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Hurricane Ida | Update #6

REPORT TIME & DATE: 10:00 AM EDT | Friday, September 03, 2021

REPORT DISTRIBUTION: Public

EXECUTIVE SUMMARY

Hurricane Ida made landfall near Port Fourchon, Louisiana around 1:00 PM EDT as a Category 4 hurricane. The storm has caused substantial damage to the electric grid and disrupted the oil and natural gas supply chain.

Electricity Sector Summary

- As of 7:00 AM EDT on September 3, there are approximately 928,000 outages due to Ida. 866,000 customer outages remain in Louisiana, with approximately 46,000 additional outages in the Northeast.
- As of the morning of September 1, Entergy restored power for some customers in eastern New Orleans
 with generation supplied by the New Orleans Power Station. Entergy is working to restore the
 transmission system serving New Orleans, Louisiana, which was damaged during the storm causing
 outages to most of the city.
- Restoration efforts are nearing completion in the impacted regions. Estimated restoration times will be established once damage assessments are complete.

Oil & Natural Gas Sector Summary

- Six refineries in Louisiana remain shut, accounting for about 1.6 million b/d of refinery capacity, or approximately 9% of the total U.S. operable refining capacity. Three refineries in the Baton Rouge area have initiated the restart process, although they will not be producing at full rates for several days.
 Damage assessments are underway, but operations cannot restart until feedstock supply, power, and other essential third-party utilities are restored.
- As of 12:30 PM EDT, September 2, 94% of the oil production and 91% of the natural gas production in the federally administered areas of the U.S. Gulf of Mexico remained shut-in, according to estimates by the Bureau of Safety and Environmental Enforcement.
- Stocks in the area are being drawn down while refineries and offshore production are down. For the week ending on August 27, Gulf Coast stocks of gasoline and distillate were 3% and 1% above the seasonal five-year average. Gulf Coast stocks of crude oil were 4% below the five-year average in the Gulf Coast (not including SPR).
- Although most ports in Louisiana and Mississippi have reopened, segments of the Lower Mississippi River remain closed, preventing many Louisiana refineries from receiving crude oil or distributing products via waterborne vessels. Operations remain suspended at the Louisiana Offshore Oil Port (LOOP) marine terminal, and repairs are underway.
- Widespread power outages are leading to retail gas station closures in impacted areas. Available stations are experiencing long-lines and high demand. Power outages at terminals may impede resupply.

DOE ACTIONS

DOE ENERGY RESPONSE ORGANIZATION (ERO): ACTIVATED - LEVEL 1

- DOE is coordinating with industry, interagency, and territorial partners to support response efforts related to Hurricane Ida.
- DOE has worked with FEMA and industry partners to prepare for hurricane response operations during the COVID-19 pandemic.

DOE EMERGENCY SUPPORT FUNCTION (ESF) #12 DEPLOYMENTS:

- FEMA National Response Coordination Center Washington, DC
- FEMA Region IV Response Coordination Center Atlanta, GA Virtual
- FEMA Region VI Response Coordination Center Denton, TX
- FEMA Region III Response Coordination Center Philadelphia, PA Virtual
- Louisiana Joint Field Office Baton Rouge, LA
- Louisiana State Emergency Operation Center Baton Rouge, LA
- Note: Additional DOE ESF #12 Responders are deploying to Louisiana to support the State Emergency Operation center and to coordinate with interagency, state, and industry partners.



