# OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY (OE) U.S. DEPARTMENT OF ENERGY

Gulf Coast Hurricanes<sup>1</sup> Situation Report #3 September 26, 2005 (3:00 PM EDT)

#### **HIGHLIGHTS**

- Currently, 1,265,924 customers are without electric power in Texas, Louisiana, Arkansas, and Mississippi. This includes new customer outages due to Hurricane Rita as well as outages remaining from Hurricane Katrina.
- Shell reports that its North Houston and Pasadena terminals are fully operational and servicing the area. Shell has brought in additional tanker trucks to expedite delivery of gasoline into the Houston area. Shell is also prioritizing fuel supply in the immediately affected areas and along return routes from Dallas, Austin and San Antonio. Shell and Motiva are working with local authorities to ensure fuel supply for emergency vehicles across the impacted areas.
- According to ConocoPhillips, its Houston area terminal is open and the company has adequate supplies to meet its branded and "contracted" unbranded customer product needs.
- ExxonMobil reports its highest priority is using all available resources to minimize supply disruptions to its retail stores, and re-supply the Houston market as quickly and safely as possible. The company is bringing additional trucks from California, Illinois, Florida and New Jersey to assist in providing fuel to the impacted areas. Currently, ExxonMobil has 14 retail stores open on the primary evacuation routes and will continue to open more retail stores as personnel and fuel become available.
- The Strategic Petroleum Reserve reports the following assessment of it sites: the Bayou Choctaw site is up and running. There was no damage from the storm. The Bryan Mound site reports no apparent damage. Site is secure. The Big Hill site received some minor damage. Roads into the facility are flooded; entry may be possible later today. No assessment has been done of the West Hackberry site due to impassable, flooded roads.
- DOE staff have been at the National Response Coordination Center (NRCC) at FEMA HQ, the Interagency Incident Management Team at HQ and the State Emergency Operation Center (EOC) in Louisiana for several weeks. Three staff are in Austin, TXa. Another is at NORTHCOM, per its request.

#### **OIL AND GAS INFORMATION**

• MMS reports today that as a result of damage from Hurricane Katrina and precautionary actions in advance of Hurricane Rita, shut-in oil production in the Gulf is currently at 1,527,630 barrels of oil per day. The shut-in oil production is equivalent to 100 percent of the normal daily oil production in the Gulf, which is currently approximately 1.5 million

barrels of oil per day. Shut-in gas production is at 7.843 billion cubic feet per day. This shut-in gas production is equivalent to 78.43 percent of the normal daily gas production in the Gulf, which is currently approximately 10 billion cubic feet per day. These evacuations are equivalent to 92.55 percent of 819 manned platforms and 75.37 percent of 134 rigs currently operating in the Gulf.

#### Gulf of Mexico (GOM) Shut-in Oil and Gas

Date	Percent of GOM Oil Shut-in	Percent of GOM Gas Shut-in
August 30	95.20	87.99
August 31	91.45	83.46
September 1	90.43	78.66
September 2	88.53	72.48
September 3	78.98	57.80
September 4	No data reported	No data reported
September 5	69.57	54.13
September 6	58.02	41.06
September 7	57.37	40.36
September 8	60.12	40.20
September 9	59.88	38.29
September 10	59.84	38.21
September 11	No data reported	No data reported
September 12	57.38	37.84
September 13	56.45	37.20
September 14	56.25	35.18
September 15	56.14	34.11
September 16	56.06	33.84
September 19	55.84	33.75
September 20	58.49	34.82
September 21	73.16	47.13
September 22	91.93	65.95
September 23	99.13	72.04
September 24	100	74.88
September 25	100	80.47
September 26	100	78.43

- The Lake Charles Trunkline Liquefied Natural Gas (LNG) facility is shut down, due to lack of power.
- The following tables highlight the current shut downs by major energy facilities in the path of Hurricane Rita:

# OIL OPERATIONS IN THE PATH OF HURRICANE RITA 9/26/05

# Refineries

Company	Location	Capacity (B/D)	Status
	LAKE CHARLES		
Citgo	Lake Charles, LA	324,300	Shut down; minor damaged reported, partial restart on Monday
ConocoPhillips	West Lake, LA	239,400	Shut down – wind damage and no power
Calcasieu	Lake Charles, LA	30,000	Shut down – assessment being made
ExxonMobil	Beaumont, TX	348,500	Shut down – assessment being made, no power
Shell (Motiva)	Port Arthur, TX	285,000	Shut down; minor damage to cooling tower, power lines
Total	Port Arthur, TX	233,500	Shut down
Valero (Premcor)	Port Arthur, TX	255,000	Shut down; "significant damage" to two cooling towers and a flare stack. 2 weeks – 1 month to repair & restart refinery.
Total		1,715,700	
HOUSTON/TEXA	AS CITY		
Shell Deer Park	Deer Park, TX	333,700	Shut down; assessment finds minimal damage
Lydonell Citgo	Houston, TX	270,200	Restarting
Astra Oil (Crown Central)	Pasadena, TX	100,000	Shut down – no update available
Valero	Houston, TX	83,000	Shut down – may restart soon
ExxonMobil	Baytown, TX	557,000	Shut down; readying to restart; delivering gasoline from terminals
BP	Texas City, TX	437,000	Shut down – assessment being made
Valero	Texas City, TX	209,950	Shut down – power restored, may restart soon
Marathon	Texas City, TX	72,000	Shut down; assessment finds minimal damage
ConocoPhillips	Sweeny, TX	229,000	Restarting – full rate by Thursday
Total		2,291,850	1,792,650 Shut down
CORPUS CHRIST	<u> </u>		
Flint Hills Resources	Corpus Christi, TX	288,126	Returning to full rate
Citgo	Corpus Christi, TX	156,000	OK
Valero	Corpus Christi, TX	142,000	Returning to full rate
Trigeant (asphalt)	Corpus Christi, TX	30,000	Returning to full rate
Valero	Three Rivers, TX	90,000	Returning to full rate
Total		706,126	
OTHER			
Valero	Lima, OH	158,400	Reduced runs

Company	Location	Capacity (B/D)	Status
Valero	Memphis, TN	180,000	Reduced runs
Total		338,400	
TOTAL OF ALL AREAS (does not		4,713,676	Total Shutdown – 3,508,350
include Midwest re	fineries)		
Four refineries (3 in LA and 1 in MS)		879,000	Total including Katrina - 4,387,350
from Hurricane Katrina remain shut			
down – 879,000 barrels per day			

Sources: Confirmed by company or on company web site. Various trade press sources.

• Several pipelines shut down their systems as a result of Hurricane Rita. The primary reason for the service disruption was the evacuation of personnel and lack of product to transport as refineries in the Texas and Louisiana Gulf Coast area closed. Oil pipeline operators are in the process of getting personnel back to facilities to assess the situation. Once on site, personnel will perform safety inspections to determine if any physical damage has occurred. If no damage is detected, the primary requirement to resume normal operations will be reliable access to the electric grid and access to product to transport.

**Pipelines/Ports** 

Company	Locations	Status
-		
CRUDE PIPELINES		
Seaway Crude Pipeline	4 lines from Texas Gulf to	Operating
	Cushing, OK	
Capline	St. James, LA to Patoka, IL	Operating at 75 percent of capacity
Sun Pipeline	Nederland, TX terminal	Shutdown; performing assessment
PRODUCT PIPELINES		
Dixie (propane)	Mt. Belvieu, TX to NC/GA	Partial Operation – no electricity from Mt Belvieu, TX, to Breaux Bridge, LA.
Explorer	LA to OH	Placed in limited service early today from the company's Pasadena and Houston, TX, facilities, which provide two-thirds of the company's normal volumes. The company's origin facilities at Lake Charles, La., and at Port Arthur, TX, are not yet ready to resume operations.
Colonial	Houston, TX	Colonial Pipeline has safely restarted its origin pipeline segments in Houston and Pasadena, Texas. The initial restart enabled the pipeline system to achieve 42 percent of its normal, mainline operational capacity from Houston.

