Hurricane Ida | Update #4

REPORT TIME & DATE: 10:00 AM EDT | Wednesday, September 01, 2021
REPORT DISTRIBUTION: Public

EXECUTIVE SUMMARY
As of 5:00 AM EDT, Tropical Depression Ida was 135 miles west of Roanoke, Virginia, moving northeast at 24 MPH, with maximum sustained winds of 30 MPH. The storm made landfall near Port Fourchon, Louisiana around 1:00 PM EDT as a Category 4 hurricane. Flood and flash flood watches are in effect for portions of the central Appalachians, Mid-Atlantic, and into southern New York and southern New England.

Electricity Sector Summary
- As of 7:00 AM EDT on September 1, there are approximately 1 million customer outages remaining in Louisiana due to Ida and less than 30,000 customer outages remaining in Mississippi.
- As of the morning of September 1, Entergy has restored power for some customers in Eastern New Orleans with generation supplied by the New Orleans Power Station. Storm damage to the transmission system serving New Orleans, Louisiana has caused outages to most of the city.
- Utilities are conducting damage assessments and restoration efforts are underway, as conditions permit. Damage assessments of most locations should be completed by September 2. Estimated restoration times will be established once damage assessments are complete. Utilities in the impacted area pre-staged crews, equipment, and materials, and mutual assistance networks are supporting restoration efforts.

Oil & Natural Gas Sector Summary
- Several pipelines shut down operations as a standard precautionary measure in advance of Ida. Pipeline operators are beginning to restore operations; however, some operations may be limited due to power outages.
- Seven refineries in Louisiana remain shut, accounting for about 1.7 million b/d of refinery capacity, or approximately 9% of the total U.S. operable refining capacity. Two refineries in the Baton Rouge area initiated the restart process as of August 31 although they will not be producing at full rates for several days. Damage assessments are underway at some refineries, but operations cannot restart until feedstock supply, power, and other essential third-party utilities are restored.
- As of 12:30 PM EDT, August 31, 94% of the oil production and 94% 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.
- The refinery and offshore platform shut-ins are not anticipated to cause immediate supply issues. For the week ending on August 20, Gulf Coast stocks of gasoline and distillate were 3% and 5% above the seasonal five-year average. Gulf Coast stocks of crude oil were essentially in line with the five-year average in the Gulf Coast (not including SPR).
- The ports of New Orleans, Baton Rouge, and Gramercy in Louisiana remain closed, while the Port of Pascagoula, Mississippi has reopened. Operations remain suspended at the Louisiana Offshore Oil Port (LOOP) marine terminal.
- Widespread power outages are likely leading to retail gas station closures in impacted areas.
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
- 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 1, there are approximately 1 million customer outages remaining in Louisiana due to Ida, with less than 30,000 outages remaining in Mississippi.

<table>
<thead>
<tr>
<th>State</th>
<th>Current Outages</th>
<th>% of State Without Power</th>
<th>Storm Peak Outages</th>
<th>% Restored</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana*</td>
<td>1,004,608</td>
<td>48%</td>
<td>~1,075,158</td>
<td>7%</td>
</tr>
<tr>
<td>Mississippi*</td>
<td>28,882</td>
<td>7%</td>
<td>~148,850</td>
<td>81%</td>
</tr>
<tr>
<td>Total</td>
<td>1,033,490</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 were 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 are expected to take three days. Restoration efforts will continue to ramp up over the next few days. Estimated times to restoration will begin to be established once damage assessments are complete.

Restoration efforts and damage assessments will be limited until weather conditions permit. Crews are unable to operate in heavily flooded areas and wind speeds greater than 30 MPH.

Damage to the transmission system serving New Orleans, Louisiana caused outages to most of the city. All eight transmission lines delivering power to New Orleans were damaged. Entergy is working to restore transmission paths to the city.

As of the morning of September 1, Entergy has restored power for some customers in Eastern New Orleans with generation supplied by the New Orleans Power Station. While initial service can be provided to some customers, the full restoration will still take time given the damage across the region.
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 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, August 31, 1.71 million barrels per day (b/d) (93.69%) of the oil production and 2.107 billion cubic feet per day (Bcf/d) (94.47%) 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 278 out of 560 manned platforms have been evacuated; 9 of the 11 (81.8%) 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.

![U.S. Gulf of Mexico Oil & Gas Production Status](image)

Source: [BSEE](https://www.bsee.gov)
PORTS

- 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.

