



U.S. Department of Energy
Office of Electricity Delivery & Energy Reliability

Hurricane Isaac Situation Report # 9
September 1, 2012 (10:00 AM EDT)

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.
- A State of Emergency has been declared for Alabama, Florida, Louisiana, and Mississippi.

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	5,855	< 1%	19,935	14,080
Louisiana	439,337	19%	889,517	450,180
Mississippi	37,267	3%	155,604	118,337
TOTAL:	482,459			
Petroleum & Natural Gas				
	Amount	% Capacity Out*		
Crude Oil Production Shut-In (b/d)	1,308,362	94.81%		
Natural Gas Production Shut-in (mmcf/d)	3,075.19	68.34%		
Refinery Capacity Shut down (b/d)	878,000	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 9:00 am EDT September 1, the impacted States report a total of 482,459 customers without power; this is a decrease from the 638,617 customer outages reported in Situation Report #8 at 3:00 pm August 31. Restoration estimates and efforts by electric utilities are reported below.**
- **As of 8:00 am EDT, September 1, four refineries in the path of Isaac are shut down representing 878,000 barrels per day (B/D) of refining capacity, or 11 percent of total Gulf Coast refining capacity (7,671,585 B/D). Seven additional refineries in the path of the storm are restarting or at reduced rates.**
- Yesterday (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 8/31/12</i>			
Location	Amount Shut In	Pre-Event Production	Percent (%) Shut In
Crude Oil (B/D)	1,308,362	1,380,000	94.81
Natural Gas (MMCF/D)	3,075.19	4,500	68.34

Source: Bureau of Safety and Environmental Enforcement (BSEE)

- As of 12:30 pm EDT August 31, the Bureau of Safety and Environmental Enforcement (BSEE) reports 1,308,362 barrels per day (B/D) of the Gulf of Mexico (GOM) crude oil production is shut-in, equivalent to 94.81 percent of the GOM crude oil production. BSEE reports 3,075.19 million cubic feet per day (MMCF/D) of the GOM natural gas production is shut-in, equivalent to 68.34 percent of the GOM natural gas production. Personnel have been evacuated from a total of 499 production platforms, or 83.7 percent of the 596 manned platforms in the GOM. Personnel have been evacuated from 48 rigs, representing 63.2 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 as of 8:00 am EDT 9/1/12						
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			
TOTAL		2,652,500	878,000	292,000	1,482,500	0

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.



U.S. Department of Energy
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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 4:30 pm EDT, August 31, all Shell and Motiva petroleum product terminals have been reopened. The Stolthaven petroleum products terminal, located in Braithwaite, LA, reported Thursday (August 30) that it was shut down due to flooding.
As of 8:00 am EDT, September 1, the U.S. Coast Guard reports in Sector Mobile the ports of Pascagoula, Mobile, and Panama City are open with restrictions. In Sector New Orleans, the ports of New Orleans and Baton Rouge are open and have lifted restrictions. The Gulf Intercoastal Waterway and other ports along the Lower Mississippi River and are open with restrictions. In Sector Morgan City, the Port of Houma is open and Port Fourchon is open with restrictions.

Petroleum Pipelines

- As of 8:00 am EDT, September 1, the Capline and Ho-Ho pipelines have restarted, deliveries from the LOOP's LOCAP pipeline have resumed, but Shell's Offshore Gulf pipeline network and Williams' Mountaineer pipeline continue to report being shut down.

Table with 6 columns: Type, Name, Start, Terminus, Capacity (barrels/day), Status. Rows include Capline Pipeline, Ho-Ho (Houma-to-Houston), LOOP LOCAP, Shell Offshore Gulf Pipeline Network, and Williams Mountaineer.

Sources: Confirmed by company or on company web site

Natural Gas Pipelines

- As of 8:00 am EDT, September 1, Dauphin Island Gathering System, Destin Pipeline Company, Florida Gas Transmission Company, Garden Banks Gas Pipeline, Manta Ray Offshore Gathering Company, Mississippi Canyon Gas Pipeline, Nautilus Pipeline Company, Southern Natural Gas 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, Sabine Pipe Line, Sea Robin Pipeline Company, Stingray Pipeline Company, Transcontinental Gas Pipe Line Company, and Trunkline Gas Company.



