 159 fuses, and 98 transformers affected.

Customers without power was 7,685 as of 13:45. There was 1 circuit in the Humble service center affected.

Customers without power was 7,265 as of 14:30.

Customers without power was 6,100 as of 15:00. There were 1 circuit, 119 fuses, and 53 transformers affected.

Friday, September 30, 2005

Normal operations for CenterPoint Energy's emergency operation plan became effective at 7:00 AM.

Entergy Territory Restoration

Saturday, September 24, 2005

CenterPoint Energy was contacted by the Mayor of Houston concerning the water pumping stations on Lake Livingston. CenterPoint Energy began researching, analyzing data, and obtaining governmental approvals to energize the Crosby-Dayton interconnection.

Sunday, September 25, 2005

CenterPoint Energy continued to research, analyze data, and obtain governmental approvals to energize the Crosby-Dayton interconnection.

Substation Performance crew was dispatched to Crosby to verify operational capability of switch #5085.

Monday, September 26, 2005

CenterPoint Energy repaired the transmission facilities between Entergy's Dayton and Gordon substations. Metering equipment and a fault recorder were installed at the Crosby-Dayton interconnection. The transmission circuit from CenterPoint Energy's Crosby substation to Entergy's Dayton substation was energized.

CenterPoint Energy attempted to energize circuits all the way to Gordon substation, but the circuit tripped out on relay protection. A distribution pole was located in the transmission line between Dayton and Crosby; CenterPoint Energy repaired and left energized to open switch 5156 at Dayton at 8:47 PM.

The PUC, DOE, FERC, and ERCOT were sent notice that the emergency interconnection had been established between CenterPoint Energy and Entergy at the Crosby-Dayton Tie.

Tuesday, September 27, 2005

In the morning, the line was energized to Gordon substation, thereby providing power to Trinity River water pumping station.

The Block Load Transfer between CenterPoint Energy and Entergy began at 12:09 PM. At 1:38 PM, five pumps were in service at the pumping station. In the process, transmission connections were established to Dayton, Liberty, Raywood, and Magnolia Ames substations, approximately 33 circuit-miles of transmission facilities.

At 4:10 PM, distribution circuits at Liberty were energized serving load to the hospital and water supply in the City of Liberty.

Wednesday, September 28, 2005

Five distribution circuits were energized at Dayton Bulk substation.

CenterPoint Energy reached an agreement with Entergy to assume primary responsibility for repairing and restoring transmission, substation, and distribution facilities in Chambers, Galveston, and portions of Liberty Counties.

CenterPoint Energy assessed and repaired transmission facilities necessary to energize Huffman substation; however, Entergy did not authorize CenterPoint Energy to restore service from the Dayton connection to CenterPoint Energy.

Thursday, September 29, 2005

CenterPoint Energy energized the New Long John substation to provide power to Sam Houston Electric Cooperative.

Friday, September 30, 2005

CenterPoint Energy restores transmission connections to Bayshore substation and attempts to provide service to various substations serving pipeline compressor stations. The transmission facilities to the Crosby-Dayton Tie tripped, but were returned to power to the Bayshore substation.

Relaying and circuit breakers are established at Raywood substation.

Saturday, October 1, 2005

CenterPoint Energy repairs the circuit from Bayshore to Stowell. CenterPoint Energy attempts to energize the circuit, but the circuits are tripped by relay and circuit breaker action at Crosby and Raywood substations. Service is restored in segments from Crosby to Shiloh.

56 lineman plus support personnel replace 3 poles, 70 spans of primary and 6 spans of secondary.

CenterPoint Energy energized an empty WalMart in the City of Crosby to be used as a donation center.

Sunday, October 2, 2005

CenterPoint Energy located a tree on the circuit between Shiloh and Bayshore and removes it. The circuit from Shiloh to Stowell is restored.

Distribution crews replaced 119 poles, 370 spans of primary, 7 transformers and 39 drops.

Monday, October 3, 2005

CenterPoint Energy energized from Stowell to Winshire substations. Transformer high side switch conditions at Big Hill were verified. The line from Stowell to Big Hill was energized, as well as transformer #2 at Big Hill. Transformer #1 was left out of service due to defective high side switch.

CenterPoint Energy completes repairs of all Bolivar Peninsula transmission circuits. However, restoration is delayed pending relaying information from Entergy.

Entergy requested that CenterPoint Energy repair and energize the transmission facilities between Raywood substation and the Daisetta substation.

The following pipeline industrial customer substations in Entergy's area were receiving power through the CenterPoint Energy interconnection: Mobil Pipeline (Magnolia/Ames substation), Explorer (Hankamer substation), Colonial Pipeline (Shiloh substation), and Teppco substation.

Distribution crews replaced 88 poles, 398 spans of primary, 15 transformers, and 123 service drops.

The following percentage completions for distribution apply:

Hankamer 206	60%
Hankamer 207	70%
Bayshore 211	90%
Bayshore 212	100%
Bayshore 213	75%
Stowell 231	100%
Stowell 232	75%
Stowell 233	In progress
Sandy Shores 201	75%
Sandy Shores 202	75%
Blue Water 100	50%
Blue Water 101	100%
HI 221	To be assigned 10-4-05
HI 222	To be assigned 10-4-05

Tuesday, October 4, 2005

Relaying issues are resolved, and transmission connections are restored to all Bolivar Peninsula substations. The transmission line from Himex to Blue Water substation is energized. At this point, all transmission circuits and substations assigned to CenterPoint Energy have been restored.

Entergy coordinates with CenterPoint Energy to disconnect New Long John substation from Dayton and reconnect it to Entergy's system through Tarkington substation.

CenterPoint Energy begins to restore distribution service to Bolivar Peninsula.

Distribution crews replaced 174 poles, 390 spans of primary, 16 transformers, and 63 service drops.

Mutual Assistance crews replaced 174 poles, 390 spans of primary, 16 transformers, and 63 service drops.

The following percentage distribution completions apply:

Hankamer 206	100%
Hankamer 207	100%
Bayshore 211	100%
Bayshore 212	100%
Bayshore 213	100%
Stowell 231	100%
Stowell 232	100%
Stowell 233	75%

Sandy Shores 201	100%
Sandy Shores 202	100%
Blue Water 100	100%
Blue Water 101	100%
HI 221	100%
HI 222	100%

Wednesday, October 5, 2005

Entergy has repaired the Raywood – Devers Marsh transmission circuit, through which a Kinder Morgan compressor station is served. Entergy requests CenterPoint Energy to energize the Raywood – Devers Marsh circuit, which CenterPoint Energy does.

All distribution circuits assigned to CenterPoint Energy completed.

CenterPoint Energy crews begin work as "Mutual Assistance" emergency crews. The existing contracts with caterers at staging sites were transferred to Entergy, (Sam Hopkins to Doug Skinner). Lodging continues to be a problem with the large influx of Evacuees. Butch Barger, Ed Russell, and Robert Gordon headed up the Mutual Assistance crews and will coordinate through Entergy.

Mutual Assistance Crew #1 was sent to Bridge City. They replaced 74 poles, 362 spans of primary, 20 transformers, and 76 service drops.

Mutual Assistance Crew #2 with approximately 69 employees was sent to Bridge City and began work.

Thursday, October 6, 2005 and Friday, October 7, 2005

Mutual Assistance Crew #1 worked in the Bridge City area. They replaced 21 poles, 210 spans of primary, and 15 transformers.

Mutual Assistance Crew #2 replaced 36 poles, 18.4 miles of primary, 24 transformers, 79 service drops, 38 spans of secondary, straightened 98 poles and prepared 93 grounds for tree trimmers.

As of Friday, CenterPoint Energy had energized 20 Entergy substations via the single Crosby substation source.

Entergy requested that CenterPoint Energy transmission crews work on circuit 552 from Big Hill to Memorial.

Saturday and Sunday, October 8 and 9, 2005

Saturday, October 8, 2005 - Entergy contacted CenterPoint Energy requesting transmission line between Big Hill and Bayou Farms to be energized. Transmission Operations inspected the line and released their clearance at 7:20 PM. Entergy elected to postpone energizing this line until the following day.

Mutual Assistance Crew #1 replaced/repaired 31 poles, 223 spans of primary, 19 transformers and 10 drops.

Mutual Assistance Crew #2 replaced/repaired 23 poles, 26.7 miles of primary, straightened 60 poles, 16 transformers, 48 spans of secondary, 126 drops and prepared 22 sets of grounds for tree trimmers.

