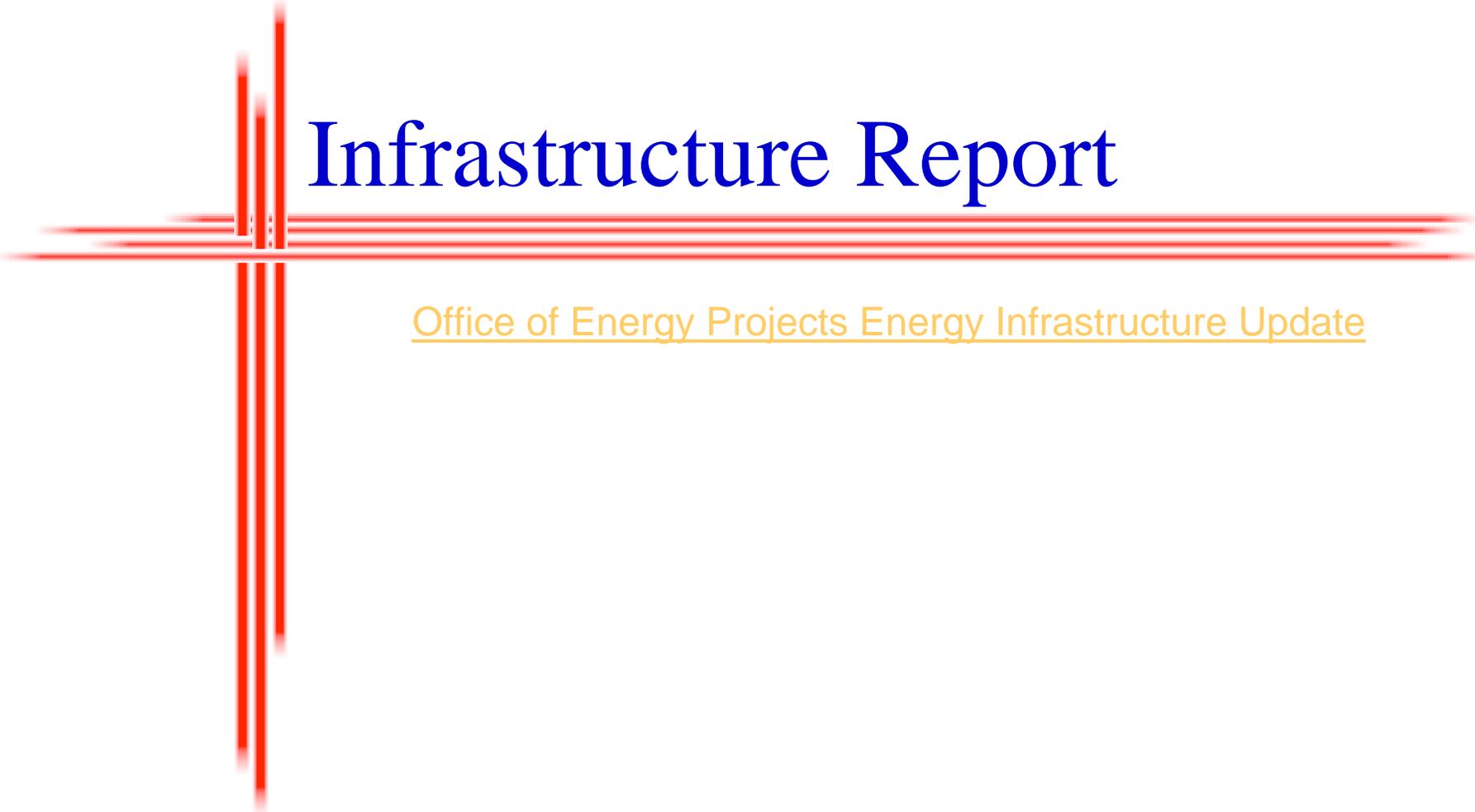


# **OE ENERGY MARKET SNAPSHOT**

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

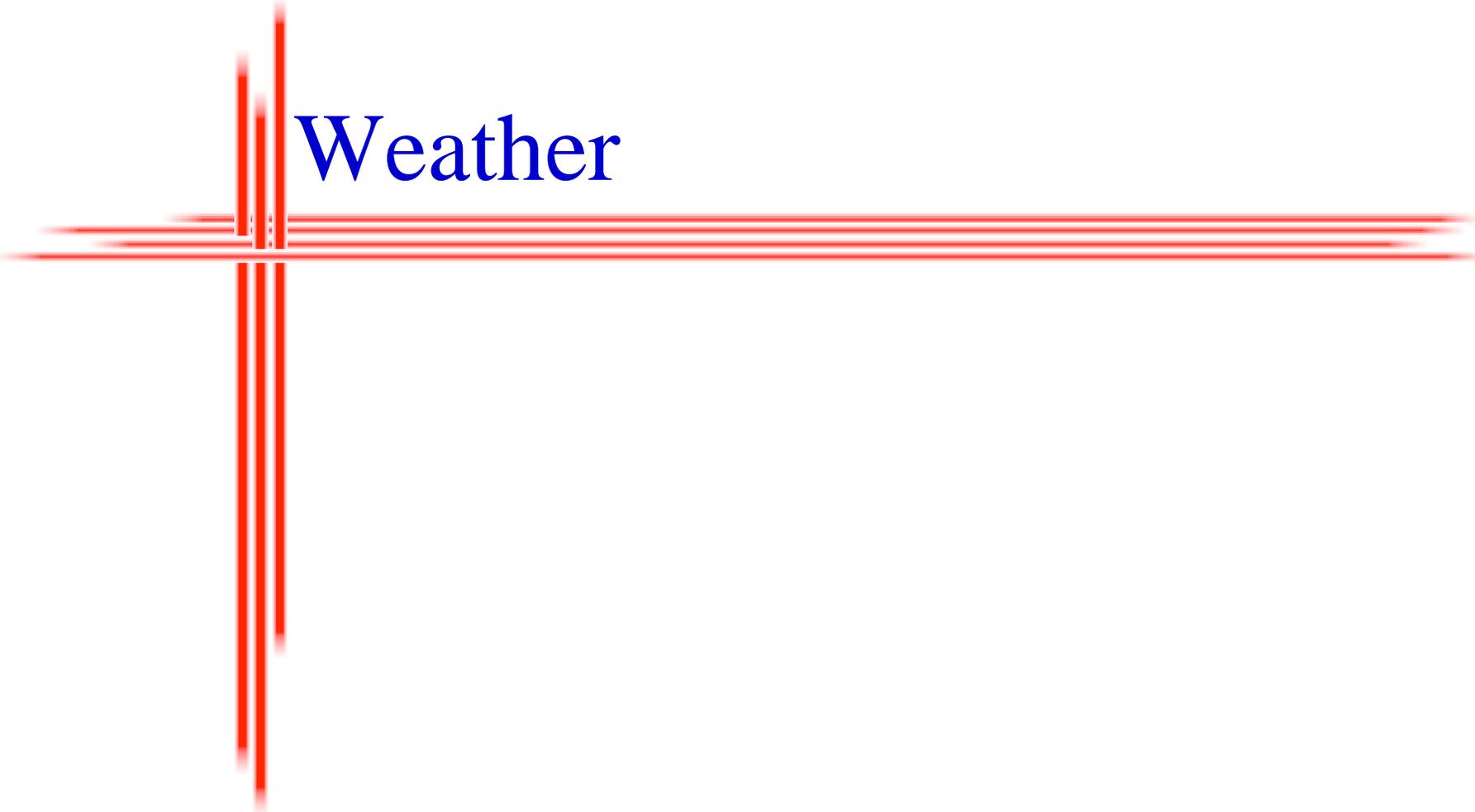
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Office of Enforcement  
Federal Energy Regulatory Commission  
March 2013



