



U.S. Department of Energy
Emergency Support Function 12

Hurricane Gustav Situation Report # 7

September 4, 2008 (3:00 PM EDT)

http://www.oe.netl.doe.gov/emergency\_sit\_rpt.aspx

Summary

Table with 3 columns: Impacted State, Electric Customer Outages, % of State Out. Rows include Arkansas, Louisiana, Mississippi, and TOTAL. A second section for Petroleum & Natural Gas includes Crude Oil Production Shut-In, Natural Gas Production Shut-in, and Refinery Capacity Shut down.

Total state customers are based on 2006 EIA Customer Data.

Note: due to a large number of service providers, including investor owned utilities and cooperatives, the number of customer outages reported may not be comprehensive.

Source:

Crude Oil and Natural Gas Production Data from Minerals Management Service.

Refinery Status confirmed by company or on company web site and through various trade press sources.

\* % capacity out represents percent of production capacity in the Gulf of Mexico.

Highlights:

- In the States of Arkansas, Louisiana and Mississippi, as of approximately 1:30 PM EDT September 4, there are 988,724 customers reported without power, including 896,755 in Louisiana, 35,815 in Mississippi, and 56,155 in Arkansas. This represents a decrease of 40,779 customers without power from Situation Report #6 when 1,029,503 customer outages were reported. Since that report, power has been restored to about 29,200 customers in Louisiana, over 9,900 customers in Arkansas, and about 1,600 customers in Mississippi.
The damage to the Entergy system is extensive and it is the largest damage to have ever occurred in the Baton Rouge area. Entergy is continuing to assess damage in order to estimate when electricity will be restored to specific locations.



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- The LOOP reports that they have several days of normal throughput in storage and will begin moving that crude oil when power is restored. Damage to Entergy's coastal transmission system is delaying power from reaching the LOOP and its offshore facilities. LOOP officials are starting up generators once transportation and communications logistics improve.
- **As of 11:00 AM EDT, September 4, the Sabine Pipeline reports that inspections of the mainline system continue and that certain points along the mainline are available to flow gas. Available compression at the Henry Hub remains limited as temporary generators maintain operations. Sabine Pipeline's force majeure remains in effect for those points along the mainline that require additional inspections.**
- As of 11:30 PM EDT September 3, Entergy's Waterford 3 and River Bend nuclear power plants remain shut down. Entergy reports personnel at both plants have completed site assessments and are working closely with the Nuclear Regulatory Commission and Federal Emergency Management Agency to complete all necessary regulatory requirements in order to start up the plants.
- As of 6:00 PM EDT September 3, the following Strategic Petroleum Reserve (SPR) facilities are operational: Bryan Mound, TX and Big Hill, TX, and West Hackberry, LA. The SPR facility in Bayou Choctaw, LA, remains shut down due to lack of commercial power.
- **As of 12:00 PM EDT September 4, the U.S. Coast Guard reports that the Port of New Orleans has been reopened regardless of draft from mile marker 303 to mile marker 20. The Gulf Intracoastal Waterway is open from mile marker 44, east of the Harvey Locks, to mile marker 191, west of Harvey Locks. The Morgan City-Port Allen alternate route is open. The Mississippi River Gulf Outlet and Baptise Collette and Breton Sound remain closed to vessel traffic until the completion of aids to navigation surveys. As of 8:30 AM EDT September 4, the Lake Charles port is open to all vessels with drafts less than 33 feet. As of 17:30 EDT September 3, conditions have improved at Mobile, AL, port with ship up to 35 feet draft permitted to exit the port. The Coast Guard is working on a case-by-case basis allowing vessels to enter the ports of Pascagoula, MS.**

## ESF 12 Actions:

- ESF-12 personnel are staffing the FEMA Region VI Regional Response Coordination Center (RRCC) in Denton, TX, FEMA Region VI Joint Field Office (JFO) in Baton Rouge, LA, the FEMA Region IV RRCC in Atlanta, GA, the FEMA Region III RRCC in Philadelphia, PA and the National Response Coordination Center (NRCC) in Washington, DC.
- U.S. Department of Energy ESF-12 assisted Entergy in gaining the use of aircraft capable of making the much needed damage assessments of transmission lines.