**U.S. Department of Energy
Office of Electricity Delivery & Energy Reliability**

Force Majeure / Critical Notice Posting by Natural Gas Pipelines as of 8:00 am EDT 9/1/12		
Name	Time Stamp	Notice (Status)
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.
Garden Banks Gas Pipeline	8/29/2012	Force Majeure
Manta Ray Offshore Gathering Company	8/29/2012	Force Majeure
Mississippi Canyon Gas Pipeline	8/27/2012	Force Majeure
Natural Gas Pipeline Company (Kinder Morgan NGLP)	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.
Nautilus Pipeline Company	8/30/2012	The pipeline has begun accepting nominations for delivery to Acadian Gas Pipeline, ANR, Cypress, Gulf South and Tenn 800 LEG. Force Majeure remains at other portions.
Sabine Pipe Line	8/28/2012	Sea Robin/Henry Hub Interconnect shut-in.
Sea Robin Pipeline Company	8/30/2012	Operations have resumed except for delivery to the Sea Robin Gas Processing Plant and the Erath Compressor Station.
Southern Natural Gas	8/31/2012	Force Majeure at numerous delivery points including Toca, Lake Washington, Main Pass, West Delta, Venice-Mississippi Canyon, and many others. The Sea Robin interconnect has been approved to flow.
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	8/30/2012	Southeast Louisiana Lateral (SELA) shut-in at Station 62 (near Gibson, LA). Delivery points upstream of Station 82 also shut-in.
Trunkline Gas Company	8/30/2012	Offshore system shut-in. Will not accept nominations on Terrebonne offshore system until post-storm inspections of onshore and offshore facilities are complete.
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 August 31, 19 processing plants with capacities greater than 100 million cubic feet per day (MMcf/d) are shut down due to Isaac. However, 11 of these plants are capable of restarting pending resumption of pipeline flows. The shut down plants have a combined capacity of 10.4 billion cubic feet per day (Bcf/d), and the plants capable of restarting account for 5.1 Bcf/d of this capacity. Additionally, there are 4 plants, with a combined capacity of 1.6 Bcf/d, operating at reduced levels. 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 accounts for 77 percent of total capacity which were in Isaac's path. Many operators anticipate gas flows resuming over the next few days.



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Natural Gas Processing Plant¹ Status for Affected Area as of 8/31/12 01:30 PM EDT

Plant Name	Location	Capacity (million cubic feet per day) ²				
		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		
Blue Water Gas Plant	Acadia Parish, LA	350	X ³			
Mobile Bay Processing	Mobile, AL	300		X		
Sabine Pass Plant	Cameron, LA	300		X		
Stingray Gas Plant	Cameron, LA	300		X		
Cameron Meadows Plant	Cameron, LA	275	X ⁴			
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: ¹ List only includes plants with processing capacity greater than or equal to 100 million cubic feet per day.

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

³Blue Water Gas Plant has been inactive for 2 months and its inactivity is unrelated to Isaac.

⁴Cameron Meadows Plant is undergoing maintenance that began a few days prior to Isaac making landfall.

Restoration Information

- As of 4:00 pm EDT yesterday (August 31) Entergy stated there are 14 substations out of service due to Isaac and 43 transmission lines damaged. Entergy has 12,000 workers, including outside personnel from 24 States, involved in the restoration effort. Entergy released the following restoration estimates and crew support:
 - In Louisiana, Entergy’s preliminary estimates are to restore 90 percent of all customers who can take power by Thursday (September 6). Entergy expects to provide restoration estimates by parish by Sunday (September 2).

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- In Mississippi, Entergy released the following restoration estimates yesterday (August 31):
 - The remaining customers who can take service in Rankin and Madison counties are expected to be restored by today (September 1).
 - In the counties of Jackson, Clinton, Vicksburg, Cleveland, Mid-State and Greenville: the vast majority of customers will be restored by today (September 1) with all remaining customers who can take service restored by tomorrow.
 - In Natchez, Brookhaven, Gloster, McComb counties the vast majority of customers will be restored by Sunday (September 2) with all remaining customers who can take service restored by Monday (September 3).
- In Arkansas, Entergy estimates it will restore power to all customers who can take service by the end of the day today (September 1). It's workforce in Arkansas includes company crews and an additional 280 lineman from outside the State
- The number of personnel involved in the restoration effort from Entergy Texas is 308: 128 company and contract tool workers, 24 scouts, 55 support personnel, and 101 contract tree trimmers.
- Mississippi Power reported yesterday (August 31) they have restored power to all of their customers who can receive power.
- Cleco Power, a Louisiana-based utility, reported today (September 1) it's workforce of 2,400 employees and contractors have completed restoration in Rapides and Avoyelles parishes. Parts of St. Tammany parish still contain flooding which is delaying repairs.
- Magnolia Electric Power Association in Mississippi reported late yesterday (August 31) over 250 workers are out in the field working to restore power
- Pearl River Valley Electric Power Association, a cooperative in Mississippi, reported last night (August 31) they have virtually completed their Isaac restoration.