



**Hurricane Isaac Situation Report # 11**  
**September 2, 2012 (3:00 PM EDT)**

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

**Highlights:**

- Hurricane Isaac made its first landfall on Tuesday, August 28 at 7:45 pm EDT in Plaquemines Parish, LA. Isaac made a second landfall along the coast of southeast Louisiana, just west of Port Fourchon, at 3:15 am EDT on Wednesday, August 29. Isaac became a Tropical Depression moving north into the Midwest.

**Summary**

Electric Outages by State				
Impacted State	Current Customer Outages	Percentage of Customers Without Power	Peak Outages Reported in DOE SitReps	Customers Restored Since Peak
Arkansas	4,994	< 1%	19,935	14,941
Louisiana	239,963	11%	889,517	649,554
Mississippi	11,837	< 1%	155,604	143,767
<b>TOTAL:</b>	<b>256,794</b>			
Petroleum & Natural Gas				
	Amount	% Capacity Out*		
<b>Crude Oil Production Shut-In (b/d)</b>	986,698	71.50%		
<b>Natural Gas Production Shut-in (mmcf/d)</b>	2,502.84	55.62%		
<b>Refinery Capacity Shut down (b/d)</b>	439,500	NA		

**Note:** States with fewer than 1,000 outages are not included in the table. Due to a large number of service providers, including investor owned utilities and cooperatives, the number of customer outages reported may not be comprehensive.

**Sources:** Outages obtained from company web sites and DOE communications. Total State customers are based on 2010 EIA Customer Data.

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

- As of 2:00 pm EDT September 2, the impacted States report a total of 256,794 customers without power; this is a decrease from the 426,948 customer outages reported in Situation Report #10 at 3:00 pm September 1. Restoration estimates and efforts by electric utilities are reported below.
- As of 1:00 pm EDT, September 2, two refineries in the path of Isaac are shut down representing 439,500 barrels per day (B/D) of refining capacity, or 6 percent of total Gulf Coast refining capacity (7,671,585 B/D). Nine additional refineries in the path of the storm are restarting or at reduced rates.
- On August 31, the Department of Energy entered into an agreement to loan oil from the Strategic Petroleum Reserve (SPR). The loan agreement is with Marathon Petroleum Company and is for 1 million barrels of sweet crude. The crude oil will be loaned from the SPR under short-term contractual agreements and returned to the SPR once supply conditions return to normal.



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**ESF 12 Actions:**

- ESF 12 is staffing the FEMA National Response Coordination Center (NRCC) in Washington, DC, the FEMA Region VI Regional Response Coordination Center (RRCC) in Denton, TX, the Baton Rouge, LA Incident Management Assistance Team (IMAT), and the Mississippi Emergency Operations Center (EOC).

**Petroleum & Natural Gas Information:**

Oil & Gas Offshore Production Shut-In Status for Gulf of Mexico <i>as of 12:30 pm EDT 9/2/12</i>			
Location	Amount Shut In	Pre-Event Production	Percent (%) Shut In
Crude Oil (B/D)	986,698	1,380,000	71.50
Natural Gas (MMCF/D)	2,502.84	4,500	55.62

Source: Bureau of Safety and Environmental Enforcement (BSEE)

- As of 12:30 pm EDT, September 2, the Bureau of Safety and Environmental Enforcement (BSEE) reports 986,698 barrels per day (B/D) of the Gulf of Mexico (GOM) crude oil production is shut-in, equivalent to 71.50 percent of the GOM crude oil production. BSEE reports 2,502.84 million cubic feet per day (MMCF/D) of the GOM natural gas production is shut-in, equivalent to 55.62 percent of the GOM natural gas production. Personnel have been evacuated from a total of 131 production platforms, or 21.98 percent of the 596 manned platforms in the GOM. Personnel have been evacuated from 18 rigs, representing 23.68 percent of the 76 rigs currently operating in the GOM.

**Refineries**

- For a list of refineries impacted by Hurricane Isaac, see table below.

