



U.S. Department of Energy
Emergency Support Function 12

Hurricane Ike Situation Report # 17

September 24, 2008 (12:00 PM EDT)

http://www.oe.netl.doe.gov/emergency_sit_rpt.aspx

Summary

Table with 3 columns: Impacted State, Electric Customer Outages, % of State Out. Rows include Ohio, Texas, TOTAL, and Petroleum & Natural Gas section with sub-rows for Crude Oil Production Shut-In, Natural Gas Production Shut-in, and Refinery Capacity Shut down.

Notes:

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:

- As of 9:00 AM EDT September 24, there are an estimated 523,136 customers without power. The largest outages remain in Texas where 514,031 customers have no electricity service. Across all States affected by Ike, power has been restored to over 252,000 customers since Ike Situation Report No. 16 yesterday. Outages in heavily impacted Texas counties as reported by the Texas PUC as of 9:00 AM September 24 include: Harris - 401,190; Galveston - 47,208; Brazoria - 25,925; Jefferson - 5,333. As of 8:00 AM EDT September 24, the Houston Ship Channel is now open to project depth. Texas City is open at all times to vessels with drafts of less than 16 feet and open to project depth for daylight only transits. The Sabine and Neches Channel going into the Port Arthur area is now open to vessels to project depth for daylight transit and limited to drafts of 33 feet at night. Part of the Gulf Intracoastal Waterway (GIWW) in TX has re-opened, but it is still closed from mile marker 350 to 319 and has some closures in LA as well. The Calcasieu River into Lake Charles, LA is now open to project depth. Transit at night above mile marker 190 on the Lower Mississippi River is restricted to vessels with drafts of 30 feet or less.



U.S. Department of Energy Emergency Support Function 12

- Gasoline stations continue to re-open in the hurricane affected areas as power is restored. As of 11:00 PM September 23, approximately 95 percent of Shell-branded stations in Houston and Beaumont were now open, which is up from September 21 when 90 percent of their gasoline stations were reported open. On September 24, ConocoPhillips reports it continues to re-supply and re-power its gasoline stations in southeast Texas. Valero notes that it has now reopened nearly all of the company-operated retail stores in the Houston region that were shut down due to Hurricane Ike. ExxonMobil also reports similar efforts but has stated that some of their stores may experience periodic outages.

ESF 12 Actions:

- ESF-12 is staffing the FEMA National Response Coordination Center (NRCC) in Washington, DC. The FEMA Region VI Joint Field Office (JFO) in Austin, TX and the FEMA National Incident Management Assistance Teams in Houston and San Antonio have been demobilized.

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)	868,654	1,300,000	66.8%
Natural Gas (MMCF/D)	4,560	7,400	61.6%

Source: Minerals Management Service

- As of September 23, the Minerals Management Service (MMS) reports 4,560 million cubic feet per day (MMcf/d) of the Gulf’s natural gas production remains shut-in, equivalent to 61.6 percent of the Gulf production. MMS reports 868,654 barrels/day of the Gulf’s crude production remains shut-in, equivalent to 66.8 percent of the Gulf’s crude production. A total of 203 production platforms, or 29.3 percent of the Gulf’s 717 manned platforms, remain evacuated. Personnel from 4 rigs, representing 3.5 percent of the 116 operating in the region, remain evacuated. Percents in prior situation reports were calculated based on 121 operating rigs, but five were severely damaged or destroyed by Ike and are no longer counted, starting with this report.
- On September 23, the Louisiana’s Department of Natural Resources reports that 32,477 b/d or 21 percent of the normal Louisiana oil production has been restored. Operators in 17 parishes and in-State offshore areas normally produce 155,767 barrels/day (the numbers are in addition to MMS reports of Federal offshore production). Shut-in oil production is 89,885 b/d and the status of remaining 33,405 b/d is unknown. The estimated amount of restored gas production is 504 MMcf/d or 31 percent of the daily gas production capacity, which is 1,642 MMcf/d. The estimated amount of shut-in gas production is 825 MMcf/d; the status of the remaining 312 MMcf/d has not been confirmed.



