



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

Hurricane Isaac Situation Report # 7

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 5:00 am EDT August 31, the Hydrometeorological Prediction Center (HPC) reports the center of Tropical Depression Isaac is 52 miles southeast of Fort Smith, AR. Isaac is moving north-northwest near 12 mph with maximum sustained winds of 25 mph.**
- 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	19,935	1%	19,935	0
Louisiana	624,006	28%	889,517	265,511
Mississippi	73,907	5%	155,604	81,697
TOTAL:	717,848			
Petroleum & Natural Gas				
	Amount	% Capacity Out*		
Crude Oil Production Shut-In (b/d)	1,310,801	94.99%		
Natural Gas Production Shut-in (mmcf/d)	3,262.57	75.52%		
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 August 31, the impacted States report a total of 717,848 customers without power; this is a decrease from the 1,000,457 customer outages reported in Situation Report #6 at 3:00 PM August 30. Restoration estimates and efforts by electric utilities are reported below.**
- **As of 8:00 am EDT August 31, 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.**



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- Entergy reported yesterday (August 30) it is preparing to restart its 1,075 MW Waterford Nuclear Generating Station. The restart of the nuclear plant is anticipated to take several days. The plant was shut down as a protective measure in advance of Hurricane Isaac’s landfall and received no damage during the storm.

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 8/30/12</i>			
Location	Amount Shut In	Pre-Event Production	Percent (%) Shut In
Crude Oil (B/D)	1,310,801	1,380,000	94.99
Natural Gas (MMCF/D)	3,263.57	4,500	72.52

Source: Bureau of Safety and Environmental Enforcement (BSEE)

- As of 12:30 pm EDT August 30, the Bureau of Safety and Environmental Enforcement (BSEE) reports 1,310,801 barrels per day (B/D) of the Gulf of Mexico (GOM) crude oil production is shut-in, equivalent to 94.99 percent of the GOM crude oil production. BSEE reports 3,263.57 million cubic feet per day (MMCF/D) of the GOM natural gas production is shut-in, equivalent to 72.52 percent of the GOM natural gas production. Personnel have been evacuated from a total of 509 production platforms, or 85.4 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 8/31/12

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.

Ports and Terminals

- As of 8:00 am EDT, August 31, marine operations remained suspended at the Louisiana Offshore Oil Port (LOOP). The LOOP expects operations at the marine terminal to be completely resumed by Saturday (September 1). LOOP’s Clovelly storage facility remains without commercial power, however, the company resumed deliveries from the facility yesterday evening (August 30).
- As of 6:00 pm EDT, August 30, the Motiva terminals in Convent, LA and Collins, MS have been reopened. The Stolthaven petroleum products terminal, located in Braithwaite, LA, reported yesterday (August 30) it is shut down due to flooding. The Motiva terminal in Kenner, LA (shut down on August 28) remains closed.
- As of 8:00 am EDT, August 31, 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, ports along the Lower Mississippi River have reopened with restrictions, including the ports of New Orleans and Baton Rouge. The Gulf Intercoastal Waterway is closed. Some ports in Sector Morgan City have reopened but others remain closed, including the LOOP, Port Fourchon, and Houma.

Petroleum Pipelines

- Yesterday evening (August 30) the Capline Pipeline was restarted. As of 8:00 am EDT August 31, deliveries out of the St. James terminal along the LOOP’s LOCAP pipeline have resumed but the Ho-Ho Pipeline, Shell’s Offshore Gulf pipeline network, and Williams’ Mountaineer pipeline continue to report being shut down.



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Status of Petroleum Pipelines as of 8:00 am EDT 8/31/12

Type	Name	Start	Terminus	Capacity (barrels/day)	Status
Crude	Capline Pipeline	LA	IL	1,200,000	Restarted
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 31, 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, Southern Natural Gas, Stingray Pipeline Company, Transcontinental Gas Pipe Line Company, Tennessee Gas Pipeline Company, and Trunkline Gas Company.



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Force Majeure / Critical Notice Posting by Natural Gas Pipelines as of 8:00 am EDT 8/31/12

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	8/27/2012	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
Natural Gas Pipeline Company (Kinder Morgan NGL)	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	Sea Robin Pipeline system shut-in. Will not be accepting nominations until post-storm inspections of onshore and offshore facilities are complete.
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	8/20/2012	Stingray's facilities at West Cameron 509 platform have resumed operation. Other portions continue to remain shut-in.
Tennessee Gas Pipeline Company	8/30/2012	Force Majeure at Station 249. Capacity has been curtailed from points downstream of Station 249 Zones 5 and 6.
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 8:30 a.m. EDT August 31, 21 processing plants with capacities greater than 100 million cubic feet per day (MMcf/d) are shutdown due to Isaac. However, 12 of these plants are capable of restarting pending resumption of pipeline flows. The shutdown plants have a combined capacity of 11.7 billion cubic feet per day (Bcf/d), and the plants capable of restarting account for 5.7 Bcf/d of this capacity. Additionally, there are 2 plants, with a combined capacity of 350 MMcf/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 in the path of Isaac. The shut-in capacity accounts for 86 percent of total capacity in Isaac's path. Some 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 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	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

Louisiana and Mississippi

- Entergy stated at 4:00 pm yesterday (August 30) that there had been damage to 32 substations and 60 transmission lines throughout their system and four of the 32 substations are flooded which will delay repairs. Entergy Louisiana reported late yesterday (August 30) their restoration efforts are hampered by flooding, downed trees blocking access to storm-damaged areas, and road closures. Entergy has 12,000 workers including outside personnel from 24 States, involved in the restoration effort or en route. Crew assistance reported (August 31) include:



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- Entergy Texas sent 260 company and contract workers to Entergy partners in Louisiana August 30. **A second wave of 24 workers is headed to Louisiana today, August 31.**
- Entergy subsidiaries serving southeastern Louisiana will be receiving 90 people from Tampa Electric by Sunday (September 2). The team will consist of 40 linemen and 50 support personnel.
- Reported yesterday, (August 30) Entergy Mississippi will be receiving a contingent of 390 workers from Alabama Power to Jackson, Mississippi area. The team includes 197 line crew personnel, 100 contract line crew personnel, and 93 support and logistics staff.
- Entergy Mississippi will be receiving a contingent of 390 people from Alabama Power to the area in and around Jackson, Mississippi. The team includes 197 line crew personnel, 100 contract line crew personnel, and 93 support and logistics staff.
- **Mississippi Power has received assistance from line crews from Georgia Power and Pike Electric to help restoration efforts in southern Mississippi.**
- **Cleco Power, a Louisiana-based utility reported on August 30, the assessment and restoration process is going more slowly in St. Tammany Parish due to rainy weather conditions, severe flooding and tree damage. Cleco has 10 substations and other equipment either partially or completely flooded.**
- **Magnolia Electric Power Association, in Mississippi, reported August 30, Smithdale, Gillsburg, and Liberty substations continue to have transmission problems. At this time, they do not know what is causing the outage, or how long the power will be out. Crews continue working to ensure lines will be energized when the substations are reenergized.**
- **Southern Pine Electric Power Association in Taylorsville, MS has more than 35 crews, including crews from north Mississippi, Alabama and Georgia, working on the restorations.**
- The Southwest Louisiana Electric Membership Corporation (SLEMCO) reported yesterday (August 30) 250 contract line and right-of-way personnel are involved in the restoration.
- Southwest Mississippi Electric Power Association in Natchez, MS received a four-man crew and a serviceman yesterday (August 30) from Wiregrass Electric Cooperative, a member of the Alabama Rural Electric Association (AREA).