



## Hurricane Matthew Situation Report October 11, 2016 4:00pm

### OVERVIEW

Following Hurricane Matthew, significant flooding continues across eastern North Carolina, with flood warnings in effect for most of the region. River flooding will continue in portions of North and South Carolina throughout the week. Flooding, downed trees, and debris has impeded restoration efforts in hard-hit and remote areas.

### IMPACTS AND PREPARATIONS FOR HURRICANE MATTHEW

#### ELECTRICITY:

Restoration efforts from Hurricane Matthew across the southeastern U.S. Atlantic coastline are underway and damage to electrical infrastructure continues to be assessed as crews are able to reach hard-hit and remote areas. Flooding resulting from levy and dam breaches have hindered restoration efforts in portions of North Carolina. Restoration crews are being rerouted from Florida and sent to Georgia, South Carolina, and North Carolina. Many customers have already had power restored, especially in Florida, and restoration continues in Georgia, the Carolinas, and Virginia. Many utilities, including Duke, Jacksonville Electric Authority, Clay Electric, Dominion, and Georgia Power, have reported their service areas are largely restored. Many areas will be restored today, although restoration will take longer for customers in areas with significant damage, namely Eastern North Carolina. Mutual assistance agreements are working well and utility crews have arrived from other parts of the country to assist in the restoration. On Thursday, October 07, President Obama declared States of Emergency for Florida, Georgia, South Carolina, and North Carolina.

- Florida
  - As of 11:00 AM EDT, October 11, the State of Florida has 56,107 customer outages. This represents <1% of customers in the state.
    - As of 11:00 AM EDT, October 11, Florida Power and Light Company (FPL) has 13,400 customer outages.
    - As of 11:00 AM EDT, October 11, Jacksonville Electric Authority has 41,808 customer outages.
    - As of 11:00 AM EDT, October 11, Duke Energy has 316 customer outages.
  - FPL is the third-largest electric utility in the United States, serving more than 4.8 million customer accounts or more than 10 million people across nearly half of the state of Florida. FPL has a workforce of more than 15,000 responding, including 12,000 field personnel.
  - As of 7:00 AM EDT, October 10, FPL had restored over 1 million customer interruptions less than 48 hours after Hurricane Matthew passed FPL's service territory and FPL is working on restoring power to the approximate 10% of customers remaining without power. During the restoration process, crews identified additional damage to the neighborhood lines in hardest-hit areas, extending some customers' restoration until end of day Monday.
  - FPL has started to release restoration crews from service as restoration requests are decreasing and FPL crews are en route to assist in other impacted states.
  - Jacksonville Electric Authority (JEA) was in one of the hardest hit areas of Florida. The utility has 29 electric crews including contractors in the field working to restore power following Hurricane Matthew. An additional 43 Mutual Aid crews from Electric Cities of Georgia, TECO (Tampa), CPS Energy (San Antonio), and a number of Missouri municipal utilities are



providing assistance. As FPL completes their restoration work south of Jacksonville, they will now be able to provide additional assistance to JEA with approximately 150 utility workers and vegetation support. This will allow JEA to substantially complete service restoration work for customers able to receive power by end-of-day on Monday, October 10th.

- Crews from Tampa Electric are assisting in the restoration of JEA customers.
- Additional crews from as far away as Pryor, Oklahoma have arrived at Atlantic Beach to restore power.
- JEA has reported on its website that as of 5:00 AM EDT, October 11, more than 91% of its customers have power. JEA expects the majority of outages will be restored by end-of-day, Tuesday, October 11.
- New Smyrna Beach Utilities Commission has restored service to approximately 85% of its customers as of 6:00 PM EDT, October 10. The majority of outages are expected to be restored by end-of-day, Tuesday, October 11.
- As of 11:00 AM EDT, October 10, approximately 95% of Duke Energy Florida customers in Florida have been restored. The majority of outages are expected to be restored by end-of-day, Tuesday, October 11.
- Clay Electric continues to make significant progress in restoring power to members impacted by Hurricane Matthew. The cooperative has restored power to more than 70,000 members as of 10:00 PM EDT, October 10. Only 80 co-op members remain without power.
- Orlando Utilities Commission has completed restoration to all customers.
- Governor Scott directed the state to begin setting up housing for utility crews in strategic areas across the state. Camp Blanding in Northeast Florida is now able to house over 1,000 utility workers and their trucks.
- In all service territories, some homes and businesses may not be able to receive power due to damage from flooding until they are repaired and inspected.