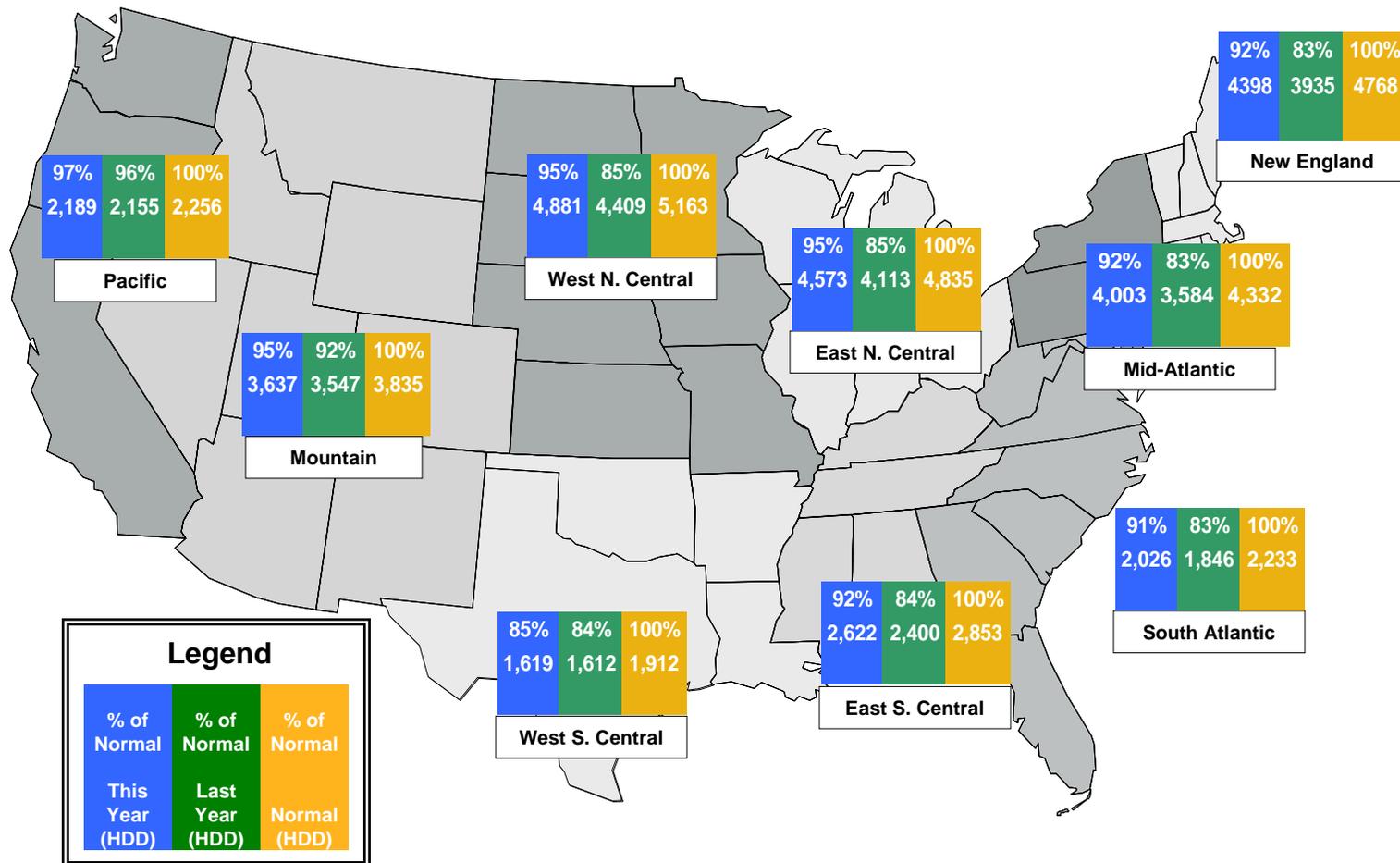
# Infrastructure Report

Office of Energy Projects Energy Infrastructure Update



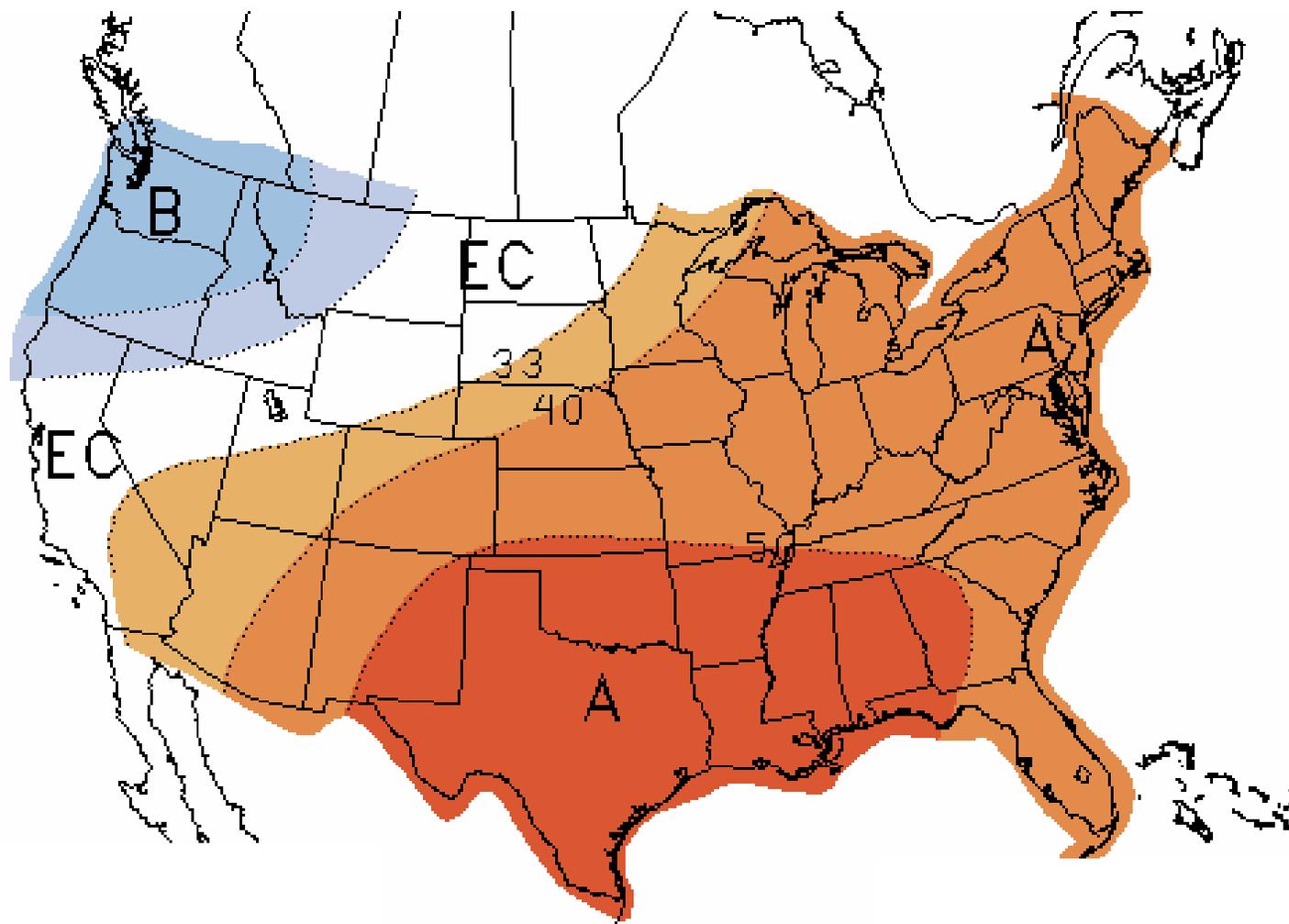
# Weather

## Regional Heating Degree Days – July 2012 to March 2013



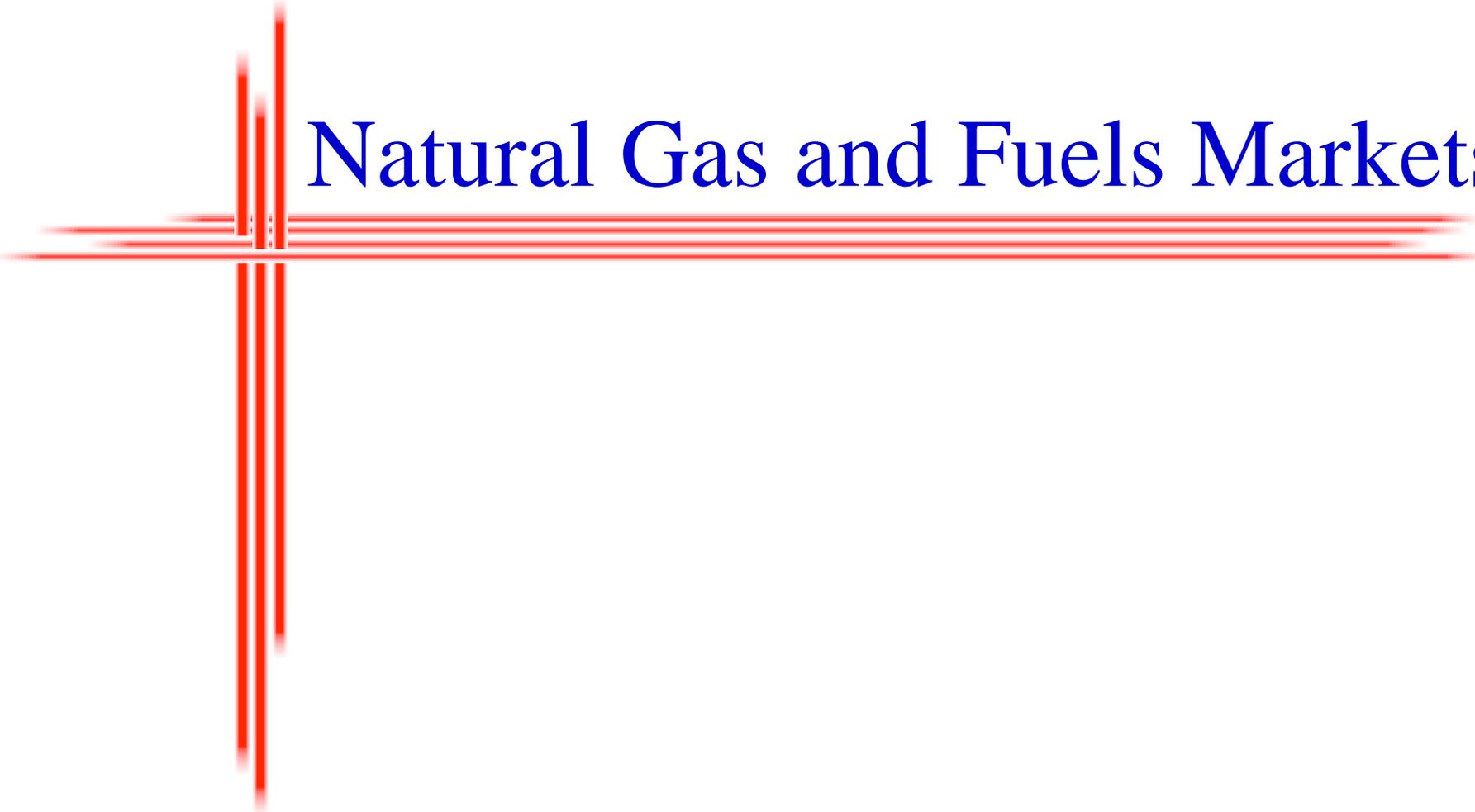
Source: Derived from NOAA data. Normal is based on a 30-year average of heating degree day data.  
 March 2013 Northeast Snapshot Report

## NOAA's 3 Month Temperature Forecast Made February 21, 2013, Valid for March 2013 – May 2013



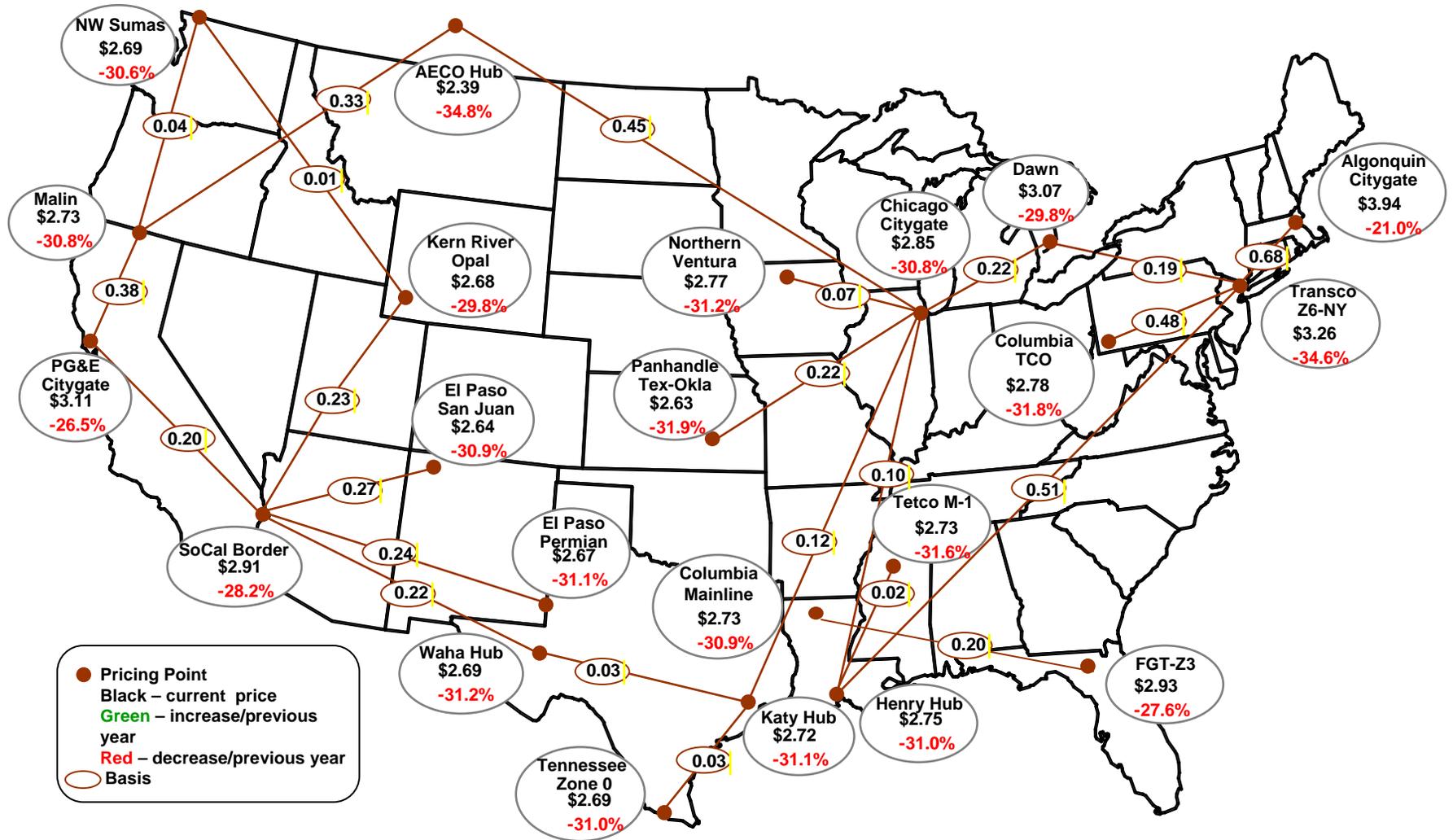
Note: "A" areas are above normal, "B" areas are below normal and "EC" means equal chance. Normal is based on the last 30 years of data.  
Source: Derived from NOAA data.

Updated: March 7, 2013



# Natural Gas and Fuels Markets

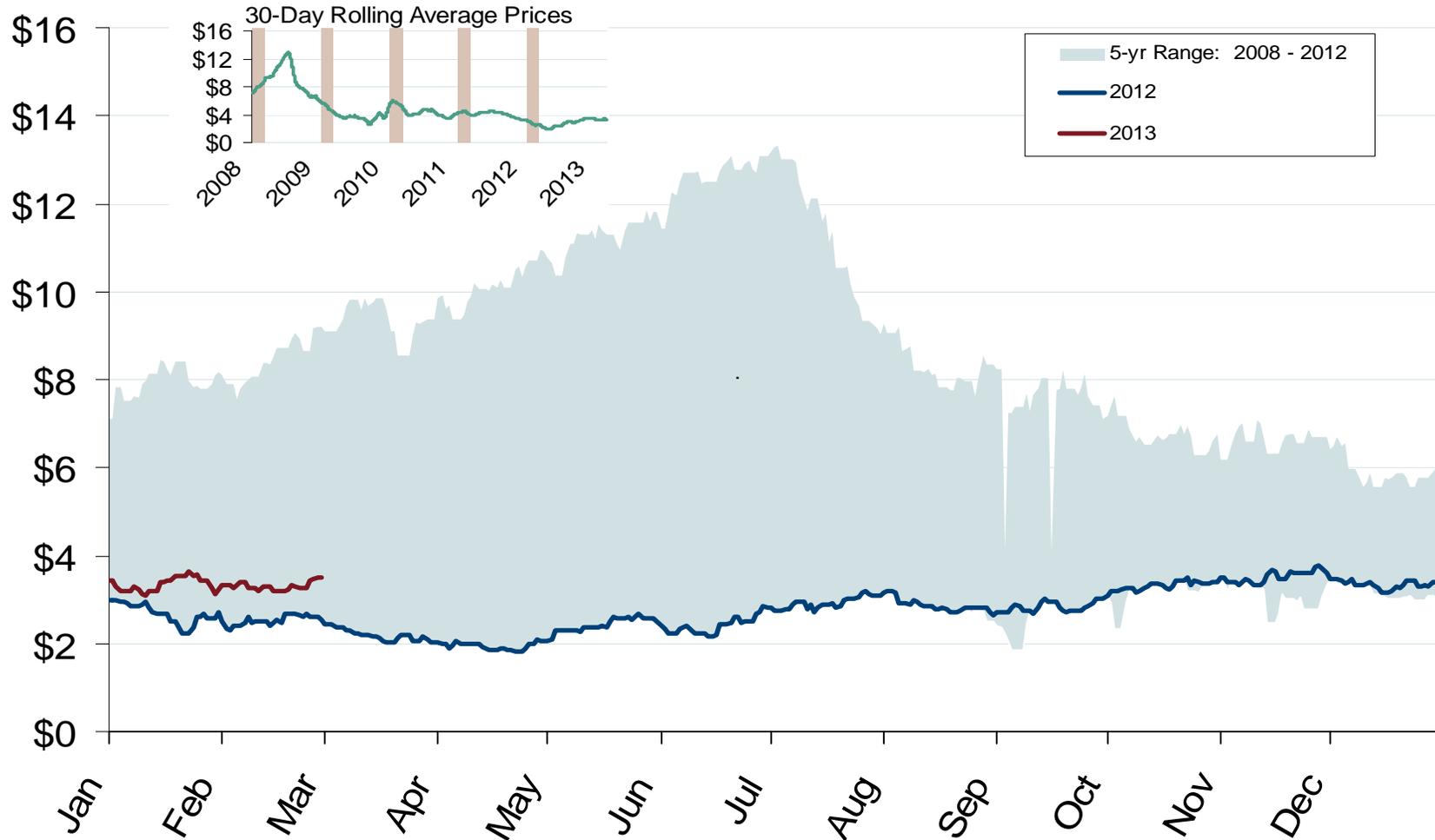
## Average Spot Gas Prices, 2012 (\$MMBtu)



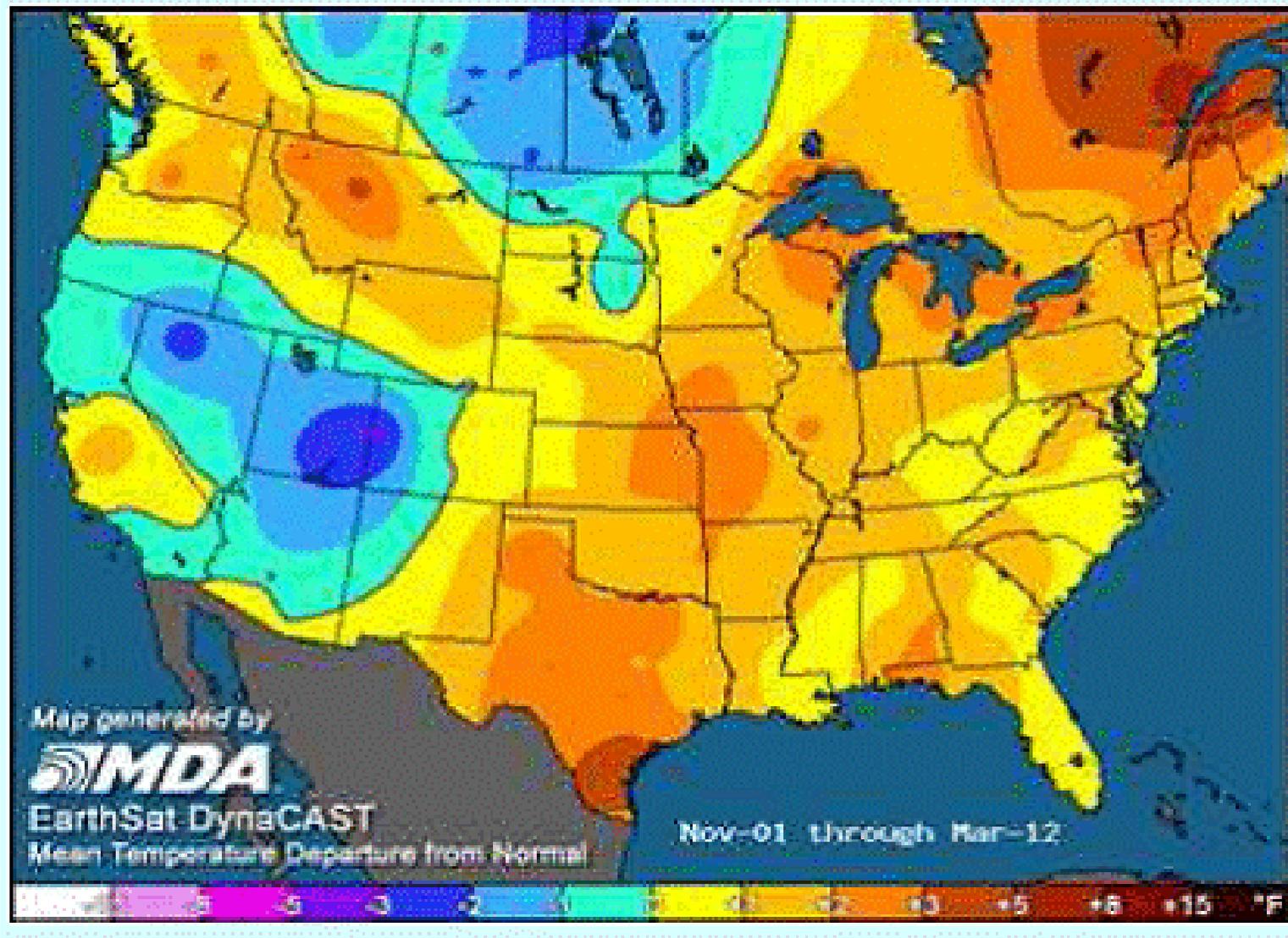
Source: Derived from *Platts* data.  
March 2013 Northeast Snapshot Report

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## Henry Hub Natural Gas Daily Spot Prices