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## Situation Report Detail

### Petroleum & Gas Information

Oil & Gas Offshore Production Shut In Status for Affected Area			
Location	Amount Shut In	Pre-event Production	% Shut In
Crude Oil (B/D)	1,238,167	1,300,000	95.2%
Natural Gas (MMCF/D)	6,477	7,400	87.5%

Source: Minerals Management Service

- As of 12:30 PM EDT, September 4, , the Minerals Management Service (MMS) reports 6,477 million cubic feet per day of the Gulf’s natural gas production remains shut-in, equivalent to 87.5 percent of the Gulf production. MMS reports 1,238,167 barrels/day of the Gulf’s crude production remains shut-in, equivalent to 95.2 percent of the Gulf’s crude production. A total of 527 production platforms, or 73.5 percent of the Gulf’s 717 manned platforms, have been evacuated. Personnel from 63 rigs, representing 52.1 percent of those operating in the region, had been removed.
- Shell, ExxonMobil, and other operators report that they have redeployed personnel on September 3 to most production and drilling assets in the Gulf of Mexico (GOM) that were not in the direct path of Gustav. Restart and production ramp up procedures will commence at most locations today and into the weekend. Timing of production ramp up at each facility will vary.
- As of 2:00 PM EDT September 4, , there is minor improvement in the status of the refineries impacted by Gustav. ExxonMobil in Beaumont has returned to normal and Placid in Port Allen is restarting. Placid was shut for other maintenance issues unrelated to Gustav. Twelve refiners remain shut down. See table below.
- Colonial pipeline reported this morning that it has brought on-line one of its shut booster stations and the ability to move products now exceeds the supply, with 12 refiners shut at origin locations. Colonial never shut down during Gustav and fully expects to move more product on its pipeline as refiners come back on line.
- Shell has noted that the Capline crude pipeline has received generators and plans to resume partial operations soon.
- Plantation pipeline is working on procuring generators for their Baton Rouge facility which remains shut down due to lack of power. The pipeline is currently on reduced flows. In addition, Centennial pipeline remains shut down due to maintenance unrelated to the hurricane.
- ChevronTexaco is working with wholesale marketers to ensure both its Chevron and Texaco branded service stations are open and replenished with fuel at strategic stations located along re-entry highways to meet the needs of returning residents. Chevron has emergency power generators on-hand for use in the affected areas, if needed. All Chevron fuel terminals which serve the Gustav-impacted areas have fuel and are in operation.



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Refineries in the Path of Gustav						
Refinery Impacted	Location	Capacity (B/D)				
		Operating	Shut Down	Restarting	Reduced Runs	Back to Normal
Shell	Saraland, AL	86,000				
Calcasieu	Lake Charles, LA	78,000	78,000			
Chalmette Refining	Chalmette, LA	192,760	192,760			
Citgo	Lake Charles, LA	429,500			429,500	
ConocoPhillips	Belle Chasse, LA	247,000	247,000			
ConocoPhillips	Westlake, LA	239,400	239,400			
ExxonMobil	Baton Rouge, LA	503,000	503,000			
Marathon	Garyville, LA	256,000	256,000			
Motiva	Convent, LA	235,000	235,000			
Motiva	Norco, LA	236,400	236,400			
Murphy Oil	Meraux, LA	120,000	120,000			
Placid Refining	Port Allen, LA	56,000		56,000		
Shell	Saint Rose, LA	55,000	55,000			
Alon (Formerly Valero)	Krotz Springs, LA	80,000	80,000			
Valero	Norco, LA	185,003	185,003			
Chevron	Pascagoula, MS	330,000			330,000	
BP	Texas City, TX	467,720			467,720	
Citgo	Corpus Christi, TX	156,000				
ConocoPhillips	Sweeny, TX	247,000				
Deer Park	Deer Park, TX	329,800				
ExxonMobil	Baytown, TX	567,000				567,000
ExxonMobil	Beaumont, TX	348,500				348,500
Flint Hills Resources	Corpus Christi, TX	288,126				
Houston Refining	Houston, TX	270,600				
Marathon	Texas City, TX	76,000				
Motiva	Port Arthur, TX	285,000			285,000	
Pasadena Refining	Pasadena, TX	100,000			100,000	
Total Petrochemicals	Port Arthur, TX	232,000		232,000		
Valero (formerly Premcor)	Port Arthur, TX	289,000			289,000	
Valero	Corpus Christi, TX	142,000				
Valero	Houston, TX	83,000				83,000
Valero	Texas City, TX	199,500				199,500
Valero	Three Rivers, TX	93,000				
<b>TOTAL</b>		<b>7,503,309</b>	<b>2,427,563</b>	<b>288,000</b>	<b>1,901,220</b>	<b>1,198,000</b>

**Note:** The table does not include all refineries in the PADD III, Gulf Coast Region.

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

- As of 1:00 PM EDT, September 4, natural gas pipelines continue to assess facilities along their systems. Some production offshore has commenced and pipelines have started flowing at reduced levels. Nine pipelines remain shut-in. There have been no reports of any major damage to the pipelines. See table below.



