



Tropical Depression Laura | Update #6

REPORT TIME & DATE: 5:00 PM EDT | Friday, August 28, 2020

REPORT DISTRIBUTION: Public

EXECUTIVE SUMMARY

As of 2:00 PM EDT, Tropical Depression Laura was approximately 90 miles north of Memphis, Tennessee, moving east-northeast at 17 MPH, with maximum sustained winds of 25 MPH, after hitting the Texas-Louisiana coast as a 150 MPH Category 4 hurricane early on August 27. On the forecast track, the center of Laura is forecast to move northeastward over Kentucky tonight and West Virginia into the Mid-Atlantic on Saturday. The DOE Energy Response Center is activated to coordinate with interagency, state, and industry partners.

Electricity Sector Summary

- As of 2:30 PM EDT, there were approximately 654,000 customer outages reported across Louisiana, Texas, Arkansas, Mississippi, and Tennessee including approximately 495,000 customer outages in Louisiana and 115,000 in Texas.
- Now that Laura has passed, utilities are beginning damage assessments and restoration efforts as
 conditions permit. Some of the hardest hit areas are still not accessible due to flooding and/or debris.
 Mutual assistance networks have been activated, with more than 20,000 personnel from over 28 states,
 the District of Columbia, and Canada supporting restoration efforts.
- Damage to transmission systems has been reported in Louisiana and Texas, especially along coastal areas. Restoration of transmission systems is key priority for utilities to enable other phases of restoration.

Oil & Natural Gas Sector Summary

- The ports of Lake Charles, Beaumont, and Port Arthur remain closed; assessments are ongoing.
- All refineries in the Beaumont/Port Arthur and Lake Charles regions shut-in operations in advance of the storm. This shut in approximately 2.4 million b/d of U.S. refinery capacity, or approximately 13% of the total U.S. operable refining capacity.
- As of 12:30 PM EDT, August 27, 84% of the oil production and 60% 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 any 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.
- DOE is working with state, industry, and interagency partners to quickly identify any flooding or damage that could impede access to stocks or pipeline operations.
- Due power outages across the impacted area, there may be limited temporary localized retail fuel station disruptions. Suppliers are working to keep retail stations supplied.

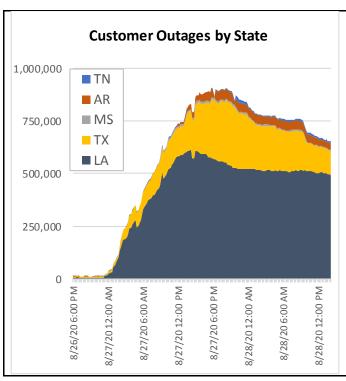
ELECTRICITY SECTOR

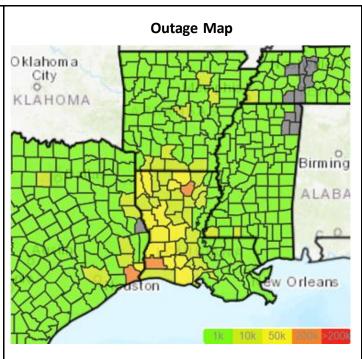
POWER OUTAGES

- As of 2:30 PM EDT, there are a total of 653,946 outages across the states of Louisiana, Texas, Arkansas, Mississippi, and Tennessee as a result of Laura.
- DOE is working with industry partners to determine locations were outages may be extended.
- Utilities are beginning restoration activities as conditions permit. Fluctuation in the outage numbers is expected and normal during large-scale restoration efforts.
- Utilities pre-positioned crews, materials, and equipment in advance of the storm.
- Mutual assistance networks have been activated, with more than 20,000 personnel from over 28 states, the District of Columbia, and Canada supporting restoration efforts.
- 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.
- Responder lodging is a limiting factor for restoration efforts in some rural communities. DOE is working with FEMA and States to facilitate food and lodging for restoration crews.
- Restoration of transmission systems is a priority to enable other phases of restoration.

Tropical Depression Laura Customer Power Outages αs of 2:30 PM EDT 08/28/2020								
State	Current Outages	% of State Without Power	Peak Outages	% Restored from Peak				
Louisiana	494,685	23%	613,350	19%				
Texas	114,653	1%	299,096	62%				
Arkansas	29,084	2%	48,829	40%				
Mississippi	5,305	<1%	12,148	56%				
Tennessee	10,219	<1%	17,848	43%				
Total	653,946	-	-					



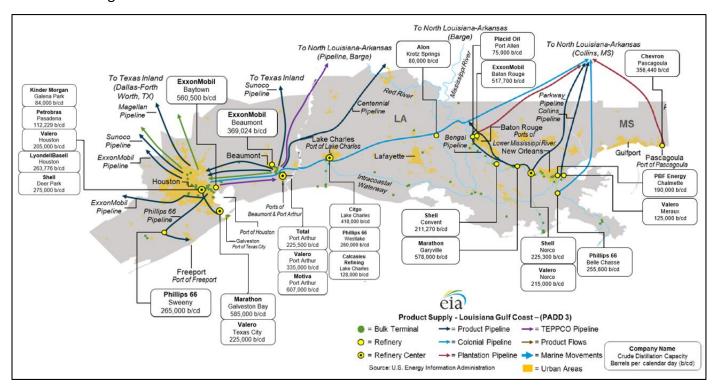






OIL AND NATURAL GAS SECTOR

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

- Louisiana Offshore Oil Port (LOOP) has suspended operations at its marine terminal as of August 23, per standard procedure. LOOP is the U.S. port capable of receiving very large crude carriers (VLCCs). LOOP's Clovelly Hub deliveries remain normal.
- 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.
- USCG will be surveying the channel throughout the day on Aug. 28 and Aug. 29 to assess the Sabine-Neches Waterway, which leads to the ports of Beaumont and Port Arthur.

