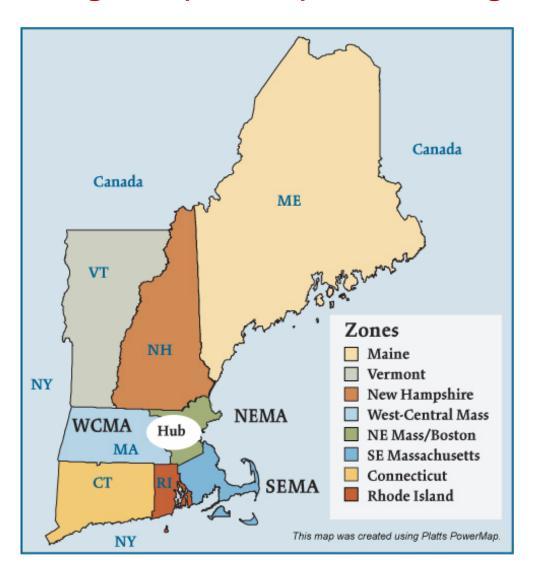
# **New England (ISO-NE) Electric Regions**



#### **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 2009 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					
Source: Derived from ISO-NE Data									

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

#### Federal Energy Regulatory Commission • Market Oversight • <a href="www.ferc.gov/oversight">www.ferc.gov/oversight</a>

#### **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

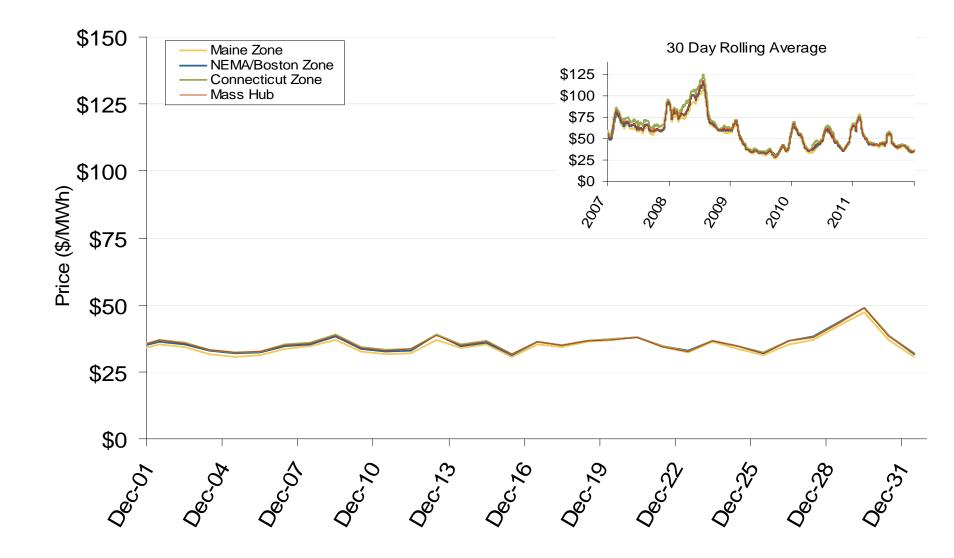
# **New England Annual Average Bilateral Prices**

<b>Annual Average Day Ahead On Peak Prices</b>	(\$/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

