#### **Hurricane Ike Situation Report #9**

#### **September 18, 2008 (10:00 AM EDT)**

http://www.oe.netl.doe.gov/emergency\_sit\_rpt.aspx

# **Summary**

Electricity							
Impacted State	Electric Custo	omer Outages	% of State Out				
Louisiana		22,980	1%				
Kentucky		189,740	9				
Indiana		38,800	1%				
Pennsylvania		19,076	1%				
Ohio		536,270	10%				
Texas		1,637,268	15%				
TOTAL:		2,444,134					
Petroleum & Natural Gas							
Amount % Capacity Out*							
Crude Oil Production Shut-In (b/d)		1,246,470	95.9%				
Natural Gas Production Shut-in (mm	rcf/d)	6,087	82.3%				
Refinery Capacity Shut down (b/d)		2,996,320	NA				

#### 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.

#### **Highlights:**

- As of 8:00 AM EDT September 18, there are an estimated 2,444,134 customer without power in the States where largest outages due to Ike remain (see summary table above) plus an additional 2,058 remaining outages in New York and Arkansas. Power is restored to nearly all customers in Illinois, Missouri, and West Virginia. Largest outages remain in Texas where 1,637,268 customers are without power. Across all states affected by Ike, power has been restored to approximately 549,000 customers since Ike Situation Report No. 8.
- On September 17, EPA issued an emergency waiver through September 30, of the Reformulated Gasoline (RFG) requirements in Kentucky in the counties of Boone, Campbell, Jefferson, Kenton, and those parts of Bullitt and Oldham where RFG is required. On September 17, EPA also issued an emergency waiver through October 1, of the Reid Vapor Pressure (RVP) and RFG requirements for parts of eastern and coastal Texas. This waiver supersedes the September 11 multi-state waiver as it applies to Texas.

<sup>\* %</sup> capacity out represents percent of production capacity in the Gulf of Mexico.



- On September 15 the U.S. Department of Energy announced it would deliver 250,000 barrels of
  emergency oil from the Strategic Petroleum Reserve to Marathon Petroleum Company's
  Midwest refineries along the Capline pipeline system. On September 16, DOE announced it
  would deliver an additional 239,000 barrels of emergency exchange oil from the Strategic
  Petroleum Reserve to Conoco Phillips Company's Wood River refinery along the Capline
  pipeline system.
- As of 12:00 AM EDT September 18, the Port of Corpus Christi has limited vessels to drafts of less than 20 feet in the Matagorda area. The Ports of Freeport, Galveston, Texas City, and the Houston Ship Channel are open at all times to vessels with a draft of less than 16 feet and open to deep draft vessels only during daylight hours. Vessels going through the rivers and channel into the Port Arthur area are limited to drafts of 30 feet or less at night and 36 feet for daylight. The Gulf Intracoastal Waterway is still closed from the Houston Ship Channel, west to the Port Arthur, TX bridge and has closures in LA as well. The Calcasieu Channel is limited to vessels with drafts of less than 39 feet for daylight transit and only 16 feet at all other times. The Lower Mississippi River is restricted to daylight transit only for vessels with drafts of 30 feet or less

#### **ESF 12 Actions:**

• ESF-12 is staffing the FEMA Region VI Regional Response Coordination Center (RRCC) in Denton, TX, the FEMA Region VI Joint Field Office (JFO) in Austin, TX, the FEMA Region VI (JFO) in Baton Rouge, LA, the Region V RRCC in Chicago, IL, and the National Response Coordination Center (NRCC) in Washington, DC. In addition, a petroleum expert has been deployed to San Antonio, TX to serve as part of FEMA's National Incident Management Assistance Team (IMAT) and an electricity expert has been deployed to join the Region IV IMAT in Houston, TX.

# **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)	1,246,470	1,300,000	95.9%				
Natural Gas (MMCF/D)	6,087	7,400	82.3%				

Source: Minerals Management Service

• As of September 17, the Minerals Management Service (MMS) reports 6,087 million cubic feet per day (MMcf/d) of the Gulf's natural gas production remains shut-in, equivalent to 82.3 percent of the Gulf production. MMS reports 1,246,470 barrels/day of the Gulf's crude production remains shut-in, equivalent to 95.9 percent of the Gulf's crude production. A total of 425 production platforms, or 59.3 percent of the Gulf's 717 manned platforms, remain evacuated. Personnel from 50 rigs, representing 41.3 percent of those operating in the region, remain evacuated.



