

U.S. DEPARTMENT OF ENERGY Office of Electricity Delivery and Energy Reliability Infrastructure Security and Energy Restoration

ENERGY ASSURANCE DAILY

Monday, October 31, 2011

### **Major Developments**

## Rare October Snow Storm Knocks Out Power to 4.3 Million Customers in the Northeast October 29–30; 2.4 Million Customers Remain without Power October 31

According to the latest utility and news reports, more than 2.4 million customers are without power from the Mid-Atlantic to New England due to an early snow storm that brought heavy, wet snow over the weekend. Throughout the weekend, more than 4.3 million customers lost power at one point or another. Connecticut Light & Power (CL&P) was hit the hardest with nearly 831,000 customers without power at the peak of the storm. As of latest reports, more than 740,000 customers remained without power in CL&P's service territory and the utility expects full restoration to take more than one week.

U.S. East Coast Customer Power Outages October 29 – 31, 2011				
Electric Utility	State	Peak Reported	Latest Reported	
Connecticut Light & Power	СТ	831,000	740,592	
Western Massachusetts Electric	MA	154,000	115,520	
NSTAR	MA	114,000	42,000	
Massachusetts Electric (National Grid)	MA	400,000	300,000	
Unitil	MA/NH	70,000	35,415	
Public Service of New Hampshire	NH	289,615	180,000	
Granite State Electric Co (National Grid)	NH	15,665	9,479	
New Hampshire Electric Cooperative	NH	11,500	3,918	
Central Maine Power	ME	145,000	14,983	
Bangor-Hydro Electric Co.	ME	7,234	0	
Narragansett Electric (National Grid)	RI	20,000	1,779	
New England Subtotal		2,058,014	1,443,686	
Jersey Central Power & Light	NJ	356,000	185,075	
PSE&G	NJ	500,000	145,000	
Orange and Rockland	NJ/NY/PA	122,438	122,438	
Con Ed	NY	118,000	57,000	
NYSEG	NY	82,000	54,485	
LIPA	NY	23,000	117	
Central Hudson Gas & Electric	NY	156,000	82,000	
PPL	PA	318,000	120,000	
PECO	PA	250,000	20,000	
1200				
PennPower, Penelec, Met-Ed (FirstEnergy)	PA	292,000	171,555	
PennPower, Penelec, Met-Ed (FirstEnergy) Potomac Edison, Mon Power, West Penn		292,000 59,000	<u>171,555</u> 2,226	
PennPower, Penelec, Met-Ed (FirstEnergy) Potomac Edison, Mon Power, West Penn Power (Allegheny Power)	PA			
PennPower, Penelec, Met-Ed (FirstEnergy) Potomac Edison, Mon Power, West Penn	PA			

\*Total outages only represent electric utilities listed in this table. Total peaks are non-concurrent. Sources:

