

OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY (OE)
U.S. DEPARTMENT OF ENERGY
Hurricane Katrina Situation Report #28
September 8, 2005 (4:00 PM EDT)

HIGHLIGHTS

- Currently, 689,185 customers remain without electric power in Louisiana and Mississippi due to Hurricane Katrina. This is down by over 2 million from a peak of 2.7 million customers that were without power after Hurricane Katrina struck the region.
- ESF #12 assisted in the termination of the natural gas supply to the City of Pearlington, MS, because of reports of natural gas leaks throughout the Pearlington natural gas system.
- The Energy Information Administration (EIA) released its Short Term Energy Outlook on 9/7/05 and estimated that normal to **nearly normal** operations of oil and gas production and distribution would be achieved by December 2005.
- The LOOP expects to be operating at 100 percent within the next week, when Fourchon becomes operational. Currently the LOOP is still operating at 75 percent.
- Natural gas transmission pipelines in the path of Katrina survived with minimal damage. Four natural gas processing plants accounting for roughly 5.5 billion cubic feet per day are currently not operating due to hurricane-induced damage. These plants can potentially be bypassed for a period of time while repairs are made with an acceptable impact on natural gas specifications.
- Mississippi Power now estimates that all customers who can receive power will have service restored by the end of the day Sunday 9/11/05. Entergy also reports that most of its Mississippi customers will have power restored by then as well.
- According to coal analysts, it is estimated that Hurricane Katrina may impact coal consumption this fall because coal-fired plants that typically ramp down following the peak summer months may be required to continue generating at high levels to make up for the gap caused by damage to gas production.
- NOAA observed one of the largest solar flares on record 9/7/05 which could impact high frequency communications. Significant eruptions are expected in the coming days. Agencies impacted by space weather storms may experience disruptions over the next two weeks. These include spacecraft operations, electric power systems, HF communications, and low-frequency navigations systems. This could have an impact on emergency personnel in the Gulf who make use of those frequencies.
- NOAA reports that tropical storm Ophelia off the coast of Florida (about 70 miles east-northeast of Cape Canaveral) became a Category 1 hurricane this afternoon. The storm is stationary and little overall movement is expected today. Maximum sustained winds are

currently 70 miles per hour with higher gusts. Tropical storm winds extend outward up to 70 miles from the center and rain bands with strong winds in squalls have been spreading over portions of the Florida east coast in the tropical storm warning area. <http://www.nhc.noaa.gov/>

- DOE staff are at the National Response Coordination Center (NRCC) at FEMA HQ, the **Interagency Incident Management Team at HQ**, FEMA Regions IV and VI, and the State Emergency Operation Centers (EOC) in Louisiana and Mississippi.

PETROLEUM AND GAS INFORMATION

- According to Thursday’s MMS reports, 15.26 percent of 819 manned platforms and 3.73 percent of 137 rigs remain evacuated in the Gulf of Mexico (GOM). Yesterday's shut-in oil production was 901,726 BOPD. The shut-in oil production is equivalent to 60.1 percent of the daily oil production in the GOM, which is currently approximately 1.5 million BOPD. Tuesday's shut-in gas production was 4.020 BCFPD. This shut-in gas production is equivalent to 40.2 percent of the daily gas production in the GOM, which is currently approximately 10 BCFPD.

Improvement in GOM Shut-in Oil and Gas 8/30/05 – 9/8/05

Date	Percent of GOM Oil Shut-in	Percent of GOM Gas Shut-in
August 30	95.20	87.99
August 31	91.45	83.46
September 1	90.43	78.66
September 2	88.53	72.48
September 3	78.98	57.80
September 4	No data reported	No data reported
September 5	69.57	54.13
September 6	58.02	41.06
September 7	57.37	40.36
September 8	60.12 *	40.20

*Oil Production Shut-ins continue to decline, despite the apparent rise in the figures released by MMS. According to MMS, this rise in the statistics occurred today because a company just reported a significant amount of shut-in oil production today that has been shut-in since the hurricane hit, but was not reported as such due to communications problems.