**U.S. Department of Energy
Emergency Support Function 12**

- On September 23, the EPA (in consultation with DOE) issued a waiver of the federally enforceable gasoline sulfur averaging requirements in Georgia which has a unique fuel for 45 counties in the Atlanta, Georgia area. This area will still need to meet the federal standards for sulfur in gasoline, just not the more stringent Atlanta specification. This waiver will continue through October 12, 2008.
- In the late evening of September 23, a fire broke out at Kinder Morgan's Pasadena, TX oil storage terminal. The fire was extinguished this morning. The terminal is one of the largest petroleum product terminals in TX. As a result of the fire, Longhorn pipeline has temporarily stopped shipments from its Galena Park terminal. See table below for pipeline status.

Pipelines in the Path of Gustav / Ike as of 9/24/08 10:00 AM EDT								
Type	Name	Start	Terminus	Capacity (barrels/day)	Shut Down	Partial Shut Down	Reduced Rates	Operating
Crude	Capline	LA	IL	1,200,000				1,200,000
Crude	LOOP/Locap	LA	LA	1,200,000				1,200,000
Crude	Genesis gathering/refine	TX, MS, AL	TX, MS, AL	NA	NA			
Crude	Marathon gathering	GOM	LA/TX	NA	NA			
Crude	Sunoco Logistics/Weste	TX	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	CP Seaway Products	TX	OK	85,000	85,000			
Product	CP Sweeny to Pasadena	TX	TX	115,000		115,000		
Product	Explorer	LA/TX	IN	700,000			700,000	
Product	Longhorn	TX	TX	72,000		72,000		
Product	Magellan	TX	CO, MN, WI, IL	120,000			120,000	
Product	NuStar/Texas Gulf Coast	TX	TX	100,000				100,000
Product	Plantation	LA	VA	600,000			600,000	
Product	TEPPCO	TX	PA, NY	330,000			330,000	
NGL	Dixie	TX	NC	100,000			100,000	
NGL	Enterprise	TX	IL, MN	641,000			641,000	

Source: Status of pipelines from Association of Oil Pipe Lines; Capacity data from company web sites

- Five refineries remain shut down as of 10 AM EDT September 24 in the Port Arthur and Texas City areas, with a total operable capacity of 1.2 million b/d. BP's Texas City, TX refinery has begun restart on September 23. ExxonMobil's Baytown, TX refinery has been producing reduced volumes since September 23. As of 8:00 AM EDT September 24, Marathon's Texas City, Texas, refinery is still in the process of repairing equipment. See table below for status of refineries.