http://outage.cl-p.com/outage/outagemap.aspx

http://nuwnotes1.nu.com/apps/mediarelease/clp-

pr.nsf/0/0D5A37FFEAF2929F8525793A0053B0E8?OpenDocument

http://www.cmpco.com/

http://www.cmpco.com/OurCompany/News/2011/news111031b.html

http://www.wmeco.com/outage/outagemap.aspx http://www.nstaronline.com/business/ http://www1.nationalgridus.com/masselectric/stormcenter/ https://www.nationalgridus.com/masselectric/storm/storm outage.asp http://www.unitil.com/outage-center/outage-information-chart http://app.alleghenyenergy.com/outagestatus/OMS Customer State.aspx?Option=State&User= https://www.firstenergycorp.com/outages/outages.do?state\_code=NJ http://www.pseg.com/info/media/newsreleases/2011/2011-10-31.jsp http://www.nhec.com/oms.php http://www.coned.com/newsroom/news/pr20111031.asp http://www.nyseg.com/Outages/outageinformation.html http://www.nvseg.com/OurCompany/News/2011/103011noreaster9am.html http://www.lipower.org/stormcenter/outages/township.html http://www.oru.com/stormphotogallery/102911/index.html http://wp1.coned.com/or stormcenter/default.aspx https://selfserv.pplelectric.com/EUSelfServ/Outage/OutageMap.aspx http://www.pplelectric.com/Outage+Center http://app.alleghenyenergy.com/outagestatus/OMS Customer State.aspx?Option=State&User= https://www.firstenergycorp.com/outages/outages.do?state\_code=PA https://www.peco.com/CUSTOMERSERVICE/OUTAGECENTER/STORMCENTER/Pages/default.aspx http://www1.nationalgridus.com/narragansett/stormcenter/ http://www.federalnewsradio.com/?nid=615&sid=2614018 http://www.poughkeepsiejournal.com/article/20111031/NEWS01/110310325/Central-Hudson-50-000-in-Dutchesswithout-power-no-dry-ice-vet?odvssey=tab%7Cmostpopular%7Ctext%7CFRONTPAGE http://www.bloomberg.com/news/2011-10-31/about-3-million-without-power-as-freeze-to-hit-u-snortheast.html?cmpid=yhoo http://finance.vahoo.com/news/A-Trick-NOT-A-Treat-Worst-bw-534840620.html?x=0&.v=1 http://www.bloomberg.com/news/2011-10-29/rare-october-snowstorm-moves-into-u-s-northeast-threatening-powerlosses.html?cmpid=yhoo http://www.unionleader.com/article/20111031/NEWS11/710319977&source=RSS http://dailyfreeman.com/articles/2011/10/31/news/doc4eaee10a9ce97221220030.txt?viewmode=2 http://www.concordmonitor.com/blogentry/289051/240k-in-nh-withoutpower?SESS449bb86241ad44ea9f30facba883de14=bing

### Electricity

#### Update: ERCOT to Decide in Early December Whether to Allow Luminant, NRG to Shut Nearly 1,700 MW of Coal- and Natural-Gas Fired Generation in Texas

The Electric Reliability Council of Texas (ERCOT) on Friday told Texas's two largest power-generation companies, Luminant and NRG Energy Inc. (NRG), that it needs more information before deciding whether to allow the companies to shut nearly 1,700 MW of coal- and natural gas-fired generation. ERCOT requires power generators to give 90 days' notice before changing a generating unit's operating status, to decide whether the unit is needed to support the reliable operation of the grid or to maintain the region's reserve margin. On October 3, Luminant requested permission from ERCOT to shut two 593 MW coal-fired units at its Monticello power plant at the end of the year to comply with the U.S. Environmental Protection Agency's (EPA) Cross-State Air Pollution Rule, which goes into effect January 1, 2012. Also in early October, NRG Energy Inc. (NRG) requested permission from ERCOT to mothball two 230 MW natural gas-fired units and a 13 MW quickstart unit at its Sam Bertron power plant for economic reasons. Reuters, 18:05 October 28

### Update: FPL's 1,155 MW Seabrook Nuclear Unit 1 in New Hampshire at Full Power by October 31

The Nuclear Regulatory Commission reported that on the morning of October 30 the unit was operating at 57 percent.

Information derived from the NRC Power Reactor Status Reports:

http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2011/

## Update: Indiana-Michigan Power's 1,000 MW D.C. Cook Nuclear Unit 1 in Michigan at Full Power by October 31

The Nuclear Regulatory Commission reported that on the morning of October 30 the unit was operating at 90 percent.

Information derived from the NRC Power Reactor Status Reports:

http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2011/

## Xcel's 578 MW Monticello Nuclear Unit in Minnesota Restarts October 28, at Full Power by October 30

The plant automatically shut down on October 21 when the 2R Auxiliary Power Transformer locked out, briefly interrupting non safety-related power from the grid to part of the site. All safety systems functioned normally. Operators are investigating what caused the transformer to lock out.

http://finance.yahoo.com/news/Monticello-nuclear-plant-apf-979124755.html?x=0&.v=1 Information also derived from the NRC Power Reactor Status Reports: http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2011/

#### Update: Progress Energy's 811 MW Brunswick Nuclear Unit 2 in North Carolina Ramped Up to 85 Percent by October 29

The Nuclear Regulatory Commission reported that on the morning of October 28 the unit was operating at 44 percent.

