

OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY (OE)
U.S. DEPARTMENT OF ENERGY
Gulf Coast Hurricanes¹ Situation Report #9
October 4, 2005 (3:00 PM EDT)

HIGHLIGHTS

- Currently, 416,852 customers are without electric power in Texas and Louisiana.
- Energy Secretary Bodman kicked off a National "Easy Ways to Save Energy" Campaign to highlight how American families, businesses and the federal government can save energy in response to rising winter energy costs. "As a result of tight oil and gas markets, and the damage done by Hurricanes Katrina and Rita, it's likely that consumers will see an increase in their heating bills this winter," Secretary Bodman said. The effort will provide consumers, industry and federal agencies with a variety of energy saving ideas. For easy energy saving tips, consumers can visit www.energysavers.gov
- Entergy reports that the DOE Strategic Petroleum Reserve site Big Hill (Texas) had electricity restored 10/3 by Centerpoint as part of the cooperative arrangement on restoration in the Big Hill area. Bryan Mound and Bayou Choctaw are fully operational while West Hackberry remains without power.
- Entergy is making progress in returning its fossil energy units to service. Of the 14 fossil units that Entergy owns and/or operates that were affected by Hurricane Rita, seven are now operational (both units at Lewis Creek, both units at Toledo Bend, and three units at Nelson) and seven are currently not operational. Of the seven units remaining impacted: two units are available once offsite power is restored (both at Sabine) and five units remain offline until storm damage repairs are completed (three at Sabine, two at Nelson).
- On 09/30, 26 natural gas processing plants, with capacities equal to or greater than 100 million cubic feet per day in Texas, Louisiana, and Mississippi, were not active; now there are 21. Ten of these 21 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 21 plants are inactive because of damage to the facilities themselves. These plants have capacity of 7.7 billion cubic feet per day.
- 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 among 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. As requested, beginning 10/4 DOE ESF-12 will have representatives at the Texas EOC from 8:00 a.m. to 5:00 p.m., rather than 7:00 a.m. to 8:00 p.m.

OIL AND GAS INFORMATION

- According to MMS, 1,349,617 barrels of oil per day were shut-in which equates to 89.97 percent of the normal daily oil production in the Gulf. Shut-in gas production was 7.169 billion cubic feet per day. This shut-in gas production is equivalent to 71.69 percent of the normal daily gas production in the Gulf. Evacuations are equivalent to 41.76 percent of 819 manned platforms and 12.69 percent of 134 rigs currently operating in the Gulf. For further information see MMS web site at www.mms.gov. MMS reports 61 destroyed platforms and 33 damaged platforms in the Gulf of Mexico (GOM).

Damage to GOM Oil & Gas Infrastructure Ivan vs. Katrina vs. Rita

	Rita	Katrina	Ivan
Platforms Destroyed	63	46	7
Platforms Extensive Damage	31	20	20
Rigs Adrift	13	6	5
Rigs Extensive Damage	10	9	4
Rigs Destroyed	1	4	1
Rigs Unaccounted For	3	0	0
Number of Pipelines Damaged	23	21	102
Shut-in Production High	26-Sep	30-Aug	16-Sep
Gas (BCF)	8.623	9.418	6.515
Oil (bbls)	1564679	1557981	1410002
Cumulative (To Date)	Combined with Rita	8/26/05 - 10/04/05	9/13/04 - 02/14/05
Gas (BCF)	Combined with Rita	226.551	172.259
Oil (bbls)	Combined with Rita	46,457,059	43,841,245
Evacuation Highs			
Platforms	754	660	575
Rigs	107	89	
Platforms in the Path	1600	1300	150

Source: US MMS October 4, 2005

- There are two liquefied natural gas import facilities in the LA region not delivering gas into the system. As of October 3, the Calcasieu Ship Channel and Industrial Canal have been cleared for LNG vessel transit to the Trunkline facility.
- Electricity service restoration to the ten refineries affected by hurricanes Katrina and Rita and served by Entergy in the Beaumont/Port Arthur, Lake Charles, and New Orleans areas remains a priority for Entergy and significant progress is being made.
- 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
PORT ARTHUR/ LAKE CHARLES			
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 Estimated restart in Mid- October
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
HOUSTON/TEXAS CITY			
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	Operating at full rate
ExxonMobil	Baytown, TX	557,000	Restarting
BP	Texas City, TX	437,000	Shut down
Valero	Texas City, TX	209,950	Operating at reduced rates
Marathon	Texas City, TX	72,000	Operating at full rate
ConocoPhillips	Sweeny, TX	229,000	Operating at full rate
Total		2,291,850	Shut down – 437,000
TOTAL OF ALL AREAS including Corpus Christi		4,713,676	Total Shutdown – 2,152,700

Company	Location	Capacity (B/D)	Status
Four refineries (3 in LA and 1 in MS) from Hurricane Katrina remain shut down – 879,000 barrels per day		879,000	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 4.

Pipelines/Ports

Company	Locations	Status
CRUDE PIPELINES		
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. All lines are expected to re-open soon. Three docks are ready to receive vessels. Repairs to the other four docks are expected to be completed by Saturday, October 8.
PRODUCT PIPELINES		
Explorer	LA to OH	Newly received power generators have allowed Explorer Pipeline to pump all inventory from its Port Arthur, Texas break-out storage up the pipeline last Monday night and early Tuesday morning; currently operating at 50 percent
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.	Operational
Magellan Pipeline	TX/OK	Operational but supply constrained.
TEPPCO	Beaumont, TX to NY	Operating at 65 percent capacity on 20" line; 14 and 16" line at 45 percent. No commercial power at Beaumont.

