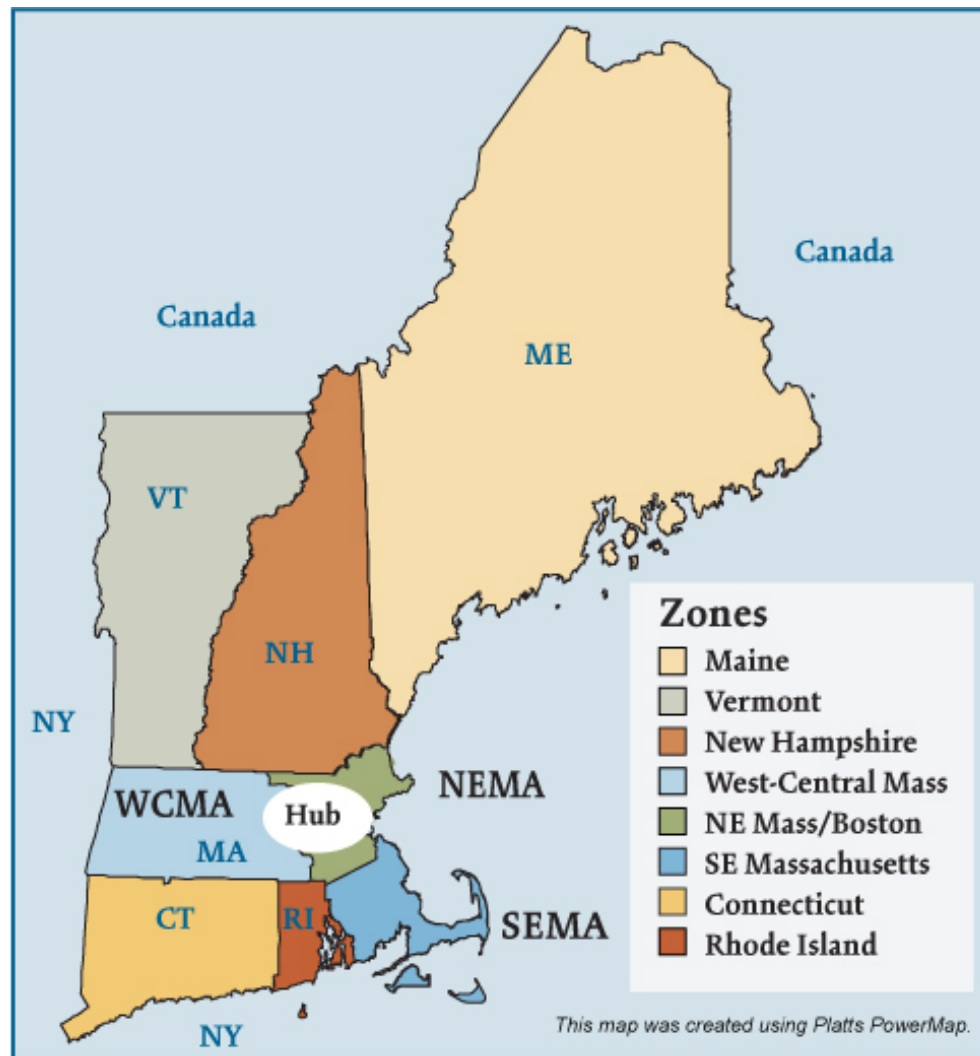


# New England (ISO-NE) Electric Regions



**Federal Energy Regulatory Commission • Market Oversight @ FERC.gov****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.

[ISO-NE 2007 State of the Markets Report](#)

Market Monitor: David LaPlante – Internal Market Monitor

**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%)

	2004	2005	2006	2007
Summer Peak Demand (MW)	24,116	26,885	28,130	26,143
<i>Source: Derived from ISO-NE Data</i>				

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

## Supply and Demand Statistics for ISO-NE

<b>Supply Demand Statistics</b>			
	2004	2005	2006
Summer Generating Capacity MW (1)	31,143	31,083	30,895
Summer Peak Demand MW	24,116	26,885	28,127
Summer Reserves MW	7,027	4,198	2,768
Summer Reserve Margin:	29%	16%	10%
Annual Load (GWh):	132,522	136,376	132,078
Annual Net Generation GWh	128,145	131,877	128,046

(1) "Generating Capacity" is generator capacity + net firm purchases & sales

Source: Derived from FERC staff discussions with ISO-NE.

