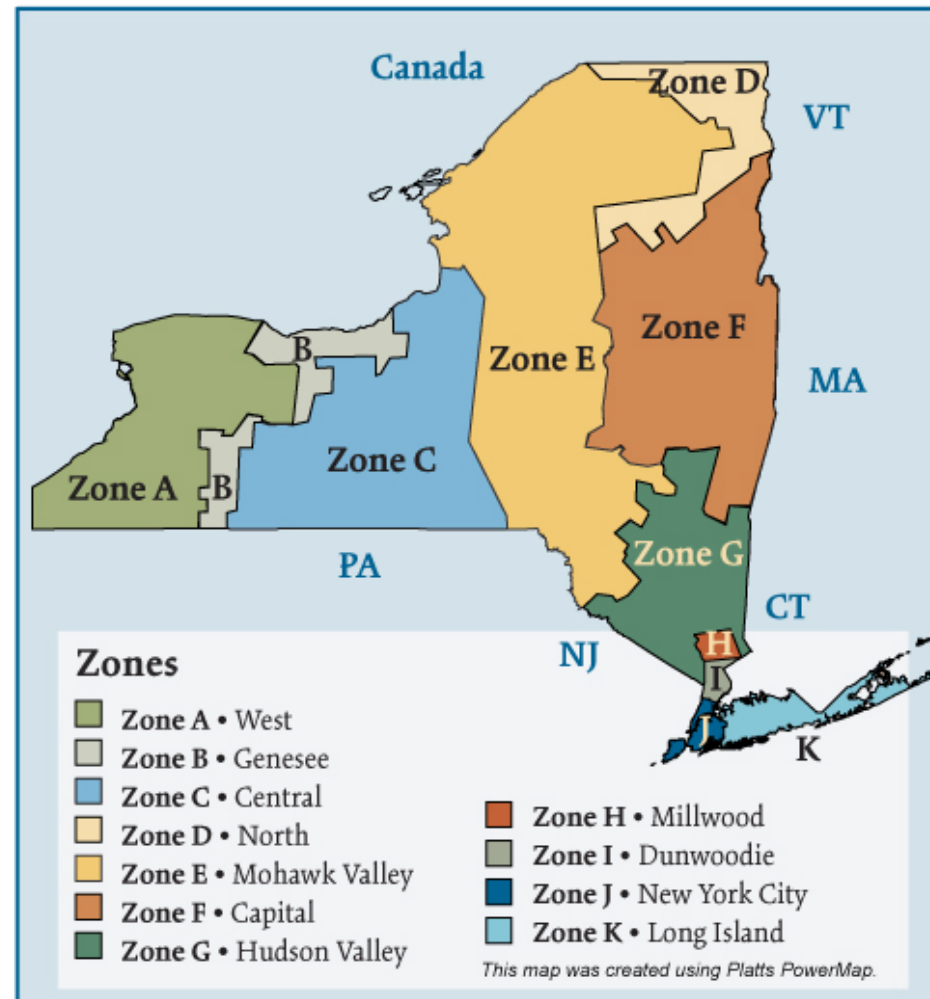


## New York (NYISO) Electric Regions



## 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 Intercontinental Exchange (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

## 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

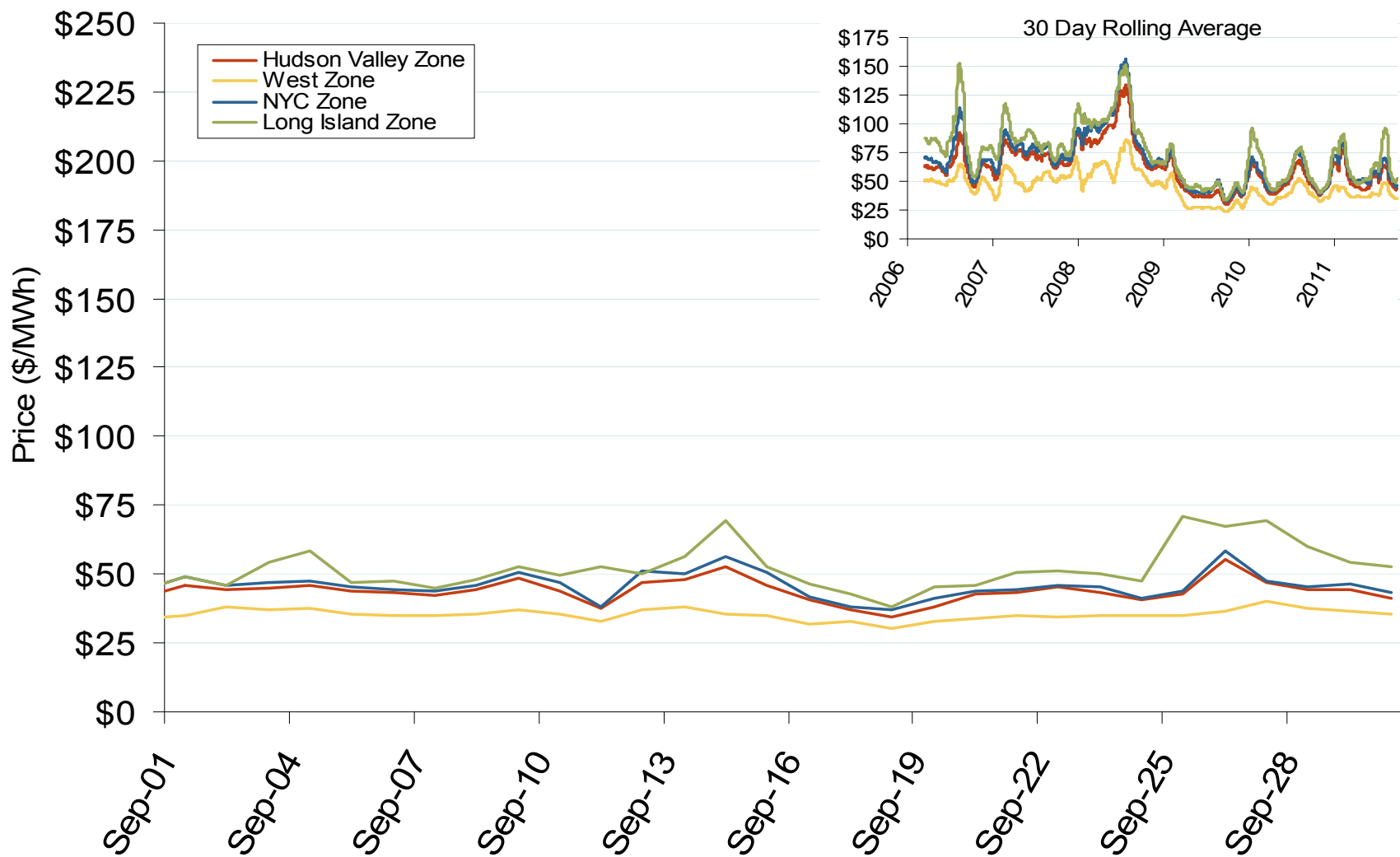
**2006:** \$86.15/MWh

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).

