



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

Hurricane Irene Situation Report #12
September 1, 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.
In response to Irene the following States declared a State of Emergency: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, Vermont, and Virginia.

Electricity Information:

Electricity Outages by State

Table with 5 columns: Impacted State, Current Customer Outages, % of State Customers Without Power, Peak Outages Reported in DOE SitRep(s), Customers Restored Since Peak. Rows include Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, Vermont, Virginia, and a TOTAL row.

Note:

States with less than 1,000 outages are not included in the table.

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 September 1, the impacted States report a total of 1,110,587 customers without power. This is a decrease from the 1,722,712 reported as of 1:00 pm EDT August 31 in Situation Report #11. Restoration estimates and efforts by electric utilities are reported below.
- Calvert Cliffs Nuclear Power Plant Unit 1 resumed operations on August 31. The unit tripped on Saturday, August 27, when a large piece of siding blew off the building and hit a main transformer.

Petroleum & Natural Gas Information:

- In the Northeast, the ConocoPhillips has begun restarting its Linden, NJ refinery and two refineries are operating at reduced rates (Sunoco, Marcus Hook, PA and Philadelphia, PA). The ConocoPhillips refinery in Trainer, PA and PBF refineries in Paulsboro, NJ and Delaware City, DE have returned to normal operations.

Refineries in the Path of Irene as of 9/1/11 8:00 AM EDT							
Refinery Impacted	Location	Capacity (B/D)	Capacity (B/D)				
			Normal Operations	Shut Down	Restarting	Reduced Rates	Back to Normal
ConocoPhillips	Linden, NJ	238,000			238,000		
ConocoPhillips	Trainer, PA	185,000					185,000
Sunoco	Marcus Hook, PA	178,000				178,000	
Sunoco	Philadelphia, PA	335,000				335,000	
PBF (formerly Valero)	Paulsboro, NJ	160,000					160,000
PBF (formerly Valero)	Delaware City, DE	182,200					182,200
TOTAL		1,278,200	0	0	238,000	513,000	527,200

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 9/1/11 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			600,000 ^A
LPG	Enterprise Products Partners (TEPPCO)	TX	PA	330,000			330,000 ^B
LPG	Enterprise Products Partners (Dixie)	TX	VA	100,000			100,000
Product	Buckeye Eastern Products System	NJ	PA, NY	900,000			900,000 ^C
Crude oil	Portland Pipe Line	ME	Quebec	410,000	410,000 ^D		

A = Plantation line resumed normal operations on all pipeline segments.

B = TEPPCO pipeline segments A-3, A-4, A-5 (all in PA) were isolated on August 26, and back to full operating capacity on August 30.

C = Buckeye lines returned to near normal operations on August 29.

D = Portland-Montreal 24" main line was isolated and shut down before storm; the pipeline is expected to begin operating at reduced rates on August 31.

- The current status of terminals reporting as shut down is summarized in the following table.



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Impacted Terminals in the Path of Irene as of 9/1/11 8:00 AM EDT

Table with 4 columns: Company Name, Location, Shut Down Date, Restart Date. Rows include ConocoPhillips, Enterprise Products Partners (TEPPCO), ExxonMobil, Motiva Enterprises.

Est. = estimated, exp. = expected

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

Electricity Restoration Activities by State:

Connecticut:



- Connecticut Light & Power (CL&P) estimates that it will restore power to customers in Cheshire and Torrington by midnight tonight (September 1), Hartford, Simsbury, and Tolland by midnight Friday (September 2), Falls Village, Greenwich, New Milford, and Stamford by midnight Saturday (September 3), Norwalk by midnight September 6, and Newtown by midnight September 7.
The United Illuminating Company (UI) reported yesterday (August 31) that it estimates it will restore power to 94 percent of the affected customers by the weekend.

Maine:



- Central Maine Power Company (CMP) reported last night (August 31) that it has 160 tree crews and 285 repair crews including crews from northern Maine, New Hampshire, Vermont, Nova Scotia, and New Brunswick.

Maryland:



- Pepco, serving D.C. and Maryland, reported last night that they have restored power to almost all customers impacted by Hurricane Irene. The company will continue to dispatch 1,400 line restoration workers to localized outage areas in parts of Maryland where large trees caused most of the damage to the electrical equipment.
Baltimore Gas and Electric Company (BGE) reported on August 31 that it continues to expect to restore service to the vast majority of customers by late Friday (September 2), with some scattered



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outages extending into Saturday (September 3). BGE has more than 5,000 employees, contractors, and out-of-state linemen working on restoration today (August 31).



Massachusetts:

- **NSTAR reports that the remaining outages are located in the South Shore, Cape Cod and MetroWest.** The company continues to estimate that all customers will be restored by 10:00 pm Saturday (September 3). A list of expected restoration times by community is posted on their website.
- National Grid reported that full restoration to all communities is expected by Sunday, September 3. A detailed county listing with estimated restoration times is posted on their website. The company has 3,500 restoration and support personnel supporting its response effort.
- Western Massachusetts Electric Company (WMECo) has completed restoration to all of its customers affected by Irene.