Monday, October 10, 2005

At this point, CenterPoint Energy had energized 21 Entergy substations via the single Crosby substation source.

Both Mutual Assistance crews moved out of the Bridge City area and began working in the Orange area.

Mutual Assistance Crew #1 repaired/replaced 8 poles, 91 spans of primary, 2 transformers, and 35 drops.

Mutual Assistance Crew #2 repaired/replaced 7 poles, 4 miles of primary, 37 spans of secondary, 39 sets of drops, 7 anchors, 7 sets of grounds for tree trimmers, and straightened 11 poles.

Tuesday, October 11, 2005

Mutual Assistance Crew #1 repaired/replaced 8 poles, 91 spans of primary, 2 transformers, and 35 drops.

Mutual Assistance Crew #2 repaired/replaced 7 poles, 4 miles of primary, 37 spans of secondary, 39 sets of drops, 7 anchors, 7 sets of grounds for tree trimmers, and straightened 11 poles.

Thursday, October 13, 2005

Entergy notified CenterPoint Energy that CenterPoint Energy's transmission crews were released from Entergy mutual assistance efforts.

Friday, October 14, 2005

Mutual Assistance Crew #1 was released from Entergy mutual assistance efforts.

Wednesday, October 19, 2005

The PUC, DOE, FERC, and ERCOT were sent notice that the emergency interconnection had been opened between CenterPoint Energy and Entergy at the Crosby-Dayton Tie.

American Electric Power

Tuesday, September 20, 2005:

AEP Texas activated its Emergency Operations Center (EOP) and began conducting strategy meetings.

Wednesday, September 21, 2005:

- AEP issues news releases in advance of Rita to inform customers on life support to make preparations in case of prolonged power outages.
- News release also posted on aeptexas.com, aepcustomer.com, and AEP.com

Thursday, September 22, 2005:

- Projections predict that only the northern part of the Corpus Christi District are likely to encounter the effects of this storm.
- Anticipated landfall near Galveston, Texas early Saturday morning 3-5 am
- Assessors will be staged to enter the field very early Saturday following the storm.
- Local crews will spend Friday night in AEP facilities to begin work as soon as the storm passes Saturday morning.
- Other AEP-Texas crews will be staged outside the storm path ready for work Saturday afternoon.
- Outside assistance to be staged to arrive ready for work on Sunday.
- Restoration Command Center at the Corpus Christi Distribution Dispatch Center will be activated Friday afternoon

Friday, September 23, 2005:

- AEP-Texas has begun to decrease its resource plan for Hurricane Rita.
- All weather projections for the last 24 hours have continued to show Rita following the anticipated turn to the north with landfall anywhere from Galveston Bay, Tx., to Lake Charles, La.

- AEP-Texas Preparations:
  - Only using AEP-Texas line and service personnel.
  - No outside line or service personnel are anticipated.
  - All resources requested from other companies and mutual assistance organizations have been released to those remaining in the storm path
  - Crews are being staged in the Victoria, El Campo, Bay City and Victoria areas
  - AEP-Texas Distribution crews are being brought in from Abilene, San Angelo, Laredo and San Benito Districts.
  - Transmission and Substation plans are being reviewed at this time.

- Plans have been made to release AEP-Texas crews to SWEPCO once Texas restoration is complete
- Following the restoration of SWEPCO facilities AEP-Texas crews will be released to neighboring utilities needing assistance
- Preparations for Rita's arrival are continuing within all departments across SWEPCO.
- Staging Areas established for restoration:
  1. Bossier City, Louisiana
  2. Shreveport, Louisiana
  3. Longview, Texas
  4. Texarkana, TX

Saturday, September 24, 2005:

- SWEPCO begins feeling the affects of Rita
- In Texas, fifteen Major Feeders out and 2 Substations out (Center and Georgia Pacific) A majority of outages due to wind blowing trees and debris into and onto power lines.
- SWEPCO has approximately 180,000 customers without power. In Texas SWEPCO has 74,035 customers out of service.
- Because of the high winds and rain, assessment and restoration efforts have been difficult
- SWEPCO has set up staging areas and allocated outside resources for restoration crews that are arriving.
- SWEPCO has approximately 500 additional line crew personnel arriving to assist in restoration.

Sunday, September 25, 2005

- By Sunday evening SWEPCO has approximately 62,766 customers without power:
  - Shreveport 36,379
  - Fayetteville 45
  - Longview 26,342
- In Texas:

Carthage – 6284	Henderson- 3576

Kilgore - 3153	Longview - 11568
Marshall - 6468	Mineola - 6719
Mt. Pleasant - 1432	New Boston - 49
Texarkana - 5720	

- Phone Center, 25,000 calls received since midnight Saturday. Staffing up Monday morning due to regular business
- Transmission - 3-69 kv will still out of service, should be complete by dark Monday.

Monday, September 26, 2005

- By Monday evening SWEPCO had approximately 12,875 customers without power
- In Texas SWEPCO has the following communities out of service:

Carthage 2,400	Henderson 650
Kilgore 475	Longview 2300
Marshall 400	Mineola 900
Texarkana, TX 175	

- Restoration work is going well
- Call Center - 8,800 calls since midnight
- 1 - 69 kv line still out, due to be in service this evening
- AEP begins committing some resources to Entergy

Tuesday, September 27, 2005

- AEP sends 123 line personnel to assist in Entergy's restoration efforts and is working to identify AEP and contractor resources that could be released over the next 6 days.

- SWEPCO Texas continues to work on restoration in the following communities:

Carthage/Center 593	Henderson 110
Kilgore 69	Longview 27
Marshall 70	Mineola 142

Wednesday, September 28, 2005

- SWEPCO is completing restoration efforts. The following communities are still out of service.

Carthage/Center 100	Henderson 100

Kilgore 50	Longview 25
Marshall 70	Mineola 10

- AEP has approximately 238 line personnel assisting with restoration in Entergy's service territory.
- SWEPCO discontinues emergency operations.

Thursday, September 29, 2005

- AEP will have approximately 850 FTEs assist with Entergy Restoration efforts.

Friday, September 30, 2005

- AEP has 871 FTEs committed to assist with Entergy's restoration efforts. AEP crews have been coming in from Virginia, Indiana Michigan, Ohio, Kentucky, Oklahoma, Arkansas, and Texas.

October 1 through October 15th.

- AEP continues assisting with restoration in Entergy's service territory. Resources committed stay approximately the same.

October 16th.

- AEP has 516 FTE as restoration efforts continue.

October 18th

- Entergy releases additional crews. AEP has 387 FTEs completing work and are in the process of being released.

October 19th

- AEP receives call from Florida!

TXU Electric Delivery Tiger Team final report

On September 24, 2005 Hurricane Rita damaged TXU Electric Delivery transmission and distribution facilities that resulted in over 245,000 customer outages in the Dallas Fort Worth, Lufkin/Nacogdoches, Paris, Tyler, Jacksonville/Palestine, Texoma, and Athens/Terrill areas. TXU Electric Delivery had anticipated the storm's approach and had opened the System Emergency Center, placed personnel and resources on notice that they would be needed for storm restoration, and pre-positioned key personnel in affected areas. Once the storm had passed over the affected areas the call went out to work centers across the TXU Electric Delivery system to begin the process of moving personnel, material, and resources to the restoration areas. The system was organized around restoration districts, with temporary management assigned to these districts to direct the restoration efforts. The system emergency center was staffed with personnel to assist with manpower, material, logistics, safety, communications, meals, lodging, and any other need that would arise in the field.

The storm was the most challenging in terms of logistics, as all of the area hotels were already full with displaced folks from Hurricane Katrina and Rita that had been evacuated from the coastal areas, and local fuel supplies were very low. Support personnel contacted vendors to supply tents, bedding, laundry services, catering, water, fuel, ice and food. Sites were obtained to set up the base camps and personnel operated out of these camps while trucks ran to and from the Dallas area supplying ice, food, water, and fuel.

Safety was at the foremost of all of the restoration efforts and each day started with a safety briefing with all involved field personnel. Many potential hazards were discussed including traffic conditions and the lack of traffic lights, mobile generators with possible back feeds, insect bites, snakes, irate customers, and grounding to mention a few. In addition to daily safety meetings, safety representatives performed safety audits with field personnel on a daily basis.

A total of 2,602 personnel were utilized for storm restoration on the TXU Electric Delivery system consisting of construction personnel, tree trimmers, damage evaluators, on site management, and support staff. Service was restored to all customers on Sunday, October 2. Affected facilities included 358 poles, 505 crossarms, 3,321 spans of wire, 807 services, and 333 transformers.