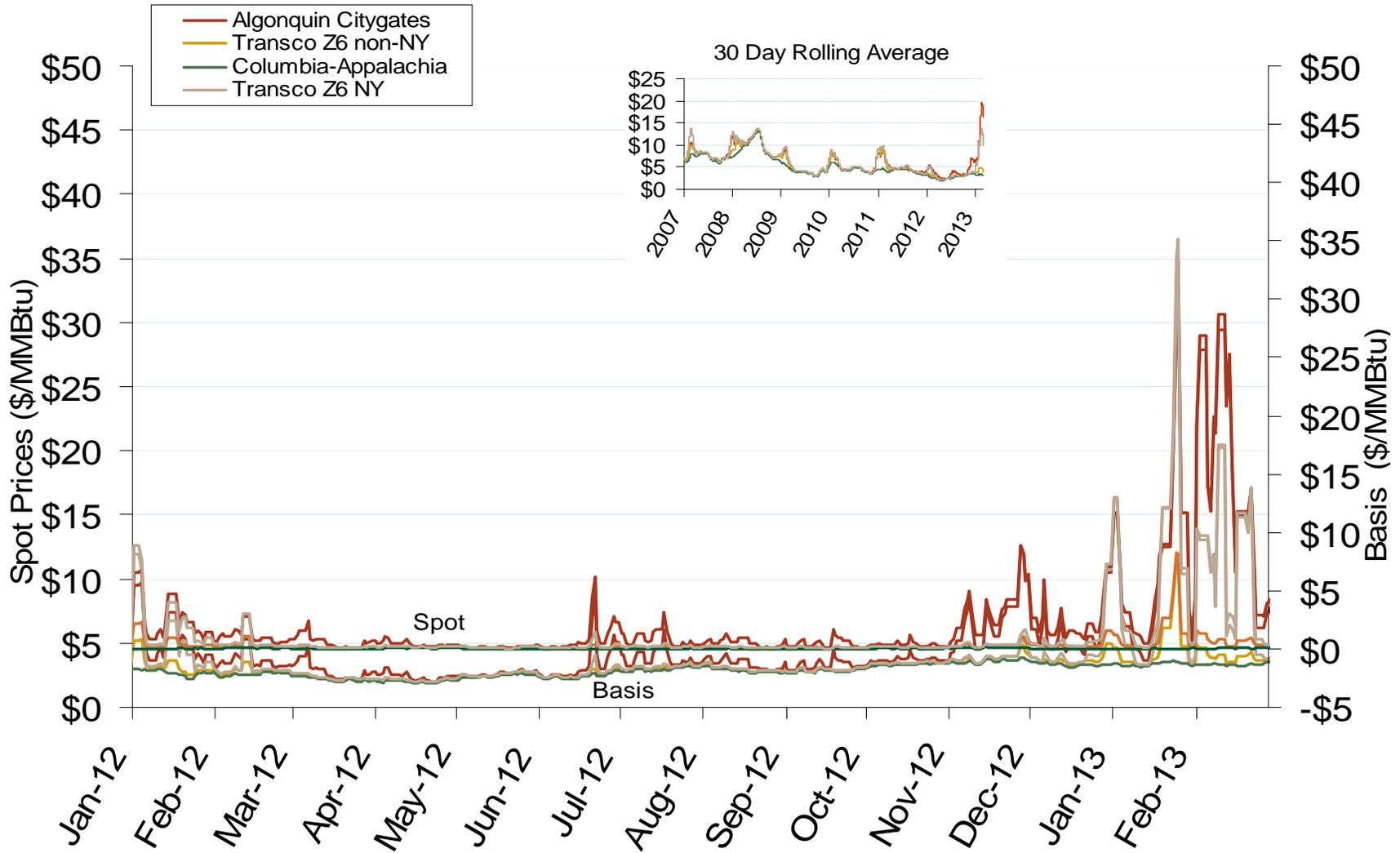
## Winter Weather Outlook



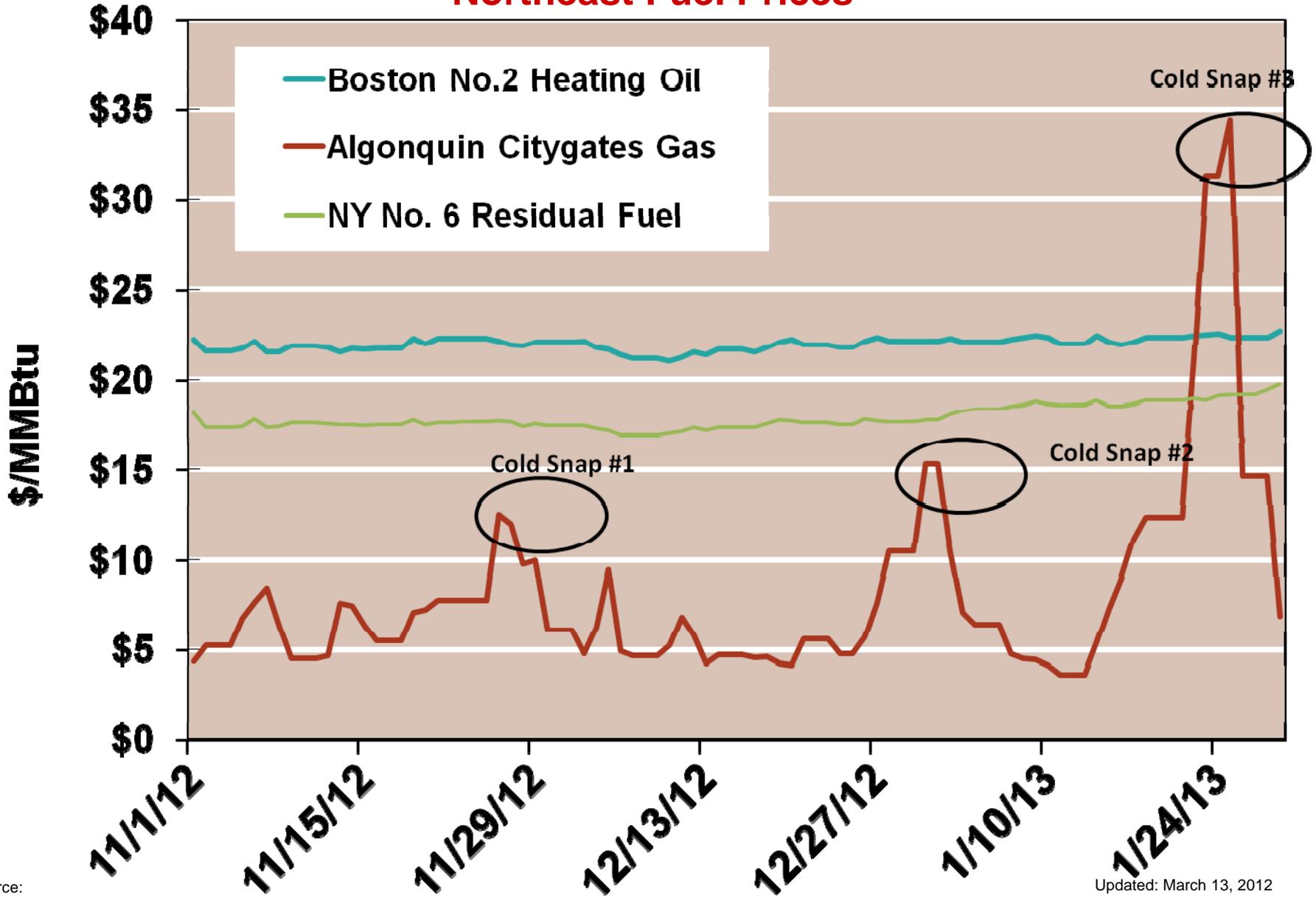
## Northeast Annual Average Spot Hub Prices

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 Fuel Prices



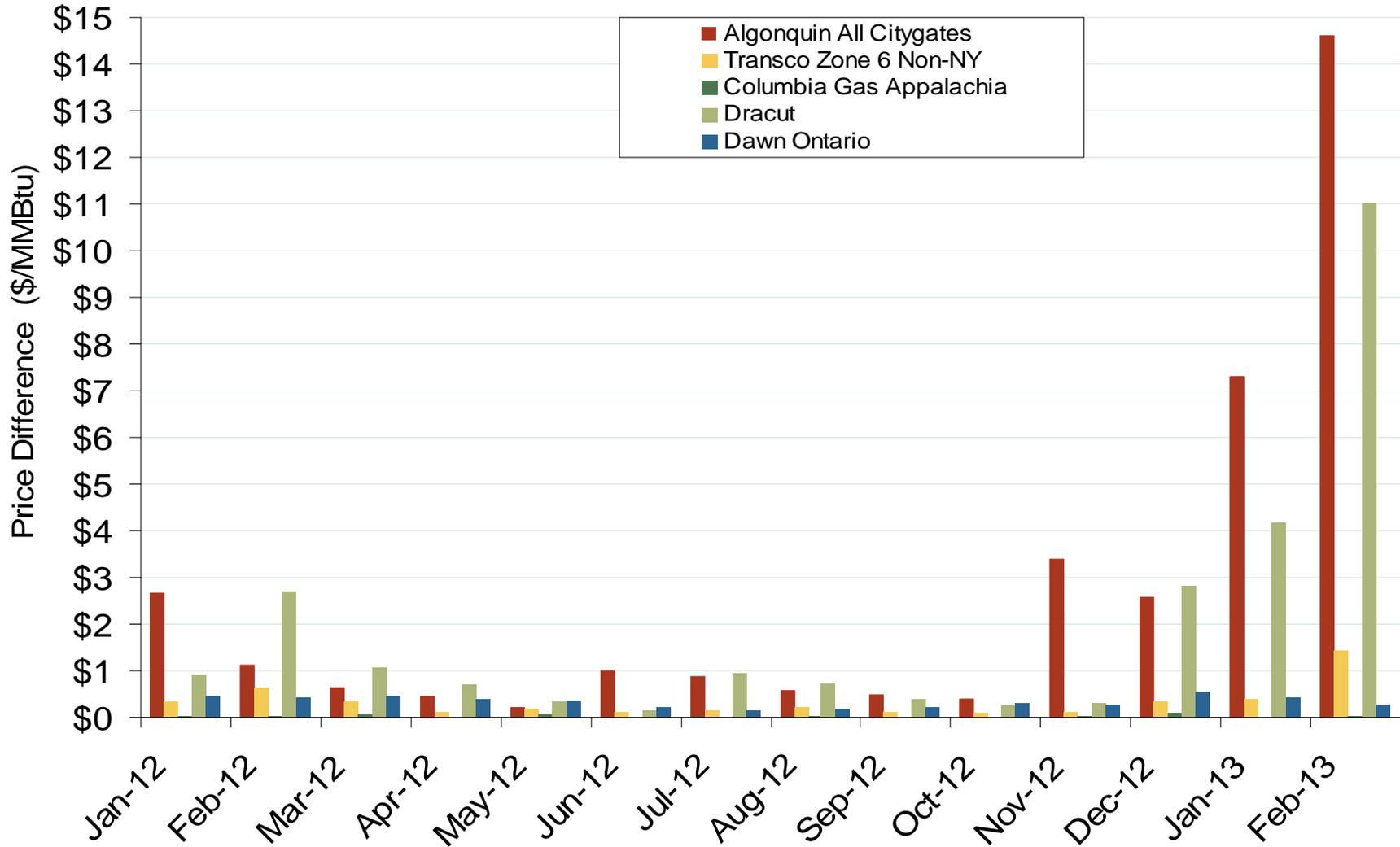
Source:

March 2013 Northeast Snapshot Report

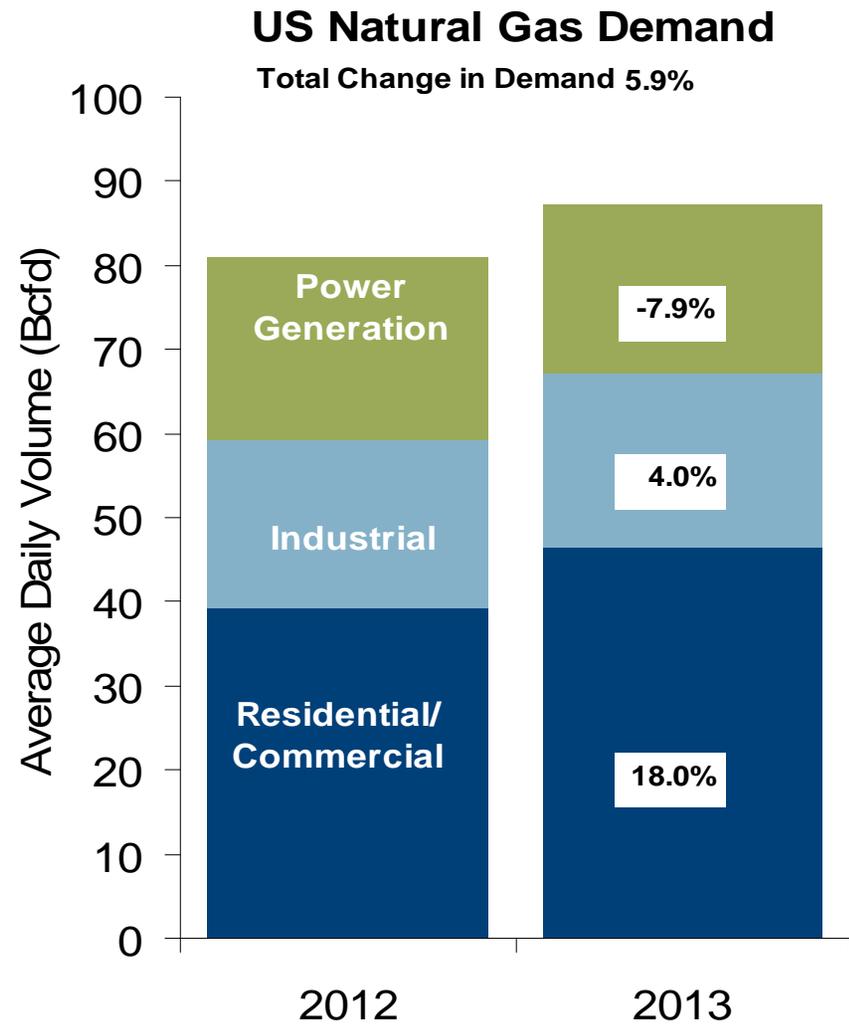
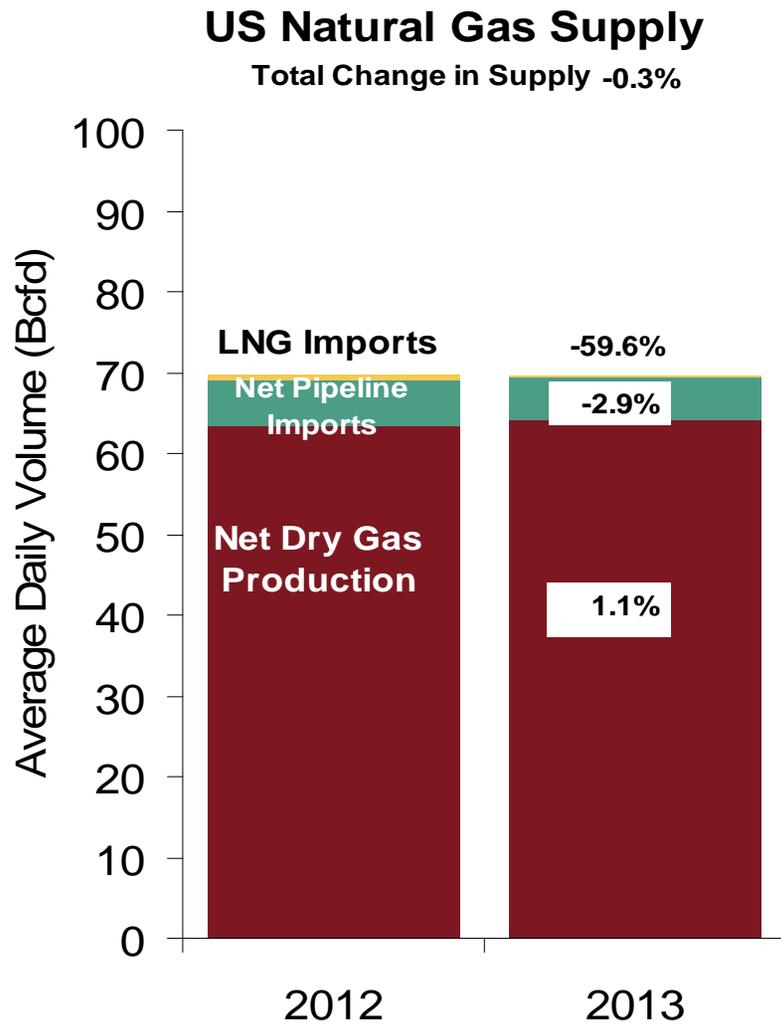
Updated: March 13, 2012

