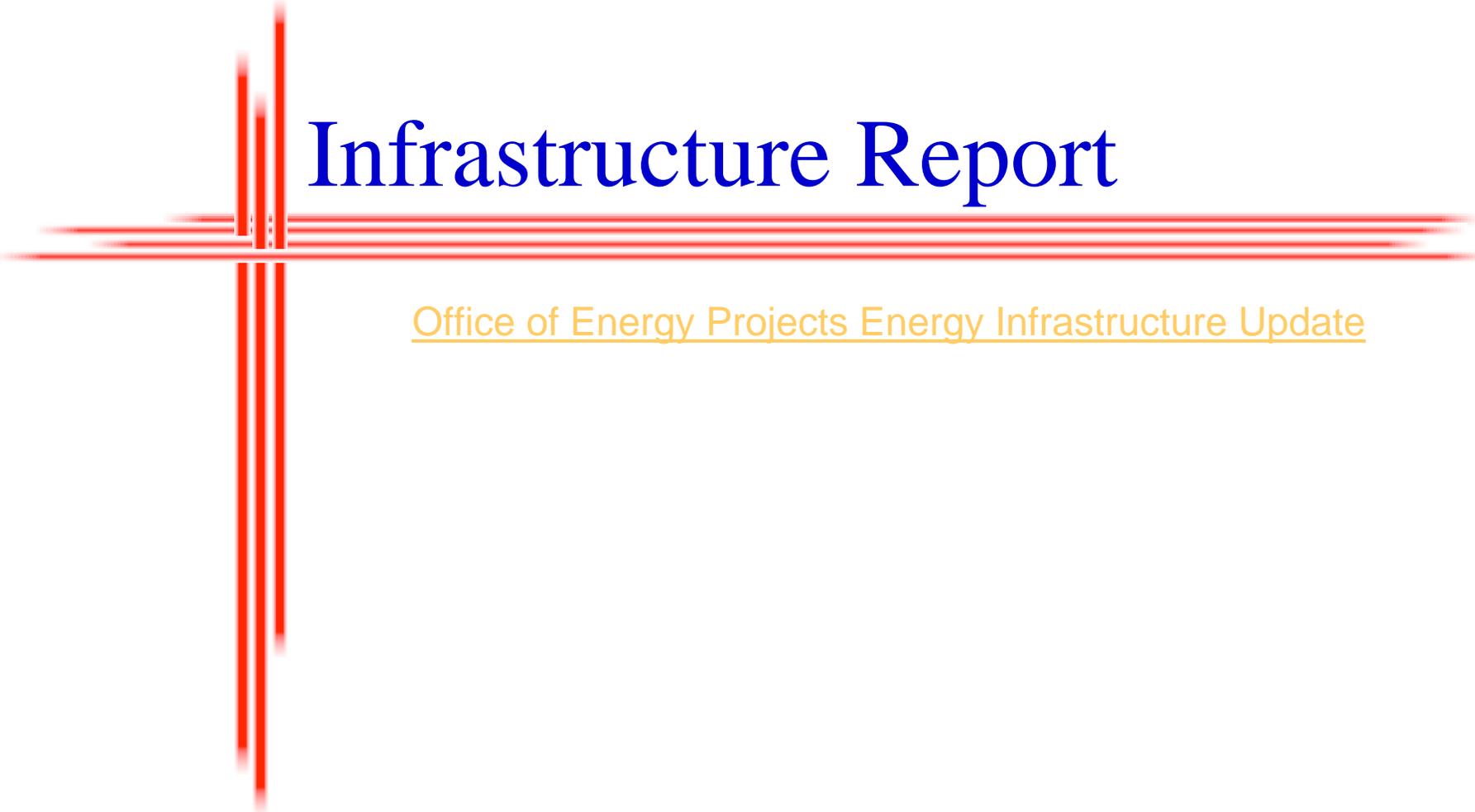


# **OE ENERGY MARKET SNAPSHOT**

## **Northeast States Version – September 2013 Data**

---

Office of Enforcement  
Federal Energy Regulatory Commission  
October 2013



# Infrastructure Report

Office of Energy Projects Energy Infrastructure Update



<http://www.ferc.gov/market-oversight/reports-analyses/st-mkt-ovr/2012-som-final.pdf>

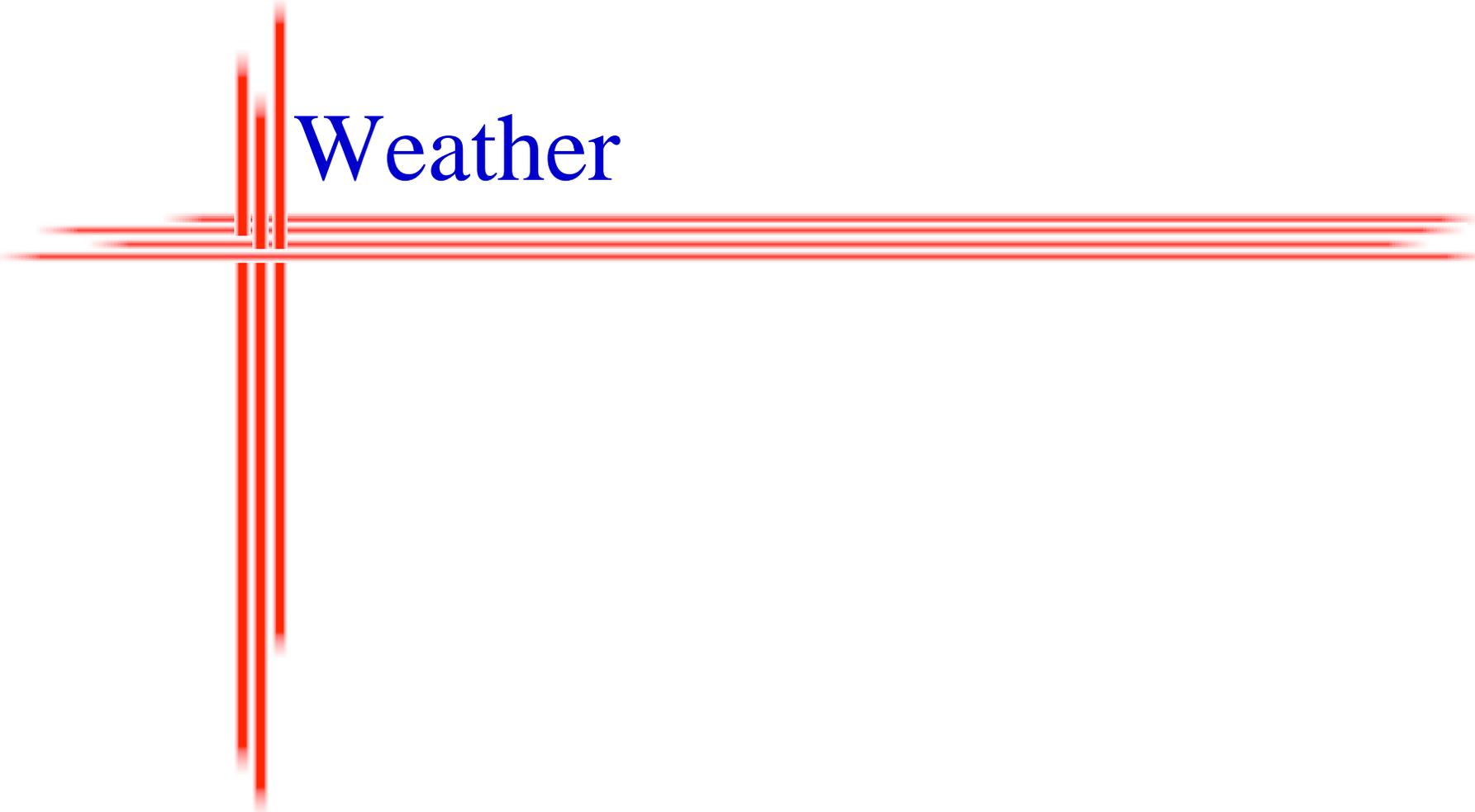


**Winter 2013-14  
Energy Market Assessment  
Report to the Commission**

Docket No. AD06-3-000  
October 2013

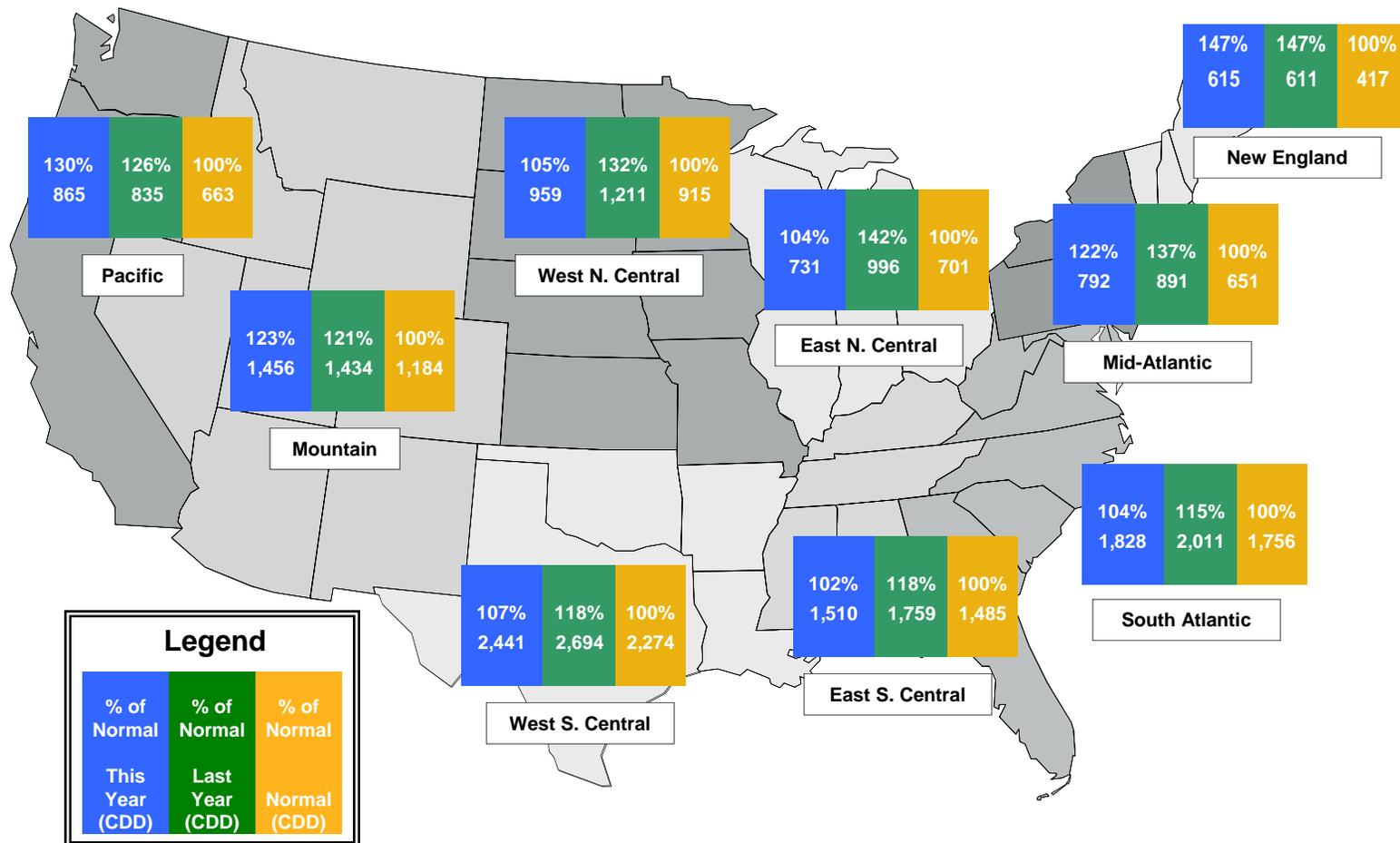
**Disclaimer:** The matters presented in this staff report do not necessarily represent the views of the Federal Energy Regulatory Commission, its Chairman, or individual Commissioners, and are not binding on the Commission.

<http://www.ferc.gov/CalendarFiles/20131017101835-2013-14-WinterReport.pdf>



# Weather

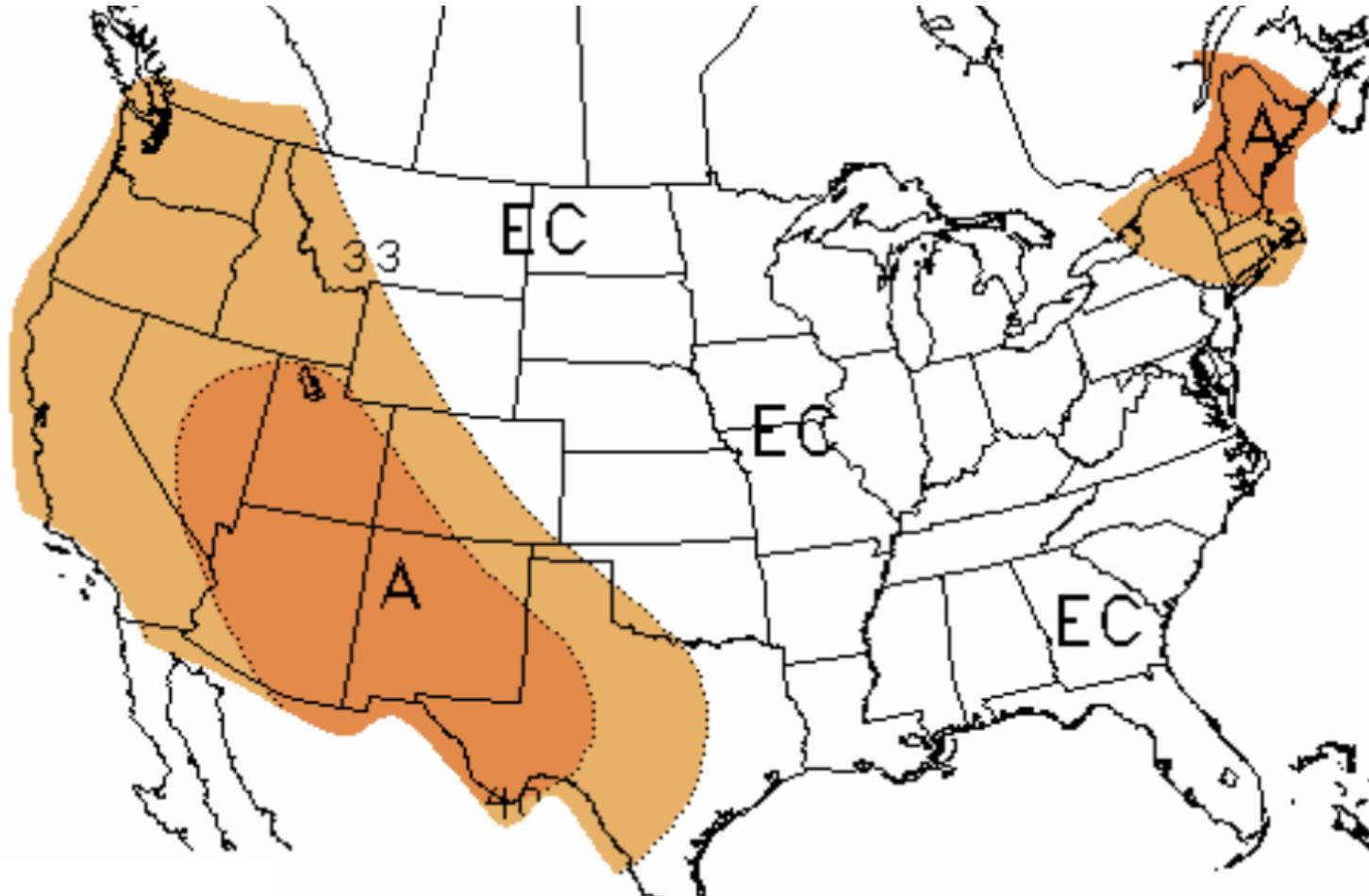
## Regional Cooling Degree Days – January to September 2013



Source: Derived from NOAA data. Normal is based on a 30-year average of cooling degree day data.

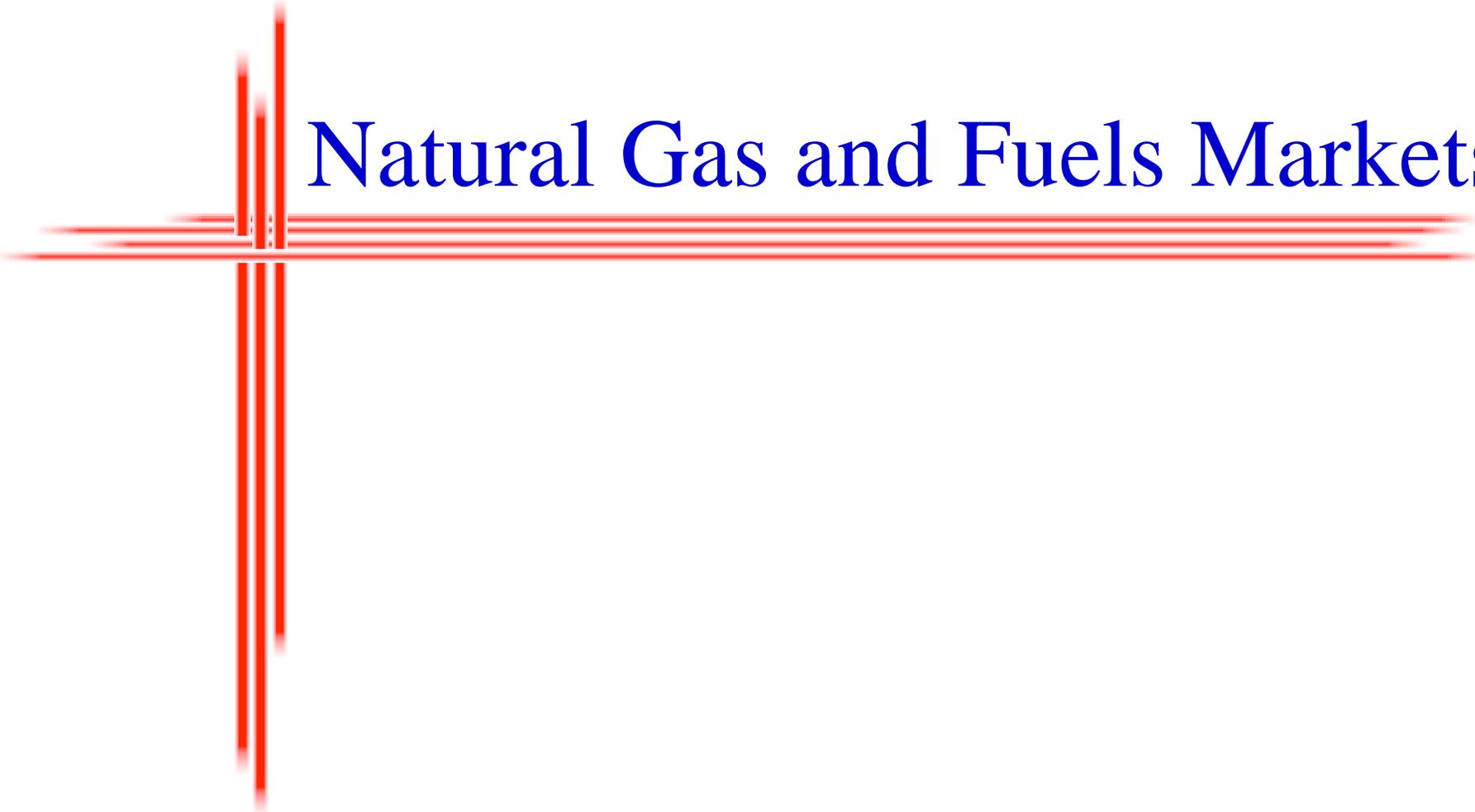
Updated: October 16, 2013

## NOAA's 3 Month Temperature Forecast Made July 18, 2013, Valid for October 2013 – December 2013



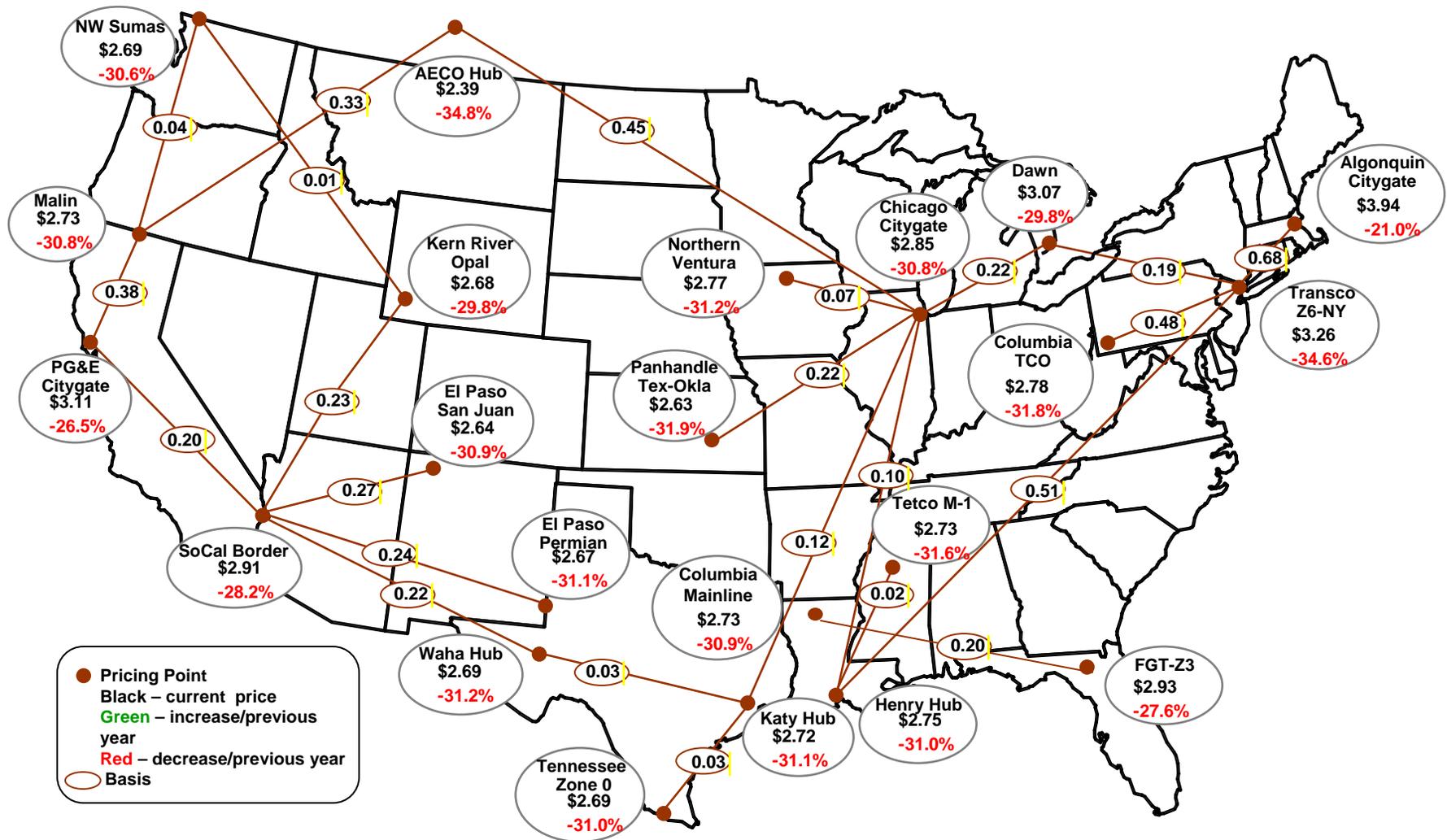
Note: "A" areas are above normal, "B" areas are below normal and "EC" means equal chance. Normal is based on the last 30 years of data.  
Source: Derived from NOAA data.