Assistance to other affected utilities included:

- Contract distribution linemen were released to assist the Jasper-Newton coop in restoration efforts.
- Contract distribution linemen were released to assist Entergy in restoration efforts.
- Provided materials, equipment and supplies to assist Entergy in restoration efforts.

- Contract transmission linemen with heavy construction experience and equipment were released to assist Entergy with transmission restoration efforts.
- Reviewed loading on three distribution points of delivery to determine how much additional loading could be delivered to Houston County Electric Coop. Houston County Electric Coop extended their distribution facilities to increase delivery to enable then to pick up a school and 60 customers.
- Restored the Huntington – Etoile 138 kV line to allow Deep East Texas Coop (DETEC) and Jasper-Newton Coop to restore service to 6,500 customers. This 12 mile line had been idle for over 10 years and required significant reclaiming of the ROW. A total of 170 TXU Electric Delivery and contract personnel worked to replace a 138 kV circuit breaker, add a 138 kV breaker line relaying panel, provide relay settings, patrol the line and make repairs, install jumpers at three locations, clear the ROW, and coordinate switching efforts to energize the DETEC system. In addition to this work TXU Electric Delivery personnel patrolled the coop lines, made repairs, and provided and made relay setting changes to coordinate the relaying of the two transmission grids. A total of three DETEC and ten Jasper-Newton substations were energized. An emergency order from the DOE was obtained to connect the TXU Electric Delivery transmission grid to supply a portion of the transmission grid that was normally supplied from transmission outside of ERCOT.
- Provided distribution storm restoration efforts in the Entergy Beaumont area to restore service to 7,406 customers. A total of 263 personnel were involved consisting of construction, tree trimming, damage evaluators, on site management, and support staff personnel. Affected facilities included 142 poles, 141 crossarms, 1282 spans of wire, 302 services, and 73 transformers. The same challenges were encountered with respect to logistics and a camp was established behind a shopping center with sleeping and dining tents, shower and toilet facilities, and catering services. A mobile communications trailer was used to provide radio communications to field personnel along with computer and printing services to assist the restoration efforts. Material was released from the TXU Electric Delivery system as needed to support restoration.

East Texas Cooperatives Tiger Team Report

(Deep East Texas Electric Cooperative, Jasper-Newton Electric Cooperative, and Sam Houston Electric Cooperative)

The three electric cooperatives listed above suffered the most extensive damages of all of the electric cooperatives that were affected by Hurricane Rita. Among these three

systems, the cooperatives suffered the loss of power to approximately 121,817 meters with approximately 5,500 miles of line down or damaged.

Prior to the arrival of Hurricane Rita, Sam Houston Electric Cooperative ("Sam Houston") contracted with a private contractor to erect and manage a base camp for approximately 500 crewmen. Additional arrangements were also made for additional supplies and materials. Jasper-Newton Electric Cooperative ("Jasper-Newton") and Deep East Texas Electric Cooperative ("Deep East") received base camps as soon as possible after the storm passed and had all base camp facilities in service by the end of the week ending October 1st. At the peak of restoration efforts, Sam Houston, Deep East Texas and Jasper-Newton ECs were feeding, housing and supplying crews of 1,300, 1,000 and 725, respectively.

After Governor Rick Perry issued Executive Order RP-48 on September 28th, Sam Houston coordinated with CenterPoint Energy ("CenterPoint") and Entergy Gulf States, Inc. ("EGSI") to import energy to the Sam Houston system through a southern interconnect. Similarly, Deep East coordinated with TXU Electric Delivery ("TXU ED") so that TXU ED could clear, restore and energize a ten-mile section of transmission line that had been disconnected for over 12 years. This "Huntington to Etoile" interconnect allowed Deep East to take power from TXU ED to replace power unavailable from EGSI and bring power back to its system. Eventually, the interconnection with TXU ED would provide energy and voltage support for Jasper-Newton, as well, for the time in which EGSI was unable to provide energy and stability to the Jasper-Newton system. Deep East also coordinated with AEP to double the amount of power delivered from AEP.

During that time period, consultants for the East Texas Cooperatives were working with Sam Rayburn Dam representatives to return the dam to operation for voltage support and the delivery of energy to the Jasper-Newton system and to the City of Jasper. This effort required the coordination of representatives of the Army Corps of Engineers, Jasper-Newton, Deep East, Tex-La Electric Cooperative of Texas, Inc. ("Tex-La"), and TXU ED.

Representatives of the East Texas Cooperatives assisted in the coordination and facilitation of resources for delivery to the cooperatives by taking part in the Public Utility Commission's "Tiger Team" which was located in the Governor's Division of Emergency Management at the headquarters of the Texas Department of Public Safety. Through the combined efforts of Emergency Management officials and volunteers, the East Texas Cooperatives and their representatives were able to secure delivery of thousands of gallons of fuel, potable water and security, to name just a few.
In the Hurricane Rita's wake, 15 electric cooperatives in Texas reported 216,413 meters without power. Jasper-Newton, Sam Houston, and Deep East Texas ECs suffered the heaviest losses, with combined meter outages of approximately 121,817.

The eye of the storm passed directly over Jasper, leaving all members served by Jasper-Newton and Sam Houston ECs without service. Immediately following the storm, Deep East Texas EC reported power outages on 97 percent of its system, leaving approximately 36,451 meters without service, Sam Houston EC experienced a peak outage of approximately 64,466 meters, and Jasper-Newton EC experienced a peak outage of approximately 20,900 meters.

Representatives of the East Texas Cooperatives began communicating directly with area state senators and representatives on the Monday following the hurricane and have continued such communications so that the legislators and their staffs would have the most up-to-date information available to the constituents they serve.

As of October 26, 2005, Sam Houston and Deep East Texas are over 99% restored and Jasper-Newton has 98% of its service restored. Unfortunately for the member-customers of the Jasper-Newton system the devastation to the system combined with the rural and wooded area in which they reside has hindered some efforts and kept the restoration gains at a measured pace. Many member-customers have had to, and will have to, independently contract with licensed electricians in order to assure that power can safely be restored to damaged or destroyed meter loops before their restoration will be completed.

Below is a spreadsheet describing the numerous load transfers that were required during the restoration efforts.

Load Transfers Resulting from Hurricane Rita		
Description of Transfer	Date and Approximate Time of Transfer	Approximate Load at Time of Transfer
DETEC 69kV load at Pineland, Temple 1, Temple 2, Horton Hill, and Wiergate; normally served by Entergy from Tex-La's Mill Creek POD; lost service 09/24/05; picked up load from emergency tie to Tex-La's Center POD served by AEP	09/26/05; 09:00	<1.0MW
HCEC load at Groveton distribution POD; normally served by Entergy; lost service 09/24/05; picked up a portion of the load from an emergency distribution tie with TXUED	09/28/05; 12:30	0.8MW
HCEC load at Groveton distribution POD; normally served by Entergy; lost service 09/24/05; picked up a portion of the load from a distribution tie to HCEC's Berea Substation which is served by AEP	09/29/05; 12:00	<0.2MW
Sam Houston 138kV load at Long John; normally served by Entergy from SRG&T's Long John POD; lost service 09/24/05; picked up load via emergency tie with Centerpoint at Entergy's Dayton Bulk	09/30/05; 12:00	<1.0MW
DETEC 138kV load at Broaddus and Etoile; normally served by Entergy from Tex-La's Mill Creek POD; lost service 09/24/05; picked up load from Tex-La's emergency Huntington POD served by TXUED	10/01/05; 09:30	0.2MW (3.0MW by the end of the day)
JNEC 138kV load from Mill Creek to Buna; normally served by Entergy from SRG&T's Sam Rayburn Dam and Evadale POD's; lost service 09/24/05; picked up load from Tex-La's emergency Huntington POD served by TXUED	10/02/05; 21:30	1.2MW (JNEC) 2.8MW (DETEC)
Sam Houston 138kV load at Long John; transferred load served via emergency tie with Centerpoint at Entergy's Dayton Bulk to SRG&T's normal Long John POD served by Entergy	10/05/05; 10:00	7.2MW