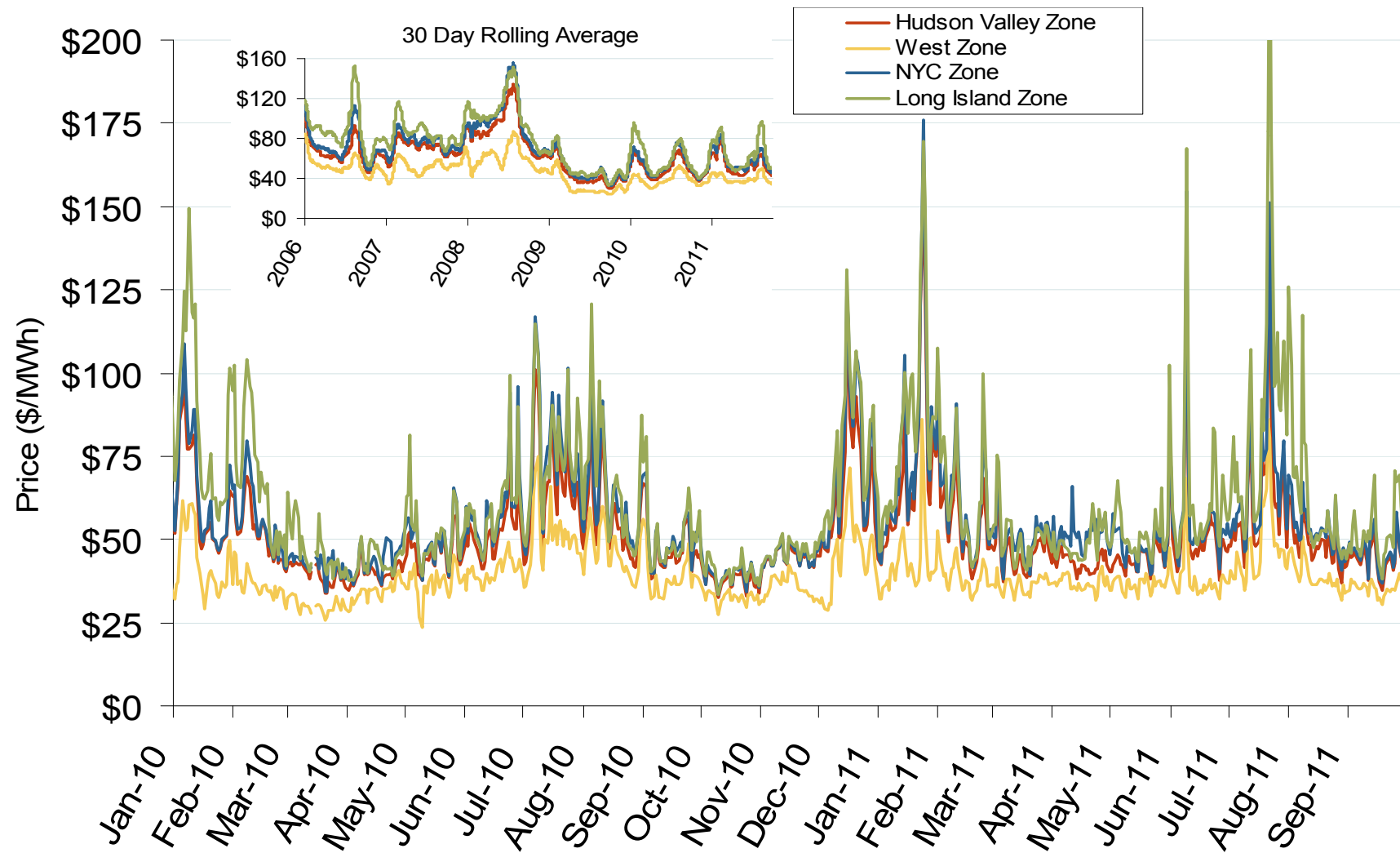
## New York Annual Average Bilateral Prices

| Annual Average Day Ahead On Peak Prices (\$/MWh) |         |         |          |         |         |            |
|--|---------|---------|----------|---------|---------|------------|
|  | 2006    | 2007    | 2008     | 2009    | 2010    | 5-Year Avg |
| Mass Hub   | \$69.85 | \$77.39 | \$91.55  | \$46.24 | \$56.18 | \$68.23    |
| Ny Zone G  | \$75.95 | \$83.51 | \$100.99 | \$49.80 | \$59.48 | \$73.94    |
| NY Zone J  | \$85.96 | \$94.15 | \$112.63 | \$55.77 | \$65.76 | \$82.84    |
| NY Zone A  | \$58.70 | \$64.02 | \$68.34  | \$35.54 | \$43.89 | \$54.09    |
| PJM West   | \$61.90 | \$71.15 | \$83.70  | \$44.60 | \$53.68 | \$63.00    |

