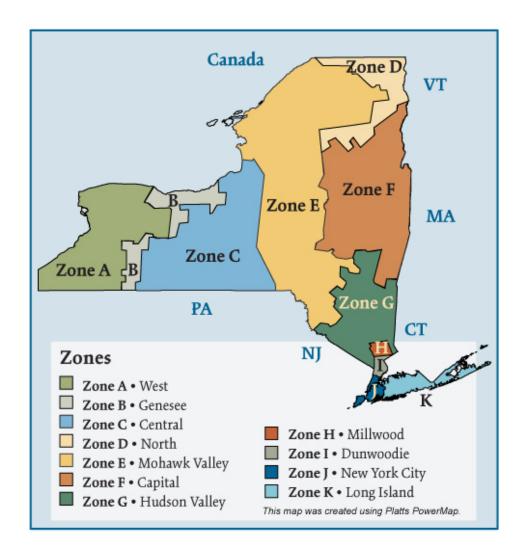
New York (NYISO) Electric Regions



New York Electric Market: Overview and Focal Points

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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.

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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)

Summer Peak Demand (MW) 28,433 (2004), 32,075 (2005), 33,939 (2006) (Source: NYISO)

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

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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).

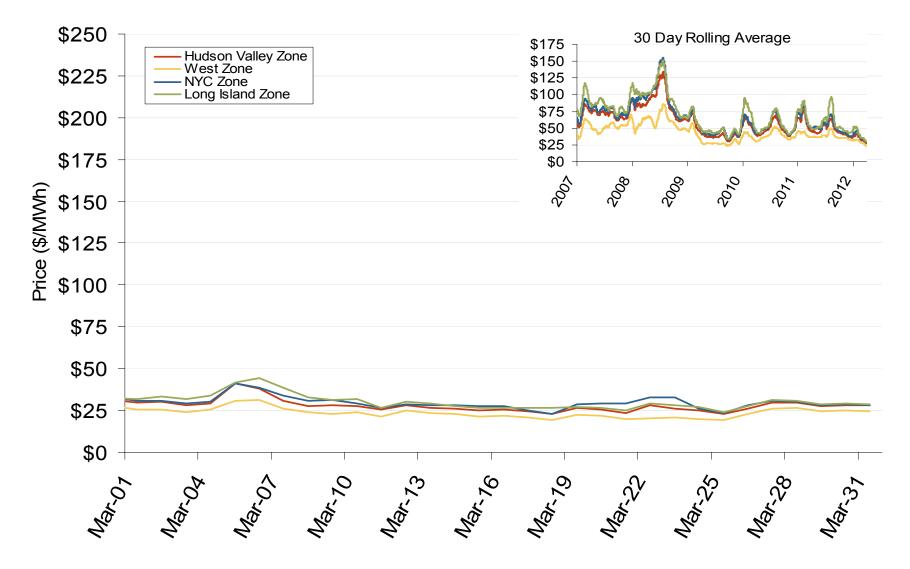
New York Annual Average Bilateral Prices

Annual Average Day Ahead On Peak Prices	(\$/MWh)					
	2007	2008	2009	2010	2011	5-Year Avg
Mass Hub	\$77.39	\$91.55	\$46.24	\$56.18	\$52.64	\$68.23
Ny Zone G	\$83.51	\$100.99	\$49.80	\$59.48	\$56.41	\$73.94
NY Zone J	\$94.15	\$112.63	\$55.77	\$65.76	\$62.71	\$82.84
NY Zone A	\$64.02	\$68.34	\$35.54	\$43.89	\$41.52	\$54.09
PJM West	\$71.15	\$83.70	\$44.60	\$53.68	\$51.99	\$63.00

