New York (NYISO) Electric Regions
New York Electric Market: Overview and Focal Points

Overview

Geography

State covered: New York

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

Balancing authority: NYISO

Zones: Capital (Zone F), Central (Zone C), Dunwoodie (Zone I), Genesee (Zone B), Hudson Valley (Zone G), Long Island (Zone K), Millwood (Zone H), Mohawk Valley (Zone E), New York City (Zone J), North (Zone D), West (Zone A)

RTO/ISO

NYISO (established 1999) 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,
- Regional and locational capacity market, and
- Financial transmission rights market.

NYISO 2008 State of the Markets Report

Market Monitor:
Nicole Bouchez – Manager, Internal Market Monitor, New York ISO
David Patton – Independent Market Advisor, Potomac Economics, LTD.
RTO/ISO (continued)

Also, market participants trade electricity bilaterally through brokers, the IntercontinentalExchange (ICE) and the New York Mercantile Exchange’s (Nymex) ClearPort, using Zone A (West) as a pricing point.

Generation/Supply

Marginal fuel type: natural gas

Generating capacity (summer 2006): 39,704 MW

Capacity reserve (summer 2006): 5,765 MW

Reserve margin (summer 2006): 17%

The New York City metropolitan area (NYC) and Long Island (LI) are areas of concentrated demand. Both localities have requirements for installed generating capacity that are more stringent than the rest of the region, to ensure reliability of service.

Demand

All time peak demand: 33,939 MW (set August 2, 2006)

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

Peak demand growth: 5.6 % (2006-2005)


Load pockets: Zone J New York City and Zone K Long Island
Prices

Annual Average Day-Ahead Price

Zone J New York City
2004: $63.16/MWh
2005: $93.77/MWh
2006: $70.90/MWh

Zone K Long Island
2004: $63.20/MWh
2005: $99.32/MWh
2006: $86.15/MWh

Prices increased in 2005 as a result of disturbances to the natural gas market. Prices declined in 2006 as natural gas storage levels remained above historical ranges throughout the injection season (April through October).
New York Annual Average Bilateral Prices

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

<table>
<thead>
<tr>
<th>Region</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>5-Year Avg</th>
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<tbody>
<tr>
<td>Mass Hub</td>
<td>$69.85</td>
<td>$77.39</td>
<td>$91.55</td>
<td>$46.24</td>
<td>$56.18</td>
<td>$68.23</td>
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<td>Ny Zone G</td>
<td>$75.95</td>
<td>$83.51</td>
<td>$100.99</td>
<td>$49.80</td>
<td>$59.48</td>
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<tr>
<td>NY Zone J</td>
<td>$85.96</td>
<td>$94.15</td>
<td>$112.63</td>
<td>$55.77</td>
<td>$65.76</td>
<td>$82.84</td>
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<td>NY Zone A</td>
<td>$58.70</td>
<td>$64.02</td>
<td>$68.34</td>
<td>$35.54</td>
<td>$43.89</td>
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<td>PJM West</td>
<td>$61.90</td>
<td>$71.15</td>
<td>$83.70</td>
<td>$44.60</td>
<td>$53.68</td>
<td>$63.00</td>
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*Source: Derived from Platts data.*

*Updated January 4, 2011*
Daily Average of NYISO Day-Ahead Prices - All Hours

Source: Derived from Bloomberg data

Updated: November 01, 2011

November 2011
Notes: ICE on-peak forward (physical) and swap (financial) volumes are for the Nepool Mass Hub and include monthly, dual monthly, quarterly, and calendar year contracts traded for each month.

Source: Derived from Bloomberg data

Updated: November 01, 2011
Eastern Daily Bilateral Day-Ahead On-Peak Prices

Source: Derived from Platts data

Updated: November 01, 2011
New York Electric Market: Last Month’s Eastern Bilateral Prices

Federal Energy Regulatory Commission • Market Oversight • www.ferc.gov/oversight

Eastern Daily Bilateral Day-Ahead On-Peak Prices

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<th>Price ($/MWh)</th>
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Source: Derived from Platt's data

Updated: November 01, 2011

Source: Derived from *Platts* on-peak electric and natural gas price data
Updated: November 01, 2011
New York Electric Market: Generation Output and Temperatures

Weekly Power Generation & Temps. - Mid Atlantic

Source: Derived from EEI and NOAA data
Updated: November 02, 2011
New York Electric Market: Forward Price Curve

New York Electric Forward Price Curves and Implied Heat Rates

Source: Derived from Nymex data

November 2011
Wtd. Avg. ICAP Prices & Volumes: NYC

Source: Derived from NYISO data

Updated: October 31, 2011
Weighted Average ICAP Clearing Prices and Volumes: Long Island

Source: Derived from NYISO data
Updated: October 31, 2011
Wtd. Avg. ICAP Prices & Volumes: New York State, excluding NYC

Source: Derived from NYISO data

Updated: October 31, 2011

November 2011
PJM, NYISO and ISO-NE Capacity Auction Prices

RPM Auction Clearing Prices by Locational Delivery Area (LDA)

Note: PJM values are for Base Residual Auctions only.
ISO-NE results are based on preliminary FCM auction before pro-rationing and EAS adjustment.
Source: Derived from *PJM, NYISO and ISO-NE data*
Various New York Swap Volumes

Notes: ICE on-peak swaps (financial) volume are for zones A, G and J and include monthly, dual monthly, quarterly, and calendar year contracts traded for each month.

Source: Derived from ICE data

November 2011