



# Hurricanes Nate, Maria, Irma, & Harvey

## October 13 Event Summary (Report #64)

<b>REPORT TIME &amp; DATE:</b>	12:00 PM EDT   October 13, 2017
<b>INCIDENT START DATE:</b>	Friday, August 25, 2017
<b>PRIMARY LOCATION(S):</b>	TX, LA, FL, GA, NC, SC, MS, AL, Puerto Rico, & USVI
<b>REPORT DISTRIBUTION:</b>	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 Friday)

- Puerto Rico: Approximately 9% of normal peak load has been restored, which is down from 17% yesterday due to a transmission line fault that caused the San Juan Power Plant to trip-offline and a subsequent issues at the Palo Seco Power Plant. Crews expected to restore the transmission line and San Juan plant by the end of Friday, October 13. 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: As of October 11, DOE estimated that at least 14.4% of customers on St. Thomas and 12% of customers on St. Croix have been restored, based on current load. Restoration activities resumed on Thursday, October 12. At this time, there continues to be no grid power on St. John, but service is expected to be restored in 3 to 4 weeks. Restoration efforts continue across the Territory, mainly focusing on critical facilities and backbone feeders for the grid. Additional mutual aid is expected to arrive over the next few days, beginning Friday, October 13.

### Oil and Natural Gas Sector Summary (as of 10:30 EDT Friday)

- *Puerto Rico & USVI:*
  - As of October 13, 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

### IMPACTS TO PUERTO RICO AND U.S. VIRGIN ISLANDS

ESTIMATED ELECTRICITY OUTAGES AS OF 11:00 AM EDT 10/13/2017			
Impacted State	Current Estimated Customer Outages	Percent of Estimated Customers without Power	24-hr Peak Customer Outages
Puerto Rico	~1,412,817	~91.0%	~1,412,817
St. Thomas	~21,899	~85.6%	~21,899
St. John	~2,893	~100.0%	~2,893
St. Croix	~21,704	~88.0%	~21,704
<b>Total</b>	<b>~1,459,313</b>	--	--

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

#### Puerto Rico

- As of 11:00 AM EDT, Friday, October 13, DOE estimates approximately 1.4 million (91.0%) 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 average peak load. Due to technical constraints, PREPA is unable to provide a more accurate number of customers without power at this time.*
- At 10:44 AM EDT, Thursday, October 12, the San Juan Power Plant tripped offline due to a 115 kV transmission line fault.
  - PREPA's estimate to return the line and the power plant to service is by the end of Friday, October 13.
- On the afternoon of Thursday, October 12, PREPA reported the Palo Seco Power Plant also tripped offline due to a line fault.
- PREPA has reported that as of 9:00 PM EDT, Tuesday, October 10, approximately 224 of 1,112 (20.2%) transmission lines or line sections of various voltages have been energized. An increase of 33 lines or 3%.
- PREPA has reported that as of 9:00 PM EDT, Tuesday, October 10, approximately 108 of 342 (31.6%) substations of various voltages are energized. An increase of 10 substations or 2.9%.
- The 230 kV line between Guayanilla to Central Cambalache has been restored. Once additional 115 kV lines and the 230 kV line between Mora and Central Cambalache have been restored, a transmission loop on the western side of Puerto Rico will be completed. The estimated time of restoration for this project is now being assessed.
- 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**

- The majority of customers across the U.S. Virgin Islands (USVI) remain without power. Most customers on St. Croix lost power due to Hurricane Maria. St. Thomas and St. John previously experienced extensive power outages from Hurricane Irma. There has been restoration efforts underway across the islands, focusing on critical facilities.
- 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

**St. Thomas & St. John**

- As of Tuesday, October 10, VIWAPA estimates that approximately 3,700 customers (~14.4%) on St. Thomas are receiving power from the grid out of 25,599 total customers. None of the approximately 2,893 customers on St. John are receiving power from VIWAPA. Only facilities connected to temporary generators have power on St. John at this time.
- On St. Thomas, some crews worked in Lindbergh Bay planting poles toward Gladys Abraham Elementary School. Other crews reconstructed primary circuits on portions of Feeder 6A along Hardwood Highway, Feeder 7A to Patriot Manor, and Feeder 10A toward the most eastern entrance to Frenchtown. Following Thursday's work, about 90% to 95% of the Pearsons Garden housing community has been energized. Sections of Sugar Estate were also restored along with two additional buildings in the Oswald Harris Court housing community.
- On St. John, line crews continued the reconstruction of electrical circuits from Mongoose Junction toward Cruz Bay, and from Cruz Bay east to the Myrah Keating Smith Community Health Center.
- On St. Thomas, efforts continue to energize the Savan and Contant pump stations. Restoring those facilities will provide a resumption of potable water service to Savan, Contant, and surrounding areas including the Contant Knolls housing community.