- Georgia

- As of 11:00 AM EDT, October 11, the State of Georgia has 74,782 customer outages as a result of Hurricane Matthew. This represents 2% of customers in the state.
  - As of 11:00 AM EDT, October 11, Georgia Power has 74,653 customer outages.
- Georgia Power continues to expect more than 90% of customers affected will have power restored by Wednesday night. In remote areas and on the coast, restoration could take several days.
- FPL crews are being diverted to assist Georgia Power especially with restoration efforts within the Savannah, Georgia area.
- Georgia Power's restoration crews continue to repair damage to electrical infrastructure including more than 500 distribution poles that have either been damaged or broken.
- As of 8:30 AM EDT, October 9, there were more than 1,919 cases of damage (the company is working to repair).
- Georgia Power has mobilized a workforce of nearly 5,000 personnel from Georgia Power and mutual assistance crews from other states, including Alabama, Mississippi, Louisiana and Texas.
- As of 9:30 PM EDT, October 10, Georgia Power reported power had been restored to approximately 254,000 customers.



- South Carolina

- As of 11:00 AM EDT, October 11, the State of South Carolina has 288,319 customer outages as a result of Hurricane Matthew. This represents 11% of customers in the state.
  - As of 11:00 AM EDT, October 11, Duke Energy has 76,540 customer outages.
  - As of 11:00 AM EDT, October 11, South Carolina Electric and Gas (SCE&G) has 56,214 customer outages.
- The highest concentrations of power outages are in the Southeast corner of the state.
- Duke Energy, with customers in both North Carolina and South Carolina, reports that Hurricane Matthew has left large portions of the Carolinas more heavily damaged than anticipated, on a scale similar to Hurricanes Hugo and Floyd.
- Duke Energy crews have restored power to more than 825,000 customers of the approximately 1.2 million customers impacted across North Carolina and South Carolina. Estimated time for full restoration may extend into the weekend through Sunday, October 16 due to conditions impeding access to damaged areas.
- Duke Energy has identified more than 100 substations that were impacted by flooding. As of Tuesday morning, 80 have been restored.
- Duke Energy has close to 7,000 crew making repairs and has additional assistance en route. Additional crews have come from as far away as Canada.
- Duke Energy contacted the Southeastern Electric Exchange and other utilities and related services to bring in roughly 6,000 personnel in addition to the 5,600 personnel already assembled. Duke has set up three "base camps" where crews will eat, sleep, obtain their assignments, and restock their vehicles. These additional personnel are starting to arrive Monday to assist in restoration efforts.
- As of 3:00 PM EDT, October 10, SCE&G crews have restored power to more than 180,000 customers impacted by Hurricane Matthew. Hardest hit were the coastal counties of Charleston, Beaufort, Dorchester and Colleton as well as Richland County in the Midlands. SCE&G secured more than 1,000 off-system crew members to supplement the more than 2,000 SCE&G employees assisting with storm restoration efforts. Estimated times of restorations will be shared by SCE&G some time Tuesday.

