

Office of Cybersecurity, Energy Security, and Emergency Response

Hurricane Dorian | Report #11

REPORT TIME & DATE:4:00 PM EDT | Thursday, September 05, 2019INCIDENT START DATE:August 28, 2019PRIMARY LOCATION(S):Florida, Georgia, South Carolina, North Carolina, and VirginiaREPORT DISTRIBUTION:Public

EXECUTIVE SUMMARY

As of 2:00 PM EDT, Hurricane Dorian was 60 miles south of Myrtle Beach, SC, moving north-northeast at 8 MPH, with maximum sustained winds of 110 MPH (category 2). A turn toward the northeast is anticipated by tonight, and a northeastward motion at a faster forward speed is forecast on Friday. On the forecast track, the center of Dorian will continue to move close to the coast of South Carolina this afternoon, and then move near or over the coast of North Carolina tonight and Friday. The center should move to the southeast of extreme southeastern New England Friday night and Saturday morning. The DOE Energy Response Organization is activated to coordinate Emergency Support Function (ESF) – 12 response efforts. DOE is holding regular calls with industry and interagency partners to assess preparations, potential post-storm requirements, and any unmet needs.

Electricity Sector Summary

- Current Outages (as of 2:00 PM EDT):
 - Georgia: 4,097 customer outages (-75% since 8:00 AM EDT)
 - South Carolina: 241,869 customer outages (+22% since 8:00 AM EDT)
 - \circ North Carolina: 5,782 customer outages (+33% since 8:00 AM EDT)
- Utilities across the potentially affected region are prepared for potential impacts from Dorian.
- Utilities are holding daily mutual assistance coordination calls and mutual assistance crews are pre-positioning throughout the potentially impacted region from over 36 states and the District of Columbia to support restoration efforts once conditions permit.

Oil & Natural Gas Sector Summary

- Per the Energy Information Administration, stocks of fuel in the Lower Atlantic Region (PADD 1C: WV, VA, NC, SC, GA, and FL) are within the 5-year range, with gasoline 8% above the 5-year average and distillate (diesel) stocks 12% above 5-year average in the region.
- Jet fuel stocks are 7% above the 5-year average across the East Coast (PADD 1).
- Overall stocks throughout the region are robust. There are minimal reports of scattered retail fuel station outages from increased demand. Retail fuel availability across Florida has stabilized.
- Widespread retail fuel station outages are not expected in Georgia or the Carolinas.
- Petroleum markets will remain fully mobilized to resupply stations across the potential impacted states as needed and are working closely with the states to help expedite fuel shipments.

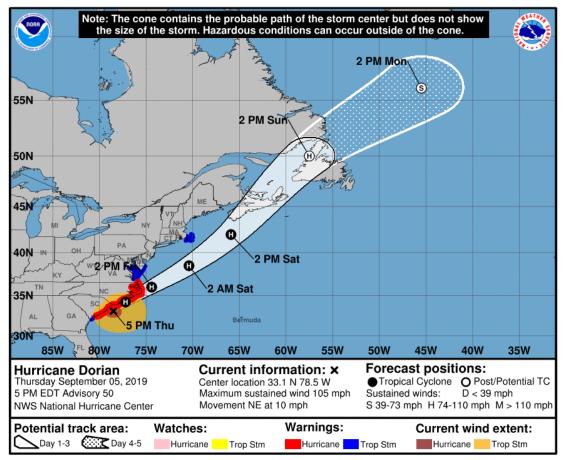


Hurricane Dorian

As of 2:00 PM EDT, Hurricane Dorian was 60 miles south of Myrtle Beach, SC, moving north-northeast at 8 MPH, with maximum sustained winds of 110 MPH (category 2). Hurricane-force winds extend outward up to 60 miles and tropical storm-force winds extend outward up to 195 miles from the center. A turn toward the northeast is anticipated by tonight, and a northeastward motion at a faster forward speed is forecast on Friday. On the forecast track, the center of Dorian will continue to move close to the coast of South Carolina this afternoon and then move near or over the coast of North Carolina tonight and Friday. The center should move to the southeast of extreme southeastern New England Friday night and Saturday morning and approach Nova Scotia later on Saturday.