## Daily Average of NYISO Day-Ahead Prices - All Hours



## Daily Average of NYISO Day-Ahead Prices - All Hours

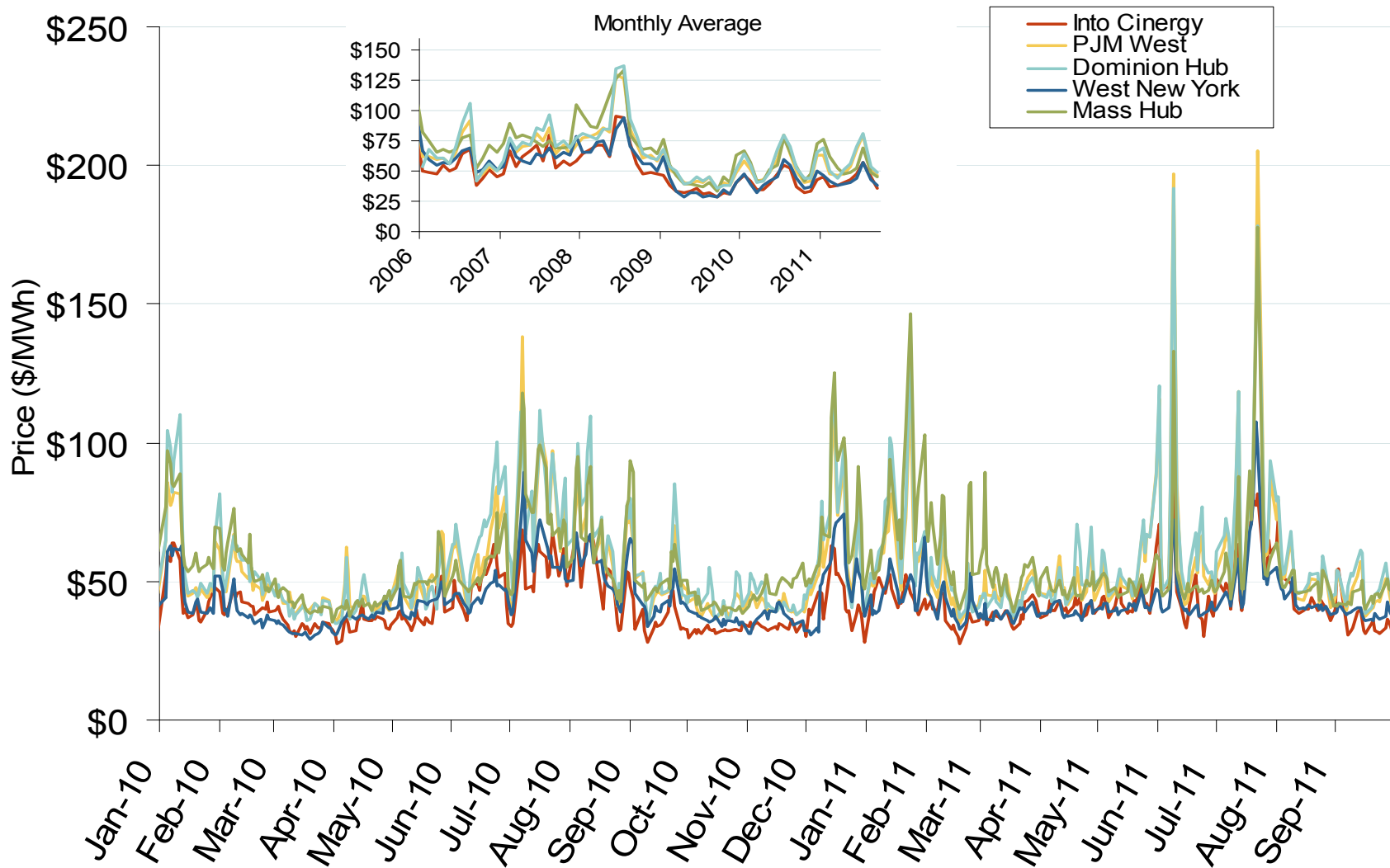


Notes: ICE on-peak forward (physical) and swap (financial) volumes are for the Nepoch Mass Hub and include monthly, dual monthly, quarterly, and calendar year contracts traded for each month