U.S. Department of Energy Emergency Support Function 12

Refineries in the Path of Gustav / Ike as of 9/24/08 10:00 AM EDT							
Refinery Impacted	Location	Storm	Capacity (B/D)				
			Operating	Shut Down	Restarting	Reduced Runs	Back to Normal
Pascagoula/Mobile Region							
Chevron	Pascagoula, MS	G	330,000				330,000
Shell	Saraland, AL	-	86,000				
Pascagoula/Mobile Total			416,000	0	0	0	330,000
Lower Mississippi River Region							
Alon (Formerly Valero)	Krotz Springs, LA	G	80,000			80,000	
Chalmette Refining	Chalmette, LA	G	192,760				192,760
ConocoPhillips	Belle Chasse, LA	G	247,000				247,000
ExxonMobil	Baton Rouge, LA	G	503,000				503,000
Marathon	Garyville, LA	G	256,000				256,000
Motiva	Norco, LA	G	236,400				236,400
Motiva	Convent, LA	G	235,000			235,000	
Murphy Oil	Meraux, LA	G	120,000				120,000
Placid Refining	Port Allen, LA	G	56,000				56,000
Shell	Saint Rose, LA	G	55,000			55,000	
Valero	Norco, LA	G	185,003				185,003
Lower Mississippi River Total			2,166,163	0	0	370,000	1,796,163
Lake Charles Region							
Calcasieu	Lake Charles, LA	G+I	78,000			78,000	
Citgo	Lake Charles, LA	G+I	429,500			429,500	
ConocoPhillips	Westlake, LA	G+I	239,400			239,400	
Lake Charles Total			746,900	0	0	746,900	0
Port Arthur Region							
ExxonMobil	Beaumont, TX	G+I	348,500	348,500			
Motiva	Port Arthur, TX	G+I	285,000	285,000			
Total Petrochemicals	Port Arthur, TX	G+I	232,000	232,000			
Valero (formerly Premcor)	Port Arthur, TX	G+I	289,000	289,000			
Port Arthur Total			1,154,500	1,154,500	0	0	
Houston/Galveston Region							
BP	Texas City, TX	I	467,720		467,720		
ConocoPhillips	Sweeny, TX	I	247,000		247,000		
Deer Park	Deer Park, TX	I	329,800		329,800		
ExxonMobil	Baytown, TX	I	567,000			567,000	
Houston Refining	Houston, TX	I	270,600		270,600		
Marathon	Texas City, TX	I	76,000	76,000			
Pasadena Refining	Pasadena, TX	G+I	100,000		100,000		
Valero	Houston, TX	I	83,000		83,000		
Valero	Texas City, TX	I	199,500		199,500		
Houston/Galveston Total			2,340,620	76,000	1,697,620	567,000	
Corpus Christi Region							
Citgo	Corpus Christi, TX	I	156,000				156,000
Flint Hills Resources	Corpus Christi, TX	I	288,126				288,126
Valero	Corpus Christi, TX	I	142,000				142,000
Valero	Three Rivers, TX	I	93,000			93,000	
Corpus Christi Total			679,126	0	0	93,000	586,126
TOTAL			7,503,309	1,230,500	1,697,620	1,776,900	2,712,289

Note: The table does not include all refineries in the PADD III, Gulf Coast Region.
Storm column indicates hurricanes impacting refineries: G = Gustav; I = Ike, G+I = Both storms, and - = no impact.
Sources: Confirmed by company or on company web site. Various trade press sources.

- As of 10:15 AM EDT September 24, nine of the 26 major natural gas pipelines in the Gulf Coast area continue to report complete shut-in of their systems. The remaining pipelines report that portions of their systems remain at reduced levels of gas flow due to Hurricane Ike. Damage assessments continue to be performed both at onshore and offshore facilities and the pipelines continue to provide updates to their customers on those points along the systems that were



U.S. Department of Energy Emergency Support Function 12

impacted and are now approved to flow gas as the integrity of the line was verified. See table below.

- As of 9:30 AM EDT September 24, Natural Gas Pipeline Company of America (NGPL) reports that power has been restored to Compressor Station 343 in Liberty County, TX and the Force Majeure remains in effect for Compressor Station 342 in Cameron Parish, LA. In addition, the leaks found on the Louisiana Line have been repaired and NGPL has notified its customers that the capacity along this segment has increased and the restrictions have been lifted.
- On September 22, Sea Robin Pipeline Company commenced gas flow on those segments that have been cleared and available to flow. Certain segments along the East and West Legs of Sea Robin's offshore system sustained damage from Hurricane Ike and will remain out of service. No time frame has been provided for when service will commence at these segments.
- The status of the natural gas processing plants remains unchanged from Situation Report #16. There are 39 major natural gas processing plants in the path of Hurricane Ike with a total operating capacity of 17.7 billion cubic feet per day (Bcf/d). As of 10:30 AM EDT September 23, the Energy Information Administration (EIA) has confirmed that 7 plants remain shut down which includes those plants still impacted from Gustav, totaling an operating capacity of 4.68 Bcf/d (26 percent of the capacity in Hurricane Ike's path). In addition, EIA reports 24 plants have resumed operations at reduced or normal levels with a total operating capacity of 9.20 Bcf/d. Seven plants are capable to restart (totaling 3.59 Bcf/d operating capacity) once power is restored and/or upstream gas flow are sufficient.
- As of 10:00 AM EDT September 23, The Williams Companies Inc. reports that the Cameron Meadows processing plant in Cameron Parish, LA sustained significant damage from Hurricane Ike and continues to be shut down. There is no time frame for when service will commence at this time.