Updated June 29, 2007

1019

## Annual Average Bilateral Prices

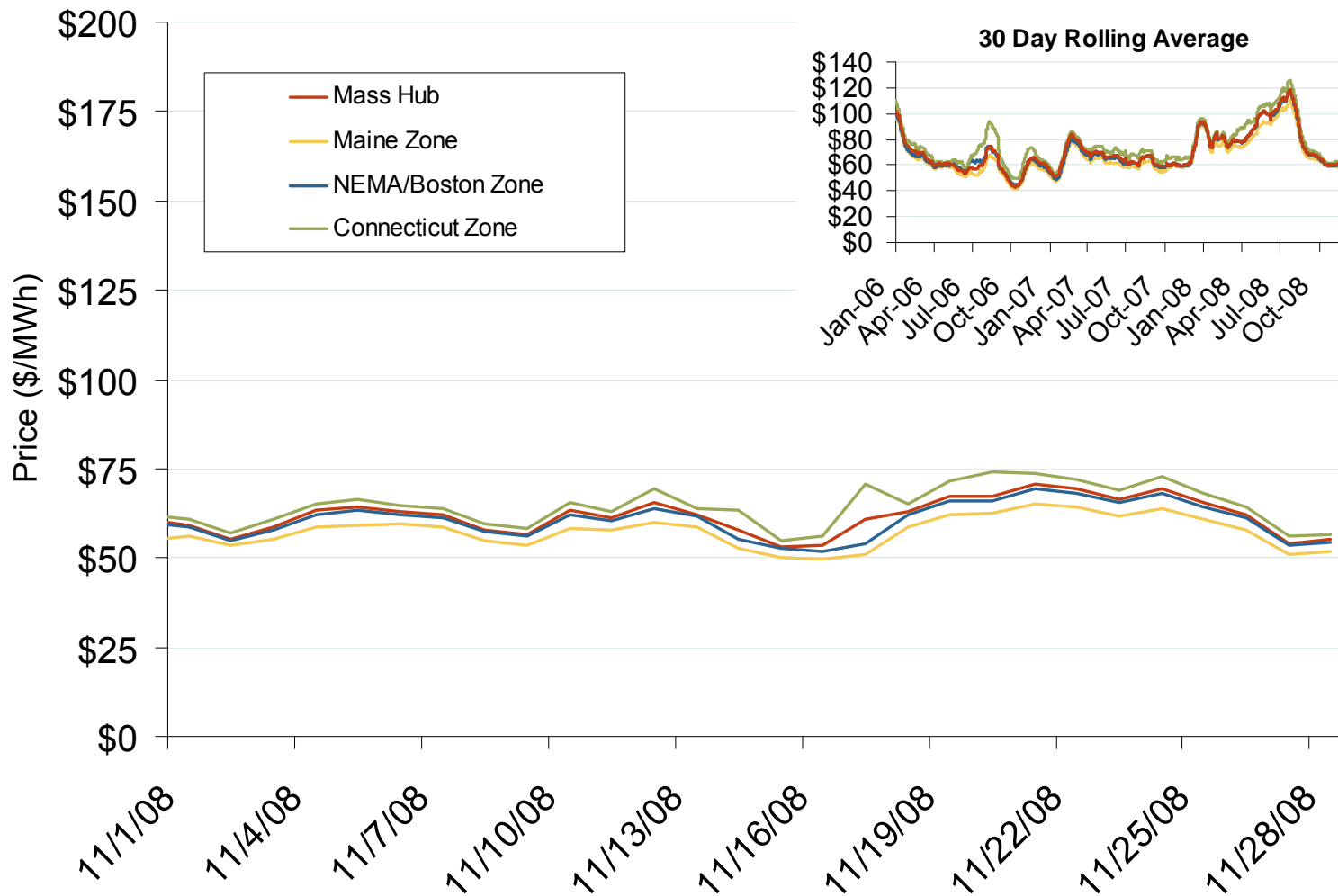
Annual Average Day Ahead On Peak Prices (\$/MWh)				
	2005	2006	2007	5 Years
Mass Hub	\$89.87	\$69.85	\$77.39	\$71.39
Ny Zone G	\$92.46	\$75.95	\$83.51	\$75.05
NY Zone J	\$110.03	\$85.96	\$94.15	\$88.91
NY Zone A	\$76.04	\$58.70	\$64.02	\$60.50
PJM West	\$76.64	\$61.90	\$71.15	\$61.83

Source: Derived from *Platts* data.