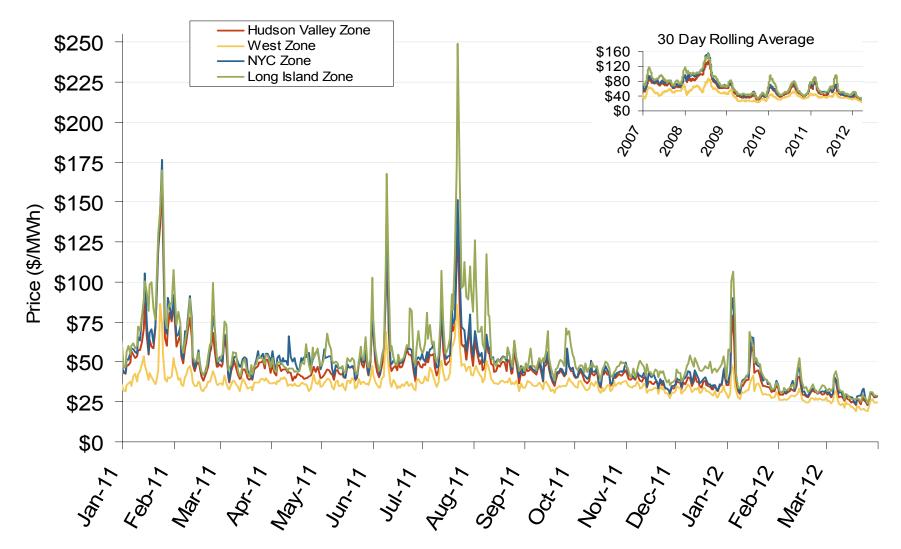
New York Electric Market: Last Month's RTO Prices

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Daily Average of NYISO Day-Ahead Prices - All Hours



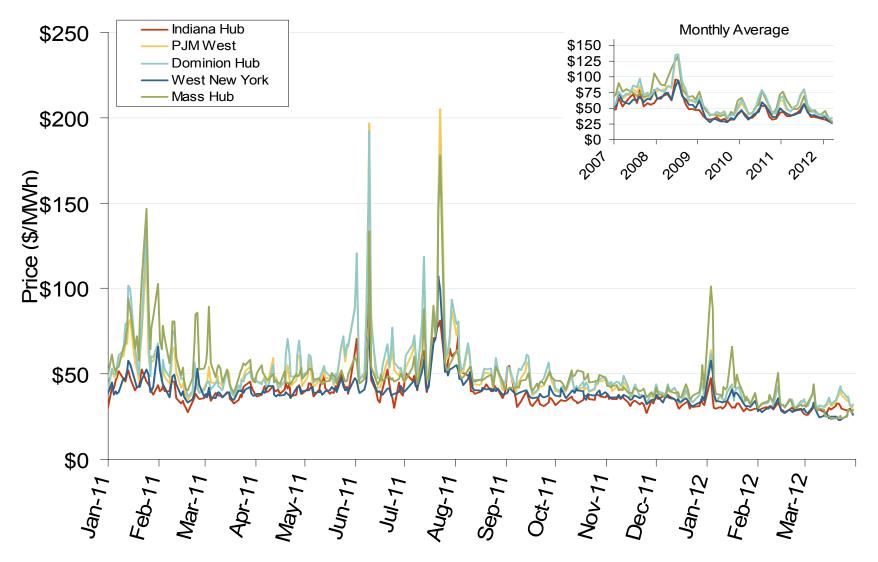
Daily Average of NYISO Day-Ahead Prices - All Hours



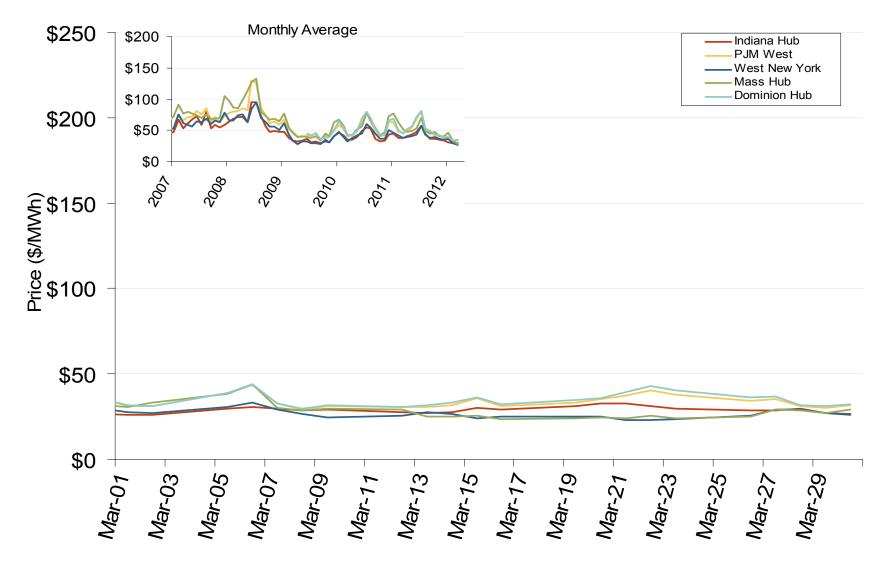
Notes: ICE on-peak forward (physical) and swap (financial) volumes are for the Nepool Mass Hub and include monthly, dual monthly, quarterly, and calendar year contracts traded for each month