- MMS reports that Hurricane Ike destroyed 28 of the 3,800 offshore production platforms in the Gulf. MMS estimates that the platforms which were destroyed produced a total of 11,000 barrels/day of crude and 82 MMcf/d of natural gas. As of 6:30 PM September 16, Shell reported that repair work was needed at some of their Eastern Gulf of Mexico platforms (Mars, Ursa, West Delta 143 and Cognac) damaged by Hurricane Gustav. Shell is using this downtime to complete regular maintenance at several of these facilities. Assessments continue at Shell's Central Gulf Gathering System and Western Gulf systems. As of September 16, BP and ExxonMobil report minimal damage to their offshore facilities. ConocoPhillips reports no damage to its offshore facilities.
- On September 17, the Louisiana's Department of Natural Resources reports that 28,874 b/d or 19 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 96,486 b/d or 62 percent of the normal production; the status of remaining 33,405 b/d is unknown. The estimated amount of restored gas production is 428 MMcf/d or 26 percent of the daily gas production capacity, which is 1,642 MMcf/d. The estimated amount of shut-in gas production is 900 MMcf/d; the status of the remaining 312 MMcf/d has not been confirmed.
- Major crude pipelines originating in Texas and Louisiana shut down operations in advance of Hurricane Ike, and many have terminals at the origin that remain shut. Capline and LOOP reported on September 16 that they are operating near normal rates. Colonial pipeline reported at 7:30 PM EDT September 16 that the main lines and several stub lines are operating. Colonial is receiving supplies from LA refineries and terminals in Texas and anticipates supply from restarted Corpus Christi refineries and marine deliveries. Despite some difficulties at the origin, NuStar pipeline is operating its product line at normal levels. (See table below.)

	Pipelines in the Path of Gustav / Ike as of 9/18/08 9:00 AM EDT								
Туре	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/refinery	TX, MS, Al	TX, MS, AL	NA	NA				
Crude	Marathon gathering	GOM	LA/TX	NA	NA				
Crude	Sunoco Logistics/Western	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



• As of 9:00 AM EDT September 18, twelve refineries in Texas and Louisiana remain shut down due to Hurricane Ike. These refineries located in Lake Charles/Port Arthur and Houston/Texas City, and have a total operable capacity of 3.0 million b/d. (See table below.)

Refineries in the Path of Gustav / Ike as of 9/18/08 9:00 AM EDT							
Capacity (B/D)							
Refinery Impacted	Location	Storm	Operating	Shut Down	Restarting	Reduced Runs	Back to Normal
Pascagoula/Mobile Region	on						
Chevron	Pascagoula, MS	G	330,000				330,00
Shell	Saraland, AL	-	86,000				
Pasca	goula/Mobile Total		416,000	0	0	0	330,000
Lower Mississppi River F	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 Miss	sissppi River Total		2,166,163	0	482,000	994,400	689,763
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	78,000	0	668,900	(
Port Arthur Region			ŕ	-			
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			
	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		467,720	467,720			
ConocoPhillips	Sweeny, TX	i	247,000	107,720	247,000		
Deer Park	Deer Park, TX	i	329,800		329,800		
ExxonMobil	Baytown, TX	i	567,000	567,000	020,000		
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	ı ı	83,000	83,000			
Valero	Texas City, TX	i	199,500	199,500			
	on/Galveston Total		2,340,620	1,763,820	576,800	0	
Corpus Christi Region			_,0 10,0_0	1,1 00,020	0.0,000	<u> </u>	
Citgo	Corpus Christi, TX	<u> </u>	156,000			1	156,00
Flint Hills Resources	Corpus Christi, TX	$\vdash$	288,126			288,126	130,00
Valero	Corpus Christi, TX	$\vdash$	142,000			200,120	142.00
v aiciU							142,00
	Thron Divora TV		0.0 000			02 000	
Valero	Three Rivers, TX orpus Christi Total	ı	93,000 <b>679,126</b>	0	0	93,000 <b>381,126</b>	298,000