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## Northeastern Monthly Average Basis Value to Henry Hub



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



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

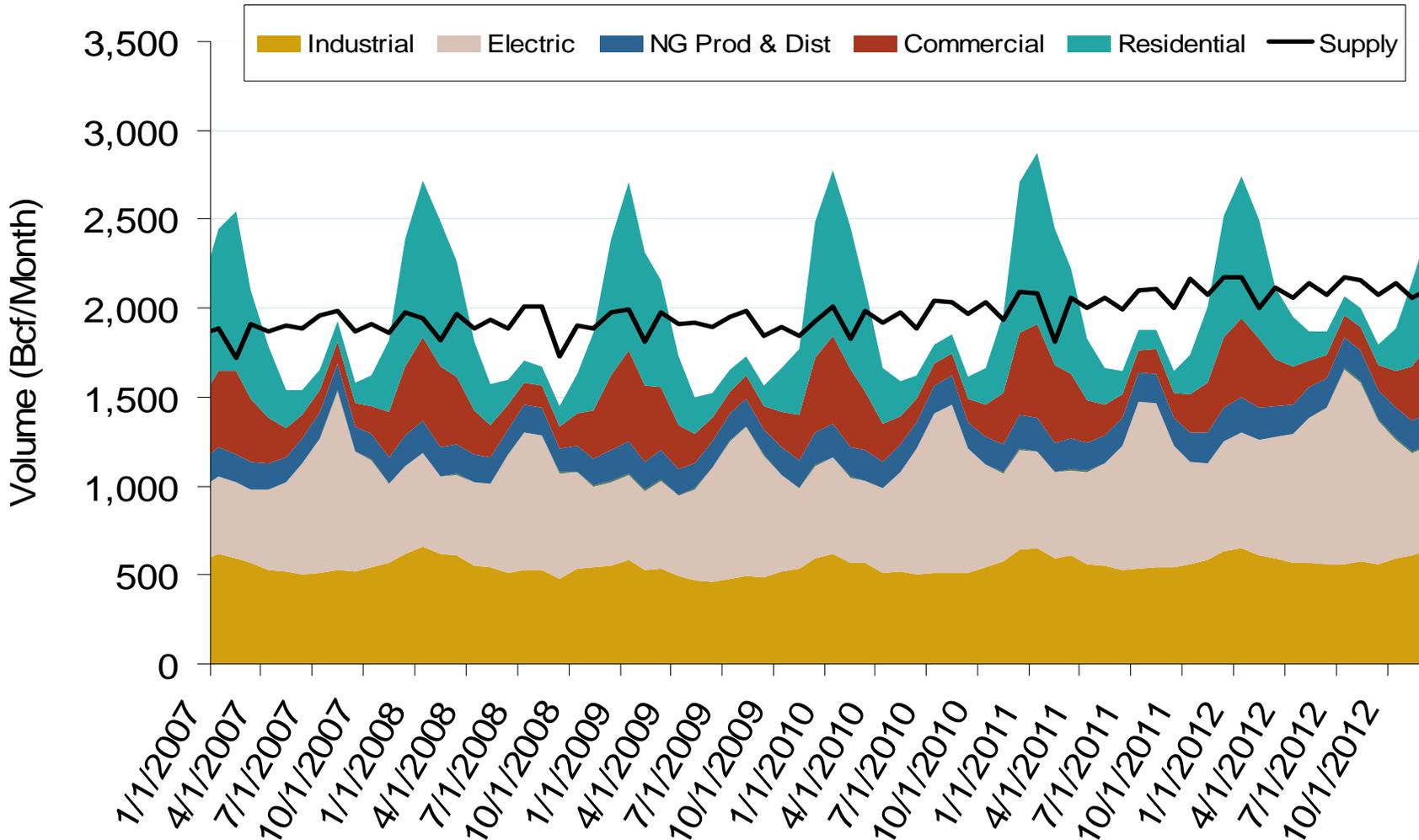
Source: Derived from *Bentek Energy* data

March 2013 Northeast Snapshot Report

Updated: March 13, 2013

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## 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

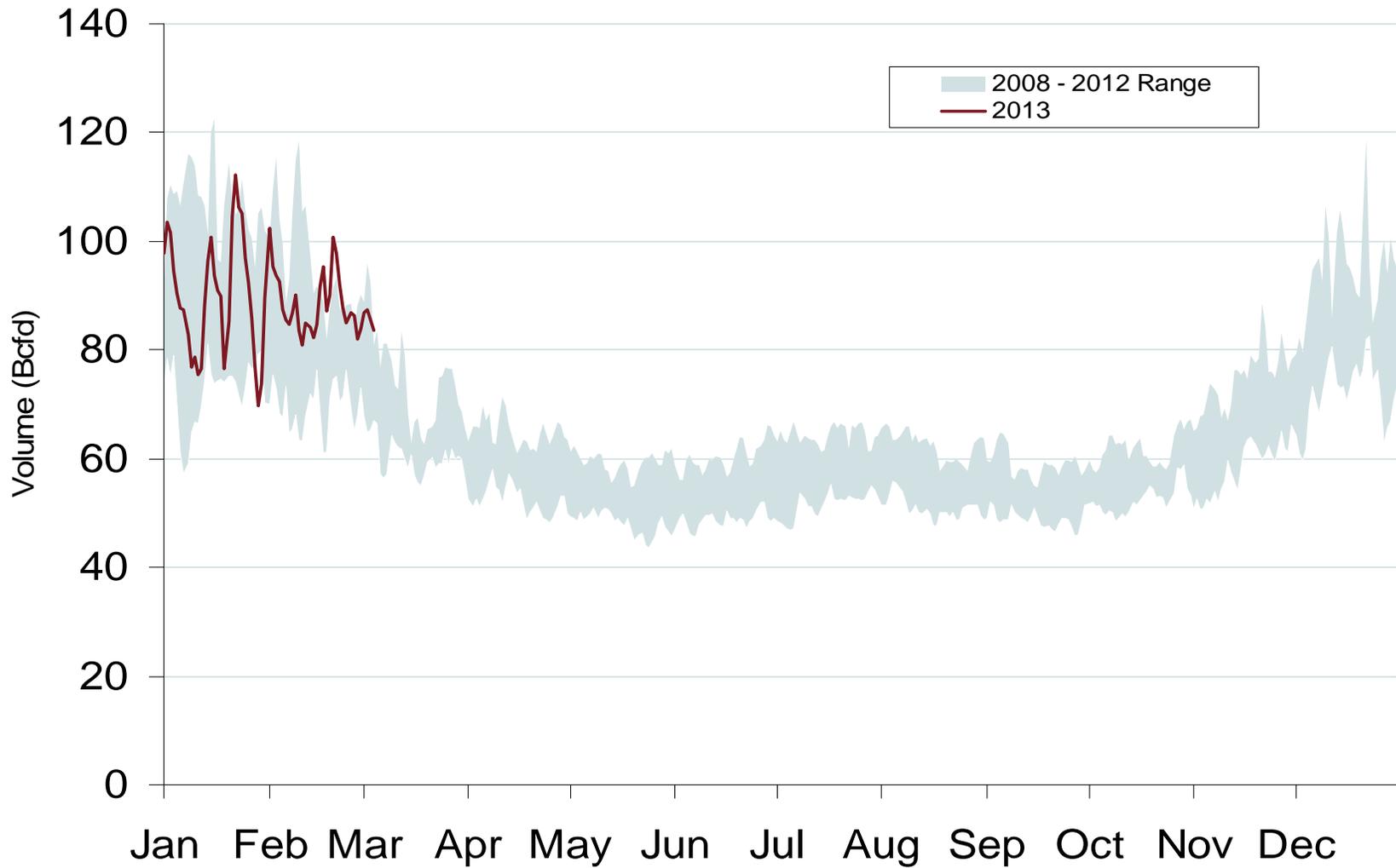
March 2013 Northeast Snapshot Report

Updated: March 12, 2013

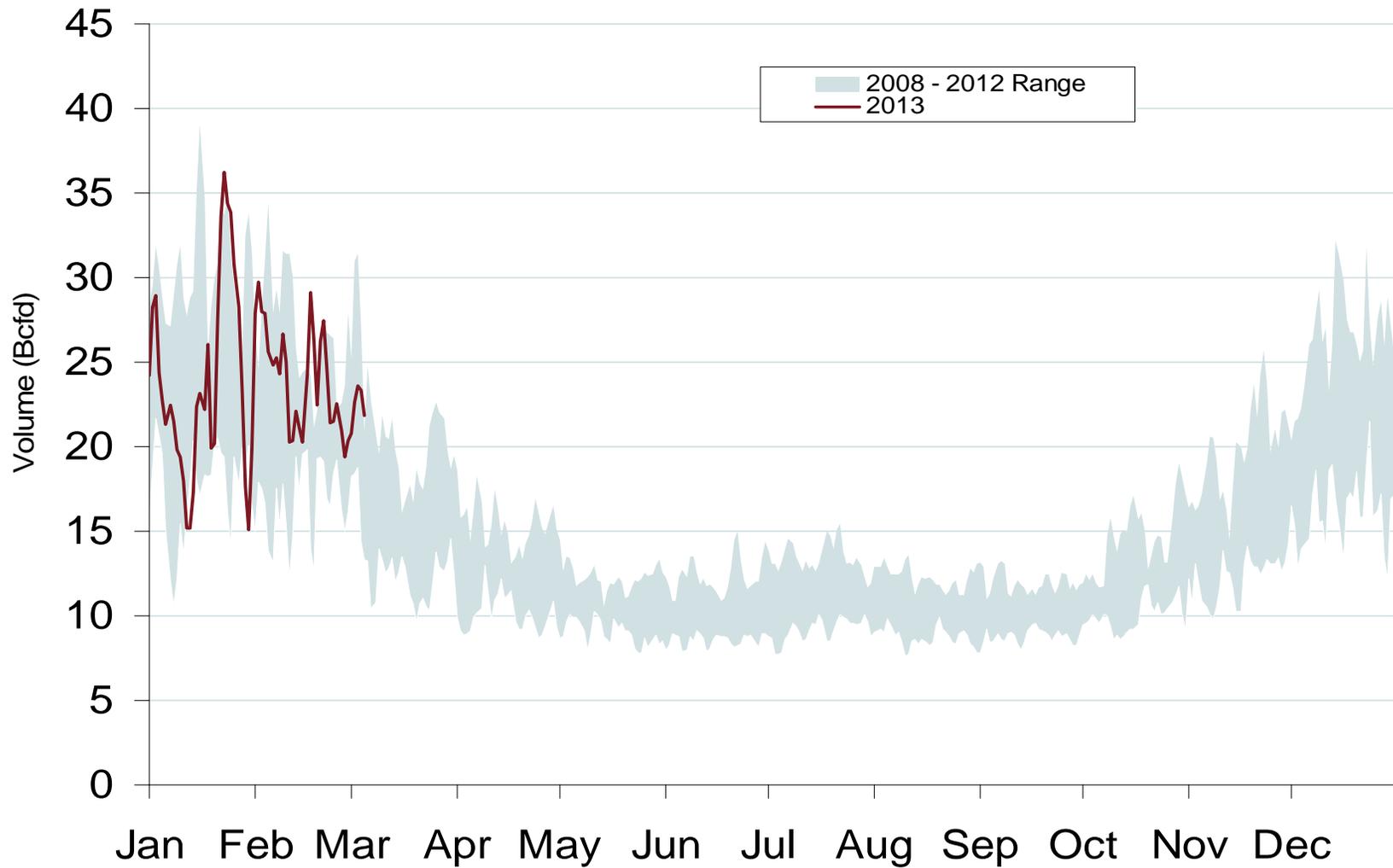
20013

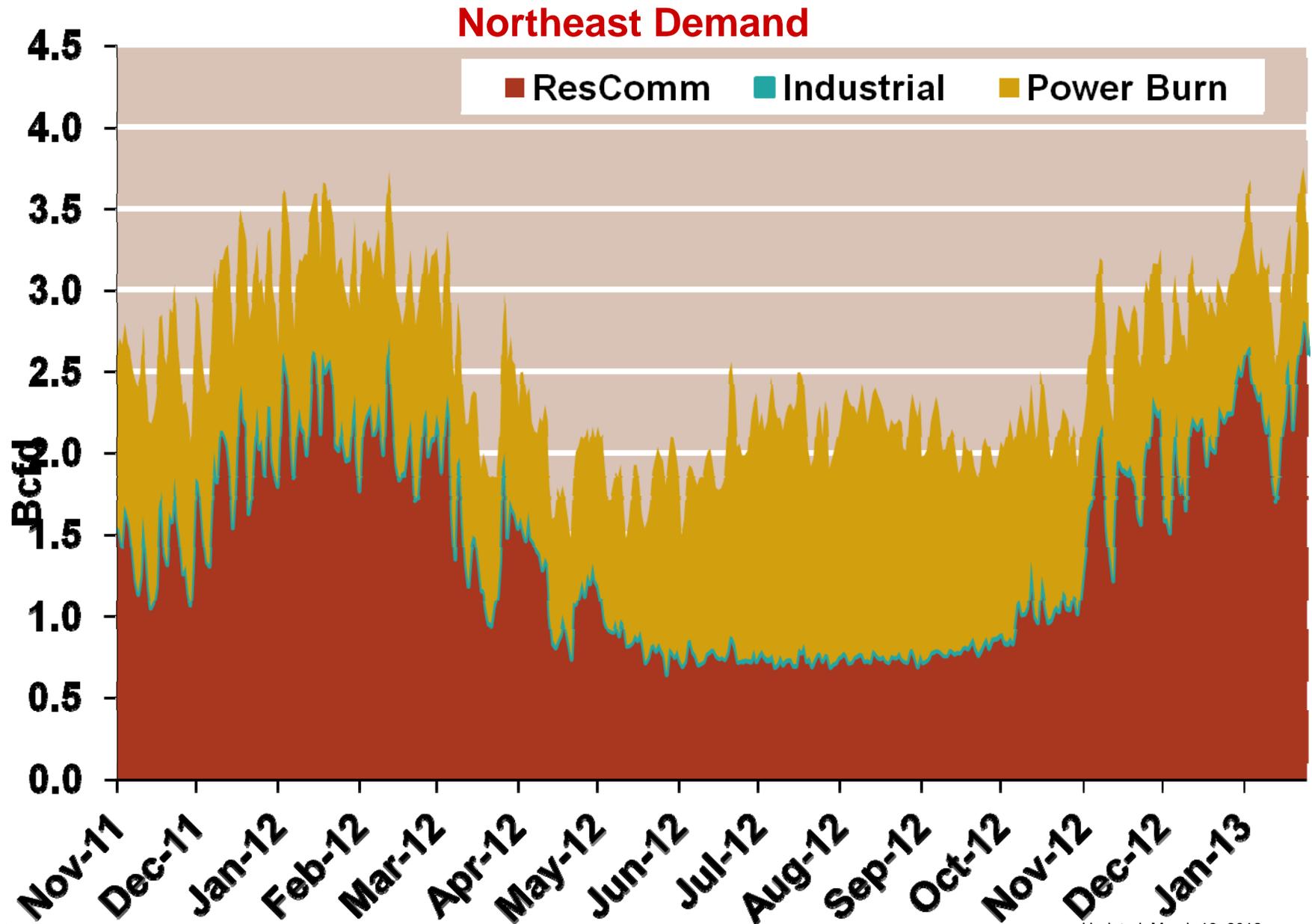
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## Total U.S. Natural Gas Demand All Sectors