JNEC 138kV load from Mill Creek to Buna; transferred load from Tex-La's emergency Huntington POD served by TXUED to SRG&T's normal Sam Rayburn Dam POD served by Entergy (radial)	10/09/05; 16:45	9.5MW (JNEC) 3.4MW (DETEC)
JNEC 138kV load from Mill Creek to Evadale; restored loop operation from SRG&T's normal Sam Rayburn Dam and Evadale POD's served by Entergy	10/10/05; 09:00	-
DETEC 138kV load at Broaddus and Etoile; transferred load from Tex-La's emergency Huntington POD served by TXUED to Tex-La's normal Mill Creek POD served by Entergy	10/10/05; 16:15	3.0MW
DETEC 69kV load at Pineland, Temple 1, Temple 2, Horton Hill, and Wiergate; transferred load from emergency feed via Tex-La's Center POD served by AEP to normal feed from Tex-La's Mill Creek POD served by Entergy	10/13/05; 15:15	16MW
HCEC load at Groveton distribution POD; transferred load served from emergency distribution tie with TXUED to normal Groveton POD served by Entergy	10/18/05; 09:00	<1MW
HCEC load at Groveton distribution POD; transferred load served from distribution tie with AEP (Berea Substation) to normal Groveton POD served by Entergy	10/18/05; 10:30	<0.2MW
DETEC 138kV load at Broaddus and Etoile; transferred load from Tex-La's emergency Huntington POD served by TXUED to Tex-La's normal Mill Creek POD served by Entergy	10/10/05; 16:15	3.0MW

THINGS THAT WORKED AND/OR LESSONS LEARNED

Entergy

- Communication with City, County, and State officials was critical and worked well in identifying and coordinating relief efforts. (i.e. generator deployment, food, ice and fuel delivery needs)
- Close coordination with other utilities and coops. Including the mutual assistance given by the other Texas utilities. (AEP, SPS, El Paso and others)
- The close coordination between substation enerization and feeder restoration allowed for large blocks of customers to be restored without one waiting on the other.
- Flexibility around generation supply including the serving of certain loads by ERCOT through CenterPoint and TXU.
- Establishment of sub-networks within the existing networks.
- Pre-positioning of crews was important
- Flexibility in shifting work from transmission to distribution concerning the 69 KV system helped facilitate the recovery.

CenterPoint Energy

- Implementation of the Emergency Operating Plan (EOP) was successful, although a review of the processes is needed. For instance, the EOP should include the possibility of the impact from a second disaster within weeks of each other either by direct hit or adjoining territory hit.

- The annual EOP drill was beneficial.

- Having an on-site representative at the emergency centers for the City of Houston and Harris County was successful.

- EOP needs to include plans for impacts caused by mandatory evacuation of the service area. Food and supplies are unavailable for several days prior to landfall and several days after landfall. Traffic congestion causes mobility problems that need to be taken into account. The utility needs to be "self sufficient" for several days before and after the landfall of a hurricane. Labor resources need to be in place prior to landfall because of mobility problems.

- For restoration efforts, rely on electric utilities whose system is not also damaged by the same disaster. For purposes of hurricanes, the list of available resources should be expanded to include utilities not along the coastal areas.

- Process for securing regulatory approvals for storm restoration should to be streamlined. For instance, the process for securing approval for Entergy and CenterPoint Energy to use the Crosby - Dayton circuit for storm restoration from entities, including the PUC, ERCOT, DOE, and FERC, should be less arduous. Regulatory entities should define hurricane restoration as an emergency condition for which approvals are not required. For instance, upon a natural disaster, such as a hurricane, ERCOT Protocols should be waived without further action.

- Enhanced data exchange and coordination between electric utilities. For instance, Entergy and CenterPoint Energy could participate in each other's storm drills in which a block load transfer for both entities is practiced.

TXU Electric Delivery

On system restoration efforts for hurricane Rita: lessons learned and new best practices added to TXUED storm response guide

Things that Worked

- Bring in additional personnel from non-storm affected TXUED areas to dispatch restoration calls and pair with local field personnel (that know the topography and system circuitry) to optimize service restoration.
- Set up self sufficient base camps to maximize crew productivity.

- Utilize community relations representatives to assist critical and life support customers.
- Divide large service restoration areas into more manageable sub-regions.
- Provide high speed map printers to areas affected.
- Implement comprehensive damage evaluation on all affected distribution feeders to optimize resource allocation.
- Translate damage evaluation maps into work packets at night for assignment to crews the next morning.
- Pre-position crews brought in from other regions.
- Improve communication between System Emergency Center and Call Center by more frequent formal update briefings to ensure customers have up to date information via area specific messages.
- Always wear class 3 gloves in case of back feeds from customer generators.
- An employee assistance phone number was provided to employees working in the restoration effort. The assistance number was used by their families when problems resulted from the absence of their TXUED employee.
- The use of two helicopters and one fixed wing plane to do damage assessment (distribution and transmission) proved to be valuable "quick assessment" tool.

Lesson Learned

- Ask crews to bring own bedrolls.
- Plan to make provisions to supply fuel to vehicles in areas that are experiencing fuel shortages.

TXU Electric Delivery
Off system restoration efforts for hurricane Rita: lessons learned and new best practices added to TXUED storm response guide

Safety

- Wearing class 3 gloves on the ground at all times
- Establish the proper number (ratio) of Safety Reps & Supervisor for each contingency sent
- Performing a multitude of safety observations and sharing observations daily with everyone at the camp and holding daily safety meetings at the camp
- Using flags on grounds, especially in wooded areas for better visibility of where grounds are located.

Communications

- Requesting utility's system emergency center making the initial call for crews to the distribution officer to better track available resources (versus calling the contractors' system center)
- Participating in Texas mutual assistance conference calls
- Using a template for every utility or contractor reporting progress
- Building a workbook that compiles conference call notes, declarations, progress reports, captures best practices and ideas for future storms
- Holding update calls 'back home' only once per day to allow for data gathering and progress to take place

Restoration Process

- Sending the 'advance team' 2 days ahead of crews to seek sleeping quarters, ensure security, review work area, determine what types of trucks are required, etc.
- Developing teams (names, etc.) in advance once we suspect we will be assisting
- Developing a check-list for the team going regarding certain equipment to include in our bags (e.g. extra work gloves, rain suits, extra grounds, extra flags, etc.)
- Developing a mutual assistance plan (off-system), similar to our emergency restoration plan (on system) with roles and processes identified.

TXU Electric Delivery
Off system restoration efforts for hurricane Rita: lessons learned and new best practices added to TXUED storm response guide

Logistics

- Developing a emergency plan upon arrival of the 'advance team', in case someone gets hurt (identifying local hospital, emergency care capability, Careflight capability)
- Setting up a first-aid station at the camp
- Providing rapid & normal DOT (Department of Transportation) test capability (alcohol and/or drug) at the camp to handle any DOT driver required testing situation that might arise.
- Delivering and setting up TXUED radio tower, if advance team finds a location that will work
- Convoying in smaller groups, so fueling and eating happens more quickly
- Checking with certain agencies regarding fuels and locations before setting travel routes
- Providing a check-in process for anyone entering the camp

Materials

- Establishing a material liaison at TXUED with the hosting company to ease shuttling equipment and materials from TXUED to their company

Transportation

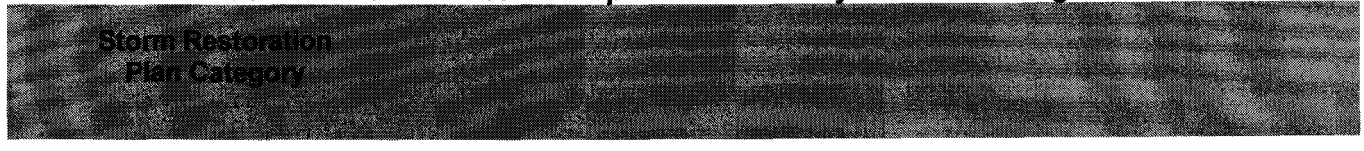
- Establishing the right-sized teams and the right equipment for the work
- Providing rent vehicles for the 'advance team' to keep employees' personal vehicles out of the restoration area
- Providing traffic directors and traffic routing/signs in staging areas
- Providing transportation maintenance 24 hours per day so trucks could be maintained while crews slept and repaired while crews worked

Human Resources

- Establishing the working hours upfront
- Limiting each contingency to maximum of 2 weeks away from home to keep moral high and share opportunities with volunteers
- Ensuring contractors provide ample supervision for their contingencies
- Placing employees' names on the front and back of hardhats
- Developing policies and procedures for everyone residing under the tent
- Taking clerical support person (1-to-2 depending on the size of the convoy) to handle time-entry

SWEPCO Storm Recovery Assessment - Hurricane Rita - September, 2005

Storm Restoration Plan Performance Developed & Measured by SWEPCO Management



Service Restoration Levels & Organization

SRL & O Question 1:

Did SWEPCO's monitoring devices provide for timely and accurate data pertinent to Hurricane Rita?

