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Hurricane Ida | Update #8

REPORT TIME & DATE: 10:00 AM EDT | Sunday, September 05, 2021

REPORT DISTRIBUTION: Public

EXECUTIVE SUMMARY

Hurricane Ida made landfall near Port Fourchon, Louisiana around 1:00 PM EDT, August 29, as a category 4 hurricane. Ida caused substantial damage to the electric grid in Louisiana and disrupted the oil and natural gas supply chain.

Electricity Sector Summary

- As of 7:00 AM EDT on September 5, there are approximately 664,000 outages due to Ida, including 660,000 customer outages remaining in Louisiana.
- 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. Full restoration in New Orleans
 East and Orleans Parish is expected September 8 and full restoration to Baton Rouge is expected
 September 6, although many customers will be restored before this date. Restoration timelines
 for the hardest hit areas in the southeast corner of the state extend into the latter half of
 September.

Oil & Natural Gas Sector Summary

- Five refineries in Louisiana remain shut, accounting for about 1.0 million b/d of refinery capacity, or approximately 6% of the total U.S. operable refining capacity. All three refineries in the Baton Rouge area and one near New Orleans have initiated the restart process (1.3 million b/d of refinery capacity), although the refiners will not produce at full rates for several days. Damage assessments are underway at refineries in the New Orleans area. Operations cannot restart until feedstock supply, power, and other essential third-party utilities are restored. Stocks in the area are being drawn down while refineries and offshore production are offline.
- All segments of the Lower Mississippi River have reopened with some restrictions on tow sizes and transit hours and speeds. Operations remain suspended at the Louisiana Offshore Oil Port (LOOP) marine terminal, and repairs are underway.
- As of 12:30 PM EDT, September 4, 93% of the oil production and 86% 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.
- Widespread power outages, damage, flooding, and access constraints are leading to retail gas station closures in impacted areas. Available stations are experiencing long-lines and high demand. Resupply may be impeded by power outages at terminals. Heavy traffic in some areas is also delaying resupply efforts.



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 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 have deployed 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 5, there are approximately 664,000 outages due to Ida, including 660,000 customer outages remaining in Louisiana.

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State	Current Outages	% of State Without Power	Storm Peak Outages	% Restored	OU AIVI EDT 03/	Outage ARCANSAS Latin Rock	Map	
LA	659,883	31%	~1,075,158	39%			- 10- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-	
MS	4,352	<1%	~148,850	97%	Dien 3			
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1.25			Customer Ou	utages by St	ate (Millions	5)		
1.00	■LA ■MS ■AL ■PA							
0.75	■NJ ■NY ■CT							
0.50	■ MA							
0.25								
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	Aug 29	Aug 30	Aug 31	Sep 1	Sep 2	Sep 3	Sep 4	Зер



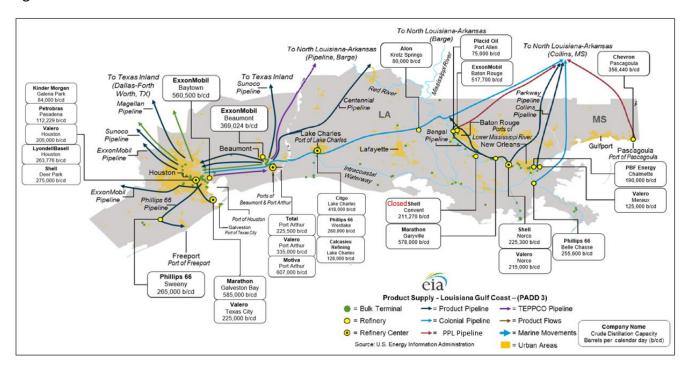
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- Customer outages reflect how many electric meters are without power. Meters represent individual homes, businesses, and industrial sites.
- Industry has activated mutual assistance networks and over 27,000 personnel from at least 41 states and the 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 and businesses, then to small groups of customers and
 individual homes.
- A multi-week restoration effort is expected for the hardest-hit areas in southeastern Louisiana, where portions of the distribution systems need to be rebuilt. While full restoration in the hardest-hit areas may take several weeks, customers will be restored as repairs are complete.
- Some customers may not be able to receive power at this time due to damage to customer
 equipment and/or damage to the customer's structure. <u>Entergy is reminding</u> customers that they
 need to complete repairs and inspections of damaged customer owned electrical equipment
 before power can be restored.
- Entergy has announced expected restoration times for all Louisiana customers affected by Hurricane Ida, including for the hardest-hit parishes in Southeast Louisiana.
- The longest estimated restoration (ETRs) times are in the following parishes: Assumption (September 22), Lafourche (September 29), Lower Jefferson (September 29), Plaquemines (September 29), Terrebonne (September 29). The September 29 ETRs represent "no later than" dates, and Entergy will attempt to expedite restoration.
- For Entergy customers in New Orleans East and Orleans Parish have an estimated restoration time of September 8 and Baton Rouge has an estimated restoration time of September 8.
- Estimated times to restoration are for near-complete restoration of customers that can receive power, in the area. Many customers will be restored prior to the estimates.