Source: Derived from *Bloomberg* data

Eastern Daily Index Day-Ahead On-Peak Prices



Eastern Daily Index Day-Ahead On-Peak Prices

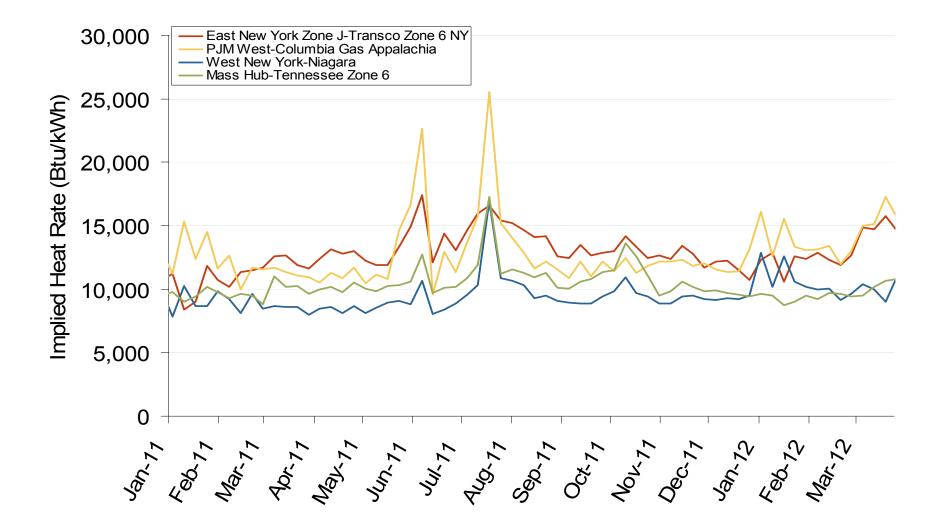


April 2012

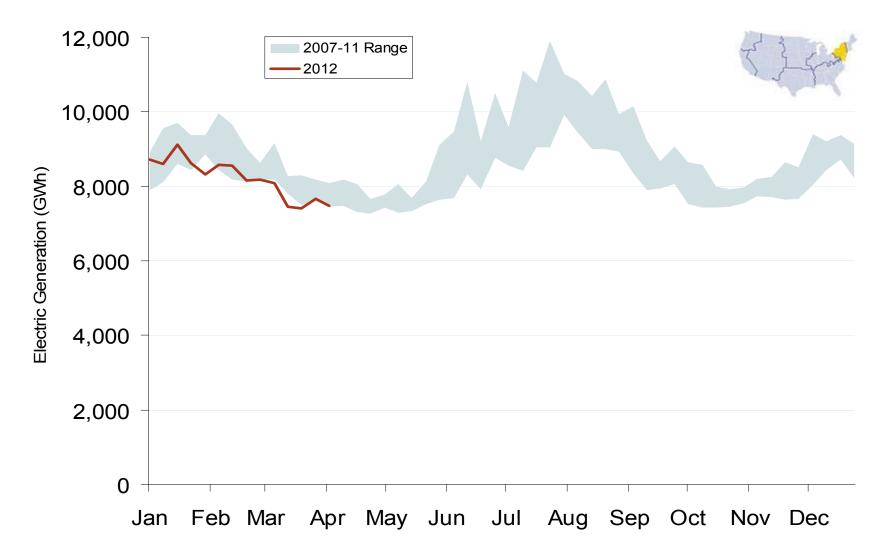
New York Electric Market: Eastern Implied Heat Rates