Source: Derived from Bloomberg data

Updated: October 03, 2011

## Eastern Daily Bilateral Day-Ahead On-Peak Prices

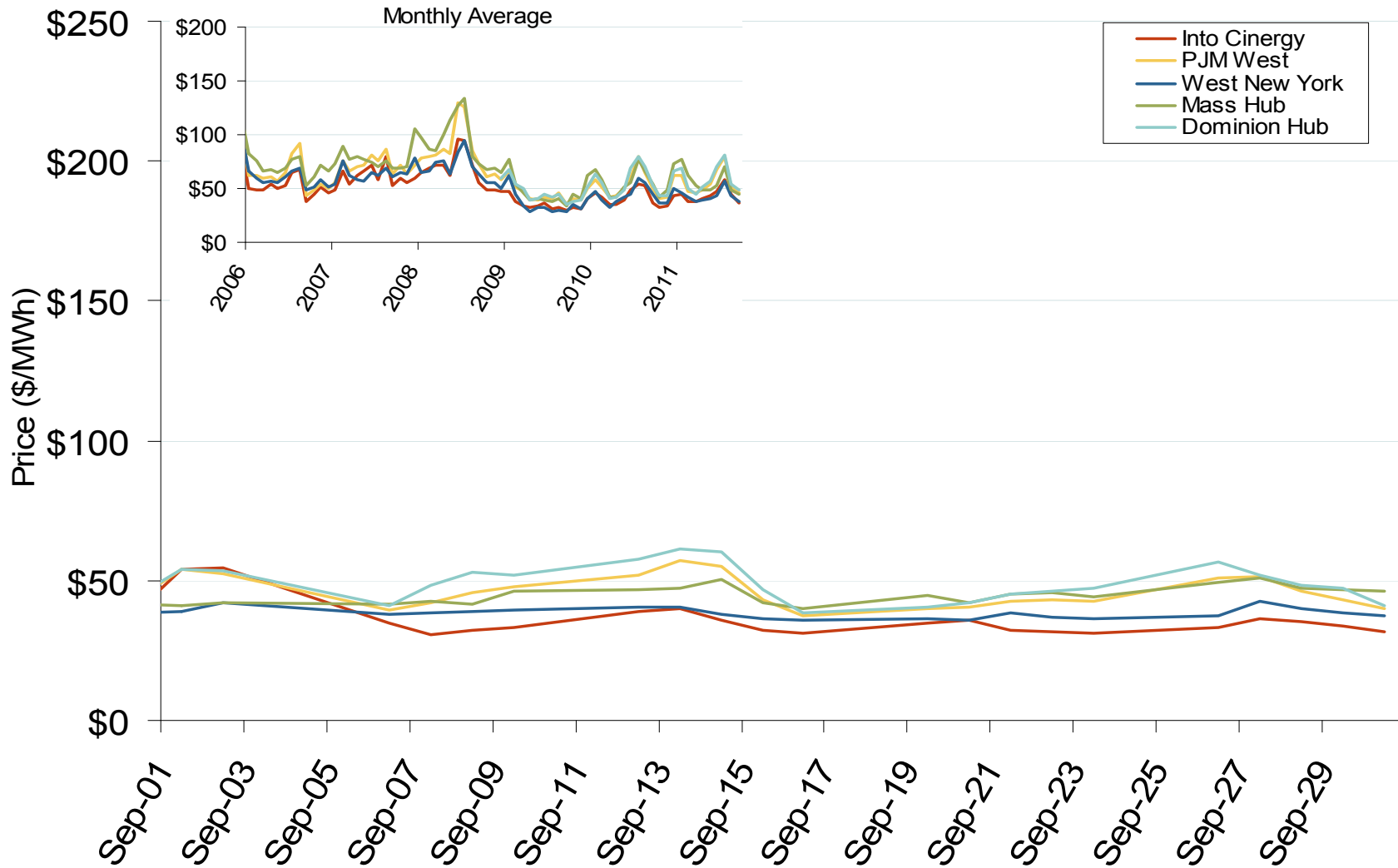




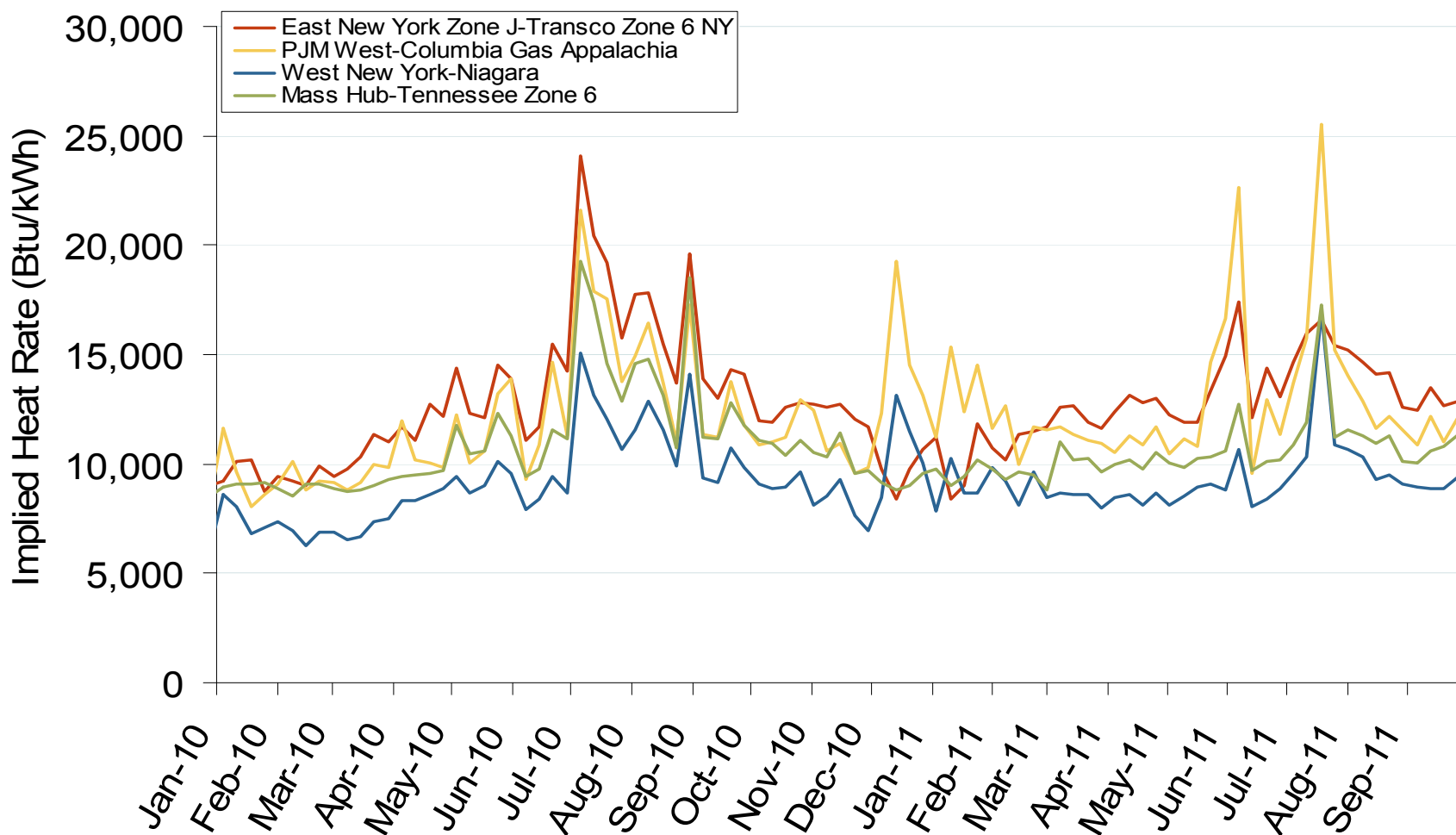
New York Electric Market: Last Month's Eastern Bilateral Prices

Federal Energy Regulatory Commission • Market Oversight • [www.ferc.gov/oversight](http://www.ferc.gov/oversight)

## Eastern Daily Bilateral Day-Ahead On-Peak Prices



## New York Electric Market: Eastern Implied Heat Rates

Federal Energy Regulatory Commission • Market Oversight • [www.ferc.gov/oversight](http://www.ferc.gov/oversight)**Implied Heat Rates at Eastern Trading Points - Weekly Avgs.**

