



U.S. Department of Energy  
Emergency Support Function 12

Hurricane Gustav Situation Report # 3

September 2, 2008 (3:00 PM EDT)

[http://www.oe.netl.doe.gov/emergency\\_sit\\_rpt.aspx](http://www.oe.netl.doe.gov/emergency_sit_rpt.aspx)

### Summary

Electricity		
Impacted State	Electric Customer Outages	% of State Out
Louisiana	1,039,536	49%
Mississippi	88,645	6%
<b>TOTAL:</b>	<b>1,128,181</b>	<b>32%</b>
Petroleum & Natural Gas		
	Amount	% Capacity Out*
Crude Oil Production Shut-In (b/d)	1,300,000	100.0%
Natural Gas Production Shut-in (mmcf/d)	7,062	95.4%
Refinery Capacity Shut down (b/d)	2,483,563	NA

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:

- Entergy is reporting extensive damage to its transmission system in Louisiana, with 191 lines and 210 substations out of service. The New Orleans and Baton Rouge areas remain islanded, with no electrical connections to the rest of the system except for three generating units. The company reports that restoration is complex and is focusing its priorities on re-establishing grid integrity before adding significant load. Damage assessments are ongoing but are being hampered by poor weather.
- In the States of Louisiana and Mississippi, as of approximately Noon EDT September 2, 2008, there are 1,128,181 customers reported without power, including 1,039,536 in Louisiana and 88,645 in Mississippi. This represents 32 percent of the total customers in Louisiana and Mississippi.
- At of 11:00 AM EDT August 30, 2008 the Louisiana Offshore Oil Port (LOOP) suspended onshore and offshore operations. According to LOOP personnel, the company is currently performing damage assessments.



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- According to the Association for Oil Pipelines, the Capline and LoCap crude lines and Centennial pipeline remain shut down. The Colonial and Plantation pipelines, which supply the East Coast, are both operating at reduced rates. See list of pipelines in table below.
- As of 12:00 PM EDT, September 2, the Sabine Pipeline reports that personnel are currently performing on-site assessments at the Henry Hub and on the Sabine mainline system. The force majeure declared by Sabine Pipeline on August 31 has not been lifted and all facilities connected to the system remain shut-in, including the Henry Hub operations.
- Entergy reports that its Waterford 3 Nuclear Plant near New Orleans completed a controlled shut down on August 31, 2008 in anticipation of Hurricane Gustav, with the plant taken off line at 11:30 PM EDT. At 6:00 PM EDT September 1, 2008, the River Bend Nuclear Plant in St. Francisville, Louisiana was also taken offline with a controlled shut down. Personnel at both plants are performing site assessments and working closely with the Nuclear Regulatory Commission and Federal Emergency Management Agency to determine a timeline for restart.
- As of 11:00 AM EDT August 31, 2008, the Strategic Petroleum Reserve (SPR) facilities at Bayou Choctaw, LA, West Hackberry, LA, and Big Hill, TX have all been shut down. The SPR facility in Bryan Mound, TX is operational.
- As of 2:00 PM EDT, September 2, 2008, Port Arthur and Sabine Channel in Texas and Panama City in Florida are now open. All other ports in LA, MS, AL and the FL Panhandle are still closed including New Orleans, the Port of Baton Rouge, and Port Fourchon. As of 8:50 AM EDT September 2, 2008, the Houston, Galveston/Texas City, and Freeport Ships Pilots Associations resumed operations for the Houston Ship Channel, Texas City/Galveston, and Freeport.

## 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 VI Austin Interim Operation Facility in Austin, TX, 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.