**U.S. Department of Energy
Emergency Support Function 12**

Force Majeure / Critical Notice Posting by Natural Gas Pipelines as of 9/24/08 10:00 AM EDT

Pipeline Name	Time Stamp	Notice (Status)
ANR Pipeline Co.	9/24/08	Additional points along the Southeast Area have been inspected and cleared to flow gas. The Cameron Meadows lateral segment remains shut-in. Inspections continue on both offshore and onshore facilities.
Chandeleur Pipeline Co.	9/23/08	Operationally Scheduled Volumes indicates pipeline is flowing at almost 80% of pre hurricane levels.
Columbia Gulf Transmission	9/23/08	Flow from offshore points has been reduced to approximately 60% of normal operating capacity.
Destin Pipeline Co.	9/18/08	Pascagoula processing plant Force Majeure declared Sept. 15 now lifted and flows will resume to normal.
Discovery Gas Transmission	9/22/08	Damage to offshore system that will prevent the receipt of all offshore gas for a minimum of one month. The damage has occurred on the 18 ST 200 lateral, which has been torn away from the 30" mainline at ST 231. Onshore delivery & receipt points will continue to accept flow.
Enbridge (UTOS)	9/22/08	All UTOS facilities remain under Force Majeure and are currently down and all points are shut-in. Crew is assessing damage at the UTOS Station 44 and no time estimate on availability.
Garden Banks Gas Pipeline	9/22/08	Garden Banks' pipeline facilities are essentially ready for return to service; however, the pipeline remains shut-in because there is no current availability of downstream outlets for condensate, which includes interconnects with ANR, Tennessee, Transco, and Sea Robin all of which are unavailable.
High Island Offshore System	9/22/08	Force Majeure from Sept 10 remains in effect - HIOS is currently securing equipment to locate a potential leak on its 42-inch line north of HIA-264. The equipment is expected to be on location today. No time frame for restoration of service at this time.
KinderMorgan (Texas & Tejas)	9/20/08	All firm storage customers can resume injections at 100% of their firm injection rights. There is no interruptible space available at this time.
Manta Ray Offshore Gathering	9/22/08	Pipeline remains under Force Majeure. Repairs to the 16" line are nearing completion; re-pressuring of the line will commence once repairs are complete. Replacement of controls at SS332a for both the 14" and 16" is underway. Partial service expected by Thursday, Sept 25.
Mississippi Canyon Pipeline	9/20/08	Force Majeure is lifted. All repairs to the system have been completed and gas flow can resume Sept 21. Two points remain unavailable at this time (Tennessee Gas Pipeline & Venice Gas Plant).
Natural Gas Pipeline Co of America	9/24/08	Power has been restored to Compressor Station 343 and the leaks discovered on the LA line have been repaired and is now in service. Force Majeure still in effect for Station 342.
Nautilus Pipeline Co.	9/22/08	Force Majeure remains in effect. Burns Point facility is operationally available; however, all receipt points must remain shut-in. Service expected to commence by Thursday, Sept 25.
Sabine Pipe Line (Henry Hub)	9/22/08	Force Majeure has been lifted for some additional points along the system. Henry Hub continues to operate on partial compression and the pipeline is closely monitoring its system.
Sea Robin Pipeline Co.	9/23/08	Sea Robin commenced flow on Sept 22 at reduced levels. The Hess Processing Plant has completed repairs to its equipment but continues to operate at a minimum volume of 150,000 Dth/d.
Southern Natural Gas Co.	9/23/08	The interconnection point with Sabine Pipeline that sustained damage due to Ike has been repaired and has been restored to full service. Southern estimates that 340 MMcf/d of supply remains shut-in.
Stingray Pipeline Co.	9/22/08	Force Majeure remains in effect and all receipt points remain shut-in. Road access is now open and crews have arrived on site. Some offshore facilities have been repaired and other repairs continue specifically at the WC 509. No time frame for restoration of service at this time.
Tennessee Gas Pipeline	9/24/08	Production upstream of the Johnson Bayou facility can begin to flow gas. TGP informs customers that the Sabine processing plant remains unavailable at this time.
Texas Eastern Transmission	9/23/08	TE estimates that producers have shut-in 400-500 MMcf/d of supply on its system. Damage assessments continue on facilities impacted by Gustav and Ike. Receipt points along the Cameron System and South Pass line remain at zero flow. Several compressor stations continue to run on backup generators as commercial power is unavailable.
Texas Gas Transmission	9/17/08	All systems on the pipeline are operational, but they are closely monitoring receipt points.
Transcontinental Gas Pipe Line	9/23/08	Further inspections are needed for the Southeast LA lateral resulting in shut-in gas flow from multiple points along this segment. Pipeline estimates that 575 MMcf/d remains shut-in due to Ike.
Trunkline Gas Pipeline	9/24/08	Declared Force Majeure event impacting gas flow deliveries on the ELA (East Louisiana). Flooding at Centerville Compressor Station limiting gas flow to Henry Hub. Pipeline integrity to Patterson has been confirmed and 30 receipt points have been cleared for flow.
Venice Gathering System	9/18/08	Remains shut-in from the effects of Gustav. Processing plant will not be available until first week in October – gas flow will remain at zero until plant is fully operational.
Dauphin Island Gathering	9/16/08	Force Majeure lifted as Mobile Bay (Duke) processing plant completed maintenance. System will resume normal operations.
Black Marlin Pipeline	9/15/08	Force Majeure declared Friday, Sept 12. - No gas flow being accepted.
Gulf South Pipeline	9/18/08	Critical Period has been lifted as of gas day Sept 18.
Northern Natural	9/22/08	Matagorda Offshore Pipeline System accepting gas flow at normal levels.



