

**OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY (OE)**  
**U.S. DEPARTMENT OF ENERGY**  
**Gulf Coast Hurricanes Situation Report #43**  
**November 28, 2005 (3:00 PM EST)**

**HIGHLIGHTS**

- Entergy New Orleans, Inc. (ENO), has briefed the Louisiana Emergency Operations Center on their \$11.2 million accelerated restoration and customer relief plan. The company has seen indications of repopulation in various areas of the city including permit requests, service outage calls, and turn-on requests, and has experienced an increasing backlog in responding to these requests. The company's plan will make electric and gas service available to all customers able to take service by year's end.
  - For electricity restoration the accelerated plan includes all of New Orleans except in three devastated areas of the City, where accelerated efforts are impractical:
    - Lakeview area including Fleur de Lis to the 17<sup>th</sup> Street Canal, Harrison Ave. to Old Hammond Hwy;
    - the devastated portion of the Lower Ninth Ward (Florida Ave. to North Galvez Street, Industrial Canal to the parish line); and
    - the devastated portion of New Orleans East (Lake Catherine area).The plan includes emergency/non-permanent repairs.
  - For gas restoration the exceptions to the accelerated plan are those areas of:
    - the devastated portion of the Lakeview area including (Fleur de Lis to the 17<sup>th</sup> Street Canal, Harrison Ave. to Old Hammond Hwy;
    - the devastated portion of the Lower Ninth Ward (Florida Ave. to North Galvez Street, Industrial Canal to the parish line); and
    - the devastated portion of the Desire area (Peoples Ave. to the industrial Canal, Almonaster to Florida).
  - The company noted that "Hurricane Katrina not only caused catastrophic and unprecedented damage to ENO's electric and gas facilities, but it also resulted in the loss of most of ENO's customers, an unprecedented occurrence in the U.S. Utility Industry."

**OIL AND GAS INFORMATION**

- As of 11/15/05, nine gas processing plants in Louisiana, with capacities equal to or greater than 100 million cubic feet per day, are not active.
- According to MMS (11/21), 633,064 barrels of oil per day are shut-in, which equates to 42.20 percent of the normal daily oil production in the Gulf. Shut-in gas production is 3.269 billion cubic feet per day. This shut-in gas production is equivalent to 32.69 percent of the normal daily gas production in the Gulf. Evacuations are equivalent to

16.97 percent of 819 manned platforms and 0.75 percent of 134 rigs currently operating in the Gulf. For further information see MMS web site at [www.mms.gov](http://www.mms.gov).

MMS also reports that Shell's Ursa has brought back online approximately 72,000 bbls of oil production and 60 MMCF of natural gas production. Amerada Hess' Baldpate has brought back online approximately 10,000 bbls of oil production and 30 MMCF of natural gas production.

## Damage to GOM Oil & Gas Infrastructure

Ivan vs. Katrina vs. Rita

	Rita	Katrina	Ivan
<b>Platforms Destroyed</b>	66	46	7
<b>Platforms Extensive Damage</b>	32	20	20
<b>Rigs Adrift</b>	13	6	5
<b>Rigs Extensive Damage</b>	10	9	4
<b>Rigs Destroyed</b>	4	4	1
<b>Rigs Unaccounted For</b>	2 (Missing / Presumed Sunk - Added in With Destroyed)		0
<b>Number of Pipelines Damaged</b>	68*	80*	102
<b>Shut-in Production High</b>	26-Sep	30-Aug	16-Sep 2004
<b>Gas (BCF)</b>	8,623	9,418	6,515
<b>Oil (bbls)</b>	1,564,679	1,557,981	1,410,002
<b>Cumulative (To Date)</b>	<i>Combined Rita / Katrina</i> 8/26/05 - 11/21/05		9/13/04 - 02/14/05
<b>Gas (BCF)</b>	<i>Combined Rita / Katrina</i> 463,863		172,259
<b>Oil (bbls)</b>	<i>Combined Rita / Katrina</i> 90,494,285		43,841,245
<b>Evacuation Highs</b>			
<b>Platforms</b>	754	660	575
<b>Rigs</b>	107	89	69
<b>Platforms in the Path</b>	1600	1300	150

\*Of the above mentioned 148 pipelines damaged by hurricanes Rita and Katrina, 52 of them are pipelines of 10" or greater.