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Force Majeure / Critical Notice Posting by Natural Gas Pipelines		
Pipeline Name	Time Stamp	Notice (Status)
ANR Pipeline Co.	9/4/08	All capacity restrictions have been lifted.
Chandeleur Pipeline Co.	9/4/08	Force Majeure Lifted.
Destin Pipeline Co.	9/4/08	No damage to offshore points but flow remains shut-in.
Discovery Gas Transmission	9/4/08	Inspection of pipeline continue - flow remains shut-in
Enbridge (UTOS)	9/3/08	Expected to flow at reduced rate today.
Garden Banks Gas Pipeline	9/3/08	All operations remain shut-in.
High Island Offshore System	8/30/08	All operations remain shut-in.
Manta Ray Offshore Gathering	9/3/08	Expected in service by Sept 6th.
Mississippi Canyon Pipeline	9/3/08	All operations remain shut-in.
Natural Gas Pipeline Co of Am.	9/3/08	Force Majeure Lifted.
Nautilus Pipeline Co.	9/3/08	Expected in service by Sept 6th.
Sabine Pipe Line	9/4/08	Henry Hub & some mainline points in operations.
Sea Robin Pipeline Co.	9/4/08	Commenced flow from limited offshore points.
Southern Natural Gas Co.	9/4/08	Estimated supply loss dropped from 960 MMcf to 860 MMcf. No damage to onshore facilities.
Stingray Pipeline Co.	9/4/08	Operational at reduced flow. Minor damage at offshore compressor station.
Tennessee Gas Pipeline	9/4/08	Production from upstream of Grand Chenier & Sabine plant are authorized to flow
Texas Eastern Transmission	9/4/08	Venice System is being assessed today.
Texas Gas Transmission	9/4/08	Reduced flow along segments.
Transcontinental Gas Pipe Line	9/4/08	Emergency Gas Supply Procedures lifted. Certain laterals along their system remain shut-in; running at reduced levels.
Trunkline Gas Pipeline	9/3/08	Inspections continue - portion of system remains at reduced level.
Venice Gathering System	8/29/08	Venice Plant shutdown; all operations shut-in
Dauphin Island Gathering Partners	9/3/08	Mobile Bay Plant down until Sept 10. Deliveries will be reduced.
Black Marlin Pipeline	8/29/08	Plans to notify customers when nominations can be reinstated.

- As of September 4, , many natural gas processing plants in the Gulf Coast region remain offline or at low operational capacity due to loss of power and/or lack of upstream production caused by Hurricane Gustav. The plants that remain shut down continue to be assessed or have personnel en route to inspect any damage caused by the storm. See table below.



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Natural Gas Processing Plants					
Plant Name	Location	Capacity (MMcf/d)	Shut Down	Capable to Restart <sup>1</sup>	Operating at Reduced Level
Yscloskey	St. Bernard, LA	1,850	X		
Calumet	St. Mary, LA	1,680		X	
North Terrebone	Terrebonne, LA	1,350		X	
Venice	Plaquemines, LA	1,300		X	
Eunice	Acadia, LA	1,200			X
Toca I & II	St. Bernard, LA	1,100		X	
Bluewater	Acadia, LA	950			X
Sea Robin	Vermilion, LA	950		X	
Neptune	St. Mary, LA	650		X	
Larose	Lafourche, LA	600		X	
Pelican	St. Mary, LA	600		X	
Patterson II	St. Mary, LA	600	X		
Cameron Meadows	Cameron, LA	500			X
Iowa Gas	Jefferson Davis, LA	500			X - normal levels
Grand Chenier II	Cameron, LA	400			X - accepting nominations
Sabine Pass	Cameron, LA	300			X - accepting nominations
Stingray	Cameron, LA	300		X	
Lowry	Cameron, LA	265	X		
Barracuda	Cameron, LA	225			X
Baton Rouge	West Baton Rouge, LA	225	N/A	N/A	N/A
Plaquemine	Iberville, LA	225		X	
Gillis	Calcasieu, LA	180	N/A	N/A	N/A
Dubach Plant	Lincoln, LA	175	N/A	N/A	N/A
Burns Point	St. Mary, LA	160	N/A	N/A	N/A
Mobile Bay (Williams)	Mobile, AL	700			X
Mobile Bay (Duke)	Mobile, AL	300	X - maintenance		
Yellowhammer	Mobile, AL	200	N/A	N/A	N/A
Pascagoula	Jackson, MS	1,500			X
Port Arthur	Jefferson, TX	200			X
Markham	Matagorda, TX	300			X
West Beaumont	Jefferson, TX	100			X