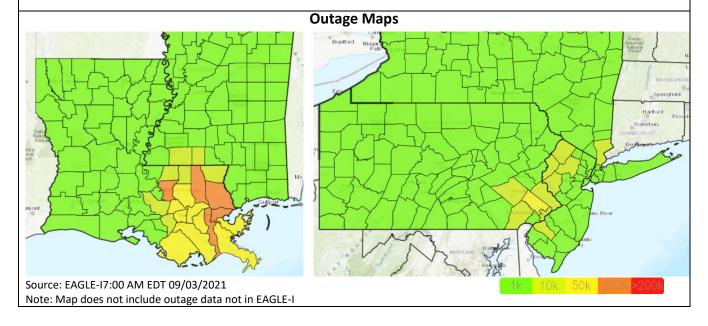
ELECTRICITY SECTOR

POWER OUTAGES

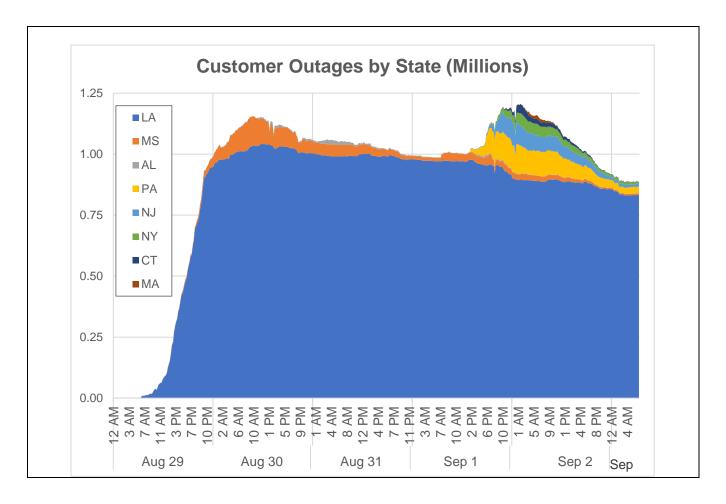
• As of 7:00 AM EDT on September 3, there are approximately 928,000 outages due to Ida. 866,000 customer outages remain in Louisiana, with approximately 46,000 additional outages in the Northeast.

Customer Power Outages as of 7:00 AM EDT 09/03/2021								
State	Current Outages	% of State Without Power	Storm Peak Outages	% Restored				
Louisiana*	865,934	40%	~1,075,158	19%				
Pennsylvania	26,942	<1%	122,450	78%				
Mississippi*	15,724	<1%	~148,850	89%				
New Jersey	11,726	1%	92,651	87%				
New York	7,729	<1%	50,995	85%				
Total	928,055							

Although restoration has begun in some portions of the affected region, state-level totals may appear to increase as responders receive additional, more accurate information on local outage numbers. Alabama, Massachusetts, and Connecticut were removed from the table when they dropped below 2,000 customer outages.





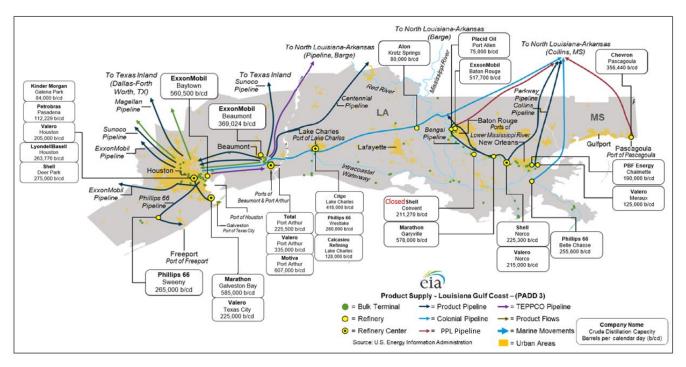


- Customer outages reflect how many electric meters are without power. Meters represent
 individual homes, businesses, and industrial sites. On average, there is approximately one meter
 for every two people in the United States.
- Industry has activated mutual assistance networks and over 25,000 personnel from at least 32 states and the District of Columbia are support restoration efforts. Crews, materials, and equipment was pre-positioned in advance of impacts from Hurricane Ida.
- Utilities typically follow an overall plan to restore service to customers. After power is restored to
 essential services and facilities critical to public health and safety, crews focus on repairing lines
 that will return service to the largest number of customers in the least amount of time. Power is
 restored systematically to neighborhoods, industries, and businesses and then to individual
 homes and small groups of customers.
- Damage assessments and restoration efforts are underway. Debris and flooding is limiting access to some locations. Estimated times to restoration will begin to be established once damage assessments are complete.
- Damage to the transmission system serving New Orleans, Louisiana caused outages to most of the city. As of the September 1, Entergy has restored power for some customers in Eastern New Orleans with generation supplied by the New Orleans Power Station. Entergy is working to establish additional transmission paths into the City and is continuing to restore customers.



