

# Hurricanes Nate, Maria, Irma, & Harvey October 9 Event Summary (Report #60)

REPORT TIME & DATE:	12:00 PM EDT   October 9, 2017
INCIDENT START DATE:	Friday, August 25, 2017
PRIMARY LOCATION(S):	TX, LA, FL, GA, NC, SC, Puerto Rico, & USVI
REPORT DISTRIBUTION:	Public

#### **EXECUTIVE SUMMARY**

As of 11:00 AM EDT, Nate was post-tropical cyclone, moving across the Northeast. Nate is producing moderate to heavy rainfall across the region, but is expected to continue to weaken Monday. Overall restorations from outages associated with Hurricane Nate have progressed quickly and minimal additional impacts to the energy sector are expected at this time.

DOE continues to support response efforts for Hurricane Maria and restoration efforts related to Hurricanes Harvey and Irma. ESF #12 responders are 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 from the Western Area Power Administration is on St. Thomas to provide mutual aid.

# Electricity Sector Summary (as of 10:30 AM EDT Monday)

- Puerto Rico: At least 15% of customers have had power restored. Assessments show significant damage to transmission and distribution systems. 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: DOE estimates that approximately 14% of customers on St. Thomas and 12% of customers on St. Croix have been restored. Critical facilities, including the airports and hospitals have been restored on both St. Thomas and St. Croix and restoration efforts continue across the territory, with the support of mutual aid crews.

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

- Hurricane Nate: Several ports, refineries, and offshore facilities remain shut-in or closed due to Hurricane Nate, but are expected to perform integrity checks over the next few days and begin restart operations as condition permit.
- Puerto Rico & USVI:
  - Fuel supplies remain an area of focus across the region; however, the situation has stabilized.
  - o DOE and EIA will continue to assess stocks as response efforts continue.

# **Hurricane Nate**

#### **ELECTRICITY SECTOR**

ELECTRICITY OUTAGES AS OF 10:45 AM EDT 10/09/2017					
Impacted State	Current Estimated Customer Outages	Percent of Estimated Customers without Power	24-hr Peak Customer Outages		
Alabama	1,114	<1%	79,092		
Mississippi	1,975	<1%	26,317		
Total	3,089				

<sup>\*</sup>There is no sum of the Peak Customer Outage column because peaks for individual utilities occur at different times; a total would not reflect peak outages.

• Industry mutual assistance networks have been activated to support restoration efforts related to Hurricane Nate. There have been minimal additional impacts as Nate continues to dissipate. Restoration efforts continue and there are no unmet needs reported at this time.

#### **ALABAMA**

- As of 10:45 AM EDT, October 9, Alabama has 1,114 customer outages (<1% of total state customers).
  - Alabama Power has 1,085 customer outages, down from 146,000 customers reported at 12:00 PM EDT Sunday, October 8.

### MISSISSIPPI

- As of 2:15 PM EDT, October 8, Mississippi has 1,975 customer outages (<1% of total state customers).
  - Singing River Electric Power Association has 1,501 customer outages.
- Singing River Electric had an additional 500 personnel from eight other Mississippi cooperatives and five contract crews to aid in restoration.

#### **OIL & GAS SECTOR**

#### **PRODUCTION**

• As of 12:30 PM EDT, October 8, 1,620,612 b/d (92.61%) of the oil production and 2,503 MMcf/d (77.74%) 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. 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 10/08/2017						
Production	Pre-Event Shut-in Volumes					
Production	Production 10/06 10/07 10/08					
Crude Oil (b/d)	1,750,000	1,243,753	1,615,966	1,620,612		
Natural Gas (MMcf/d)	3,220	1,713	2,480	2,503		
Infractivisticus	Pre-Event	Ev	acuated Count			
Infrastructure	Count	unt 10/06 10/07 10/0				
Manned Platforms	737	66	302	298		
Rigs	31	5	13	14		

Source: Bureau of Safety and Environmental Enforcement

#### **PETROLEUM**

## **PETROLEUM REFINERIES**

• As of 10:00 AM EDT, October 9, 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 was previously shut has begun restarting.

## **PORTS**

• The U.S. Coast Guard has set the following conditions for ports and waterways in the U.S. Gulf Coast region as a result of Nate. In the table below, select ports and waterways are listed that either import crude oil or outload petroleum products.

