

**OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY (OE)**  
**U.S. DEPARTMENT OF ENERGY**  
**Gulf Coast Hurricanes<sup>1</sup> Situation Report #8**  
**October 3, 2005 (3:00 PM EDT)**

**HIGHLIGHTS**

- Currently, 482,724 customers are without electric power in Texas and Louisiana.
- Entergy in Louisiana (New Orleans) and Texas (Beaumont/Lake Charles and Port Arthur) is making progress towards power restoration and planning for power restoration for key electricity customers.
- As of October 3, there are 21 natural gas processing plants, with capacities equal to or greater than 100 million cubic feet per day, in Texas, Louisiana, and Mississippi that are not active. Ten of these plants with a total capacity of 5.4 billion cubic feet per day are not active owing to external factors, including lack of electric power or gas supplies. Eleven of the plants are inactive because of damage to the facilities themselves. These plants have capacity of 7.7 billion cubic feet per day.
- Valero reported on Friday that 228 of its retail stores out of the 231 in the Houston area stores are open, of which 206 are supplying gasoline.
- The Texas Tiger Team, in which DOE ESF-12 staff participates and is facilitated by the Texas Public Utility Commission, is working to ensure all possible resources are made available and constraints are eliminated or minimized for the quickest possible restoration in eastern Texas. The team is currently facilitating an unprecedented level of coordination of restoration resources with Entergy, CenterPoint, AEP, and TXU.
- DOE staff have been at the National Response Coordination Center (NRCC) at FEMA HQ, the Interagency Incident Management Team at HQ, and both the State Emergency Operation Center (EOC) and the FEMA Joint Federal Office (JFO) in Baton Rouge, LA and for several weeks. Three staff are in Austin, TX, and additional staff are on the way to Louisiana for the New Orleans and Lake Charles JFOs.

**OIL AND GAS INFORMATION**

- According to MMS last Friday, 1,467,577 barrels of oil per day were shut-in which equates to 97.8 percent of the normal daily oil production in the Gulf. Shut-in gas production was 7.941 billion cubic feet per day. This shut-in gas production is equivalent to 79.4 percent of the normal daily gas production in the Gulf. Evacuations are equivalent to 57.5 percent of 819 manned platforms and 24.6 percent of 134 rigs currently operating in the Gulf. For further information see MMS web site at [www.mms.gov](http://www.mms.gov)

- There are two liquefied natural gas import facilities in the LA region not delivering gas into the system. At the Trunkline LNG terminal, the navigation channel and turning basin remain closed to deep draft marine traffic; however, U.S. Navy Fleet Survey Team (FST) confirmed depths in navigation channel similar to those reported during the June, 2005, Army Corps of Engineers survey. Critical aids to navigation repairs were projected to be completed Sunday 10/2 for the Trunkline LNG Terminal. Ninety percent of debris (covering approximately 35 acres) in the turning basin in vicinity of the Trunkline LNG Terminal has been captured; debris removal continues.
- The following tables highlight the current shut downs by major energy facilities in the path of Hurricane Rita as of October 3:

### OIL OPERATIONS IN THE PATH OF HURRICANE RITA

#### Refineries

Company	Location	Capacity (B/D)	Status
<b>PORT ARTHUR/ LAKE CHARLES</b>			
Citgo	Lake Charles, LA	324,300	Shut down; minor damaged reported- no restart due to power loss
ConocoPhillips	West Lake, LA	239,400	Shut down – wind damage and no power <b>Estimated restart in Mid- October</b>
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 and 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	Shutdown – 1,715,700
<b>HOUSTON/TEXAS CITY</b>			
Shell Deer Park	Deer Park, TX	333,700	Restarting
Lydonell Citgo	Houston, TX	270,200	Restarting
Astra Oil (Crown Central)	Pasadena, TX	100,000	Restarting
Valero	Houston, TX	83,000	<b>Operating at full rate</b>
ExxonMobil	Baytown, TX	557,000	Restarting
BP	Texas City, TX	437,000	Shut down
Valero	Texas City, TX	209,950	<b>Operating at reduced rates</b>
Marathon	Texas City, TX	72,000	<b>Operating at full rate</b>
ConocoPhillips	Sweeny, TX	229,000	<b>Operating at full rate</b>
Total		2,291,850	Shut down – 437,000