<table>
<thead>
<tr>
<th>Port</th>
<th>Inbound Crude Oil* (b/d)</th>
<th>Inbound Refined Product* (b/d)</th>
<th>Status</th>
<th>Date Stamp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baton Rouge, LA</td>
<td>31,000</td>
<td>29,000</td>
<td>Closed. Port Condition Zulu.</td>
<td>8/28</td>
</tr>
<tr>
<td>Gramercy, LA</td>
<td>66,000</td>
<td>--</td>
<td>Closed. Port Condition Zulu.</td>
<td>8/28</td>
</tr>
<tr>
<td>New Orleans, LA</td>
<td>132,000</td>
<td>53,000</td>
<td>Closed. Port Condition Zulu.</td>
<td>8/30</td>
</tr>
<tr>
<td>Morgan City, LA</td>
<td>47,000</td>
<td>1,000</td>
<td>Open with restrictions.</td>
<td>8/31</td>
</tr>
<tr>
<td>Lake Charles, LA</td>
<td>144,000</td>
<td>1,000</td>
<td>Open. Port Condition Normal.</td>
<td>8/30</td>
</tr>
<tr>
<td>Pascagoula, MS</td>
<td>88,000</td>
<td>--</td>
<td>Open. Port Condition Normal with draft restrictions of 42 ft</td>
<td>8/31</td>
</tr>
<tr>
<td>Mobile, AL</td>
<td>165,000</td>
<td>6,000</td>
<td>Open. Port Condition Normal with draft restriction of 40 ft</td>
<td>8/31</td>
</tr>
</tbody>
</table>

*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 Center

- 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.
- As of August 31, USCG Captain of Port of New Orleans enforced 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.
- The U.S. Army Corps of Engineers is working to confirm the position of numerous sunken barges between Mississippi River mile markers 41 to 58.

RETAIL STATION OUTAGES

- Due to power outages in Louisiana, it is likely that many gas stations are without power. Some stations with generators may be available.
PETROLEUM REFINERIES

- As of September 1, seven refineries in Louisiana remain shut down, accounting for about 1.7 million b/d of refinery capacity, or approximately 9% of total U.S. operable refining capacity. Two refineries in the Baton Rouge area initiated the restart process by August 31.

PETROLEUM PIPELINES

- Several pipelines shut down operations as a standard precautionary measure in advance of Ida. Pipeline operators are beginning to restore operations as post-storm assessments are completed; however, some may be impacted by ongoing power outages.

FUEL STOCKS

- For the week ending on August 20, 2021, the Gulf Coast (PADD 3) had 84.9 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 20, the Gulf Coast had 49.1 million barrels of total distillate stocks, according to EIA. This is 5% higher than the five-year average for this time of year.

- Overall U.S. stocks for transportation fuels (gasoline, jet fuel, and diesel) stood at 408.8 million barrels for the week ending August 20, 2021, approximately 4% below the five-year average for the time of year. Gasoline and distillate stocks are 4% and 8% below their respective seasonal five-year averages, while jet fuel stocks are 8% above its respective five-year average.
• The Southeast U.S. (PADD 1C) receives most of its transportation fuel supply via pipeline or marine transport from refineries in the Gulf Coast region. Gasoline stocks in PADD 1C were 25.6 million barrels (8% lower than the five-year average for this time of year), while distillate stocks were 14.5 million barrels (10% higher than the five-year average for this time of year) for the week of Aug. 20.
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.

<table>
<thead>
<tr>
<th>State/Territory</th>
<th>Details</th>
<th>Effective Dates</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL, AR, LA, MS, TN, TX</td>
<td>Regional Federal Motor Carrier Safety Administration Emergency Declaration (HOS Waiver)</td>
<td>8/29 to 9/28</td>
<td>Active</td>
</tr>
<tr>
<td>Alabama</td>
<td>State of Emergency &amp; HOS Waiver</td>
<td>8/28 to until rescinded</td>
<td>Active</td>
</tr>
<tr>
<td>Mississippi</td>
<td>State of Emergency</td>
<td>8/28 to until rescinded</td>
<td>Active</td>
</tr>
<tr>
<td>Mississippi</td>
<td>Presidential Emergency Declaration</td>
<td>8/28 to until rescinded</td>
<td>Active</td>
</tr>
<tr>
<td>Kentucky</td>
<td>HOS Waiver</td>
<td>8/30 to 9/9</td>
<td>Active</td>
</tr>
<tr>
<td>Louisiana</td>
<td>State of Emergency</td>
<td>8/26 to 9/27</td>
<td>Active</td>
</tr>
<tr>
<td>Louisiana</td>
<td>Presidential Emergency Declaration</td>
<td>8/27 to until rescinded</td>
<td>Active</td>
</tr>
<tr>
<td>Louisiana</td>
<td>Presidential Major Disaster Declaration</td>
<td>8/29 to 9/25</td>
<td>Active</td>
</tr>
<tr>
<td>Virginia</td>
<td>State of Emergency</td>
<td>8/30 to 9/28</td>
<td>Active</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>State of Emergency</td>
<td>8/31 to until rescinded</td>
<td>Active</td>
</tr>
<tr>
<td>West Virginia</td>
<td>State of Emergency</td>
<td>8/31 to 9/30</td>
<td>Active</td>
</tr>
</tbody>
</table>

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

WAIVERS
- On August 30, the Environmental Protection Agency (EPA) issued a waiver 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 Stay of Enforcement 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 Secretary’s Emergency Order 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 Weight Restriction Waiver 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.