



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

Hurricane Isaac Situation Report # 5

August 31, 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, around 3:15 am EDT on Wednesday, August 29. **As of 8:00 am EDT August 30, the National Hurricane Center (NHC) reports the center of Tropical Storm Isaac is 31 miles southeast of Alexandria, LA. Isaac is moving northwest near 8 mph with maximum sustained winds of 45 mph. The NHC reported tropical storm-force winds extend outward up to 45 miles from the center, and Isaac is expected to become a tropical depression by this evening.**
- 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
Louisiana	889,517	39%	889,517	0
Mississippi	155,604	11%	155,604	0
TOTAL:	1,045,121			
Petroleum & Natural Gas				
	Amount	% Capacity Out*		
Crude Oil Production Shut-In (b/d)	1,307,076	94.72%		
Natural Gas Production Shut-in (mmcf/d)	3,223.92	71.64%		
Refinery Capacity Shut down (b/d)	936,500	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 9:00 am EDT August 30, the impacted States report a total of 1,045,121 customers without power; this is an increase from the 716,068 customer outages reported in Situation Report #4 at 3:00 pm August 29. Restoration estimates and efforts by electric utilities are reported below.**
- On August 28, the US Environmental Protection Agency (EPA), in consultation with the US Department of Energy, issued an emergency waiver of the federal 7.8 psi Reid Vapor Pressure (RVP) gasoline requirement for fourteen parishes in Louisiana. The wavier is issued in response to



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gasoline supply concerns as a result of Hurricane Isaac. The waiver will be in effect until September 6, 2012.

- **As of 8:00 am EDT August 30**, five refineries in the path of Isaac are shut down representing 936,500 barrels per day (B/D) of refining capacity, or 12 percent of total Gulf Coast refining capacity (7,671,585 B/D). Six additional refineries in the path of the storm with an aggregated capacity of 1,716,000 B/D are operating at reduced rates.

ESF 12 Actions:

- ESF 12 is staffing the FEMA National Response Coordination Center (NRCC) in Washington, DC, the FEMA Region IV Response Coordination Center (RRCC) in Atlanta, GA, the FEMA Region VI 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 8/29/12</i>			
Location	Amount Shut In	Pre-Event Production	Percent (%) Shut In
Crude Oil (B/D)	1,307,076	1,380,000	94.72
Natural Gas (MMCF/D)	3,224.92	4,500	71.64

Source: Bureau of Safety and Environmental Enforcement (BSEE)

- As of 12:30 pm EDT August 29, the Bureau of Safety and Environmental Enforcement (BSEE) reports 1,307,076 barrels per day (B/D) of the Gulf of Mexico (GOM) crude oil production is shut-in, equivalent to 94.72 percent of the GOM crude oil production. BSEE reports 3,223.92 million cubic feet per day (MMCF/D) of the GOM natural gas production is shut-in, equivalent to 71.64 percent of the GOM natural gas production. Personnel have been evacuated from a total of 505 production platforms, or 84.73 percent of the 596 manned platforms in the GOM. Personnel have been evacuated from 50 rigs, representing 65.79 percent of the 76 rigs currently operating in the GOM.

Refineries

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



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Refineries in the Path of Isaac as of 8:00 am EDT 8/30/12

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	936,500	0	1,716,000	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.

Ports and Terminals

- As of 9:30 pm EDT, August 29, power had not been restored to the Louisiana Offshore Oil Port’s (LOOP) Clovelly storage facility but backup generation is in place to begin operations pending a damage assessment. Additionally, LOOP marine operations remained suspended.
- As of 3:30 pm August 29, the Motiva terminals in Keener, LA and Convent, LA (both shut down on August 28) and the Shell terminal in St. James (shut down on August 27) remain shut down.
- As of 8:00 am EDT, August 30, the U.S. Coast Guard reported in Sector Mobile the ports of Mobile and Pascagoula are closed and the Port of Panama City remains open with restrictions. In Sector New Orleans, all ports along the Lower Mississippi River south of mile 233 are closed, including the ports of New Orleans and Baton Rouge. The Gulf Intercoastal Waterway remains open with restrictions. All ports in Sector Morgan City are closed, including the LOOP, Port Fourchon, and Houma.

Petroleum Pipelines

- As of 8:00 am EDT August 30, the Capline Pipeline, the Ho-Ho Pipeline, Shell’s Offshore Gulf pipeline network, and Williams’ Mountaineer pipeline have been shut down due to weather conditions. Deliveries out of the St. James terminal along the LOOP’s LOCAP pipeline resumed on the evening of August 29, after commercial power was restored to the area.