- Entergy crews in Louisiana will assess the relaying at the BP Alliance 34.5kV substation tonight, 9/8/05. This will provide service to the ConocoPhillips (Belle Chasse) refinery. Additional assessments of the substations that connect to the ExxonMobil/PDVSA (Chalmette) and Murphy (Meraux) refineries will also continue today.
- Entergy has 17 generating units in the New Orleans area that are fueled by natural gas and/or oil. Nine of those units have been returned to service, with one more expected to return late this week. Currently, generation capacity is sufficient to meet load, and their fuel supplies are adequate.
- The lower Mississippi is open during daylight hours only to traffic with drafts of at least 39 feet. The Gulf Intracoastal Waterway (GIWW) was opened to traffic across areas of

Louisiana Tuesday, with the exception of the Inner Harbor Navigational Canal (IHNC) which remains closed. Vessels may access the east of the IHNC via the Baptiste Collette alternate route. There is a draft limitation of 9.5 feet in the Baptiste Collette route.

- The Port of New Orleans now reports that its headquarters building has power. The port is not open to commercial traffic; however, officials have set a goal by September 14 to allow commercial cargo ships enter the port. The Port is currently berthing military and relief vessels.
- The Tables below show, as of 9/8/05, the current status of the refineries impacted by Hurricane Katrina. Improvements continue in the Southeast refinery complex.

Table 1. Shutdown Refineries

Refinery	Location	State	Capacity (bbl/day)	Current Status
ConocoPhillips*	Belle Chasse	LA	247,000	No power - major damage
ExxonMobil	Chalmette	LA	187,200	No power - water damage
Motiva (Shell)	Norco	LA	226,500	Limited damage, continue to make repairs – expecting to restart later this week
Murphy	Meraux	LA	120,000	No power – water is starting to recede, currently making assessment of damage, leaking crude oil tank repaired
Shell Chemical	St Rose	LA	55,000	Awaiting Norco restart
ChevronTexaco*	Pascagoula	MS	325,000	Damage unknown – assessment being made

Table 2. Refineries with Reduced Runs

Refinery	Location	State	Capacity (bbl/day)	Current Status
Marathon	Garyville	LA	245,000	Restarted – expecting full operation by the end of today
Motiva (Shell)	Convent	LA	235,000	Restarted – operating at 75 percent rate expect full production later this week.
Valero	Krotz Springs	LA	80,000	Close to 100 percent - receiving SPR
Valero	St. Charles	LA	185,000	Restarting – expecting to be fully operational within one week.

Table 3. Refineries at Normal Production

Refinery	Location	State	Capacity (bbl/day)	Current Status
Shell Chemical	Saraland	AL	80,000	Operating at full rate for gasoline and reduced rate for chemicals and other products
ConocoPhillips	Wood River	IL	306,000	OK
ExxonMobil*	Joliet	IL	238,000	OK
PDV Midwest	Lemont	IL	160,000	OK
Marathon	Robinson	IL	192,000	OK
BP	Whiting	IN	410,000	OK – receiving SPR
Marathon	Catlettsburg	KY	222,000	OK
Citgo*	Lake Charles	LA	324,300	OK
ConocoPhillips*	Lake Charles	LA	239,400	OK
ExxonMobil*	Baton Rouge	LA	493,500	OK – receiving SPR
Placid Oil*	Port Allen	LA	48,500	OK – receiving SPR
Marathon	Detroit	MI	74,000	OK

BP	Toledo	OH	160,000	OK – receiving SPR
Marathon	Canton	OH	73,000	OK
Premcor	Lima	OH	158,400	OK – receiving SPR
Premcor*	Memphis	TN	180,000	OK – receiving SPR
ExxonMobil*	Beaumont	TX	348,500	OK
Motiva (Shell)*	Port Arthur	TX	285,000	OK
Premcor	Port Arthur	TX	247,000	OK
Total*	Port Arthur	TX	211,500	OK - receiving SPR

* Refineries with company owned and operated on-site power generation.