New Hampshire:



- **Public Service of New Hampshire (PSNH) reports that restoration efforts have been completed for 99 percent of its customers. PSNH will continue restoration work in Wakefield this morning (September 1) and the customers there will be restored no later than midday.** The company's 120 line and contract crews already in place were joined by another 100 additional contract crews yesterday (August 30) from as far away as Tennessee, Missouri, and Ohio.
- **New Hampshire Electric Co-op (NHEC) estimated that all affected customers would be restored by last night (August 31).**

New Jersey:



- **Atlantic City Electric expects full restoration to all of its customers affected by Hurricane Irene by midnight tonight (September 1). The company continues to dispatch crews to localized outage areas in parts of southern New Jersey, where heavily damaged areas include Glassboro, Bridgeton and Pleasantville.** Flooded roads in southern New Jersey have been an issue, impeding the capability to move crews and equipment throughout the region. Hundreds of Atlantic City Electric and mutual assistance crews are working to restore customers.
- **Public Service Electric & Gas (PSE&G) continues to anticipate complete restoration of customers in Bergen, Hudson, Essex, Passaic, Burlington, Camden, Gloucester and Mercer counties by Friday (September 2). In the central NJ counties of Union, Middlesex, and Somerset affected by flooding PSE&G expects to restore service to all customers by Sunday (September 4).** PSE&G has 6,000 employees supporting the restoration effort, including including crews from Wisconsin, West Virginia, Florida, Missouri, Ohio, Pennsylvania, and Tennessee.
- Jersey Central Power and Light (JCP&L) continues to estimate that the majority of their customers will be restored by the weekend with full restoration by early next week. JCP&L has more than 4,000 employees assisting with restoration.



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- Orange & Rockland (O&R) continues to report that most customers should be restored by by midnight Friday (September 2), with the remaining restored over the weekend. More than 180 O&R, contractor and mutual aid crews from as far as Michigan and Texas are assessing damage and conducting system repairs.

New York:



- **National Grid continues to anticipate full restoration to customers who are not affected by severe flooding and travel restrictions by midnight tonight (September 1).** The company reports more than 3,000 people are dedicated to the effort and as of August 30, National Grid has line crews (249 company, 352 out-of-state) and tree crews (215 company) dedicated to the effort.
- Orange & Rockland (O&R) continues to report that most customers should be restored by by midnight Friday (September 2), with the remaining restored over the weekend. More than 180 O&R, contractor and mutual aid crews from as far as Michigan and Texas are assessing damage and conducting system repairs.
- **Con Edison, serving New York City and surrounding area, expects Westchester customers to be restored by late tonight (September 1).** The company stated that all its New York City customers were restored as of yesterday (August 31). Con Edison has utility crews from Louisiana, Texas, Colorado, Kansas, Mississippi, Michigan, Illinois, and Wisconsin assisting in the restoration efforts.
- **Long Island Power Authority (LIPA) reported 90 percent restoration is expected by midnight Friday (September 2).** LIPA has 3,000 line crews and tree trimmers in what is one of the largest contingencies of restoration crews in the company's history.
- **New York Service Gas and Electric (NYSEG) estimates that it will restore service to all of its customers, except those in the Brewster Oneonta Division, by midnight Saturday (September 3).** In the Brewster and Oneonta Division, 75 percent of the customers who didn't have power on August 30 are expected to have service restored by Friday (September 2), the remaining customers a projected to be restored by September 7.
- Central Hudson Gas and Electric Corporation reports that most of their outages are in the hardest-hit counties of Ulster, Albany and Greene, where restoration work has been hampered by severe flooding, impassable roadways and infrastructure destruction. The company estimates the majority of the customers in Columbia, Dutchess, Orange, and Putnam counties would be restored by yesterday (August 31), while customers in Ulster, Albany, and Greene counties can expect to be restored by Sunday (September 4).

North Carolina:



- **Dominion Virginia Power stated that they are on track to restore 90-95 percent by Friday (September 2) with all remaining customers restored by Saturday night (September 3).**
- **Progress Energy reported last night (August 31) that they have restored power to 98 percent of affected customers.**

Pennsylvania:



- **Penelec stated they completed restoration efforts for their customers yesterday (August 31).**



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- Met-Ed estimates that the majority of their customers should be restored by midnight Friday (September 2).
- Pike County Power reports that the remaining customers out are located predominantly in the Matamoras area. The utility estimates that restoration will be completed by Friday (September 2) evening or Saturday (September 3) morning, depending on further damage assessments.
- PECO, serving southeastern Pennsylvania, reports that more than 4,000 workers are working on restoration, and expects service for a small number of customers with more extensive damage to be restored by the weekend.
- UGI Electric reported August 31 that due to the extent of the damage, customers should be prepared to be without power for an extended period, possibly into early next week in the most difficult-to-reach areas. UGI has 15 crews made up of more than 100 field team members plus additional support staff working on restoring power to affected communities.

Rhode Island:

- National Grid reported that full restoration to all communities is expected by Sunday, September 3. A detailed county listing with estimated restoration times is posted on their website. The company has 3,500 restoration and support personnel supporting its response effort.



Virginia:

- Dominion Virginia Power stated that they are on track to restore 90-95 percent by Friday (September 2) with all remaining customers restored by Saturday night (September 3).



Vermont:

- Central Vermont Public Service (CVPS) reported that as of August 31 the utility had restored over 85 percent of its customer. CVPS continues to report that complete restoration could take weeks due to areas being inaccessible. In areas that crews can get to, restoration would likely take days. The company has hundreds of crews from as far away as Illinois, Missouri, Texas, and Ontario assisting CVPS's crews.



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 and the Region II RRCC in New York, NY. ESF 12 staff are staffing the Maryland Emergency Operations Center (EOC) and are coordinating restoration activities with the States of Connecticut and Rhode Island. ESF 12 has demobilized from the Region IV RRCC in Atlanta, GA, the Joint Field Office (JFO) in Albany, NY, and the Virginia EOC.