Dorian is expected to produce 6 to 12 inches of rainfall, with isolated totals up to 15 inches, across coastal areas of the Carolinas, 3 to 8 inches across far southeastern Virginia, and 2 to 4 inches in extreme southeastern New England. Storm surge of 4 to 7 feet is possible from South Santee River, SC to Duck, NC (including Pamlico and Albemarle Sounds and the Neuse and Pamlico Rivers). Storm surge of 2 to 4 feet is possible from Duck, NC to Poquoson, VA (including Hampton Roads).

A hurricane warning is in effect from north of the Savannah River to the North Carolina/Virginia border as well as in the Albemarle and Pamlico Sounds. A tropical storm warning is in effect from the North Carolina/Virginia border to Fenwick Island, DE, as well as the Chesapeake Bay, from Drum Point southward and Tidal Potomac, south of Cobb Island.

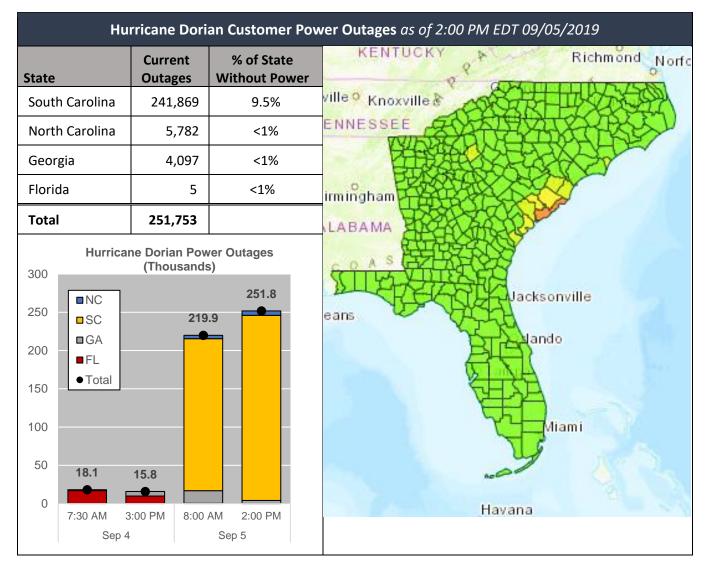


ELECTRICITY SECTOR



CURRENT POWER OUTAGES

- As of 2:00 PM EDT September 5, there are approximately 251,753 customers without power in the impacted states due to Hurricane Dorian. Outages are most heavily concentrated in Dominion Energy South Carolina's service territory.
- Restoration efforts and damage assessments will be limited until the storm has passed and weather conditions permit. Crews are unable to operate in heavily flooded areas and when wind speeds are greater than 30 MPH.
- Utilities have prepositioned crews, materials, and equipment to begin restorations as conditions permit. Mutual aid networks have been activated and crews from utilities across the country are prepared to support the restoration efforts once the storm passes.
- Fluctuation in the outage numbers is expected and normal during large-scale restoration efforts.
- Electric utilities are working with communication utilities and providers to coordinate and prioritize.





STATE DETAILS

South Carolina	Current Outages 2:00 PM 9/5	Change Since 8:00 AM 9/5	% Change Since 8:00 AM 9/5	
South Carolina (Outages by Utility)	241,869	+43,290	+22%	
Dominion Energy South Carolina	165,945	+30,876	+23%	
Berkeley Electric Coop Inc.	59,339	-3,677	-6%	
Other Utilities	16,585	+16,091	-74%	

South Carolina Investor-Owned Utilities

Dominion Energy South Carolina (DESC) (formerly South Carolina Electric & Gas)

- DESC outages are concentrated primarily in the Charleston area. Crews are performing damage assessments as conditions permit.
- DESC has received 700 additional all-system crews from the Southeastern Electric Exchange, complementing 2,000 field employees already in position.
- On September 4, Dominion Energy contract crews from Tennessee were staged in Colleton County, SC in preparation for future storm response.
- DESC has secured three helicopters for future damage assessment and restoration. The company also has over 2,000 company and on-system contract resources and 140 contract line workers and tree contractors ready to assist with future restoration efforts.