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 8:00 AM EDT September 18, there have been additional reports of damage to multiple natural gas gathering and offshore systems and Force Majeures' remain in effect as shown in the table below. Pipelines, producers, and processing plant operators continue to investigate the impacts to their facilities from the storms. Restricted access to roads due to flooding has delayed many operators on returning the appropriate amount of crews to complete assessments and repairs to their facilities at this time.
- As of 6:25 PM EDT September 17, Tennessee Gas Pipeline (TGP) reports that there are leaks on the East Leg mainlines of its Blue Water system. TGP declared a Force Majeure and all gas flow through the Blue Water system was shut in on September 13. Enbridge Pipelines which owns and operates UTOS, Garden Banks, Manta Ray, Mississippi Canyon, Nautilus, and Stingray remain shut in. Inspections continue and more thorough damage assessments will take place over the next few days. Mississippi Canyon is the only Enbridge Pipeline that has reported an expected date of return to service for Sunday, September 21. There is no estimate of return to service for the other pipelines at this time.
- As of 9:15 AM EDT September 17, Spectra Energy reports that there is no significant damage or effects to their facilities due to the two Hurricanes and anticipates that the remaining inspections will be completed by the end of this week. Spectra owns and operates the Texas Eastern Transmission pipeline as well as joint venture in DCP Midstream which operates multiple gathering and processing plants in the Gulf Coast area.
- 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 8:00 PM EDT, September 17, the Energy Information Administration (EIA) has confirmed that 14 plants remain shut down which includes those plants still impacted from Gustav, totaling an operating capacity of 7.15 Bcf/d (approximately 40 percent of the capacity in Hurricane Ike's path). In addition, EIA reports that 17 plants have resumed operations at reduced or normal levels totaling 6.70 Bcf/d operating capacity and 7 plants are capable to restart totaling 3.61 Bcf/d operating capacity once power is restored or upstream gas flow commences.

<sup>&</sup>lt;sup>1</sup> The Waskom processing plant operating capacity is 270 MMcf/d and not 150 MMcf/d as reported earlier.