Company	Location	Capacity (B/D)	Status
<b>TOTAL OF ALL AREAS including Corpus Christi</b>		<b>4,713,676</b>	Total Shutdown – 2,152,700
Four refineries (3 in LA and 1 in MS) from Hurricane Katrina remain shut down – 879,000 barrels per day		<b>879,000</b>	Total including Katrina – 3,031,700

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

- Valero reports its Krotz Springs, LA, and Ardmore, OK, refineries are currently at minimum rates due to crude availability and pipeline issues. The Krotz Springs refinery is currently running at 48,000 BPD vs. 85,000 BPD and the Ardmore refinery is running at 49,000 BPD vs. 85,000 BPD. Crude production from the Gulf is shut in, which is restricting crude availability through the ExxonMobil pipeline that feeds the Krotz Springs refinery. The Ardmore refinery is at minimum rates as it awaits crude from the Nederland pipeline, which was shut down due to power outages in the area.
- Several pipelines shut down their systems as a result of Hurricane Rita. Shown below is a status of the pipelines as of October 3.

#### Pipelines/Ports

Company	Locations	Status
<b>CRUDE PIPELINES</b>		
Seaway Crude Pipeline	4 lines from Texas Gulf to Cushing, OK	Operating
Capline	St. James, LA, to Patoka, IL	Operating at 80 percent of capacity
Sun Pipeline	Nederland, TX, terminal	Nederland terminal resumed limited operations, opening its 20" (ExxonMobil) line on October 1. Plans are to open an East Texas 10" line if additional electric power becomes available.
<b>PRODUCT PIPELINES</b>		
Explorer	LA to OH	Operational from Pasadena/Houston, TX, facilities to Chicago, IL. The company's origin facilities at Lake Charles, La., and at Port Arthur, TX, are not yet resumed operations.
Colonial	Houston, TX	Operating at 50 percent of capacity
Longhorn	Houston west to NM/AZ Galena Park terminal (Houston)	Shut down
Centennial System	Beaumont, TX, to Creal Springs, IL.	Shut down – no commercial power. Generators secured for possible restart
Magellan Pipeline	TX/OK	Operational but supply constrained.
TEPPCO	Beaumont, TX to NY	Operating at 45 percent capacity

Company	Locations	Status
<b>PORTS</b>		
Louisiana Offshore Oil Port (LOOP)	LA	Operating at 100 percent
Port of Houston	Houston, TX	Open
Port of Freeport	Freeport, TX	Open
Port Arthur	Port Arthur, TX	Maximum 31 ft draft – daylight only. 24 hours for light tugs and shallow draft.
Port of Corpus Christi	Corpus Christi, TX	Open
Mississippi River		Open

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

- The U.S. Coast Guard reports that vessels are restricted to drafts of 31 feet or less and daylight transit only on the Sabine/Neches Waterway and the Neches river (unless they are shallow draft tows or tugs which are unrestricted). Restrictions on the Calcasieu River are stricter with vessel limits 25 feet draft or less and all vessels including tows and tugs limited to daylight transit only.
- The USCG Captain of the Port of Morgan City reports that all waterways within the MSU Morgan City zone are open with the exception of the Houma Navigational Canal north of the Houma Navigation Bridge.
- Shown below is a list of natural gas pipelines impacted by Hurricane Rita as of October 3.