Duke Energy Carolinas

- Although Duke Energy Carolinas anticipates restoring power to some customers on the afternoon of Sept. 5, some customer outages will not have an estimated restoration time until storm impacts become more certain.
- Duke Energy Carolinas projects some customers in the coastal Carolinas, including the Pee Dee and Triangle regions, could experience extended outages, depending on the track.
- Workers from Duke Energy's Midwest contingent are traveling to the Carolinas to assist with future power restoration. As of 1:00 PM on September 4, about 1,500 workers from Duke Energy and partner utilities had arrived in Florence, SC to assist with storm response. Resources will be moved from Florence to impacted regions on Friday, September 6 as needed.
- As of September 3, Duke Energy Carolinas reports that nearly 9,000 field personnel are ready to respond to Hurricane Dorian in the Carolinas.

South Carolina Municipal, State, and Cooperative Utilities

Berkeley Electric Cooperative (BEC)

- As of 12:00 PM EDT Sept. 5, power outages are occurring across the BEC service area, including outages at two of the utility's district offices. BEC crews are on standby due to high winds, with no estimate for when power will be restored to customers experiencing outages.
- Berkeley Electric is coordinating mutual aid plans with other cooperatives and has nearly 100 additional outside crew members on standby to assist with future restoration efforts.



Santee Cooper (South Carolina Public Service Authority)

- Nine crews are working to restore power, with 35 additional crews arriving September 5 and 6 to help with restoration.
- As of 9:00 AM, there were reports of many downed utility lines across Horry County.
- On September 4, mutual aid crews from Tennessee, Georgia, and Florida arrived in Santee Cooper's service area to assist with restoration efforts.

Edisto Electric Cooperative

- As of 1:30 PM EDT Sept. 5, Edisto is working to repair damaged equipment at the Dorchester substation. Once these repairs are complete and the circuits in the substation are reenergized, Edisto Electric Coop anticipates that power will be restored to many homes in the Ridgeville area.
- As of 10:00 EDT AM Sept. 5, Edisto reported that the majority of the outages in its service region were due to loss of transmission service to substations from Santee Cooper. Crews from Edisto and Santee Cooper are working to restore service to the affected substations.

Palmetto Electric Cooperative

- Palmetto Electric Cooperative crews are actively responding to outages.
- Earlier in the day on September 5, Palmetto experienced outages on Hilton Head Island due to a downed tree on a transmission line. Power was restored to Hilton Head as of 10:15 AM EDT.

North Carolina	Current Outages 2:00 PM 9/5	Change Since 8:00 AM 9/5	% Change Since 8:00 AM 9/5
North Carolina	5,782	+1,357	+31%
North Carolina Investor-Owned Utilities			

Duke Energy Carolinas

- 1,500 crews are located at a staging area at Walnut Creek in Raleigh, NC and will be dispatched to restore power in the hardest hit areas when it is safe to do so.
- Although Duke Energy Carolinas anticipates restoring power to some customers on the afternoon of September 5, some customer outages will not have an estimated restoration time until storm impacts become more certain.
- Duke Energy projects some customers in the coastal Carolinas, including in the Pee Dee and Triangle regions, could experience extended outages, depending on the track.
- Workers from Duke Energy's Midwest contingent are traveling to the Carolinas to assist with future power restoration. Crews are staging in the Raleigh area and will be mobilized to impacted areas on Friday, September 6 as needed.
- As of September 3, Duke Energy Carolinas reports that nearly 9,000 field personnel are ready to respond to Hurricane Dorian in the Carolinas.