Updated March 7, 2008

1020

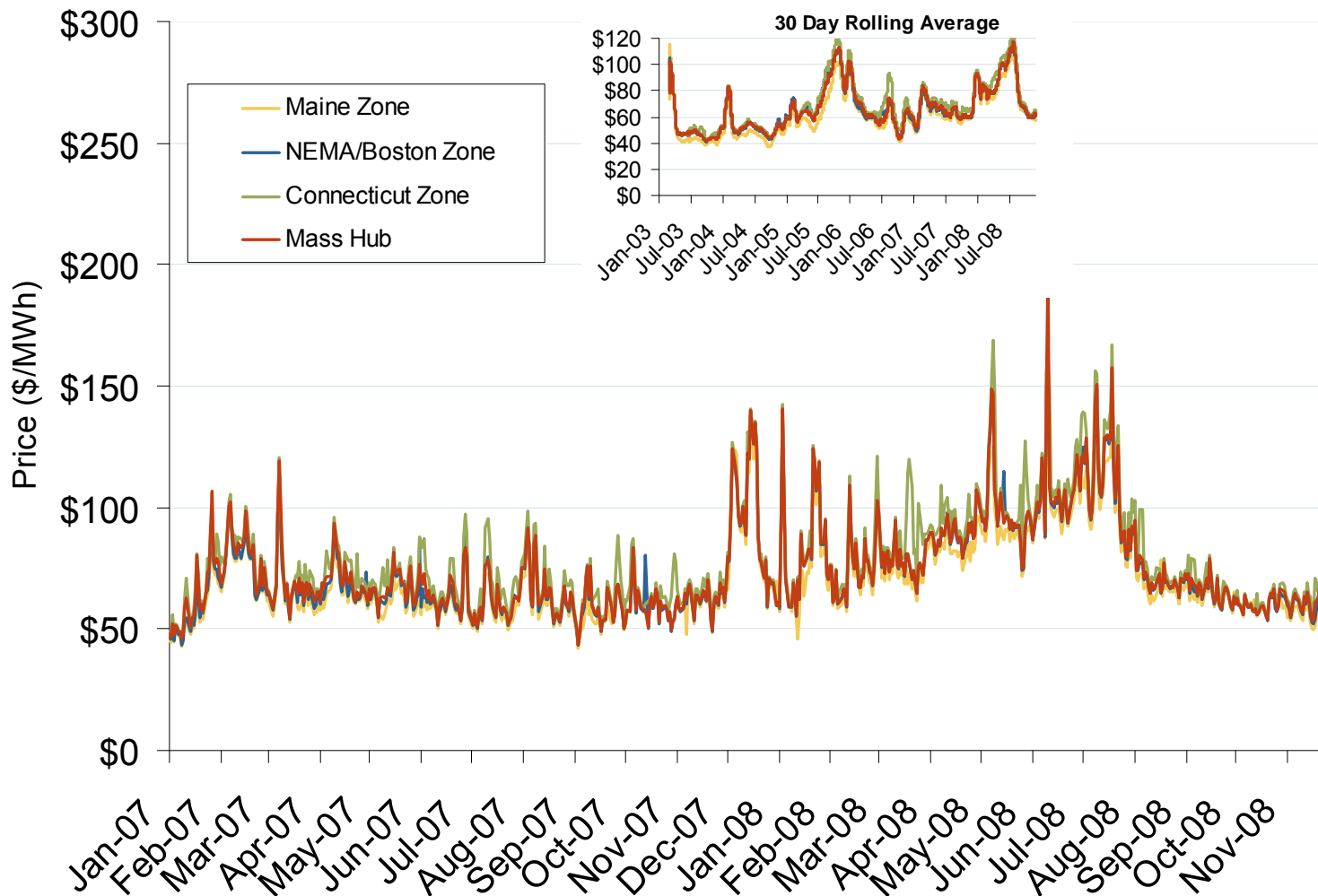
# Daily Average of ISO-NE Day-Ahead Prices - All Hours



Source: Derived by Bloomberg from ISO-NE data as reported by Bloomberg.

