New England Electric Market: Overview and Focal Points

New England (ISO-NE) Electric Regions

Zones
- Maine
- Vermont
- New Hampshire
- West-Central Mass
- NE Mass/Boston
- SE Massachusetts
- Connecticut
- Rhode Island

This map was created using Platts PowerMap.

Updated September 8, 2009
Overview

Geography

States covered: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont

Reliability region: ISO New England (ISO-NE) sub-region of the Northeast Power Coordinating Council (NPCC)

Balancing authority: ISO New England (ISO-NE)

Load zones: Connecticut, Maine, New Hampshire, Rhode Island, Vermont, Northeastern Massachusetts/Boston (NEMA), Southeastern Massachusetts (SEMA) and Western/Central Massachusetts (WCMA).

Hub: Mass Hub

RTO/ISO

ISO New England (ISO-NE) (established 1997) operates the region's power grid and wholesale electric markets:

- Energy market: two-settlement (day ahead and real-time) spot market with locational marginal pricing (an internal hub, eight load zones and more than 500 nodes),
- Capacity market,
- Forward reserves market,
- Regulation market, and
- Financial transmission rights market.
Generation/Supply

Marginal fuel type: natural gas

Generating capacity (summer 2007): 30,879 MW

Very little new generation has been brought on line recently in New England. The ISO states that it, “…has adequate installed capacity to meet regional capacity needs through 2009. The ISO is optimistic that adequate demand and supply resources will be purchased and installed in time to meet the projected capacity needs and the resource adequacy requirements for 2010 and beyond.”

Capacity reserve (summer 2007): 4,736 MW

Reserve margin (summer 2007): 18.1%

Demand

All time peak demand: 28,130 MW (set August 2, 2006)

In summer of 2006, demand reached record levels on several occasions due to extremely hot weather.

Peak demand growth: 7.1% (2007-2006) (weather-normalized peak increased by 1.9%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Summer Peak Demand (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>24,116</td>
</tr>
<tr>
<td>2005</td>
<td>26,885</td>
</tr>
<tr>
<td>2006</td>
<td>28,130</td>
</tr>
<tr>
<td>2007</td>
<td>26,143</td>
</tr>
</tbody>
</table>

Load pockets: Southwest Connecticut, Southeastern Massachusetts (SEMA), and Northeastern Massachusetts/Boston (NEMA).
Prices

**Annual Average Price (RTO Day-Ahead Mass Hub)**

2004: $53.74/MWh  
2005: $78.63/MWh  
2006: $60.88/MWh  
2007: $67.97/MWh
## New England Annual Average Bilateral Prices

### Annual Average Day Ahead On Peak Prices ($/MWh)

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>5-Year Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass Hub</td>
<td>$77.39</td>
<td>$91.55</td>
<td>$46.24</td>
<td>$56.18</td>
<td>$52.64</td>
<td>$68.23</td>
</tr>
<tr>
<td>Ny Zone G</td>
<td>$83.51</td>
<td>$100.99</td>
<td>$49.80</td>
<td>$59.48</td>
<td>$56.41</td>
<td>$73.94</td>
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<tr>
<td>NY Zone J</td>
<td>$94.15</td>
<td>$112.63</td>
<td>$55.77</td>
<td>$65.76</td>
<td>$62.71</td>
<td>$82.84</td>
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<tr>
<td>NY Zone A</td>
<td>$64.02</td>
<td>$68.34</td>
<td>$35.54</td>
<td>$43.89</td>
<td>$41.52</td>
<td>$54.09</td>
</tr>
<tr>
<td>PJM West</td>
<td>$71.15</td>
<td>$83.70</td>
<td>$44.60</td>
<td>$53.68</td>
<td>$51.99</td>
<td>$63.00</td>
</tr>
</tbody>
</table>

Source: Derived from Platts data.

April 2012

Updated January 11, 2012
Daily Average of ISO-NE Day-Ahead Prices - All Hours

Price ($/MWh)


0 | 25 | 50 | 75 | 100 | 125 |

30 Day Rolling Average

Source: Derived from Bloomberg data

Updated: April 17, 2012
New England Electric Market: RTO Prices

Daily Average of ISO-NE Day-Ahead Prices - All Hours

Source: Derived from Bloomberg data
Updated: April 17, 2012
Eastern Daily Index Day-Ahead On-Peak Prices

Source: Derived from Platts data

April 2012

Updated: April 06, 2012
New England Electric Market: Last Month’s Eastern Index Prices

Eastern Daily Index Day-Ahead On-Peak Prices

Source: Derived from Platts data

Updated: April 06, 2012
New England Electric Market: Eastern Implied Heat Rates


Source: Derived from Platts on-peak electric and natural gas price data

Updated: April 06, 2012
Weekly Generation Output  New England

Electric Generation (GWh)

2007-11 Range
2012

Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

0  500  1,000  1,500  2,000  2,500  3,000  3,500  4,000

Source: Derived from EEI data
April 2012

Updated: April 19, 2012
New England Electric Forward Price Curves and Implied Heat Rate

Source: Derived from Nymex data
April 2012

Updated: April 18, 2012