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.

<table>
<thead>
<tr>
<th>Electric Utility</th>
<th>State</th>
<th>Peak Reported</th>
<th>Latest Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut Light &amp; Power</td>
<td>CT</td>
<td>831,000</td>
<td>740,592</td>
</tr>
<tr>
<td>Western Massachusetts Electric</td>
<td>MA</td>
<td>154,000</td>
<td>115,520</td>
</tr>
<tr>
<td>NSTAR</td>
<td>MA</td>
<td>114,000</td>
<td>42,000</td>
</tr>
<tr>
<td>Massachusetts Electric (National Grid)</td>
<td>MA</td>
<td>400,000</td>
<td>300,000</td>
</tr>
<tr>
<td>Unitil</td>
<td>MA/NH</td>
<td>70,000</td>
<td>35,415</td>
</tr>
<tr>
<td>Public Service of New Hampshire</td>
<td>NH</td>
<td>289,615</td>
<td>180,000</td>
</tr>
<tr>
<td>Granite State Electric Co (National Grid)</td>
<td>NH</td>
<td>15,665</td>
<td>9,479</td>
</tr>
<tr>
<td>New Hampshire Electric Cooperative</td>
<td>NH</td>
<td>11,500</td>
<td>3,918</td>
</tr>
<tr>
<td>Central Maine Power</td>
<td>ME</td>
<td>145,000</td>
<td>14,983</td>
</tr>
<tr>
<td>Bangor-Hydro Electric Co.</td>
<td>ME</td>
<td>7,234</td>
<td>0</td>
</tr>
<tr>
<td>Narragansett Electric (National Grid)</td>
<td>RI</td>
<td>20,000</td>
<td>1,779</td>
</tr>
<tr>
<td><strong>New England Subtotal</strong></td>
<td></td>
<td><strong>2,058,014</strong></td>
<td><strong>1,443,686</strong></td>
</tr>
<tr>
<td>Jersey Central Power &amp; Light</td>
<td>NJ</td>
<td>356,000</td>
<td>185,075</td>
</tr>
<tr>
<td>PSE&amp;G</td>
<td>NJ</td>
<td>500,000</td>
<td>145,000</td>
</tr>
<tr>
<td>Orange and Rockland</td>
<td>NJ/NY/PA</td>
<td>122,438</td>
<td>122,438</td>
</tr>
<tr>
<td>Con Ed</td>
<td>NY</td>
<td>118,000</td>
<td>57,000</td>
</tr>
<tr>
<td>NYSEG</td>
<td>NY</td>
<td>82,000</td>
<td>54,485</td>
</tr>
<tr>
<td>LIPA</td>
<td>NY</td>
<td>23,000</td>
<td>117</td>
</tr>
<tr>
<td>Central Hudson Gas &amp; Electric</td>
<td>NY</td>
<td>156,000</td>
<td>82,000</td>
</tr>
<tr>
<td>PPL</td>
<td>PA</td>
<td>318,000</td>
<td>120,000</td>
</tr>
<tr>
<td>PECO</td>
<td>PA</td>
<td>250,000</td>
<td>20,000</td>
</tr>
<tr>
<td>PennPower, Penelec, Met-Ed (FirstEnergy)</td>
<td>PA</td>
<td>292,000</td>
<td>171,555</td>
</tr>
<tr>
<td>Potomac Edison, Mon Power, West Penn Power (Allegheny Power)</td>
<td>MD/PA/WV</td>
<td>59,000</td>
<td>2,226</td>
</tr>
<tr>
<td><strong>Mid-Atlantic Subtotal</strong></td>
<td></td>
<td><strong>2,276,438</strong></td>
<td><strong>959,896</strong></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>4,334,452</strong></td>
<td><strong>2,403,582</strong></td>
</tr>
</tbody>
</table>

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

Sources:
- http://www cmpco.com/
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:

Energy Assurance Daily, October 31, 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:

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.
Information also derived from the NRC Power Reactor Status Reports:

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:

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:

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.
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 11 earthquake 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.
Energy Prices

<table>
<thead>
<tr>
<th>U.S. Oil and Gas Prices</th>
</tr>
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<tbody>
<tr>
<td>October 31, 2011</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>CRUDE OIL</td>
</tr>
<tr>
<td>West Texas Intermediate U.S.</td>
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<tr>
<td>$/Barrel</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Today</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>91.85</td>
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</tbody>
</table>

NATURAL GAS

Henry Hub

$/Million Btu

<table>
<thead>
<tr>
<th>Today</th>
<th>Week Ago</th>
<th>Year Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.63</td>
<td>3.54</td>
<td>3.36</td>
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</tbody>
</table>

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

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

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

Links

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

Weekly Petroleum Status Report from EIA
Updated after 10:30 AM & 1:00 PM EDT every Wednesday.

Natural Gas Weekly Update from EIA
http://www.eia.gov/oog/info/ngw/ngupdate.asp
Updated after 2:00 PM EDT every Thursday.
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Please direct comments and questions to: ead@oe.netl.doe.gov