Updated: October 16, 2013



# Natural Gas and Fuels Markets

## Average Spot Gas Prices, 2012 (\$MMBtu)

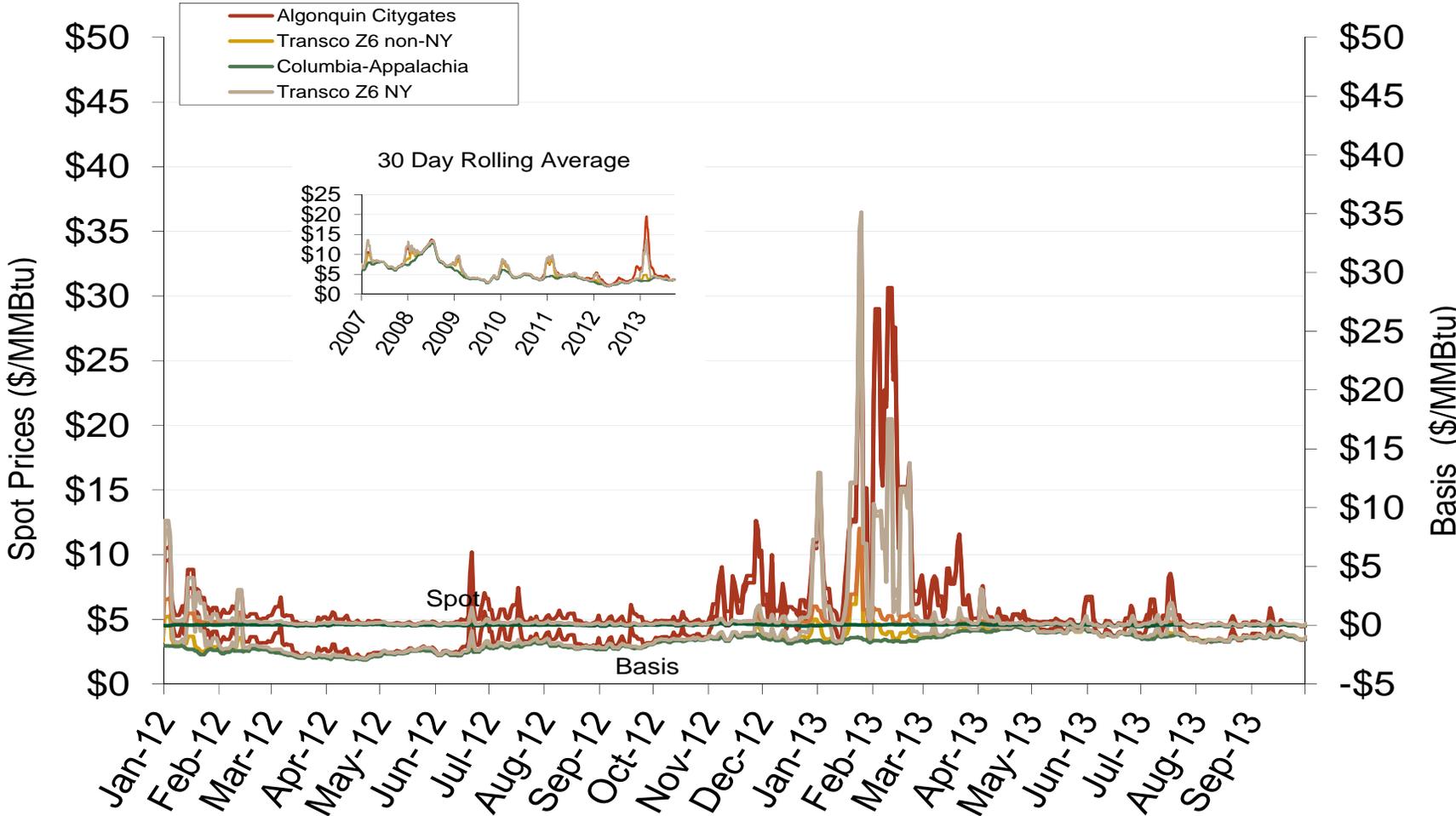


Source: Derived from *Platts* data.  
October 2013 Northeast Snapshot Report

## Northeast Annual Average Spot Hub Prices

Annual Average Day Ahead Prices (\$/MMBtu)						
	2008	2009	2010	2011	2012	5-Year Avg
Algonquin Citygates	\$10.06	\$4.80	\$5.29	\$4.99	\$3.94	\$5.82
Transco Z6 NY	\$10.13	\$4.89	\$5.41	\$4.98	\$3.26	\$5.73
Transco Z6 non-NY	\$9.85	\$4.64	\$5.25	\$4.68	\$2.99	\$5.48
Columbia-Appalachia	\$9.18	\$4.11	\$4.52	\$4.07	\$2.78	\$4.93

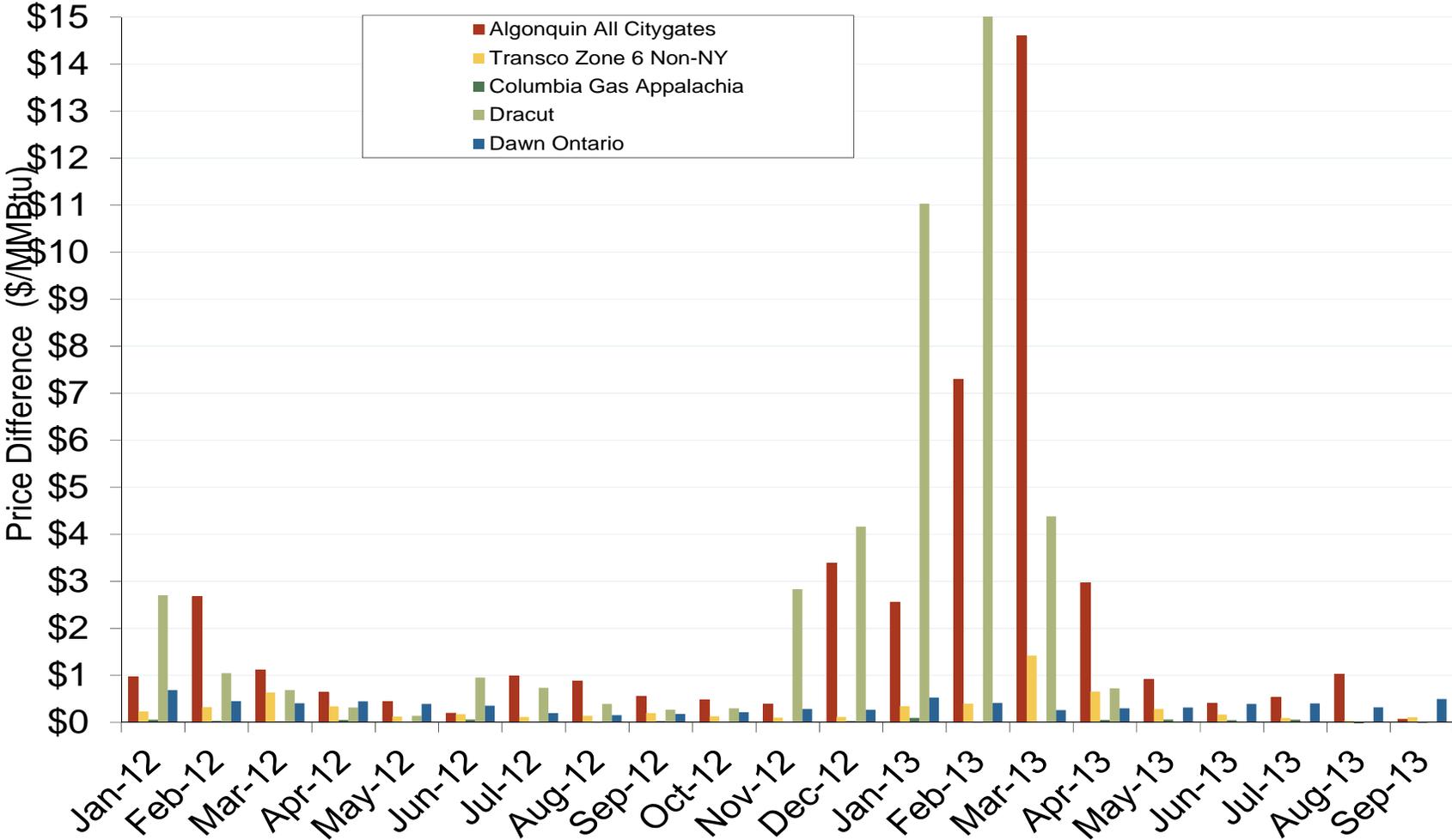
### Northeastern Spot Prices and Basis



Northeast Natural Gas Market: Average Basis to Henry Hub

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

### Northeastern Monthly Average Basis Value to Henry Hub

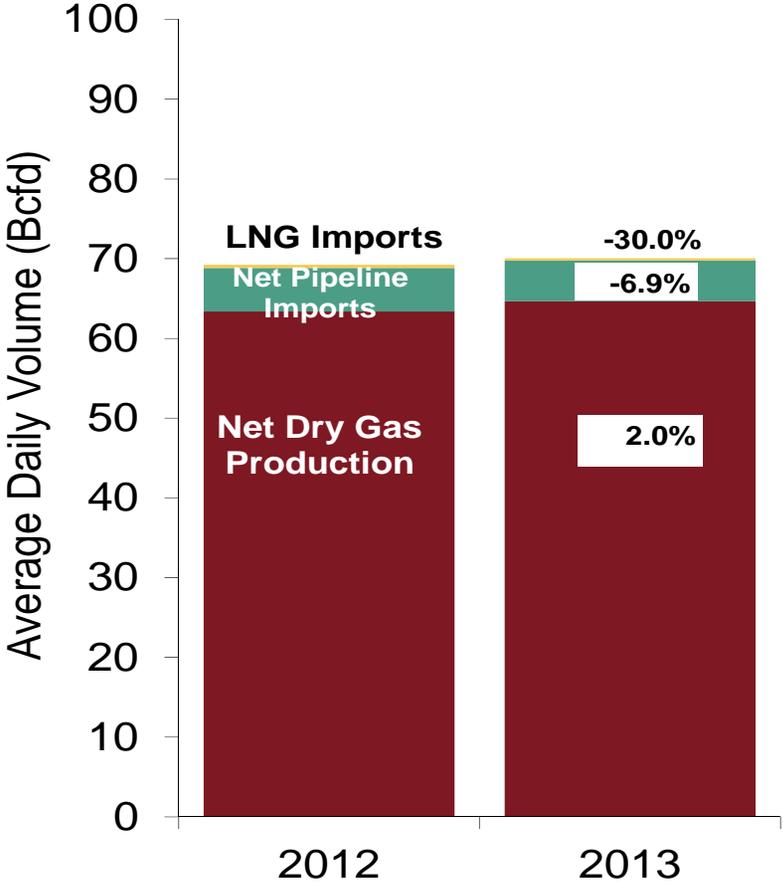


Source: Derived from Platts data  
October 2013 Northeast Snapshot Report

# U.S. NG Supply and Demand 2012 vs. 2013: January - September

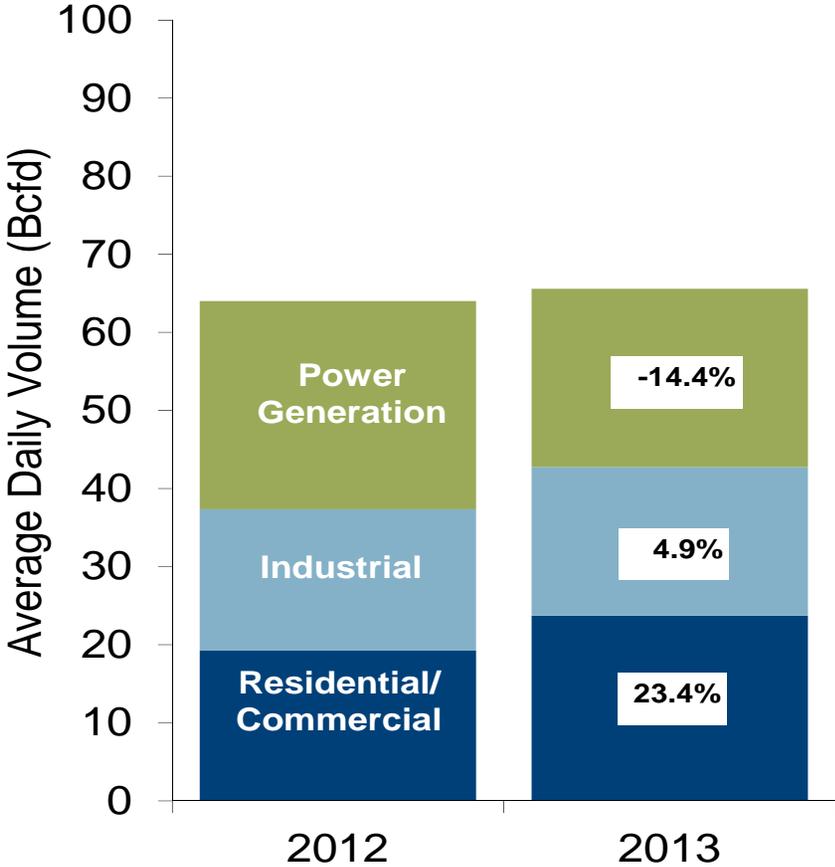
## US Natural Gas Supply

Total Change in Supply 0.8%



## US Natural Gas Demand

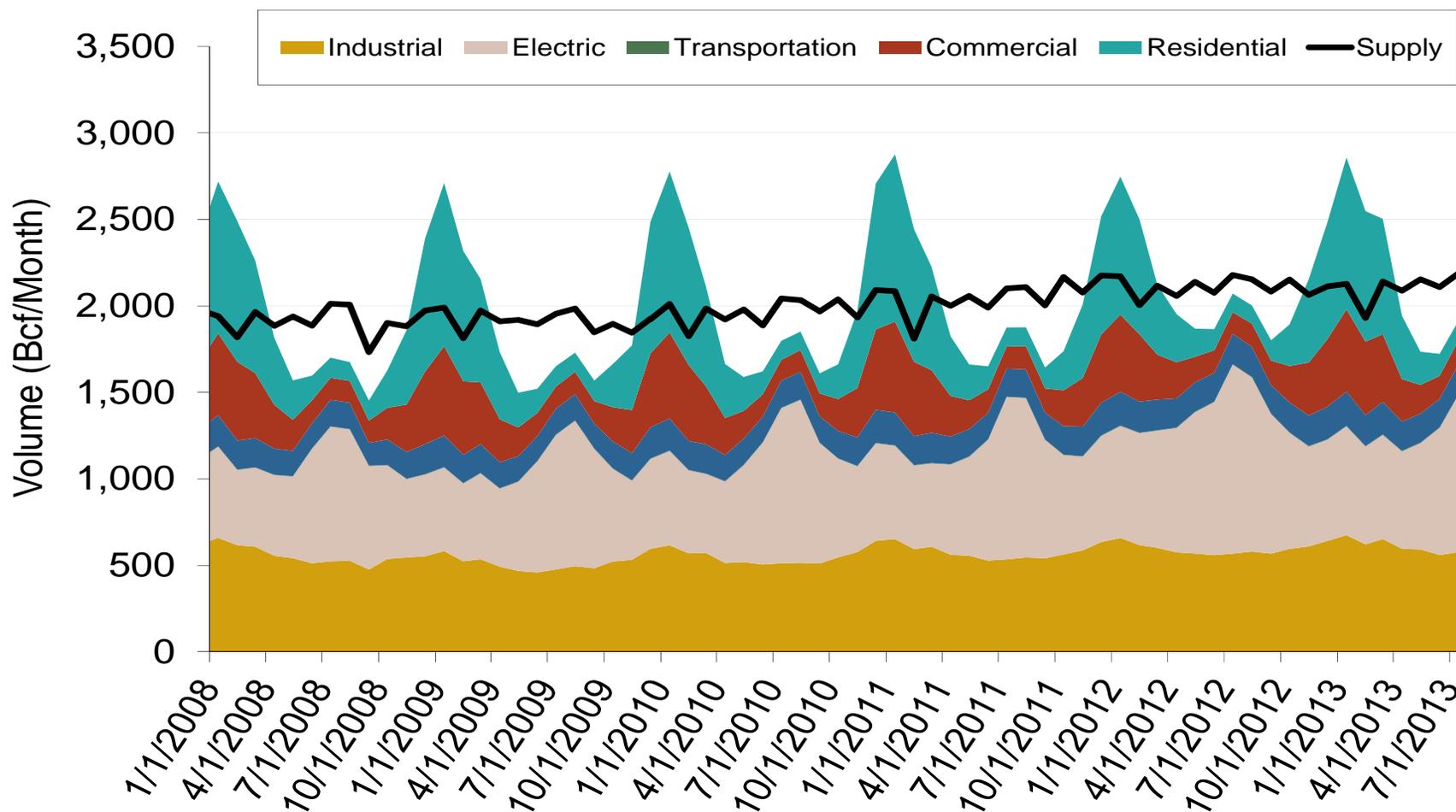
Total Change in Demand 1.4%



Note: Balance includes all amounts not attributable to other categories.