Updated December 5, 2008

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

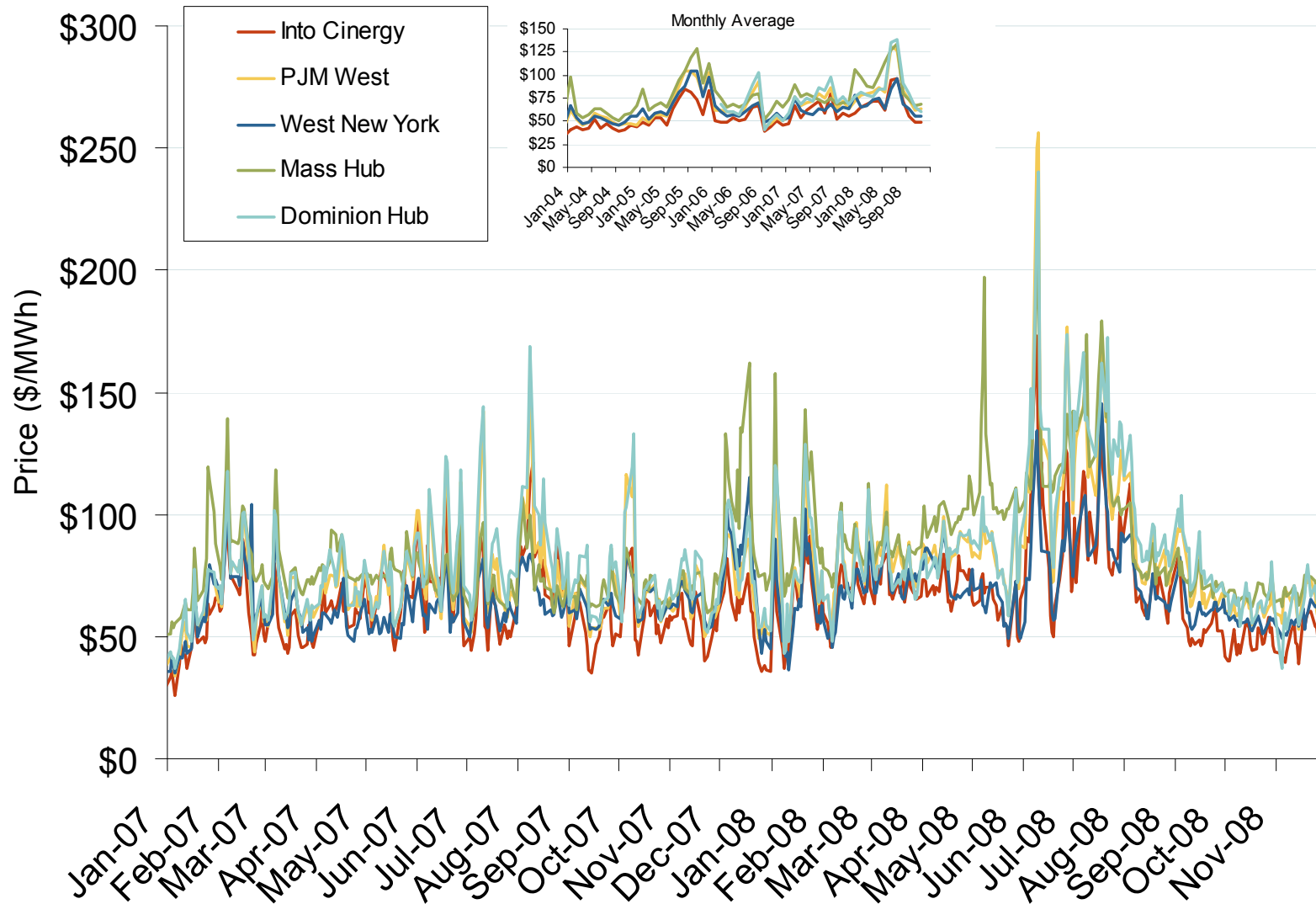


Source: Derived by Bloomberg from ISO-NE data as reported by Bloomberg.