1 - Represents those plants that are capable to restart after electricity is restored or when upstream gas flow commences service.



**Electricity Updates:  
Louisiana:**

As of: 9/4/2008 1:00 PM EDT



<b>Electricity Outages: Utility Detail</b>			
<b>Louisiana</b>			
<b>Utility</b>	<b>Outages</b>	<b>Total Utility</b>	<b>% w/o Power</b>
Cleco Power LLC	116,563	265,556	43.9%
Entergy Gulf States, Entergy Louisiana, and Entergy New Orleans (combined)	603,828	1,140,194	53.0%
Southwestern Electric Power	295	174,213	0.2%
All Cooperatives	176,069	413,231	42.6%
All Municipal		156,155	0.0%
<b>TOTAL</b>	<b>896,755</b>	<b>2,149,349</b>	<b>41.7%</b>

Total state and utility customers are based on 2006 EIA Customer Data; Electric Cooperative customer totals provided by Louisiana Public Service Commission.

Note: due to a large number of service providers, including investor owned utilities and cooperatives, the number of customer outages reported may not be comprehensive.

**Mississippi:**

As of: 9/4/2008 1:30 PM EDT



<b>Electricity Outages: Utility Detail</b>			
<b>Mississippi</b>			
<b>Utility</b>	<b>Outages</b>	<b>Total Utility</b>	<b>% w/o Power</b>
Entergy Mississippi	8,918	428,036	2.1%
Mississippi Power		181,208	0.0%
Total Cooperative	26,896	695,781	3.9%
Total Municipal Power		128,421	0.0%
<b>TOTAL</b>	<b>35,814</b>	<b>1,433,446</b>	<b>2.5%</b>

Total state and utility customers are based on 2006 EIA Customer Data.

Note: due to a large number of service providers, including investor owned utilities and cooperatives, the number of customer outages reported may not be comprehensive.



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## Arkansas:



As of: 9/4/2008 1:00 PM EDT

Electricity Outages: Utility Detail			
Arkansas			
Utility	Outages	Total Utility	% w/o Power
Entergy Arkansas	56,055	681,298	8.2%
Southwestern Electric Power	100	111,109	0.1%
Empire District Electric		4,289	0.0%
Oklahoma Gas and Electric	0	63,020	0.0%
Total Cooperative		453,001	0.0%
Total Municipal Power		173,243	0.0%
<b>TOTAL</b>	<b>56,155</b>	<b>1,485,960</b>	<b>3.8%</b>

## Restoration Updates:

- The damage to the Entergy system is extensive and it is the largest damage to have ever occurred in the Baton Rouge area. Entergy is continuing to assess damage in order to estimate when electricity will be restored to specific locations. The transmission damage across the Entergy system includes 168 transmission lines and 120 substations. The company has a team of 11,000 workers from more than 25 states assisting in the restoration.
- SERC Reliability Corporation is reporting that five 500-kv lines are out, forty-three 230-kv, and twenty-five 138-kv lines in their region. Since yesterday, September 3, thirteen 230-kv lines and fifteen 115-kv lines have been restored.
- The Southwest Power Pool reports that three power plants have sustained cooling tower damage; however, loss of this generation is not impacting reliability.
- Damage to electric cooperatives in the region was extensive. Crews from across the country are being called in to assist in restoration. Full restoration is expected to take several weeks
- The Southwest Louisiana Electric Membership Corporation (SLEMCO) reports that most of its feeders are on and house-to-house repairs will begin in many areas today, September 4. SLEMCO has restored power to 42,076 customers affected by Gustav.
- Dixie Electric Membership Corporation (DEMCO) reports widespread and severe damage to its infrastructure. DEMCO continues to assess the damage resulting from Hurricane Gustav and is receiving assistance nearly 2,000 contractors and workers from other cooperatives from several states.