Source: Derived from *Bentek Energy* data

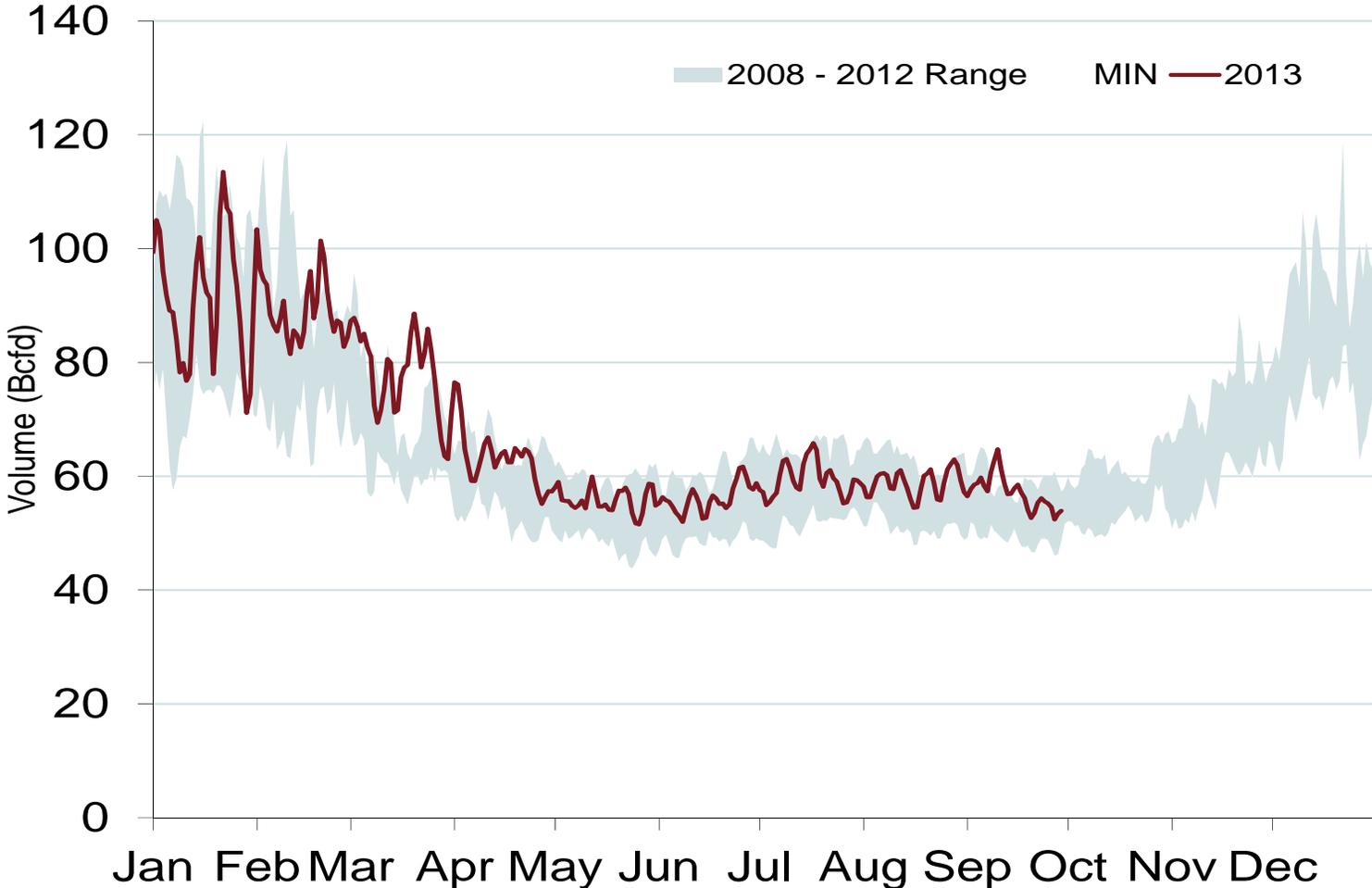
## Annual U.S. Natural Gas Consumption by Sector



Notes: Supply includes lower 48 state production, net pipeline imports, and LNG imports

Source: Derived from EIA data

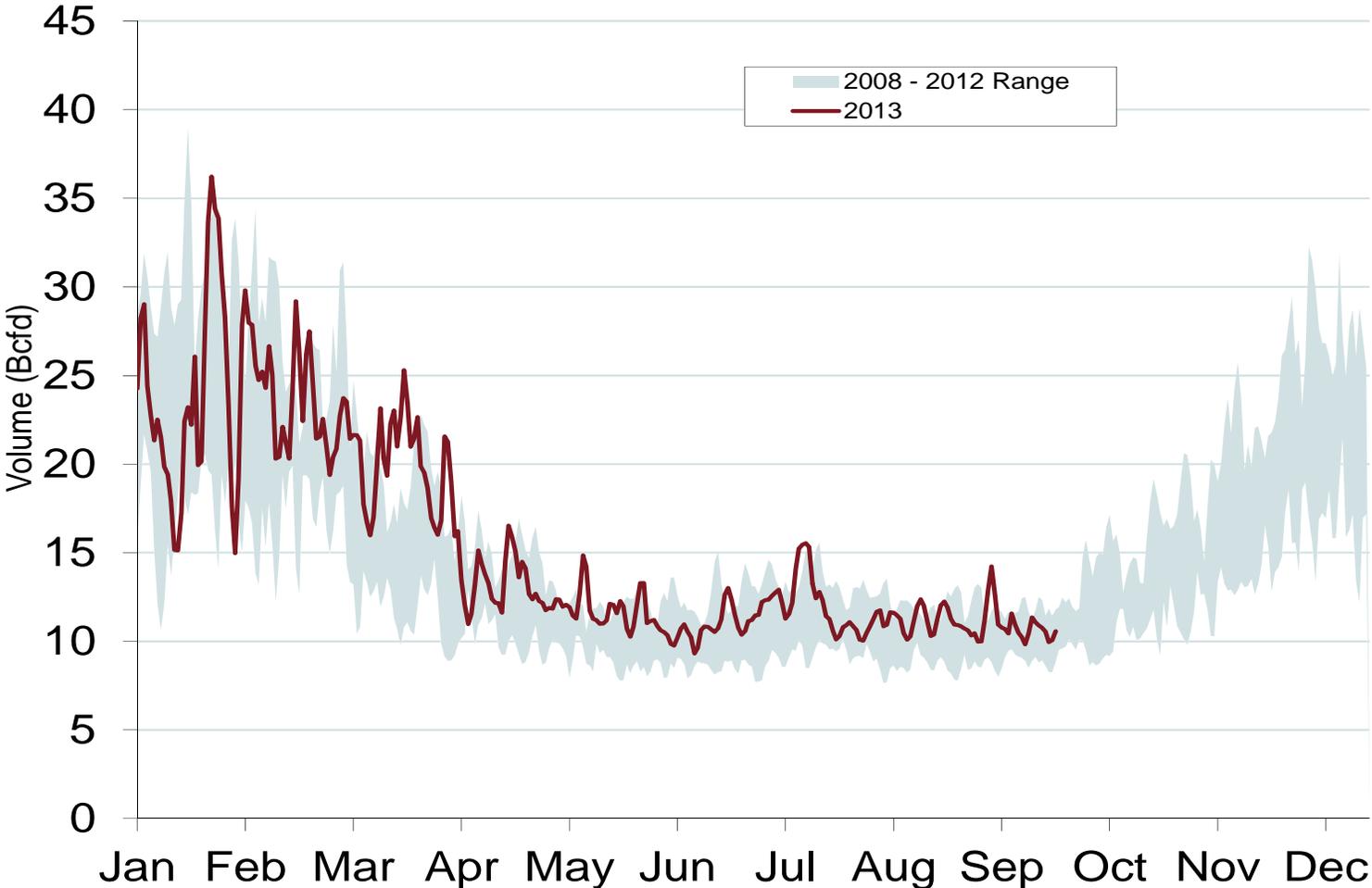
### Total U.S. Natural Gas Demand All Sectors



Source: Derived from *Bentek Energy* data  
October 2013 Northeast Snapshot Report

Updated: October 07, 2013

### Daily Northeast Natural Gas Demand All Sectors

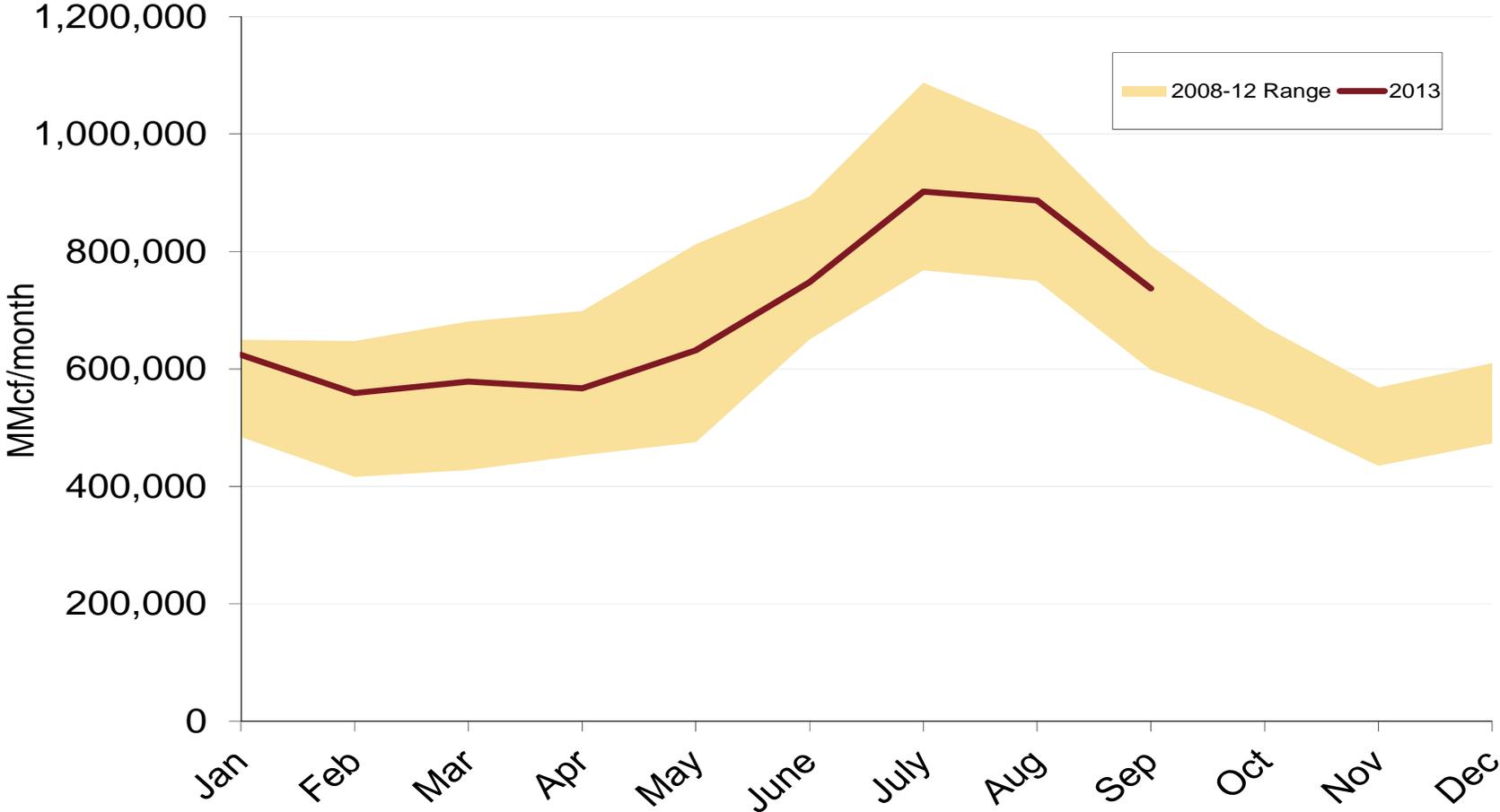


Source: Derived from *Bentek Energy* and Weekly NOAA data  
October 2013 Northeast Snapshot Report

Updated: October 07, 2013

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

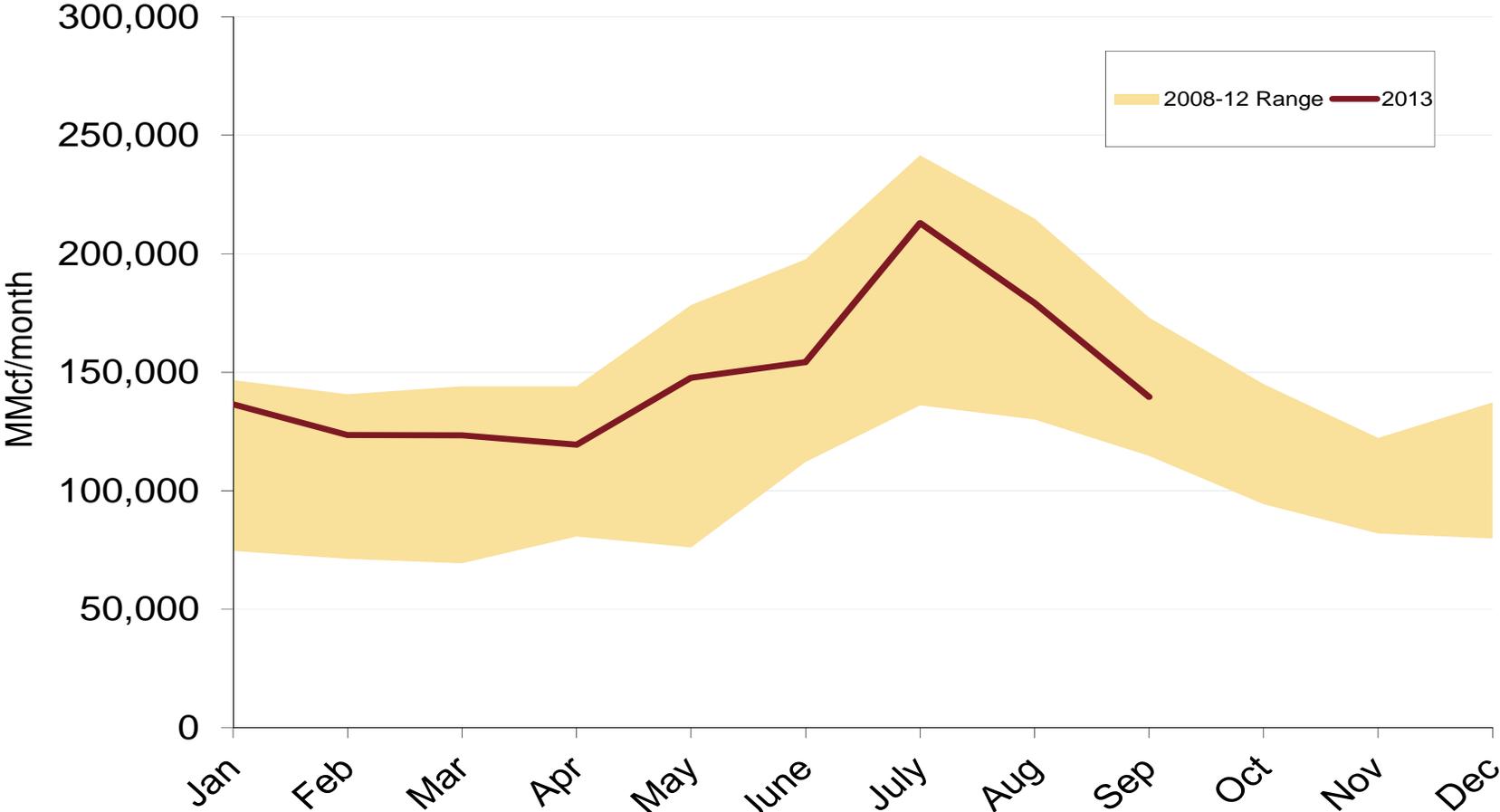
## U.S. Natural Gas Consumption for Power Generation



Source: Derived from *Bentek Energy* data  
October 2013 Northeast Snapshot Report

Updated: October 07, 2013

# Northeast Natural Gas Consumption for Power Generation



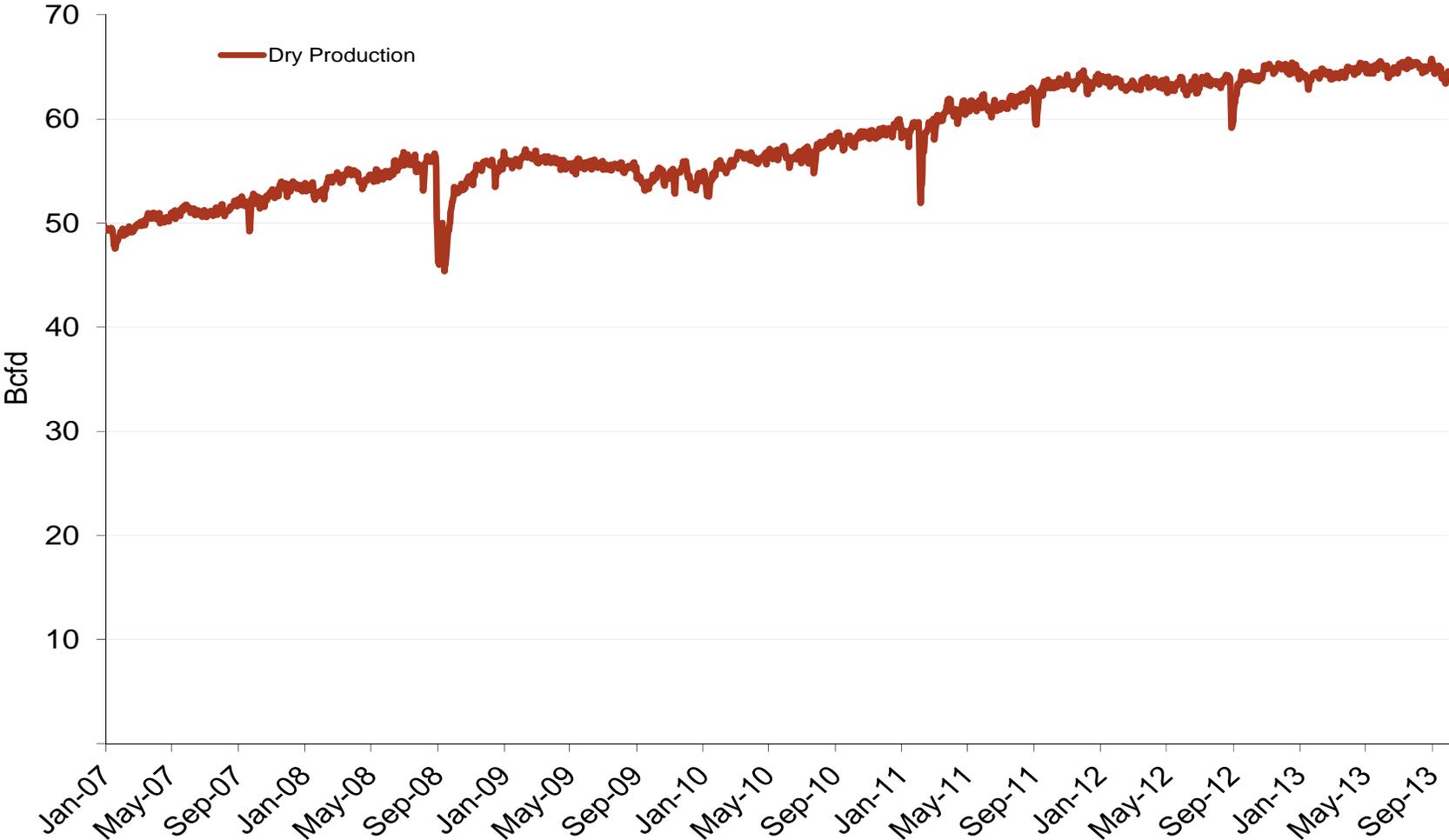
Source: Derived from *Bentek Energy* data  
October 2013 Northeast Snapshot Report

Updated: October 07, 2013

Natural Gas Markets: Monthly U.S. Dry Gas Production

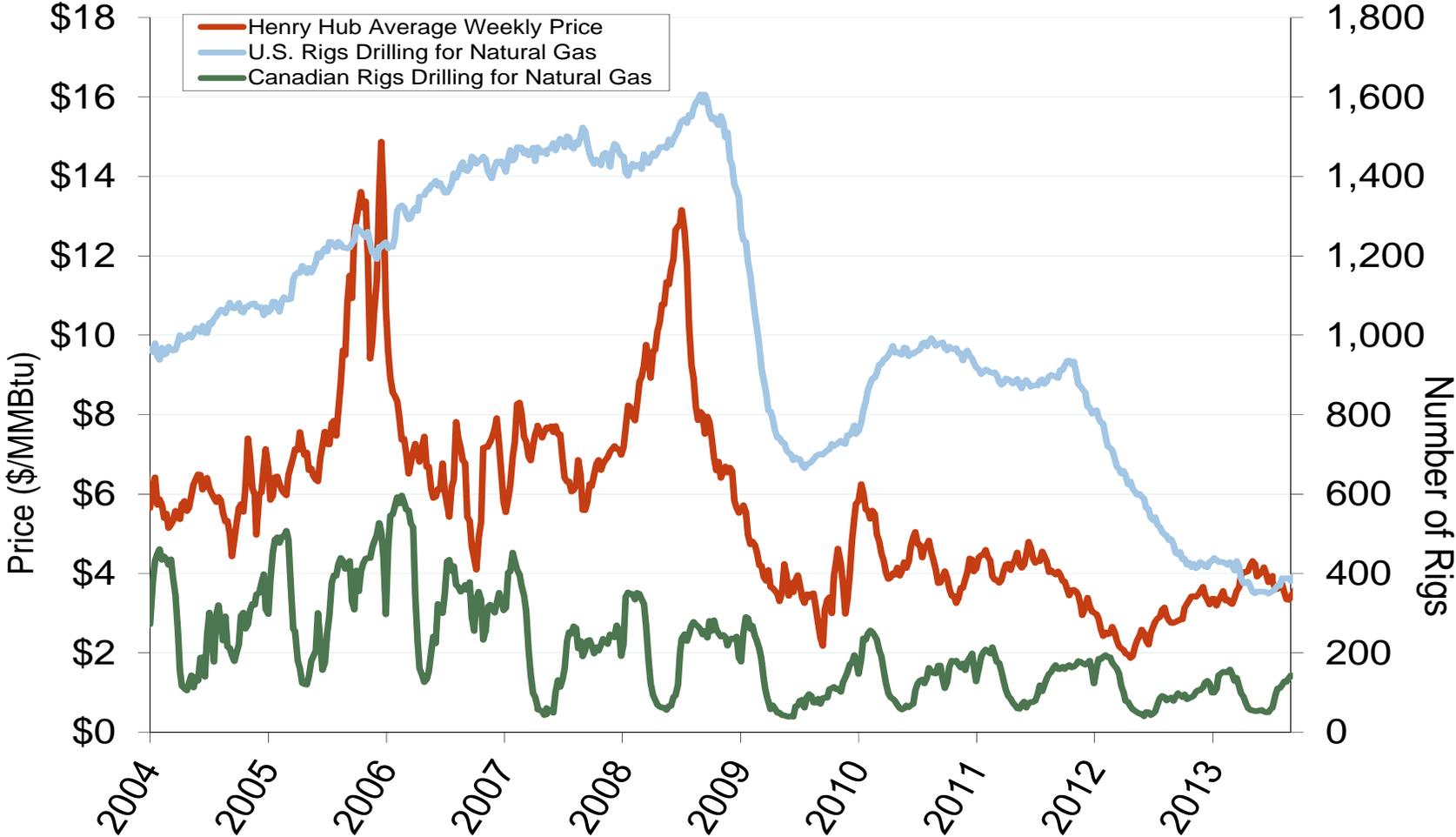
Federal Energy Regulatory Commission • Market Oversight • [www.ferc.gov/oversight](http://www.ferc.gov/oversight)

# Monthly U.S. Dry Gas Production – Lower 48 States



Note: Prior to July 2010, chart was derived from a combination of EIA and Bentek Energy data  
Source: Derived from Bentek Energy data  
October 2013 Northeast Snapshot Report