Response:

SWEPCO continuously monitored local and national weather services, the National Hurricane Center and Impact Weather Service predictions on the course and strength of Hurricane Rita as it approached the Gulf Coast and moved inland.

SRL & O Question 2:

Did SWEPCO adequately access the restoration level?

Response:

Based upon the data received, an assessment was made to move to a Level 4 restoration level and preparations were made accordingly.

SRL & O Question 3:

Did SWEPCO promptly & properly declare an emergency and notify all pertinent employees in the restoration organization as well as all pertinent outside agencies, Commissions, etc.?

Response:

Yes, appropriate department heads notified employees. Discussions were held with all municipal and parish/county governmental agencies including the Public Service Commission offices in our three-state service area. Community Service Managers established contact and became SWEPCO representatives with the local Office of Emergency Preparedness.

SRL & O Question 4:

Did each individual in the restoration organization perform their responsibilities in accordance with the SRP Description of Responsibilities?

Response:

Yes, employees were assigned specific responsibilities in the restoration effort and most performed according to their training. Expectations were generally met. A number of employees were new to their job assignments and although they had received training, this training was insufficient based upon the level of the storm.

Pre Storm Plans (PSP)

PSP Question 1:

Has the SRP been reviewed annually, critiqued and discussed with community leaders?

Response:

Yes, the Storm Restoration Plan was reviewed, critiqued and revised accordingly and discussed with community leaders through our Community Service Managers.

PSP Question 2:

Have individuals been identified to perform the tasks outlined in the SRP for storm recovery?

Response:

Employees have been identified to perform the tasks outlined in the SRP. Some employees were given two separate roles to perform by local management.

PSP Question 3:

Were pre-arrangements made to obtain the necessary equipment/materials/facilities necessary during the storm recovery and detailed in the SRP?

Response:

Arrangements were made in advance of the storm's arrival identifying staging areas and logistics support that would be needed. Materials were made available at staging areas, but not all outside crews were made aware of this fact.

Security was pre-arranged for each company facility and staging area. However, several staging areas never had security personnel on site.

Previously, identified staging areas were being used as Evacuee Centers and new staging areas were needed.

PSP Question 4:

Have all pertinent employees been trained to perform their assigned tasks utilizing the Storm College training program?

Response:

All employees have received training to perform their assigned tasks utilizing the format contained in the Storm College program. Some training proved to be insufficient for the task assigned to some employees and in some cases; an insufficient number of employees were assigned to a task.

PSP Question 5:

Has an annual emergency practice of the SRP procedures been conducted and any resulting issues or problem areas been addressed and resolved?

Response:

An emergency practice of the SRP procedures was held in the Spring of 2005, issues identified and resolved.

Work Schedules

WS Question 1:

Were the work schedule guidelines detailed in the SRP adhered to during the storm recovery process?

Response:

The guidelines detailed in the SRP were adhered to during the storm recovery process with most employees both internal and contract working 16 hours per day with 8 hours of rest. A small workforce was maintained during the hours of darkness to handle any emergencies which might arise.

Service Restoration Procedures

SRP Question 1:

Were the service restoration procedures detailed in the SRP followed during the storm recovery process?

Response:

Yes, the Service Restoration procedures as set forth in the SRP were followed during the restoration process.

SRP Question 2:

Did all systems such as the OMS, TERS, Power On, PORD, SCADA, etc. function as intended and provide reliable and complete information?

Response:

Most systems functioned as intended and provided reliable and complete information. Additional PORD training was identified.

SRP Question 3:

Were restoration priority guidelines & procedures followed during the storm recovery process?

Response:

Restoration priority guidelines and procedures were followed. All critical service customers were restored within 36 hours of the storm's onslaught.

Damage Assessment Procedures

DAP Question 1:

Did SWEPCO properly assess the extent of the storm damage, communicate our assessment with all pertinent internal and external parties, and appropriately determine the level of manpower/equipment/materials necessary to safely and efficiently restore outages in accordance with the SRP damage assessment procedures?

Reponse:

There was proper assessment of the extent of the storm damage. This assessment was completed within 36 hours after passage of the storm.

Outside Crew Assistance Procedures

OCAP Question 1:

Did SWEPCO adequately determine the proper level of outside assistance necessary to address the storm restoration and coordinate their involvement in the most efficient and effective manner?

Response:

Yes, SWEPCO was able to determine the level of outside assistance required to restore service to 188,000 customers. 520 AEP employees and contractors were brought into NW Louisiana and NE Texas to assist with the restoration.

OCAP Question 2:

Were the outside crew assistance procedures per the SRP appropriately followed during the restoration process?

Response:

Yes. The outside crew procedures were followed according to the process laid out in the SRP.

Storm Outage Reporting Procedures

SRP Question 1:

Were the SRP's storm outage reporting procedures followed to insure appropriate reporting to Governmental Agencies and State Regulatory Commissions?

Response:

Yes, the reporting procedures in the SRP were followed in reporting information to governmental agencies and regulatory commissions. Daily internal conference calls were held to determine progress and any needs in the field offices. Some delays in reporting due to lag in obtaining appropriate data.

Customer Notification

CN Question 1:

Were the SRP's Customer Notification procedures followed to insure that large, sensitive, emergency facility, life support customers, etc., received appropriate outage notifications?

Response:

Yes, customer notification procedures were followed. Estimated times of restoration were reported so that Customer Service Associates talking to customers could provide them with a realistic estimate of the time their electricity would be restored.

Media Communications

MC Question 1:

Were the SRP's Media Communications procedures followed to insure that all applicable media were appropriately and consistently informed of the status of the storm recovery and developments and related hazards associated with downed power lines, etc.?

Response:

The Corporate Communications Department followed the procedures laid out in the Storm Restoration Plan issuing regular daily updates to the media outlets including the number of customers without service and anticipated time of restoration. The Storm Coordinator gave customer outage information by District only instead of by town in accordance with the SRP. The Communications Department also updated information on the SWEPCO website 3 times daily for media consumption. 706 safety and service spots were broadcast over the radio and television during the restoration effort.

Telecommunication Procedures

Tele Proc Question 1:

Was the Telecommunication Department promptly notified of the projected or existing outage in accordance with the SRP's procedures to insure that all available telecommunication systems were used in the most effective manner?

Response:

The I.T./Telecommunications Department was notified in advance of the storm. Tower sites, generators and other communications devices were checked, tested, etc., to insure good working performance during the storm restoration effort.

Lodging/Meals & Transportation Procedures

LM&T Question 1:

Were the guidelines and procedures detailed in the SRP followed to insure that all lodging, meals, facilities, transportation, fuel, drinking water, etc., were appropriately adhered to?

Response:

Yes, the guidelines and procedures as detailed in the SRP were followed. Some training issues surfaced with regard to expectations between SWEPCO personnel and our contractor, Base Logistics.

Electric Company Outages

09/24/05 11:00p.m.

	Center Point	TXU	SWEPCO	Bowie-Cass Elec Coop	Upshur Rural Elec Coop	Sam Houston Elec Coop	Entergy	Total Outages
County								
Harris	592,000						1,300	
Angelina						1,406		
Nacogdoches								
Cherokee								
Houston								
Anderson								
Rusk								
Smith					2,323			
Henderson								
Panola								
Upshur					7,964			
Gregg			32,537		2,555			
Rusk			12,690		165			
Harrison			6,999		4,082			
Wood			9,879		442			
Titus			3,856					
Bowie			977					
Cass					26			
Morris								
Camp					921			
Marion					2,566			
Hardin						2,756	19,191	
Jasper						32		
Liberty						9,137	23,552	
Montgomery						8,374	47,576	
Polk						20,713	1,811	
San Jacinto						11,366		
Trinity						1,784	1,288	
Tyler						5,928	6,966	
Walker						2,970		
Burleson								
Chambers							6,628	
Grimes							8	
Orange							38,606	
Galveston							6,153	
Jefferson							113,820	
Panola			7,097					
Not reported by county		100,000		4,448				
Total Outages	592,000	100,000	74,035	4,448	21,044	64,466	266,899	1,122,892

PUC Report of Electric Company Outages

09/25/05 5:00 p.m.