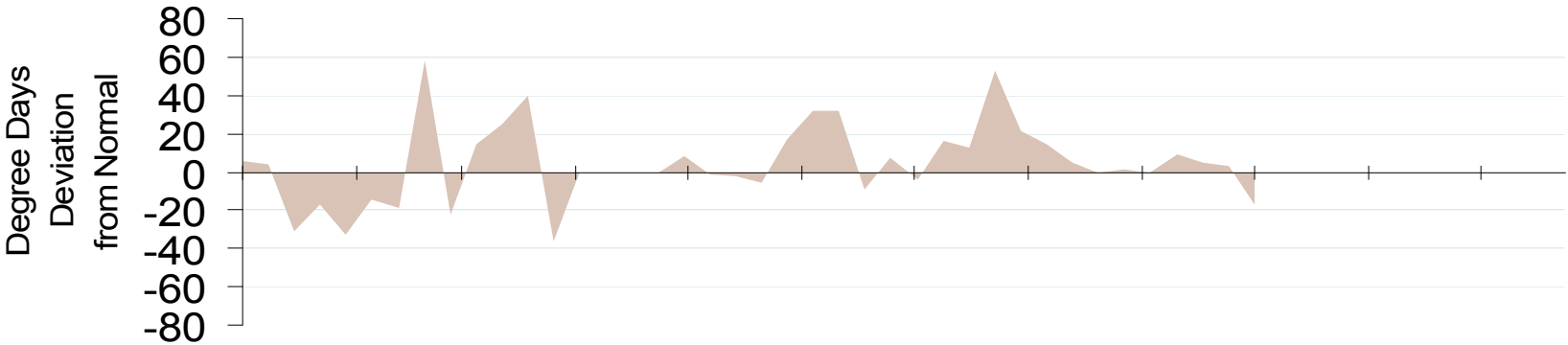
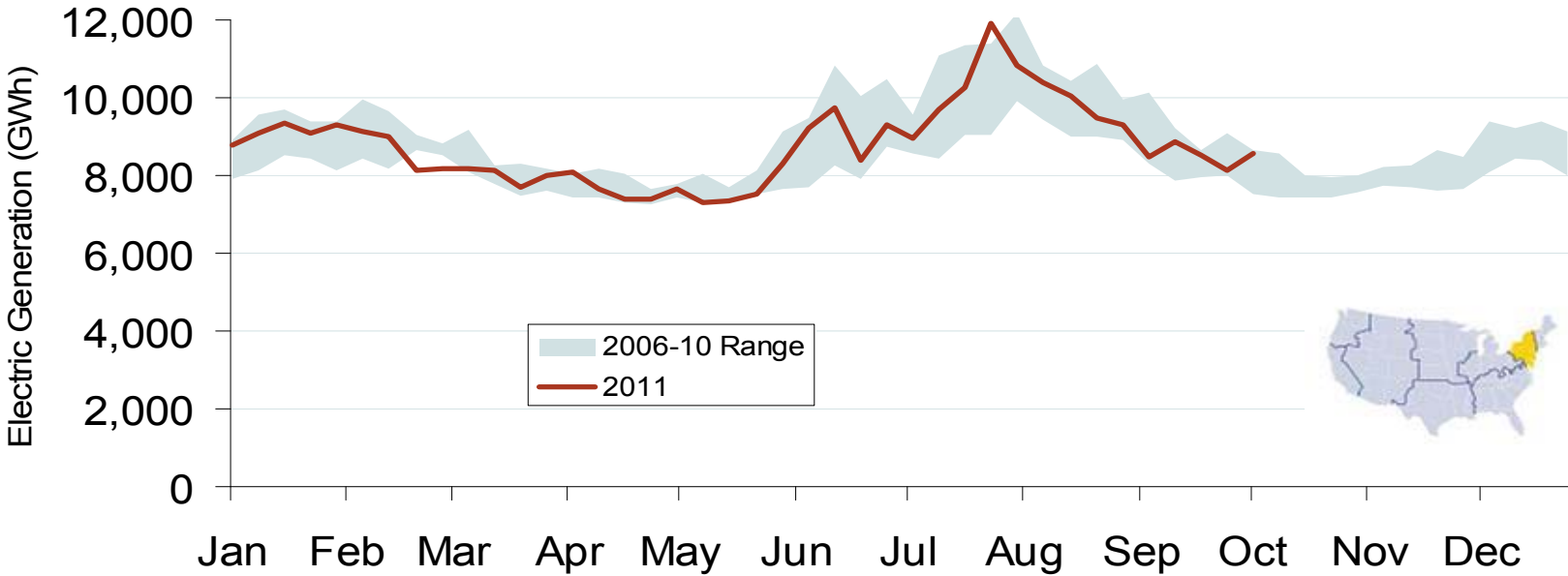
Source: Derived from Platts on-peak electric and natural gas price data