Updated December 5, 2008



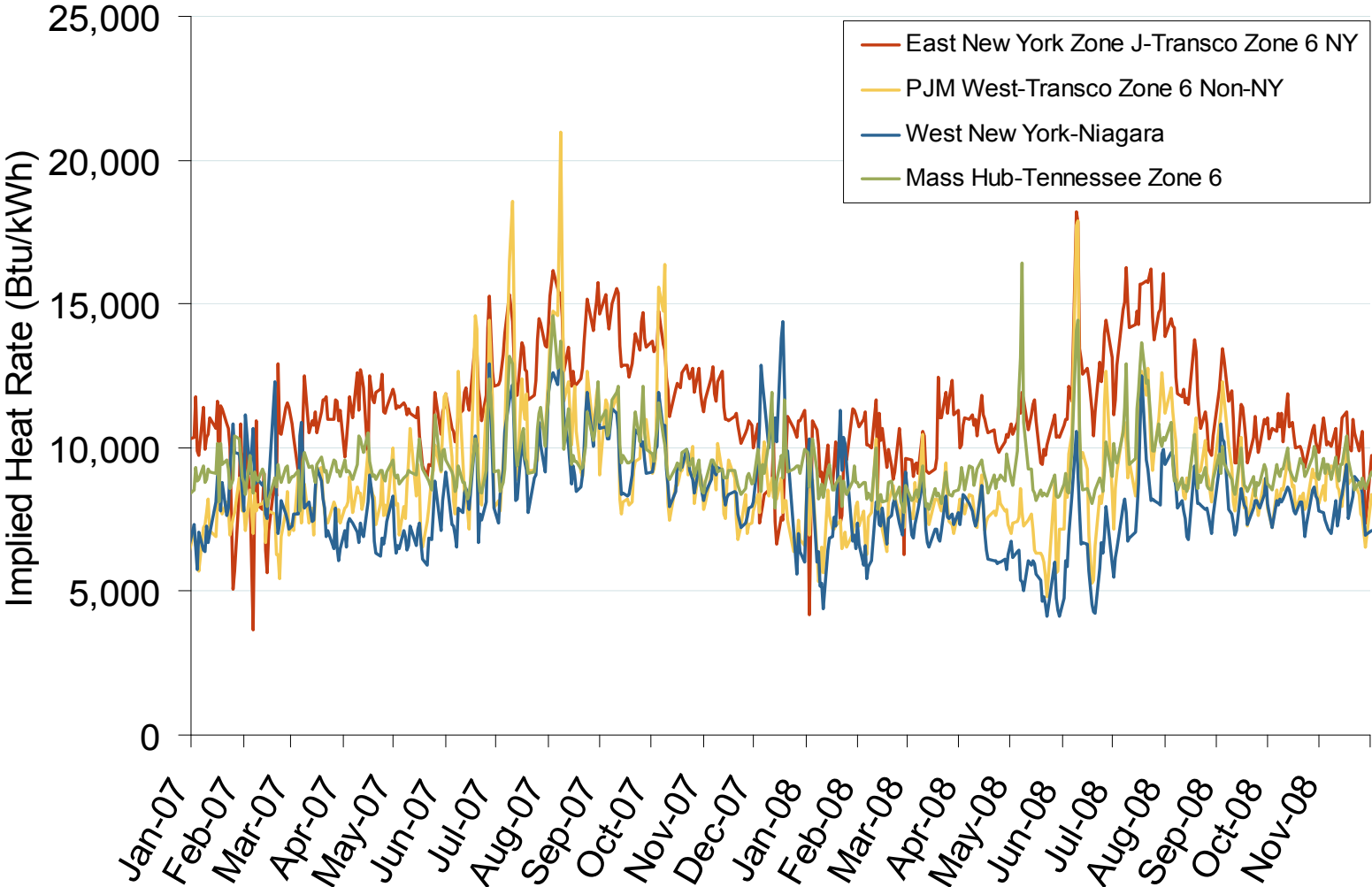
## Eastern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated December 5, 2008 1022

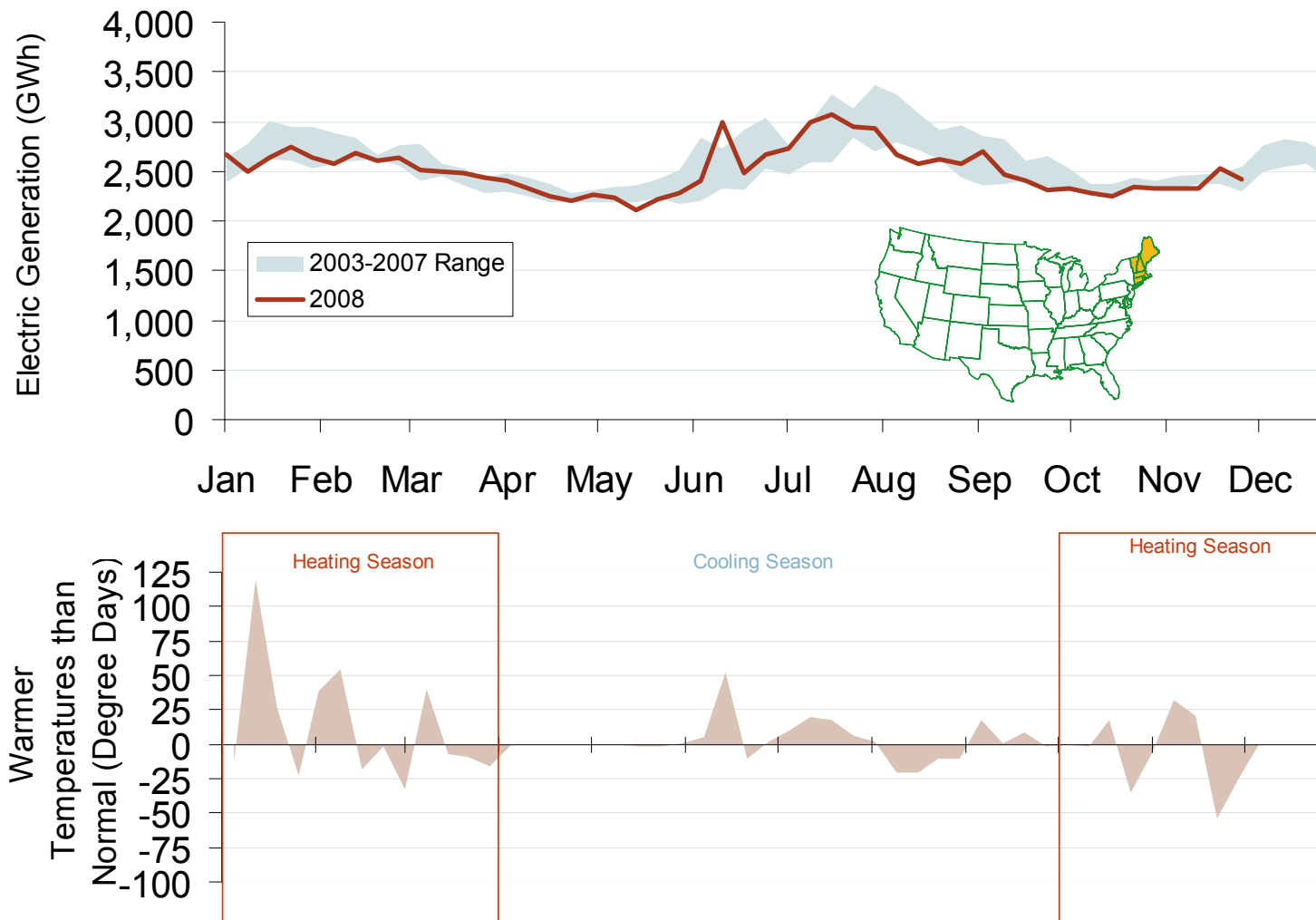
# Implied Heat Rates at Eastern Trading Points



