

#### Hurricane Gustav Situation Report # 1 September 1, 2008 (11:00 AM EDT)

## Summary

Electricity						
Electric Customer Outages		% of State Out				
	354,411	17%				
	3,547	0%				
	357,958	10%				
Petroleum & Natural Gas						
	Amount	% Capacity Out*				
Crude Oil Production Shut-In (b/d)		96.2%				
Natural Gas Production Shut-in (mmcf/d)		82.2%				
Refinery Capacity Shut down (b/d)		NA				
	Electric Custo Petroleum &	Electric Customer Outages   354,411   3,547   3,547   357,958   Petroleum & Natural Gas   Amount   1,251,049				

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:**

- According to the National Hurricane Center, as of 9:00 AM EDT September 1, 2008, Hurricane Gustav weakened to a Category Two hurricane with maximum sustained winds of 110 miles per hour. The center of the hurricane is about 80 miles south-southwest of New Orleans. Gustav is moving northwest at approximately 16 miles per hour. On the forecast track, the center will cross the Louisiana coast by midday today.
- In the States of Louisiana and Mississippi, 11:20 AM EDT September 1, 2008, there are 357,958 customers reported without power, with the majority of outages occurring in Louisiana. This represents ten 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 the Association for Oil Pipelines, the Capline and LoCap crude lines have been shutdown. Each of these lines has an operating capacity of 1.2 million barrels per day. The Centennial pipeline, a 210,000 barrel per day product line, has also shut down. See detailed table below.



- As of 6:00 AM EDT, August 31, Sabine Pipeline declared a force majeure due to the mandatory evacuation in place for Vermilion Parish which includes all receipt and delivery points on the Sabine system and the Henry Hub operations. The Henry Hub is the largest centralized point for natural gas spot and futures trading in the United States. The New York Mercantile Exchange (NYMEX) uses the Henry Hub as the point of delivery for its natural gas futures contract.
- The Nuclear Regulatory Commission (NRC) has reported that the Waterford nuclear power plant, located about 20 miles west of New Orleans, is shut down to ensure that all safety precautions are taken for the storm. The River Bend, Grand Gulf and South Texas Project nuclear plants did not anticipate experiencing hurricane-force winds or making emergency declarations as a result of Hurricane Gustav.
- 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.
- On August 29, 2008, the Environmental Protection Agency (EPA) issued a fuel waiver for the sixteen parishes in Louisiana who have a requirement to use 7.8 Reid Vapor Pressure (RVP) gasoline. The wavier extends until 11:59 pm on September 8, 2008.
- On September 1, 2008, EPA issued a fuel wavier for areas in Texas to use conventional gasoline in lieu of reformulated gasoline (RFG) or 7.8 RVP gasoline. The waiver extends until 11:59 pm on September 10, 2008.
- At 5:00 PM EDT August 31, 2008, the Coast Guard closed all waterways in Southeast Louisiana including the Port of New Orleans, the Port of Baton Rouge, and Port Fourchon. As of 7:30 PM EDT August 31, 2008, all inbound boardings at the Houston Ship Channel and the Freeport Ship Channel were suspended by the Houston, Galveston/Texas City, and Freeport Ships Pilots Association.

## **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 II 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)	1,251,049	1,300,000	96.2%			
Natural Gas (MMCF/D)	6,086	7,400	82.2%			

Source: Minerals Management Service

- As of 12:30 PM EDT, August 31, 2008, the Minerals Management Service (MMS) reports 6,086 million cubic feet per day of the Gulf's natural gas production have been shut-in, equivalent to 82.2 percent of the Gulf production. MMS reports 1.251,049 barrels/day of the Gulf's crude production has been shut-in, equivalent to 96.2 percent of the Gulf's crude production. A total of 518 production platforms, or 72.3 percent of the Gulf's 717 manned platforms, have been evacuated. Personnel from 86 rigs, representing 71.1 percent of those operating in the region, had been removed
- As of 10:00 AM EDT September 1, 2008, twelve refiners reported shutdown of 2.1 million barrels per day of capacity and ten refineries reported having reduced runs. See table below.
- Nineteen of the 22 major natural gas pipelines in the Gulf of Mexico have declared force majeure resulting in the shut-in of all operations along their offshore systems.
- There are 28 major natural gas processing plants situated in the path of the storm totaling 18.9 billion cubic feet per day. Many of the plants have taken action to shut down operations and removing personal from the facilities due to the mandatory evacuation in place for Louisiana as well as the shut-in of gathering lines supplying gas to the facilities.



Situation 1	Report
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Refineries in the Path of Gustav							
		Capacity (B/D)					
Refinery Impacted	Location	Operating	Shut Down	Restarting	Reduced Runs	Back to Normal	
Refineries Impacted							
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	-,				
Shell	Saint Rose, LA	55,000	55,000				
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			0.0,000		
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	202,000				
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			100,000		
TOTAL		7,503,309	2,156,563	0	3,313,220		

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



Pipelines in the Path of Gustav							
Туре	Name	Start	Terminus	Capacity (barrels/day)	Shut Down	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	O, MN, WI, IL	45,000		45,000	
Product	NuStar/Texas Gulf Coast Refined	тх	тх	~100,000		~100,000	
Product	Plantation	LA	VA	600,000		600,000	

## **Restoration Activities:**

- The Nuclear Regulatory Commission has dispatched additional personnel to nuclear power plants in Louisiana, Mississippi and Texas in anticipation of the expected landfall Monday of Hurricane Gustav. The NRC requires plants to shut down if winds reach hurricane strength.
- As of August 29, 2008, Entergy Gulf States Louisiana, Entergy New Orleans and Entergy Louisiana opened their storm command centers in preparation for Hurricane Gustav. Entergy has crews on standby outside of the predicted landfall area, prepared to restore power after the storm makes landfall. Southwestern Electric Power Company is also preparing for outages in the wake of the Hurricane.
- As of August 31, 2008, Entergy Mississippi is preparing a restoration team that will respond to Hurricane Gustav. Entergy has crews staged near the landfall area whom are prepared to begin restoration efforts after the storm passes. Entergy Mississippi has contacted suppliers to ensure the availability of poles, wire and other equipment. As of 8/28/08 Mississippi Power has not activated its storm center, but continues to monitor Gustav.

## **Other Related Information**

- As of 5:00 PM EDT August 31, 2008, the Coast Guard closed the Gulf Intracoastal Waterway from mile marker 20 west of the Harvey Locks to mile marker 44, east of the Harvey Locks, and the Lower Mississippi River from the Southwest Pass sea buoy to mile marker 303.
- As of 7:00 AM EDT September 1, 2008 the Coast Guard closed the Sabine Ship Channel. As of 8:30 PM EDT August 30, 2008, the Coast Guard reported that the Corpus Christi Ship Channel ship traffic was operating as normal.