October 2011

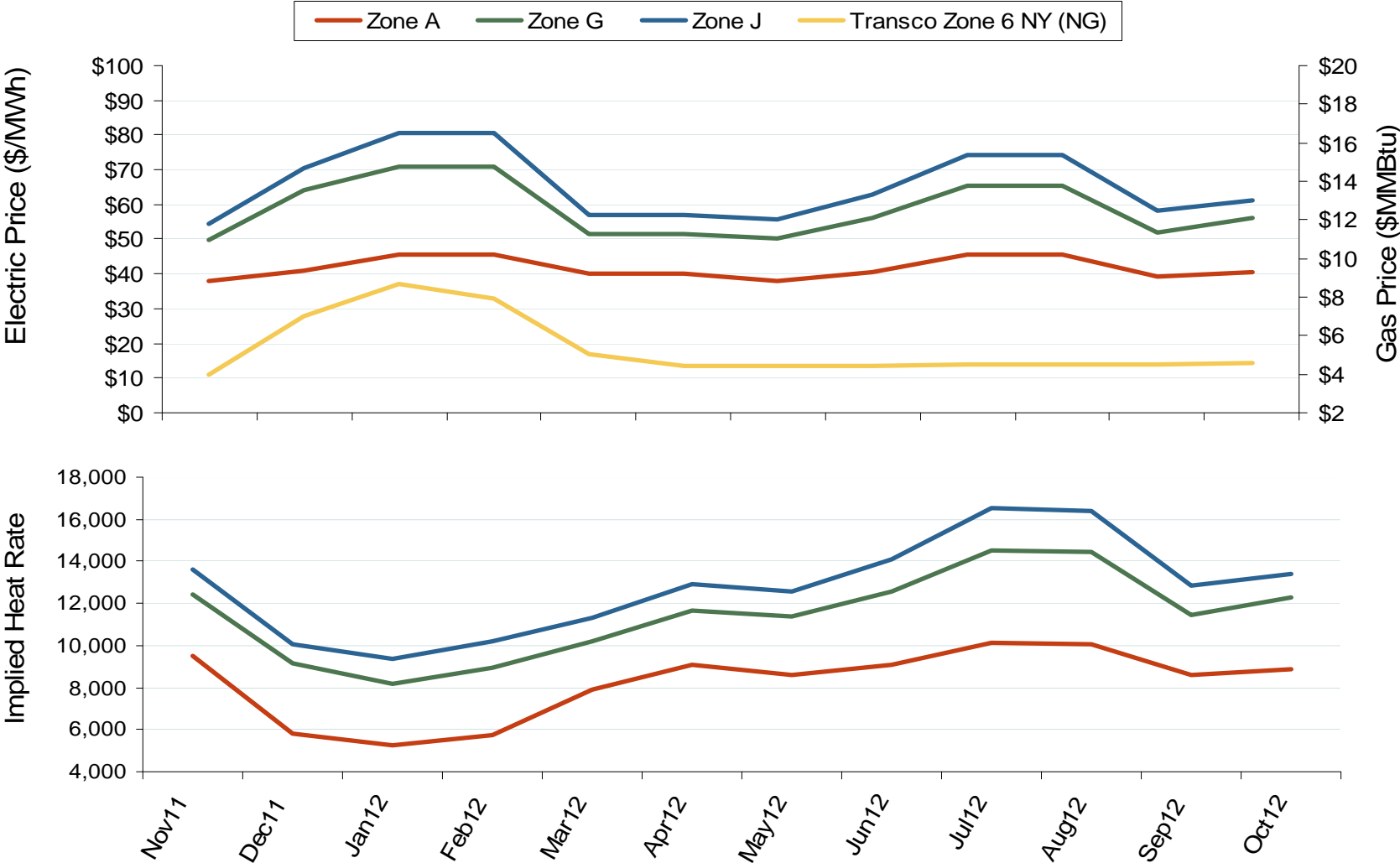
Updated: October 03, 2011

1137

### Weekly Power Generation & Temps. - Mid Atlantic



# New York Electric Forward Price Curves and Implied Heat Rates



Source: Derived from Nymex data  
October 2011

Updated: October 05, 2011

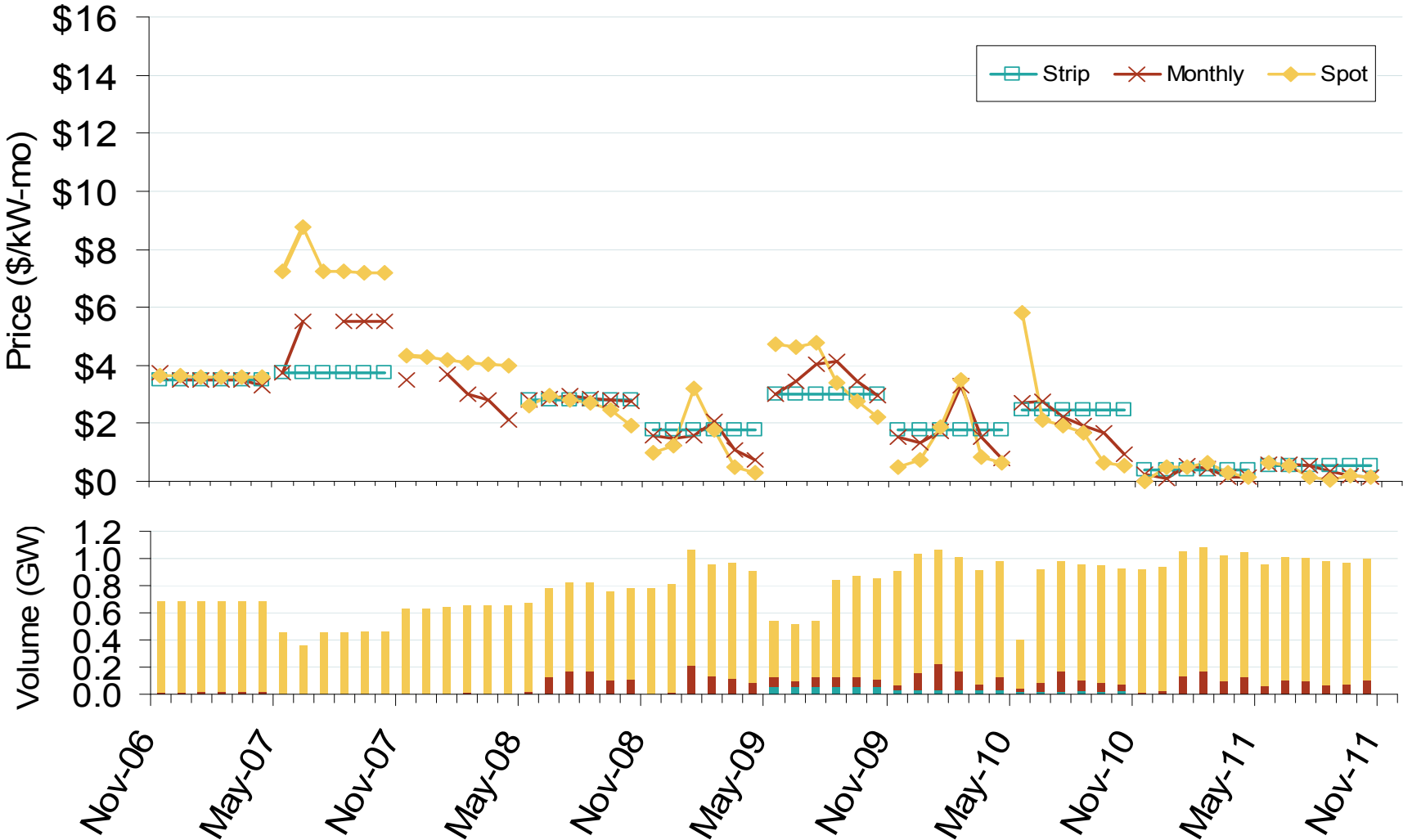
### Wtd. Avg. ICAP Prices & Volumes: NYC