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Status of Petroleum Pipelines as of 8:00 am EDT 8/30/12

Type	Name	Start	Terminus	Capacity (barrels/day)	Status
Crude	Capline Pipeline	LA	IL	1,200,000	Shut Down
Crude	Ho-Ho (Houma-to-Houston)	LA	TX	325,000	Houma to DOE Junction section shut down
Crude	LOOP LOCAP	LA	LA	1,200,000	Deliveries out of LOCAP St. James terminal have resumed.
Crude	Shell Offshore Gulf Pipeline Network	GOM	LA	NA	Shut Down
Crude	Williams Mountaineer	GOM	LA	NA	Shut Down

Sources: Confirmed by company or on company web site

Natural Gas Pipelines

- **As of 8:00 am EDT August 30**, Dauphin Island Gathering System, Destin Pipeline Company, Florida Gas Transmission Company, **Garden Banks Gas Pipeline**, **Manta Ray Offshore Gathering Company**, Mississippi Canyon Gas Pipeline, 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, Nautilus Pipeline Company, Sabine Pipe Line, Sea Robin Pipeline Company, Southern Natural Gas, Stingray Pipeline Company, Transcontinental Gas Pipe Line Company, and **Tennessee Gas Pipeline Company**.



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Force Majeure / Critical Notice Posting by Natural Gas Pipelines as of 8:00 am EDT 8/30/12		
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	8/25/2012	Force Majeure on offshore receipt points.
Discovery Gas Transmission	8/27/2012	Not accepting nominations for Tuesday 8/28/2012.
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
Nautilus Pipeline Company	8/29/2012	Force Majeure
Sabine Pipe Line	8/28/2012	Sea Robin/Henry Hub Interconnect shut-in.
Sea Robin Pipeline Company	8/28/2012	Sea Robin Pipeline system shut-in.
Southern Natural Gas	8/28/2012	Force Majeure at numerous delivery points including Toca, Lake Washington, Main Pass, West Delta, Venice-Mississippi Canyon, Sea Robin and many others.
Stingray Pipeline Company	8/27/2012	Capacity Constraint along ANR, Bridgeline, NGPL and Tennessee meters – these delivery points are not available.
Tennessee Gas Pipeline Company	8/29/2012	Force Majeure at Station 249.
Transcontinental Gas Pipe Line Company	8/27/2012	Southeast Louisiana Lateral (SELA) shut-in at Station 62 (near Gibson, LA).
Venice Gathering System	8/27/2012	Force Majeure

Sources: Confirmed by company or on company web site.

Natural Gas Processing Plants

- As of 8:30 am EDT August 30, 22 processing plants with capacities greater than 100 million cubic feet per day (MMcf/d) are shutdown due to Isaac. These plants have a combined capacity of 11.8 billion cubic feet per day (Bcf/d). Additionally, there is one plant, with a capacity of 240 MMcf/d, operating at reduced levels. There are 28 gas processing plants with capacities exceeding 100 MMcf/d that are located in the Gulf of Mexico coastal area and in the path of Isaac. These 28 plants have a combined processing capacity of 13.5 Bcf/d. The shut-in capacity accounts for 87 percent of total capacity. Several plants have reported minimal damage and anticipate resuming operations today or tomorrow, pending restoration of upstream supply and/or electricity.



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Natural Gas Processing Plant¹ Status for Affected Area as of 8/30/12 08:30 AM 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 ³	Acadia Parish, LA	350	X			
Mobile Bay Processing	Mobile, AL	300	X			
Sabine Pass Plant	Cameron, LA	300	X			
Stingray Gas Plant	Cameron, LA	300	X			
Cameron Meadows Plant⁴	Cameron, LA	275	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	Terabone, 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 Hurricane Isaac.

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

Restoration Information

Florida

- Gulf Power Company reported 68 employees and 24 bucket trucks will travel this morning (August 30) to help Mississippi Power restore electric service in the wake of Hurricane Isaac. The crews are prepared to work for up to two weeks and will assist wherever they are needed.

Louisiana and Mississippi



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- Entergy stated at 10:00 pm last night (August 29) that they have started to assess the damage caused by Hurricane Isaac. Preliminary damage assessments show there have been 17 substations and 44 transmission lines damaged in the company's territory in Louisiana and one transmission line damaged in the company's territory in Mississippi. Entergy is expected to restore power today when conditions are safe for their personnel to work. The company has 10,000 workers, including outside personnel from 24 States, involved in the restoration effort.
- Cleco, a utility serving customers in Louisiana, reported crews will continue assessing damage and restoring power this morning (August 30), as weather conditions allow.
- SWEPCO, serving northwest Louisiana, reported late yesterday (August 29) stated they have called in 1,100 crews from eight states and 16 different companies to help restore power. As soon as Isaac's winds subside, crews will be on the ground and in the air working to assess damages and make repairs.
- Coast Electric Power, a cooperative in Mississippi, reported late yesterday (August 29) the majority of outages are in Hancock and Pearl River counties. Hancock County repairs will be delayed due to flooding and impassable roadways.
- Mississippi Power reported late August 29 their crews have been working since Tuesday (August 28) restoring power to customers, but strong winds have created new outages as tree limbs have come in contact with power lines. Damage assessments indicate no damage to basic structures but some wires need to be restrung. In addition, extensive flooding has prevented crews from reaching some areas. The company has 1,000 line and tree-trimming personnel working to restore power.
- Mississippi Electric Power Association reported August 29 that almost 200 additional workers are arriving to the State from Alabama and Georgia to assist Association members with the restoration efforts. As the storm moves away from us, our northern systems will also head south to help.