**St. Croix**

- As of Friday, October 6, DOE estimates that approximately 2,960 customers (~12%) on St. Croix are receiving power from the grid out of 24,664 total customers.
  - *NOTE: VIWAPA reports restoration in terms of MW of load restored on each feeder line. The percentage of load restored is then used by DOE to approximate the number of customers restored. As such, the number of reported customers should be only be considered calculated estimates.*
- On St. Croix, line crews continued to restore circuits toward the Hannah's Rest intersection and to Five Corners. Replacement poles were planted in the Golden Rock area while debris removal crews cleared downed equipment in Sunny Isle, Smithfield, and Enfield Green.
- On St. Croix at the Estate Richmond Power Plant, there is one unit online and another available.
- On St. Croix, the Concordia pump station remains off line awaiting equipment repair. As a result, lower than usual water pressure is being experienced by customers from mid-island to Frederiksted.



## OIL &amp; GAS SECTOR

## PORTS

- The U.S. Coast Guard has set the following conditions for ports and waterways in Sector San Juan. All ports in the sector are listed.

Status of Ports as of 10:00 AM EDT 10/13/2017			
Port	Average Imports (b/d) <sup>A</sup>	Status	Date Stamp
<b>Puerto Rico</b>			
San Juan	64,000	Port Readiness Condition IV. Open.	09/27/17
Ponce	45,000	Port Readiness Condition IV. Open with restrictions. Max draft 38 ft.	09/30/17
Guayanilla		Port Readiness Condition IV. Open.	09/25/17
Yabucoa	38,000	Port Readiness Condition IV. Open with restrictions. Daylight operations only. Max draft 37 ft.	09/30/17
Arecibo	B, C	Port Readiness Condition IV. Open with restrictions. Daylight operations only. Max draft 15 ft.	09/27/17
Fajardo		Port Readiness Condition IV. Open.	10/08/17
Culebra		Port Readiness Condition IV. Open with restrictions. Daylight operations only.	09/24/17
Vieques		Port Readiness Condition IV. Open.	10/08/17
Guanica		Port Readiness Condition IV. Open.	10/09/17
Guayama	B, C	Port Readiness Condition IV. Open with restrictions. Tug/barge only. No deep draft vessels. No vessels greater than 500 GT.	09/24/17
Mayaguez	B, C	Port Readiness Condition IV. Open with restrictions. Draft less than 28 ft.	10/10/17
Roosevelt Roads/Ceiba	B	Port Readiness Condition IV. Open with restrictions. Daylight transit only. Draft less than 33 ft.	10/02/17
Salinas/Aguirre	B, C	Port Readiness Condition IV. Open.	09/24/17
Tallaboa	B	Port Readiness Condition IV. Open.	09/24/17
<b>U.S. Virgin Islands</b>			
Christiansted, St. Croix	30,000	Port Readiness Condition IV. Open with restrictions. Daylight transit only. Draft less than 9 ft through Schooner Channel.	10/03/17
Limetree Bay, St. Croix		Port Readiness Condition IV. Open.	10/06/17
Krause Lagoon, St. Croix		Port Readiness Condition IV. Open.	10/03/17
Frederiksted, St. Croix		Port Readiness Condition IV. Open.	09/27/17
Cruz Bay, St. John	B, C	Port Readiness Condition IV. Open with restrictions. Daylight transit only.	09/24/17



St. Thomas	B, C	Port Readiness Condition IV. Charlotte Amalie Harbor and East/West Gregorie Channels are open without restrictions. Red Hook is open for daylight operations only.	09/27/17
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<sup>A</sup> All petroleum products, excluding asphalt.

<sup>B</sup> No direct foreign imports but receives petroleum products from larger ports by barge.

<sup>C</sup> Receives fuel for oil-fired power plant.