OIL AND NATURAL GAS SECTOR

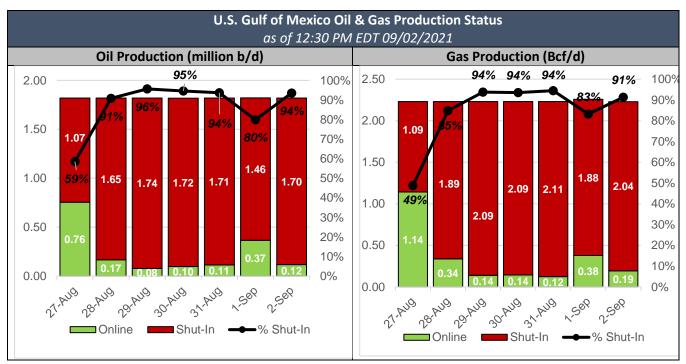
Just over half of total U.S. refining capacity is in the Gulf Coast (PADD 3) region. Gulf Coast refinery production is critical for supplying fuels to markets in the high-demand East Coast (PADD 1) region. Products move out of the Gulf Coast region on the Colonial and PPL pipeline systems to Southeast and Central Atlantic markets, and via tanker and barge to Florida. The Gulf Coast refineries export approximately 20% of production to foreign countries. This provides a significant "export buffer," allowing refiners to shift fuel production away from exports to make up for shortages in domestic markets. The map below highlights the petroleum supply chain in the Louisiana and Texas Gulf Coast regions.





OFFSHORE PRODUCTION

- As of 12:30 PM EDT, September 2, 1.702 million barrels per day (b/d) (93.55%) of the oil production and 2.04 billion cubic feet per day (Bcf/d) (91.29%) of the natural gas production in the federally administered areas of the U.S. Gulf of Mexico are shut-in, according to estimates by the Bureau of Safety and Environmental Enforcement (BSEE).
- In addition, BSEE reports that 177 out of 560 manned platforms have been evacuated; six of the 11 (54.55%) non-dynamically positioned rigs have been evacuated; and four of the 15 dynamically positioned rigs have moved out of the storm's path as a precaution.



Source: BSEE



PORTS & WATERWAYS

• The U.S. Coast Guard has set the following conditions for ports and waterways as a result of Ida. Listed in the table are select ports that receive petroleum products.

Status of Gulf Coast Ports as of 09/03/2021							
Port	Inbound Crude Oil* (b/d)	Inbound Refined Product* (b/d)	Status	Date Stamp			
Louisiana							
Baton Rouge, LA	31,000	29,000	Open with restrictions. Port Condition Normal.	9/1			
Gramercy, LA	66,000		Open with restrictions. Port Condition Normal.	9/1			
New Orleans, LA	132,000	53,000	Open with restrictions. Port Condition Normal.	9/1			
Morgan City, LA	47,000	1,000	Open with restrictions.	8/31			
Lake Charles, LA	144,000	1,000	Open. Port Condition Normal.	8/30			
Mississippi							
Pascagoula, MS	88,000		Open. Port Condition Normal	9/1			
Alabama							
Mobile, AL	165,000	6,000	Open. Port Condition Normal	9/1			

^{*}Foreign imports and domestic movements in 2019.