Source: Derived from NYISO data  
October 2011

Updated: October 03, 2011

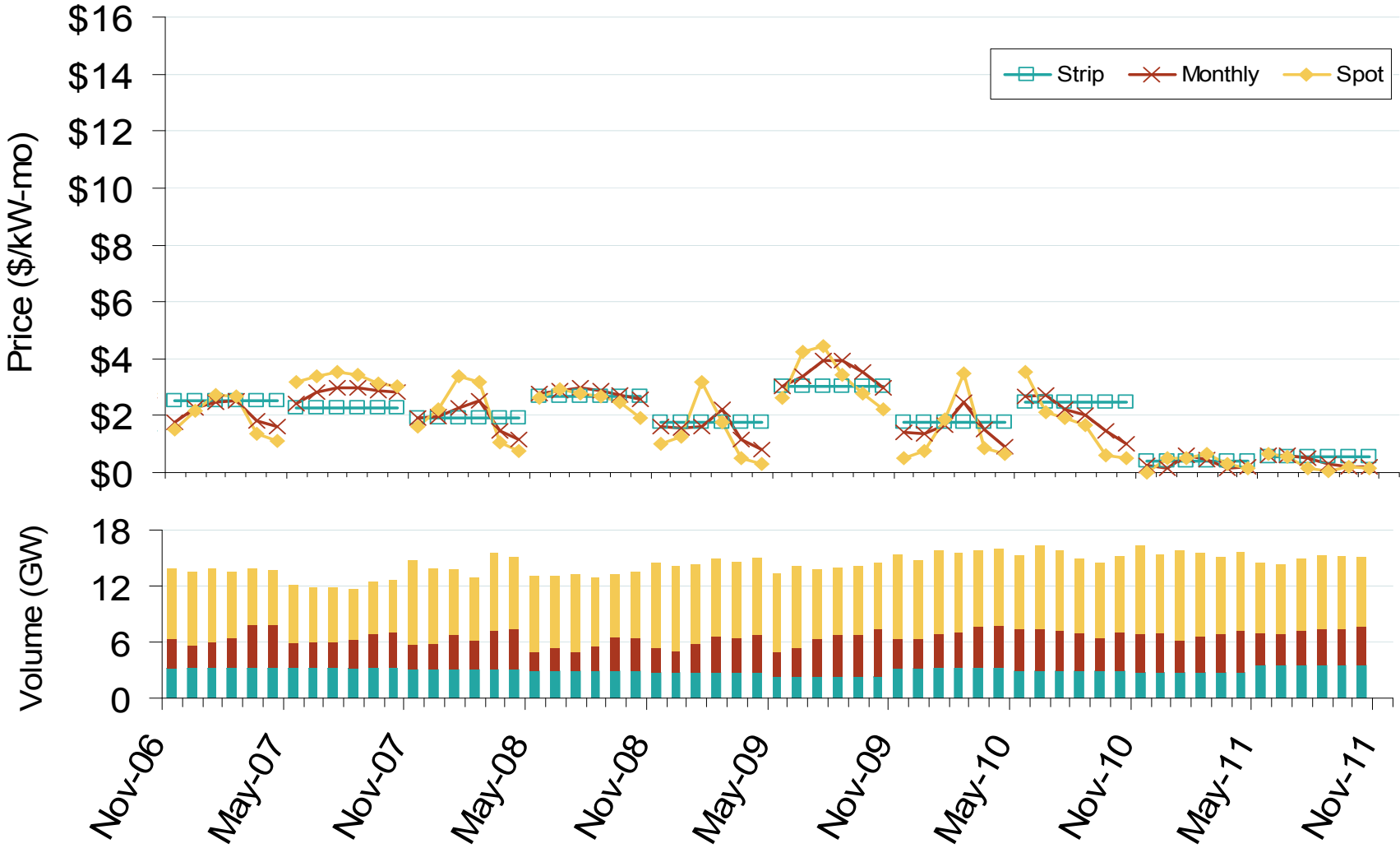
# Weighted Average ICAP Clearing Prices and Volumes: Long Island