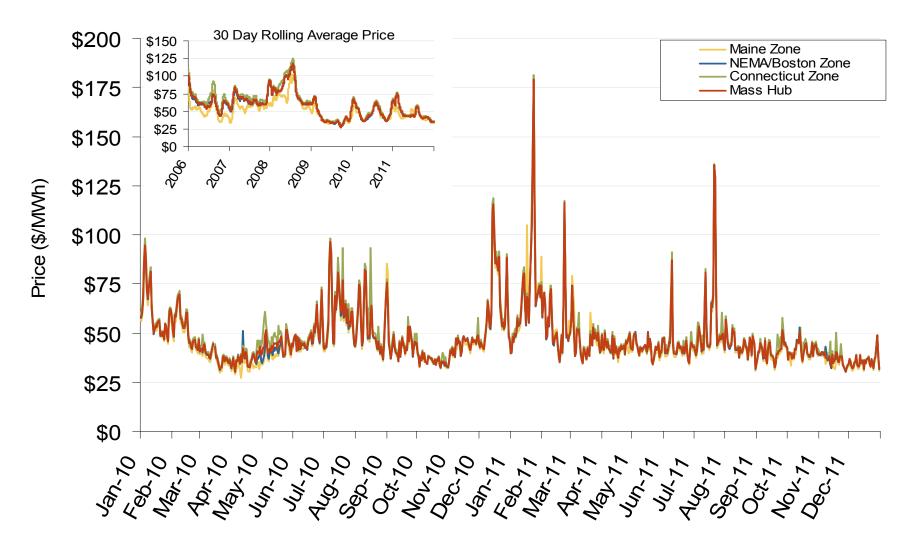
Source: Derived from Platts data.

January 2012

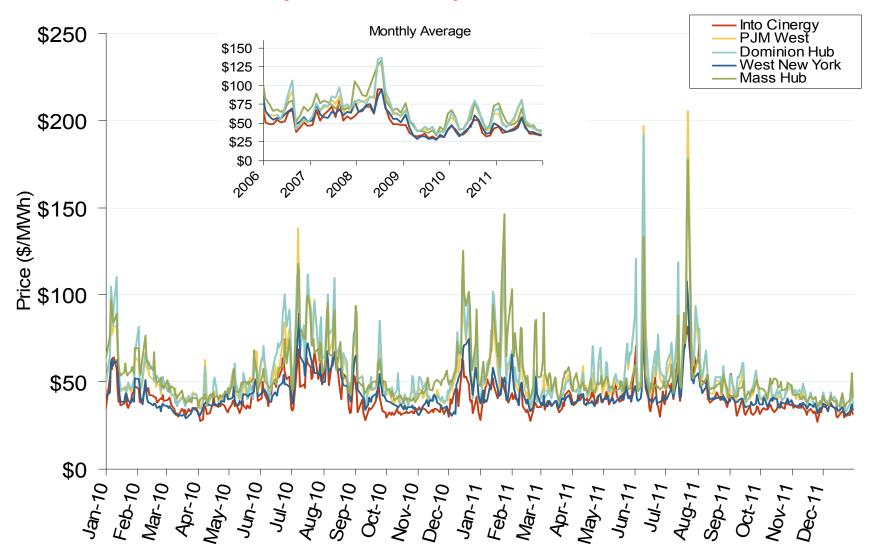
## Daily Average of ISO-NE Day-Ahead Prices - All Hours



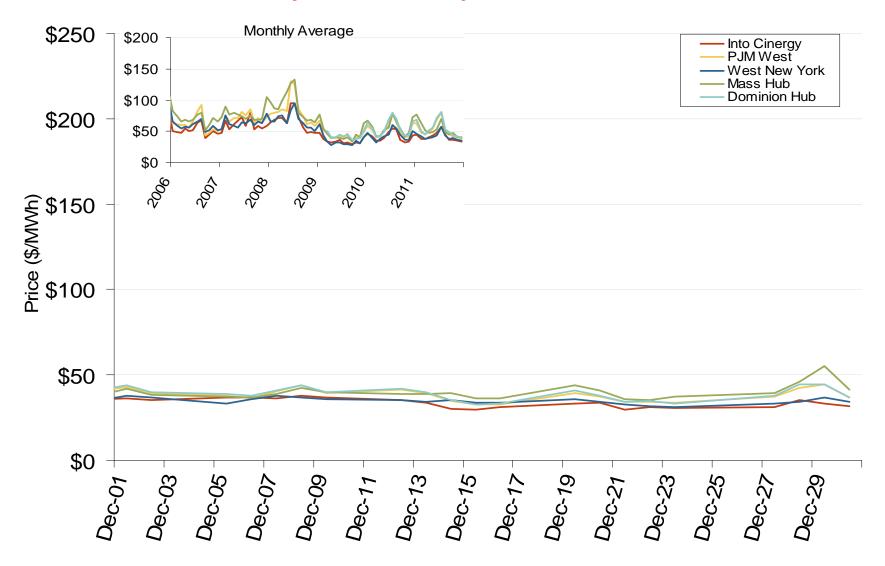
# Daily Average of ISO-NE Day-Ahead Prices - All Hours