Source: Receipt data from U.S. Customs via Reuters EIKON (Jan-Aug. 2017 average)



# Hurricane Nate

## OIL & GAS SECTOR

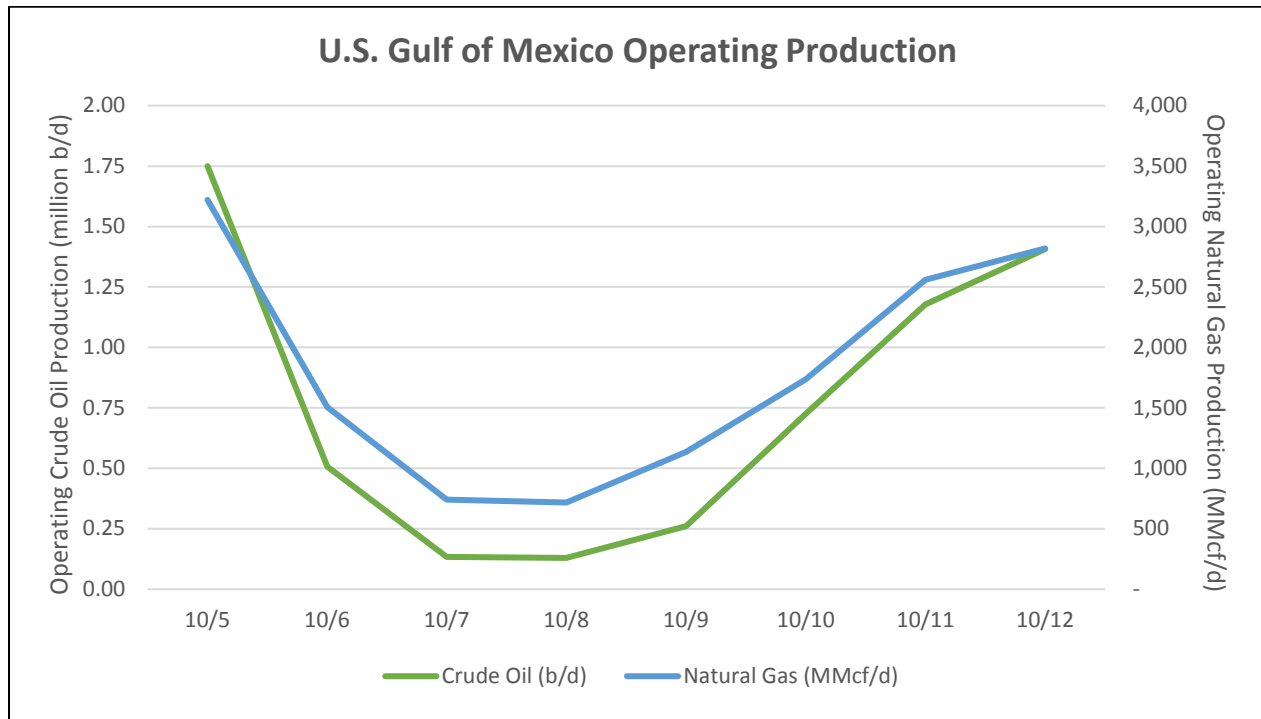
### PRODUCTION

- As of 12:30 PM EDT, October 12, 343,539 (19.6%) of the oil production and 399.9 MMcf/d (12.4%) of the natural gas production in the federally administered areas of the Gulf of Mexico were shut in, according to estimates by the Bureau of Safety and Environmental Enforcement (BSEE). Now that the storm has passed, facilities will perform integrity checks and begin restart.

Gulf of Mexico Oil & Gas Production Status			
As of 12:30 PM EDT 10/11/2017			
Production	Pre-Event Production	Shut-in Volumes	
		10/11	10/12
Crude Oil (b/d)	1,750,000	571,854	343,539
Natural Gas (MMcf/d)	3,220	661	400
Infrastructure	Pre-Event Count	Evacuated Count	
		10/11	10/12
Manned Platforms	737	36	20
Rigs	31	1	0

Source: BSEE

- The chart below shows offshore Gulf of Mexico production since operators began shutting in production and evacuating platforms ahead of Hurricane Nate on October 6.



Source: BSEE



**PETROLEUM REFINERIES**

- As of 10:00 AM EDT, October 13, one refinery remained shut after Hurricane Nate. This refinery has a capacity of 340,000 b/d or 3.5% of total U.S. Gulf Coast refining capacity. One refinery that restarted after Nate was expecting to reach full production levels on October 12 or October 13.

**PORTS**

- The U.S. Coast Guard has reopened all Gulf Coast ports affected by Hurricane Nate. As of October 11, draft restrictions remained in place in Pascagoula.