	Center Point	TXU	SWEPCO	Cherokee Co. Electric	LCRA - City of Hemphill	Bowie-Cass Elec Coop	Upshur Rural Elec Coop	Sam Houston Elec Coop	Entergy	**Total Outages**
County										
Anderson										0
Angelina								1,406		1,406
Bowie			6,222			14,067				20,289
Brazoria	300									300
Burleson										0
Camp							123			123
Cass						10,205				10,205
Chambers									6,579	6,579
Cherokee										0
Fort Bend	19,130									19,130
Galveston	17,940								6,107	24,047
Gregg			4,711				267			4,978
Grimes									4	4
Hardin								2,756	19,048	21,804
Harris	262,175								1,345	263,520
Harrison			5,959				393			6,352
Henderson										0
Houston										0
Jasper								32		32
Jefferson									113,164	113,164
Liberty								9,137	22,406	31,543
Marion							50			50
Montgomery								8,374	45,473	53,847
Morris						3,861				3,861
Nacogdoches										0
Orange									38,318	38,318
Panola										0
Panola			6,048							6,048
Polk								20,713	1,109	21,822
Robertson									3	3
Rusk			5,136				12			5,148
Rusk										0
San Jacinto								11,366		11,366
Smith							222			222
Titus			1,624			6,344				7,968
Trinity								1,784	1,272	3,056
Tyler								5,928	6,919	12,847
Upshur			20,048				128			20,176
Walker								2,970	11,596	14,566
Wood			7,128							7,128
										0
										0
										0
										0
										0
Not reported by county		70,000		1,500	600					72,100
Total Outages	**299,545**	**70,000**	**56,876**	**1,500**	**600**	**34,477**	**1,195**	**64,466**	**273,343**	**802,002**
Previous Reported Outage Numbers	**592000**	**100000**	**74035**	**0**	**0**	**4448**	**21044**	**64466**	**266899**	**1,122,892**
Difference	**(292,455)**	**(30,000)**	**(17,159)**	**1,500**	**600**	**30,029**	**(19,849)**	**0**	**6,444**	**(320,890)**

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	Center Point	TXU	SWEPCO	Deep East Electric	Mid- South Synergy	Cherokee Co Electric	LCRA - City of Hemphill	Bowie-Cass Elec Coop	Upshur Rural Elec Coop	Sam Houston Elec Coop	Entergy	Total Outages
County												
Anderson												0
Angelina										1,406		1,406
Bowie			719					14,067				14,786
Brazoria	245											245
Brazos					500							500
Burleson												0
Camp									71			71
Cass								10,205	0			10,205
Chambers											7,178	7,178
Cherokee												0
Fort Bend	6,200											6,200
Galveston	15,125										6,663	21,788
Gregg			5,556						524			6,080
Grimes					6,800						1	6,801
Hardin										2,756	20,783	23,539
Harris	161,650										1,468	163,118
Harrison			502						1,050			1,552
Henderson												0
Houston												0
Jasper				1,298						32		1,330
Jefferson											123,535	123,535
Liberty										9,137	17,106	26,243
Madison					2,000						13	2,013
Marion									442			442
Montgomery					9,000					8,374	36,373	53,747
Morris								3,861				3,861
Nacogdoches				6,519								6,519
Newton				1,414								1,414
Orange											41,807	41,807
Panola			1,665	759								2,424
Polk										20,713	1,211	21,924
Robertson												0
Rusk				6					82			88
Sabine				6,651								6,651
San Augustine				3,901								3,901
San Jacinto										11,366	184	11,550
Shelby				6,977								6,977
Smith									719			719
Titus			189					6,344				6,533
Trinity										1,784	1,398	3,182
Tyler										5,928	7,558	13,486
Upshur									484			484
Waller					65							65
Walker					6,800					2,970	8,447	18,217
Wood			2,124									2,124
Not reported by county		50,000				1,500	600					52,100
Total Current Outages	**183,220**	**50,000**	**10,755**	**27,525**	**25,165**	**1,500**	**600**	**34,477**	**3,372**	**64,466**	**273,725**	**674,805**
Previous Reported Outage Numbers	**299,545**	**70,000**	**56,876**	**0**	**0**	**1,500**	**600**	**34,477**	**1,195**	**64,466**	**273,343**	**802,002**
Difference	**(116,325)**	**(20,000)**	**(46,121)**	**27,525**	**25,165**	**0**	**0**	**0**	**2,177**	**0**	**382**	**(127,197)**
Initial Reported Outage Numbers	**592,000**	**100,000**	**74,035**	**0**	**0**	**0**	**0**	**4,448**	**21,044**	**64,466**	**266,899**	**1,122,892**
Cumulative Difference	**(408,780)**	**(50,000)**	**(63,280)**	**27,525**	**25,165**	**1,500**	**600**	**30,029**	**(17,672)**	**0**	**6,826**	**(448,087)**

PUC Report of Electric Company Outages

9-27-05 5:00 a.m.

	Center Point	TXU	SWEPCO	Deep East Electric	Mid- South Synergy	Cherokee Co Electric	LCRA - City of Hemphill	Bowie-Cass Elec Coop	Upshur Rural Elec Coop	Sam Houston Elec Coop	Entergy	Total Outages
County												
Anderson												0
Angelina												0
Bowie			175									175
Brazoria	18,925											18,925
Brazos					500							500
Burleson												0
Camp									11			11
Cass												0
Chambers											6,259	6,259
Cherokee												0
Fort Bend	5,345											5,345
Galveston	16,300										5,809	22,109
Gregg			2,775						477			3,252
Grimes					6,800						4	6,804
Hardin											18,159	18,159
Harris	113,875										1,280	115,155
Harrison			400						454			854
Henderson												0
Houston												0
Jasper												0
Jefferson											107,711	107,711
Liberty											21,103	21,103
Madison					2,000						12	2,012
Marion									5			5
Montgomery					9,000						55,084	64,084
Morris												0
Nacogdoches												0
Newton												0
Orange											36,461	36,461
Panola			2,400									2,400
Polk											1,057	1,057
Robertson												0
Rusk									7			7
Sabine												0
San Augustine												0
San Jacinto											160	160
Shelby												0
Smith									614			614
Titus												0
Trinity											1,219	1,219
Tyler											6,656	6,656
Upshur									276			276
Waller					65							65
Walker					6,800						6,687	13,487
Wood			900									900
Not reported by county		50,000		20,000		1,500	600	100		53,800		126,000
Total Current Outages	**154,445**	**50,000**	**6,650**	**20,000**	**25,165**	**1,500**	**600**	**100**	**1,844**	**53,800**	**267,661**	**581,765**
Previous Reported Outage Numbers	**299,545**	**70,000**	**56,876**	**0**	**0**	**1,500**	**600**	**34,477**	**1,195**	**64,466**	**273,343**	**802,002**
Difference	**(145,100)**	**(20,000)**	**(50,226)**	**20,000**	**25,165**	**0**	**0**	**(34,377)**	**649**	**(10,666)**	**(5,682)**	**(220,237)**
Initial Reported Outage Numbers	**592,000**	**100,000**	**74,035**	**0**	**0**	**0**	**0**	**4,448**	**21,044**	**64,466**	**266,899**	**1,122,892**
Cumulative Difference	**(437,555)**	**(50,000)**	**(67,385)**	**20,000**	**25,165**	**1,500**	**600**	**(4,348)**	**(19,200)**	**(10,666)**	**762**	**(541,127)**

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PUC Report of Electric Company Outages

9-27-05 11:00 p.m.