OIL AND NATURAL GAS SECTOR

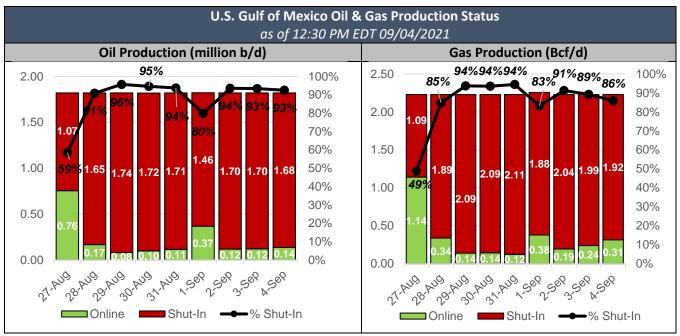
Just over half of total U.S. refining capacity is in the Gulf Coast (PADD 3) region. Gulf Coast refinery production is critical for supplying fuels to markets in the high-demand East Coast (PADD 1) region. Products move out of the Gulf Coast region on the Colonial and PPL pipeline systems to Southeast 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 4, 1.684 million barrels per day (b/d) (92.51%) of the oil production and 1.92 billion cubic feet per day (Bcf/d) (85.89%) 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 119 out of 560 manned platforms have been evacuated; 6 of the 11 (54.55%) non-dynamically positioned rigs have been evacuated; and three 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 (USCG) 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 09/05/2021							
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. Po		Open with restrictions. Port Condition Normal.	9/1				
Morgan City, LA	47,000	1,000	Open with restrictions.	8/31			
Lake Charles, LA	Lake Charles, LA 144,000 1,000 Open. Port Condition Normal.		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: USCG Homeport. Receipt data from EIA Company Level Imports, U. S. Army Corps of Engineers Waterborne Commerce Statistics Center

- 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).
- The **Lower Mississippi River** has reopened to vessel traffic on Sept. 3 with some restrictions.
 - On Sept. 3, the following restrictions are in place for vessels traveling between mile markers 108 and 167.5 as a result of ongoing barge recovery operations:
 - Tow sizes are limited to 36 barges southbound and 42 barges northbound, with six wide being the maximum.
 - Vessels are advised to sail as close to the centerline as possible and maintain the slowest safe speed in the vicinity of ongoing vessel salvage operations.
 - Deep draft vessels are restricted to daylight transit only.
 - A field of partially sunken barges has been identified along the right bank of the Lower Mississippi River between mile markers 56-58.
 - USCG Captain of Port of New Orleans rescinded the temporary safety zone on the Lower Mississippi River between mile markers 105 and 108 created to avoid the downed electrical transmission lines as the lines have been safely removed on September 3. There are no vessel restrictions in this zone.
 - As of September 3, the New Orleans Board of Trade (NOBT) stated that more than 20 vessels
 will be moving northbound on Mississippi River between sea-buoy and New Orleans after
 waterway opens. NOBT also reports that anchorages between Burnside and Baton Rouge
 expected to fill quickly on Friday after power lines have been cleared.
 - USCG has advised all incoming vessels that multiple obstructions are blocking the Gulf Intracoastal Waterway between mile markers 37 54.