## Daily Northeast Natural Gas Demand All Sectors

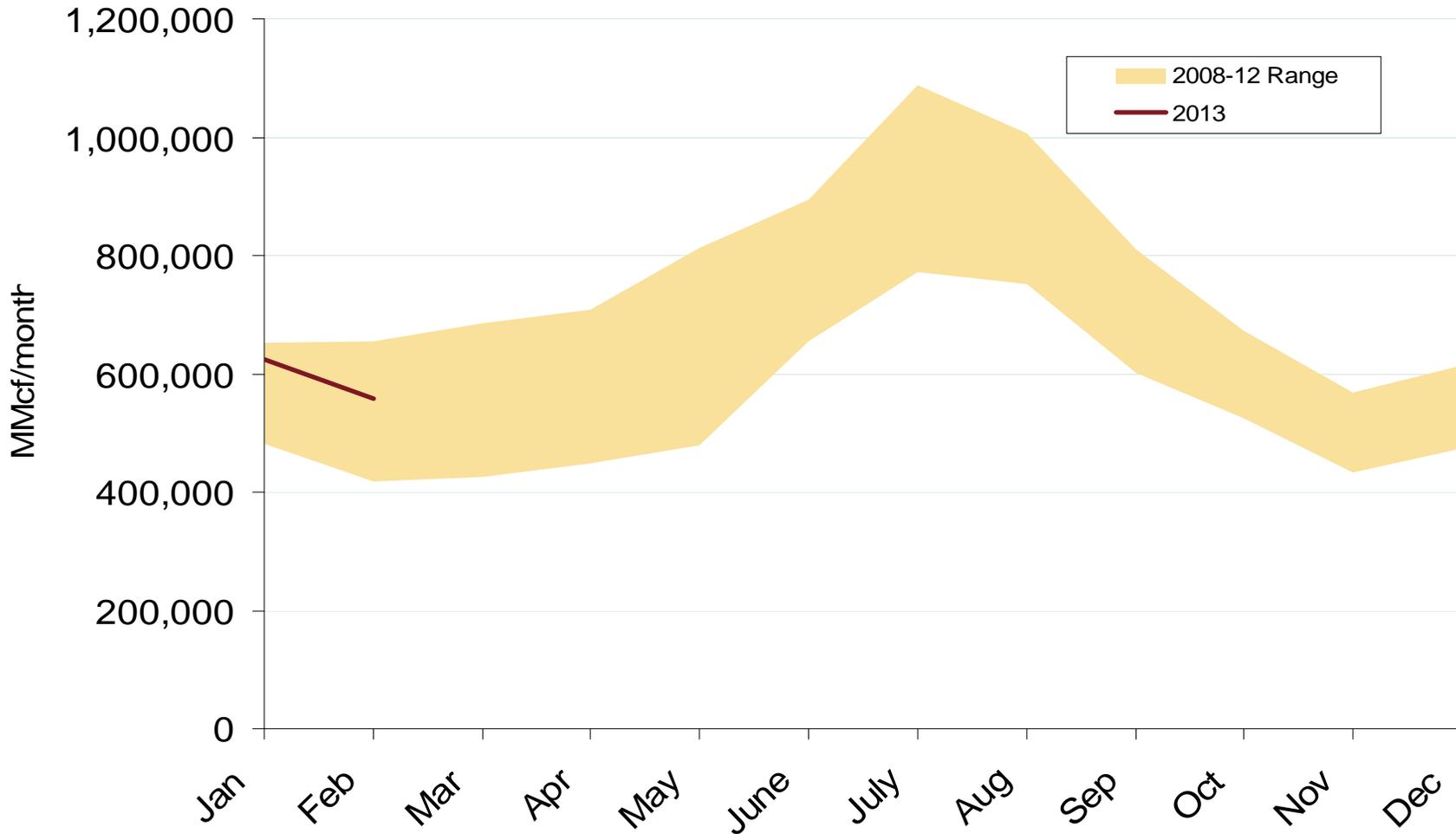




Source: Derived from Bentek Energy Data

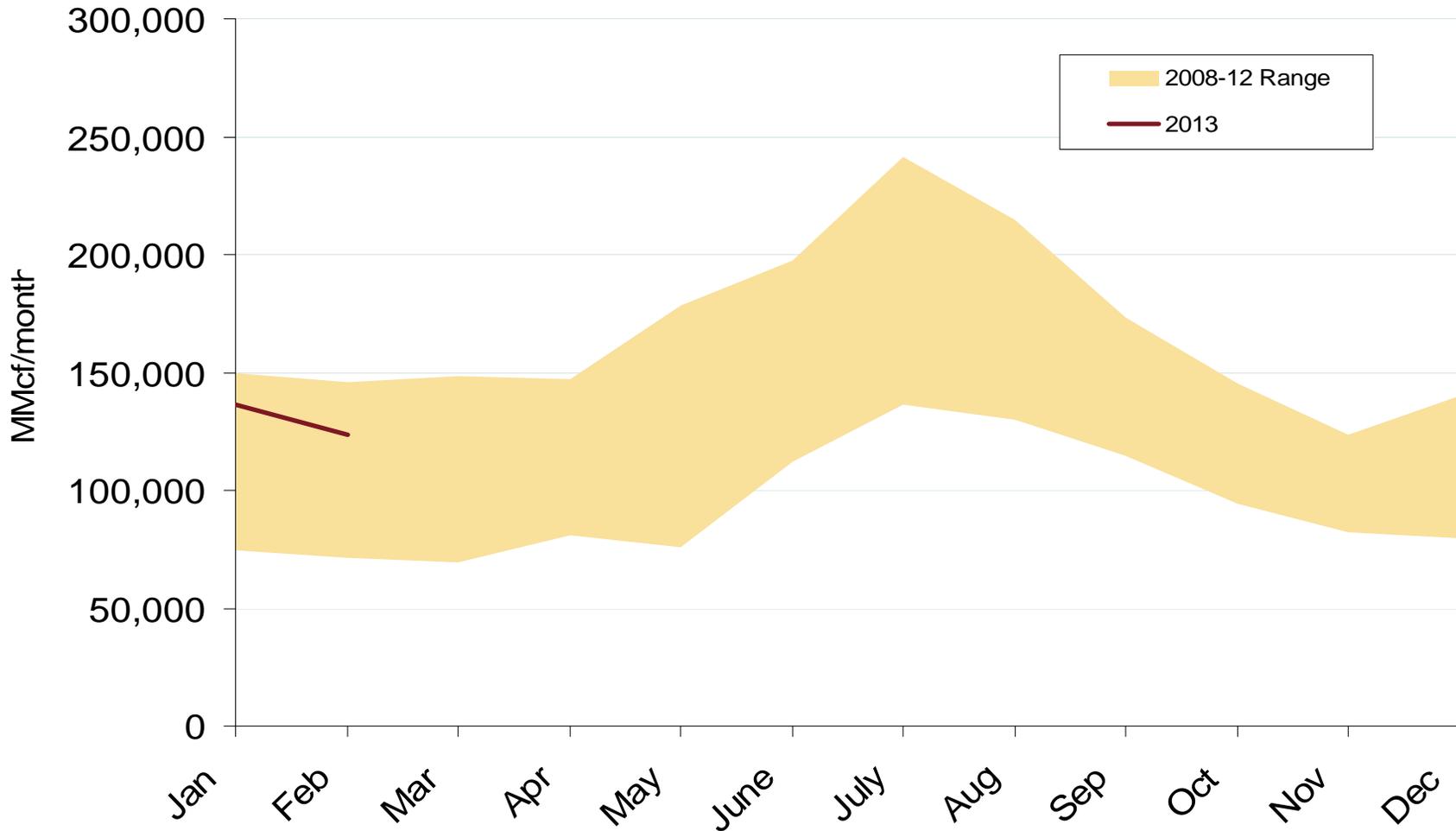
Federal Energy Regulatory Commission • Market Oversight • [www.ferc.gov/oversight](http://www.ferc.gov/oversight)

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



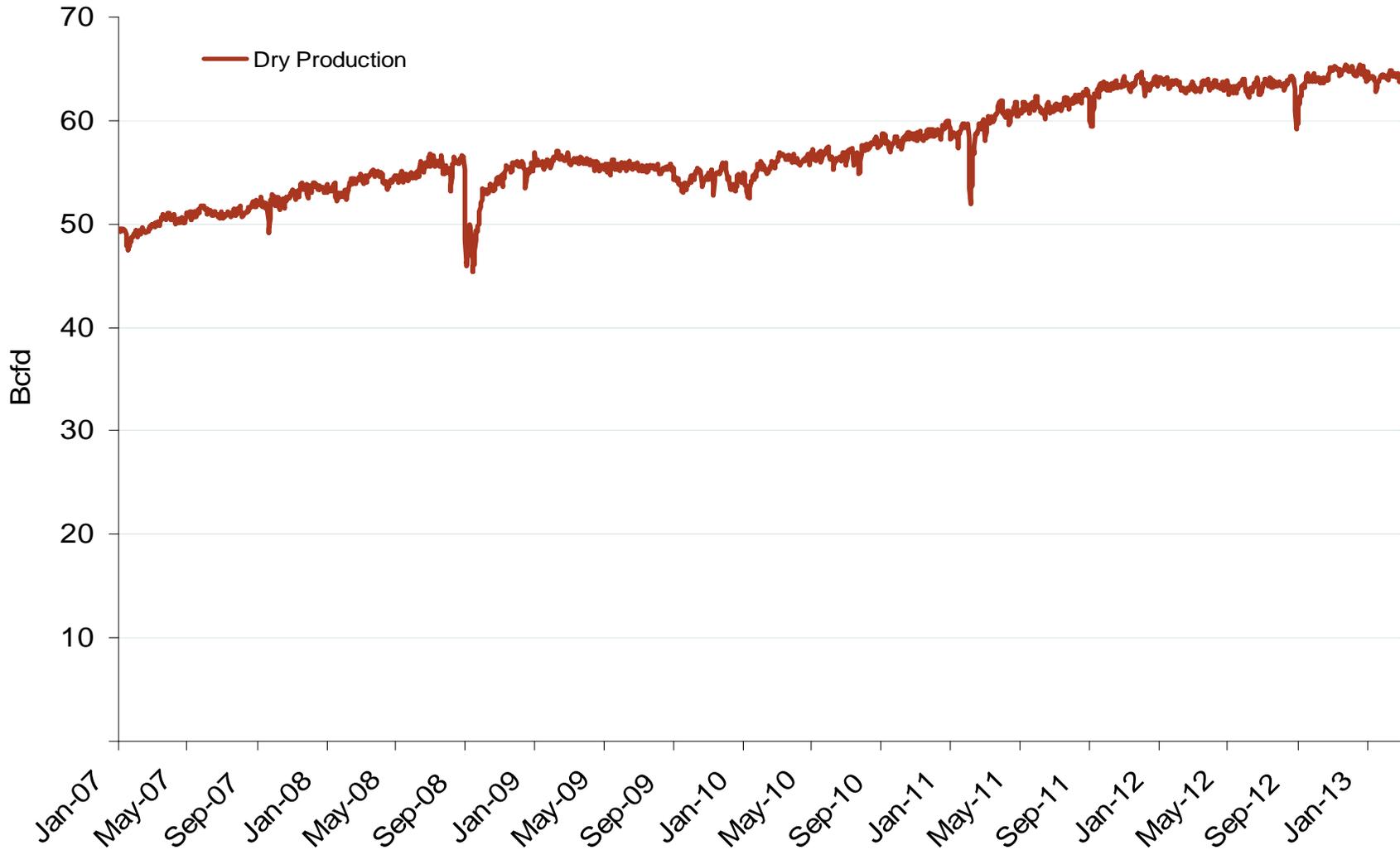
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## Northeast Natural Gas Consumption for Power Generation



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



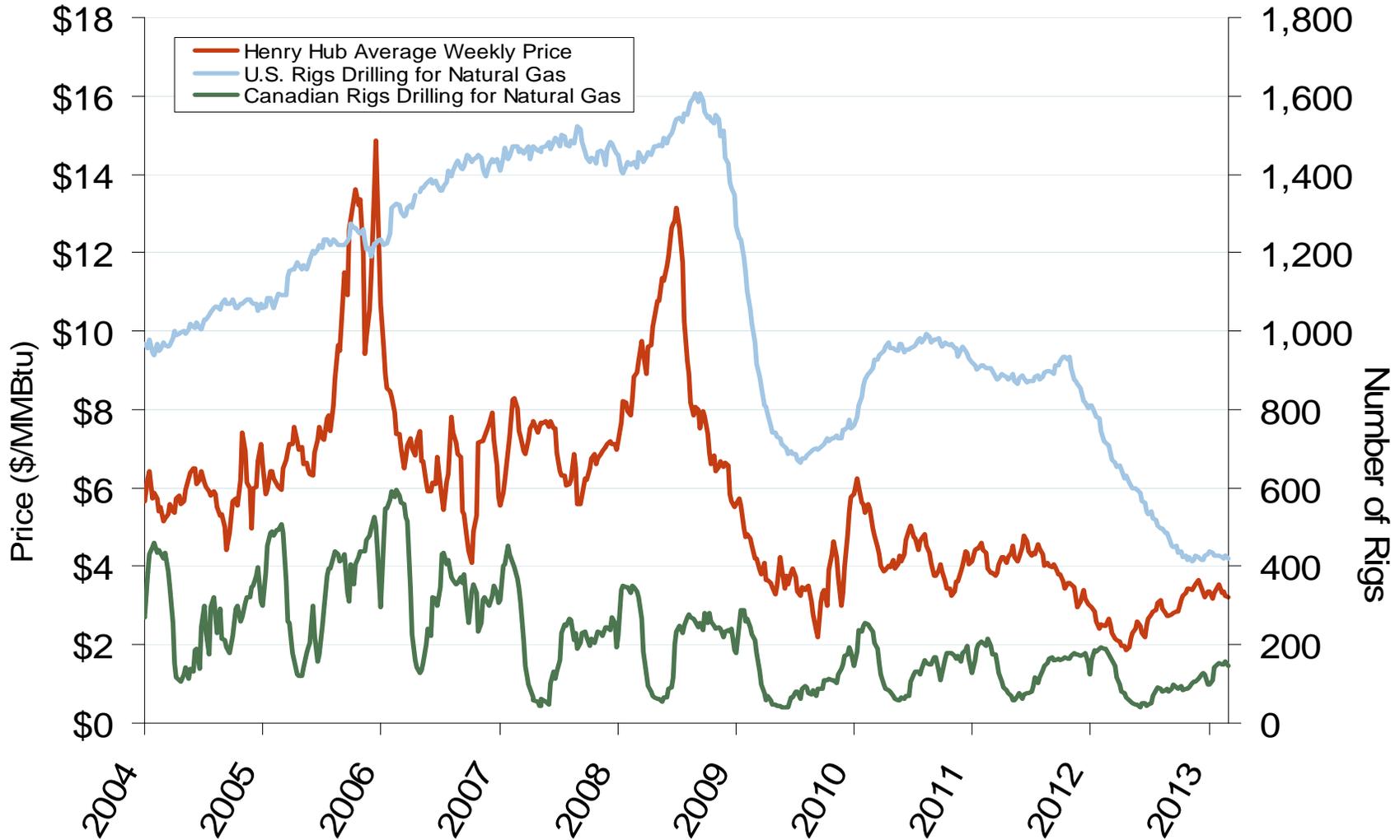
Note: Prior to July 2010, chart was derived from a combination of *EIA* and *Bentek Energy* data