Company	Locations	Status
		Colonial plans to increase its capacity to
		54 percent later today and 72 percent on
		Tuesday.
Longhorn	Houston west to NM/AZ	Partially shut down – update not available
	Galena Park terminal (Houston)	Shut down - update not available
Centennial System	Beaumont, TX to Creal Springs,	Shut down – Assessment being made
	IL.	
Magellan Pipeline	TX/OK	Operational, portions closed- update not available
Plantation	Baton Rouge, LA to	Operating
	Washington, DC	
TEPPCO	Beaumont, TX to NY	Operating at 45 percent capacity
PORTS		
Louisiana Offshore Oil	LA	Plans to restart marine operations later
Port (LOOP)		today
Port of Houston	Houston, TX	Open – daylight hours only, 35 foot draft
		restriction. Not open to commercial
		traffic.
Port of Freeport	Freeport, TX	Open – daylight hours only, 28 foot draft
		restriction. Not open to commercial
		traffic.
Port Arthur	Port Arthur, TX	Closed
Port of Corpus Christi	Corpus Christi, TX	Open
Mississippi River		Reopened - Daylight hours only

Sources: Confirmed by company, company web site, or trade associations. Various trade press sources

- The U.S. Coast Guard reports that the Captain of the Port of New Orleans reopened the Lower Mississippi River at 11 a.m. yesterday. Due to the lack of proper Aids to Navigation all deep draft vessels are restricted to daylight transits only from the Southwest Pass sea buoy to mile marker 0. The Port Allen Route, Baptiste Collette, and Red River are open. The Gulf Intracoastal Waterway is open from mile marker 20 eastward.
- The U.S. Coast Guard reported yesterday that in Louisiana, the following ports and waterways remained closed: SabinePass, Lake Charles (Calcasieu ship channel), Baton Rouge, Morgan City, Fourchon, Houma, New Orleans, Venice, Plaquemines, St. Bernard Parish, Grand Isle, and Port of Shreveport.
- There are over 60 natural gas plants and processing facilities (not counting pipelines and compressor stations) from New Mexico to Alabama that were in the potential path of Hurricane Rita and most of these shut down as a precaution prior to landfall of Rita. Duke Energy, for example, shut down about 20 facilities in NM, TX, LA, and AL.
- Since most Gulf Coast gas production and natural gas processing is shutdown in preparation
  of Hurricane Rita, most natural gas pipelines in the affected areas are running with losses of
  supply going into their systems.

On-Shore and Off-Shore Pipelines with Reported Supply Issues	Status	
ANR	20 percent of capacity with reduced supply	
Chevron	Western LA facilities shut-in	
Columbia Gulf Transmission	Loss of supply	
Comstock Offshore	Shut-in since Sept 20	
Duke Energy Field Services including CIPCO, Seabreeze and Black Lake	Shut-in; Note that most of company's natural gas assets are in Oklahoma and West TX and are not adversely affected.	
Duke Energy Gas Transmission	5 compressor stations shut-in; 3 others have minimal damage. The Texas Eastern pipeline is in balance and holding pressure. The Gulfstream natural gas system is operational.	
Enbridge Inc.'s Offshore System, which includes Garden Banks, Manta Ray, Nautilus, Stingray, and MS Canyon	No nominations until further notice	
Gulf South – Lake Charles	Loss of supply	
Kinder Morgan	Loss of supply & damage at Johnson Bayou compressor station – no gas moving downstream from that station; Force Majeure on pipelines in affected areas of TX/LA continues today.	
Sabine	Loss of supply	
Southern Union's Trunkline Gas	Limited Flow in TX due to loss of supply	
Tennessee Gas	20 percent of capacity with reduced supply	
Transcontinental Gas Loss of supply in LA		
Williams – station # 44 Johnson Bayou Unable to get to facility		
Florida Gas Transmission	Some compressor stations down- no impact on operations	

(Source: Platt's, Company web sites, and DOT, September 25)

### **ELECTRICITY INFORMATION**

#### **STATE OUTAGE DATA**

Utility	Customers w/o Power	% Customers w/o Power
Arkansas	11,137	N/A
Louisiana	539,647	32%
Mississippi	7,383	N/A
Texas	707,757	7.0%

- Louisiana data is reported by the Louisiana Public Service Commission as of 9/26 6:00 AM and their percentage outage numbers are used in calculating the percentage of total outage.
- Arkansas and Mississippi outages are for Entergy customers only as of 9/26 5:30 AM.
- Texas data is from the TX Utility Commission 9/25 11:30 PM. Percent customers w/o power are based on EIA estimate of 10.1 million electricity customers in Texas.

