

OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY (OE)
U.S. DEPARTMENT OF ENERGY
Hurricane Katrina Situation Report #15
September 1, 2005 (6:00 PM EDT)

HIGHLIGHTS

- Approximately 1.8 million customers remain without electric power due to Hurricane Katrina. These are primarily in Louisiana, Mississippi, and Alabama -- 30 percent of customers in the three states are without power (see table below).
- Region IV RRCC priorities are fuel, food and communications. Requests have been made to provide flood impact graphics for Region IV.
- Inaccessibility as well as extensive damage from flooding and saltwater are major issues impacting electricity restoration. Well over 10,000 outside crews have arrived to provide assistance; however, availability of line crews remains an issue. As Florida utilities finish their restoration work their crews have begun to move to other states. Entergy reports that its single biggest problem to restoring power in the Greater New Orleans area is the lack of food and water for its repair crews who are literally sleeping in their trucks. Earlier today, OE staff on site in Louisiana provided GIS coordinates to FEMA so that shipments can begin to these workers.
- ESF-12 has been activated by the Federal Emergency Management Agency to support multiple locations. OE staff are now at the National Response Coordination Center (NRCC) at FEMA HQ, FEMA Regions IV and VI, and the State Emergency Operation Centers (EOC) in Alabama, Louisiana, and Mississippi. Tomorrow, OE will issue a call to the broader deployment list to secure additional staff to supplement and/or replace current, on-site personnel in certain areas with special emphasis on electrical engineers within the Power Marketing Administrations.
- Electricity outages are impeding full restoration of the Colonial Pipeline, the LOOP and the Plantation Pipeline. More detail about the status of these pipelines are available below (see Petroleum and Gas section).

PETROLEUM AND GAS INFORMATION

- MMS reports on 9/1/05 that evacuations of 52% of the 819 manned platforms and 48% of the 137 rigs currently operating in the Gulf of Mexico (GOM). Shut-in oil production is 1,356,498 BOPD. This shut-in oil production is equivalent to 90.4% of the daily oil production in the Gulf of Mexico (GOM), which is currently approximately 1.5 million BOPD. Shut-in gas production is 7.866 BCFPD. This shut-in gas production is equivalent to 78.66% of the daily gas production in the GOM, which is currently approximately 10 BCFPD. The cumulative shut-in oil production for the period 8/26/05-9/1/05 is 7,441,566 bbls, which is equivalent to 1.359% of the yearly production of oil in the GOM (547.5 million barrels). www.mms.gov.

- The LOOP is operational from St. James Terminal and by the evening of 9/2/05 they will have power to move crude from the LOOP to Clovelly and out to St. James Terminal. Limited electricity supplies are restricting flow.
- The Strategic Petroleum Reserve at New Orleans Elmwood office complex remains shut down. Bayou Choctaw, Bryan Mound, Big Hill and West Hackberry storage sites, however, are operational and will be able to provide crude oil in the loan program noted above.
- Colonial Pipeline is now operating at 40% of normal operating capacity. Once additional generators are activated at inactive pump stations, production will increase to 1.2 to 1.3 million barrels per day. Both gasoline and distillates are currently being transported and delivered. The line was full when it went down, so deliveries were possible within hours – not days – of restart. The company anticipates that it may be able to achieve approximately 74% of normal operating capacity by Sunday and 75% to 86% by early or mid-next week if additional electricity can be supplied to critical pump stations. Further increases cannot be made until normal power is restored. The capacity of Colonial is about 2.4 million barrels per day. Solutions for power restoration are being actively pursued.
- Plantation has partially started its system as is operating at 25% of capacity and hopes to be up to 50% of normal operations by Friday.
- Capline, a crude oil pipeline serving the Midwest, was restarted yesterday at a rate of 720,000 barrels a day and can operate at reduced rates until the LOOP is fully operational.
- The Seaway Interstate Pipeline to Cushing, OK, is operating at full capacity (350,000 barrels a day). From Cushing, the Enbridge (Ozark) pipeline to Wood River and the BP pipeline to Chicago are operating at full capacity.

The following table displays refineries located in states impacted by Hurricane Katrina:

LA/MS/AL – Gulf Coast Refiner Impacts

Refinery	Location	State	Capacity (bbl/day)	Impact
ExxonMobil*	Baton Rouge	LA	493,500	Reduced Runs
Valero	Krotz Springs	LA	80,000	Reduced Runs
Placid Oil*	Port Allen	LA	48,500	Reduced Runs
ConocoPhillips*	Belle Chasse	LA	247,000	Shutdown major damage
Marathon	Garyville	LA	245,000	Shutdown – minor damage
Motiva (Shell)	Convent	LA	235,000	Shutdown – no assessment yet
Motiva (Shell)	Norco	LA	226,500	Shutdown – no assessment yet
Shell Chemical	St Rose	LA	55,000	Shutdown
Chalmette	Chalmette	LA	187,200	Shutdown – water damage
Valero	St. Charles	LA	185,000	Shutdown; 1 or 2 weeks; water damage
Murphy	Meraux	LA	120,000	Shutdown – water damage
ChevronTexaco*	Pascagoula	MS	325,000	Shutdown major damage
Shell Chemical	Saraland	AL	80,000	Shutdown; have power and should be up relatively soon