PETROLEUM REFINERIES

- As of September 5, five refineries in Louisiana remain shut down, accounting for about 1.0 million b/d of refinery capacity, or approximately 6% of total U.S. operable refining capacity. All three refineries in the Baton Rouge area and one near New Orleans have initiated the restart process, although they are likely not producing normal volumes yet. For most refineries, full restoration of normal refinery output will take two to three weeks after the passage of Ida, although restart timelines in New Orleans may take longer due to flooding and ongoing power supply issues.
- As of September 3, Entergy reports power has been restored to seven of the impacted refineries.
- On September 2, the Secretary of Energy authorized a release of 1.5 million barrels of crude oil from the U.S. Strategic Petroleum Reserve (SPR) to supply Exxon Mobil's Baton Rouge Refinery, and on September 3, another 0.3 million barrels were authorized for Placid Refining's Port Allen Refinery.

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. Entergy is working to prioritize restoration of some terminals and options for generator support are being explored.
- As of September 5, there is a public announcement to communities south of Alexandria, LA to stay off the roads from 8PM to 6AM to clear way for fuel trucks. Traffic is heavy and fuel trucks are stuck in traffic on their way to/from the terminals.

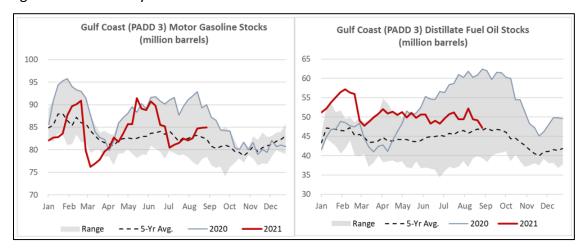
RETAIL STATION OUTAGES

Widespread power outages, damage, flooding, and access constraints are leading to retail gas
station closures in impacted areas. Due to limited availability from power outages, gas stations
with power or operating on generator have reported long lines and high demand. The high
demand at available stations as lead to temporary fuel outages while stations wait for resupply.
Power outages are also limiting availability of some terminals in the affected area. 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. The state is suppling
generators to some retail stations.



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 09/04/2021							
State/Territory	Details		Effective Dates				
State/Territory	Details	Start	End	Status			
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			
National and	State of Emergency		Until rescinded	Active			
Mississippi	Presidential Emergency Declaration		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			
New Jersey	Presidential Emergency Declaration		Until rescinded	Active			
New York (14	State of Emergency		Until rescinded	Active			
counties)	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

- **EPA Gasoline RVP Requirements:** On September 2, the Environmental Protection Agency (EPA) issued a second <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 entities may produce, sell, and distribute higher-volatility winter gasoline in Louisiana and Mississippi with an RVP of no more than 11.5 pounds per square inch (psi) before the addition of ethanol. The waiver is effective immediately and will continue through September 15.
 - EPA's September 2 waiver supersedes its first <u>waiver</u> issued August 30 which allowed for the sale
 of winter gasoline with an RVP of no more than 11.5 psi <u>after</u> the addition of ethanol.
- Mississippi State Gasoline RVP Requirements: On September 1, the Mississippi Department of Agriculture & Commerce issued a waiver for 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.
- IRS Dyed Diesel: 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.
- PHMSA Operator Qualifications Requirements: 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.
- Louisiana State Bridge Tolls: On August 27, the Louisiana State Department of Transportation and
 Development issued a <u>Secretary's 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.
- Louisiana State Weight Restrictions: On August 27, the Louisiana State Department of Transportation and Development issued a <u>Weight 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.