- North Carolina

- As of 11:00 AM EDT, October 11, the State of North Carolina has 254,182 customer outages as a result of Hurricane Matthew. This represents 5% of customers in the state.
  - As of 11:00 AM EDT, October 11, Duke Energy has 154,612 customer outages.
  - As of 11:00 AM EDT, October 11, Dominion Power has 11,864 customer outages.
- North Carolina's 26 electric cooperatives collectively serve approximately 2.5 million people in 93 of the state's 100 counties.
- As of 8:00 AM EDT on Tuesday, October 11, power was restored for close to 19,200 North Carolina co-op members overnight. In total, crews have restored power to more than 215,200 members since Hurricane Matthew struck the state. Close to 270 workers from western North Carolina and surrounding states are in the field assisting local co-op line-workers and tree trimmers. Counties experiencing the highest number of co-op outages at this time are Robeson, Cumberland, Sampson, Harnett and Wayne.
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Virginia

- As of 11:00 AM EDT, October 11, the Commonwealth of Virginia has 32,716 customer outages. This represents <1% of customers in the Commonwealth.
  - As of 11:00 AM EDT, October 11, Dominion Power has 32,274 customer outages.
- Dominion Power crews made steady progress over the weekend, restoring power to more than 80% of the 462,000 customers impacted by Hurricane Matthew since 11:45 AM EDT, October 10. The majority of those impacted are in southeastern Virginia and northeastern North Carolina, where historic rainfall, high winds and saturated ground combined to cause extensive damage to roads, bridges and electrical infrastructure. Damage included broken poles, cross arms and downed wire in many locations. Flooding conditions and high winds over the weekend hampered the ability to initially make repairs at hard-hit locations.
- Dominion Power expects the majority of Eastern region customers to be restored by Wednesday, October 12, afternoon.
- Dominion Power has more than 2,300 personnel working to restore power and that number will increase as 500 additional line workers are returning from Florida. Dominion Power also continues to work through the mutual assistance process with neighboring utilities. The vast majority of customers impacted in Richmond, Midlothian and Northern Neck areas are expected to have power restored today, and a remaining few by mid-day Tuesday. Restoration efforts in the Eastern Region, may take several days due to more significant damage.