Georgia	Current Outages 2:00 PM 9/5	Change Since 8:00 AM 9/5	% Change Since 8:00 AM 9/5		
Georgia	4,097	-12,466	-75%		
Georgia Investor-Owned Utilities					
Georgia Power					
• Georgia Power is moving crews from across the state to help with power restoration along the Georgia coast. As of 1:00 PM EDT Sept. 5, Georgia Power reports over 250 individual cases of storm-related damage, including broken utility poles, downed lines, and scattered outages.					

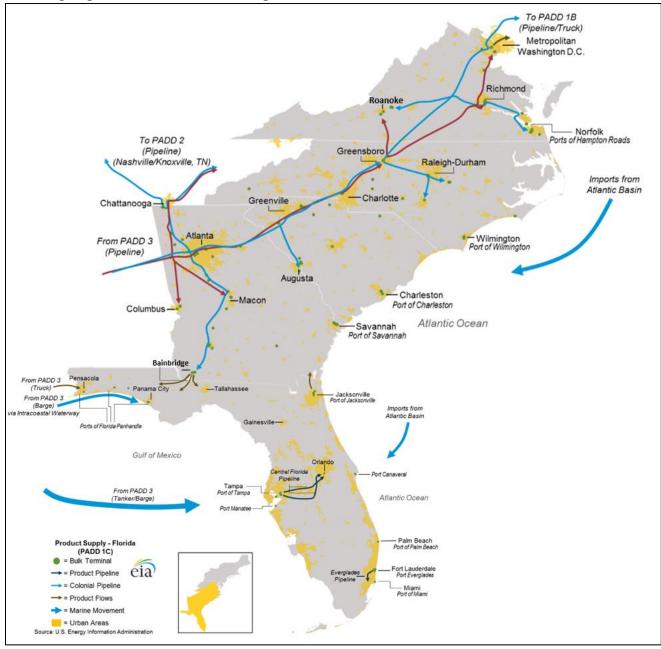
Georgia Municipal and Cooperative Utilities

- As of Sept. 4, Electric Cities of Georgia deployed and staged crews in South Carolina and Georgia to satisfy mutual aid requests. In South Carolina, Electric Cities of Georgia crews were deployed to help Santee Cooper with restoration efforts.
- The Coastal Electric Members Cooperative announced that, as of 11:00 AM EDT Sept. 5, power had been restored to all customers in the Coastal Electric service area.



PETROLEUM SECTOR

Florida's fuel supply relies overwhelmingly on domestic- and foreign-sourced marine deliveries to the state's ports along the Atlantic Ocean (Port Everglades, Port Canaveral, and Jacksonville) and Gulf of Mexico (Port Tampa, Port Manatee, Panama City, and Pensacola). Parts of northern Florida also receive fuel truck deliveries from Georgia and Alabama. Within Florida, the Central Florida Pipeline delivers fuel from the Port of Tampa to the Orlando market. In **Georgia, South Carolina, and North Carolina** virtually all fuels are supplied via the Colonial and Plantation pipeline systems from the Gulf Coast. Ports along the states' Atlantic coasts (Savannah, Charleston, and Wilmington) also receive smaller volumes of fuels via ocean-going marine vessels from foreign and domestic sources.





PORTS

• The U.S. Coast Guard has set the following conditions for East Coast ports. Listed in the table are select ports that receive petroleum products.