Source: U.S. Coast Guard Homeport. Receipt data from EIA Company Level Imports, U. S. Army Corps of Engineers Waterborne Commerce Statistics

- Louisiana Offshore Oil Port (LOOP) suspended operations at its marine terminal on August 28, per standard procedure. LOOP is the U.S. port capable of receiving very large crude carriers (VLCCs).
- Segments of the Lower Mississippi River remain closed to vessel traffic on Sept. 3.
 - On Sept. 2 New Orleans Board of Trade noted that the section of the Mississippi river between mile marker 108 and 167.5 is closed due to barge recovery operations.
 - USCG Captain of Port of New Orleans continues to enforce a temporary safety zone on the Lower Mississippi River between mile markers 105 and 108 to prohibit traffic around the safety hazards associated with downed electrical transmission lines. Rule is effective from August 31 until September 30, or when salvage operations are complete.
 - As of Sept. 2, the river is open to vessels from the Sea-Buoy to mile marker 105 and from mile marker 167.5 to Baton Rouge. Only vessels with drafts less than 48 feet are allowed to pass and are restricted to daylight movements only.

PETROLEUM TERMINALS

Power outages in Baton Rouge and the New Orleans area are impeding the distribution of fuel
from terminals to area gas stations, creating shortages. This is exacerbated by a shortage of
hazmat qualified drivers and road conditions. Long lines have been reported at terminals;
however, some lines may be due to use of drivers not certified for specific terminals and require
safety certification prior to entry.



RETAIL STATION OUTAGES

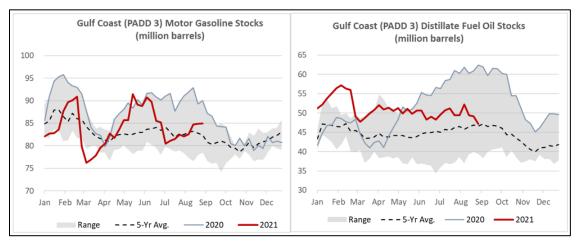
Power outages in Louisiana have left numerous gas stations without power across the affected
portions of Louisiana. Due to limited availability from power outages, gas stations with power or
operating on a generator have reported long lines and high demand. The high demand at
available stations has lead to temporary fuel outages while stations wait for resupply. Power
outages may also be limiting availability of terminals in the affected area.

PETROLEUM REFINERIES

- As of September 3, six refineries in Louisiana remain shut down, accounting for about 1.6 million b/d of refinery capacity, or approximately 9% of total U.S. operable refining capacity. Three refineries in the Baton Rouge area initiated the restart process, although they are likely not producing normal volumes still. For most refineries, full restoration of normal refinery output will take two to three weeks after the passage of Ida.
- The U.S. Secretary of Energy authorized the Strategic Petroleum Reserve (SPR) to conduct an
 exchange with ExxonMobil Baton Rouge to alleviate any logistical issues of moving crude oil
 within areas affected by Hurricane Ida to ensure the region has access to fuel as quickly as
 possible as they continue their recovery. The exchange involves a release of 1,500,000 barrels
 of crude oil to ExxonMobil.

FUEL STOCKS

• For the week ending on August 27, 2021, the Gulf Coast (PADD 3) had 85.0 million barrels of total gasoline stocks, according to the Energy Information Administration (EIA). This is 3% higher than the five-year average for this time of year. For the week ending on August 27, the Gulf Coast had 47.1 million barrels of total distillate stocks, according to EIA. This is 1% higher than the five-year average for this time of year.



EMERGENCY DECLARATIONS & WAIVERS

EMERGENCY DECLARATIONS

To provide vital supplies and transportation services to a disaster area in the United States, emergency declarations may be issued by the President, Governors of States, or Federal Motor Carrier Safety Administration (FMCSA). These declarations trigger the temporary suspension of certain Federal safety regulations, including Hours of Service, for motor carriers and drivers engaged in specific aspects of the emergency relief effort. See 49 CFR 390.23 for the actual emergency regulation.