Chandeleur Pipeline Co.  Chandeleur Pipeline Co.  Columbia Gulf Transmission  Destin Pipeline Co.  Discovery Gas Transmission  Enbridge (UTOS)  Garden Banks Gas Pipeline  High Island Offshore System  KinderMorgan (Texas & Tejas)  Manta Ray Offshore Gathering  Mississippi Canyon Pipeline  Natural Gas Pipeline Co of America  Nautillus Pipeline Co.  Sabine Pipe Line (Henry Hub)  Chandeleur Pipeline Co.  9/16/08  Block 296 si Plock Forw operational Plow from of Processing in Proce Majeuring Grews on sit Communicated Plock of Proce Majeuring Plock of Processing in Plock of Processing in Plock of Proce Majeuring Introduction Plock of Proce Majeuring Introduction Plock of Processing in Plock of Plock of Processing in Plock of P	Notice (Status)  re has been declared Wednesday, Sept 17 - ANR's offshore facilities in Eugene Island stained damage resulting in zero flow at all receipt points along this portion of the system.  r Scheduled Volumes indicates pipeline is flowing at 75% of pre hurricane levels.  shore points has been reduced to approximately 20% of normal operating capacity.  processing plant declares Force Majeure Monday, Sept. 15.  seipts remain unavailable pending assessments; some onshore receipt & delivery pts so flow at reduced levels.  lity Station 44 sustained water damage and evaluations of asset are underway.  The continuing damage assessment – minor damage visible. There is power generation but on equipment is not functional.  There from Sept 10 remains in effect until evaluation of facilities is completed.
Chandeleur Pipeline Co.  Chandeleur Pipeline Co.  Columbia Gulf Transmission  Destin Pipeline Co.  Discovery Gas Transmission  Enbridge (UTOS)  Garden Banks Gas Pipeline  High Island Offshore System  KinderMorgan (Texas & Tejas)  Manta Ray Offshore Gathering  Mississippi Canyon Pipeline  Natural Gas Pipeline Co.  Sabine Pipe Line (Henry Hub)  Sea Robin Pipeline Co.  Southern Natural Gas Co.  Some onshot Stingray Pipeline Co.  9/17/08  Block 296 st.  9/16/08  Flow from of Pacagoula  Pascagoula  Offshore rect accepting gase acc	stained damage resulting in zero flow at all receipt points along this portion of the system.  Scheduled Volumes indicates pipeline is flowing at 75% of pre hurricane levels.  Shore points has been reduced to approximately 20% of normal operating capacity.  Drocessing plant declares Force Majeure Monday, Sept. 15.  Deipts remain unavailable pending assessments; some onshore receipt & delivery pts is flow at reduced levels.  Dity Station 44 sustained water damage and evaluations of asset are underway.  Decontinuing damage assessment – minor damage visible. There is power generation but on equipment is not functional.  There is power generation but one equipment is not functional.  There is power generation but one equipment is not functional.  There is power generation but one equipment is not functional.  There is power generation but one equipment is not functional.  There is power generation but one equipment is not functional.
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Natural Gas Pipeline Co of America  Nautilus Pipeline Co.  Sabine Pipe Line (Henry Hub)  Sea Robin Pipeline Co.  Southern Natural Gas Co.  Stingray Pipeline Co.  9/16/08  9/17/08  down in TX abeen isolate Assessment needed. Do Force Majeu but compres Reduced flo Some offshor Processing in resulting in r	43 platform is unavailable for gas flow. Venice plant has experienced water damage and cept gas. Alternate means to bypass plant to other processing plants and/or pipeline is being analyzed. Expected to be back in service by Sept 21.
Sabine Pipe Line (Henry Hub)  Sea Robin Pipeline Co.  Sea Robin Pipeline Co.  Southern Natural Gas Co.  Stingray Pipeline Co.  9/17/08  processing in Some onshord damage and da	re declared Thursday, Sept 11. Compressor Stations 342, 346, 302, 343 remain shut and LA. A leak was discovered during evaluation of Station 342 and pipeline section has d.
Sea Robin Pipeline Co.  Sea Robin Pipeline Co.  Southern Natural Gas Co.  Stingray Pipeline Co.  Southern Pipeline Co.  9/17/08  But compress Reduced floo Some offshor Processing i Proce Majeur resulting in r Some onshor damage and	s continue and reports of the Burns Point location on system are intact with minor repairs which was tream processing is ready once gas flow commences.
Sea Robin Pipeline Co.  9/17/08 Some offshor Processing in Southern Natural Gas Co.  9/17/08 Force Majeur resulting in resulting in resulting in resulting in resulting and damage and dama	re has been lifted for certain points along the system. Henry Hub is accepting gas flow sion remains unavailable.
Southern Natural Gas Co.  9/17/08 Force Majeuresulting in r Some onshord damage and dama	v due to damage, lack of processing and continued shut-in as inspections continue. re systems have experienced some damage that will limit a full return to service. s unavailable but gas flow can commence if at higher heating value.
Stingray Pipeline Co.  Some onshod damage and damage an	re declared Wednesday, Sept 17. – Damage at interconnect with Sabine (Henry Hub) educed gas flow. Repairs expected to be completed in 3-5 days.
	re facilities (office building) sustained water damage; offshore facilities have minor crews are working to repair visual damage and will perform further inspections in the
Tennessee Gas Pipeline Q/17/08 Tennessee I	as confirmed leaks on its 36 inch and 26 inch mainlines on the East Leg of the Blue n, in Ship Shoal 156/157
	that producers have shut-in 400,000 to 500,000 Dth / d of supply on its system due to
Texas Gas Transmission 9/16/08 Henry Hub p	oint available for gas flow.
	Gas Supply Procedures remain in effect for only receipts on Southwest, Central and A laterals of system. Central TX gathering system accepting gas flow today.
Trunkline Gas Pipeline 9/17/08 have experie	e has reopened. Force Majeure declared Monday, Sept 15. Some offshore systems need some damage that will limit a full return to service. Flooding at Centerville Station limiting gas flow to Henry Hub.
	t in from the effects of Gustav.
Black Marlin Pipeline 9/15/08 Force Majeu	re lifted as Mobile Bay (Duke) processing plant completed maintenance. System will pal operations.
Northern Natural 9/16/08 Scheduled g	nal operations.