	<b>Status of Ports</b> as of 10:00 AM EDT 10/09/2017			
Port	Avg. Crude Imports (b/d) <sup>A</sup>	Status	Date Stamp	
Sector Houma				
Louisiana Offshore	339,000	Returning to pre-hurricane staffing at all locations.	10/09/17	
Oil Port (LOOP)		All deliveries were maintained on schedule during		
	the weather event. Control Center will transition			
		from alternate site. Offshore vessel terminal will		
		resume operations, No impacts reported.		
Morgan City, LA		Port Condition Normal. Open without restrictions.	10/08/17	
Houma, LA		Port Condition Normal. Open without restrictions.	10/08/17	

	Status of Ports as of 10:00 AM EDT 10/09/2017			
Port	Avg. Crude Imports (b/d) <sup>A</sup>	Status	Date Stamp	
SW Pass Lightering Area	В	Port Condition Normal. Open without restrictions.	10/08/17	
Sector New Orleans				
Baton Rouge, LA	33,000	Port Condition Normal. Open without restrictions.	10/08/17	
New Orleans, LA	209,000	Port Condition Normal. Open without restrictions.	10/08/17	
South Louisiana	153,000	Port Condition Normal. Open without restrictions.	10/08/17	
Lower Mississippi River	В	Port Condition Normal. Open without restrictions.	10/08/17	
Sector Mobile				
Mobile, AL	23,000	Port Condition Normal for Port of Mobile north of Arlington Ship Channel. Open without restrictions.  Port Condition ZULU for Port of Mobile south of Arlington Ship Channel. Closed.	10/08/17	
Pascagoula, FL	147,000	Port Condition ZULU. Closed.	10/07/17	
Panama City, FL	С	Port Condition Normal. Open without restrictions.	10/08/17	
Pensacola, FL	С	Port Condition ZULU. Closed.	10/07/17	
Gulf Intracoastal Waterway (GICWW)		Port Condition Normal for GICWW east of MM 207. Open without restrictions.  Port Condition ZULU for GICWW west of MM 207. Open without restrictions.	10/08/17	

A January to May 2017, from EIA Company Level Imports
B Major waterway for transit of crude and/or products.
C Receive petroleum products by barge

Source: U.S. Coast Guard

# **Hurricane Maria**

#### **ELECTRICITY SECTOR**

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

ELECTRICITY OUTAGES AS OF 11:00 AM EDT 10/09/2017					
Impacted State	Current Estimated Customer Outages	Percent of Estimated Customers without Power	24-hr Peak Customer Outages		
Puerto Rico	~1,334,327	~85.0%	~1,386,130		
St. Thomas	~21,899	~85.6%	~21,899		
St. John	~2,893	~100.0%	~2,893		
St. Croix	~21,704	~88.0%	~21,704		
Total	~1,380,823				

 U.S. Army Corps of Engineers (USACE) temporary power response teams have been on the ground in Puerto Rico and U.S. Virgin Islands, assessing power needs, and installing generators at critical facilities.

#### **Puerto Rico**

- As of 10:30 AM EDT, Monday, October 9, the Government of Puerto Rico reported 15.0% of customers have been restored. Approximately 1,334,327 customers remain without power.
- As of 8:00 PM EDT, Sunday, October 8, PREPA had 388 vegetation specialists, 274 debris removal specialists, and 1,225 line reconstruction personnel resources supporting distribution restoration efforts.
- 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.
- As of 8:00 PM EDT, Sunday, October 8, portions of the following feeders have been energized:
   Arecibo (8.5%), Bayamón (16.7%), Carolina (29.3%), Mayagüez (12.0%), Ponce (24.1%), and San
   Juan (23.9%).
- As of 9:00 PM EDT, Saturday, October 7, PREPA reported that 98 of PREPA's 342 total substations were energized.
- The 230 kV line between Guayanilla to Central Cambalache has been restored.
- As of Wednesday, October 4, PREPA has energized four 230 kV lines connecting Guayama, Ponce, Guayanilla, and Mayagüez, as well as three 130 kV lines near Mayagüez. PREPA has also energized the 230 kV line between Guayanilla to Areci.
- 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 Wednesday, October 4, Governor Ricardo Rossello, announced revised curfew from 12:00
   AM EDT to 5:00 AM EDT; however, those working on power restoration are exempt.



# **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.

# St. Thomas & St. John

- As of Friday, October 6, DOE 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 are receiving power from VIWAPA on St. John. Only facilities
  with generators have power on St. John.
  - 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 retorted customers should be only be
    considered calculated estimates.
- As of October 4, the Tutu Electrical Substation has been re-energized, which will lead to restoring some areas in and around Tutu and Fort Mylner over the next few days. The 34.5 kV transmission line that runs from the Randolph Harley Power Plant to the Solar Substation to the Tutu Substation has been restored.
- As of October 5, on St. Thomas, restoration crews are preparing to restore service to a portion
  of Feeder 6A from the Harley Power Plant to the university campus. The Ulla Muller Elementary
  School could be energized within the next several days, with work expected to continue to the
  Gladys Abraham Elementary School. As crews continue restoration and reconstruction work
  toward the east, some traffic changes may be required next week around the Nadir Bridge
  construction project site.
  - o As of October 7, the Nisky Center is energized.
- On St. John Thursday, October 5, crews planted replacement poles in the Mongoose Junction area and made repairs to poles at Julius E. Sprauve School.
- As of Monday, September 26, VIWAPA energized the St. Thomas Airport feeder.
- As of 5:10 PM EDT, Thursday, October 5, water crews have recharged a 24-inch water main and
  restored potable water service to the downtown area of St. Thomas. Work also continues to
  resume water service to the east end of the island. Additionally, VIWAPA expects to resume
  potable water service to Savan, Contant Knolls and Lindbergh Bay within the next few days.
- On St. John, water service remains available throughout Cruz Bay.