Emergency Declarations and HOS Waivers as of 8:00 AM EDT 09/03/2021							
State / Tourite	Deteile	Effective Dates		Status			
State/Territory	Details		End				
AL, AR, LA, MS, TN, TX	Regional Federal Motor Carrier Safety Administration <u>Emergency Declaration</u> (HOS Waiver)	8/29	9/28	Active			
Alabama	State of Emergency & HOS Waiver	8/28	Until rescinded	Active			
Mississippi –	State of Emergency	8/28	Until rescinded	Active			
	Presidential Emergency Declaration	8/28	Until rescinded	Active			
Kentucky	HOS Waiver	8/30	9/9	Active			
	State of Emergency	8/26	9/27	Active			
Louisiana	Presidential Emergency Declaration	8/27	Until rescinded	Active			
	Presidential Major Disaster Declaration	8/29	9/25	Active			
Virginia	State of Emergency	8/30	9/28	Active			
Pennsylvania	State of Emergency	8/31	Until rescinded	Active			
West Virginia	State of Emergency	8/31	9/30	Active			
New Jersey	State of Emergency		Until rescinded	Active			
	Presidential Emergency Declaration	9/2	Until rescinded	Active			
New York (14 counties)	State of Emergency	9/1	Until rescinded	Active			
	Presidential Emergency Declaration	9/2	Until rescinded	Active			
Connecticut	Civil Preparedness Emergency	9/2	Until rescinded	Active			

Sources: State government, White House, and Federal Motor Carrier Safety Administration websites.



WAIVERS

- On August 30, the Environmental Protection Agency (EPA) issued a <u>waiver</u> of Reid Vapor Pressure (RVP) requirements in Louisiana and Mississippi to help reduce fuel supply shortages as part of EPA's response to Hurricane Ida. Under this temporary waiver, regulated parties may produce, sell and distribute higher-volatility winter gasoline in Louisiana and Mississippi with an RVP of no more than 11.5 psi after the addition of ethanol. The waiver ends September 16.
- On August 28, the Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a <u>Stay of Enforcement</u> to all liquefied natural gas facilities and interstate gas and hazardous liquid pipeline operators affected by Hurricane Ida. The Stay of Enforcement alerts operators that PHMSA will temporarily relax enforcement of certain regulations related to operator qualifications and employment drug testing requirements to remove obstacles that would prevent safe and rapid recovery efforts. The Stay of Enforcement remains in effect for 45 days or until rescinded or extended by PHMSA.
- On August 27, the Louisiana State Department of Transportation and Development issued a <u>Secretary's</u>
 <u>Emergency Order</u> suspending all tolls under the operation and control of the state of Louisiana, specifically
 LA 1 Toll Bridge from Leeville to Grand Isle and Port Fourchon. The order remains in effect until rescinded.
- On August 27, the Louisiana State Department of Transportation and Development issued a <u>Weight</u>
 <u>Restriction Waiver</u> suspending certain vehicle size and weight restrictions in order to assist in hurricane
 response and recovery efforts. The waiver remains in effect through September 24 unless terminated
 sooner.
- On September 1, the Internal Revenue Service (IRS) <u>announced</u> that, in response to shortages of undyed diesel fuel caused by Hurricane Ida, it will not impose a penalty when dyed diesel fuel is sold for use or used on the highway for a number of parishes in the state of Louisiana. This penalty relief is available to any person that sells or uses dyed fuel for highway use and goes into effect as of August 29 and will remain in effect through September 15. The affected parishes are:
 - Ascension, Assumption, East Baton Rouge, East Feliciana, Iberia, Iberville, Jefferson, Lafourche, Livingston, Orleans, Plaquemines, Pointe Coupee, St. Bernard, St. Charles, St. Helena, St. James, St. John the Baptist, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, Washington, West Baton Rouge, and West Feliciana.
- On September 1, the Mississippi Department of Agriculture & Commerce issued a waiver for Reid Vapor Pressure (RVP) specifications related to gasoline and gasoline blends. From September 1 September 15, the waiver allows the sale of fuel with a Reid Vapor Pressure of no more than 11.5 psi after the addition of ethanol. The exemption to normal RVP requirements will expire on September 16. The waiver, in addition to the one issued by the EPA on August 30, is intended to allow for a greater supply of gasoline for sale in the state.