Source: Derived from *Bentek Energy* data

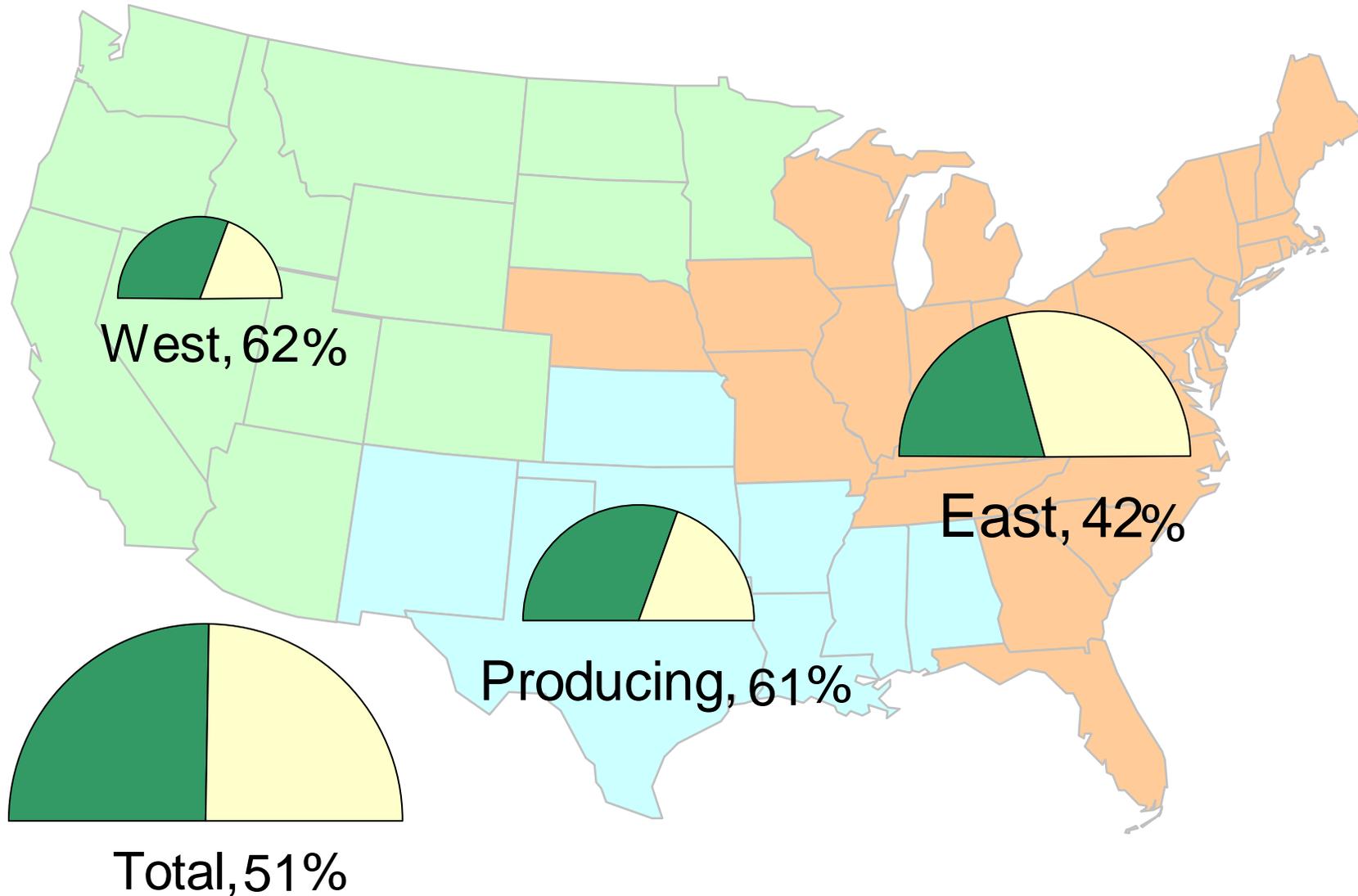
March 2013 Northeast Snapshot Report

Updated: March 07, 2013

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

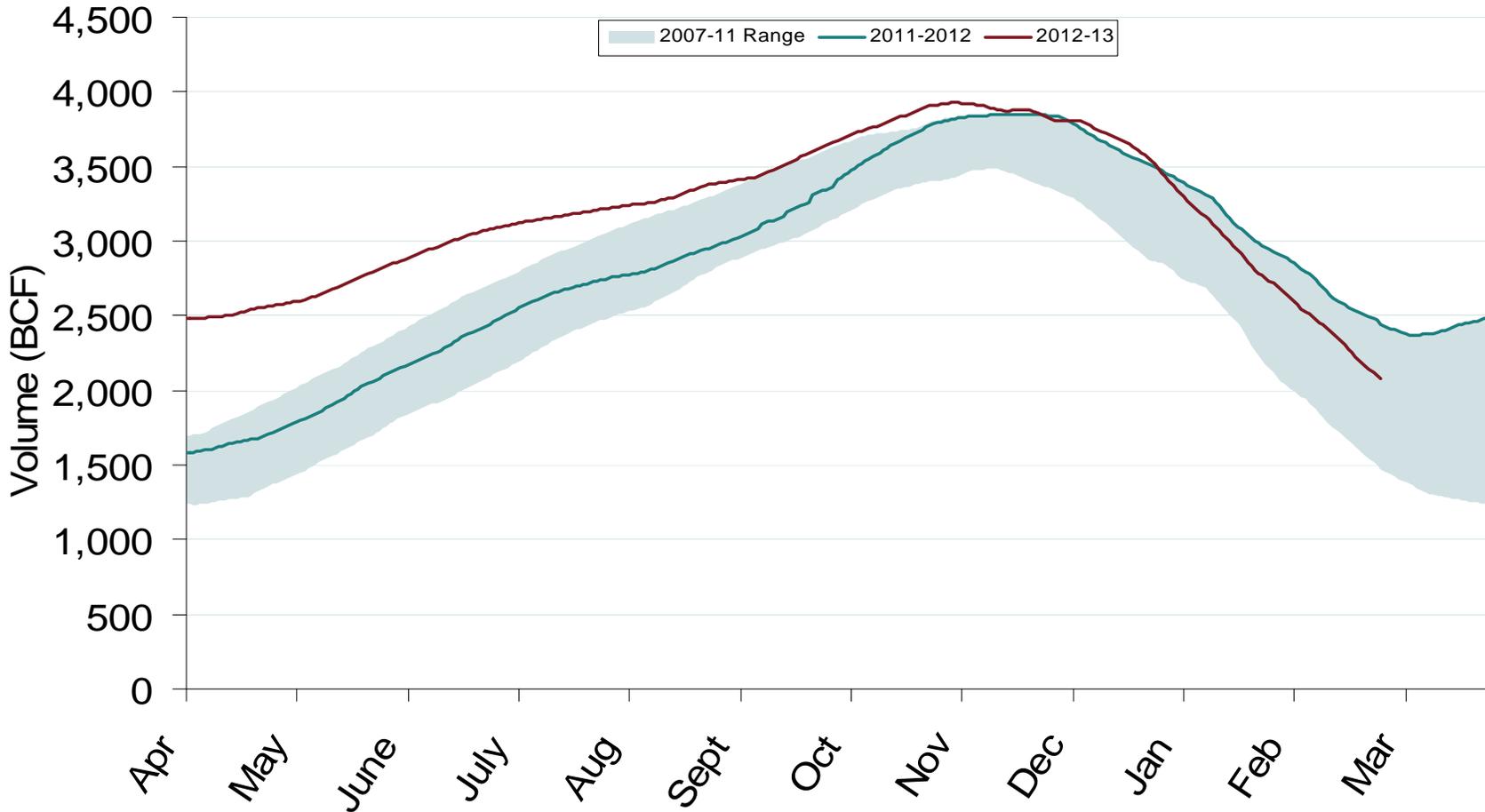


## Natural Gas Storage Inventories – March 1, 2013

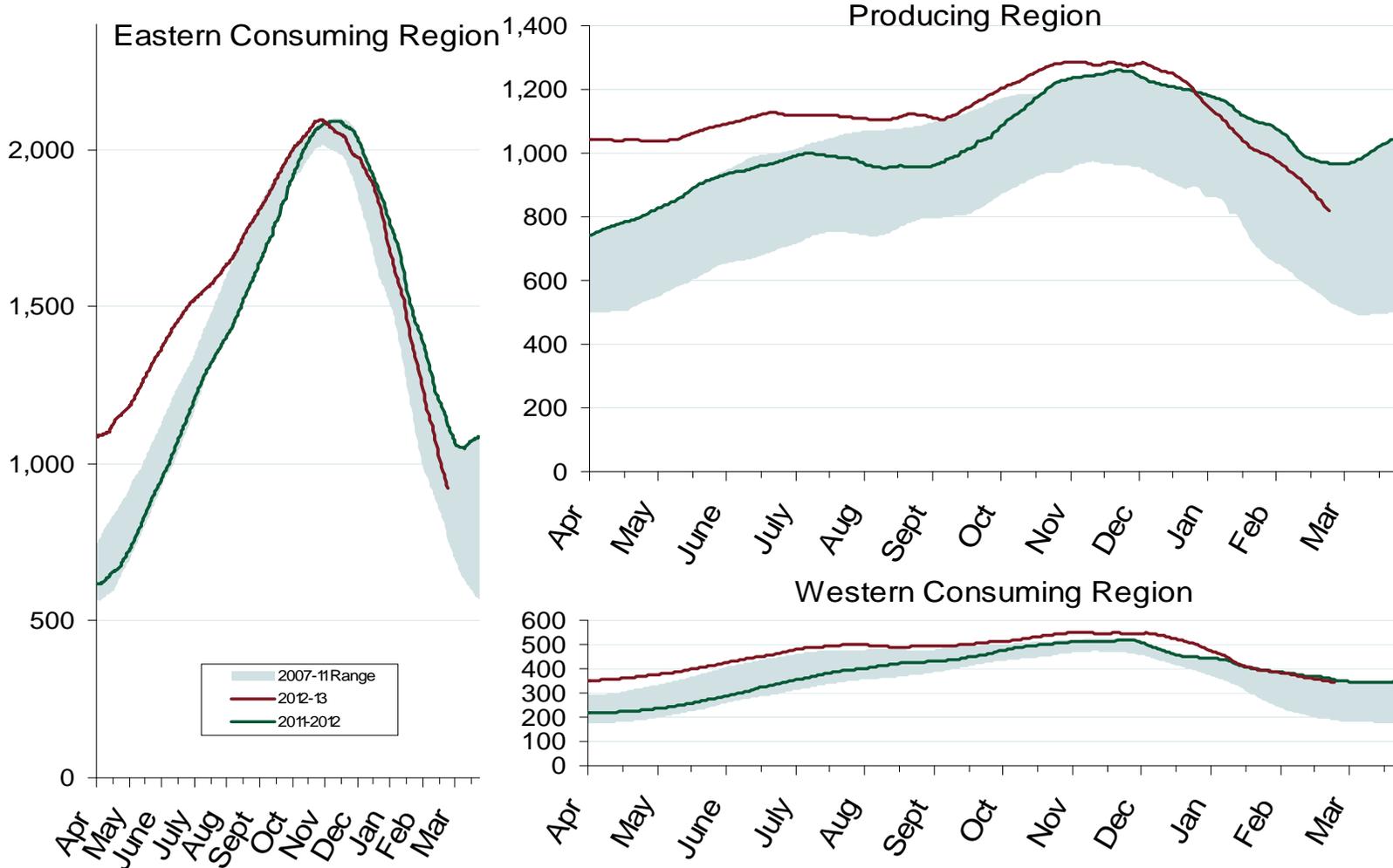


Source: Derived from EIA Storage and Estimated Working Gas Capacity data

## Total U.S. Working Gas in Storage

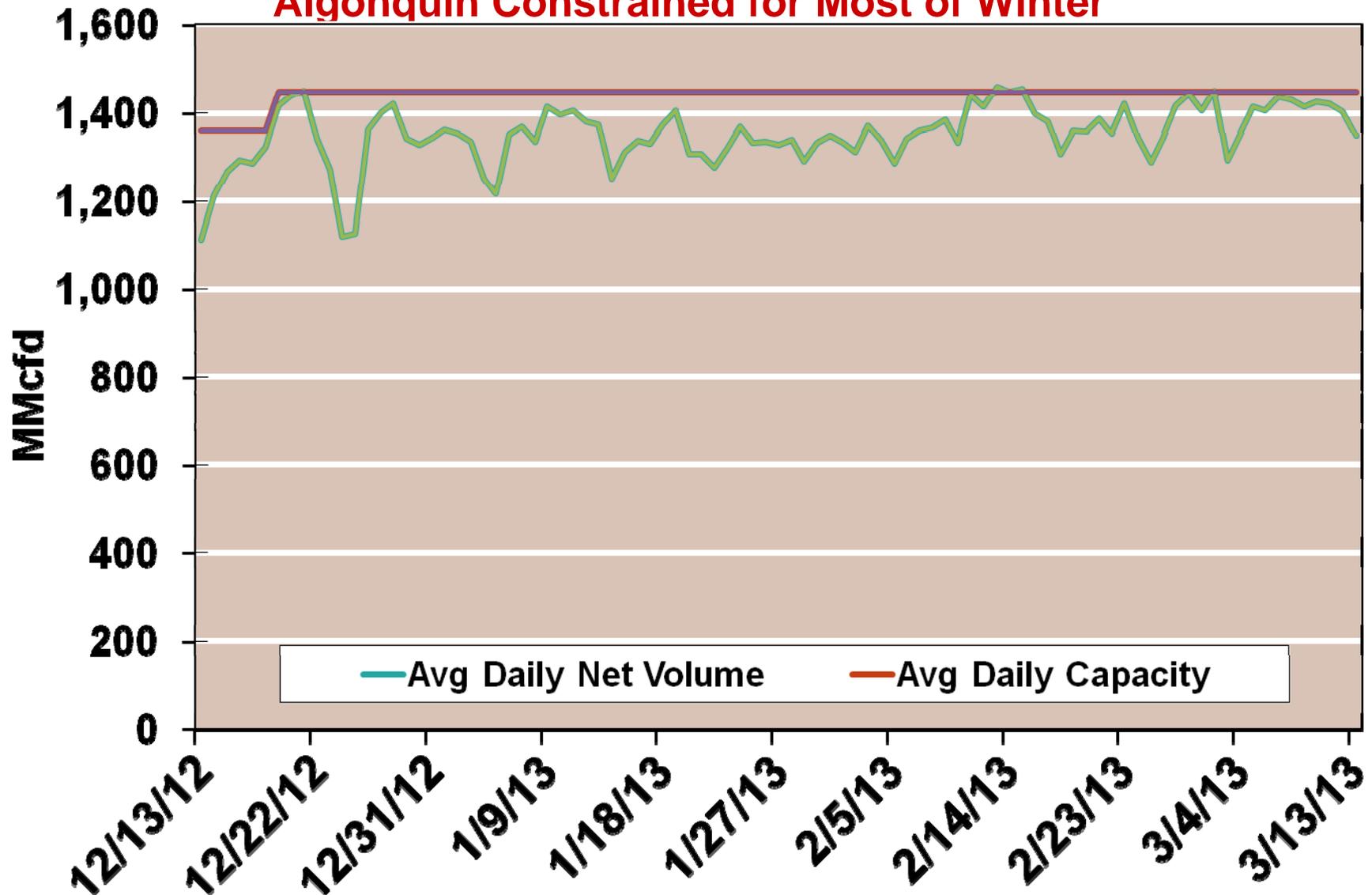


## Regional Totals of Working Gas in Storage



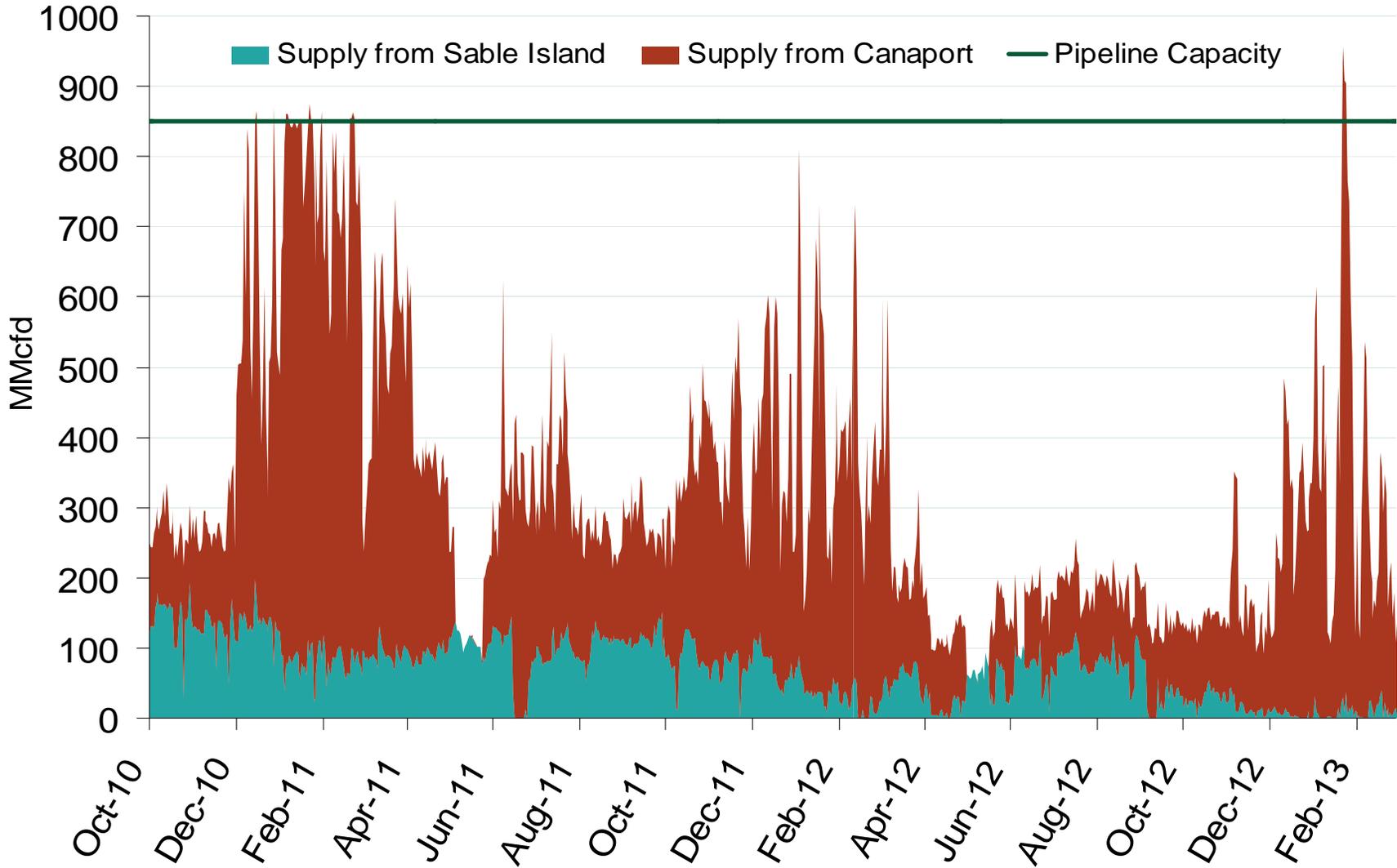