On-Shore and Off-Shore Pipelines with Reported Supply Issues	Status
ANR	Many of ANR's facilities have been inspected and approved for flow. <b>The 24" Line from Vermilion 397 to EI 188, including connecting laterals remains unavailable for service due to sustained damage. ANR will not be able to accept nominations from production sources upstream of its Lake Arthur C.S. and Grand Chenier C.S. until further notice.</b>
BP/Enbridge Destin pipeline	OK, Force Majeure ended Sept 27
Chevron	Western LA facilities shut-in
Columbia Gulf Transmission	Force Majeure, effective immediately for meters upstream of and including the Egan Measurement Stations due to high water at and around the Pecan Island Compressor and Separation Station resulting from Hurricane Rita. CGT requires all operators and producers located upstream of this facility to keep physical flow and scheduled volumes at zero until further notice.
Comstock Offshore	Shut-in since Sept 20
Duke Energy Field Services including CIPCO, Seabreeze and Black Lake	CIPCO has minor damage and Black Lake remains shut-in due to lack of supplies; note that most of company's natural gas assets are in Oklahoma and West

On-Shore and Off-Shore Pipelines with Reported Supply Issues	Status
	TX and are not adversely affected.
Duke Energy Gas Transmission	<p>The Texas Eastern pipeline is in balance and holding pressure. Most compressor stations and storage facilities affected by Rita are back on-line. <b>For Gas Day Monday, October 3, 2005: TE has restricted receipts from production that has been shut-in due to Hurricane Rita. Until such time TE has been able to inspect the pipeline, receipts will remain shut-in.</b></p> <p>The Gulfstream natural gas system is operational.</p>
Enbridge Inc.'s Offshore System, which includes Garden Banks, Manta Ray, Nautilus, Stingray, and MS Canyon	<p>Garden Banks Gas Pipeline lifted its Force Majeure on October 1, but all of the delivery point pipelines are unable to receive gas due to issues on their systems.</p> <p><b>MS Canyon, Nautilus, Manta Ray, Sting Ray, and UTOS pipelines are still out of service.</b></p>
Enterprise Product Partners GulfTerra Texas Pipeline	Shut-in after completion of Schedule Day Cycle 1, September 23, 2005 (Flow Day beginning September 24, 2005) until further notice.
Gulf South – Lake Charles	<b>May be required to schedule only primary firm capacity and implement scheduling reductions for Oct 4.</b>
Gulf South – High Island Offshore System	HIOS hereby provides notice of a Force Majeure event on its system. Due to severe weather conditions and mandatory operations evacuations associated with Hurricane Rita, HIOS will NOT accept any nominations until further notice.
Kinder Morgan	<b>Force Majeure continues on portions of Natural Gas Pipeline Company of America lines. Force Majeure lifted on Border, Texas, North Texas, and Tejas lines.</b>
Sabine	Force Majeure continues in effect at all points on the Sabine system. Power remains out in most areas of the system. Efforts are underway to remove standing water from Sabine's Henry facilities.
Southern Union's (Panhandle Energy) Trunkline and Sea Robin	<p>Trunkline's Terrebonne System started accepting nominations for gas on <b>Sept 27. Five receipt and two delivery points are still not available.</b></p> <p><b>Trunkline LNG, in Lake Charles, LA, can now accept nominations for gas.</b></p> <p>Florida Gas Transmission is limiting receipts at three interconnections due to quality of gas issues.</p> <p>Sea Robin has damage at its delivery point; it is not accepting nominations.</p>
Tennessee Gas	Tennessee is lifting the system wide OFO Balancing Alert effective immediately. However, Tennessee reminds customers to flow scheduled volumes to avoid the necessity of issuing an Operational Flow Order in accordance with tariff provisions. Tennessee has