Status of Southeast Ports as of 2:30 PM EDT 09/05/2019				
Port Sector	Port	2017 Volumes (b/d)*	Status	Date Stamp
	Jacksonville, FL	86,000	Open with restrictions. Drafts must be less than 36'.	9/5
Jacksonville	Port Canaveral, FL	54,000	Open with restrictions. Drafts must be less than 36'.	
Miami	Miami, FL	1,000	Open. No Restrictions.	9/3
IVIIdIIII	Port Everglades, FL	298,000	Open. No Restrictions.	9/3
St. Dotorsburg	Tampa, FL	297,000	Open. No Restrictions.	9/3
St. Petersburg	Port Manatee, FL	12,000	Open. No Restrictions.	9/3
Savannah	Savannah, GA	19,000	Port Condition Zulu. Closed.	9/4
Charleston	Charleston, SC	24,000	Port Condition Zulu. Closed.	9/4
North Carolina	Wilmington, NC	3,000	Port Condition Zulu. Closed.	9/4
Hampton Roads	Norfolk, VA	14,000	Port Condition Yankee. Open with restrictions. Will close at 4 PM EDT on Sept. 5	9/5

*Transportation fuels (gasoline, distillate, jet fuel) volumes only.

Source: U.S. Coast Guard Homeport, U.S. Army Corp of Engineers, EIA Company Level Imports

FUEL INVENTORIES

- According to the Energy Information Administration (EIA), for the week ending on August 30, the Lower Atlantic Region (PADD 1C: WV, VA, NC, SC, GA, and FL) had total stocks of:
 - 28.4 million barrels of gasoline (8% higher than the 5-year average for this time of year).
 - 11.3 million barrels of distillate (12% lower than the 5-year average for this time of year).
- EIA reports the East Coast Region (all of PADD 1) had 10.3 million barrels of total jet fuel stocks for the week ending on August 30. This is 7% higher than the 5-year average for this time of year. Jet fuel stocks are not broken out by sub-PADD region.

RETAIL FUEL STATIONS

- Overall stocks throughout the region are robust. There are minimal reports of scattered retail fuel station outages from increased demand. Retail fuel availability across Florida has stabilized.
- Widespread retail fuel station outages are not expected in Georgia or the Carolinas.
- Petroleum markets will remain fully mobilized to resupply stations across the potentially impacted states as needed and are working closely with the states to help expedite fuel shipments.



EMERGENCY DECLARATIONS & WAIVERS

EMERGENCY DECLARATIONS

To provide vital supplies and transportation services to a disaster area in the United States, emergency declarations may be issued by the President, Governors of States, or Federal Motor Carrier Safety Administration (FMCSA). These declarations trigger the temporary suspension of certain Federal safety regulations, including Hours of Service, for motor carriers and drivers engaged in specific aspects of the emergency relief effort. See <u>49</u> <u>CFR 390.23</u> for the actual emergency regulation.

State Emergency Declarations and HOS Waivers as of 4:00 PM EDT 09/05/2019				
Choko /Townitowa	Dataila	Effect		
State/Territory	Details	Start	End	Status
AL, FL, GA, KY, LA, MS, NC, SC, TN, VA, PR, USVI	FMCSA Regional Declaration of Emergency (Hour-of-Service Wavier)	8/29/2019	9/28/2019	Active
Florida	Federal State of Emergency	8/30/2019		Active
Seminole Tribe of Florida	Federal State of Emergency	9/1/2019		Active
Georgia	Federal State of Emergency	9/2/2019		Active
South Carolina	Federal State of Emergency	9/2/2019		Active
North Carolina	Federal State of Emergency	9/3/2019		Active
Florida	State of Emergency	8/28/2019	60 days unless extended	Active
Georgia (30 counties)	State of Emergency	8/29/2019		Active
South Carolina	State of Emergency	8/31/2019	30 days unless extended	Active
North Carolina	State of Emergency	8/30/2019	30 days unless extended	Active
Tennessee	State of Emergency	9/2/2019		Active
Virginia	State of Emergency	9/2/2019		Active
Kentucky	HOS Waiver	8/30/2019	9/29/2019	Active
North Carolina	HOS Waiver	8/31/2019	30 days or duration of emergency	Active
Puerto Rico	State of Emergency	8/26/2019	Until rescinded	Active
Virgin Islands	State of Emergency	8/28/2019	Until rescinded	Active