Port Arthur/Lake Charles Refiner Impacts

Refinery	Location	State	Capacity (bbl/day)	Impact
ExxonMobil*	Beaumont	TX	348,500	OK
Motiva (Shell)*	Port Arthur	TX	285,000	OK
Premcor	Port Arthur	TX	247,000	OK
Koch*	Corpus Christi	TX	156,000	OK
Total*	Port Arthur	TX	211,500	Reduced Runs (Mars)
Citgo*	Lake Charles	LA	324,300	OK receiving crude
ConocoPhillips*	Lake Charles	LA	239,400	Reduced runs

Capline Pipeline – Midwest Refiner Impacts

Refinery	Location	State	Capacity (bbl/day)	Impact
BP	Whiting	IN	410,000	Reduced Runs
BP	Toledo	OH	160,000	Reduced Runs
ExxonMobil*	Joliet	IL	238,000	OK
PDV Midwest	Lemont	IL	160,000	OK
Marathon	Robinson	IL	192,000	Reduced Runs
Marathon	Catlettsburg	KY	222,000	Reduced Runs
Marathon	Detroit	MI	74,000	OK
Marathon	Canton	OH	73,000	OK
ConocoPhillips	Wood River	IL	306,000	Reduced Runs
Premcor*	Memphis	TN	180,000	Reduced Runs
Premcor	Lima	OH	158,400	Reduced Runs
Sun	Toledo	OH	160,000	Not Available

* 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 (1)
Alabama	235,213	10%
Louisiana	780,735	37%
Mississippi	774,244	55%
Total	1,790,192	30%

* Less than 1 percent of customers in Georgia and Florida remain without power due to Katrina

STATE REPORTS

Alabama

- Over 235, 000, or 10 percent of customers, remain without power in Alabama. This includes 197,000 Alabama Power customers, 28,213 Cooperative customers, and 10,000 Municipal customers. This is down from a peak Monday night of 636,891. Alabama Power crews have been assisted by utilities from at least 20 states and the District of Columbia. The company anticipates that 99 percent of power will be restored in the Birmingham area by the end of the day 9/2/05. Ninety-nine percent of power in Tuscaloosa will be restored by the end of the day 9/4/05, and 99 percent of all customers will be restored by September 7. The storm is the worst on record as far as damage to the company's infrastructure. Outages by division are as follows:
 - Birmingham: 38,617
 - Tuscaloosa: 35,463
 - Mobile: 132,779
- For cooperatives, the worst hit counties for coops are Monroe, Choctaw, Clarke, Baldwin, and Marion. Approximately 400 crew members from out of state are helping in the restoration of the co-ops.

Mississippi and Louisiana

- Louisiana has 780,735 customers remaining without power as reported by the Louisiana Public Service Commission (11:00AM 9/1/05). Electricity service in Louisiana areas not impacted by flooding is slowly being restored.
- In Mississippi 774,244 customers are without power, 55 percent of customers in the state. Of these, 190,759 are in the Entergy service area; 181,000 are in the Mississippi Power service area; 449,000 are in the Mississippi Electric Power Association service area; and 113,289 are in the TVA area.
- Mississippi Power estimates that about 70 percent of its 8,000 miles of transmission and distribution lines will need to be repaired or replaced. Over 2,500 outside crews arrived Tuesday to provide assistance. About 5,000 outside crews are expected to be available by

today. Mississippi Power estimates that it may take as long as four weeks to restore power in hard-hit areas.

- At 11 a.m., Sept.1, Entergy’s transmission system had 98 lines and 98 substations out of service. The company is working to restore service for pumping, sanitation, and housing facilities in the Central Business District of New Orleans as well as the west bank of Jefferson Parish. Aerial damage assessments should be substantially completed by the end of the day; however, access to flooded facilities is limited and preventing detailed assessments. Restoration of the transmission system in this area is progressing well except in the areas impacted by flood waters, which includes over thirty substations in the New Orleans area. Salt water flooding in this area is expected to impact substation restoration due to damaged equipment.
- Entergy now has 9,000 line and vegetation workers restoring service. Entergy is in contact with other utilities and contract workers to bring in additional workers and pre-position as many out-of-state utility crews as possible to quickly move in to help restore service. The company website reports that flooding, fuel supply and other barriers will make restoration more difficult.

Louisiana Outages by Major Utility (9/1/05 11:00 AM)

Electric Utility	Customers w/o Power	% customers w/o power
Entergy Louisiana Inc	391,118	60%
Entergy Gulf States Inc	51,277	15%
Cleco Power LLC	79,672	31%
Entergy New Orleans Inc	200,751	93%
Dixie Electric Membership Corp	24,005	28%
Washington-St Tammany E C, Inc	20,000	48%
South Louisiana Elec Coop Assn	13,912	73%

Florida

- As of 1:00 PM 9/1/05, approximately 10,400 customers, less than 1 percent of customers in the state, remain without power in Florida due to Katrina. Florida Power & Light is releasing 1,000 line crews to support restoration in Gulf Coast States. Utilities in Florida are encouraging conservation by customers due to concerns about natural gas supplies. The Florida Reliability Coordinating Council issued a generating alert, calling for conservation of electricity.