



Tropical Depression Laura | Update #11

REPORT TIME & DATE: 9:00 AM EDT | Wednesday, September 02, 2020

REPORT DISTRIBUTION: Public

EXECUTIVE SUMMARY

Laura made landfall around 2:00 AM EDT on August 27, near Cameron, Louisiana as a Category 4 hurricane. The system began to weaken as it moved inland but caused significant impacts across portions of Louisiana and eastern Texas. The DOE Energy Response Center remains activated to manage Emergency Support Function (ESF) #12 activities and to coordinate with state and industry partners.

Electricity Sector Summary

- As of 7:30 AM EDT, there were approximately 254,000 customer outages reported across Louisiana and Texas, with approximately 226,000 customer outages in Louisiana and 28,000 in Texas.
- Restoration efforts are underway across the affected region and damage assessments are nearly complete. Some of the hardest hit areas continue to have limited access due to storm debris.
- Full restorations for the most significantly damaged areas in western Louisiana could be extended, with full restoration for some portions of southwest Louisiana taking up to several weeks.
- Mutual assistance networks have been activated, with more than 29,000 personnel from over 29 states, the District of Columbia, and Canada supporting restoration efforts.
- Hurricane Laura also caused significant damage to transmission infrastructure in portions of Louisiana and Texas. Restoration of transmission systems is a priority to help enable other phases of restoration.

Oil & Natural Gas Sector Summary

- The ports of Beaumont, Port Arthur, and Lake Charles have reopened with restrictions.
- All refineries in the Beaumont/Port Arthur and Lake Charles regions initially shut-in operations in preparation for the storm, accounting for approximately 13% of the total U.S. operable refining capacity. Refineries in the Beaumont/Port Arthur area have begun restarting operations, which could take more than a week. Refineries in Lake Charles will likely remain shut down for several weeks.
- As of 12:30 PM EDT September 1, 28% of the oil production and 25% of the natural gas production in the federally administered areas of the U.S. Gulf of Mexico remain shut-in, according to estimates by the Bureau of Safety and Environmental Enforcement (BSEE).
- The refinery and offshore platform shut-ins are not anticipated to cause immediate supply issues. For the week ending on August 21, overall U.S. stocks of gasoline and distillate were 4.7% and 24.7% above the seasonal 5-year average. Jet fuel is slightly below the average, but within the 5-year range. Across the Gulf Coast, stocks of gasoline and distillate were 14% and 43% above the 5-year average respectively. Gulf Coast stocks of crude oil were 23.4% above the 5-year average in the Gulf Coast (not including the SPR).
- Due to power outages across the impacted areas, there may be localized retail fuel station disruptions. Suppliers are working to keep retail stations supplied.

ELECTRICITY SECTOR

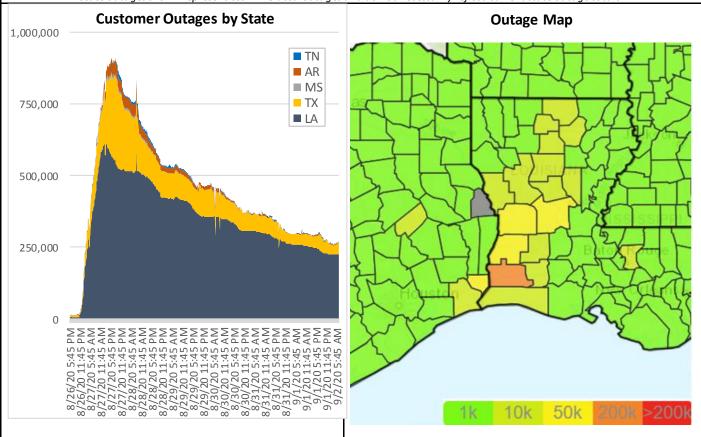
POWER OUTAGES

• As of 7:30 AM EDT, there are a total of 254,042 outages across the states of Louisiana and Texas as a result of Laura. 45% of Louisiana's outages are concentrated in Calcasieu Parish.