Refineries in the Path of Isaac <i>as of 1:00 pm EDT 9/2/12</i>						
Refinery Impacted	Location	Capacity (B/D)				
		Operating Capacity	Shut Down	Restarting	Reduced Runs	Normal
Chevron	Pascagoula, MS	330,000			X	
Shell	Saraland, AL	80,000			X	
Alon	Krotz Springs, LA	80,000			X	
Chalmette Refining	Chalmette, LA	192,500	X			
ExxonMobil	Baton Rouge, LA	502,500			X	
Marathon	Garyville, LA	490,000			X	
Motiva	Convent, LA	235,000		X		
Motiva	Norco, LA	233,500		X		
Phillips 66	Belle Chasse, LA	247,000	X			
Placid Refining	Port Allen, LA	57,000		X		
Valero	Norco, LA	205,000		X		
<b>TOTAL</b>		<b>2,652,500</b>	<b>439,500</b>	<b>730,500</b>	<b>1,482,500</b>	<b>0</b>

Sources: Confirmed by company or on company web site.

Note: Valero's Meraux refinery has been excluded from the table as it was already shutdown due to reasons unrelated to Isaac.



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**Ports and Terminals**

- At 2:00 am EDT, September 1, the Louisiana Offshore Oil Port (LOOP) resumed vessel offloading operations at the marine terminal. The company resumed deliveries from the Clovelly storage facility on the evening of August 30.
- **As of 1:00 pm EDT, September 2, the U.S. Coast Guard reports that all ports are open in Sector Mobile.** In Sector New Orleans, Gulf Intercoastal Waterway, New Orleans, Baton Rouge, and ports along the Lower Mississippi River below mile marker 130 are open. Lower Mississippi River ports above mile marker 130 are open with restrictions. In Sector Morgan City, **the LOOP**, and the Port of Houma are open. Port Fourchon is open with restrictions.

**Petroleum Pipelines**

- **As of 1:00 pm EDT, September 2,** the Capline, Ho-Ho, and the LOOP’s LOCAP pipelines are operating, but Shell’s Offshore Gulf pipeline network continues to report being shut down.

Status of Petroleum Pipelines as of 1:00 pm EDT 9/2/12					
Type	Name	Start	Terminus	Capacity (barrels/day)	Status
Crude	Capline Pipeline	LA	IL	1,200,000	Operating
Crude	Ho-Ho (Houma-to-Houston)	LA	TX	325,000	Operating
Crude	LOOP LOCAP	LA	LA	1,200,000	Operating
Crude	Shell Offshore Gulf Pipeline Network	GOM	LA	NA	Shut Down

Sources: Confirmed by company or on company web site

**Natural Gas Pipelines**

- **As of 1:00 pm EDT, September 2,** Dauphin Island Gathering System, Destin Pipeline Company, Florida Gas Transmission Company, Mississippi Canyon Gas Pipeline, and Venice Gas Gathering System have declared Force Majeure on their pipeline systems due to production shut-ins in the GOM.
- Several companies have reported shut-ins in parts of their system. These include ANR Pipeline Company, Columbia Gulf Transmission Company, **Gulf South Pipeline Company, Nautilus Pipeline Company, Sea Robin Pipeline Company, Southern Natural Gas, Stingray Pipeline Company, and Trunkline Gas Company.**



