OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY (OE) U.S. DEPARTMENT OF ENERGY Hurricane Katrina Situation Report #37

Hurricane Katrina Situation Report #37 September 16, 2005 (3:00 PM EDT)

HIGHLIGHTS

- Currently, 307,104 customers remain without electric power in Louisiana and Mississippi due to Hurricane Katrina. This is down by over 2.3 million from a peak of 2.7 million customers that were without power after Hurricane Katrina struck the region.
- Entergy expects to restore service to most customers who can take service in the New Orleans non-flooded areas within one to two weeks.
- Entergy reports that 25 large industrial customers were impacted by Katrina. All but five have been returned to service and are running at some level of plant capacity.
- Entergy is also making significant progress securing the natural gas system and restoring service. Of the 150,000 gas customers in the New Orleans area, some 67,000 (45%) have been assessed, 57,500 (38%) have been secured, and 25,900 (17%) have been restored (4PM 9/15). The restored customers are primarily in the Algiers and Uptown areas along with 10% of the French Quarter and 35% of the central business district.
- Working gas in storage increased to 2,758 Bcf as of Friday, September 9, which is 3.7 percent above the 5-year average inventory level for the report week, according to EIA's Weekly Natural Gas Storage Report. The implied net injection of 89 Bcf is 3 percent above the 5-year average of 86 Bcf and about 7 percent less than last year's injection of 96 Bcf. It is also the largest net injection since the beginning of July and marks the first time since late June that the implied net injection has exceeded the 5-year average. Despite continued natural gas production shut-ins in the Gulf of Mexico, which reduces supplies from what they otherwise would have been, the relatively large net injection occurred as futures prices hold a significant premium to the Henry Hub spot price offering a strong economic incentive to store natural gas for the winter heating season.
- On September 14, the Federal Motor Carrier Safety Administration extended the driver-hour waiver for motor carriers hauling gasoline, propane, diesel, jet fuel, natural gas/CNG, and ethanol in the Southern and Eastern regions of the country in response to fuel supply circumstances resulting from Hurricane Katrina and to EPA's recent extended fuel waiver. The waiver will expire on October 5, 2005.
- On 9/13, EPA extended the diesel waiver for States located in PADD 1 (DC, ME, NH, VT, MA, RI, CT, NY, NJ, PA, MD, DE, WV, VA, NC, SC, GA, and FL) and PADD 3 (NM, TX, LA, MS, AL, and AR), including Tennessee to allow the use of high sulfur diesel for on-road use until October 5, 2005.

 DOE staff have been at the National Response Coordination Center (NRCC) at FEMA HQ, the Interagency Incident Management Team at HQ, FEMA Region IV, and the State Emergency Operation Centers (EOC) in Louisiana for several weeks.

PETROLEUM AND GAS INFORMATION

According to MMS reports on 9/16, 10.26 percent of 819 manned platforms and 1.49 percent of 134 rigs remain evacuated in the Gulf of Mexico (GOM). Today's shut-in oil production is 840,921 barrels of oil per day. The shut-in oil production is equivalent to 56.06 percent of the normal daily oil production in the GOM, which is currently approximately 1.5 million barrels of oil per day. Shut-in gas production is 3.384 billion cubic feet per day. This shut-in gas production is equivalent to 33.84 percent of the normal daily gas production in the GOM, which is currently approximately 10 billion cubic feet per day.

■ Improvement in GOM Shut-in Oil and Gas 8/30/05 – 9/16/05

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

- MMS has provided the following estimates of Hurricane Katrina damage to Outer Continental Shelf Infrastructure in the Gulf of Mexico: 46 producing structures destroyed; 20 producing structures extensively damaged; 4 drilling rigs destroyed; 9 drilling rigs extensively damaged; and 6 rigs adrift (all rigs have been located, remanned, and are having power brought up on them).
- MMS reports that most of the destroyed platforms were 30- year-old shelf platforms with minimal production in the West Delta, Grand Isle, and South Pass areas.
- Entergy reports that it is working with the French Quarter Municipal Council, police and fire officials to coordinate gaining access to shut off and lock gas services. The gas system in

this area has extensive water intrusion which will require the shut off of service and mitigation before gas service can be resumed.

• The Army Corps of Engineers is providing 5 MW of temporary power to the Air Products Plant in New Orleans. This plant is the largest supplier of liquid hydrogen to the nation. Temporary power will support the load requirements during the recovery phase.