U.S. Department of Energy Emergency Support Function 12

Electricity Updates:

Texas:

As of: 9/24/2008 9:00 AM EDT



Electricity Outages: Utility Detail			
Texas			
Utility	Outages	Total Utility	% w/o Power
SWEPCO	293	84,696	0.3%
Entergy Texas	13,244	397,451	3.3%
CenterPoint	471,393	2,076,978	22.7%
ONCOR	415	179,442	0.2%
TX New Mexico Power Co	19,203	113,370	16.9%
All Cooperatives	9,483	462,645	2.0%
TOTAL	514,031	3,314,582	

Total utility customers are based on TXPUC outage reports.

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.

- As of 9:00 AM EDT September 24, there are 514,031 customers reported without power in Texas. Over 231,200 customers have had power restored since Ike Situation Report No. 15.

Additional State Reports:

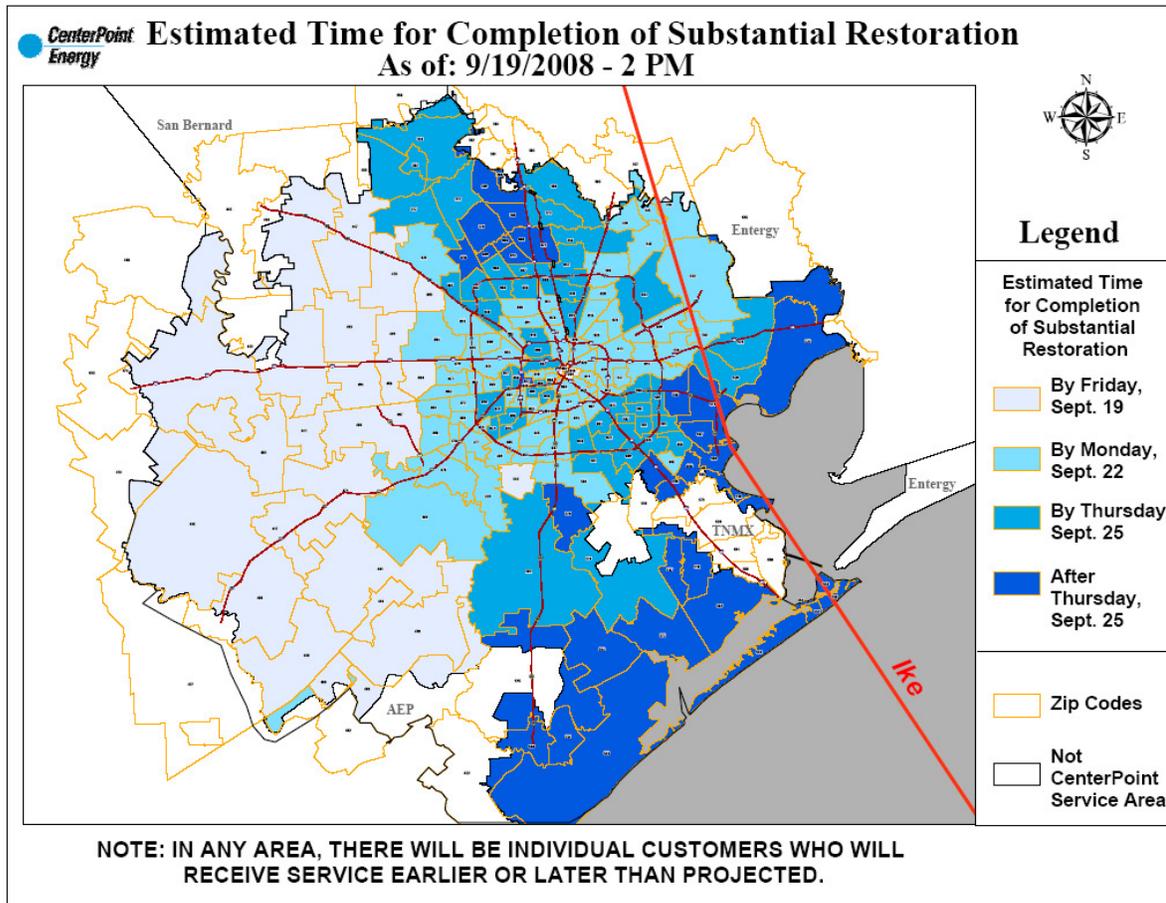
- In other States impacted by Ike, remaining outages as of 9:00 AM EDT September 24 include:
 - Ohio – 9,105 outages, less than 1 percent of total customers
 - Kentucky – Nearly 0 customer outages reported

Restoration Updates:

- As of 9:00 AM EDT September 24, CenterPoint has restored power to over 1.6 million customers of the 2.1 million that lost power due to Ike. See map below for CenterPoint restoration estimates as of September 19.
- CenterPoint reports that 8,000 mutual assistance crews plus 4,200 internal crews and contractors are involved in the restoration. Entergy has approximately 14,000 crews restoring service.



U.S. Department of Energy Emergency Support Function 12



- Restoration updates from CenterPoint include:
 - 1,001 circuits have been restored out of the original 1,379 that were out.
 - 378 distribution circuits, out of a total of 1,492, are out.
 - 94 transmission lines have been restored out of the original 94 that were out.
- As of 6:00 AM EDT September 24, Entergy reports restoration progress to transmission and distribution lines affected by Ike:
 - 209 of 238 transmission lines restored
 - 351 of 383 substations restored
- In Texas, Entergy restoration estimates by area are:
 - September 24 –Woodville
 - September 26 - Beaumont, Bevil Oaks, Sour Lake, Dayton, Ames, Daisetta, Batson, Saratoga, Orange, Vidor, Port Arthur, Port Neches, Nederland, Groves, Silsbee, Lumberton, Kountze, Winnie, Anahuac
 - Damaged, destroyed or flooded – no date determined- Bolivar Peninsula and other impacted communities. Entergy reports as of September 24, that 7,300 customers are unable to receive power due to service locations that were damaged, destroyed or made inaccessible due to Ike.



U.S. Department of Energy Emergency Support Function 12

- **In Ohio, customer outages have dropped from over 1 million to 9,105 (less than one percent of customers) as of 9:00 AM September 23.** The majority of outages are in the Dayton Power and Light (DP&L) service area where 1,500 crews from 10 states are restoring service. DP&L has the necessary materials such as transformers, poles, cross-arms and wire, to make the repairs and these materials are staged throughout the DP&L service area. Restoration to individual pockets of outages is expected by mid-week.