Information derived from the NRC Power Reactor Status Reports: http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2011/

# Update: FPL's 839 MW Saint Lucie Nuclear Unit 1 in Florida Restarts October 28, Ramped Up to 75 Percent by October 29

The Nuclear Regulatory Commission reported the unit shut on October 26. Information derived from the NRC Power Reactor Status Reports: <u>http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2011/</u>

# Inland Empire Energy Center's 376 MW Gas-Fired Unit 1 in California Shuts October 28, Returns to Service by October 30

According to the California Independent System Operator, the unit reported a return from an unplanned outage that began October 28.

http://content.caiso.com/unitstatus/data/unitstatus201110281515.html http://content.caiso.com/unitstatus/data/unitstatus201110301515.html

# Update: Mirant's 312 MW Pittsburg Gas-Fired Unit 5 in California Returns to Service by October 29

According to the California Independent System Operator, the unit reported a return from an unplanned outage that began October 27.

http://content.caiso.com/unitstatus/data/unitstatus201110291515.html

### NRG Shuts 864 MW Limestone Coal-Fired Unit 2 in Texas to Repair a Tube Leak October 30

Operators took Unit 2 off line to repair a tube leak Sunday, according to a filing with the Texas Commission on Environmental Quality. The filing also states that all pollution control equipment are in service as operating conditions allow.

http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161129

## Luminant Shuts 793 MW Monticello Unit 3 in Texas to Repair a Boiler Tube Leak October 30

Luminant shut Unit 3 on Sunday to repair a boiler tube leak, according to a filing with the Texas Commission on Environmental Quality. Operators may leave unit fans on to assist in cooling down the boiler and will restart the unit following repairs. Operators will keep abatement systems in service as long as temperatures will allow, according to the filing.

http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161124

#### AEP Shuts 558 MW Welsh Coal-Fired Unit 2 in Texas to Repair Boiler Pump October 27– November 1

AEP Southern Electric Power Co. reported it had to shut down Unit 2 for maintenance on the boiler feed pump discharge check valve. Operators will keep abatement systems in service as long as temperatures will allow, according to the filing.

http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161094 http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161097 http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161058

#### Petroleum

## Mechanical Pump Failure Shuts Process Units, Leads to Flaring at Shell's 329,800 b/d Deer Park, Texas Refinery October 28

A mechanical pump failure necessitated the shutdown of multiple process units at the refinery and caused process gas to route to flares Friday evening, according to a filing with state regulators. Operators took steps to stabilize the process units and minimize emissions, and they are investigating what caused the equipment failure. Shell did not indicate which units were shut in its filing with the Texas Commission on Environmental Quality. http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161120

## Wet Gas Compressor Shuts, Leads to Flaring at ExxonMobil's 572,000 b/d Baytown, Texas Facility October 29

ExxonMobil reported a wet gas compressor shut down on October 29, according to a filing with state regulators. Operators reduced feed to the flexicoker and restarted the compressor. The company said the flexicoker was operational on Monday. Reuters, 08:51 October 31, 2011

http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161122

## ConocoPhillips Reports Flaring at Its 139,000 b/d Wilmington, California Refinery October 31

Operators reported to the South Coast Air Quality Management District that the flaring, which started at 7:26 AM Pacific Standard Time would end by 9:00 AM. Reuters, 11:38 October 31, 2011

## Power Trip Shuts Pump, Leads to Flaring at ExxonMobil's 503,000 b/d Baton Rouge, Louisiana Refinery October 30

ExxonMobil reported that an electrical outage caused a pump to shut and led to emissions on Sunday, according to a filing with the U.S. National Response Center. Reuters, 00:07 October 31, 2011

# BP Reports Hydrogen Sulfide Release at Its 405,000 b/d Whiting, Indiana Refinery

### **October 29** BP reported that an unknown amount of hydrogen sulfide was released from a flare on Saturday, according to a filing with the U.S. National Response Center. The filing said that the cause of the release was unknown. <u>http://www.nrc.uscg.mil/reports/rwservlet?standard\_web+inc\_seq=993953</u>

# Two Turbines Go Offline in Unrelated Events, Leads to Flaring at DCP Midstream's 160 MMcf/d Goldsmith Gas Plant in Texas October 28