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



FUEL WAIVERS

The Environmental Protection Agency (EPA), working with the Department of Energy (DOE), responds quickly to address fuel supply disruptions caused by hurricanes or other natural disasters by issuing emergency waivers of certain fuel standards in affected areas. The table below lists fuel-related waivers issued by the EPA:

Fuel Waivers as of 4:00 PM EST 09/05/2019				
State/Territory Details	Details	Effective Dates		Status
State/Terntory	Details	Start	End	Status
Florida	RVP and RFG Waiver	8/30/2019	9/15/2019	Active
Florida	Restriction on red-dyed diesel fuel for highway use	8/30/2019	9/15/2019	Active
Florida	NAA for Vapor Recovery Systems at Fuel Distribution Terminals	8/30/2019	9/15/2019	Active
Florida	NAA for Loading of Tanker Trucks at Fuel Distribution Terminals	8/30/2019	9/15/2019	Active
Georgia	NAA for Loading of Tanker Trucks at Fuel Distribution Terminals	9/2/2019	9/15/2019	Active
South Carolina	NAA for Loading of Tanker Trucks at Fuel Distribution Terminals	9/2/2019	9/15/2019	Active
North Carolina	NAA for Loading of Tanker Trucks at Fuel Distribution Terminals	9/3/2019	9/15/2019	Active

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

In order to minimize or prevent the disruption of an adequate supply of gasoline for evacuees in the designated areas, the EPA has issued temporary waivers in Florida for:

- <u>Gasoline Reid Vapor Pressure (RVP) regulations</u> requiring the use of low volatility conventional gasoline (CG) during the high ozone season are found at 40 C.F.R. § 80.27. The waiver allows use of higher vapor pressure gasoline about two weeks earlier than normal.
- <u>Reformulated gasoline (RFG) regulations</u> at 40 C.F.R. § 80. 78(a)(7), which prohibit any person from combining any reformulated blendstock for oxygenate blending (RBOB) with any other gasoline, blendstock, or oxygenate, except for the oxygenate of the type and amount specified by the refiner that produced the RBOB.
- <u>Highway diesel fuel "no red dye" requirements</u>, thus allowing the sale, distribution and use of red dyed non-road locomotive and marine (NRLM) diesel fuel for use in highway diesel vehicles, but the diesel fuel must meet the 15ppm standard set forth at 40 C.F.R. § 80.520.

The EPA has also issued No Action Assurance (NAA) in some states for:

- <u>Loading of Tank Fuel Trucks at Petroleum Distribution Terminals</u>: no enforcement of tank tightness and documentation requirements of 40 C.F.R. Part 60, Subpart XX, 40 C.F.R. Part 63 Subpart R, and any counterpart in the Florida SIP.
- <u>Vapor Recovery Systems at Fuel Distribution Terminals</u>: no enforcement of vapor recovery requirements for fuel loading and unloading under 40 C.F.R. Part 60, Subpart XX, 40 C.F.R. Part 63 Subparts R, Y, CC, and BBBBBB, and any counterpart in the Florida SIP.



OTHER FEDERAL WAIVERS

- On August 30, the Pipeline and Hazardous Materials Safety Administration (PHMSA) issued an Emergency Stay of Enforcement for interstate pipeline operators in Florida dealing with the situation presented by Hurricane Dorian. PHMSA is considering providing similar notices for other states that may be affected. Specifically, PHMSA will not object to waiving the following requirements:
 - Pre-employment and random drug testing to facilitate mutual aid amongst operators (49 CFR 199.105).
 - All pipeline workers performing critical safety tasks, known as "covered tasks," are properly qualified and familiar with regulatory and company policies and procedures (49 CFR Part 192 Subpart N and 49 CFR Part 195 Subpart G).

