Hurricanes Maria & Irma
October 17 Event Summary (Report #66)

REPORT TIME & DATE: 12:00 PM EDT | October 17, 2017
INCIDENT START DATE: Friday, August 25, 2017
PRIMARY LOCATION(S): Puerto Rico & U.S. Virgin Islands
REPORT DISTRIBUTION: Public

The U.S. Department of Energy (DOE) situation report on Hurricanes Maria & Irma has been condensed to focus on the status of energy infrastructure and restoration efforts in Puerto Rico and the U.S. Virgin Islands. DOE will continue to phase out information as appropriate.

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 Tuesday)
- Puerto Rico: Approximately 17.7% of normal peak load has been restored. DOE is coordinating closely with FEMA, Puerto Rico, and the U.S. Army Corps of Engineers (USACE) to support restoration efforts and facilitate mutual aid. USACE awarded a contract to support transmission and distribution systems restoration on October 16.
- 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 2 to 3 week. Restoration efforts continue across the Territory, mainly focusing on critical facilities and backbone feeders for the grid; however, work was hampered on Monday due to heavy rain.

Oil and Natural Gas Sector Summary (as of 10:30 EDT Tuesday)
- As of October 16, 873 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>~1,291,943</td>
<td>~82.3%</td>
</tr>
<tr>
<td>PR Total</td>
<td>~1,291,943</td>
<td>~82.3%</td>
</tr>
</tbody>
</table>

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

- As of 7:36 PM EDT, Monday, October 16, peak load was approximately 474 MW, which represents about 17.7% of normal peak load restored (2,685 MW).
- As of 11:00 AM EDT, Tuesday, October 17, DOE estimates approximately 1.29 million (82.3%) 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 7:36 PM EDT, Monday, October 16, approximately 281 of 1,107 (25.4%) transmission lines or line segments of various voltages have been energized.
- PREPA reported that as 7:36 PM EDT, Monday, October 16, approximately 123 of 339 (36.3%) 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.
  - On Monday, October 16, the U.S. Army Corps of Engineers awarded a contract to support transmission and distribution systems restoration efforts on Puerto Rico.
U.S. Virgin Islands

<table>
<thead>
<tr>
<th>Impacted Island</th>
<th>Current Customer Outages</th>
<th>Percent of 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>USVI Total</td>
<td>44,473</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.

- Due to heavy rains on Monday, October 16, restoration efforts were curtailed in both island districts. As of Monday, October 16, approximately 44,473 customers (91.9%) on the U.S. Virgin Islands remain 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; service is expected to be restored in 2 to 3 weeks.
- According to VIWAPA, approximately 260 off-island line workers arrived in the territory over the weekend. Another 250 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 has begun to remove electrical meters at locations where damage is apparent to either the meter base and/or weather head and reminding customer that the customer is responsible for ensuring repairs and inspection are complete.
- 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

EMERGENCY DECLARATIONS

- On September 18, Puerto Rico and USVI declared emergencies due to Hurricane Maria. These declarations automatically waived select Federal Motor Carrier Safety Regulations (FMCSRs), including hours-of-service (HOS) regulations, for motor carriers hauling resources to aid in restoration. Some HOS waivers applied specifically to the movement of petroleum products in or through the state. On September 20, President Trump approved a major disaster declaration.

- On September 26, President Trump amended the Puerto Rico and U.S. Virgin Islands disaster declarations to authorize increased cost sharing to 100 percent Federal funding for debris removal and emergency protective measures beginning September 17. The declaration includes direct Federal assistance for 180 days from the start of the incident period and a 90 percent Federal cost share thereafter.

- The table below summarizes emergency declarations and HOS waivers issued by states in response to the impacts of Hurricanes Nate and Maria. Please see earlier Situation Reports for details about waivers that have expired or those related to Hurricanes Harvey and Irma.

<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 Hurricane Maria. Waivers that have expired have been removed from the table. Please see prior Situation Reports for details about waivers that have since expired.

<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>Sulfur content requirement 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; State Governments

OTHER WAIVERS

- **Department of Homeland Security**
  - 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)**
  - 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.
  - 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)**
  - 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.