Source: Derived from NYISO data  
October 2011

Updated: October 03, 2011

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

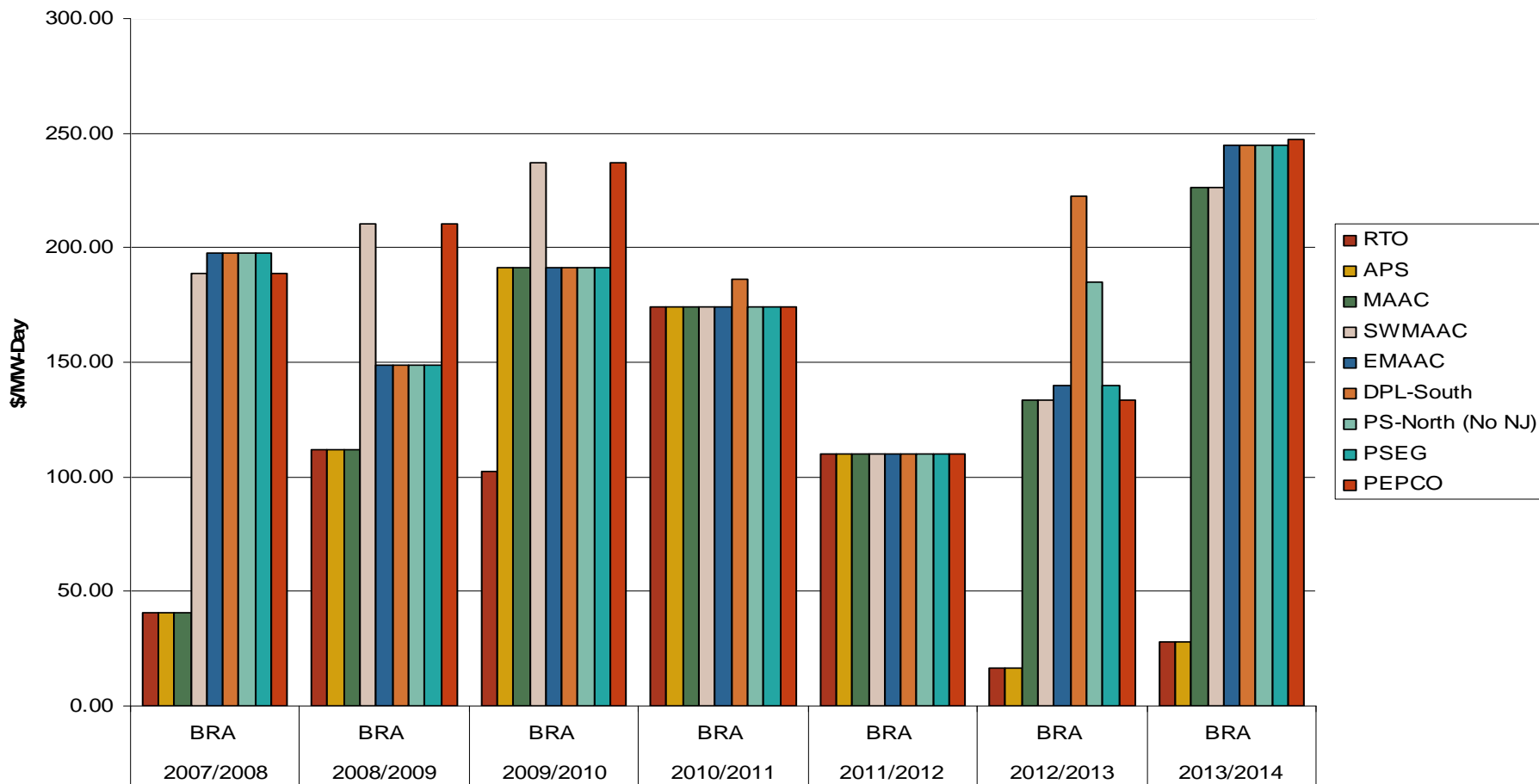


Source: Derived from NYISO data  
October 2011

Updated: October 03, 2011

# PJM, NYISO and ISO-NE Capacity Auction Prices

## RPM Auction Clearing Prices by Locational Delivery Area (LDA)



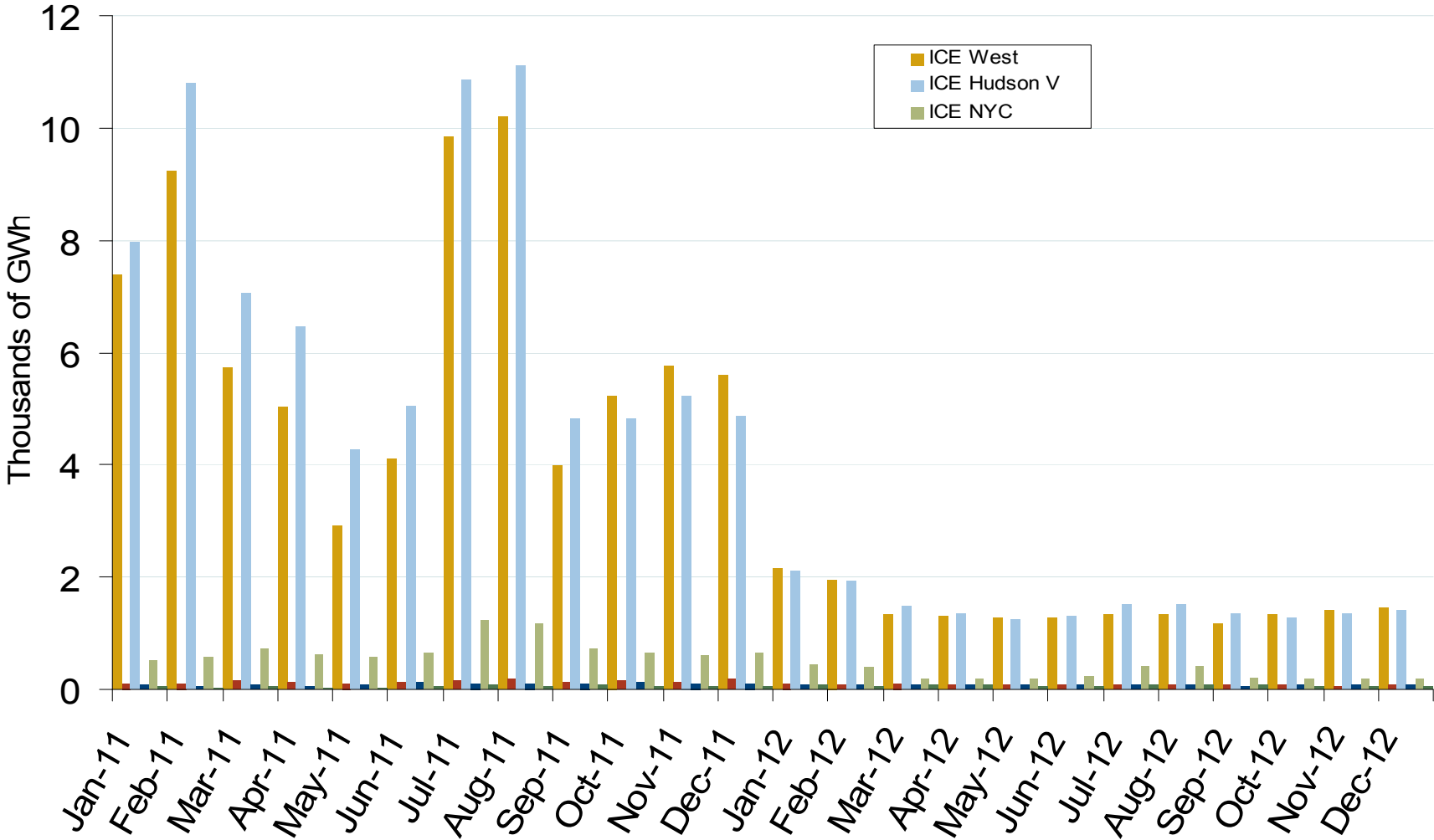
Note: PJM values are for Base Residual Auctions only.

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

October 2011

Updated: October 05, 2011