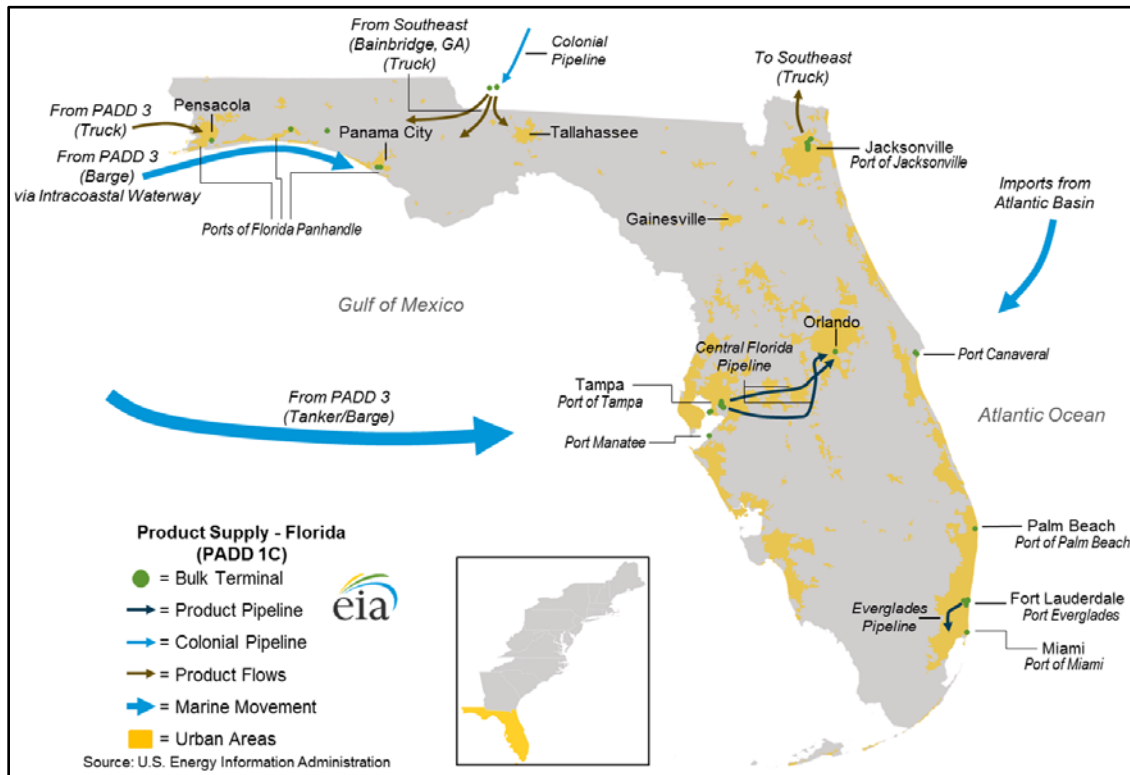
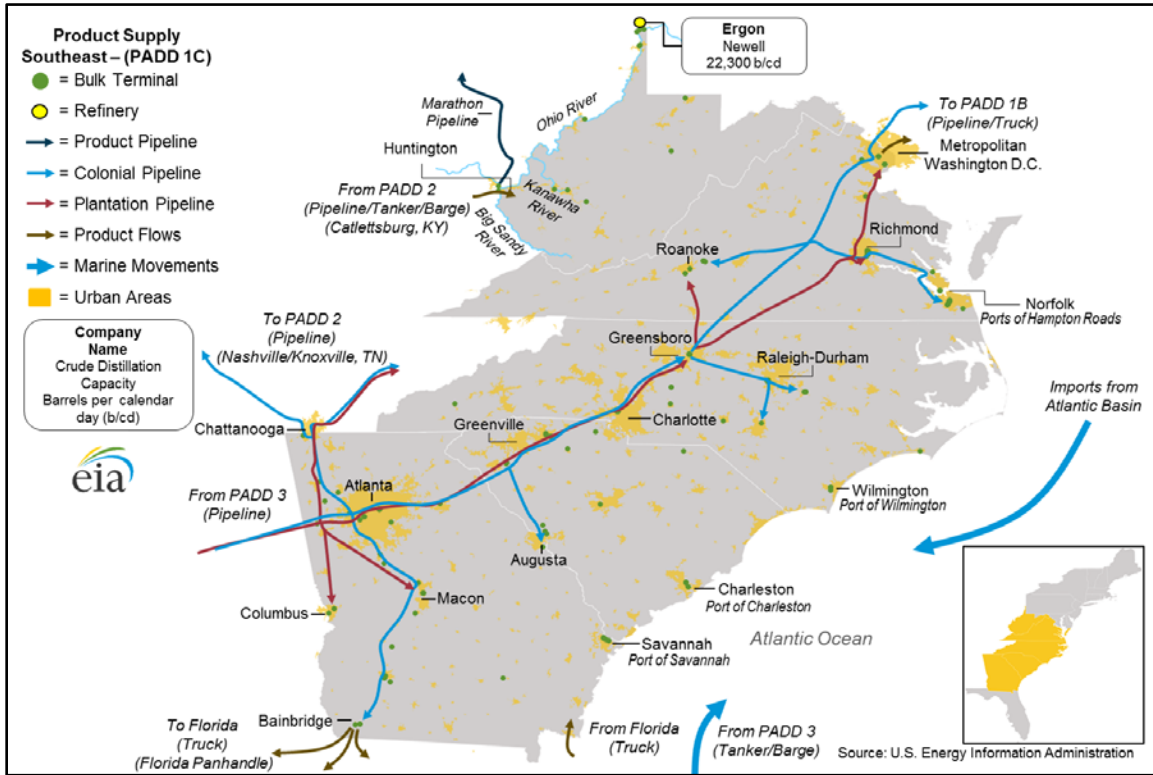
Table 1. Electricity Outages as of 11:30 AM EDT 10/10/2016

Impacted State	Current Confirmed Customer Outages	Percent of Confirmed State Customers without Power	24-hr Peak Customer Outages
Florida	56,107	<1%	240,866
Georgia	74,782	2%	131,758
South Carolina	288,319	11%	466,749
North Carolina	254,182	5%	427,759
Virginia	32,716	<1%	89,908
<b>Total</b>	<b>706,106</b>		*

\*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.