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<b>Force Majeure / Critical Notice Posting by Natural Gas Pipelines as of 1:00 pm EDT 9/2/12</b>		
<b>Name</b>	<b>Time Stamp</b>	<b>Notice (Status)</b>
ANR Pipeline Company	8/28/2012	Scheduled maintenance and TS Isaac related capacity curtailment between Eunice and Patterson delivery points.
Columbia Gulf Transmission Company	8/27/2012	Curtailment at Venice, Acadia and Erath plant delivery points.
Dauphin Island Gathering System	8/27/2012	Force Majeure
Destin Pipeline Company	8/30/2012	Assessment and recovery operations have begun; Force Majeure on offshore receipt points remains.
Discovery Gas Transmission	8/31/2012	With Discovery's Larose Plant returning to service, DGT is accepting nominations for delivery to the plant.
Florida Gas Transmission Company	8/28/2012	Force Majeure at Napoleonville Storage Rec.
<b>Garden Banks Gas Pipeline</b>	<b>9/1/2012</b>	<b>Personnel have returned to South Marsh Island 76. Facilities have been inspected and prepared to return to service</b>
<b>Manta Ray Offshore Gathering Company</b>	<b>9/1/2012</b>	<b>Manta Ray is prepared to return to service.</b>
Mississippi Canyon Gas Pipeline	8/27/2012	Force Majeure
Natural Gas Pipeline Company (Kinder Morgan NGPL)	8/30/2012	Force Majeure on the Amarillo #3 Segment 11 in the Midcontinent zone (through Compressor Station 105) has been lifted. The segment was shut-in on 8/27/2012.
<b>Nautilus Pipeline Company</b>	<b>9/1/2012</b>	The pipeline has begun accepting nominations for delivery to Acadian Gas Pipeline, <b>Anaconda</b> , ANR, <b>Cleopatra</b> , Cypress, Gulf South, <b>Manta Ray</b> , and Tenn 800 LEG receipt points. Force Majeure remains at other portions.
<b>Gulf South Pipeline Company</b>	<b>9/2/2012</b>	<b>Duke-Mobile Bay location remains shut.</b>
Sabine Pipe Line	9/1/2012	Sabine has begun accepting nominations for the Sea Robin-Henry Hub Interconnect.
<b>Sea Robin Pipeline Company</b>	<b>9/1/2012</b>	<b>Inspections have been completed at facilities. Many locations have been cleared to flow.</b>
<b>Southern Natural Gas</b>	<b>9/2/2012</b>	<b>Facility inspections at several facilities have been completed. Main Pass, Sea Robin and Burns Point delivery points have been approved for flow.</b>
Stingray Pipeline Company	8/20/2012	Stingray's facilities at West Cameron 509 platform have resumed operation. Other portions continue to remain shut-in.
Tennessee Gas Pipeline Company	8/31/2012	Force Majeure at Station 249 has been lifted.
Transcontinental Gas Pipe Line Company	9/1/2012	The pipeline has resumed operations.
<b>Trunkline Gas Company</b>	<b>9/1/2012</b>	<b>Inspections have been completed at facilities. Many locations have been cleared to flow.</b>
Venice Gathering System	8/27/2012	Force Majeure

**Sources:** Confirmed by company or on company web site.

**Natural Gas Processing Plants**

- As of 1:30 p.m. EDT September 2, 13 processing plants with capacities greater than 100 million cubic feet per day (MMcf/d) are shut down due to Isaac. However, 10 of these plants are capable of restarting pending resumption of pipeline flows. The shut down plants have a combined capacity of 7.8 billion cubic feet per day (Bcf/d), and the plants capable of restarting account for 5.0 Bcf/d of this capacity. One of the shutdown plants is undamaged and will be capable to restart once power returns. Additionally, there are 7 plants, with a combined capacity of 3.5 Bcf/d, operating at reduced levels, and 1 plant back to normal operations. There are 28 gas processing plants (with a combined processing capacity of 13,5 Bcf/d) with capacities exceeding 100 MMcf/d that are located in the Gulf of Mexico coastal area and in the path of Isaac. The shut-in capacity of the 3 plants currently

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incapable of restarting due to Isaac accounts for 21 percent of total capacity of plants in Isaac’s path. Most operators anticipate gas flows resuming over the next few days.

Natural Gas Processing Plant <sup>1</sup> Status for Affected Area <i>as of 9/2/12 01:30 PM EDT</i>						
Plant Name	Location	Capacity (million cubic feet per day) <sup>2</sup>				
		Design System Operation	Shutdown	Capable to Restart	Operating at Reduced Levels	Normal
Yscloskey Gas Plant	St. Bernard, LA	1,850	X			
North Terrebonne Plant	Gibson, LA	1,100			X	
Pascagoula Gas Processing Plant	Jackson, MS	1,100		X		
Toca Gas Plant	St. Bernard, LA	1,100		X		
Venice Gas Plant	Plaquemines, LA	750	X			
Sea Robin Gas Plant	Vermillion, LA	660		X		
Neptune Plant	St. Marys, LA	650			X	
Larose Plant	Lafourche, LA	600			X	
Pelican Plant	St. Marys, LA	600			X	
Williams Mobile Bay Processing Plant	Mobile Bay, AL	600		X		
Mobile Bay Processing	Mobile, AL	300		X		
Sabine Pass Plant	Cameron, LA	300		X <sup>3</sup>		
Stingray Gas Plant	Cameron, LA	300		X		
Lowry Gas Plant	Cameron, LA	240			X	
Baton Rouge Gas Plant	West Baton Rouge, LA	225		X		
Plaquemine Plant	Iberville Parish, LA	225	X			
Yellowhammer Gas Plant	Mobile, AL	200		X		
Paterson II Plant	St. Marys, LA	180			X	
Burns Point Plant	St. Marys, LA	160		X		
PSI Kaplan Plant	Vermillion, LA	125				X
Gibson Plant	Terrebonne, LA	110			X	

Source: EIA-757B

Note: There are two plants that are inactive for reasons unrelated to Isaac.