Source: Derived from *Platts* data

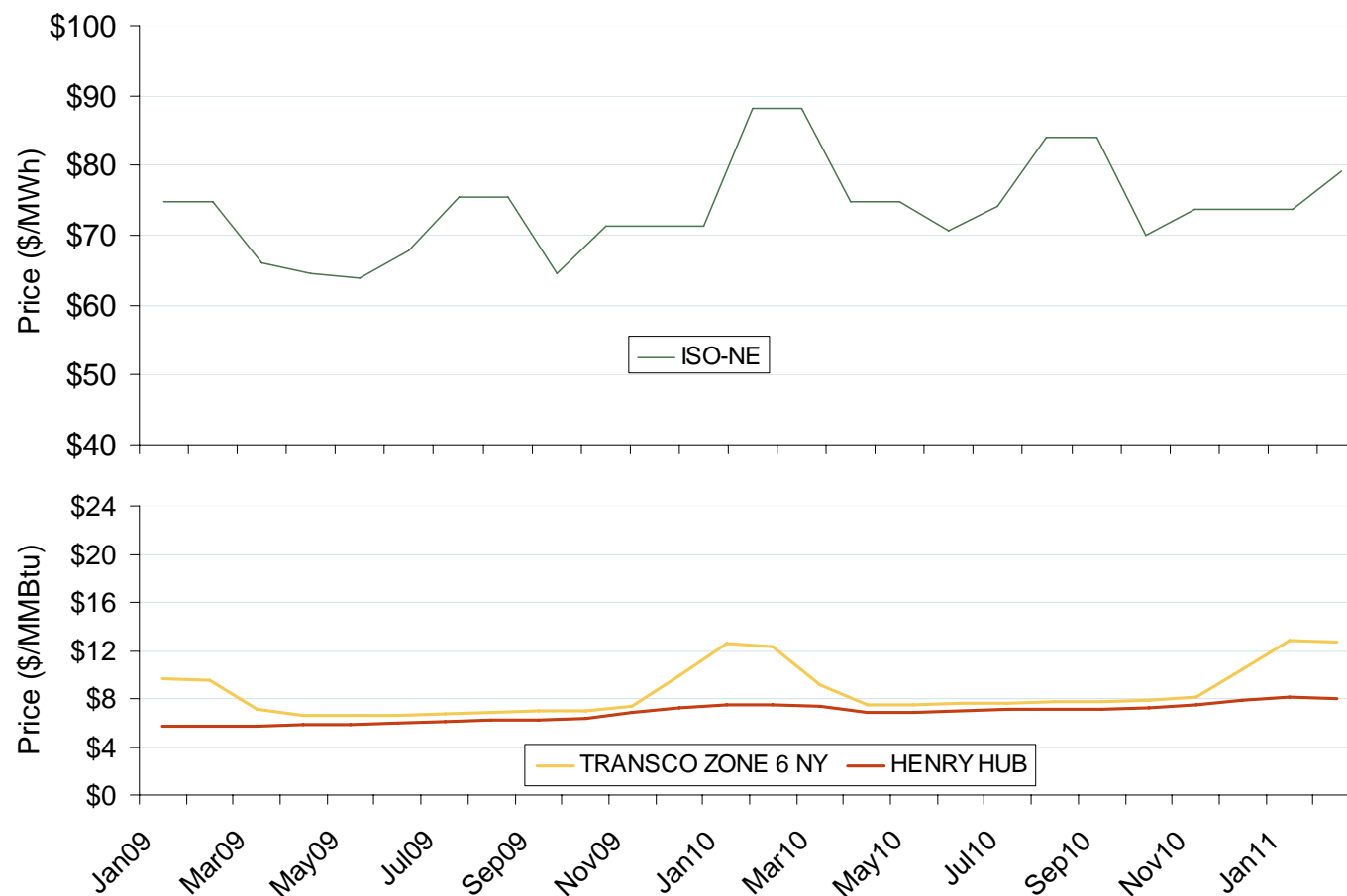
Updated December 5, 2008 1136

# Weekly Electric Generation Output and Temperatures New England



Source: Derived from *EEl* and *NOAA* data.

