



U.S. Department of Energy
Office of Electricity Delivery & Energy Reliability

Hurricane Irene Situation Report #4

August 28, 2011 (10:00 AM EDT)

http://www.oe.netl.doe.gov/emergency_sit_rpt.aspx

Highlights:

- Hurricane Irene made landfall on Puerto Rico as a Category 1 hurricane on Monday August 22 and landfall near Cape Lookout, NC as a Category 1 hurricane at 8:00 am EDT August 27. As of 9:00 am EDT, the National Hurricane Center (NHC) downgraded Irene to a Tropical Storm with maximum sustained winds of 65 mph. The storm is moving to the north-northeast at 26 mph and is the center of the storm is passing over New York, NY.
As of August 27, the following States have declared a State of Emergency: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Jersey, New York, North Carolina, Rhode Island, Vermont, and Virginia.

Electricity Information:

Electricity Outages by State

Table with 3 columns: Impacted State, Electric Customer Outages, % of State Customers Without Power. Rows include Connecticut, Delaware, District of Columbia, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Virginia, and a TOTAL row.

Note: Due to a large number of service providers, including investor owned utilities and cooperatives, the number of customer outages reported may not be comprehensive.

Sources:

Outages obtained from company web sites and DOE communications.
Total State customers are based on 2009 EIA Customer Data.



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- As of 8:00 am EDT August 28, the impacted States report a total of 4,010,345 customers without power. This is an increase from the 525,910 reported yesterday afternoon in Situation Report #3. Preparation and restoration efforts by electric utilities are reported below.
Long Island Power Authority (LIPA), in response to the mandatory evacuations and to ensure the safety of first responders, has shutdown power to Fire Island, Robert Moses Beach, Captree Beach, Gilgo Beach, West Gilgo Beach and Oak Beach.
Calvert Cliffs Nuclear Power Plant Unit 1 tripped yesterday (August 27) when a large piece of siding blew off the building and hit a main transformer. The facility is safe and stable, but an "unusual event" was declared. After the accident, the facility's Unit 2 was stable and operating at 100 percent power.
The Oyster Creek Nuclear Power Plant in New Jersey performed a voluntary controlled shut down last night (August 27).
PJM reported last night (August 27) that its grid remained stable. PJM is the regional transmission organization (RTO) that coordinates the movement of wholesale electricity in 13 States (including Delaware, Maryland, New Jersey, North Carolina, Pennsylvania, and Virginia) and the District of Columbia.

Petroleum & Natural Gas Information:

- According to the Energy Information Administration (EIA), as of Friday, August 19, East Coast (PADD 1) inventories for gasoline (55 million barrels) and distillate fuel (61.5 million barrels) are at about their 5-year average levels. Crude oil inventories (11.6 million barrels) are 18 percent below their 5-year average, but this is partially due to fewer inventories being needed as a result of the shutdown of Eagle Point and Yorktown refineries. Gulf Coast (PADD 3) gasoline, distillate fuel, and crude oil inventories are all well above their 5-year average.
All refineries on the East Coast are operating at normal or slightly reduced rates.

Refineries in the Path of Irene as of 8/28/11 8:00 AM EDT
Table with 8 columns: Refinery Impacted, Location, Capacity (B/D), Normal Operations, Shut Down, Restarting, Reduced Rates, Back to Normal. Rows include ConocoPhillips, Sunoco, PBF (formerly Valero) and a TOTAL row.

Note: The table does not include asphalt refineries or facilities already closed in prior years.

Sources: Confirmed by company or on company web site. Various trade press sources.



- The current status of pipeline operations in the Northeast is summarized in the following table.

Pipelines in the Path of Irene as of 8/28/11 8:00 AM EDT							
Type	Name	Start	Terminus	Capacity (barrels/day)	Shut Down	Reduced Rates	Operating
Product	Colonial	TX	NJ	2,400,000			2,400,000
Product	KinderMorgan/ Plantation	LA	VA	600,000	A		
LPG	Enterprise Products Partners (TEPPCO)	PA	PA	330,000	B		
LPG	Enterprise Products Partners (Dixie)	TX	VA	100,000			100,000
Product	Buckeye	NJ	PA, NY	N/A	C		
Crude oil	Portland Pipe Line	ME	Quebec	N/A	D		

A = Plantation pipeline (14W) from Greensboro, NC to Newington, VA is down due to power failure on August 27
 B = TEPPCO pipeline segments A-3, A-4, A-5 (all in PA) isolated on August 26, estimated restart on August 29
 C = Buckeye lines running NJ-to-PA, PA-to-NY, and intrastate ME, estimated restart on August 29.
 D = Portland-Montreal 24” main line was isolated and shut down until storm passes on August 28.

- Colonial Pipeline reported yesterday (August 27) that mainline operations from Houston into the Northeast are continuing as normal. Power outages in coastal areas caused some of segments of the pipeline in those coastal markets to be curtailed.
- The current status of terminals reporting as shut down is summarized in the following table.