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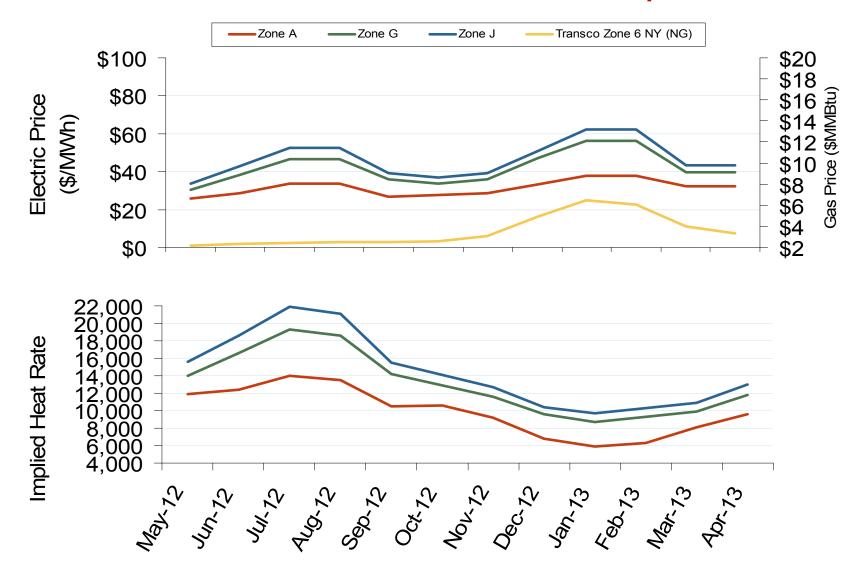
Implied Heat Rates at Eastern Trading Points - Weekly Avgs.



Weekly Generation Output - Mid Atlantic



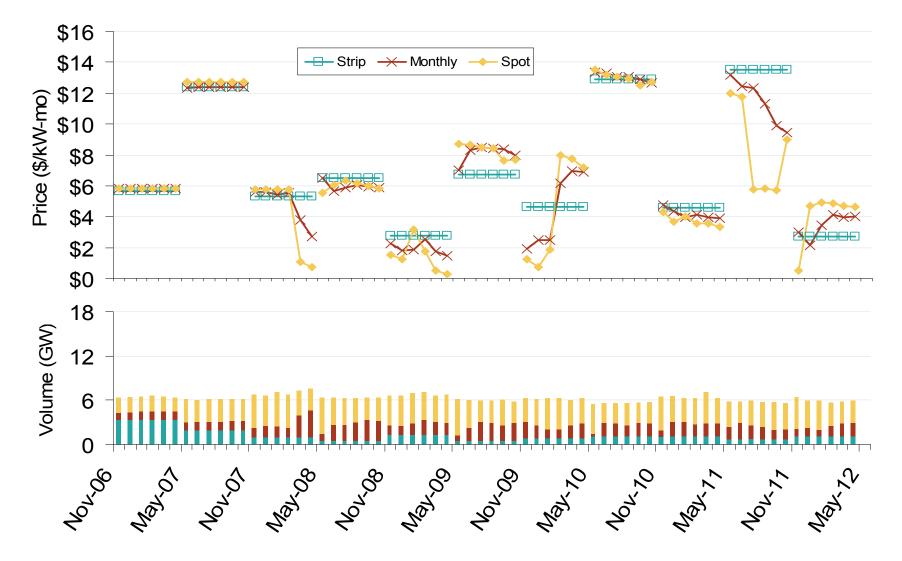
New York Electric Forward Price Curves and Implied Heat Rates