# **STATE REPORTS**

# **Texas**

**Texas Outage Data by Utilities with Significant Outages** 

UTILITY	OUTAGES
CenterPoint	205,300
<b>Entergy Gulf States</b>	272,343
TXU	70,000
Sam Houston Coop	64,466
SWEPCO	56,876
Bowie-Cass Electric Coop, Inc	34,447
TOTAL FOR STATE	707,757

**Texas Outage Data by Counties with Significant Outages** 

COUNTY	OUTAGES
Angelina	1,406
Bowie	20,289
Cass	10,205
Chambers	6,579
Fort Bend	19,130
Galveston	24,047
Gregg	4,978
Hardin	21,804
Harris	263,520
Harrison	6,352
Jefferson	113,164
Liberty	31,543
Montgomery	53,847
Morris	3,861
Orange	38,318
Panola	6,048
Polk	21,822
Rusk	5,148
San Jacinto	11,366
Titus	7,968
Trinity	3,056
Tyler	12,847
Upshur	20,176
Walker	14,566

Wood	7,128
------	-------

- CenterPoint Energy estimates that restoration may take up to 10 days. Crews are currently isolating troubled circuits and rerouting power to key facilities including hospitals, water treatment plants and public service facilities. More than 4,000 utility personnel from across the country, including Kentucky, California and Florida, have joined CenterPoint Energy's crews to assist in restoration work.
- TXU Electricity Delivery indicates restoration is expected to be complete in the Jacksonville/Palestine/Tyler area by Tuesday, September 27th.
- SWEPCO estimates that restoration may take up to seven days to complete. This is a preliminary estimate and is subject to revision. Approximately 1,200 local and outside personnel are supporting the restoration including crews from Texas, Ohio, Virginia, West Virginia, Indiana, Michigan, Kentucky and Oklahoma.
- Entergy's transmission system has extensive damage. At 5:00 PM 9/25/05, preliminary damage assessments show 279 lines and 284 substations out of service. Both wooden and steel structures are damaged. Key transmission lines are out of service and this will slow restoration. Preliminary assessments show some of Entergy's power plants sustained wind damage, but there was no flooding.
- Entergy is asking customers in its western area north of Houston to voluntarily reduce electricity consumption. The unusual appeal is the result of extensive damage to Entergy's transmission system and the anticipated high demand due to high temperatures. Key transmission lines that could bring electrical power from the East are out of service. If rolling outages become necessary, customers may have their service interrupted for 60 minutes at a time. Individual customers may experience multiple outages.
- Entergy reports that they have 156,300 customers in Louisiana unable to accept service due to significant repair or reconstruction requirements.

#### **Louisiana**

In Louisiana, 539,647 customers remain without power, as reported by the Louisiana Public Service Commission (LAPSC) (6:00 AM, 9/26/05 latest report).

Louisiana Outage Data by Utilities with Significant Outages (6:00 AM 9/26/05)

UTILITY	OUTAGES	% customers w/o power
Entergy Gulf	127,204	35%
Entergy Louisiana	67,622	12%
Entergy New Orleans	168,929	82%
CLECO	94,946	36%
Beauregard	36,912	100%
SLEMCO	19,023	22%
DEMCO	1,478	2%
Jefferson Davis	10,000	100%
Wash-St. Tammany	7,715	17%
SLECA	5,041	26%
Total for state shown includes companies with low number of outages not include in Table	539,647	32%

• Entergy has assembled a workforce of 7,000 to support restoration following Hurricane Rita. Crews from outside the region have begun traveling toward the region.

## **Mississippi**

• Entergy reports 7,383 customer outages in Mississippi. In addition, Mississippi Power reports that 19,443 customers have been unable to accept service following Hurricane Katrina due to significant repair or reconstruction costs.

<sup>&</sup>lt;sup>1</sup> Situation Report series for Hurricanes Katrina and Rita have been combined into the Gulf Coast Hurricanes Situation Report series.