PETROLEUM INFORMATION:







PETROLEUM PORTS:

- On Monday, October 10, the Coast Guard resumed marine traffic in Sector Hampton Roads and the ports are now operating without restrictions. Ports in Sectors Charleston and North Carolina are open with restrictions. Ports in Sector Savannah remain closed. Ports in Sectors Miami and Jacksonville are operating without restrictions. The table below lists the status of ports that receive petroleum products and their 2013 average receipts of transportation fuels (gasoline, distillates, and jet fuel).

**Table 2. Status of U.S. Southeast Petroleum Ports as of 03:00 pm EDT 10/08/2016**

Port Sector	Fuel Receipts* (barrels/day)	Status	Date Stamp
<b>Sector Miami</b>			
Port Everglades	236,000	Open with no restrictions	10/07/2016
Miami	1,500	Open with no restrictions	10/07/2016
Palm Beach	500	Open with no restrictions	10/07/2016
<b>Sector St. Petersburg</b>			
Tampa	273,700	Open with no restrictions	10/07/2016
Port Manatee	700	Open with no restrictions	10/07/2016
<b>Sector Jacksonville</b>			
Jacksonville	69,800	Open with no restrictions	10/08/2016
Canaveral	32,000	Open with no restrictions	10/08/2016
<b>Sector Savannah</b>			
Savannah	12,600	Closed (Zulu)	10/07/2016
<b>Sector Charleston</b>			
Charleston	16,500	Open with restrictions	10/09/2016
<b>Sector North Carolina</b>			
Wilmington	11,500	Open with restrictions	10/09/2016
<b>Hampton Roads</b>			
Hampton Roads	7,400	Open with no restrictions	10/11/2016

\*2013 annual average of imports and domestic receipts. Includes gasoline, distillates, and jet fuel.

Source: U.S. Coast Guard; U.S. Energy Information Administration, PADDs 1 and 3 Transportation Fuels Markets (January 2016)

PETROLEUM REFINERIES:

- There are no refineries currently located within the storm’s 3-day track.

RETAIL SERVICE STATIONS:

- Florida continues to monitor for supply, distribution, or retail fuel shortages or issues, specifically for isolated incidents of individual retailers experiencing temporary fuel shortages. Officials are also working with fuel partners and suppliers to increase the number trucks moving fuel from the ports to retail locations.
- Florida law requires all motor fuel terminals to be able to dispense fuel for a minimum of 72 hours using an alternative fuel supply to the electric grid. All gas stations built after 2006, gas stations within one-half mile of an interstate highway or designated evacuation route, or gas stations in certain sized counties with a certain number of fueling positions must be prewired for an alternative power source.



STATE WAIVERS:

- Six states have active emergency declarations in order to waive Hours of Service (HOS) regulations for truck drivers delivering transportation fuels or other essential resources for emergency response. Table 4 lists the status of state emergency declarations.

Table 4. State Emergency Declarations and Hours of Service (HOS) Waivers as of 03:00 pm EDT 10/08/2016

State	Resources Cited	Effective Dates		Status
		Start	End	
Florida	Emergency services or supplies.	10/10/2016	10/14/2016	Active
Georgia	Resources to assist in preparation, response, and recovery activities.	10/05/2016	10/12/2016	Active
South Carolina	Essential services during or immediately following the event.	10/04/2016	TBD	Active
North Carolina	Fuel oil, diesel oil, gasoline, kerosene, propane, liquid petroleum gas.	10/03/2016	11/02/2016	Active
Virginia	Essential relief supplies, passengers, equipment, fuel, construction materials, and other critical supplies to or from any portion of the Commonwealth for purpose of providing direct relief or assistance as a result of this disaster.	10/06/2016	11/06/2016	Active
Kentucky	Utility power restoration and debris removal vehicles as well as commercial vehicles transporting relief supplies.	10/07/2016	11/07/2016	Active

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