Status of Gulf Coast Ports as of 3:00 PM EDT 08/27/2020						
Port	Inbound Petroleum * (b/d)	Status	Date Stamp			
Louisiana						
Baton Rouge, LA	83,000	Open.	8/27			
Gramercy, LA	110,000	Open.	8/27			
New Orleans, LA	201,000	Open.	8/28			
Morgan City, LA	208,000	Open.	8/27			
Lake Charles, LA	394,000	Closed. Port Condition Zulu.	8/26			
Texas						
Port Arthur, TX	358,000	Closed. Port Condition Zulu.	8/26			
Beaumont, TX	365,000	Closed. Port Condition Zulu.	8/26			
Freeport, TX	94,000	Open with restrictions. Drafts limited to 26 feet.	8/27			
Galveston, TX	33,000	Open with restrictions. Open to tug/barge traffic only.	8/27			
Houston, TX	894,000	Open.	8/27			
Texas City, TX	113,000	Open with restrictions. Drafts limited to 26 feet.	8/27			
Brownsville, TX	53,000	Open.	8/27			
Corpus Christi, TX	266,000	Open.	8/27			

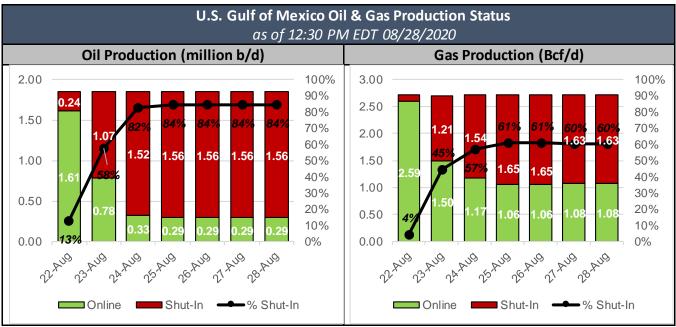
^{*}Crude oil and product foreign imports and domestic movements in 2018.

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



OFFSHORE PRODUCTION

- As of 12:30 PM EDT, August 28, 1.56 million barrels per day (b/d) (84.3%) of the oil production and 1.63 billion cubic feet per day (Bcf/d) (60.1%) 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 257 out of 643 manned platforms are still evacuated; 10 out of 12 non-dynamically positioned rigs are still evacuated; and 2 out of 16 dynamically positioned rigs are moved out of the storm's path as a precaution.

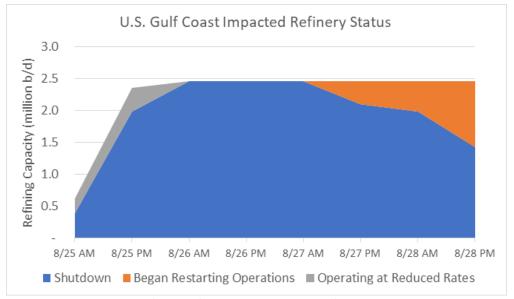


Source: **BSEE**



PETROLEUM REFINERIES

- As of 3:00 PM EDT, August 28, five refineries in the Gulf Coast region were shut down, according
 to public reports. These refineries have a combined refining capacity of 1.5 million b/d, equal to
 15% of total Gulf Coast (PADD 3) refining capacity and 8% of total U.S. refining capacity.
- Another four refineries are in the process of restarting after being shut down. Restart may take several days. These refineries have a combined capacity 1.04 million b/d, equal to 10.4% of total Gulf Coast (PADD 3) refining capacity and 6% of total U.S. refining capacity.

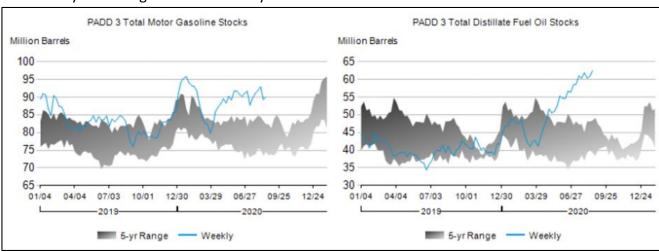


The above chart summarizes impacts to Gulf Coast refining capacity as a result of Hurricane Laura over time, as reported in D OE's Situation Reports. Impacted refining capacity is aggregated into three categories: 1) shutdown refineries (blue), 2) refineries that were shut down and have begun restarting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



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.

GAS STATIONS

- Due power outages across the impacted areas, there may be limited temporary localized retail fuel station disruptions. Suppliers are working to keep retail stations supplied.
- The state of Louisiana has some generators reserved for gas stations that they will place at strategic stations once debris is cleared.
- There are a few retail gas stations closed in Texas due to flooding near the Louisiana border. Otherwise, there are very few retail station closures in the state.
- About 90% of the service stations in the impacted areas have not had customers report their
 operational status to Gas Buddy. 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 10% of stations that have had their status reported, about half have fuel and
 power, and the other half are either without fuel or power, or without both. The trend will
 continue to be monitored.



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 08/28/2020						
State /Torritory	Details	Effective Dates		Status		
State/Territory	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		
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	8/22	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.