New York Electric Market: New York City Capacity Markets

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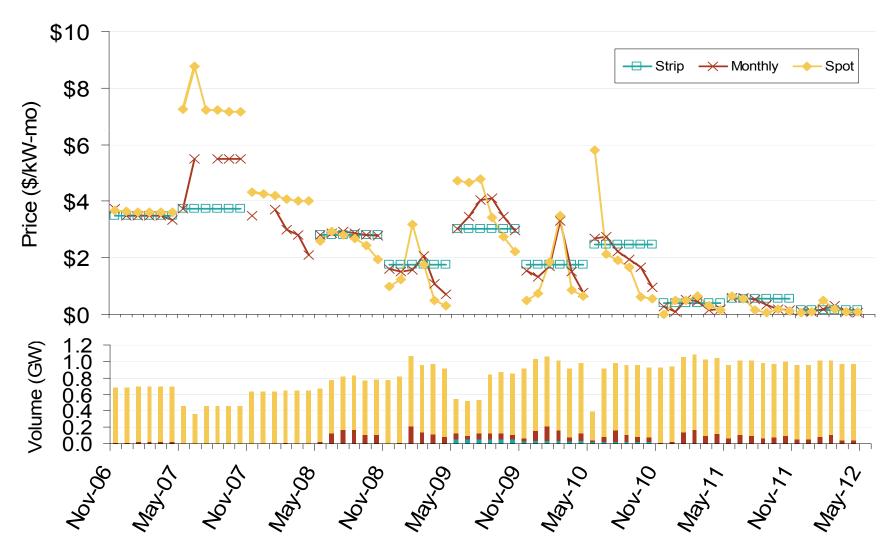
Wtd. Avg. ICAP Prices & Volumes: NYC



New York Electric Market: Long Island Capacity Markets

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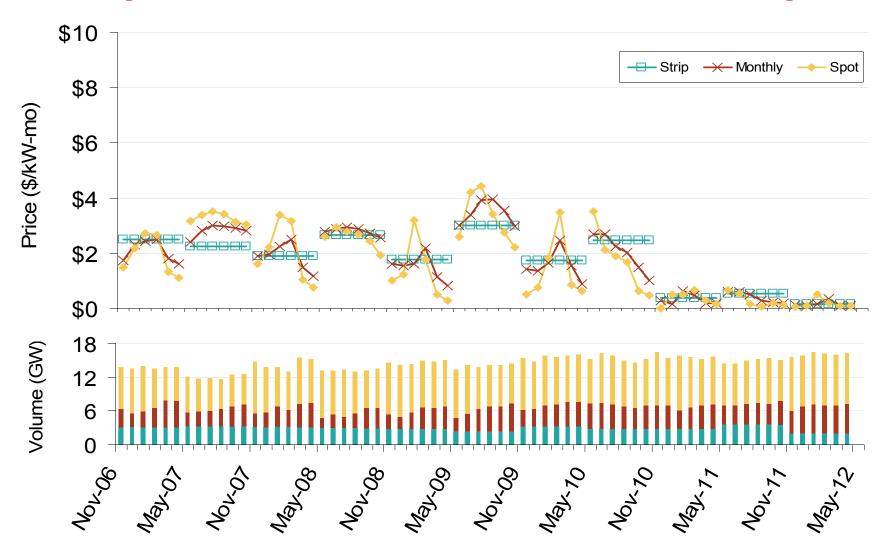
Weighted Average ICAP Clearing Prices and Volumes: Long Island



New York Electric Market: New York Capacity Markets

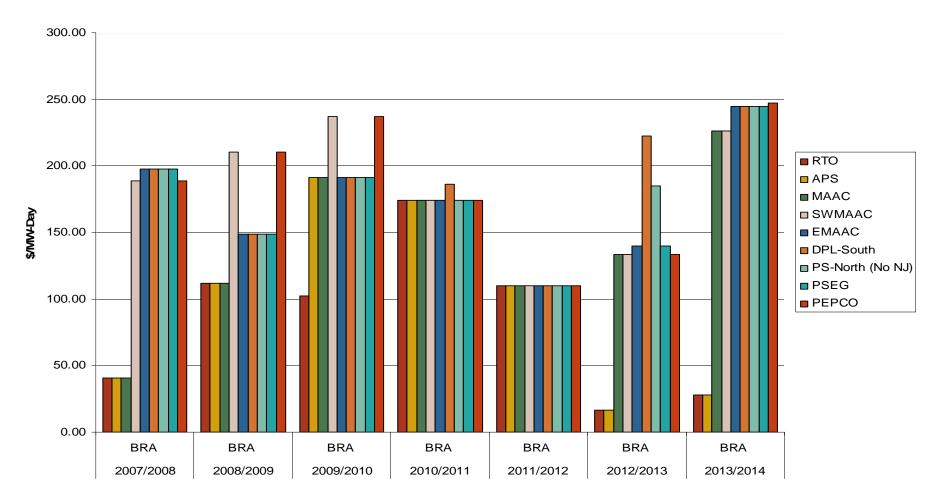
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Wtd. Avg. ICAP Prices & Volumes: New York State, excluding NYC



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