Hurricanes Maria & Irma
October 16 Event Summary (Report #65)

REPORT TIME & DATE: 12:00 PM EDT | October 16, 2017
INCIDENT START DATE: Friday, August 25, 2017
PRIMARY LOCATION(S): Puerto Rico & U.S. Virgin Islands
REPORT DISTRIBUTION: Public

EXECUTIVE SUMMARY
Restoration efforts for power outages caused by Hurricanes Maria and Irma continue across Puerto Rico and the U.S. Virgin Islands, which caused significant damage across the region.

DOE continues to support response and restoration efforts for Hurricanes Maria and Irma. ESF #12 responders remain deployed to St. Thomas, St. Croix, and Puerto Rico in support of FEMA Incident Management Assistance Teams. ESF #12 responders are also deployed to the National Response Coordination Center and a team of 25 personnel from the DOE Western Area Power Administration are on St. Thomas to provide mutual aid.

Electricity Sector Summary (as of 10:30 AM EDT Monday)
- Puerto Rico: Approximately 14% of normal peak load has been restored. DOE is coordinating closely with FEMA, Puerto Rico, and the U.S. Army Corps of Engineers to support restoration efforts and facilitate mutual aid.
- USVI: Approximately 84.4% of customers on St. Thomas and 98.4% of customers on St. Croix remain without power. St. John remains without grid power, but service is expected to be restored within two to three week. Restoration efforts continue across the Territory, mainly focusing on critical facilities and backbone feeders for the grid. Please note that the U.S. Virgin Islands Water and Power Authority is now providing customer outage information and information on the number of customers without power may differ estimates in previous reports.

Oil and Natural Gas Sector Summary (as of 10:30 EDT Monday)
- Puerto Rico & USVI:
  - As of October 16, 872 out of 1,110 retail gas stations are operational on Puerto Rico.
  - Fuel stocks are adequate across the region; however, DOE continues to monitor the situation in coordination with the Energy Information Administration.
Hurricane Maria
ELECTRICITY SECTOR

Puerto Rico

<table>
<thead>
<tr>
<th>Impacted Territory</th>
<th>Current Estimated Customer Outages</th>
<th>Percent of Estimated Customers without Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puerto Rico</td>
<td>~1,354,734</td>
<td>~86.3%</td>
</tr>
<tr>
<td>PR Total</td>
<td>~1,354,734</td>
<td>~86.3%</td>
</tr>
</tbody>
</table>

Note: Estimate number of customers without power is based on percent of average peak load restored

- As of 6:00 PM EDT, Sunday October 15 peak load was approximately 382 MW, which represents about 14% of normal peak load restored.
- As of 11:00 AM EDT, Monday, October 16, DOE estimates approximately 1.35 million (86.3%) of customers on the island of Puerto Rico are without power.
  - Note: Outage numbers are an approximation based on the ratio of current load over the normal peak load. Due to technical constraints, PREPA is unable to provide a more accurate number of customers without power at this time.
- PREPA reported that as October 16, approximately 235 of 1,106 (21.2%) transmission lines or line segments of various voltages have been energized.
- PREPA reported that as October 16, approximately 115 of 342 (33.1%) substations of various voltages are energized.
- Jacksonville Electric Authority (JEA) has sent linemen and assets to assist the U.S. Army Corps of Engineers and Puerto Rico in restoration efforts.
- The New York Power Authority has sent crews to provide mutual aid, supporting damage assessments and restoration efforts.
- DOE is coordinating with PREPA, FEMA, the U.S. Army Corps of Engineers, and industry to provide technical subject matter experts and to facilitate mutual aid.
**U.S. Virgin Islands**

<table>
<thead>
<tr>
<th>Impacted Island</th>
<th>Current Customer Outages</th>
<th>Percent of Estimated Customers without Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Thomas</td>
<td>19,177</td>
<td>~84.4%</td>
</tr>
<tr>
<td>St. John</td>
<td>2,887</td>
<td>100.0%</td>
</tr>
<tr>
<td>St. Croix</td>
<td>22,409</td>
<td>~98.4%</td>
</tr>
<tr>
<td><strong>USVI Total</strong></td>
<td><strong>44,473</strong></td>
<td>~91.9%</td>
</tr>
</tbody>
</table>

Note: The U.S. Virgin Islands Water and Power Authority (VIWAPA) has begun to provide customer outage information. Estimates of customer without power in previous reports were based on load, and may differ from the outage information provided in this report.