	Center Point	TXU	SWEPCO	Deep East	Mid- South	Cherokee Co	LCRA - City of	Bowie-Cass	Cherokee County	Upshur Rural	Rusk County	Sam Houston	Entergy	Jasper-Newton	Total
County				Electric	Synergy	Electric	Hemphill	Elec Coop	Elec Coop	Elec Coop	Elec Coop	Elec Coop		Elec Coop	**Outages**
Anderson															
Angelina		16,000													0
Austin	2											1,200			17,200
Bowie			0												2
Brazoria	60														0
Brazos					500										60
Burleson															500
Camp															0
Cass										0					0
Chambers															0
Cherokee													6,676		6,676
Fort Bend	3,594								610						610
Galveston	9,845														3,594
Gregg			96										6,197		16,042
Grimes					6,800					0					96
Hardin													1		6,801
Harris	81,442											2,756	19,356		22,112
Harrison			70										1,365		82,807
Henderson										0					70
Houston															0
Jasper															0
Jefferson												32			32
Liberty													114,881		114,881
Madison					2,000							8,800	20,899		29,699
Marion													11		2,011
Montgomery					9,000					0					0
Morris												6,300	25,801		41,101
Nacogdoches		12,000													0
Newton															12,000
Orange															0
Panola			593										38,892		38,892
Polk															593
Robertson												18,700	1,045		19,745
Rusk			110												0
Sabine										0	1,400				1,510
San Augustine							600								600
San Jacinto															0
Shelby												8,000	171		8,171
Smith															0
Titus										0					0
Trinity															0
Tyler												1,784	1,300		3,084
Upshur												5,928	7,105		13,033
Waller										0					0
Walker					65										65
Wharton	20				6,800							600	5,958		13,358
Wood			142												20
															142
															0
															0
Not reported by county		0		20,000		610	0	0							0
														20,900	41,510
Total Current Outages	**94,963**	**28,000**	**1,011**	**20,000**	**25,165**	**610**	**600**	**0**	**610**	**0**	**1,400**	**54,100**	**249,658**	**20,900**	**497,017**
Previous Reported Outage Numbers	**97,548**	**31,000**	**1,011**	**20,000**	**25,165**	**610**	**600**	**34,477**	**0**	**325**	**0**	**54,100**	**253,797**	**0**	**518,633**
Difference	**(2,585)**	**(3,000)**	**0**	**0**	**0**	**0**	**0**	**(34,477)**	**610**	**(325)**	**1,400**	**0**	**(4,139)**	**20,900**	**(21,616)**
Initial Reported Outage Numbers	**592,000**	**100,000**	**74,035**	**0**	**0**	**0**	**0**	**4,448**	**0**	**21,044**	**0**	**64,466**	**266,899**	**0**	**1,122,892**
Cumulative Difference	**(497,037)**	**(72,000)**	**(73,024)**	**20,000**	**25,165**	**610**	**600**	**(4,448)**	**610**	**(21,044)**	**1,400**	**(10,366)**	**(17,241)**	**20,900**	**(625,875)**

PUC Report of Electric Company Outages

9-28-05 7:00 p.m.

	Center Point	TXU	SWEPCO	Deep East	Mid- South	LCRA - City of	Bowie-Cass	Cherokee County	Upshur Rural	Rusk County	Sam Houston	Entergy	Jasper-Newton	TNMP	Total
				Electric	Synergy	Hemphill	Elec Coop	Elec Coop	Elec Coop	Elec Coop	Elec Coop		Elec Coop	Electric	Outages
County															
Anderson															0
Angelina		9,000									1,200				10,200
Austin															0
Bowie			0												0
Brazoria	13														13
Brazos					0										0
Burleson															0
Camp									0						0
Cass															0
Chambers												6,676			6,676
Cherokee															0
Fort Bend	613														613
Galveston	4,285											6,197			10,482
Gregg			96						0						96
Grimes					0										0
Hardin											2,756	19,356			22,112
Harris	32,782											1,325			34,107
Harrison			70						0						70
Henderson															0
Houston															0
Jasper				609							32				641
Jefferson												114,881			114,881
Liberty											8,800	8,912			17,712
Madison					0							11			11
Marion									0						0
Montgomery					0						6,300	23,773			30,073
Morris															0
Nacogdoches		4,500		560											5,060
Newton				1,848											1,848
Orange												38,892			38,892
Panola			593	60											653
Polk											18,700	449			19,149
Robertson															0
Rusk			110						0						110
Sabine				7,494											7,494
San Augustine				3,496											3,496
San Jacinto											8,000	171			8,171
Shelby				2,125											2,125
Smith									0						0
Titus															0
Trinity											1,784	1,300			3,084
Tyler											5,928	7,105			13,033
Upshur									0						0
Waller					0										0
Walker					0						600	6,665			7,265
Wharton															0
Wood			142												142
															0
															0
															0
Not reported by county		0				0	0						20,900		20,900
Total Current Outages	**37,693**	**13,500**	**1,011**	**16,192**	**0**	**0**	**0**	**0**	**0**	**0**	**54,100**	**235,713**	**20,900**	**0**	**379,109**
Previous Reported Outage Numbers	**50,029**	**31,000**	**1,011**	**20,000**	**0**	**600**	**0**	**610**	**325**	**1,400**	**54,100**	**248,921**	**20,900**	**19,038**	**447,934**
Difference	**(12,336)**	**(17,500)**	**0**	**(3,808)**	**0**	**(600)**	**0**	**(610)**	**(325)**	**(1,400)**	**0**	**(13,208)**	**0**	**(19,038)**	**(68,825)**
Initial Reported Outage Numbers	**715,000**	**100,000**	**74,035**	**0**	**25,165**	**0**	**34,477**	**0**	**21,044**	**0**	**64,466**	**266,899**	**0**	**0**	**1,301,086**
Cumulative Difference	**(677,307)**	**(86,500)**	**(73,024)**	**16,192**	**(25,165)**	**0**	**(34,477)**	**0**	**(21,044)**	**0**	**(10,366)**	**(31,186)**	**20,900**	**0**	**(921,977)**

	Center Point	TXU	SWEPCO	Deep East Electric	Mid- South Synergy	LCRA - City of Hemphill	Bowie-Cass Elec Coop	Cherokee County Elec Coop	Upshur Rural Elec Coop	Rusk County Elec Coop	Sam Houston Elec Coop	Entergy	Jasper-Newton Elec Coop	TNMP Electric	**Total Outages**
County															
Anderson															0
Angelina		5,500									1,200				6,700
Austin	0														0
Bowie			0												0
Brazoria	280														280
Brazos					0										0
Burleson															0
Camp									0						0
Cass															0
Chambers												6,560			6,560
Cherokee															0
Fort Bend	205														205
Galveston	850											6,089			6,939
Gregg			0						0						0
Grimes					0										0
Hardin											2,756	18,710			21,466
Harris	4,960											1,341			6,301
Harrison			0						0						0
Henderson															0
Houston															0
Jasper				609							32				641
Jefferson												111,346			111,346
Liberty											8,800	20,829			29,629
Madison					0							2			2
Marion									0						0
Montgomery					0						6,300	11,109			17,409
Morris															0
Nacogdoches		2,000		425											2,425
Newton				1,848											1,848
Orange												38,218			38,218
Panola			0	45											45
Polk											18,700	1,105			19,805
Robertson															0
Rusk			0						0						0
Sabine				6,969											6,969
San Augustine				3,486											3,486
San Jacinto											8,000	168			8,168
Shelby				1,925											1,925
Smith									0						0
Titus															0
Trinity											1,784	1,274			3,058
Tyler											5,928	5,643			11,571
Upshur									0						0
Waller					0										0
Walker					0						600	1,933			2,533
Wharton	0														0
Wood			0												0
															0
															0
															0
Not reported by county		0				0	0						20,900		20,900
Total Current Outages	**6,295**	**7,500**	**0**	**15,307**	**0**	**0**	**0**	**0**	**0**	**0**	**54,100**	**224,327**	**20,900**	**0**	**328,429**
Previous Reported Outage Numbers	**10,065**	**8,000**	**1,011**	**20,000**	**0**	**600**	**0**	**610**	**325**	**1,400**	**54,100**	**225,683**	**20,900**	**19,038**	**361,732**
Difference	**(3,770)**	**(500)**	**(1,011)**	**(4,693)**	**0**	**(600)**	**0**	**(610)**	**(325)**	**(1,400)**	**0**	**(1,356)**	**0**	**(19,038)**	**(33,303)**
Initial Reported Outage Numbers	**715,000**	**100,000**	**74,035**	**0**	**25,165**	**0**	**34,477**	**0**	**21,044**	**0**	**64,466**	**266,899**	**0**	**0**	**1,301,086**
Cumulative Difference	**(708,705)**	**(92,500)**	**(74,035)**	**15,307**	**(25,165)**	**0**	**(34,477)**	**0**	**(21,044)**	**0**	**(10,366)**	**(42,572)**	**20,900**	**0**	**(972,657)**

PUC Report of Electric Company Outages

9-30-05 11:00 a.m.