Laura Customer Power Outages αs of 7:30 AM EDT 09/02/2020							
State	Current Storm- Related Outages	% of State Without Power	Peak Outages	% Restored from Peak			
Louisiana	225,685	10%	613,350	63%			
Texas	28,357	<1%	299,096	90%			
Total	254,042	-	-	-			

*The following states had fewer than 2,000 storm-related outages and have been removed from the table: Tennessee, Mississippi, Arkansas.

State outages shown represent storm-related outages and do not necessarily reflect current state outage totals.



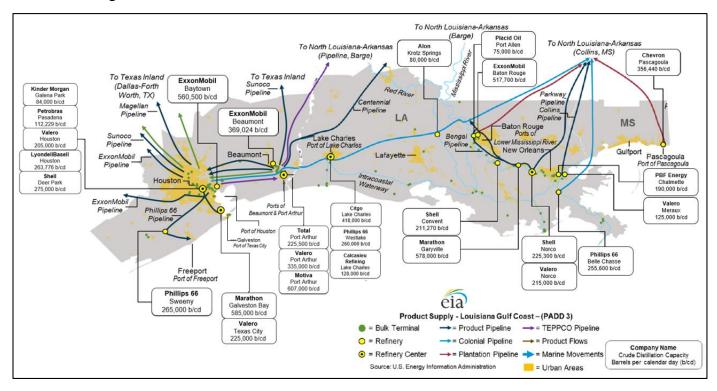
 Restoration of damaged transmission segments is a key priority, especially transmission segments located around southern portions of the Texas-Louisiana border. Restoration of transmission infrastructure will further enable subsequent phases of restoration.

- For the most significantly damaged areas in western Louisiana and along the Louisiana-Texas border, full restoration is expected to take over a week, with the potential for a multi-week restoration efforts for the hardest-hit areas were the distribution systems needs to be rebuilt and/or due to significant transmission impacts. While full restoration in the hardest-hit areas may take several weeks, customer will be restored as repairs are complete.
- A significant number of 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.
- Fluctuation in the outage numbers is expected and normal during large -scale restoration efforts.
- Mutual assistance networks have been activated, with more than 29,000 personnel from 29 states, the District of Columbia, and Canada supporting restoration efforts.
- Extensive debris and continued flooding has hindered access to some locations.
- Utilities 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.
- As utilities in less-impacted areas complete restorations, they are coordinating release of crews with neighboring utilities to support efforts in the hardest-hit areas.



OIL AND NATURAL GAS SECTOR

Just over half of total U.S. refining capacity is located 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 Plantation 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.



PORTS

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

Status of Gulf Coast Ports as of 8:00 AM EDT 09/02/2020					
	Inbound		Date Stamp		
Port	Petroleum	Status			
	* (b/d)				
Louisiana					
Lake Charles, LA	394,000	Open with restrictions.	9/1		
Texas					
Port Arthur, TX	358,000	Open with restrictions.	8/29		
Beaumont, TX	365,000	Open with restrictions. 8/29			

*Crude oil and product foreign imports and domestic movements in 2018.

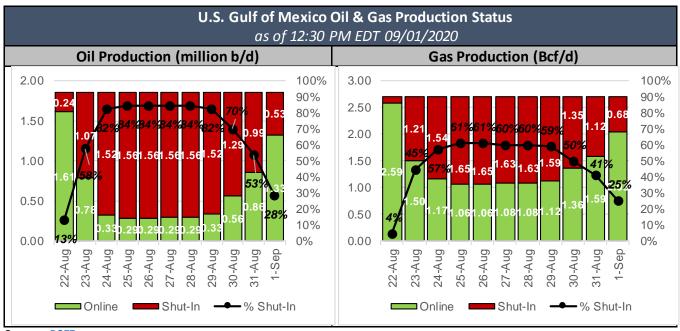
Source: Receipt data from EIA Company Level Imports, U. S. Army Corps of Engineers Waterborne Commerce Statistics Center