On-Shore and Off-Shore Pipelines with Reported Supply Issues	Status
Williams	<p>identified several leaks and instances of flooding that will limit the operational flexibility of its system. There are also several points that remain shut in due to Force Majeure declarations on other pipelines.</p> <p>Most Williams facilities are returning to service. The Transco and Gulfstream natural gas pipeline systems have remained operational throughout hurricanes Rita and Katrina, although volumes were reduced on both systems because of producers' storm-related supply shut-ins. Transco is experiencing continued power outages and other storm related logistics in Louisiana, specifically in the Lake Charles and Eunice areas. Nominations will not be accepted on the Southeast Louisiana Lateral due to damage to Transco and 3<sup>rd</sup> party facilities as a result of Hurricane Rita. The pre-hurricane volume from these locations that will be impacted is approximately 80 MMcf/d. Black Marlin offshore pipeline was operational and ready for gas as of Sept 26; The only report of significant damage so far is at the company's Cameron Meadows natural gas processing plant near Johnson Bayou, LA.</p>

(Sources: Company web sites, DOT and Trade associations)

## **ELECTRICITY INFORMATION**

### **STATE OUTAGE DATA**

<b>Utility</b>	<b>Customers w/o Power</b>	<b>% Customers w/o Power</b>
Louisiana	258,381	12.5%
Texas	224,343	3%

- Louisiana data is reported by the Louisiana Public Service Commission as of 10/3 10:00 AM and their percentage outage numbers are used in calculating the percentage of total outage. Texas data is from the TX JFO/EOC 10/2 6 PM.

- Entergy in Southeast Texas and Southwest Louisiana has assembled a workforce of more than 13,000 utility crew personnel plus 3,000 support personnel from other utilities and contractors.
- Entergy reports that as of 5:30 AM 10/3, there are 191 transmission lines and 219 substations out of service. Hurricane Rita at its peak took out of service 82 percent of Entergy's Texas transmission lines and 38 percent of the transmission lines in southwest Louisiana, including all of the lines west of Lafayette.

## **STATE REPORTS**

### **Texas**

- In Texas there are currently 224,343 customers without power. Of these, 173,920 are in the Entergy service area. In addition, NRECA reports more than 50,000 electric cooperative customers without power primarily Sam Houston in Livingston; Jasper-Newton in Kirbyville; and Deep East Texas in St. Augustine.

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

<b>COUNTY</b>	<b>OUTAGES</b>	<b>% customers w/o power</b>
Chambers	6,553	60%
Galveston	6,083	6%
Hardin	18,999	95%
Jasper	14,693	100%
Jefferson	96,215	96%
Liberty	10,890	36%
Newton	7,466	100%
Orange	37,180	100%
Polk	5,038	28%
Sabine	4,900	100%
San Augustine	1,760	49%
Tyler	12,490	100%

-Outages in this Table are based upon 10/2 6PM TX JFO/EOC report. Percent customers w/o power is based on TX JFO/EOC provided customers.

- Entergy reports that the transmission system has been repaired sufficiently in the western portion of Entergy’s Texas service territory that customers no longer need to curtail demand to avoid possible rolling outages.

**Louisiana**

- In Louisiana, 258,381 customers remain without power, as reported by the Louisiana Public Service Commission (LAPSC) (8AM, 10/3). Of the total outage number 167,938 are due to Hurricane Katrina and 90,443 are due to Hurricane Rita.

**Louisiana Outage Data by Utilities with Significant Outages (8 AM 10/3)**

<b>UTILITY</b>	<b>OUTAGES</b>
<b>Entergy Gulf States</b>	53,723
<b>Entergy Louisiana</b>	38,607
<b>Entergy New Orleans</b>	130,252
<b>CLECO</b>	1,540
<b>Beauregard</b>	20,777
<b>SLEMCO</b>	1,249
<b>Jefferson Davis</b>	10,210
<b>Total for state shown includes companies with low outages not include in the Table</b>	<b>258,381</b>

- Of those remaining from Hurricane Katrina Entergy reported on 10/2 that 156,300 customers cannot take power in New Orleans and surrounding parishes.

**Customers Unable to Receive Power in Louisiana by Parish (10/2/05)**

<b>PARISH</b>	<b>CUSTOMERS</b>
<b>Jefferson</b>	2,500
<b>Plaquemines</b>	5,818
<b>St. Bernard</b>	26,197
<b>Orleans</b>	121,785
<b>Total</b>	<b>156,300</b>

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