Source: U.S. MMS, November 21 2005.

- According to the Louisiana Department of Natural Resources on 11/21, onshore crude oil production in southern Louisiana has reached 111,969 barrels per day, or 55.1 percent of the region's capacity; natural gas production of 1,303.3 million cubic feet per day, or 58.3 percent of daily capacity in 38 southern Louisiana parishes, has been restored. There are 55 on-shore pipeline operators in the hurricane-affected parishes. As of 11/21, 7 operator's facilities were reopened, 31 of the operator's facilities are shut-in, and 17 of the operators experience partial system shut-ins or flow.

- Shown below is a list of refineries impacted by the Gulf Coast Hurricanes as of November 21.

**REFINERY IMPACTS FROM GULF COAST HURRICANES**

Company	Location	Capacity (B/D)	Status
<b>PORT ARTHUR/ LAKE CHARLES</b>			
ConocoPhillips	West Lake, LA	239,400	Reduced rate
<b>HOUSTON/TEXAS CITY</b>			
Lyondell Citgo	Houston, TX	270,200	Reduced rate
BP	Texas City, TX	437,000	Shut down – gasoline production slated for mid-December; full production by first quarter 2006
Total		707,200	<b>Shut down – 437,000</b>
<b>TOTAL from above</b>		<b>946,600</b>	
Exxon Mobil Chalmette – normal operation			
Two refineries in LA from Hurricane Katrina remain shut down – 367,000 b/d			
<ul style="list-style-type: none"> <li>• ConocoPhillips Belle Chasse – shut down</li> <li>• Murphy Oil Meraux – Estimate 1<sup>st</sup> quarter 2006 start up</li> </ul>		<b>367,000</b>	<b>Total Shut down (Katrina + Rita)= 804,000</b>

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

- Shown below is a list natural gas pipelines impacted by the Gulf Coast Hurricanes as of November 21.

<b>On-Shore and Off-Shore Pipelines with Reported Supply Issues</b>	<b>Status</b>
Columbia Gulf Transmission	Effective Nov. 1, CGT partially rescinded the Force Majeure in effect since Sept. 26 for the Egan Measurement Stations in Acadia Parish (southern Louisiana). Four stations remain unavailable.
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.
Enbridge Inc.'s Offshore System, which includes Garden Banks, Manta Ray, Nautilus, Stingray, and MS Canyon	As of Nov. 8, the Force Majeure on MS Canyon has been terminated. MS Canyon is available for gas flows at all receipt points, but will be unable to accept liquids for transportation. Manta Ray pipelines are still out of service. Stingray is now advising its shippers that December 1, 2005

<b>On-Shore and Off-Shore Pipelines with Reported Supply Issues</b>	<b>Status</b>
	is its target date for restored operation, although some onshore delivery points may be limited due to a lack of onshore compression.
Enterprise Product Partners – GulfTerra and Gulf South (HIOS)	GulfTerra postponed integrity testing until January 2006. From Nov 8 through Nov 11, the Sonora Plant in Texas is being shut-in due to pipeline pigging of GulfTerra. As of Nov 1, the ANR and UTOS delivery points are available on GulfTerra. UTOS is available for service and is accepting nominations for November transportation.
Kinder Morgan	Natural Gas Pipeline operating at capacity with a few pipeline segments at limited transport capacity. There are also limits to withdrawals allowed in Gulf coast and Amarillo areas.
Southern Union’s (Panhandle Energy) Trunkline and Sea Robin	As of Nov 2, most of Trunkline gas’ Terrebonne system is available for flow; 13 receipts points are unavailable. As of Nov 8, OFO lifted for all Sea robin Offshore receipt points. As of Nov 1, Texas Gas Transmission has agreed to waive certain gas quality specifications to allow gas supplies formerly shut-in to flow through Sea Robin.
Tennessee Gas	Equipment, compressor stations, facilities, and segments of several pipelines are still being repaired and will take months to complete. The Operator of the Sabine Processing Plant has informed Tennessee that the plant is estimated to be back in service by November 20th

(Sources: Company web sites and Trade associations)