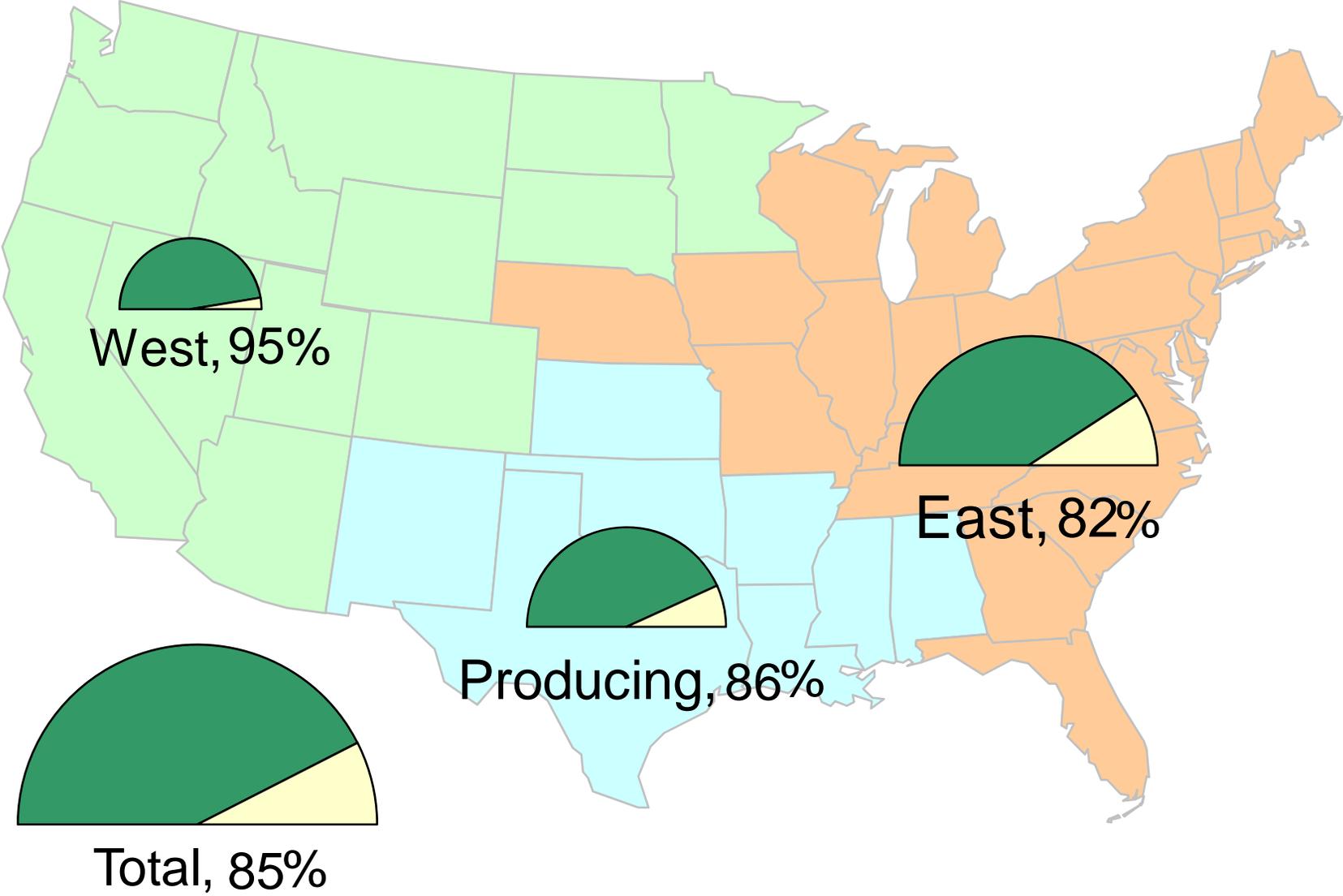
# U.S. and Canadian NG Drilling Rig Count and Daily Spot Prices



Source: Derived from *Platts* and *Baker Hughes* data  
October 2013 Northeast Snapshot Report

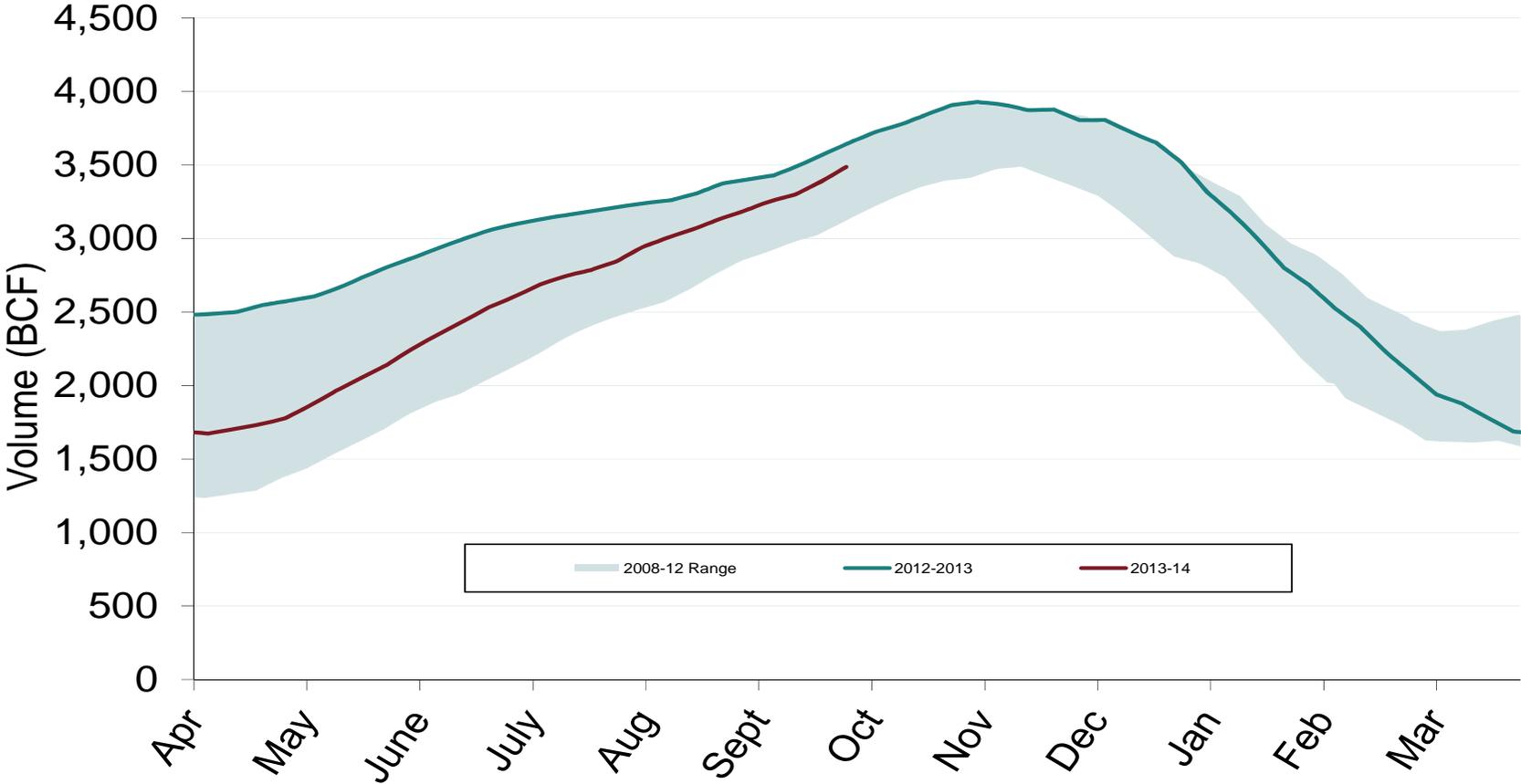
Updated: October 07, 2013

# Natural Gas Storage Inventories – September 30, 2013

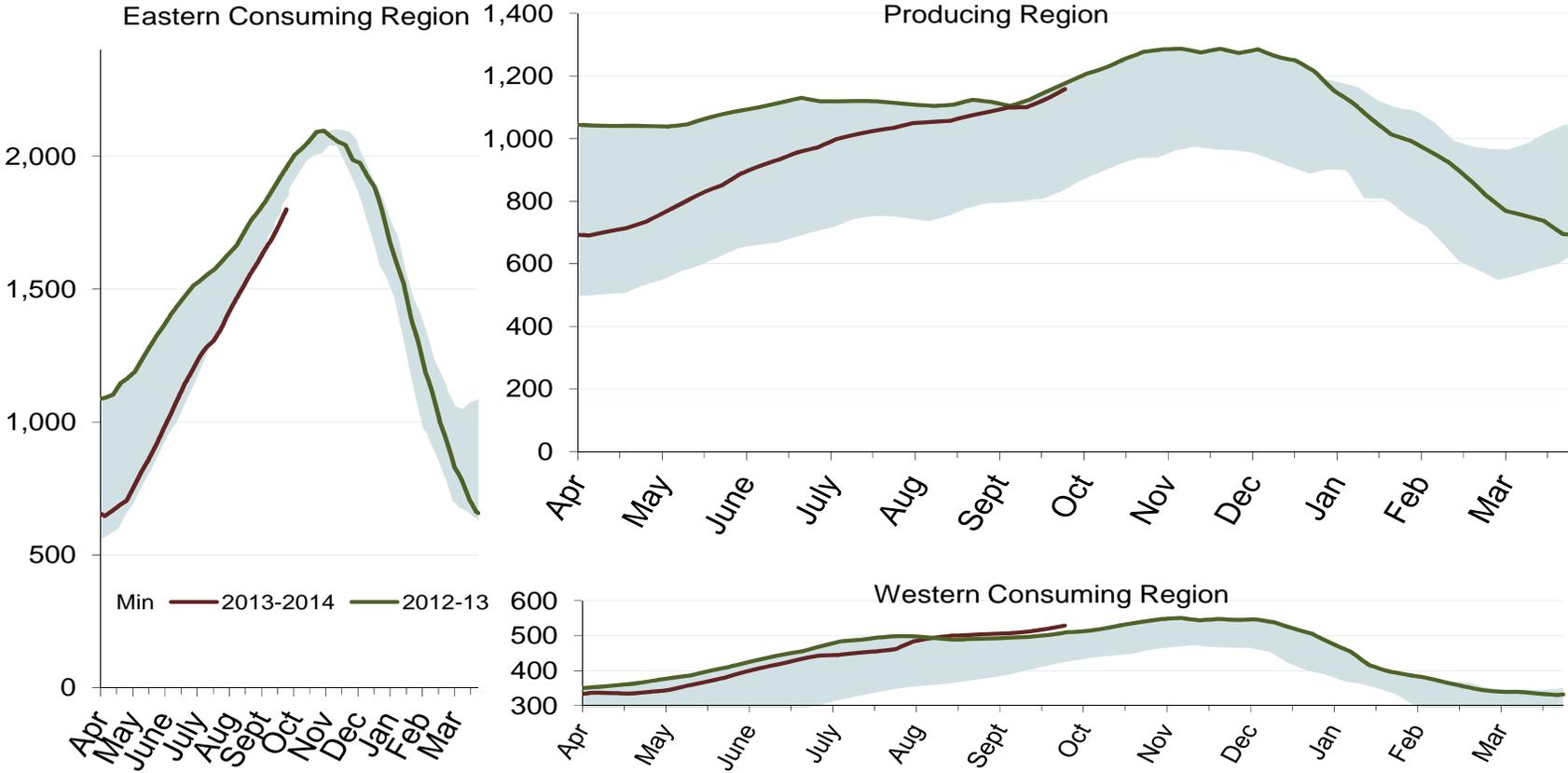


Source: Derived from EIA Storage and Estimated Working Gas Capacity data  
October 2013 Northeast Snapshot Report

### Total U.S. Working Gas in Storage



# Regional Totals of Working Gas in Storage



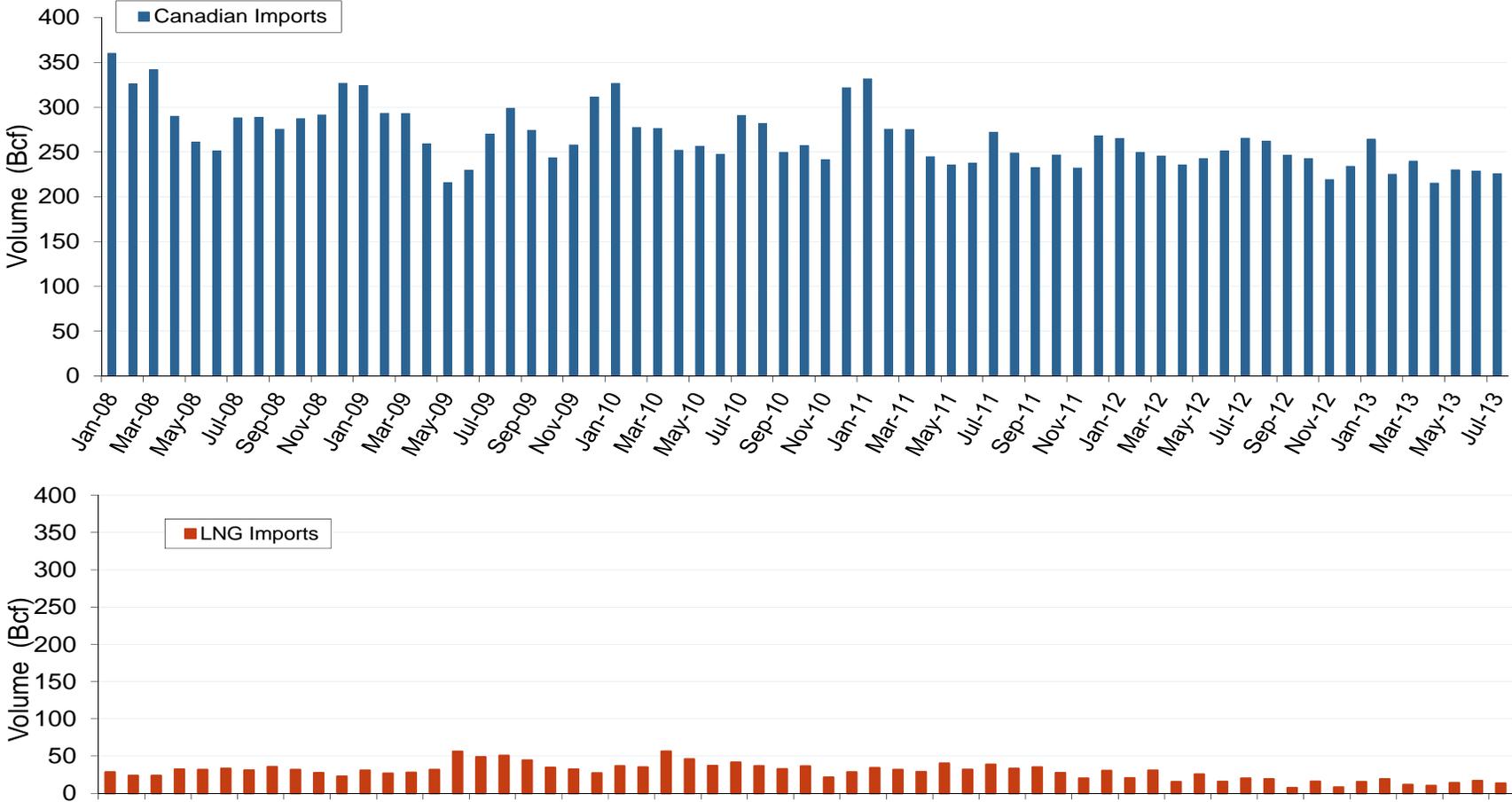
Source: Derived from EIA data  
October 2013 Northeast Snapshot Report

Updated: October 07, 2013

Natural Gas Overview: Natural Gas Imports

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

### Canadian and LNG Natural Gas Imports Into the U.S.



Source: EIA Natural Gas Monthly  
October 2013 Northeast Snapshot Report

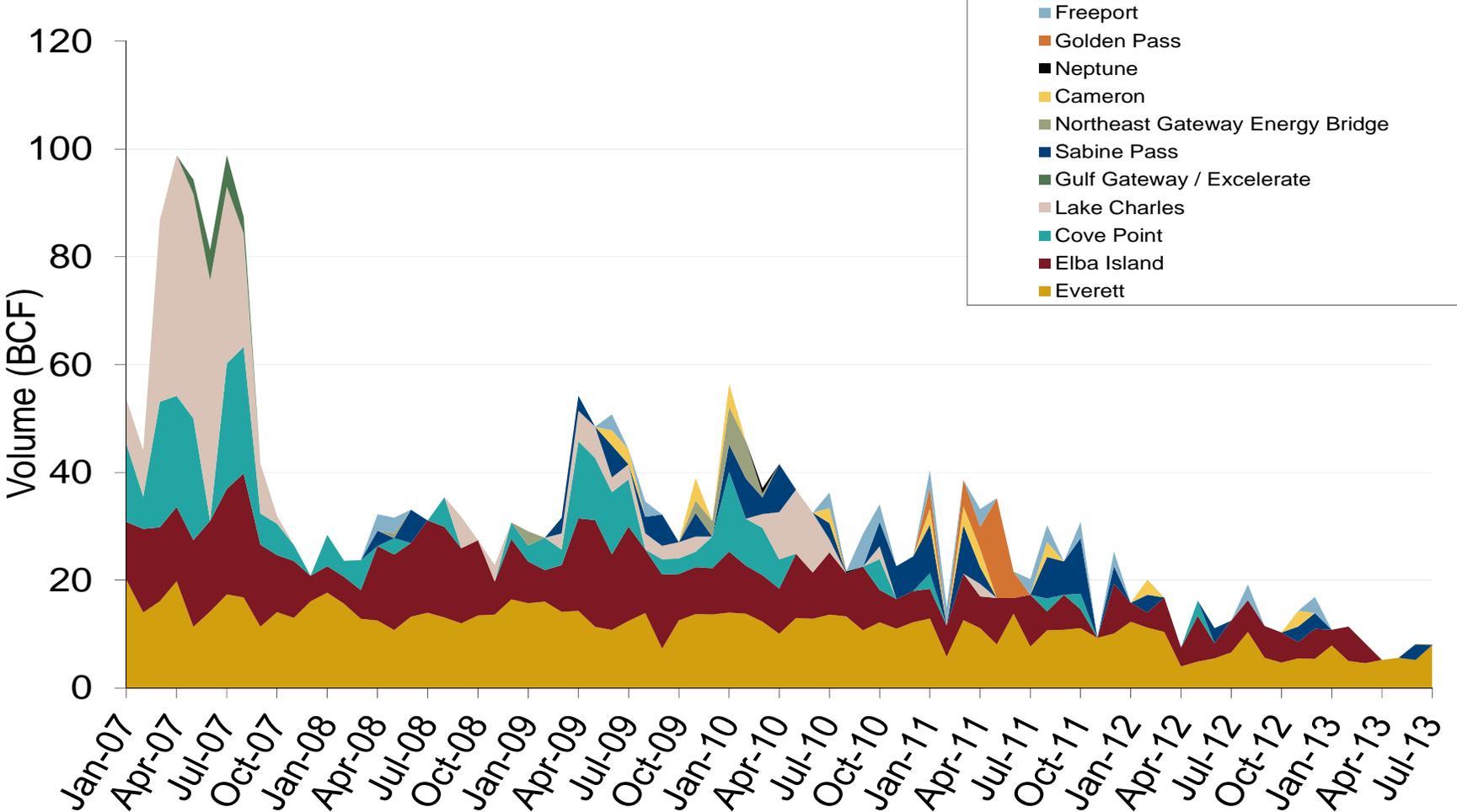
Updated: October 07, 2013

## World LNG Estimated November 2013 Landed Prices



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

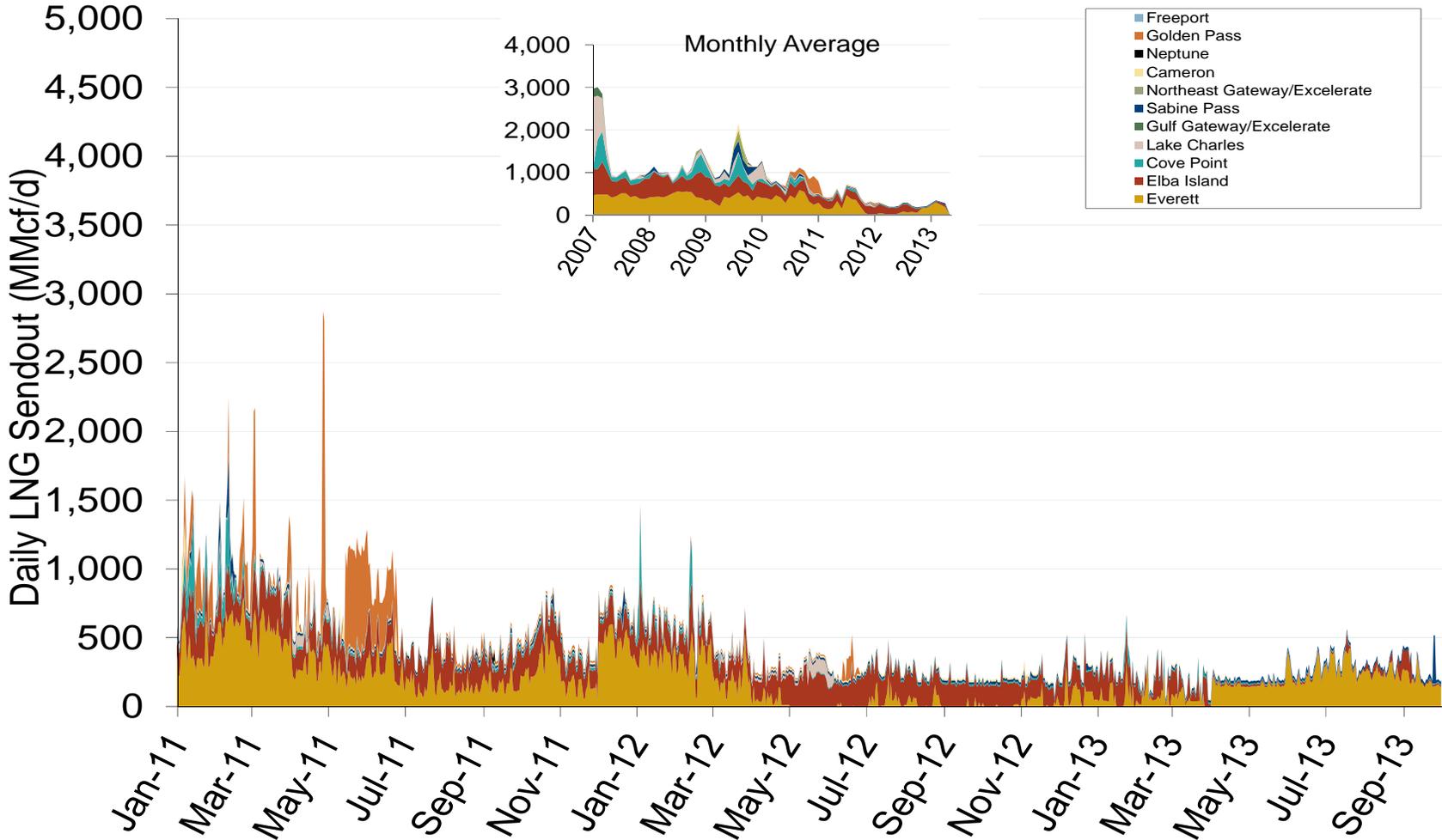
### Monthly Gas Imports at Existing U.S. LNG Facilities