## New England Electric Forward Price Curve and New York and Henry Hub Natural Gas Forward Curves

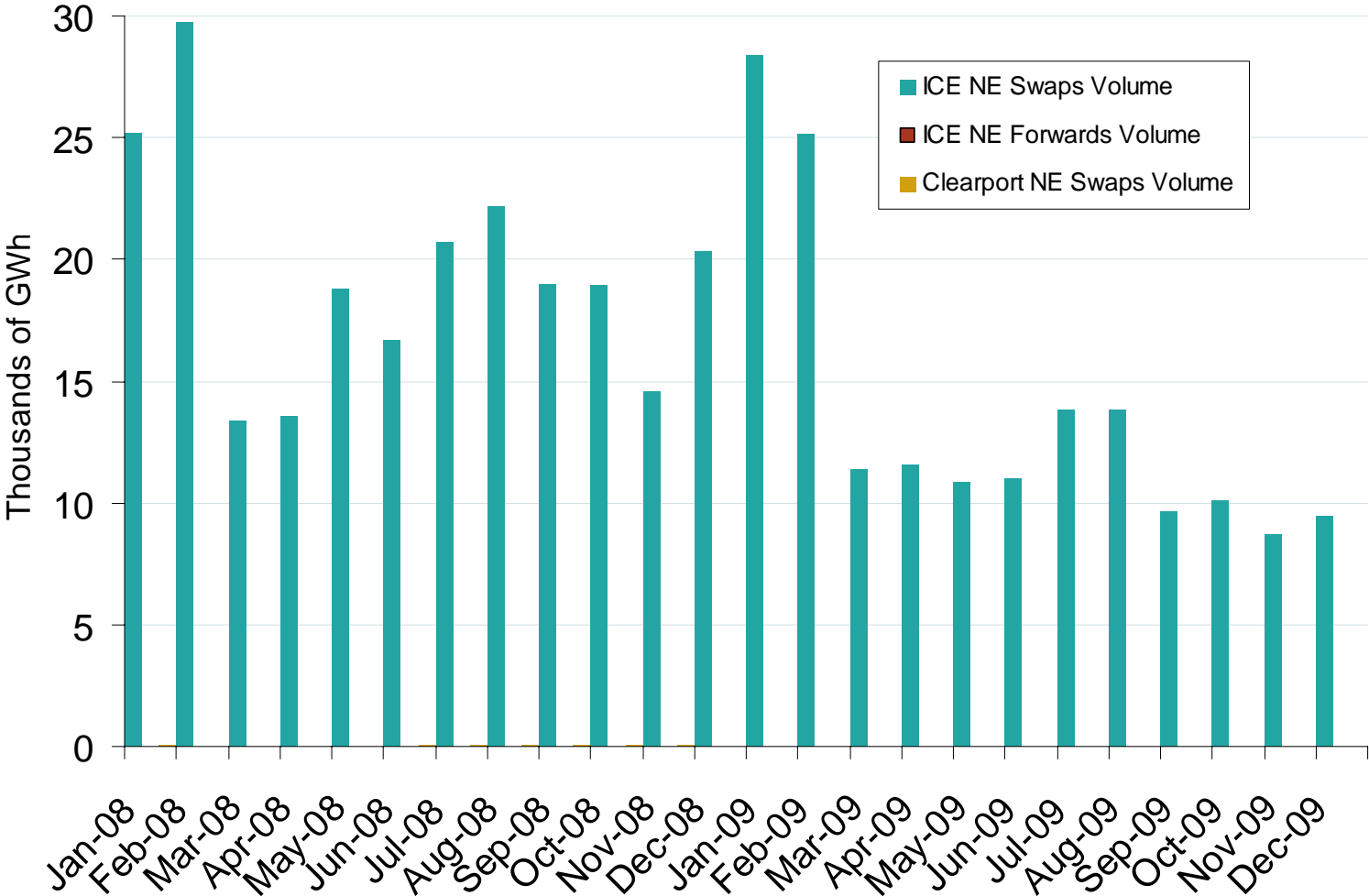


Source: Derived from Nymex data.