- As of Sep. 1, the USCG set Port Condition Recovery for the Calcasieu Waterway. The Sabine-Neches Waterway remains at Port Condition Recovery. The rig located in the offshore Calcasieu Channel was removed. The dry dock sunk in the Sabine-Neches Canal 2-miles south of Beans Fleet has been removed from the channel. Traffic on the Gulf Intracoastal Waterway (GIWW) remains restricted by downed power lines at Mile Marker 260 and two swing bridges are currently closed.
- Louisiana Offshore Oil Port (LOOP) has resumed after a suspension of operations at its marine terminal on August 23. LOOP is the U.S. port capable of receiving very large crude carriers (VLCCs). LOOP's Clovelly Hub deliveries remained normal with no interruptions.



OFFSHORE PRODUCTION

- As of 12:30 PM EDT September 1, 0.53 million barrels per day (b/d) (28.38%) of the oil production and 0.68 billion cubic feet per day (Bcf/d) (24.96%) 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 71 out of 643 platforms remain unmanned; 1 out of 12 non-dynamically positioned rigs are still evacuated; and all 16 dynamically positioned rigs have been returned to their pre-storm locations.

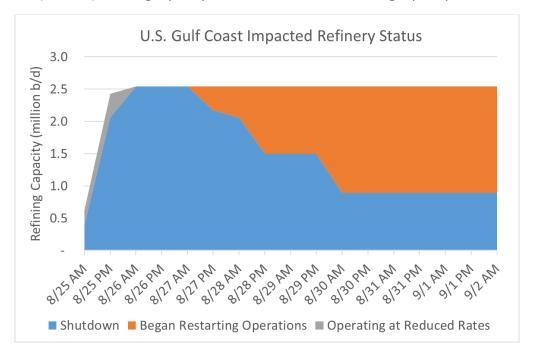


Source: **BSEE**



PETROLEUM REFINERIES

- As of 8:00 AM EDT September 2, four refineries in the Gulf Coast region were shut down, according to public reports. These refineries have a combined refining capacity of 0.9 million b/d, equal to 9% of total Gulf Coast (PADD 3) refining capacity and 5% of total U.S. refining capacity.
- Another five refineries are in the process of restarting after being shut down. Restart may take several days. These refineries have a combined capacity of 1.65 million b/d, equal to 17% of total Gulf Coast (PADD 3) refining capacity and 9% of total U.S. refining capacity.



The above chart summarizes impacts to Gulf Coast refining capacity as a result of Hurricane Laura over time, as reported in D OE's Situation Reports. Impacted refining capacity is aggregated into three categories: 1) shutdown refineries (blue), 2) refineries that were shut down and have begun restarting (orange), and refineries that are operating at reduced rates (gray). Refinery statuses are updated based on various news outlets and company websites.



GAS STATIONS

- Due to power outages across the impacted areas, there may be localized retail fuel station disruptions. Suppliers are working to keep retail stations supplied.
- Due to limited number of retail stations with power and fuel, lines have been reported at available stations in the Lake Charles area.
- The state of Louisiana has some generators reserved for gas stations that they will place at strategic stations once debris is cleared. Additionally, ExxonMobil has reported providing generators to distributors in Louisiana without power.
- Approximately 81% of the service stations in the impacted areas have not had customers report their operational status to Gas Buddy since the storm. This may be for a number of reasons, including minimal customers who are on the road due to damage/debris/flooding, or stations which may be inaccessible. Of the 19% of stations that have had their status reported, about 70% have fuel and power, and 30% are either without fuel or power, or without both. The trend will continue to be monitored.

STRATEGIC PETROLEUM RESERVE (SPR) SITES

- Big Hill and West Hackberry SPRs are staffed and secure, after being closed in advance of Laura.
- As of September 1, assessment, cleanup, and recovery efforts are underway at West Hackberry.