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### Algonquin Constrained for Most of Winter



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## Maritimes Pipeline Flows

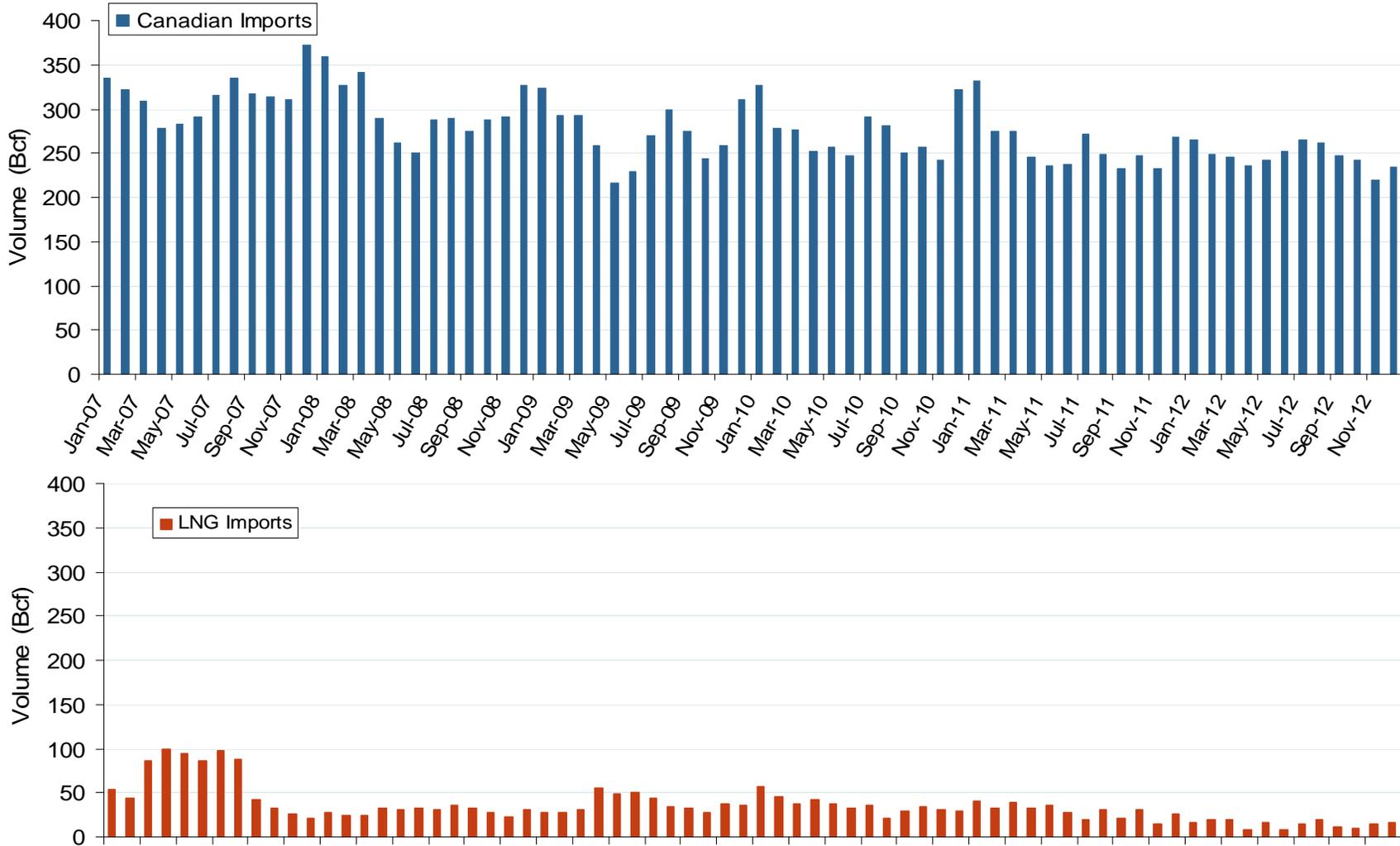


Source: Derived from *Bentek Energy* data  
March 2013 Northeast Snapshot Report

Updated: March 11, 2013

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

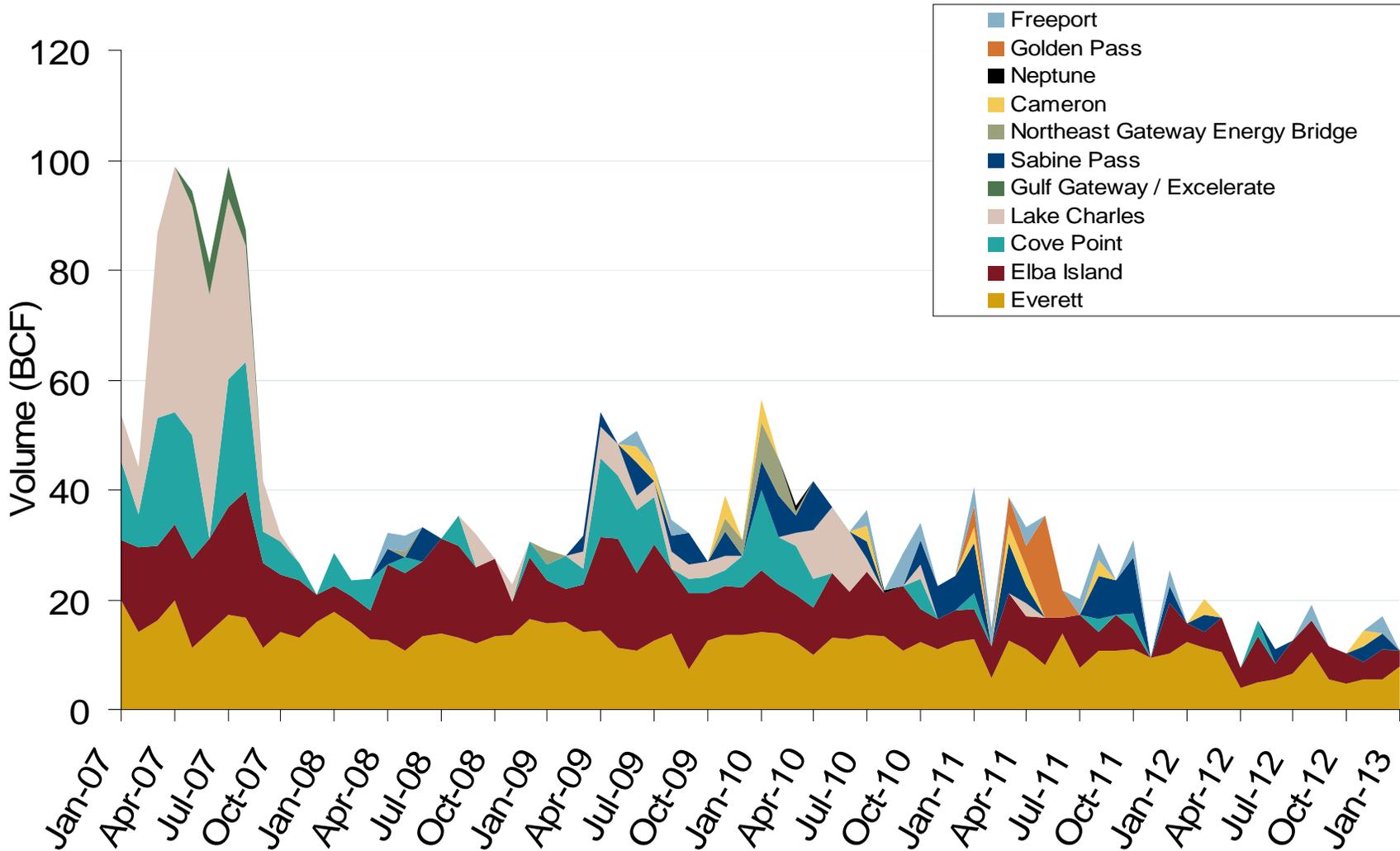


## World LNG Estimated April 2013 Landed Prices



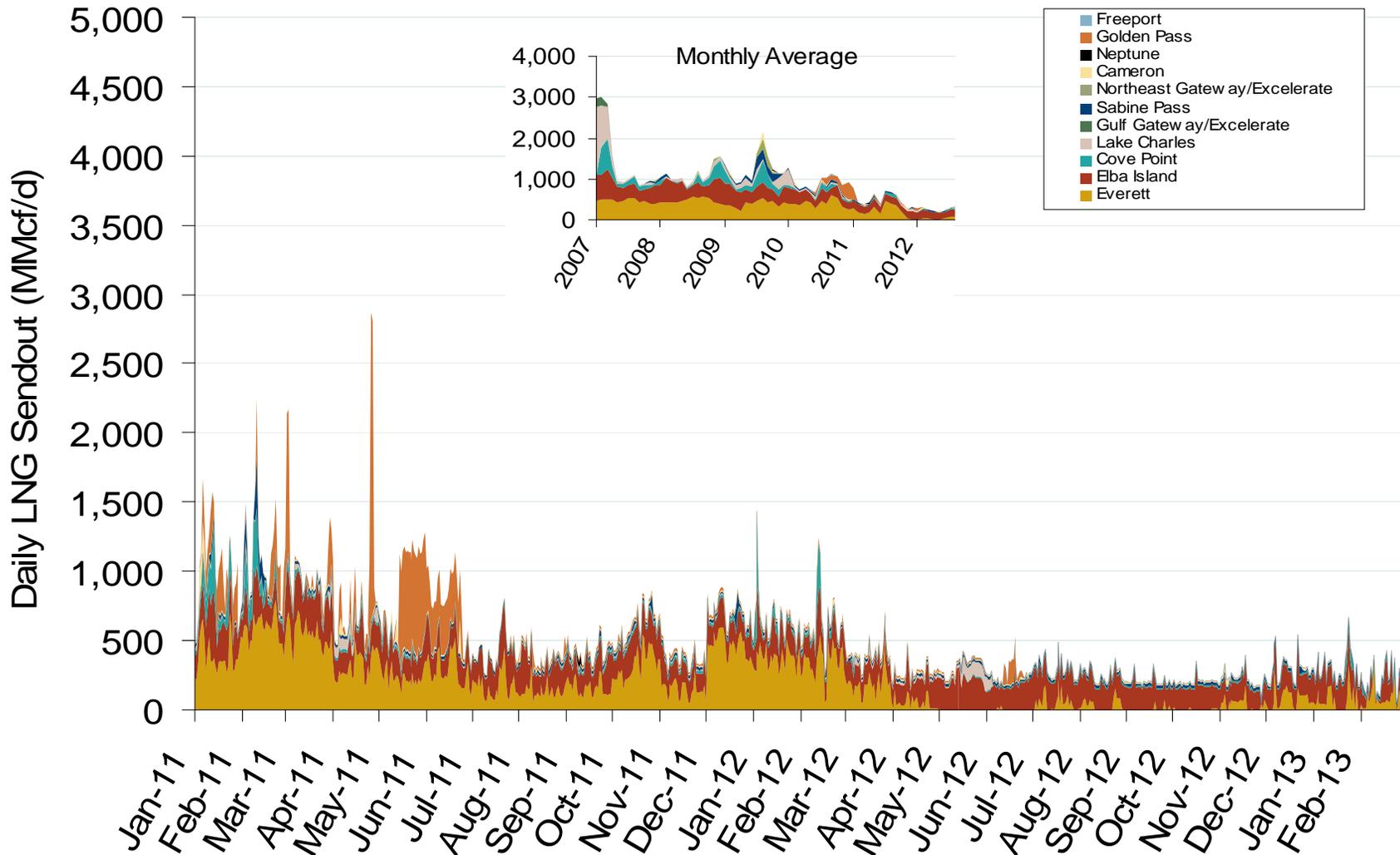
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## Monthly Gas Imports at Existing U.S. LNG Facilities