	Natural Gas Processing Plants in the Path of Ike & Gustav as of 9/18/08 8:00 AM EDT						
				Capacity (m	nillion cubic fe	et per day)1	
Plant Name	Location	Impact	Design System Operation	Shut Down	Capable to Restart <sup>2</sup>	Operating at Reduced Level	Normal
EAST LA / AL							
Yscloskey	St. Bernard, LA	G	1,850	1,850			
	Plaquemines, LA	G	1,300	1,300			
	St. Mary, LA	G	600	600			
Larose	Lafourche, LA	G + I	600	600			
Plaguemine	Iberville, LA	G	225	225			
Burns Point	St. Mary, LA	G	160		160		
	Mobile, AL	М	300				300
WEST LA / EAST TX	<u>,                                      </u>						
	Acadia, LA	G + I	1,200			1,200	
	Vermilion, LA	G + I	950		950	.,_50	
Bluewater	Acadia, LA	G + I	950		950		
	Cameron, LA	G + I	500	500			
lowa	Jefferson Davis, LA	G + I	500				500
	Cameron, LA	G + I	400	400			
	Cameron, LA	G + I	300	300			
	Cameron, LA	G	300	300			
· ,	Cameron, LA	G+1	265		265		
- /	Cameron, LA	G + I	225	225			
Gillis	Calcasieu. LA	G + I	180			180	
	Lincoln, LA	G	175			100	175
East Texas (MarkWest)		Ī	780		780		
\	Panola, TX	-	750			750	
Godley (Forth Worth II)		1	300	300			
, , , , , , , , , , , , , , , , , , ,	Jefferson, TX	G + I	200		200		
	Panola, TX	i i	175			175	
0	Polk, TX	ı	150	150			
CENTRAL EAST TX	,						
Houston Central	Colorado, TX	-	700				700
	Matagorda, TX	G + I	300		300		
7	Matagorda, TX	G + I	250	-	-	-	-
	De Witt, TX	1	250				250
	Calhoun, TX	i	200	200			
	Brazoria, TX	i	200				200
	Lavaca, TX	l i	220				220
	Fayette, TX	i	200	200			
	Harrison, TX	-	270				270
SOUTH EAST TX		•					
	Kleberg, TX	_	925				925
	Nueces, TX	-	290				290
	Jim Wells, TX	-	265				265
	San Patricio, TX		150			150	200
· ·	Nueces, TX	-	150			130	150

Note: Storm column indicates hurricanes impacting processing plant: G = Gustav; I = Ike, G+I = Both storms, M = Maintenance, and - = no impact "N/A" (Not Available or Confirmed) identifies those plants that are in the path of Ike that have not yet been confirmed of their status.

Sources: Confirmed by company or on company web site. Various trade press sources

<sup>&</sup>lt;sup>1</sup> The capacity represents the design capacity of the plants and does not represent the actual gas flow through these plants.

<sup>&</sup>lt;sup>2</sup> Confirmed plants capable to restart after electricity is restored or when upstream gas flow commences service.

<sup>&</sup>lt;sup>3</sup> The Matagorda processing plants has been idle (mothballed) prior to Hurricane Gustav/Ike.



## **Electricity Updates:**

#### Texas:

**As of:** 9/18/2008 8:00 AM EDT



Electricity Outages: Utility <i>Detail</i>								
Texas								
Utility	Outages	Total Utility	% w/o Power					
SWEPCO	5,393	168,589	3.2%					
Entergy Texas	258,008	398,635	64.7%					
CenterPoint	1,199,460	2,076,978	57.8%					
ONCOR	20,836	2,253,929	0.9%					
TX New Mexico Power Co	48,685	113,370	42.9%					
All Cooperatives	104,886	389,073	27.0%					
TOTAL	1,637,268	5,400,574						

Total utility customers are based on field 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 8:00 AM EDT September 18, there are 1,637,268 customers reported without power in Texas.