Source: Derived from DOE Office of Fossil Energy data  
October 2013 Northeast Snapshot Report

Updated: October 07, 2013

# Daily Gas Sendout from Existing U.S. LNG Facilities

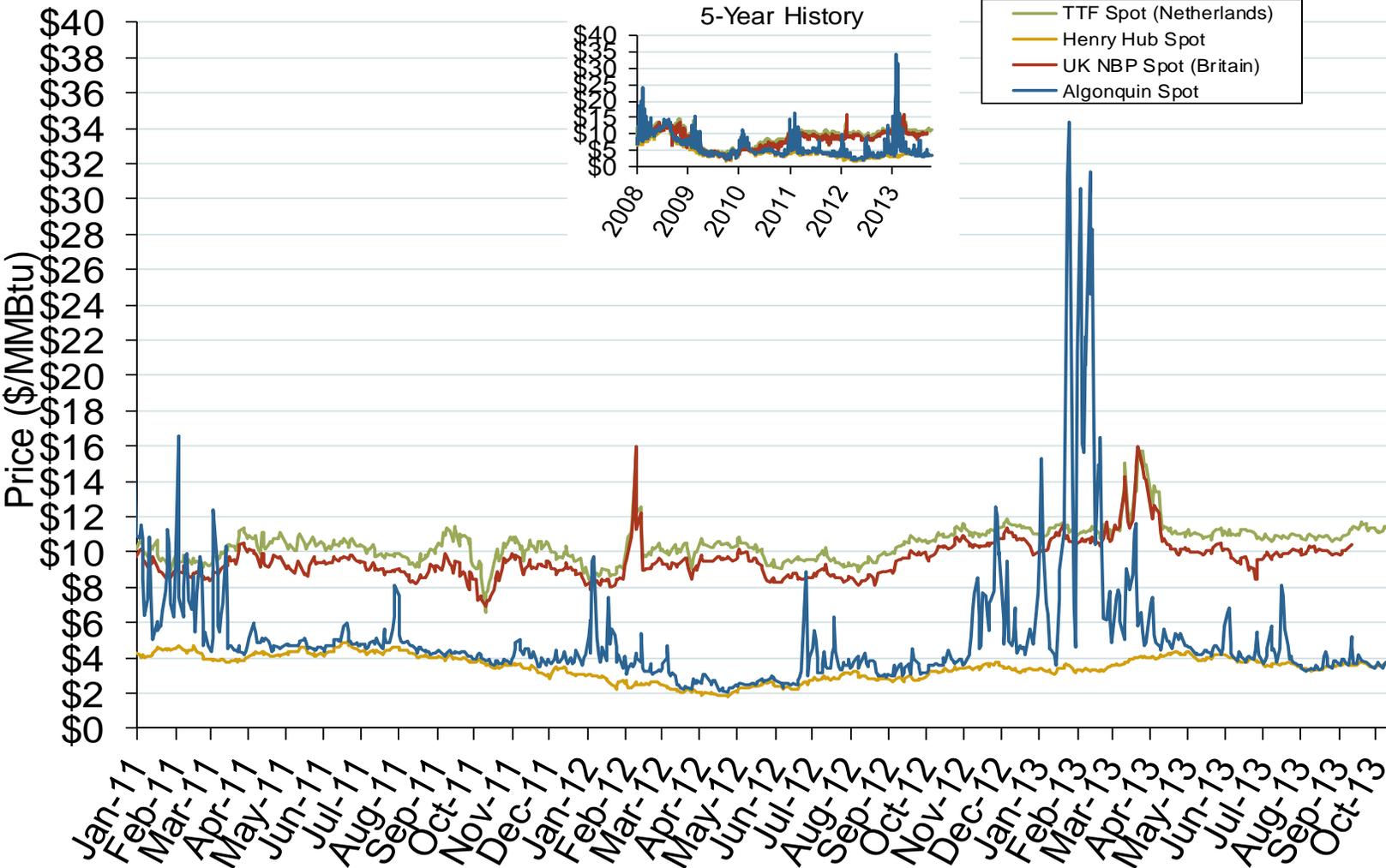


Notes: Everett data includes flows onto the AGT and TGP interstate lines, plus estimates of flows to the Mystic 7 power plant, Keyspan Boston Gas, and LNG trucked out of the terminal. Excludes flows to the Freeport LNG which flows via intrastate pipelines and flows to the Mystic 8 and 9 power plants.

Source: Derived from *Bentek Energy* data  
October 2013 Northeast Snapshot Report

Updated: October 07, 2013

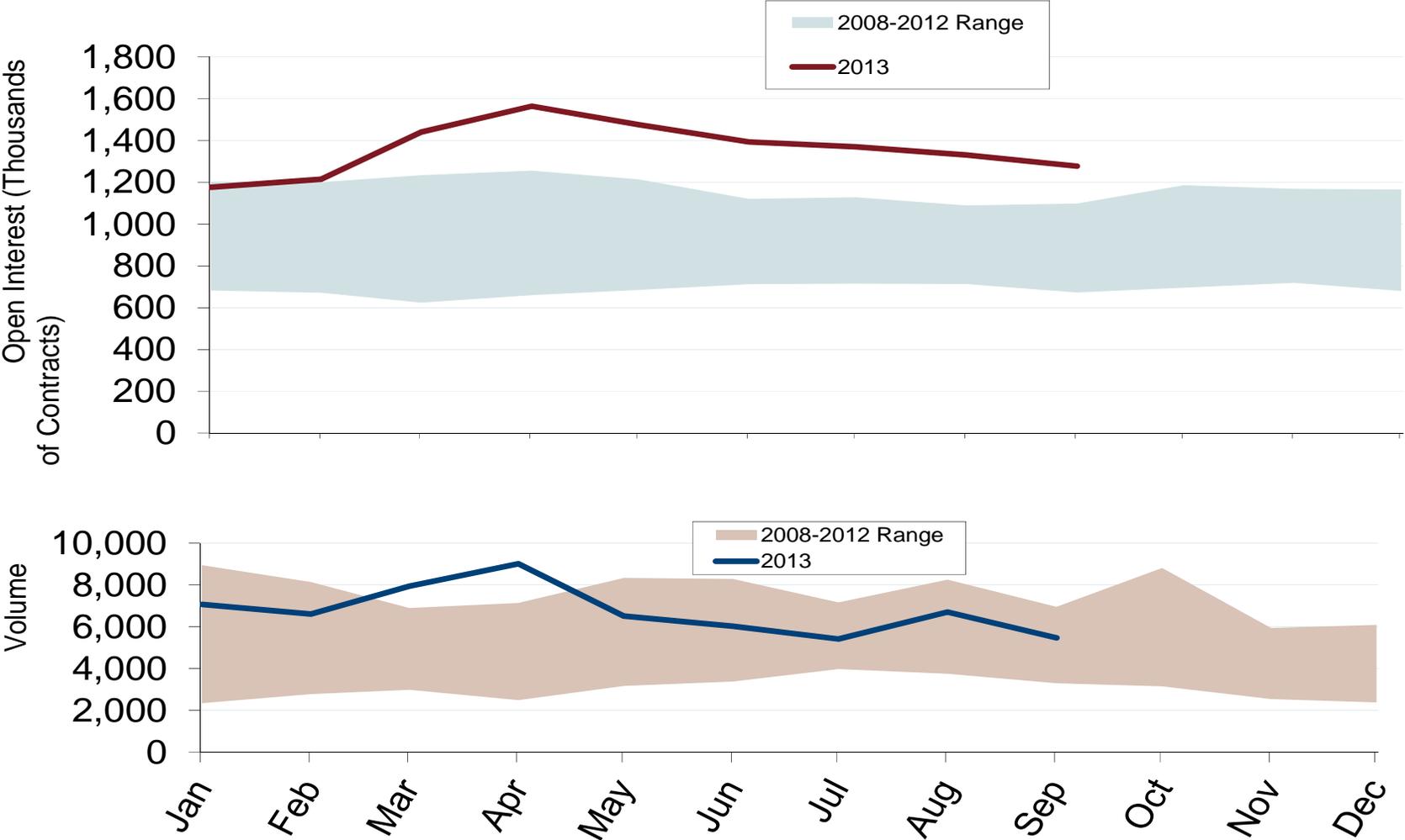
# Atlantic Basin European and US Spot Natural Gas Prices



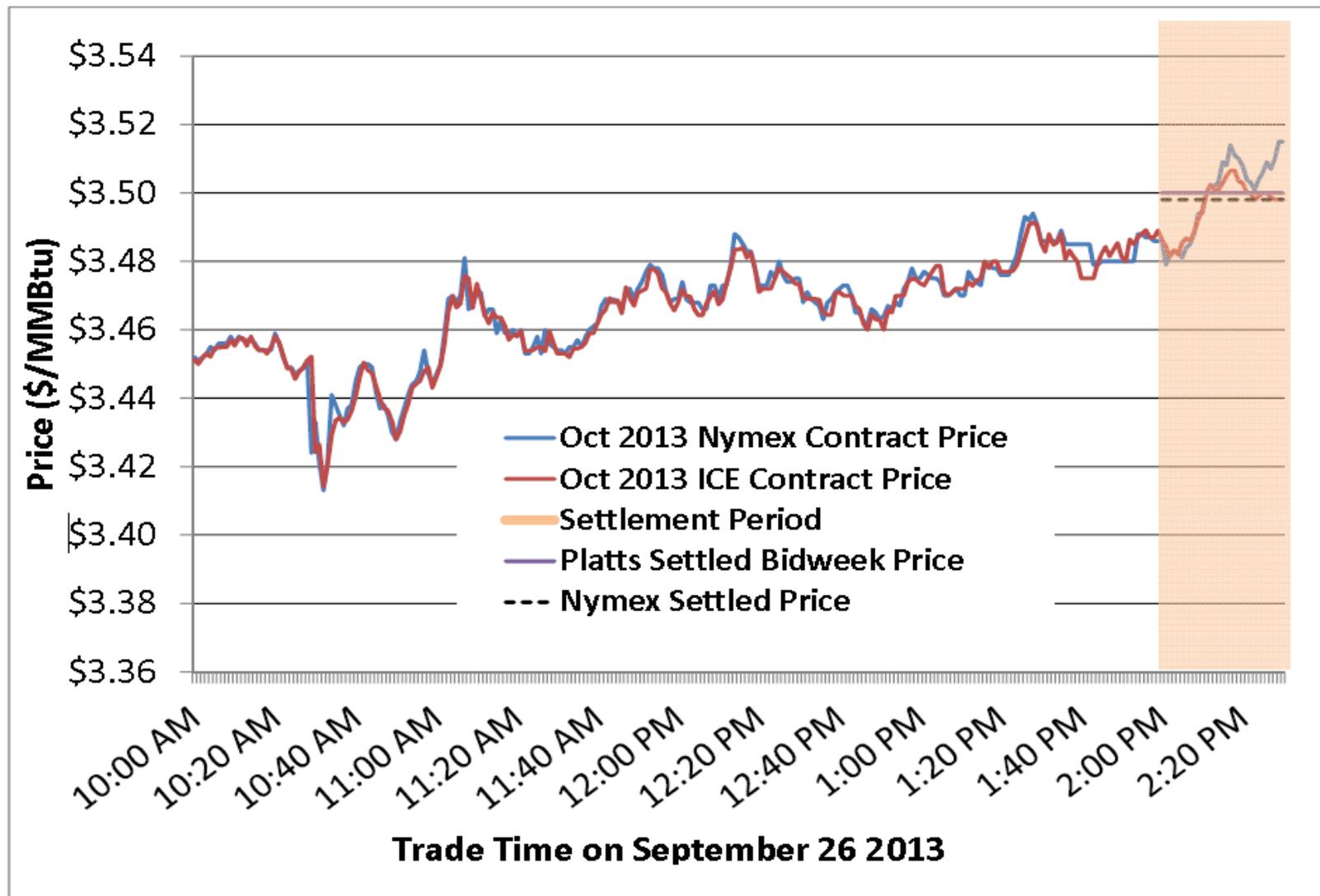
Source: Derived from *Bloomberg* and *ICE* data  
October 2013 Northeast Snapshot Report

Updated October 10, 2013

# Nymex NG Futures Month-End Open Interest and Monthly Volume



## Nymex and ICE Contract Final Settlement - October 2013



Notes: The final settlement day for this Nymex contract is three business days before the start of the contract term (which is the 1st day of the month)

Source: Derived from *Nymex* and *ICE* data

October 2013 Northeast Snapshot Report

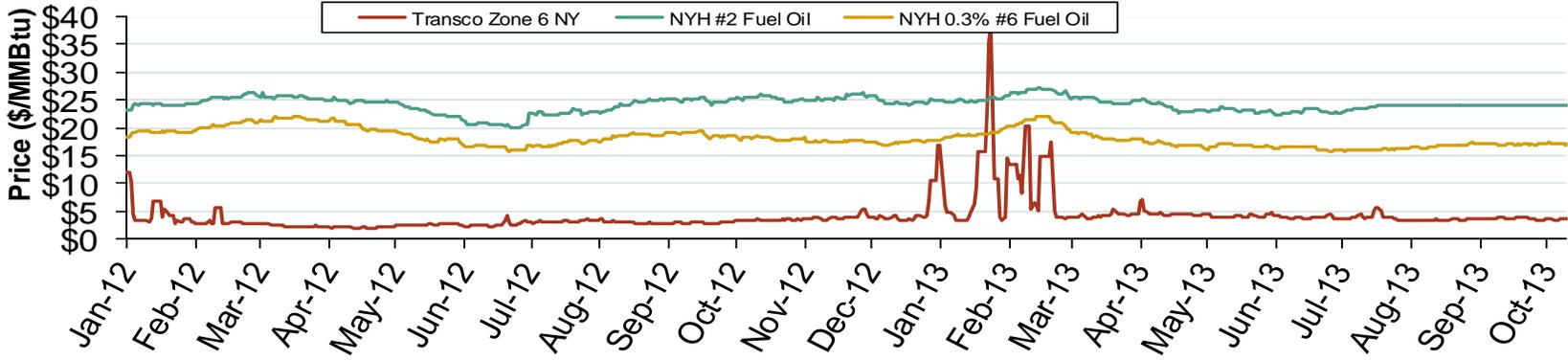
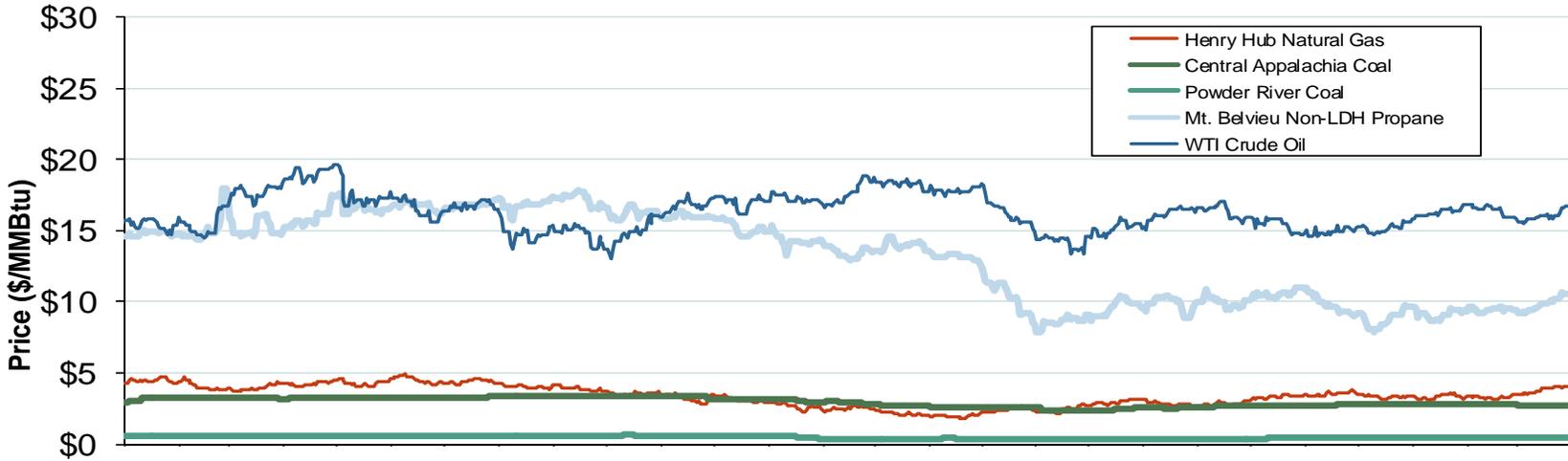
Updated: October 10, 2013

2166

Other Fuels Market: Fossil Fuel Prices

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

# Oil, Coal, Natural Gas and Propane Daily Spot Prices

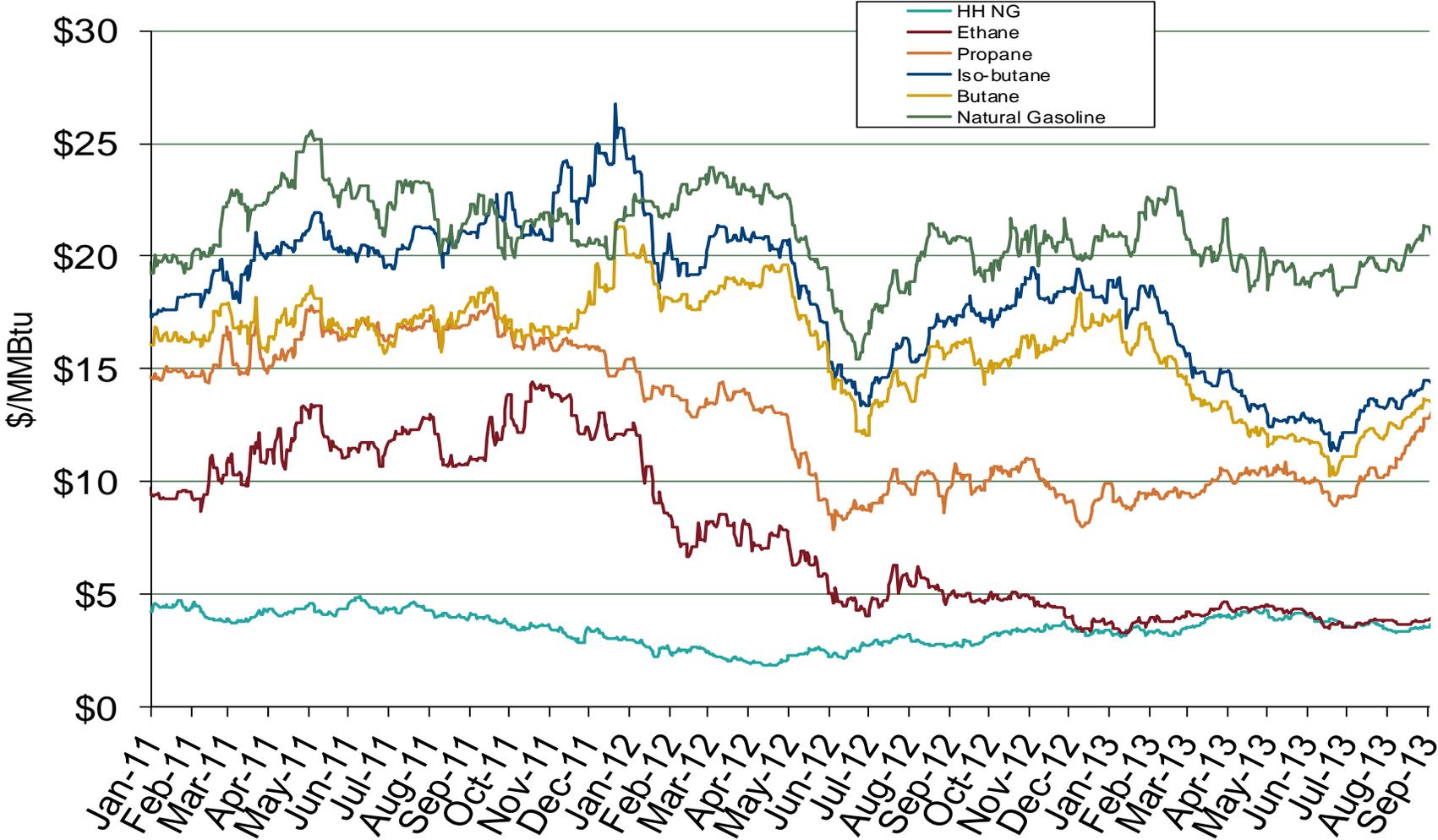


Notes: Coal prices are quoted in \$/ton. Conversion factors to \$/MMBtu are based on contract specifications of 12,000 btus/pound for Central Appalachian coal and 8800 btus/pound for Powder River Basin coal

Source: Derived from ICE and Bloomberg data  
October 2013 Northeast Snapshot Report