# Emergency Declarations & Waivers

## EMERGENCY DECLARATIONS

- On October 6, the Federal Motor Carrier Safety Administration issued a Notice of Enforcement Discretion Determination for the states of Alabama, Florida, Louisiana and Mississippi that it would not be enforcing the Temporary Operating Authority Registration fee for motor carriers supporting emergency relief efforts. This notice will expire on November 6.
- 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. The declarations exempted FCMSR in every state along the motor carrier’s route as long as the final destination was with the declared disaster areas. 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. On October 3, President Trump amended the U.S. Virgin Islands disaster declaration by authorizing an increase in the level of Federal funding for emergency work undertaken in the U.S. Virgin Islands as a result of Hurricane Maria. The president increased the Federal cost share to 100 percent for debris removal and emergency protective measures, including direct Federal assistance, for 180 days from the start of the incident period, and then 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, Maria, Irma, and Harvey. Waivers that have expired have been removed from the table. Please see earlier Situation Reports for any needed details about waivers that have since expired.

State Emergency Declarations and HOS Waivers <i>as of 10:00 AM EDT 10/13/2017</i>				
State	Details	Effective Dates		Status
		Start	End	
Regional (Multi-State)	<p>Regional Emergency Declarations and FMCSR waivers issued by FMCSA.</p> <p>On September 29, the FMCSA extended the Regional Emergency Declaration for the following: Alabama, Arkansas, Colorado, Florida, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Puerto Rico, and the U.S. Virgin Islands.</p>	Extended: 09/29/17	Extension on 9/29: 10/30/17	Active





	On October 4, the FMCSA extended the Regional Emergency Declaration for Florida, Georgia, Puerto Rico, and the U.S. Virgin Islands.	Extended: 10/4	Extension on 10/4: 11/6/17	
	On October 6, the FMCSA issued a Regional Emergency Declaration for Alabama, Florida, Louisiana and Mississippi due to Hurricane Nate.	Extended: 10/6	Extension on 10/6: 11/6/17	
Alabama	State of Emergency	10/05/17	11/04/17	Active
Florida	State of Emergency/HOS waiver	Extended for Nate: 10/05/17	11/03/17	Active
Louisiana	State of Emergency.	Extended for Nate: 10/06/17	TBD	Active
Mississippi	State of Emergency for George, Hancock, Harrison, Jackson, Pearl River, and Stone counties; and preemptively for any other areas in the state expected to be impacted by Tropical Storm/ Hurricane Nate.	10/06/17	TBD	Active
Puerto Rico	State of Emergency	Declared for Maria: 09/18/17	--	Active
Tennessee	Limited State of Emergency. EO-67 suspends certain vehicle restrictions for vehicles providing emergency supplies, equipment, or mobile housing units	09/11/17	11/08/17	Active
Texas	State of Disaster declared for 61 counties in Texas.	Expanded: 09/01/17	TBD	Active
Virginia	State of Emergency/HOS waiver issued for petroleum products through the state.	For Irma: 09/07/17	For Irma: 06/30/18, or rescinded.	Active
U.S. Virgin Islands	State of Emergency	Declared for Maria: 09/18/17	--	Active

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) and other Federal and State agencies for Hurricanes Maria, Irma, and Harvey. Waivers that have expired have been removed from the table. Please see earlier Situation Reports for any needed details about waivers that have since expired.

State Fuel Waivers as of 10:00 AM EDT 10/13/2017					
State	Waiver	Issued By	Effective Dates		Status
			Start	End	
SC	<b>RVP</b> standards of 9.0 psi waived. Permits the sale or distribution of winter gasoline with an 11.5 psi RVP. Allows the comingling of <b>RFG</b> with conventional gasoline. Waives butane blending and T V/L = 20 requirements.	State of South Carolina	09/07/17	10/31/17	Active
VA	Waived the <b>RVP</b> limit for gasoline ethanol blends prescribed by regulations. Extended waiver to apply through duration of Hurricane Irma impact on 9/8.	State of Virginia	Extended: 09/08/17	Until further notice.	Active

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.



- On September 8, PHMSA issued an Emergency Waiver Order under 49 U.S.C. 5103 and Stafford Act declarations made for the U.S. Virgin Islands, Puerto Rico, Florida, and South Carolina, to persons conducting operations under the direction of the Environmental Protection Agency and the U.S. Coast Guard that support appropriate actions to prepare for, respond to, and recover from a threat to public health, welfare, or the environment caused by actual or potential oil and hazardous materials incidents resulting from Hurricane Irma in Puerto Rico, U.S. Virgin Islands, Florida, and South Carolina. On September 10, 2017, based on a Stafford act emergency declaration, PHMSA amended this order to include Georgia.
- **Environmental Protection Agency (EPA)**
  - On September 26, the U.S. EPA issued to allow parties in Puerto Rico to sell, distribute, and use heating oil and ECA marine fuel that exceeds the 15 ppm through October 15. On October 11, EPA extended the waiver as it applies to mobile non-road generators or pumps used for emergency purposes in Puerto Rico, through October 30.
  - 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.