## 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)	1,300,000	1,300,000	100.0%
Natural Gas (MMCF/D)	7,062	7,400	95.4%

Source: Minerals Management Service



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- As of 12:30 PM EDT, September 2, 2008, the Minerals Management Service (MMS) reports 7,062 million cubic feet per day of the Gulf's natural gas production remains shut-in, equivalent to 95.4 percent of the Gulf production. MMS reports 1,300,000 barrels/day of the Gulf's crude production remains shut-in, equivalent to 100 percent of the Gulf's crude production. A total of 632 production platforms, or 88.2 percent of the Gulf's 717 manned platforms, have been evacuated. Personnel from 110 rigs, representing 90.9 percent of those operating in the region, had been removed.
- Companies are currently assessing damage to their Gulf of Mexico production facilities, refineries, pipelines, and terminals in the wake of the storm. Ramp up schedules will vary at each facility.
- As of 3:00 PM EDT September 2, 2008, thirteen refiners are shut down, totaling 2.5 million barrels per day of capacity. Ten refineries in the Gulf Coast region also reduced runs. See table below.
- Plantation pipeline is experiencing loss of power at its Baton Rouge facility with more than half of the flow along the line reduced. Petroleum product flow from Collins, MS and Chevron's Pascagoula refinery is unaffected.
- Colonial's main distillate line between Houston and Greensboro resumed service Tuesday morning after being idle for several hours due to a lack of supply. The main gasoline line continues to operate at reduced rates as do stub lines on the Colonial system. Colonial is assessing damage at three pumping stations impacted by Gustav -- Krotz Springs, Baton Rouge and Felixville -- in central Louisiana.



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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>2,483,563</b>	<b>232,000</b>	<b>3,099,220</b>	<b>0</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.

Pipelines in the Path of Gustav							
Type	Name	Start	Terminus	Capacity (barrels/day)	Shut Down	Reduced Rates	Operating
Crude	Capline	LA	IL	1,200,000	1,200,000		
Crude	LOOP/Locap	LA	LA	1,200,000	1,200,000		
Crude	Marathon gathering	GOM	LA/TX	NA	NA		
Product	Centennial	TX	IL	210,000	210,000		
Product	Central Florida	FL	FL	115,000			115,000
Product	Colonial	TX	NJ	2,400,000		2,400,000	
Product	Explorer	LA/TX	IN	700,000			700,000*
Product	Magellan	TX	CO, MN, WI, IL	120,000			120,000
Product	NuStar/Texas Gulf Coast Ref'd	TX	TX	~100,000			~100,000
Product	Plantation	LA	VA	600,000		6000,00	

**Notes:** \* Precautionary shut down of Lake Charles origin only. St.James, LA Crude oil storage terminal is shut down, according to NuStar Energy.

**Source:** Status of pipelines from Association of Oil Pipe Lines; Capacity data from company web sites.



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- As of 1:30 PM EDT, September 2, there have been no reports of any damage to natural gas pipeline or production infrastructure. Many natural gas pipelines are in the process of accessing the conditions of their systems and are in communications with the downstream gas processing plants where relevant. In addition, many of the Gulf Coast area compressor stations along these pipelines are operating on emergency backup generators as commercial electric power is unavailable. See table below.
- Operator personnel are en route to perform detailed inspections of their natural gas processing systems. Some plants have notified pipeline operators that their plant is ready to receive natural gas. Twenty-five out of thirty-one major natural gas processing plants were shut-in in the path of the storm totaling 16.1 billion cubic feet per day. Many of the plants took action to shut down operations and remove personal from the facilities due to the mandatory evacuations.