Company	Locations	Status
PORTS		
Port Arthur	Port Arthur, TX	Maximum 32 ft draft – daylight only. 24 hours for light tugs and shallow draft.

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

- The Sabine-Neches waterway is tentatively scheduled to re-open to inbound vessels by October 5, 2005. The Calcasieu Ship Channel and Industrial Canal have been cleared for LNG vessel transit as of October 3, 2005.
- Shown below is a list of natural gas pipelines impacted by Hurricane Rita as of October 4.

On-Shore and Off-Shore Pipelines with Reported Supply Issues	Status
ANR	Many of ANR's facilities have been inspected and approved for flow. The 24" Line from Vermilion 397 to EI 188, including connecting laterals remains unavailable for service due to sustained damage. As of October 4, ANR is accepting nominations at its Garden Banks interconnect.
Chevron	Western LA facilities shut-in
Columbia Gulf Transmission	Force Majeure, effective immediately for meters upstream of and including the Egan Measurement Stations.
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.
Duke Energy Gas Transmission	The Texas Eastern pipeline is in balance and holding pressure. Most compressor stations and storage facilities affected by Rita are back on-line.
Enbridge Inc.'s Offshore System, which includes Garden Banks, Manta Ray, Nautilus, Stingray, and MS Canyon	MS Canyon, Nautilus, Manta Ray, Sting Ray, and UTOS pipelines are still out of service. Garden Banks is operational and is able to supply ANR and Transco.
Enterprise Product Partners GulfTerra Texas Pipeline	Shut-in September 23, 2005.
Gulf South – Lake Charles	May be required to schedule only primary firm capacity and implement scheduling reductions for Oct 4.
Gulf South – High Island Offshore System	HIOS declared Force Majeure and will not accept nominations until further notice.
Kinder Morgan	Force Majeure continues on portions of Natural Gas Pipeline Company of America lines. Force Majeure lifted on Border, Texas, North Texas, and Tejas lines.
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	Trunkline's Terrebonne System started accepting nominations for gas on Sept 27. Five receipt and two

On-Shore and Off-Shore Pipelines with Reported Supply Issues	Status
	<p>delivery points are still not available.</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>
<p>Tennessee Gas</p> <p>Williams</p>	<p>Tennessee has lifted the system wide OFO Balancing Alert. There are also several points that remain shut in due to Force Majeure declarations on other pipelines.</p> <p>Most Williams' facilities have returned to service. As of October 4, Transco is accepting nominations at its Garden Banks interconnect. 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, DOTand Trade associations)

ELECTRICITY INFORMATION

STATE OUTAGE DATA

Utility	Customers w/o Power	% Customers w/o Power
Louisiana	229,864	11.1%
Texas	186,988	2.1%

- Louisiana data is reported by the Louisiana Public Service Commission as of 10/3 10:00 PM and their percentage outage numbers are used in calculating the percentage of total outage. Texas data is from the TX JFO/EOC 10/3 6:00 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 9:00 PM 10/3, there are 160 transmission lines and 165 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. Additionally, more than 13,000 utility poles were damaged or destroyed by Hurricane Rita, with nearly 9,000 of them in Texas.

STATE REPORTS

Texas

- In Texas there are currently 186,988 customers without power. Of these, 144,428 are in the Entergy service area. In addition, NRECA reports 42,560 electric cooperative

customers without power with Sam Houston in Livingston; Jasper-Newton in Kirbyville; and Deep East Texas in St. Augustine.

- Three counties reported no electricity: Newton, Orange and Tyler. The Hardin, Jasper, Jefferson, and Sabine counties had over 71% of customers without service. Currently, 68% of outages are in three counties: Orange, Jefferson and Hardin.

Texas Outage Data by Counties with Significant Outages

COUNTY	OUTAGES	% customers w/o power
Chambers	5,022	46%
Galveston	6,083	6%
Hardin	16,615	83%
Jasper	10,150	71%
Jefferson	75,396	75%
Liberty	5,942	20%
Newton	11,725	100%
Orange	35,939	100%
Polk	2,382	13%
Sabine	3,600	87%
San Augustine	1,305	37%
Tyler	12,414	100%

- Outages in this Table are based upon 10/3 6:00 PM TX JFO/EOC report. Percent customers w/o power is based on TX JFO/EOC provided customers.

- On 10/3, TXU Electric Delivery declared its Hurricane Rita restoration effort in East Texas complete with all homes and business able to accept service back on line.

Louisiana

- In Louisiana, 229,864 customers remain without power, as reported by the Louisiana Public Service Commission (LAPSC) (10:00 PM, 10/3). Of the total outage number 161,065 are due to Hurricane Katrina and 68,799 are due to Hurricane Rita.

Louisiana Outage Data by Utilities with Significant Outages (10:00 PM 10/3)

UTILITY	OUTAGES
Entergy Gulf States	38,674
Entergy Louisiana	37,181
Entergy New Orleans	123,940
CLECO	1,326
Beauregard	19,129

Jefferson Davis	7,957
Total for state shown includes companies with low outages not include in the Table	229,864

Customers Unable to Receive Power in Louisiana by Parish (10/3)

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

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