Updated December 5, 2008

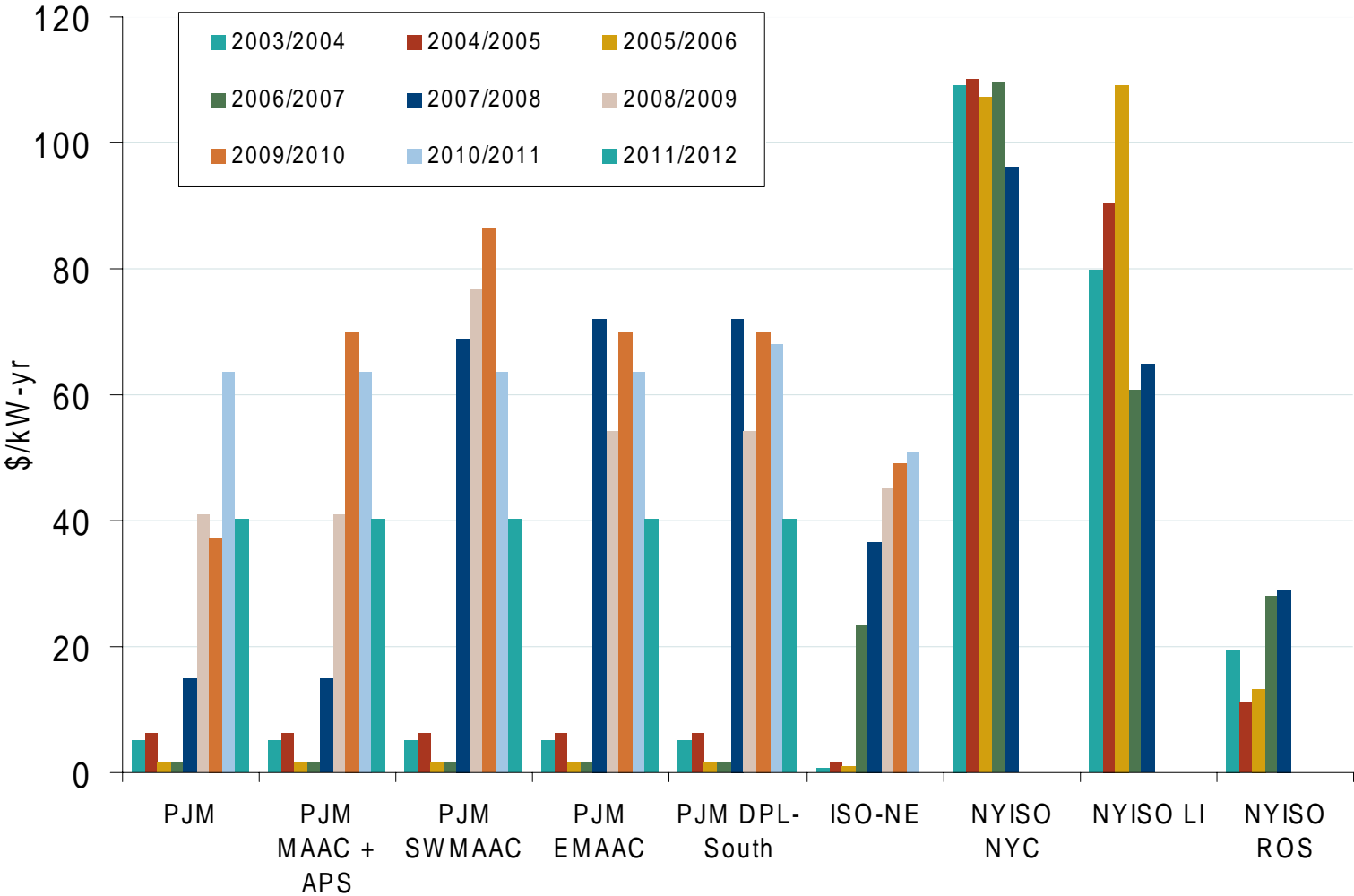
1127

# New England Forward and Swap Volumes



Source: Derived from ICE and Nymex ClearPort data. 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. Nymex ClearPort on-peak swaps (financial) volume are for the ISO-NE Internal Hub traded by month.

# PJM, NYISO and ISO-NE Capacity Prices



Note: PJM values are for Base Residual Auctions only.  
 ISO-NE results for 2010/2011 are based on preliminary FCM auction before pro-rationing and EAS adjustment.  
 Source: Derived from PJM, NYISO and ISO-NE data