DCP Midstream reported that the plant's A-Turbine went offline twice on overspeed, and its B-Turbine went offline due to high axial displacement on its treated gas compressor, which resulted in the flaring of natural gas. Operators discovered a loose wire associated with A-Turbine's speed probe. They secured the wire and restarted the turbine, which stopped the flaring. Operators locked out B-Turbine to remove its couplings and bearing caps, to check for proper clearances. On October 25 DCP announced it was shutting its two natural-gas fired turbines in phases, one at a time, to conduct required maintenance and inspection activities, and specifically, to wash and inspect its turbine engine rotors.

http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161121 http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161118

#### Cat Unit Goes Down for Unspecified Reasons, Shuts AGI Compressor at 290 MMcf/d Waha Gas Plant in Texas October 31

The acid gas injector (AGI) compressor went down due to fluctuating inlet volumes caused by Cat 3606 going down. Operators reset the cat unit and the AGI compressor as quickly as possible. http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161128

#### Engine Backfires, Falls Offline at Seminole Booster Station in Texas October 30

Operators reported that an engine backfired and fell offline Sunday. Operators went to the site, checked the spark plugs, oxygen sensor, and engine wiring, and then put the booster back online. http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161126

## Cold Overnight Weather Causes Hydrate Formation to Shut Engines at DCP Midstream's Parks Booster Compressor Station in Texas October 28

Operators pumped methanol into the line, removed the hydrate, and restarted the engines. http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161114

### **Other News**

# Fukushima Nuclear Plant in Japan May Have Emitted More Than Twice the Amount of Radiation Initially Estimated – European Geosciences Union

A study posted for discussion by the European Geosciences Union on October 20 reports that Tokyo Electric Power Co.'s Fukushima nuclear power station may have emitted 35,800 terabecquerels of radioactive cesium 137 at the height of the disaster following a March 11earthquake and tsunami. In June Japan's nuclear regulator said 15,000 terabecquerels of cesium 137 was discharged. The new report also says that the plant may have started releasing radioactive elements before the tsunami arrived, about 45 minutes after the earthquake struck, contradicting government assessments that claim the release was caused by the subsequent tsunami. The study references readings from stations around the world in its assessment of the amount of radiation released.

http://www.bloomberg.com/news/2011-10-27/fukushima-plant-may-have-emitted-double-radiation-thanestimated.html

http://www.atmos-chem-phys-discuss.net/11/28319/2011/acpd-11-28319-2011.pdf

### **Energy Prices**

U.S. Oil and Gas Prices October 31, 2011				
	Today	Week Ago	Year Ago	
CRUDE OIL West Texas Intermediate U.S. \$/Barrel	91.85	90.88	81.04	
NATURAL GAS Henry Hub \$/Million Btu	3.63	3.54	3.36	

Source: Reuters

#### **Energy Notes**

Update: First Wind, RMT Complete Construction of 40 MW Sheffield Wind Project in Sheffield, Vermont October 26; Operation Planned for December 2011 http://www.firstwind.com/news/press-release-first-wind-celebrates-completion-sheffield-wind-project http://www.rmtinc.com/utility/press\_sheffield\_completion.php

National Iranian Drilling Co. Reports Explosion, Fire that Kills One, Injures Three at Bibi Hakimieh Oil Field in Iran October 28

http://www.rigzone.com/news/article.asp?a\_id=112225

Chevron Shuts Wells Due to Flaring, Flare Valve Failure at Its 65 MMcf/d Dollarhide Gas Plant in Texas October 28

http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=161119

Tractor Truck Crashes on the Conowingo Dam in Maryland, Spills Approximately 7,500 Gallons of Diesel Fuel October 26

http://www.baltimoresun.com/explore/harford/news/ph-ag-dam-accident-1027-20111027,0,4727668.story

#### Links

*This Week in Petroleum* from the U.S. Energy Information Administration (EIA) <u>http://www.eia.gov/oog/info/twip/twip.asp</u> Updated every Wednesday.

*Weekly Petroleum Status Report* from EIA <u>http://www.eia.gov/oil\_gas/petroleum/data\_publications/weekly\_petroleum\_status\_report/wpsr.html</u> Updated after 10:30 AM & 1:00 PM EDT every Wednesday.

*Natural Gas Weekly Update* from EIA <u>http://www.eia.gov/oog/info/ngw/ngupdate.asp</u> Updated after 2:00 PM EDT every Thursday.

#### **ENERGY ASSURANCE DAILY**

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

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