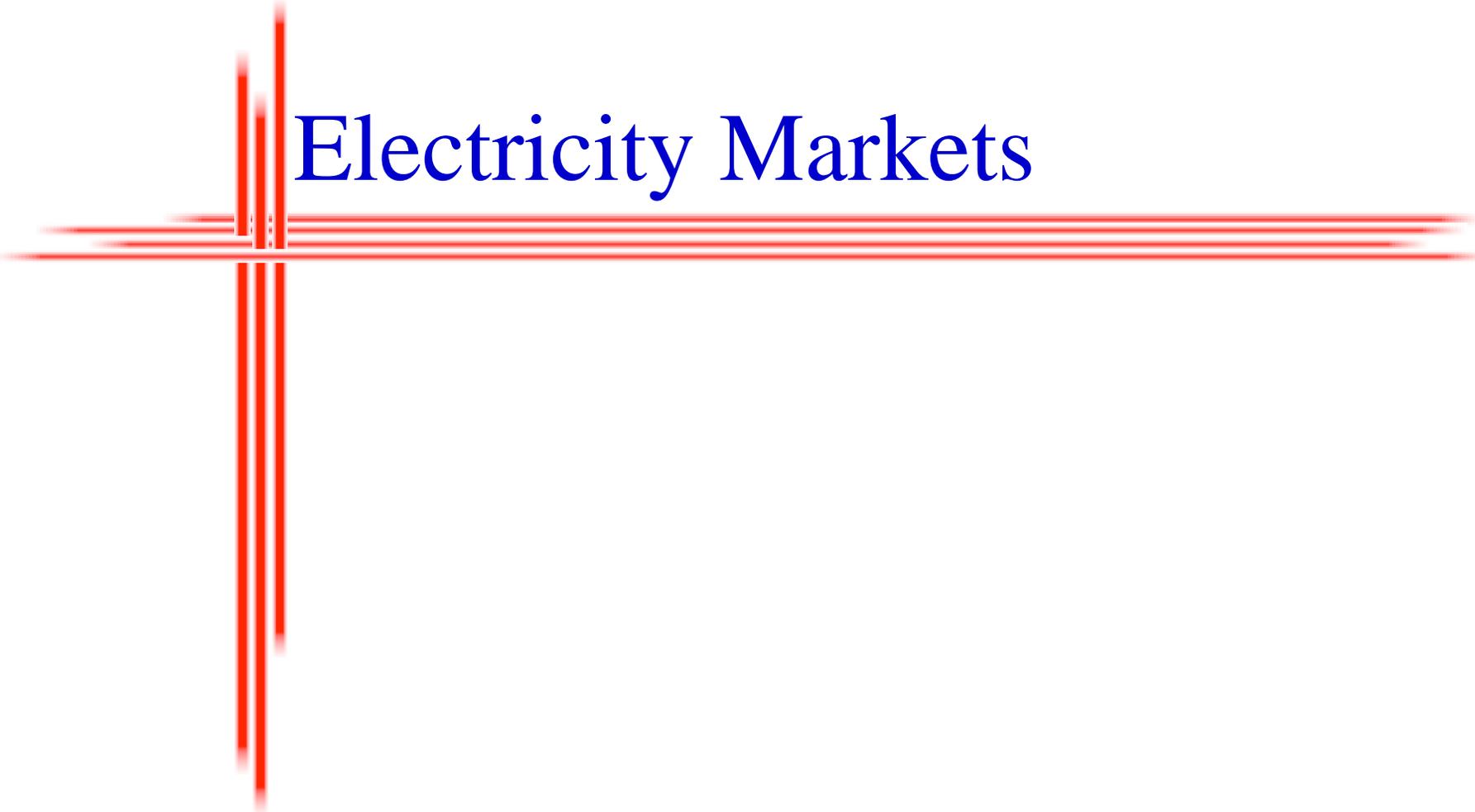
Updated October 10, 2013

### U.S. Natural Gas vs. Natural Gas Liquids (NGL) Prices



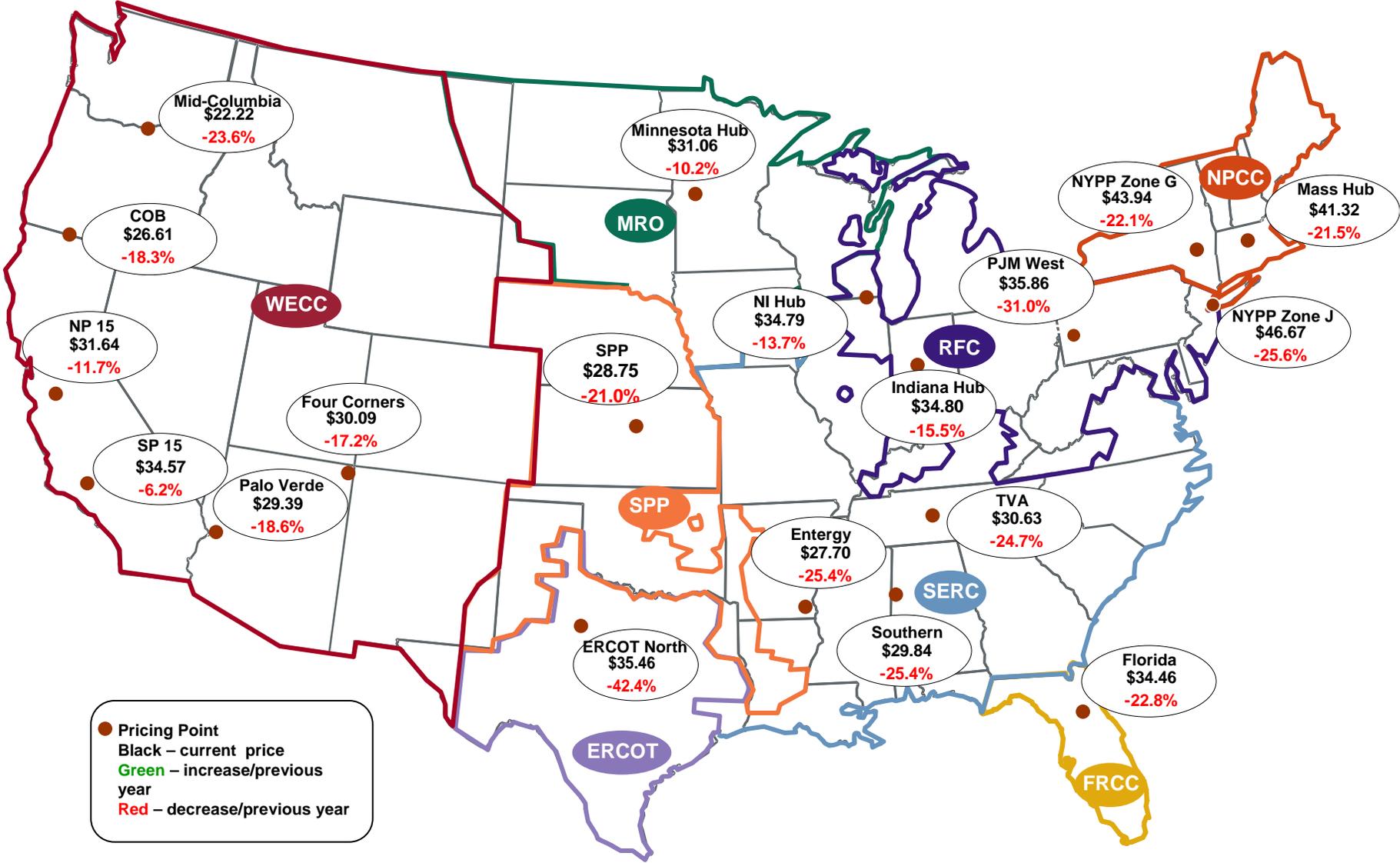
Source: Derived from Bloomberg Data  
October 2013 Northeast Snapshot Report

Updated October 10, 2013



# Electricity Markets

# Average On-Peak Spot Electric Prices 2012 (\$/MWh)



Source: Derived from *Platts* data.  
October 2013 Northeast Snapshot Report

Updated: January 6, 2013

## Regional Spot Prices: 2010-2012

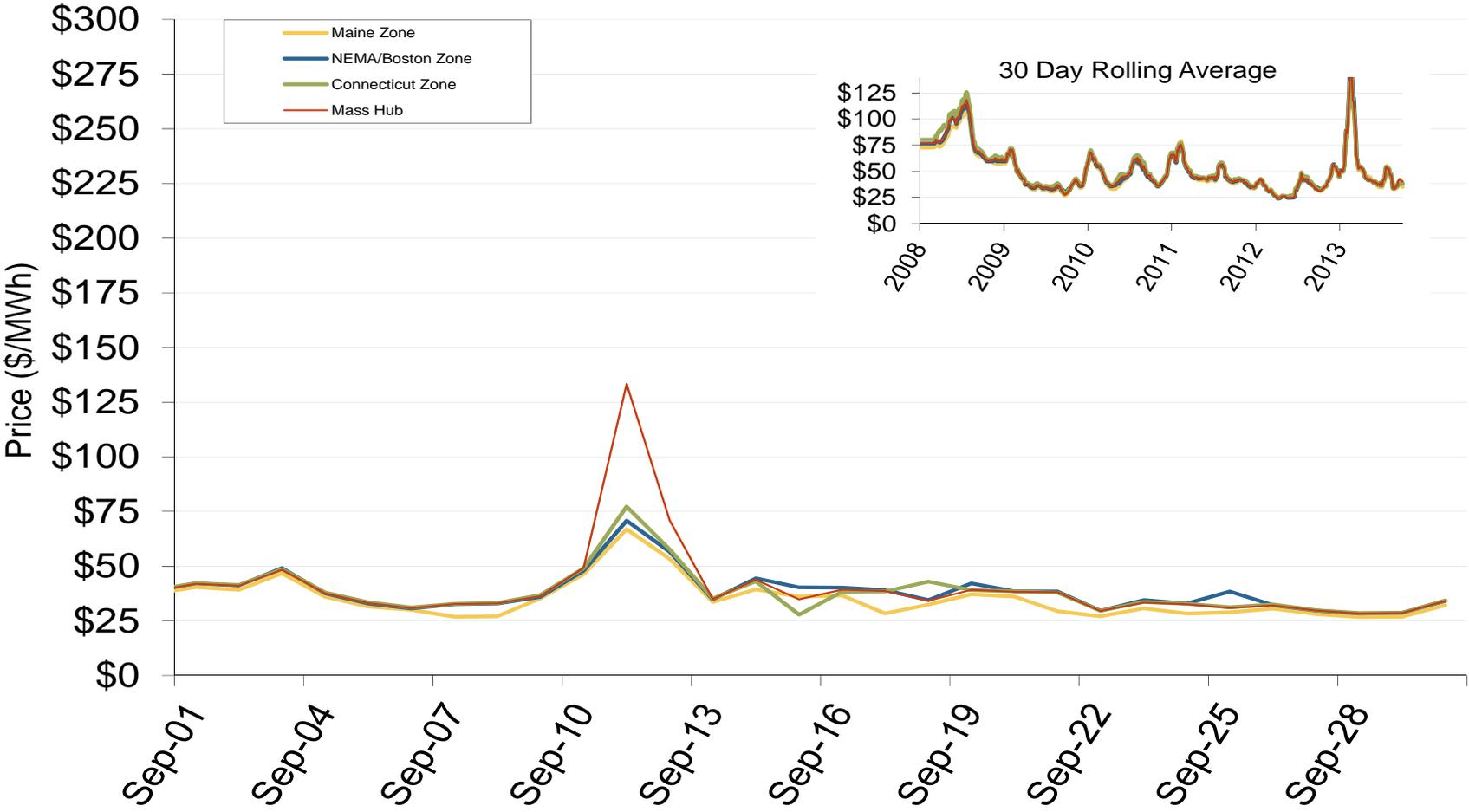
	On-peak Spot Prices (\$/MWh)					Off-peak Spot Prices (\$/MWh)				
	2010	2011	2012	% Change 10-11	% Change 11-12	2010	2011	2012	% Change 10-11	% Change 11-12
<b>Northeast</b>										
Mass Hub	56.18	52.64	41.32	-6.3%	-21.5%	38.84	37.95	28.36	-2.3%	-25.3%
Ny Zone G	59.48	56.41	43.94	-5.2%	-22.1%	39.47	38.26	28.23	-3.1%	-26.2%
NY Zone J	65.76	62.71	46.67	-4.6%	-25.6%	40.37	39.19	28.63	-2.9%	-27.0%
NY Zone A	43.89	41.52	35.86	-5.4%	-13.6%	34.05	32.65	24.93	-4.1%	-23.6%
PJM West	53.68	51.99	35.86	-3.2%	-31.0%	35.81	33.94	26.29	-5.2%	-22.5%
<b>Southeast</b>										
VACAR	43.24	44.44	32.65	2.8%	-26.5%	29.18	30.23	22.86	3.6%	-24.4%
Southern	42.61	39.97	29.83	-6.2%	-25.4%	29.51	27.98	21.51	-5.2%	-23.1%
TVA	41.79	40.68	30.63	-2.7%	-24.7%	27.43	27.55	21.25	0.4%	-22.9%
Florida	50.81	44.62	34.46	-12.2%	-22.8%	31.59	31.27	23.49	-1.0%	-24.9%
Entergy	40.07	37.14	27.70	-7.3%	-25.4%	24.87	24.52	19.16	-1.4%	-21.9%
<b>Midwest</b>										
Indiana*	41.51	41.17	34.80	-0.8%	-15.5%	24.34	25.86	22.14	6.2%	-14.4%
Michigan Hub	43.68	42.73	36.27	-2.2%	-15.1%	26.84	27.52	24.10	2.5%	-12.4%
Minnesota Hub	36.86	34.57	31.06	-6.2%	-10.2%	17.61	16.39	17.49	-6.9%	6.7%
NI Hub	40.85	40.31	34.79	-1.3%	-13.7%	21.70	22.78	21.04	5.0%	-7.7%
Illinois Hub	38.22	38.12	32.12	-0.2%	-15.8%	20.44	22.20	20.00	8.6%	-9.9%
MA PP South	37.60	35.48	29.42	-5.6%	-17.1%	21.76	19.90	18.93	-8.5%	-4.9%
<b>South Central</b>										
SPP North	38.71	36.41	28.75	-5.9%	-21.0%	21.51	20.42	18.73	-5.1%	-8.3%
ERCOT North	41.15	61.55	35.46	49.6%	-42.4%	26.97	25.74	18.63	-4.6%	-27.6%
<b>Southwest</b>										
Four Corners	39.68	36.34	30.09	-8.4%	-17.2%	27.02	20.45	20.64	-24.3%	0.9%
Palo Verde	38.76	36.10	29.39	-6.9%	-18.6%	27.72	21.57	20.78	-22.2%	-3.7%
Mead	40.11	36.92	30.75	-8.0%	-16.7%	29.37	22.34	21.97	-23.9%	-1.7%
<b>Northwest</b>										
Mid-C	35.90	29.10	22.22	-19.0%	-23.6%	29.19	19.98	18.33	-31.6%	-8.2%
COB	38.84	32.55	26.61	-16.2%	-18.3%	29.86	19.92	17.92	-33.3%	-10.0%
<b>California</b>										
NP15	40.08	35.81	31.64	-10.6%	-11.7%	29.89	21.26	22.53	-28.9%	6.0%
SP15	40.21	36.87	34.57	-8.3%	-6.2%	29.14	21.78	23.28	-25.3%	6.9%

Note: Effective January 1, 2012, Platts replaced the Cinergy Hub with the Indiana Hub.

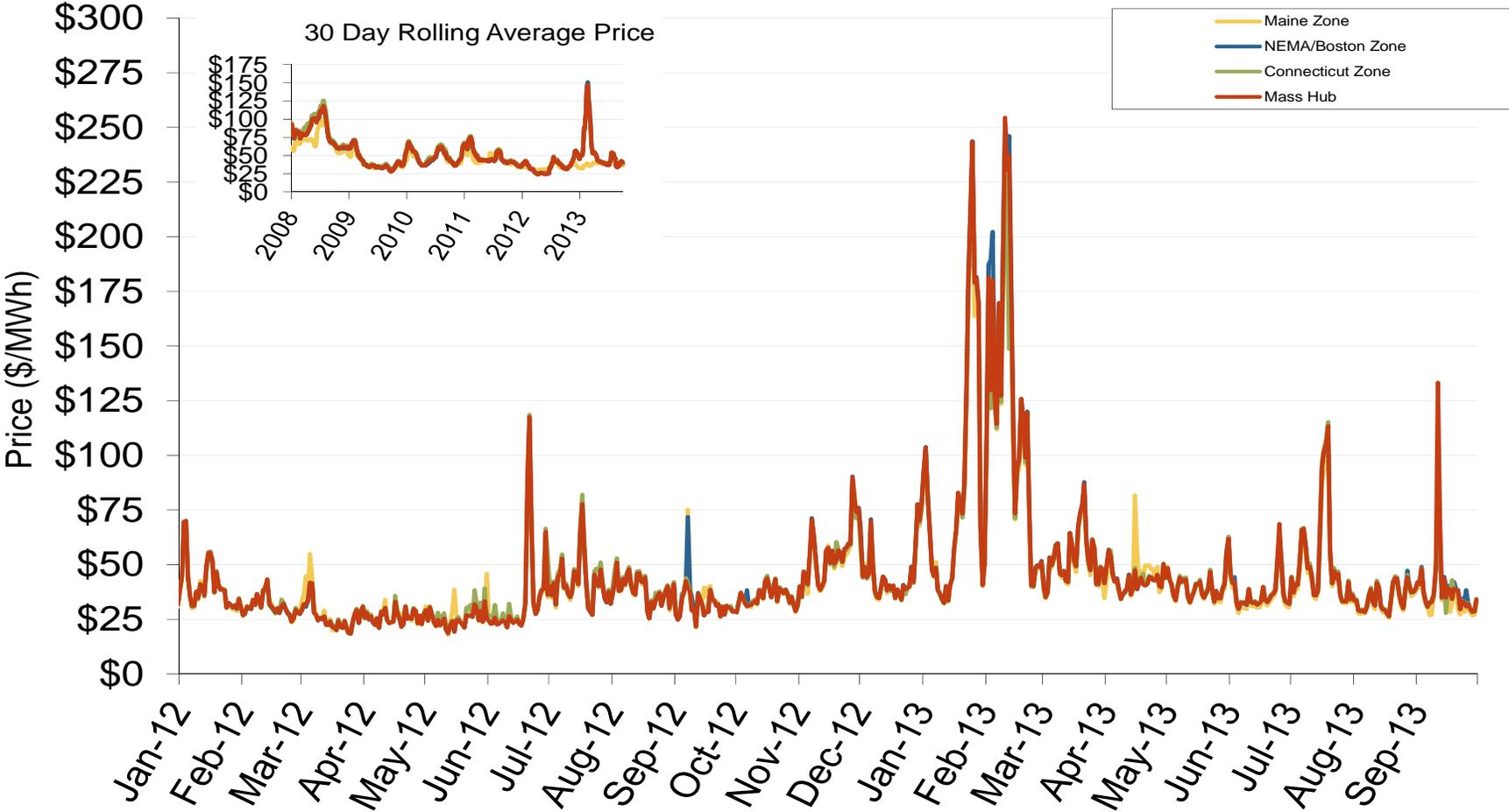
October 2013 Northeast Snapshot Report

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

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



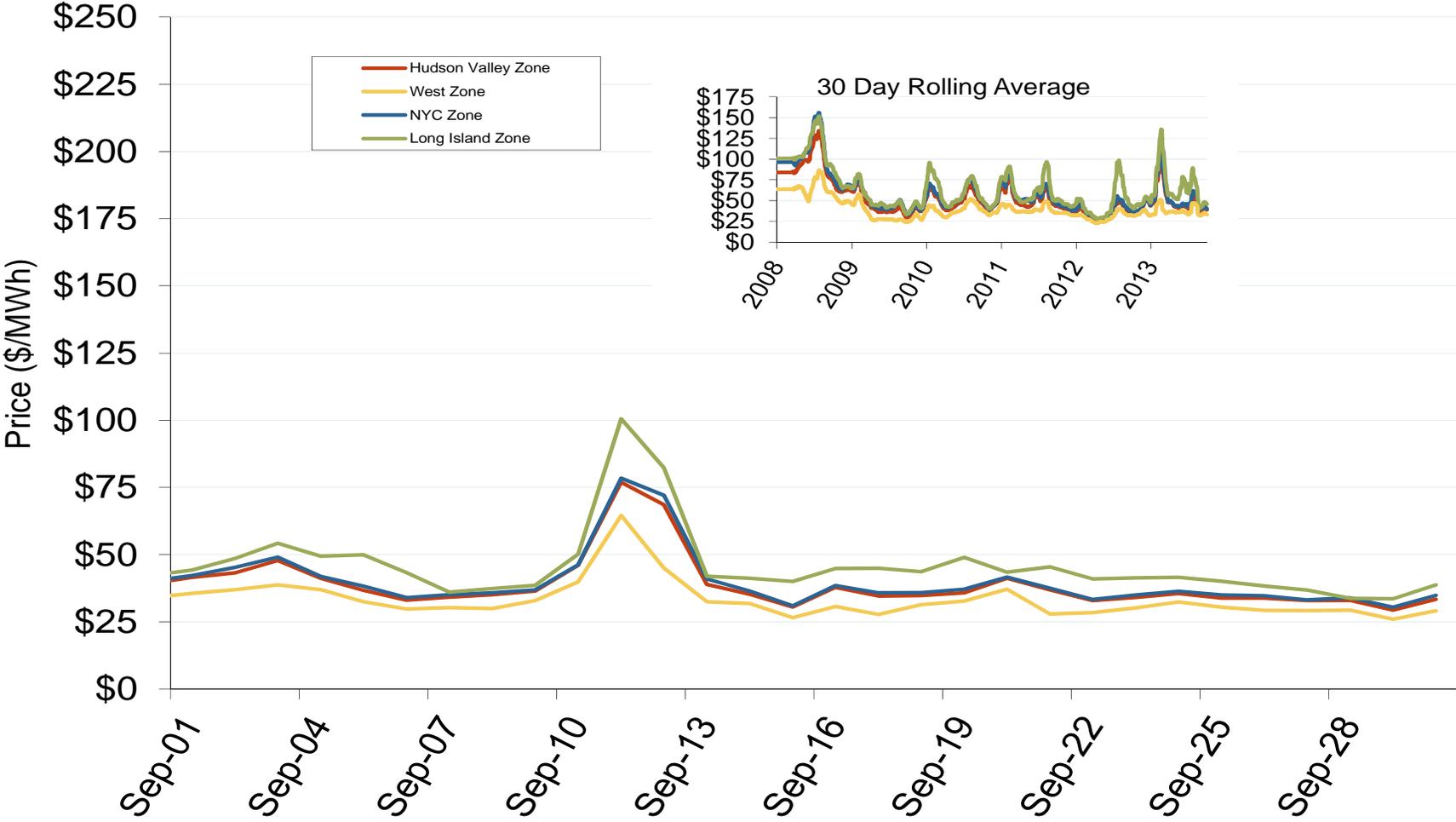
# Daily Average of ISO-NE Day-Ahead Prices - All Hours