Force Majeure / Critical Notice Posting by Natural Gas Pipelines		
Pipeline Name	Time Stamp	Notice (Status)
ANR Pipeline Co.	9/2/08	Assessing impacts/conditions of system; running at reduced level.
Chandeleur Pipeline Co.	9/2/08	Assessing impacts/conditions of system. All operations remain shut-in.
Destin Pipeline Co.	9/2/08	Assessing impacts/conditions of system. Offshore remains shut-in.
Discovery Gas Transmission	9/2/08	Assessing impacts/conditions of system. No power to restart pipeline system.
Enbridge (UTOS)	8/30/08	All operations shut-in
Garden Banks Gas Pipeline	8/30/08	All operations shut-in
High Island Offshore System	8/30/08	All production has been shut-in resulting in zero flow.
Manta Ray Offshore Gathering	8/30/08	All operations shut-in
Mississippi Canyon Pipeline	8/29/08	All operations shut-in
Natural Gas Pipeline Co of Am.	9/2/08	Compressor station 342 & 346 remain shutdown; System running at reduced
Nautilus Pipeline Co.	8/30/08	Neptune plant shut down
Sabine Pipe Line	9/2/08	Assessing impacts/conditions of system and Henry Hub.
Sea Robin Pipeline Co.	9/2/08	Assessing impacts/conditions of system. All operations remain shut-in.
Southern Natural Gas Co.	9/2/08	Assessing impacts/conditions of system. Supply loss remains at 960 mmcf.
Stingray Pipeline Co.	8/30/08	All operations shut-in
Tennessee Gas Pipeline	9/2/08	Assessing impacts/conditions of system. Supply loss remains at 1.5 bcf.
Texas Eastern Transmission	9/2/08	Assessing impacts/conditions of system; running at reduced level; compressors in area running on backup generators.
Texas Gas Transmission	9/1/08	Youngsville compressor station offline
Transcontinental Gas Pipe Line	9/2/08	Emergency Supply Allocation instituted for certain laterals along their system; running at reduced levels.
Trunkline Gas Pipeline	9/2/08	Assessing impacts/conditions of system; running at reduced level.
Venice Gathering System	8/29/08	Venice Plant shutdown; all operations shut-in
Black Marlin Pipeline	8/29/08	Plans to notify customers when nominations can be reinstated.

Source: Informational postings from company web sites.



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## Electricity Updates:

### Louisiana:

As of: 9/2/2008 12:00 PM EDT



Electricity Outages: Utility Detail			
Louisiana			
Utility	Outages	Total Utility	% w/o Power
Cleco Power LLC	246,092	265,556	92.7%
Entergy Gulf States, Entergy Louisiana, and Entergy New Orleans (combined)	787,845	1,140,194	69.1%
Southwestern Electric Power	5,599	174,213	3.2%
All Cooperatives		400,346	0.0%
All Municipal		156,155	0.0%
<b>TOTAL</b>	<b>1,039,536</b>	<b>2,136,464</b>	<b>48.7%</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.

### Mississippi:

As of: 9/2/2008 10:00 PM EDT



Electricity Outages: Utility Detail			
Mississippi			
Utility	Outages	Total Utility	% w/o Power
Entergy Mississippi	33,466	428,036	7.8%
Mississippi Power	5,976	181,208	3.3%
Total Cooperative	49,203	695,781	7.1%
Total Municipal Power		128,421	0.0%
<b>TOTAL</b>	<b>88,645</b>	<b>1,433,446</b>	<b>6.2%</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.

## Restoration Updates:

- Entergy has more than 10,000 workers from more than 25 states restoring service to the system.
- Mississippi Power reports that its crews are evaluating restoration requirements in their service area.



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- CLECO has secured more than 2,500 line mechanics, tree trimmers and transmission line crews to assist after the storm. Southwestern Electric Power Company has crews in place to begin restoration.
- Southern Company is hoping to get aircraft in the air today, September 2, to begin aerial assessments.
- SERC is reporting no reliability issues. In their system outside the Delta sub-region: One 500-kV tie line that was taken out for reliability is still out; and one 115-kV line out. In the Delta sub-region, assessments are not complete but Entergy is reporting line outages as follows: 4 115-kV lines out; 28 138-kV lines out; 59 230-kV lines out; and 6 500-kV lines out. Entergy has restored 19 lines since September 1, 2008.
- The Southwest Power Pool (SPP) reports the following lines out of service: 8 230-kV lines out; 14 138-kV lines out. They are beginning damage assessments today, September 2, and expect very limited restoration today.