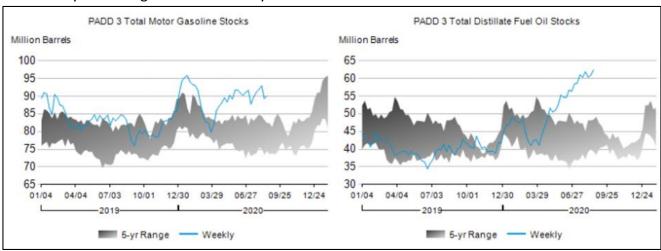
Status of SPR Sites as 08/31/2020						
Site	Location Hurricane Alert Level		Drawdown Capability			
New Orleans Office	New Orleans, LA	Normal Operations	N/A			
Bayou Choctaw	Plaquemine, LA	Normal Operations	Drawdown Ready			
West Hackberry	Hackberry, LA	Re-Entry &	Pending Assessments			
		Reconstitution	& Restart			
Big Hill	Winnie, TX	Normal Operations	Drawdown Ready			
Bryan Mound	Freeport, TX	Normal Operations	Drawdown Ready			

Source: DOE Office of Petroleum Reserves



FUEL STOCKS

For the week ending on August 21, 2020, the Gulf Coast (PADD 3) had 90.0 million barrels of total gasoline stocks, according to the Energy Information Administration (EIA). This is 14% higher than the 5-year average for this time of year. For the week ending on August 21, the Gulf Coast had 62.4 million barrels of total distillate stocks, according to EIA. This is 43% higher than the 5-year average for this time of year.



• Overall U.S. stocks for transportation fuels (gasoline, jet fuel, and diesel) stood at 458.3 million barrels for the week ending August 21, 2020, approximately 10.9% above the 5-year average for the time of year. Gasoline and distillate stocks are 4.7% and 24.7%, above their respective seasonal 5-year averages, while jet fuel stocks are 3% below its respective 5-year average, but within the 5-year range.



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 08/31/2020					
State/Territory	Details	Eff	Effective Dates		
	Details	Start	End	Status	
Arkansas	State of Emergency	8/26	Until rescinded	Active	
	Presidential Emergency Declaration	8/27	Until rescinded	Active	
AL, AR, LA, MS, MO, OK, TN, TX	Hours of Service Waiver	8/27	9/23	Active	
Kentucky	State Emergency Declaration	8/27	9/10	Active	
Puerto Rico	Presidential Emergency Declaration	8/21	Until rescinded	Active	
	State of Emergency	8/21	Until rescinded	Active	
Mississippi	State of Emergency	8/22	Until rescinded	Active	
	Presidential Emergency Declaration	8/22	Until rescinded	Active	
Louisiana	State of Emergency	8/21	9/20	Active	
	Presidential Emergency Declaration	8/23	Until rescinded	Active	
	<u>Presidential Disaster Declaration</u>	8/28	Until rescinded	Active	
Texas	State of Disaster Declaration	8/23	Until rescinded	Active	
	Presidential Emergency Declaration	8/23	Until rescinded	Active	

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

WAIVERS

- On August 26, the Texas Department of Environmental Quality requested and received approval for the <u>suspension</u> of various air quality and other environmental rules during the storm response. The rules cover air emissions from power plants, refineries, and vehicles, in addition to other sources of pollution.
- On August 26, the Pipeline and Hazardous Materials Safety Administration (PHMSA) issued an emergency waiver <u>order</u> declaring an emergency in Louisiana, Mississippi, and Texas and suspending certain requirements for the transportation of hazardous materials. The waiver is intended to support the U.S. Coast Guard and EPA in their response to Laura.
- On August 27, the Secretary of Energy used his authorities under section 202(c) of the Federal Power Act to issue an emergency <u>order</u> authorizing and directing CenterPoint Energy Houston Electric (CEHE) to operate an existing, permanent tie-line to assist in electricity restoration of power to Entergy Texas, Inc. and electric cooperatives and municipal customers within the State of Texas as a result of the outages caused by Hurricane Laura.