<sup>1</sup> List only includes plants with processing capacity greater than or equal to 100 million cubic feet per day.

<sup>2</sup>The capacity represents the design capacity of the plants and does not represent the actual gas flow through these plants.

<sup>3</sup>Sabine Pass Plant cannot resume operations due to a connecting pipeline undergoing maintenance.

## Restoration Information

- Entergy stated today (September 2) there are seven substations in Louisiana out of service, three which remain flooded, and 19 damaged transmissions lines, eighteen in Louisiana and one in Mississippi. The company is using portable substations and building new lines to restore service to customers while the damaged substations are repaired. Entergy stated yesterday (September 1), 13,000 of its 16,000 total response personnel are located in Louisiana. The other 3,000 personnel are focused on the restoration in Arkansas and Mississippi. The company’s preliminary damage estimates have shown the following impacts in Louisiana: 6,200 damaged poles, 6,000 spans of

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wire down, 2,000 damaged transformers, 4,000 broken cross arms, 3,000 damaged service lines to customers, and 5,500 spans with trees fallen on them.

- Entergy released the following restoration estimates for Mississippi:
  - Restore all remaining customers who can receive service by today (September 2) in Jackson, Cleveland, Clinton, Greenville, Mid-State and Vicksburg.
  - Restore the majority of customers by today (September 2) and all customers who can receive service by tomorrow in Brookhaven, Gloster, McComb, and Natchez.
- Entergy released the following restoration estimates for Louisiana:
  - Restoration is complete in the Acadia, Iberia, Lafayette, St. Landry, St. Martin, St. Martin, and Vermilion parishes.
  - Ascension, E. Baton Rouge, E. Feliciana, Iberville, Livingston, Pointe Coupee, Terrebonne, W. Baton Rouge, and W. Feliciana parishes are estimated to have 90 percent of all customers who can receive power restored by today (September 2).
  - Ascension (Donaldsonville), Assumption (Labadieville), Iberville (Plaquemine/White Castle), St. Helena, Tangipahoa/North, and Washington parishes are estimated to have 90 percent of all customers who can receive power restored by tomorrow (September 3).
  - Jefferson (Grand Isle), Lafourche, and St. Charles parishes are estimated to have 90 percent of all customers who can receive power restored by Tuesday (September 4).
  - East Jefferson, Livingston, Orleans, St. James, St. Tammany, and Tangipahoa/South parishes are estimated to have 90 percent of all customers who can receive power restored by Wednesday (September 5).
  - St. John the Baptist and Jefferson parishes are estimated to have 90 percent of all customers who can receive power restored by Thursday (September 6).
  - St. Bernard parish is estimated to have 90 percent of all customers who can receive power restored by Friday (September 7).
  - Plaquemines parish is estimated to have 90 percent of all customers who can receive power restored by Saturday (September 8).
- Cleco Power, a Louisiana-based utility, reported today (September 2) that the only remaining outages are in St. Tammany parish. Cleco expects that all of its customers who can receive power and who are not affected by flood waters will have power by the end of the day today.
- Magnolia Electric Power Association in Mississippi reported that the East Lincoln, Arlington, and south of Norfield areas have the largest outages. The cooperative reported they have over 250 workers in the field today (September 2).
- Coast Electric Power Association, a cooperative serving Mississippi, reported crews have restored power to all of customers who can receive it and are currently patrolling the flooded neighborhoods.
- Dixie Electric Power Association, serving customers in Louisiana, reported August 30 they had restored almost all customers and had released contract crews to assist other electric utilities with power restoration.
- Southern Pine Electric Power Association, a cooperative in Mississippi, reported it has cleared its final Hurricane Isaac-related outage Friday night (August 31). The cooperative sent a line crew to assist the Southwest Mississippi Electric Power Association.