# 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 retorted customers should be only be
    considered calculated estimates.
- On Thursday, October 6, St. Croix crews continued work on a double circuit for Feeders 6A and 6B from the Richmond Power Plant toward Club St. Croix and Five Corners. Crews also completed the planting of replacement poles up to the Hannah's Rest intersection.
- On St. Croix at the Estate Richmond Power Plant, there is one unit online and another available.



# **OIL & 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 10/09/2017			
Port	Average Imports (b/d) <sup>A</sup>	Status	Date Stamp
Puerto Rico			
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	В, С	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 Condition Zulu. Closed.	09/19/17
Guayama	В, С	Port Readiness Condition IV. Open with restrictions. Tug/barge only. No deep draft vessels. No vessels greater than 500 GT.	09/24/17
Mayaguez	В, С	Port Readiness Condition IV. Open with restrictions.  Daylight operations only. Draft less than 28 ft.	09/27/17
Roosevelt Roads/Ceiba	В	Port Readiness Condition IV. Open with restrictions. Daylight transit only. Draft less than 33 ft.	10/02/17
Salinas/Aguirre	В, С	Port Readiness Condition IV. Open.	09/24/17
Tallaboa	В	Port Readiness Condition IV. Open.	09/24/17

U.S. Virgin Islands			
Christiansted,	30,000	Port Readiness Condition IV. Open with restrictions.	10/03/17
St. Croix		Daylight transit only. Draft less than 9 ft through	
		Schooner Channel.	
Limetree Bay,		Port Readiness Condition IV. Open.	10/06/17
St. Croix			
Krause Lagoon,		Port Readiness Condition IV. Open.	10/03/17
St. Croix			
Frederiksted,		Port Readiness Condition IV. Open.	09/27/17
St. Croix			
Cruz Bay, St. John	В, С	Port Readiness Condition IV. Open with restrictions.	09/24/17
		Daylight transit only.	
St. Thomas	В, С	Port Readiness Condition IV. Charlotte Amalie	09/27/17
		Harbor and East/West Gregorie Channels are open	
		without restrictions. Red Hook is open for daylight	
		operations only.	

<sup>&</sup>lt;sup>A</sup> All petroleum products, excluding asphalt.

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

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

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

# **SUMMARY OF WAIVERS** (A complete list of waivers can be found at the end of the report)

#### Jones Act

On September 28, the Department of Homeland Security, at the request of the Department of Defense, <u>waived</u> 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.

#### 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 8.
- On September 23, the EPA issued an order authorizing the installation and operation of temporary water treatment units in the U.S. Virgin Islands. Effective through October 8.
- 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. This covers mobile power generators that are imported for use in Puerto Rico until January 31, 2018.

#### PHMSA

- On September 28, 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 5.
- o On September 20, PHMSA issued an Emergency Stay of Enforcement for pipeline operators that may be affected by Maria. The waiver will expire on November 4.

## State of Emergency

On September 18, Puerto Rico and the U.S. Virgin Islands declared a State of Emergency.
 On September 20, President Trump approved of the emergency declarations.

# **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.

- Twelve states, including Puerto Rico and USVI, declared state emergencies due to Irma & Harvey. 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 18, USVI and Puerto Rico declared a state of emergency for Hurricane Maria and 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 Hurricane, 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	State Emergency Declarations and HOS Waivers as of 10:00 AM EDT 10/09/2017				
Stata	Details	Effecti	Status		
State		Start	End	Status	
Regional (Multi-State)	Regional Emergency Declarations and FMCSR waivers issued by FMCSA.  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.	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	09/04/17 Extended for Nate: 10/05/17	11/03/17	Active
Louisiana	State of Emergency.	08/23/17 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	09/04/17 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	09/04/17 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 10/09/2017						
State	e Waiver		Waiver Issued P		Effective Dates		Status
State	waivei	Issued By	Start	End	Status		
SC	RVP standards of 9.0 psi waived. Permits the sale or distribution of winter gasoline with an 11.5 psi RVP. Allows the comingling of RFG 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	09/01/17 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, <u>waived</u> 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 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, unless PHSMA determines it needs to be extended.

On September 8, DOT's Pipeline and Hazardous Materials Safety Administration (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.

On September 1, PHMSA issued an Emergency Stay of Enforcement for operators affected by Hurricane Harvey. The declaration states that PHMSA does not intend to take any enforcement action relating to their 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. On September 7, PHMSA issued an enforcement stay for the waiver to include states affected by Hurricane Irma. The states included in this extension are Florida, Georgia, North Carolina, South Carolina, and Puerto Rico.

# • 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.