Impacted Terminals in the Path of Irene as of 8/28/11 8:00 AM EDT			
Company Name	Location	Shut Down Date	Restart Date
Buckeye Partners	Linden, NJ	8/27/11	8/29/11
Buckeye Partners	Inwood, NY	8/27/11	8/29/11
Buckeye Partners	Long Island City, NY	8/27/11	8/29/11
Buckeye Partners	JFK and LaGuardia airports, NY	8/27/11	8/29/11
Enterprise Products Partners (TEPPCO)	Providence, RI	8/27/11	
ExxonMobil	Providence, RI	exp. 8/28/11	
KinderMorgan	Cateret, NJ	8/26/11 (unconfirmed)	
KinderMorgan	Staten Island, NY	8/26/11 (unconfirmed)	
Magellan Midstream Partners	Selma, NC	8/27/11	exp. 8/28/11
Magellan Midstream Partners	Richmond, VA	8/27/11	exp. 8/28/11
Magellan Midstream Partners	Wilmington, DE	8/27/11	
Magellan Midstream Partners	New Haven, CT	exp. 8/27/11	
Motiva Enterprises	Providence, RI	8/26/11	
NuStar	Virginia Beach, VA	8/25/11	exp. 8/30/11
NuStar	Wilmington, NC	8/26/11	
NuStar	Piney Point, MD	8/26/11	
NuStar	Salisbury, MD	8/26/11	
NuStar	Andrews AFB, MD	8/26/11	
NuStar	Baltimore, MD	8/26/11	
NuStar	Dumfries, VA	8/26/11	
NuStar	Linden, NJ	exp. 8/27/11	

exp. = expected

Sources: Confirmed by company or on company web site. Various trade press sources.



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- NuStar plans to keep its Paulsboro, NJ terminal open as long as the PBF (formerly Valero) refinery remains operational.
- The U.S. Coast Guard shut all ports in North Carolina, Virginia, Maryland (except the Upper Chesapeake Bay), in Long Island Sound, and Boston Harbor on August 27. The ports of New York and New Jersey were also closed on August 27 to all vessels without specific permission from the Captain of the Port. The port of Philadelphia (including Marcus Hook and Paulsboro) will be closed as of 4:00 pm August 28. In Maryland, the Upper Chesapeake Bay will be closed by 8:00 pm August 28.

Electricity Restoration Activities:

- Progress Energy Carolinas reported (August 28) that it anticipates it will take several days to complete repairs. The company plans to complete a damage assessment by Sunday (August 28) and will provide a return to service estimate for all its customers. A crew of 1,000 line workers, tree crews and support staffs from five States will be conducting damage assessments and are prepared to begin large-scale repairs as soon as weather conditions permit.
- Dominion Power in North Carolina reported that it plans to begin damage assessments today (August 28). Dominion has over 5,000 line workers from six States assisting crews in the restoration.
- Rappahannock Electric Cooperative (REC), servicing 22 Virginia counties has dispatched crews to begin full restoration efforts today (August 28) after assessing the storm impact throughout the night. Due to the extent of damage, the Cooperative anticipates an extended restoration period.
- Pepco, serving D.C. and Maryland, is completing damage assessments and restoration efforts today (August 28) as the weather permits.
- Baltimore Gas and Electric (BG&E) expects that customers may experience multiple outages throughout the next several days, including extended outages while the utility continues restoration work. The hardest hit areas of service territory include Anne Arundel, Baltimore, Calvert and Prince George's Counties, and Baltimore City. The company has more than 3,800 employees, contractors, and out-of-State linemen in place to assist with widespread customer outages from Hurricane Irene's impacts.
- Atlantic City Electric has initiated its Incident Response Plan regarding the effects of Hurricane Irene. In order to limit storm damage and ensure the safety of customers and emergency service personnel, the company may need to de-energize the transmission infrastructure in flooded communities.
- PECO, serving southeastern Pennsylvania, has mobilized more than 2,500 field personnel and hundreds of back-office employees to respond to the effects of Irene.
- Public Service Electric & Gas (PSE&G), serving New Jersey, expects the number of outages to climb as Hurricane Irene moves north. The utility is estimating that power restoration may take several days to a week.
- Con Edison, serving New York City and surrounding area, expects its overhead system will take the brunt of the hurricane, affecting customers in Brooklyn, the Bronx, Staten Island, Queens and Westchester, but it is also preparing for flooding in low-lying areas that can affect its underground system. Con Edison will evaluate the possibility of shutting down electricity south of the Brooklyn Bridge and east of Broadway depending upon the storm surge and flooding. Any shut down will only occur if flooding would cause the potential for extended customer outages and damage to



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equipment. Evaluations to shut down electricity to customers in the low-lying Brighton Beach area of Brooklyn will also be examined.

- New York Public Service Commission reports utilities in New York are continuing to supplement internal crews with mutual aid. Combined, the investor owned electric utilities have secured over 770 external crews, of which approximately 360 will be used to support Con Edison's restoration activities. These figures do not include crews reporting to Long Island Power Authority. The crews have been secured from as far away as Colorado, Kansas, Texas, Mississippi, Wisconsin, Michigan, Illinois, and Indiana. Most crews are arrived Friday (August 27), ahead of the storm, to expedite restoration activities. In addition, Con Edison has supplemented its staffing with 205 damage assessors to survey the impact of the storm.
- National Grid, servicing customers in Massachusetts, New Hampshire, New York and Rhode Island, has activated its storm emergency plan bringing in extra crews, pre-staging crews and materials, and identifying flood-prone areas.
- Severe Weather Procedures have been initiated in New Jersey by Exelon/Amergen and in New York by Entergy.

ESF 12 Actions:

- ESF 12 is staffing the FEMA National Response Coordination Center (NRCC) in Washington, DC, the Region I Regional Response Coordination Center (RRCC) in Boston, MA, the Region II RRCC in New York, NY, the Region III RRCC in Philadelphia, PA, and the Region IV RRCC in Atlanta, GA.