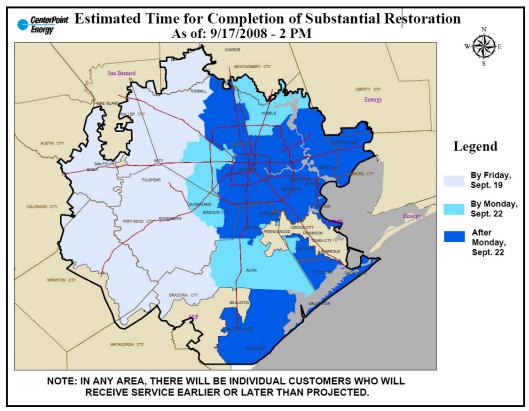
#### **Additional State Reports:**

- In Louisiana over 1.4 million customers have had power restored following Gustav and Ike. Entergy reports that remaining Gustav damage to the transmission system includes 11 lines and 6 substations out of service. As of 6:00 AM EDT September 18, there are 22,980 customers without power:
  - Entergy 10,477 customer outages, which includes 6,310 remaining from Gustav
  - SWEPCO 426 customer outages
  - CLECO 489 customer outages
  - Cooperative utilities have a combined 11,588 customer outages
- Ike caused major power outages in Arkansas and parts of the Midwest, Ohio Valley and Northeast. Power has been restored to nearly all customers in Illinois, Missouri, and West Virginia. Remaining outages as of 8:00 PM EDT September 18:
  - Ohio 536,270 outages, 10 percent of total customers
  - Kentucky 189,740 outages, 9 percent of total customers
  - Indiana 38,800 outages, 1 percent of total customers
  - Pennsylvania 19,076 outages, less than 1 percent of total customers
  - Arkansas 1,182 outages, less than 1 percent of customers
  - New York 876 outages, less than 1 percent of customers



#### **Restoration Updates:**

• As of 9:00 PM EDT September 17, CenterPoint has restored power to over 832,000 customers. Centerpoint issued estimated restoration dates shown on the map below:



- CenterPoint reports that 8,000 mutual assistance crews plus 4,200 internal crews and contractors are involved in the restoration.
- Restoration updates from CenterPoint as of September 17 include:
  - 96 percent of transmission circuits and 93 percent of substation capacity are back in service
  - All but six substations are back in service; five of which are located on Galveston Island
  - After receiving Department of Energy approval, CenterPoint Energy established an
    emergency transmission connection to Entergy, which restored two substations, in order
    to restore power to a water treatment facility normally served by Entergy. This facility is
    critical to the water supply for the City of Houston
  - All transmission connections between CenterPoint Energy and the rest of the ERCOT network
  - Most of its large industrial customers at transmission voltage including the Houston Ship Channel energy and petrochemical companies
  - 52 of 77 area hospitals
  - 52 of 80 water pumping stations
  - 117 of 245 sewer lifts



- Restored service to City of Houston METRORail (Light Rail)
- ONCOR expects to have power fully restored by the end of the week.
- As of 6:00 AM September 18, Entergy reports transmission outages caused by Ike include:
  - 141 of 237 transmission lines
  - 186 of 378 substations
  - 132 transmission structures destroyed, and 205 damaged
- Entergy reports estimated distribution system damage caused by Ike include:
  - 6,426 poles
  - 2,664 transformers
  - 4,153 cross arms
  - 5,355 service connections damaged or destroyed, and
  - 9,368 spans of wire knocked down.
- Entergy reports remaining Gustav damage includes 11 of 241 lines and 6 of 354 substations out of service.
- Entergy reports that expected return to service today (September 17) of Entergy's Lewis Creek plant near Willis, Texas, combined with transmission repairs, will allow Entergy in its area north of Houston to serve 10 times more customer load than is currently possible and avoid potential rolling blackouts.
- The loss of generation from Entergy's Sabine plant due to flooding from Hurricane Ike's storm surge resulted in a generation shortfall in the Western region of Entergy Texas, Inc.'s territory. Until damage to the plant can be assessed and restoration time can be estimated Entergy is balancing system load and generation. Flood waters at Sabine have receded and safety assessment and environmental clean-up has begun.
- In Texas, Entergy restoration estimates by area are:
  - September 21 Orange, Vidor
  - September 22 Navasota
  - September 23 Port Arthur, Port Neches, Nederland, Groves
  - September 25 Winnie, Anahuac, Dayton, Ames, Daisetta, Batson, Saratoga, The Woodlands
  - September 29 Woodville, Silsbee, Lumberton, Kountze, Conroe, Huntsville, Madisonville
  - October 5 New Caney, Cleveland
  - October 6 Beaumont, Bevil Oaks, Sour Lake
  - Flooded no date determined- Taylor Landing, Bolivar Peninsula, and Sabine Pass
- In Louisiana, about 4,000 customer outages remain inaccessible due to flooding. Entergy restoration estimates by Parish are:
  - September 17 Assumption, East Baton Rouge



- September 18 Calcasieu, Jefferson (lower portion only, except Grand Isle),
   Plaquemines, St. Bernard
- September 24 Ascension (Donaldsonville), Iberville, St. Martin
- September 27 Terrebonne
- October 1 Jefferson (Grand Isle and Lafitte), Lafourche