# Eastern Daily Bilateral Day-Ahead On-Peak Prices

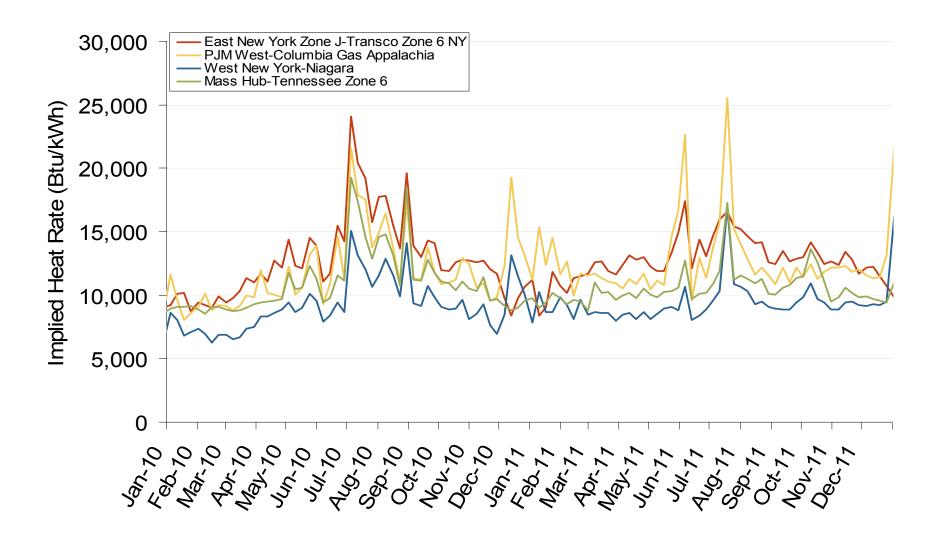


# Eastern Daily Bilateral Day-Ahead On-Peak Prices



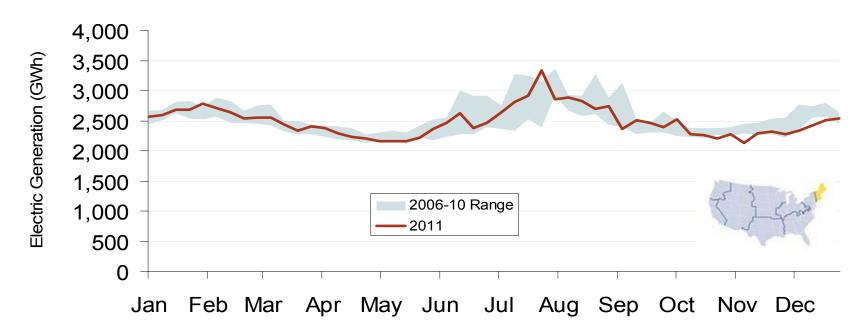
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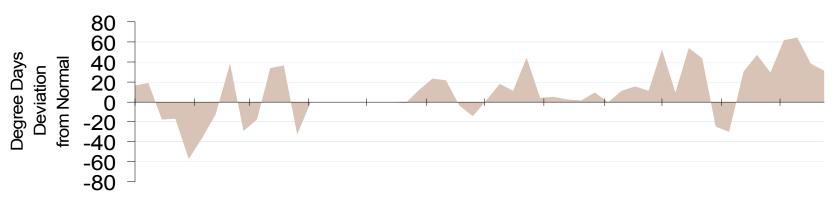
### Implied Heat Rates at Eastern Trading Points - Weekly Avgs.



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### **Weekly Generation Output and Temperatures New England**





### **New England Electric Forward Price Curves and Implied Heat Rate**