	Center Point	TXU	SWEPCO	Deep East Electric	Mid- South Synergy	LCRA - City of Hemphill	Bowie-Cass Elec Coop	Cherokee County Elec Coop	Upshur Rural Elec Coop	Rusk County Elec Coop	Sam Houston Elec Coop	Entergy	Jasper-Newton Elec Coop	TNMP Electric	**Total Outages**
County															
Anderson															0
Angelina		5,400									161				5,561
Austin	0														0
Bowie			0												0
Brazoria	0														0
Brazos					0										0
Burleson															0
Camp									0						0
Cass															0
Chambers												6,588			6,588
Cherokee															0
Fort Bend	0														0
Galveston	0											6,115			6,115
Gregg			0						0						0
Grimes					0										0
Hardin											4,151	19,114			23,265
Harris	0											1,366			1,366
Harrison			0						0						0
Henderson															0
Houston															0
Jasper				375							32				407
Jefferson												109,380			109,380
Liberty											9,700	19,662			29,362
Madison					0							0			0
Marion									0						0
Montgomery					0						5,030	11,918			16,948
Morris															0
Nacogdoches		1,500		230											1,730
Newton				1,574											1,574
Orange												38,379			38,379
Panola			0	5											5
Polk											5,372	1,110			6,482
Robertson															0
Rusk			0						0						0
Sabine				6,150											6,150
San Augustine				3,426											3,426
San Jacinto											4,251	169			4,420
Shelby				700											700
Smith									0						0
Titus															0
Trinity											542	1,279			1,821
Tyler											5,446	5,671			11,117
Upshur									0						0
Waller					0										0
Walker					0						366	933			1,299
Wharton	0														0
Wood			0												0
															0
															0
															0
Not reported by county		0				0	0						20,900		20,900
Total Current Outages	**0**	**6,900**	**0**	**12,460**	**0**	**0**	**0**	**0**	**0**	**0**	**35,051**	**221,684**	**20,900**	**0**	**296,995**
Previous Reported Outage Numbers	**10,065**	**8,000**	**1,011**	**20,000**	**0**	**600**	**0**	**610**	**325**	**1,400**	**54,100**	**225,683**	**20,900**	**19,038**	**361,732**
Difference	**(10,065)**	**(1,100)**	**(1,011)**	**(7,540)**	**0**	**(600)**	**0**	**(610)**	**(325)**	**(1,400)**	**(19,049)**	**(3,999)**	**0**	**(19,038)**	**(64,737)**
Initial Reported Outage Numbers	**715,000**	**100,000**	**74,035**	**20,000**	**25,165**	**600**	**34,477**	**610**	**21,044**	**1,400**	**64,466**	**266,899**	**20,900**	**19,038**	**1,363,634**
Cumulative Difference	**(715,000)**	**(93,100)**	**(74,035)**	**(7,540)**	**(25,165)**	**(600)**	**(34,477)**	**(610)**	**(21,044)**	**(1,400)**	**(29,415)**	**(45,215)**	**0**	**(19,038)**	**(1,066,639)**

PUC Report of Electric Company Outages

9-30-05 8:00 p.m.

	Center Point	TXU	SWEPCO	Deep East Electric	Mid- South Synergy	LCRA - City of Hemphill	Bowie-Cass Elec Coop	Cherokee County Elec Coop	Upshur Rural Elec Coop	Rusk County Elec Coop	Sam Houston Elec Coop	Entergy	Jasper-Newton Elec Coop	TNMP Electric	**Total Outages**
County															
Anderson															0
Angelina		5,400									161				5,561
Austin	0														0
Bowie			0												0
Brazoria	0														0
Brazos					0										0
Burleson															0
Camp									0						0
Cass															0
Chambers												6,588			6,588
Cherokee															0
Fort Bend	0														0
Galveston	0											6,115			6,115
Gregg			0						0						0
Grimes					0										0
Hardin											4,151	19,114			23,265
Harris	0											1,366			1,366
Harrison			0						0						0
Henderson															0
Houston															0
Jasper				375							32		10,000		10,407
Jefferson												109,380			109,380
Liberty											9,700	19,662			29,362
Madison					0							0			0
Marion									0						0
Montgomery					0						5,030	11,918			16,948
Morris															0
Nacogdoches		1,500		165											1,665
Newton				1,524									10,900		12,424
Orange												38,379			38,379
Panola			0	0											0
Polk											5,372	1,110			6,482
Robertson															0
Rusk			0						0						0
Sabine				6,050											6,050
San Augustine				3,416											3,416
San Jacinto											4,251	169			4,420
Shelby				560											560
Smith									0						0
Titus															0
Trinity											542	1,279			1,821
Tyler											5,446	5,671			11,117
Upshur									0						0
Waller					0										0
Walker					0						366	933			1,299
Wharton	0														0
Wood			0												0
															0
															0
															0
Not reported by county		0				0	0								0
Total Current Outages	**0**	**6,900**	**0**	**12,090**	**0**	**0**	**0**	**0**	**0**	**0**	**35,051**	**221,684**	**20,900**	**0**	**296,625**
Previous Reported Outage Numbers	**0**	**6,900**	**0**	**12,460**	**0**	**0**	**0**	**0**	**0**	**0**	**35,051**	**221,684**	**20,900**	**0**	**296,995**
Difference	**0**	**0**	**0**	**(370)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**(370)**
Initial Reported Outage Numbers	**715,000**	**216,900**	**74,035**	**20,000**	**25,165**	**600**	**34,477**	**610**	**21,044**	**1,400**	**64,466**	**266,899**	**20,900**	**19,038**	**1,480,534**
Cumulative Difference	**(715,000)**	**(210,000)**	**(74,035)**	**(7,910)**	**(25,165)**	**(600)**	**(34,477)**	**(610)**	**(21,044)**	**(1,400)**	**(29,415)**	**(45,215)**	**0**	**(19,038)**	**(1,183,909)**

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PUC Report of Electric Company Outages

10-01-05 10:00 a.m.

	Center Point	TXU	SWEPCO	Deep East Electric	Mid- South Synergy	LCRA - City of Hemphill	Bowie-Cass Elec Coop	Cherokee County Elec Coop	Upshur Rural Elec Coop	Rusk County Elec Coop	Sam Houston Elec Coop	Entergy	Jasper-Newton Elec Coop	TNMP Electric	**Total Outages**
County															
Anderson															0
Angelina		5,400									34				5,434
Austin	0														0
Bowie			0												0
Brazoria	0														0
Brazos					0										0
Burleson															0
Camp									0						0
Cass															0
Chambers												6,553			6,553
Cherokee															0
Fort Bend	0														0
Galveston	0											6,083			6,083
Gregg			0						0						0
Grimes					0										0
Hardin											4,151	18,430			22,581
Harris	0											60			60
Harrison			0						0						0
Henderson															0
Houston															0
Jasper				375							32				407
Jefferson												105,367			105,367
Liberty											8,976	13,772			22,748
Madison					0							0			0
Marion									0						0
Montgomery					0						2,579	5,936			8,515
Morris															0
Nacogdoches		1,500		75											1,575
Newton				1,524											1,524
Orange												38,178			38,178
Panola			0	0											0
Polk											5,273	325			5,598
Robertson															0
Rusk			0						0						0
Sabine				5,850											5,850
San Augustine				3,416											3,416
San Jacinto											3,411	168			3,579
Shelby				265											265
Smith									0						0
Titus															0
Trinity											392	278			670
Tyler											5,446	5,643			11,089
Upshur									0						0
Waller					0										0
Walker					0						366	288			654
Wharton	0														0
Wood			0												0
															0
															0
															0
Not reported by county		0				0	0						20,900		20,900
Total Current Outages	**0**	**6,900**	**0**	**11,505**	**0**	**0**	**0**	**0**	**0**	**0**	**30,660**	**201,081**	**20,900**	**0**	**271,046**
Previous Reported Outage Numbers	**10,065**	**8,000**	**1,011**	**20,000**	**0**	**600**	**0**	**610**	**325**	**1,400**	**54,100**	**225,683**	**20,900**	**19,038**	**361,732**
Difference	**(10,065)**	**(1,100)**	**(1,011)**	**(8,495)**	**0**	**(600)**	**0**	**(610)**	**(325)**	**(1,400)**	**(23,440)**	**(24,602)**	**0**	**(19,038)**	**(90,686)**
Initial Reported Outage Numbers	**715,000**	**100,000**	**74,035**	**20,000**	**25,165**	**600**	**34,477**	**610**	**21,044**	**1,400**	**64,466**	**266,899**	**20,900**	**19,038**	**1,363,634**
Cumulative Difference	**(715,000)**	**(93,100)**	**(74,035)**	**(8,495)**	**(25,165)**	**(600)**	**(34,477)**	**(610)**	**(21,044)**	**(1,400)**	**(33,806)**	**(65,818)**	**0**	**(19,038)**	**(1,092,588)**