Source: Derived from Bloomberg data  
October 2013 Northeast Snapshot Report

Updated: October 11, 2013

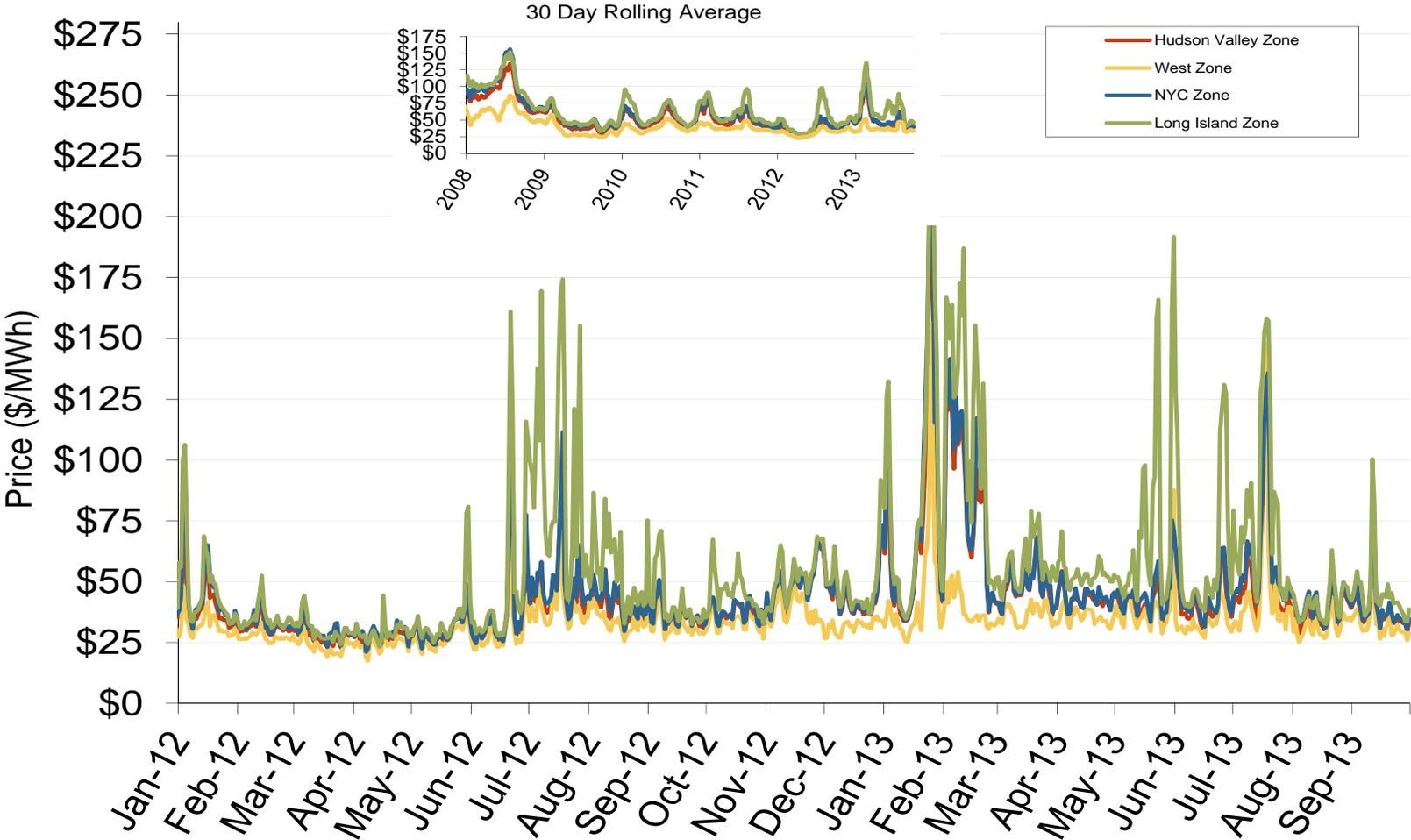
### Daily Average of NYISO Day-Ahead Prices - All Hours



Source: Derived from Bloomberg data  
October 2013 Northeast Snapshot Report

Updated: October 11, 2013

# 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

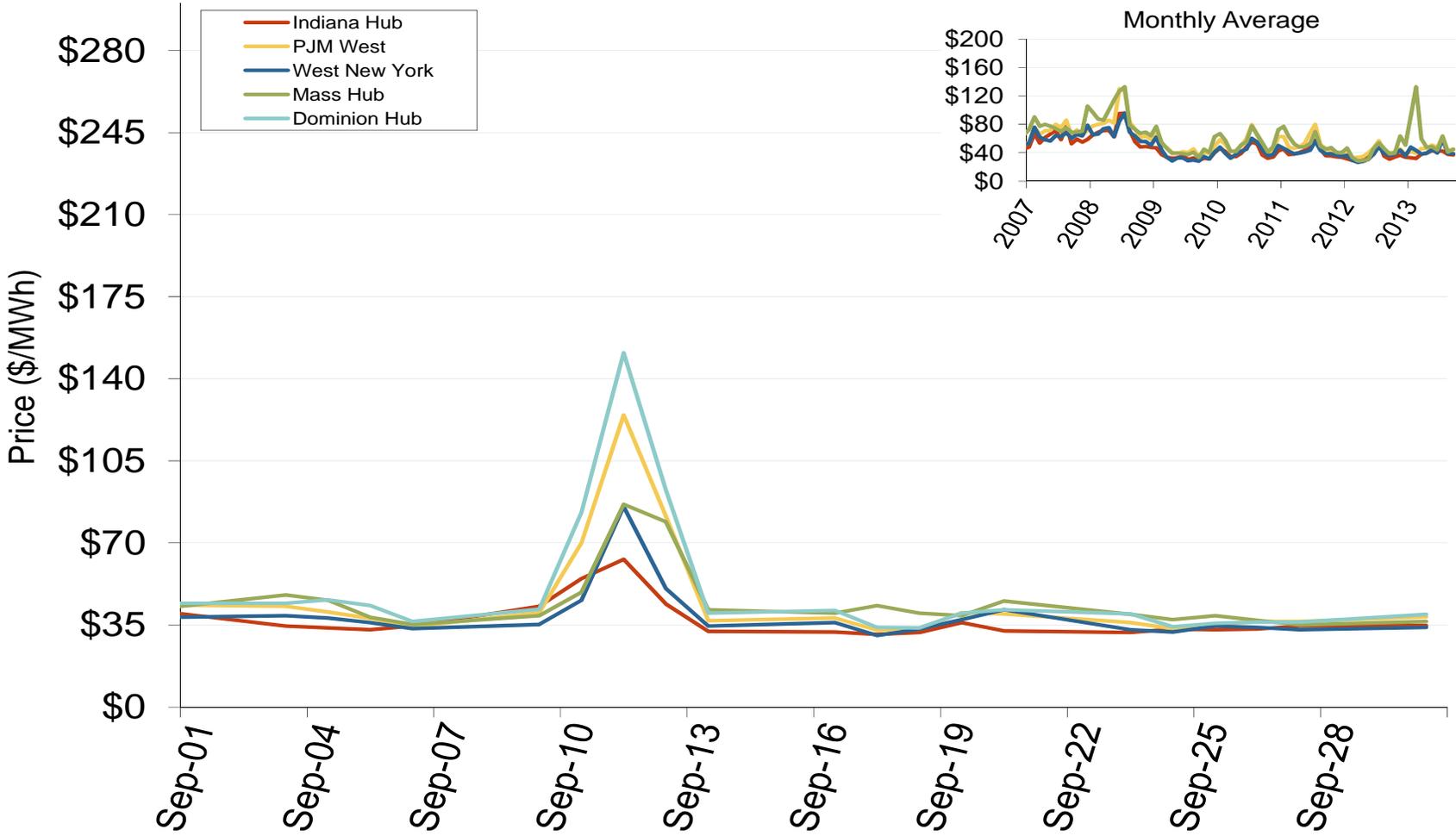
## New England Annual Average Bilateral Prices

Annual Average Day Ahead On Peak Prices (\$/MWh)						
	2008	2009	2010	2011	2012	5-Year Avg
Mass Hub	\$91.55	\$46.24	\$56.18	\$52.64	\$42.06	\$57.75
Ny Zone G	\$100.99	\$49.80	\$59.48	\$56.41	\$44.35	\$62.22
NY Zone J	\$112.63	\$55.77	\$65.76	\$62.71	\$46.95	\$68.79
NY Zone A	\$68.34	\$35.54	\$43.89	\$41.52	\$35.82	\$45.03
PJM West	\$83.70	\$44.60	\$53.68	\$51.99	\$40.86	\$54.98

New England Electric Market: Last Month's Eastern Index Prices

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

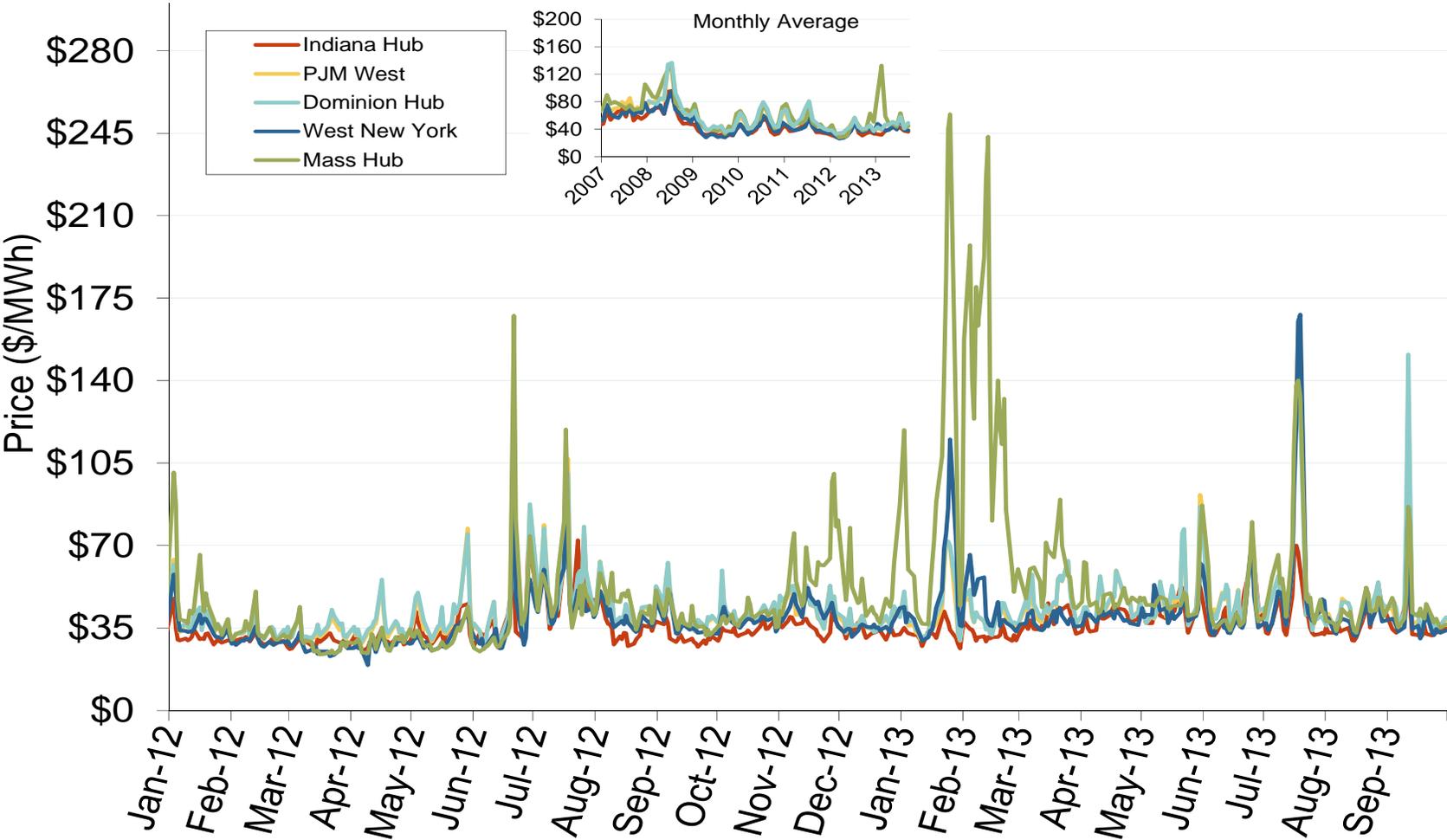
### Eastern Daily Index Day-Ahead On-Peak Prices



Source: Derived from *Platts* data  
October 2013 Northeast Snapshot Report

Updated: October 01, 2013

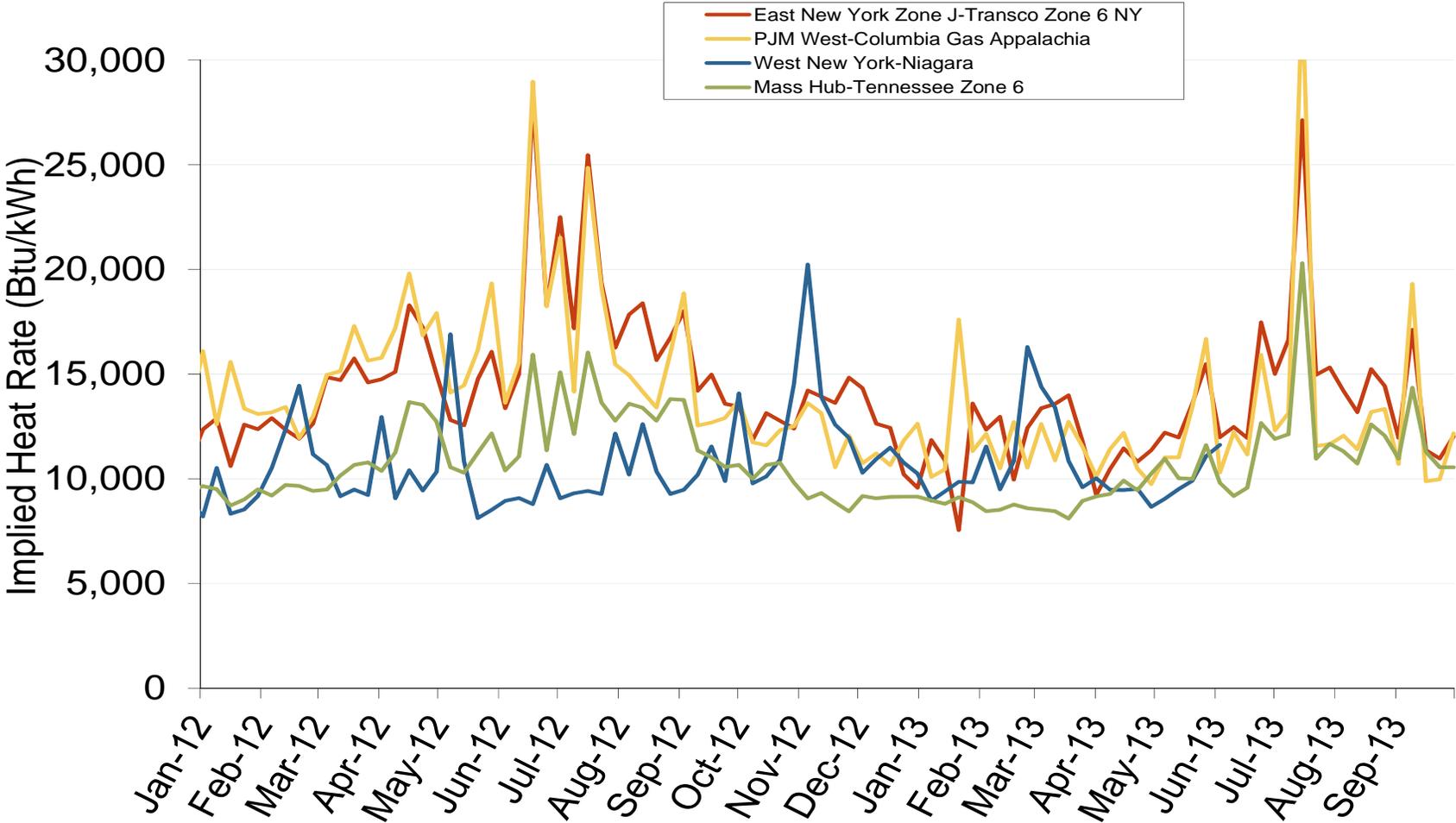
### Eastern Daily Index Day-Ahead On-Peak Prices



New England Electric Market: Eastern Implied Heat Rates

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

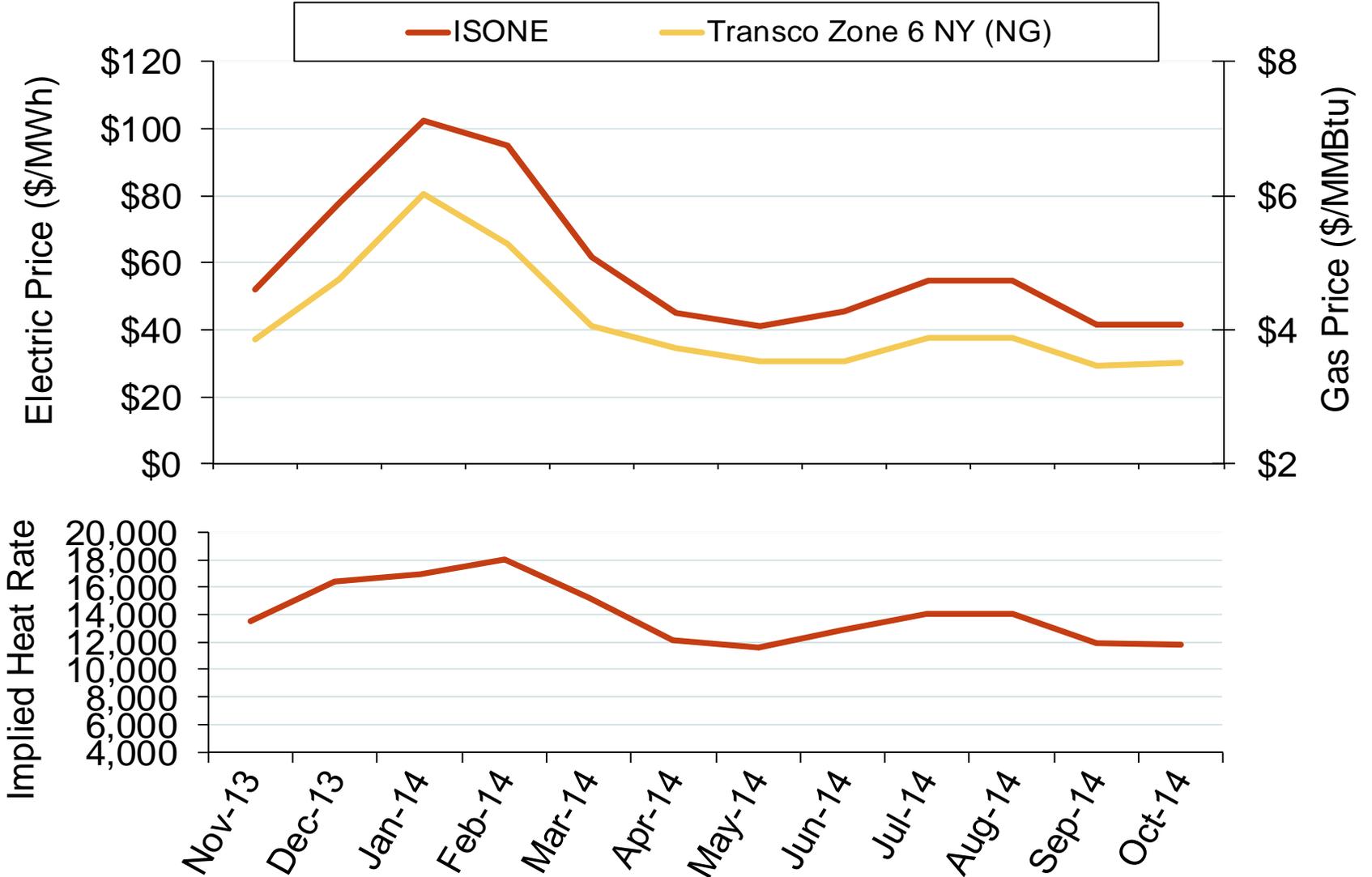
### Implied Heat Rates at Eastern Trading Points - Weekly Avgs.