ELECTRICITY INFORMATION

STATE OUTAGE DATA

Utility	Customers w/o Power	% Customers w/o Power from Katrina
Louisiana*	459,534	42%
Mississippi	229,651	16%

*Louisiana data is reported by the Louisiana Public Service Commission and their percentage outage numbers are used in calculating the percentage of total outage.

STATE REPORTS

Mississippi and Louisiana

- In Louisiana 459,534 customers remain without power, as reported by the Louisiana Public Service Commission (LAPSC) (12:00 PM 9/8/05).

Louisiana Outage Data by Parish (12:00 PM 9/8/05)

UTILITY	OUTAGES	% customers w/o power
Jefferson	131,826	63%
Lafourche	1,925	3%
Livingston	2,544	5%
Orleans	182,152	89%
Plaquemines	3,013	32%
St. Bernard	28,308	99%
St. Tammany	77,467	74%
Tangipahoa	12,835	23%
Washington	17,986	69%

*Louisiana data and percentages are reported by the Louisiana Public Service Commission. Only Parishes with outages of more than 1,000 customers are shown

Louisiana Outage Data by Utility (12:00 PM 9/8/05)

UTILITY	OUTAGES	% customers w/o power
Entergy Louisiana	180,810	38%

Entergy Gulf States	0	0%
Entergy New Orleans	182,152	89%
DEMCO	1,533	2%
SLECA	362	2%
Wash-St. Tammany	40,650	90%
CLECO	54,027	68%
Total	459,534	42%

*Louisiana data and percentages are reported by the Louisiana Public Service Commission.

- As of 1:30 PM Thursday 9/8/05, Mississippi has 229,651 customers without power, which represents 16 percent of customers in the state, including 17,751 Entergy customers, 84,530 Mississippi Power customers, and 127,370 customers of the Electric Power Associations of Mississippi (EPAOFMS). Both Mississippi Power and Entergy predict that most customers will have power restored by 9/11/05. EPAOFMS estimates restoration will not occur until later next week.
- Entergy is making inoculations for diphtheria and tetanus available to field crews working in flooded areas around New Orleans. The inoculations are on a voluntary basis.
- At this time, the fact that the Waterford 3 nuclear power plant is offline is not causing problems or concerns with regard to Entergy's ability to meet load demands. Entergy plans to restart Waterford 3 and is going through the procedures and steps that are required to do so.
- Entergy reports that at its worst point, the company had a total of 660 transmission line-miles, 263 substations and 1,560 distribution feeders out of service; currently, 42 transmission lines and 34 substations are out of service. In Mississippi, all substations are now restored and transmission lines continue to be energized.
- Cleco Corp., a Co-op servicing Louisiana, estimated on 9/7/05 that it will have power restored to 80 percent of its customers who can take electricity within the next two weeks.
- Mississippi Power lost all of its systems, including telecommunications, and suffered extensive facilities damage, including the use of all generating units at Plant Watson in Gulfport. Restoration crews totaled 9,200 on 9/6/05. **Current restoration goals are:**
 - September 8: Bay St. Louis, Long Beach, Wiggins/Saucier
 - September 9: Pascagoula/Moss Point, Pass Christian, DeLisle
 - September 10: Hattiesburg, Laurel
 - September 11: Biloxi, Gulfport, Picayune, Poplarville
- The EPAOFMS reports that all 25 electric power associations suffered some loss of service during the storm. Fifteen of those co-ops have completely restored power. Coast Electric Power Association in Bay St. Louis and Southern Pine Electric Power Association in Taylorsville are currently reporting the most customers are without power. More than 7,605 co-op crew members from Mississippi and 14 other states as far away as Pennsylvania are assisting in restoration in the state.

Florida

- The Florida Reliability Coordinating Council (FRCC) State Capacity Emergency Coordinator has discontinued all Generating Capacity Advisories and Alerts associated with the impacts of Hurricane Katrina on fuel supplies to electric generating facilities within the FRCC as of Thursday, September 8th, 2005.