- As of Sunday, October 15, approximately 44,473 customers (91.9%) on the U.S. Virgin Islands were without power.
  - On St. Thomas, 19,117 customers (84.4%) are reported to be without power
  - On St. Croix, 22,409 customers (98.4%) are reported to be without power
  - St. John remains without grid power, but service is expected to be restored in two to three weeks.
- According to VIWAPA, approximately 260 off-island line workers arrived in the territory over the weekend. Another 150 are expected by Friday, October 27. The off-island crews will be equally divided between the St. Thomas-St. John and St. Croix districts.
- VIWAPA did not complete any restoration activities on Sunday, October 15 as part of a safety plan to ensure crews remain well rested to support the pace of restoration operations.
- Governor Kenneth Mapp announced VIWAPA is aiming for 90% of the USVI to be restored by late December.
- DOE is working closely with industry and FEMA to facilitate mutual assistance for the USVI

**OIL & GAS SECTOR**

**PORTS**

- The U.S. Coast Guard has reopened all ports that receive marine delivery of petroleum products in Sector San Juan (Puerto Rico and the U.S. Virgin Islands). Draft restrictions and daylight-only restrictions remain in place at several ports.
Emergency Declarations & Waivers

*This section only includes waivers that apply to Puerto Rico or the U.S. Virgin Islands. Waivers issued for the mainland U.S. in response to Hurricanes Harvey, Irma, and Nate have been removed.*

**EMERGENCY DECLARATIONS**

- The table below summarizes emergency declarations and motor carrier hours of service (HOS) waivers applying to Puerto Rico and USVI.

<table>
<thead>
<tr>
<th>State</th>
<th>Details</th>
<th>Effective Dates</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional (Multi-State)</td>
<td>Regional Emergency Declarations and FMCSR waivers issued by FMCSA. On October 4, the FMCSA extended the Regional Emergency Declaration for Puerto Rico, and the U.S. Virgin Islands.</td>
<td>Extended: 10/4, Extension to 11/6/17</td>
<td>Active</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>State of Emergency</td>
<td>Extended: 09/18/17</td>
<td>Active</td>
</tr>
<tr>
<td>U.S. Virgin Islands</td>
<td>State of Emergency</td>
<td>Extended: 09/18/17</td>
<td>Active</td>
</tr>
</tbody>
</table>

*Sources: U.S. Department of Transportation; Governor Office Websites*

**FUEL WAIVERS**

- The table below lists fuel-related waivers issued by the U.S. Environmental Protection Agency (U.S. EPA) for Hurricanes applying to Puerto Rico and USVI.

<table>
<thead>
<tr>
<th>State</th>
<th>Waiver</th>
<th>Issued By</th>
<th>Effective Dates</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puerto Rico</td>
<td><strong>Sulfur content requirement</strong> of 15 ppm waived. Permits the sale, distribution and use of higher sulfur heating oil and ECA marine fuel. EPA extended the waiver as it applies to mobile non-road generators or pumps used for emergency purposes.</td>
<td>U.S. EPA</td>
<td>09/36/17 - 10/30/17</td>
<td>Active</td>
</tr>
</tbody>
</table>

*Sources: U.S. Environmental Protection Agency*
OTHER WAIVERS

• **Department of Homeland Security**
  o On September 28, the Department of Homeland Security, at the request of the Department of Defense, **waived** the Jones Act requirements for Puerto Rico for a 10-day period. This waiver applies to all products shipped from U.S. coastwise points to Puerto Rico, through October 8, and applies to all covered merchandise loaded on board a vessel within the 10-day period of the waiver and delivered by October 18.

• **Department of Transportation (DOT)**
  o On September 28, DOT’s Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a waiver on Hazardous Materials Regulations to persons conducting operations under the direction of the Puerto Rico Public Service Commission within the Hurricane Maria emergency and disaster areas of Puerto Rico. The Waiver is granted to support the government of Puerto Rico in facilitating the transport of essential fuel. The waiver is effective until October 22.
  o On September 20, PHMSA issued an Emergency Stay of Enforcement for pipeline operators that may be affected by Maria. PHMSA will not take enforcement action relating to operator noncompliance with certain operator qualification requirements, or pre-employment and random drug testing requirements, arising from the use of personnel for pipeline activities related to response and recovery. The waiver took effect on September 20 and will expire on November 4.

• **Environmental Protection Agency (EPA)**
  o On September 22, the EPA announced that it will exercise enforcement discretion for mobile power generators being imported into the United States that will be used as emergency sources of power in Puerto Rico as a result of Hurricane Maria. EPA will not pursue enforcement actions for certain violations of the Clean Air Act for mobile power generators being imported for use in Puerto Rico that have not been certified to meet U.S. pollution control standards. This covers mobile power generators that are imported for use in Puerto Rico until January 31, 2018.