Natural Gas Transmission Pipeline Status (9/13/05 PM)

Pipeline	Primary Markets	Capacity (MMcfd)	Impacts
ANR Pipeline	Midwest	6,414	None reported
Florida Gas	Florida	2,150	10% overage limit (9/13/2005)
Transmission			
Gulf South	Gulf States	2,750	Allocations in categories other
			than Primary Firm service
Southern Natural Gas	Southeast	3,296	550 mmcfd production shut in
Tennessee Gas	Northeast	6,937	700 mmcfd production shut in
Texas Eastern	Northeast	5,939	Deliveries allowed only for
Transmission			confirmed receipts
Trunkline Gas	Midwest, East Coast	1,500	Deliveries allowed only for
			confirmed receipts
Transco	Northeast	8,100	None Reported
Gulfstream	Florida	1,100	Deliveries allowed only for
			confirmed receipts

Natural Gas Processing Plant Status (9/13/05)

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Natural Gas Processing Plant	State	Capacity as of Jan 1, 2005 (MMcfd)*	2004 Average Throughput (MMcfd)**	Current Status		
Dynegy - Yscloskey	LA	1,850	1,343	Seawater damage. Could take 3-6 months to repair.		
Dynegy – Venice	LA	1,300	997	Seawater damage. Could take 3-6 months to repair.		
Enterprise Products – Toca	LA	1,100	468	Assessment ongoing.		
BP – Pascagoula	MS	1,000	768	Power restored. Waiting for pipelines to deliver gas.		
ExxonMobil – Garden City	LA	630	NA	Waiting on power		
Duke Energy – Mobile Bay	AL	600	172	Available for service but waiting on pipeline outlet for liquids.		
Marathon – Burns Point	LA	200	60	Waiting on power		
ExxonMobil – Grand Isle	LA	115	72	Waiting on power		

• The tables below show no change in the five shutdown refineries and company confirmation of status of two refineries with reduced runs.

Table 1. Shutdown Refineries

Refinery	Location	State	Capacity (bbl/day)	Current Status	
ConocoPhillips*	Belle Chasse	LA	247,000	No power - major damage	
ExxonMobil	Chalmette	LA	187,200	No power - water damage	
Murphy	Meraux	LA	120,000	No power – water is starting to recede, currently making assessment of damage, leaking crude oil tank repaired	
Shell Chemical	St Rose	LA	55,000	Operating at full capacity	
ChevronTexaco*	Pascagoula	MS	325,000	Damage unknown – assessment being made	

Table 2. Refineries with Reduced Runs

Refinery	Location	State	Capacity (bbl/day)	Current Status
Motiva (Shell)	Norco	LA	226,500	Operating at almost 100% capacity

ELECTRICITY INFORMATION

STATE OUTAGE DATA

Utility	Customers w/o Power	% Customers w/o Power from Katrina
Louisiana*	272,104	25%
Mississippi	35,000	<3%

^{*}Louisiana data is reported by the Louisiana Public Service Commission and their percentage outage numbers are used in calculating the percentage of total outage.

STATE REPORTS

Mississippi and Louisiana

In Louisiana 272,104 customers remain without power, as reported by the Louisiana Public Service Commission (LAPSC) (6:00 AM 9/16/05 latest report).

Louisiana Outage Data by Utilities with Significant Outages (6:00 AM 9/16/05)

UTILITY	OUTAGES	% customers w/o power
Entergy Louisiana	62,743	13%
Entergy New Orleans	167,727	82%
Wash-St. Tammany	19,362	43%
CLECO	21,910	27%
Total for state shown includes companies with low percentage outages not shown in the Table	272,104	25%

^{*}Louisiana data and percentages are reported by the Louisiana Public Service Commission.

As of reporting 9/16/05 Mississippi had 35,000 customers without power, which represents less than 3 percent of customers in the state, including 18,776 Mississippi

Power customers and 16,224 customers of the Electric Power Associations of Mississippi (EPAOFMS).

- Entergy Transmission reports 32 lines and 25 substations out of service as of 11:00AM 9/16/05. At this time, all transmission substations in the region that are accessible and did not sustain flood damage are back in service.
- Entergy has reported estimates that some 12,700 poles were damaged in areas that are not inaccessible to crews. The heaviest damage to poles appears to be in the following areas: Amite-Bogalusa -- 4,400 poles; Westbank -- 2,300 poles; Metairie Kenner -- 2,100 poles; Lockport and Luling -- 1,800 poles; and Hammond -- 1,600 poles.

While the company cannot estimate the pole damage in Metro New Orleans until flooded areas can be entered and assessed, they believe that the current number of poles that need to be repaired is approximately 2,100.