Source: Derived from *Platts* on-peak electric and natural gas price data  
October 2013 Northeast Snapshot Report

Updated: October 03, 2013

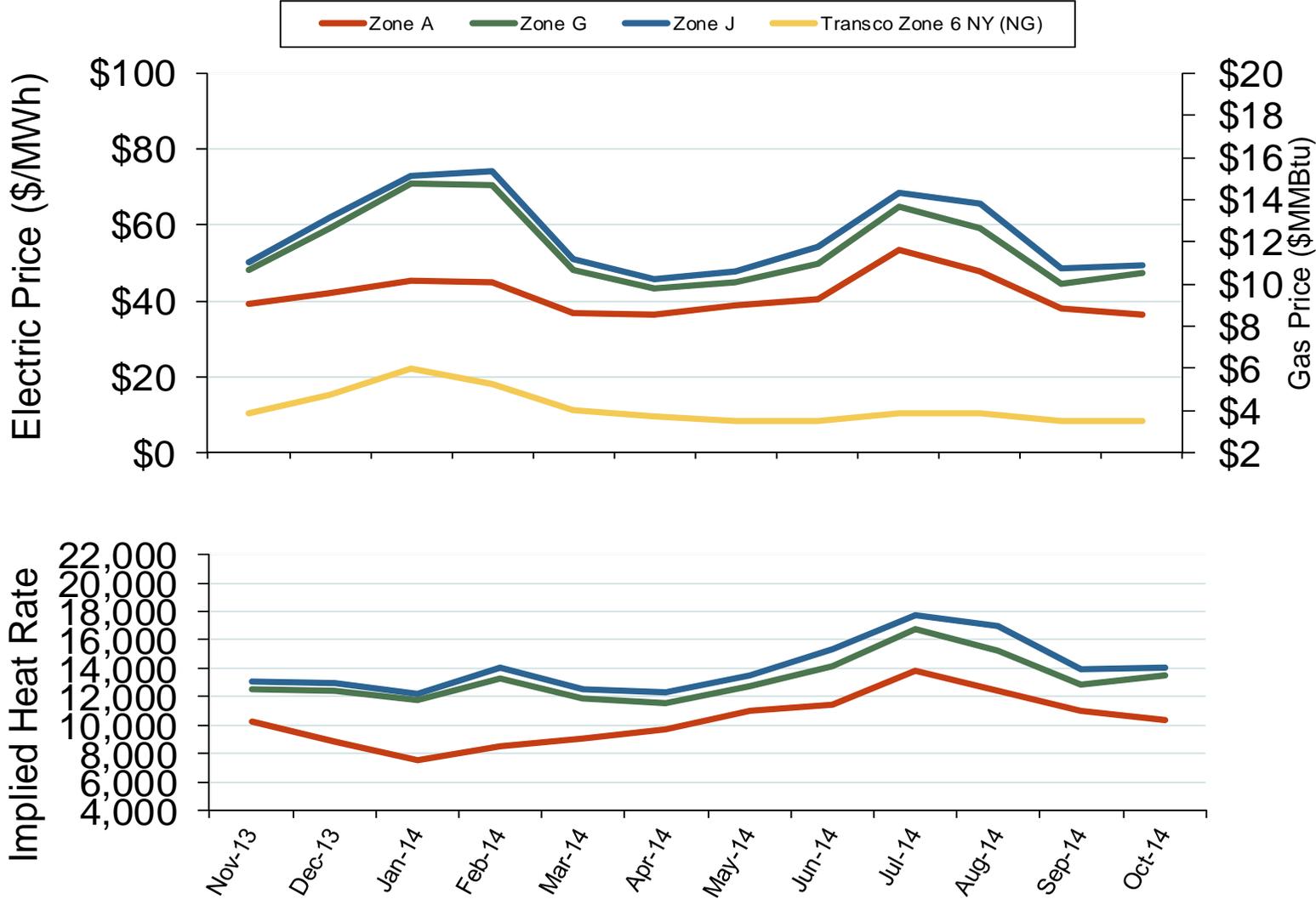
# New England Electric Forward Price Curves and Implied Heat Rate



Source: Derived from Nymex data  
October 2013 Northeast Snapshot Report

Updated October 10, 2013

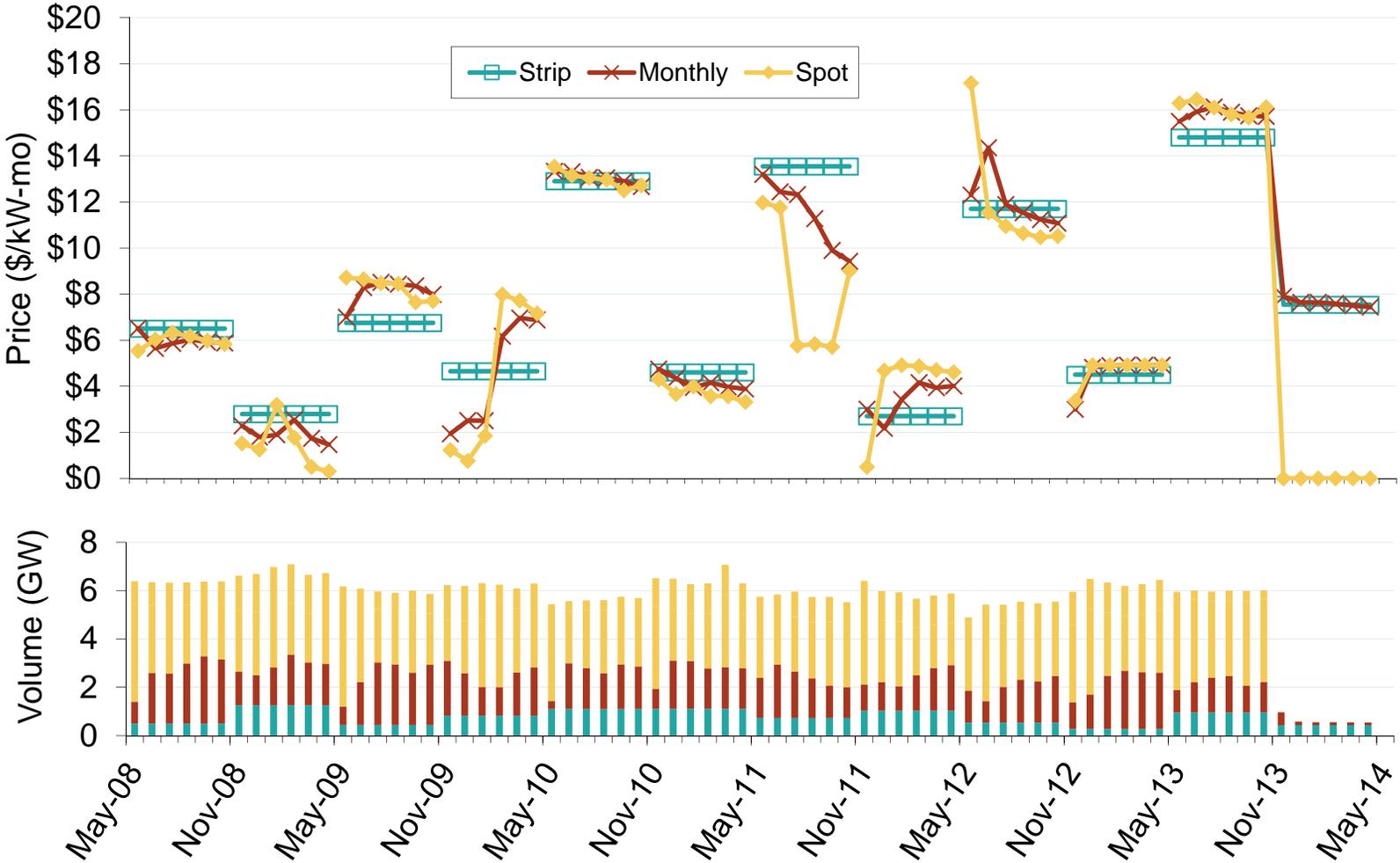
# New York Electric Forward Price Curves and Implied Heat Rates



Source: Derived from Nymex data  
October 2013 Northeast Snapshot Report

Updated October 10, 2013

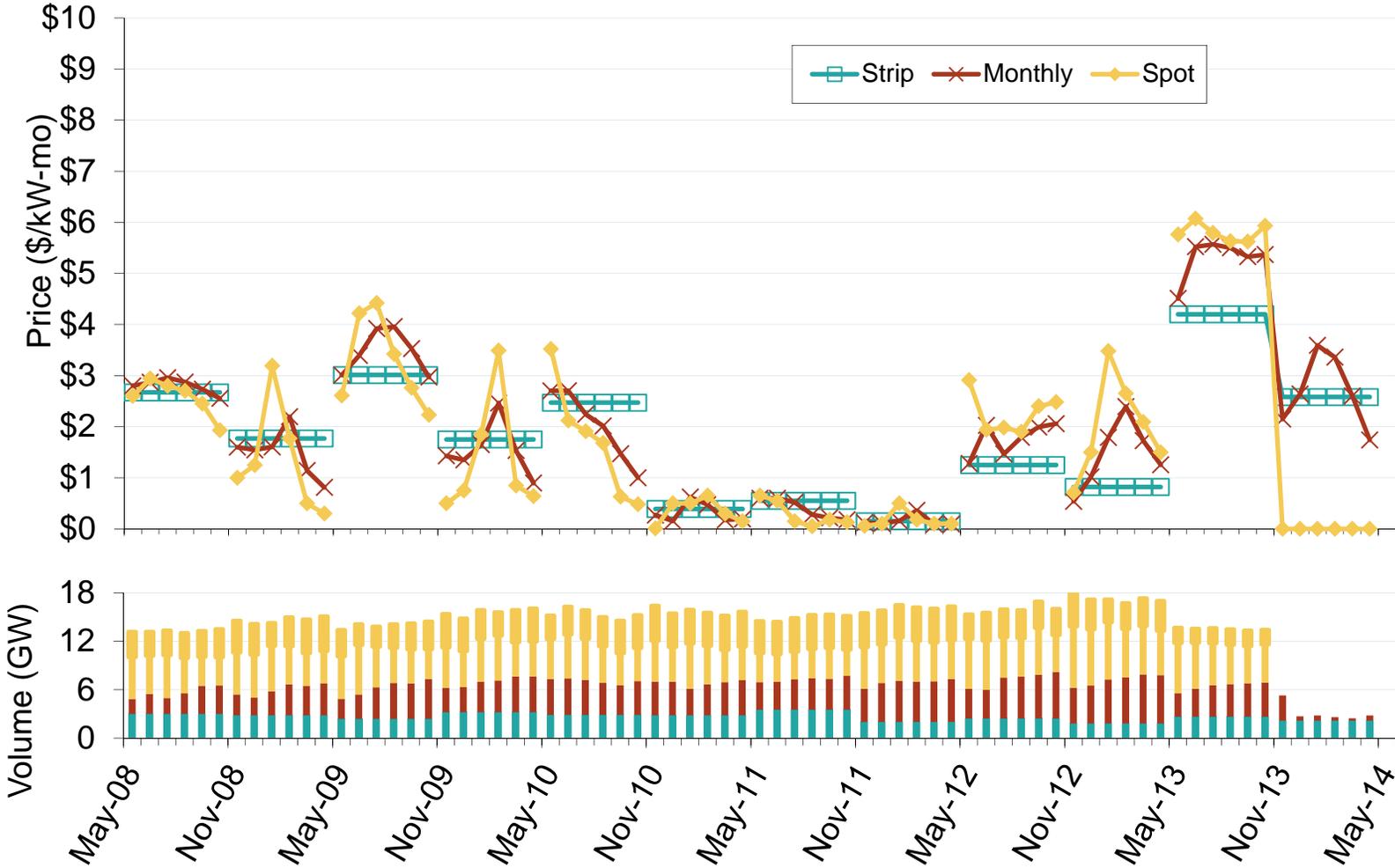
### Wtd. Avg. ICAP Prices & Volumes: NYC



Source: Derived from NYISO data  
October 2013 Northeast Snapshot Report

Updated: October 16, 2013

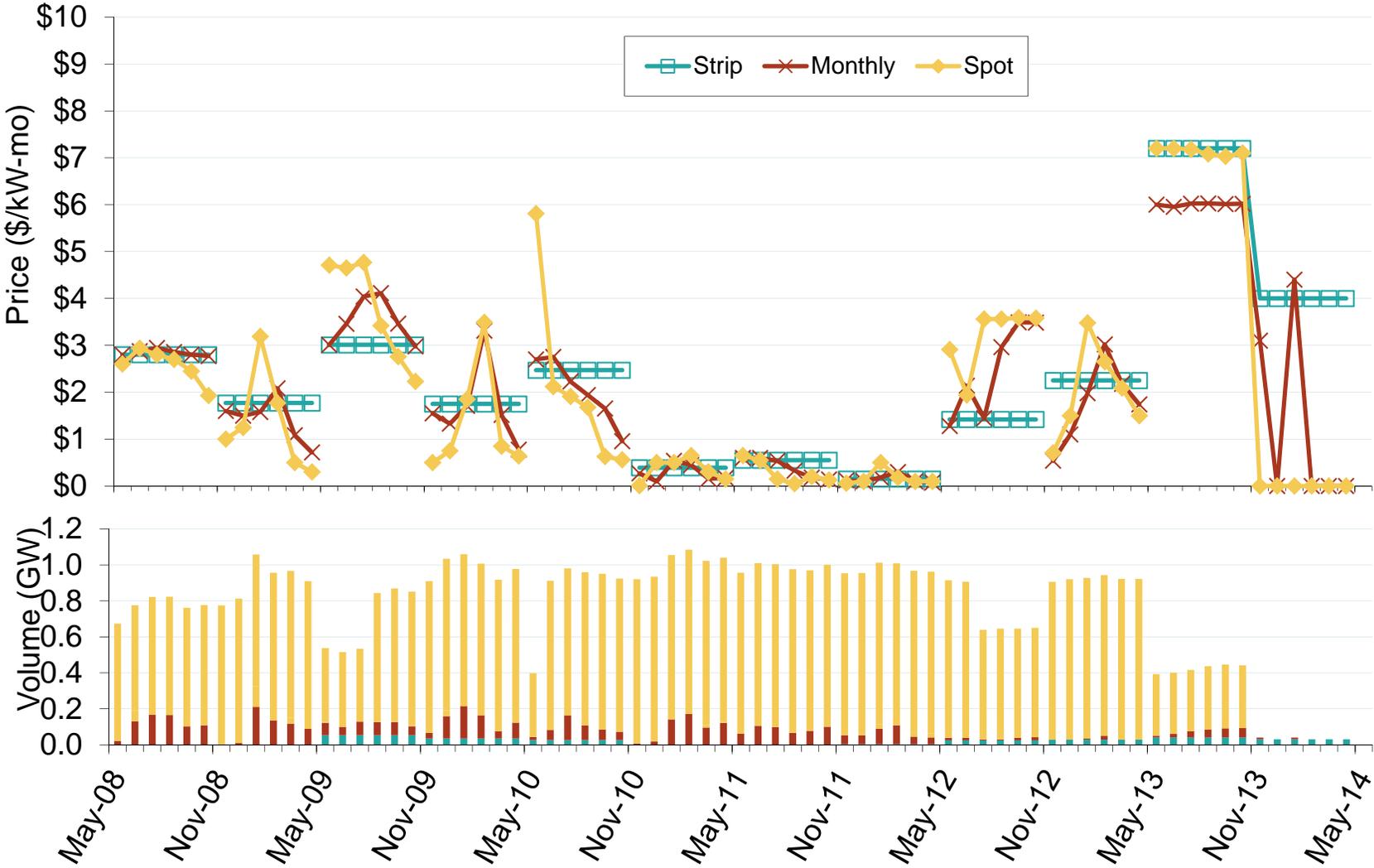
# Wtd. Avg. ICAP Prices & Volumes: New York State, excluding NYC



Source: Derived from NYISO data  
October 2013 Northeast Snapshot Report

Updated: October 16, 2013

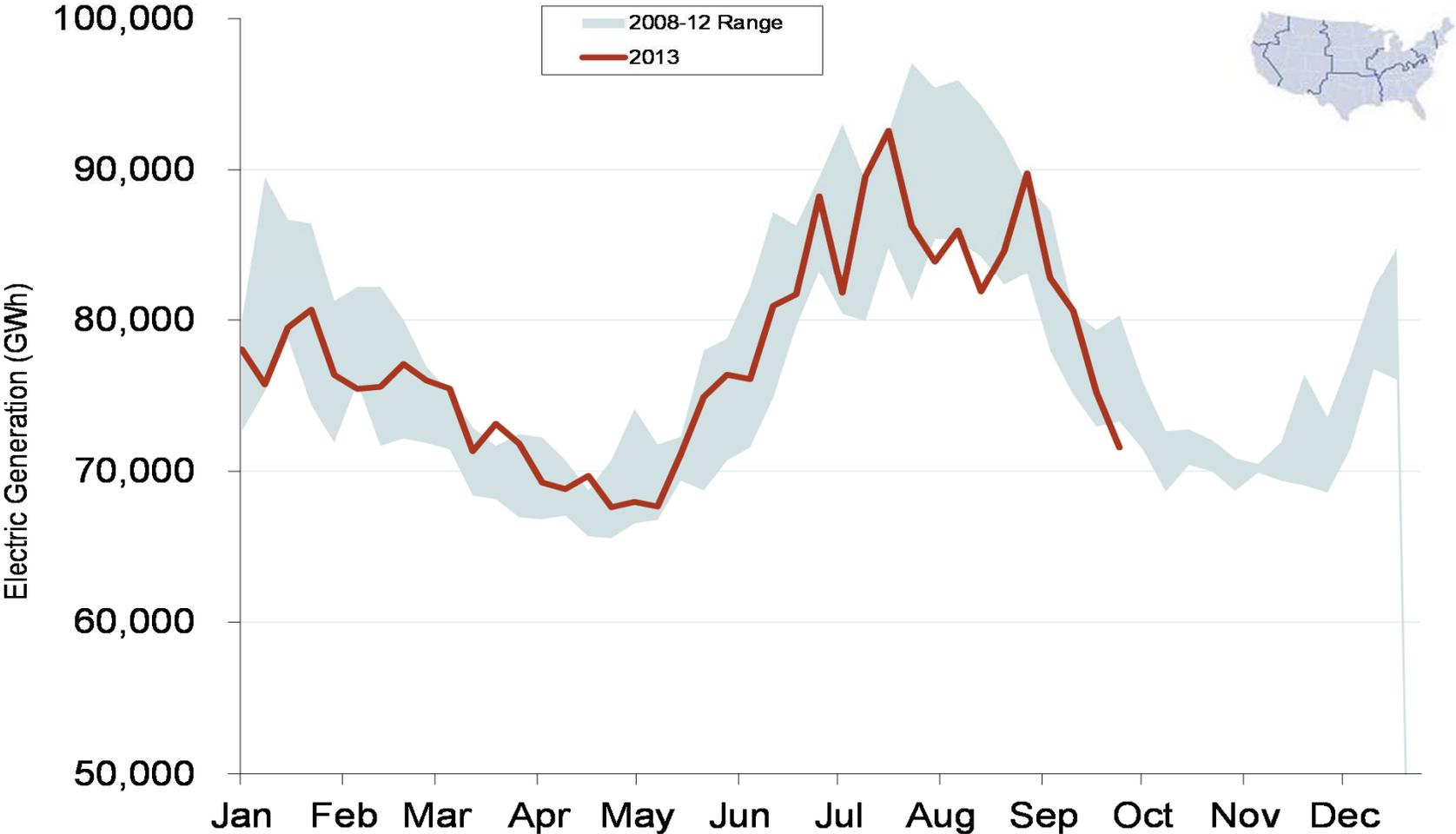
# Weighted Average ICAP Clearing Prices and Volumes: Long Island



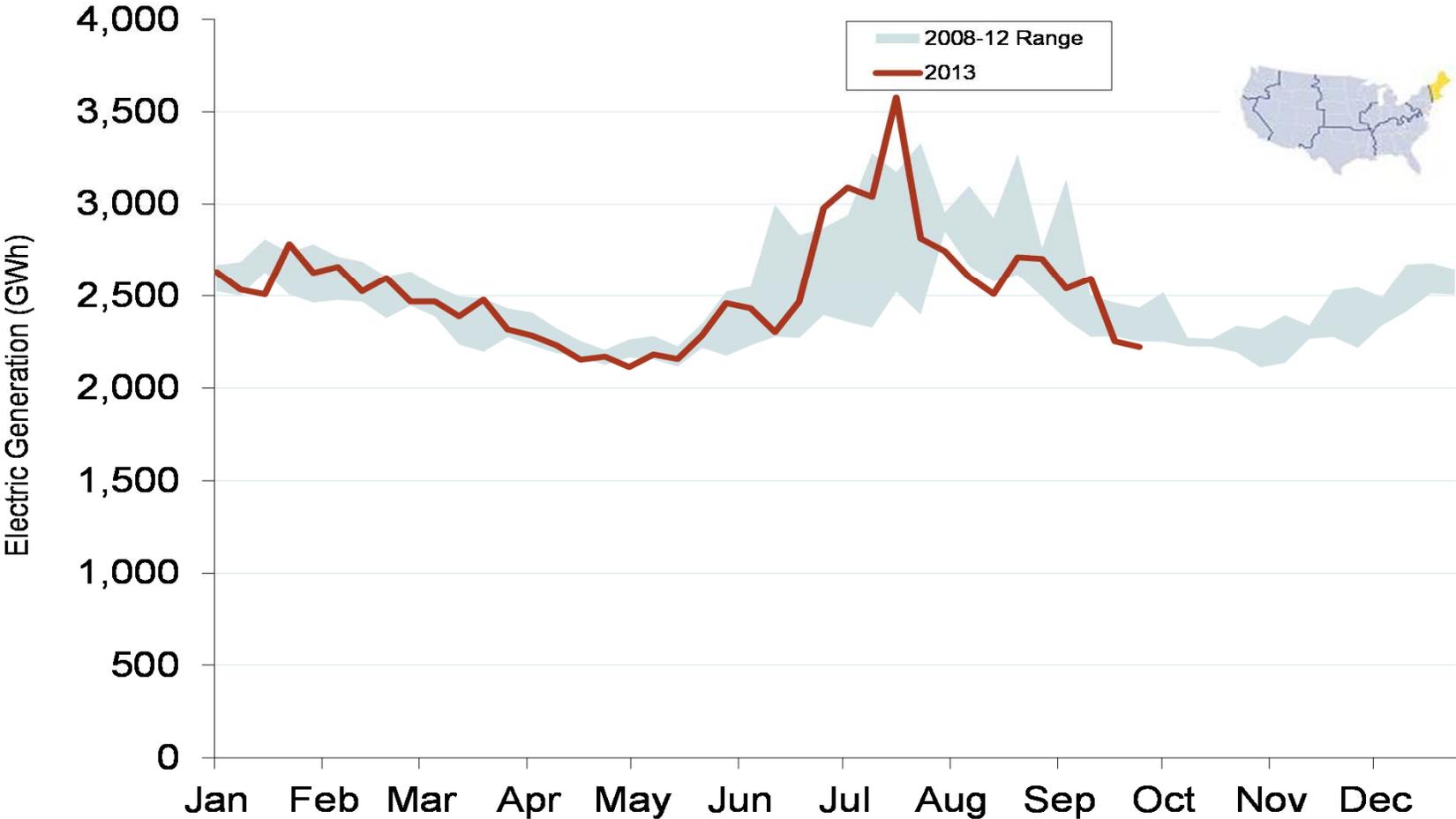
Source: Derived from NYISO data  
October 2013 Northeast Snapshot Report

Updated: October 16, 2013

# Weekly U.S. Electric Generation Output



# Weekly Generation Output New England



### Weekly Generation Output - Mid Atlantic