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



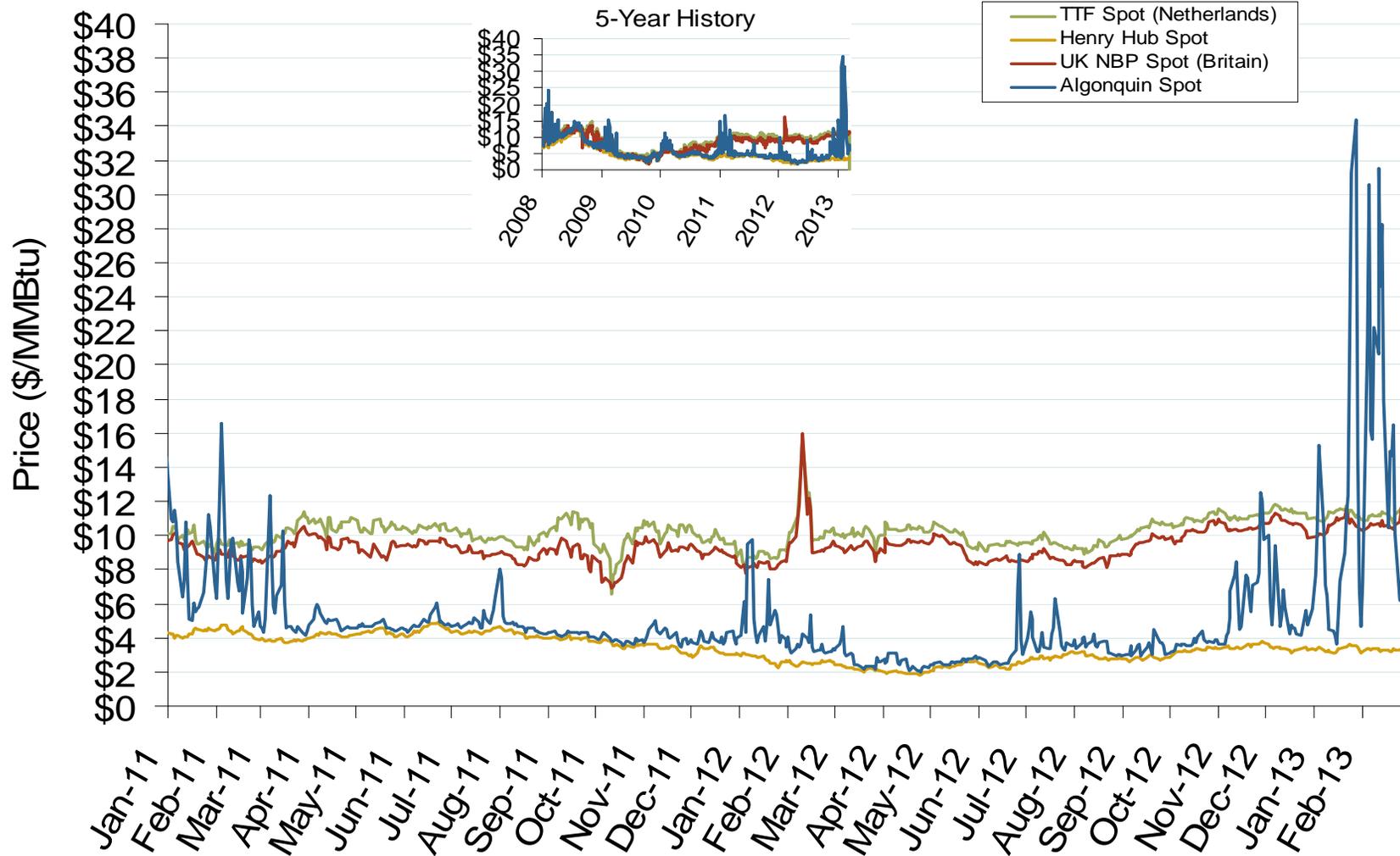
Notes: Everett data includes flows onto the AGT and TGP interstate lines, plus estimates of flows to the Mystic 7 power plant, Keyspan Boston Gas, and LNG trucked out of the terminal. Excludes flows to the Freeport LNG which flows via intrastate pipelines and flows to the Mystic 8 and 9 power plants.

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

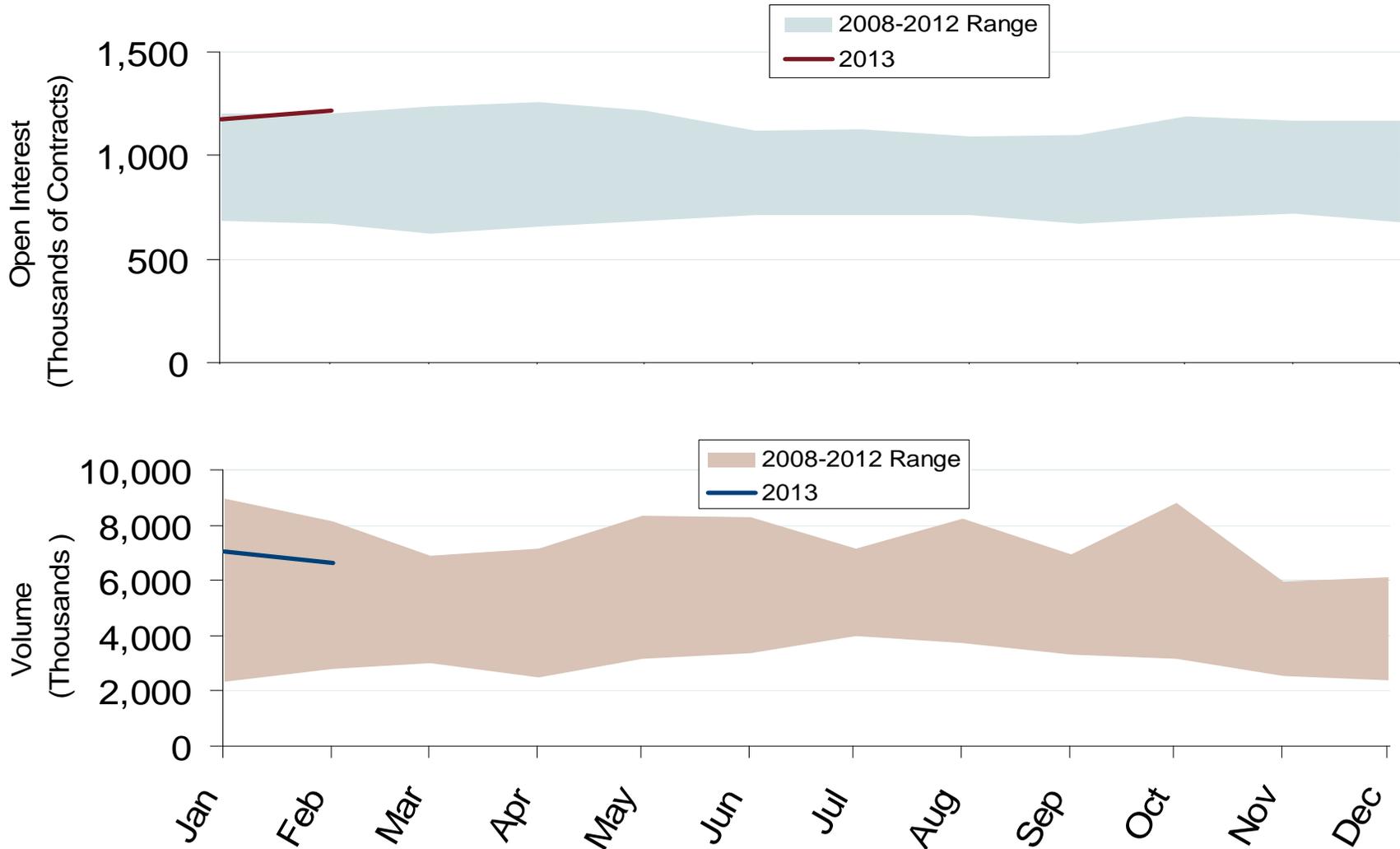
Updated: March 07, 2013

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## Atlantic Basin European and US Spot Natural Gas Prices

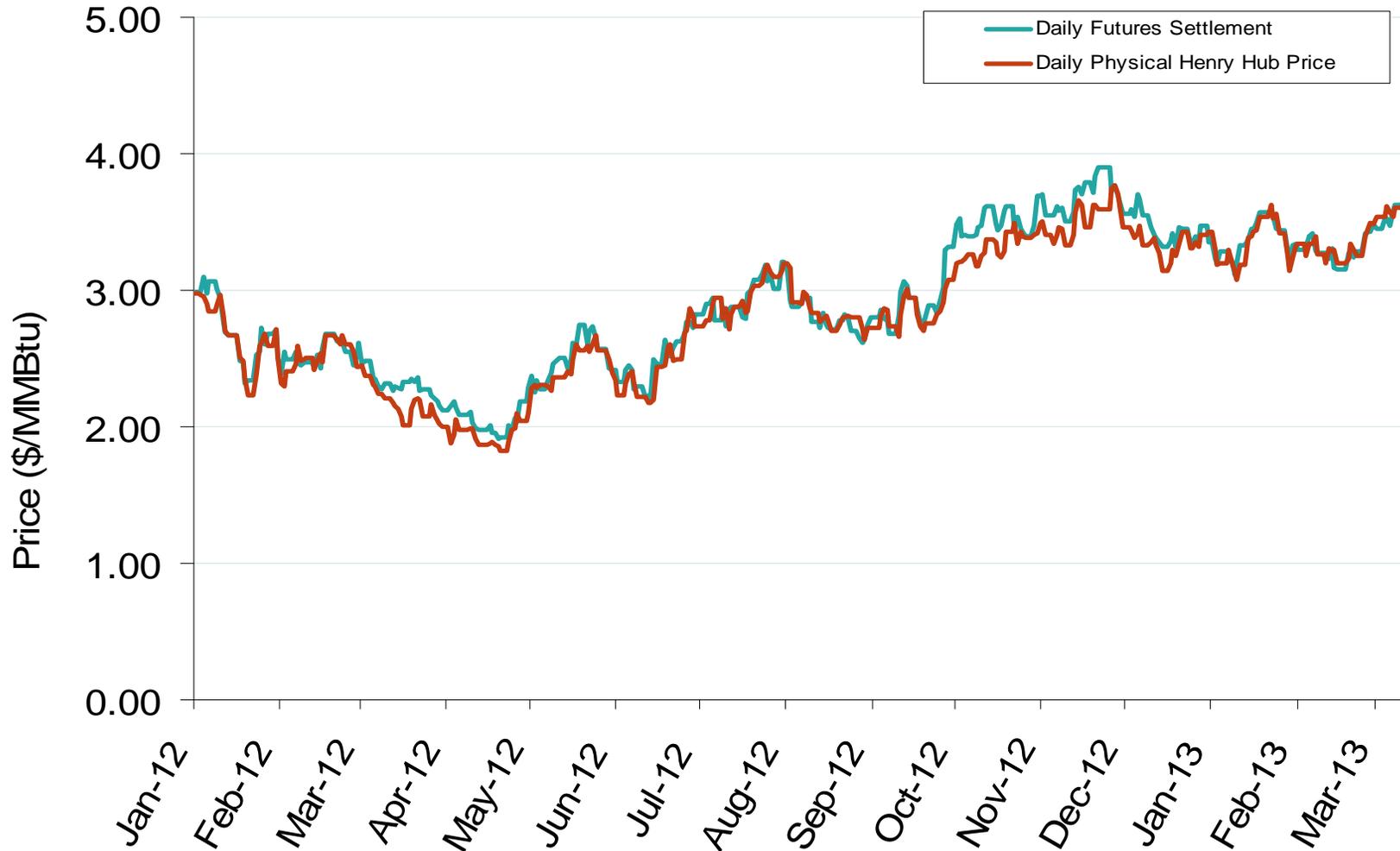


## Nymex NG Futures Month-End Open Interest and Monthly Volume



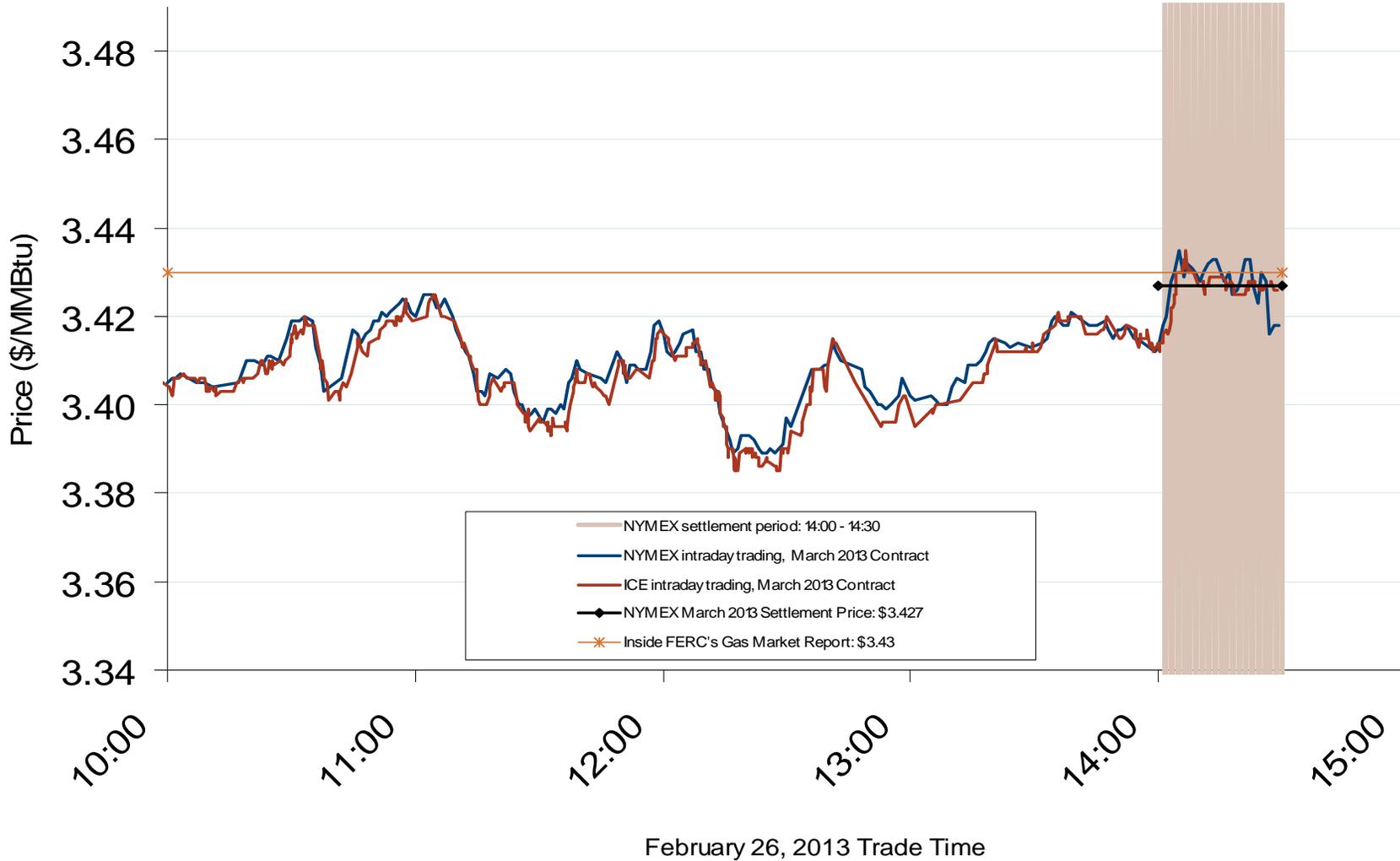
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## Daily Physical Index Price & Daily Futures Settlement Price



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## Nymex and ICE Contract Final Settlement - March 2013



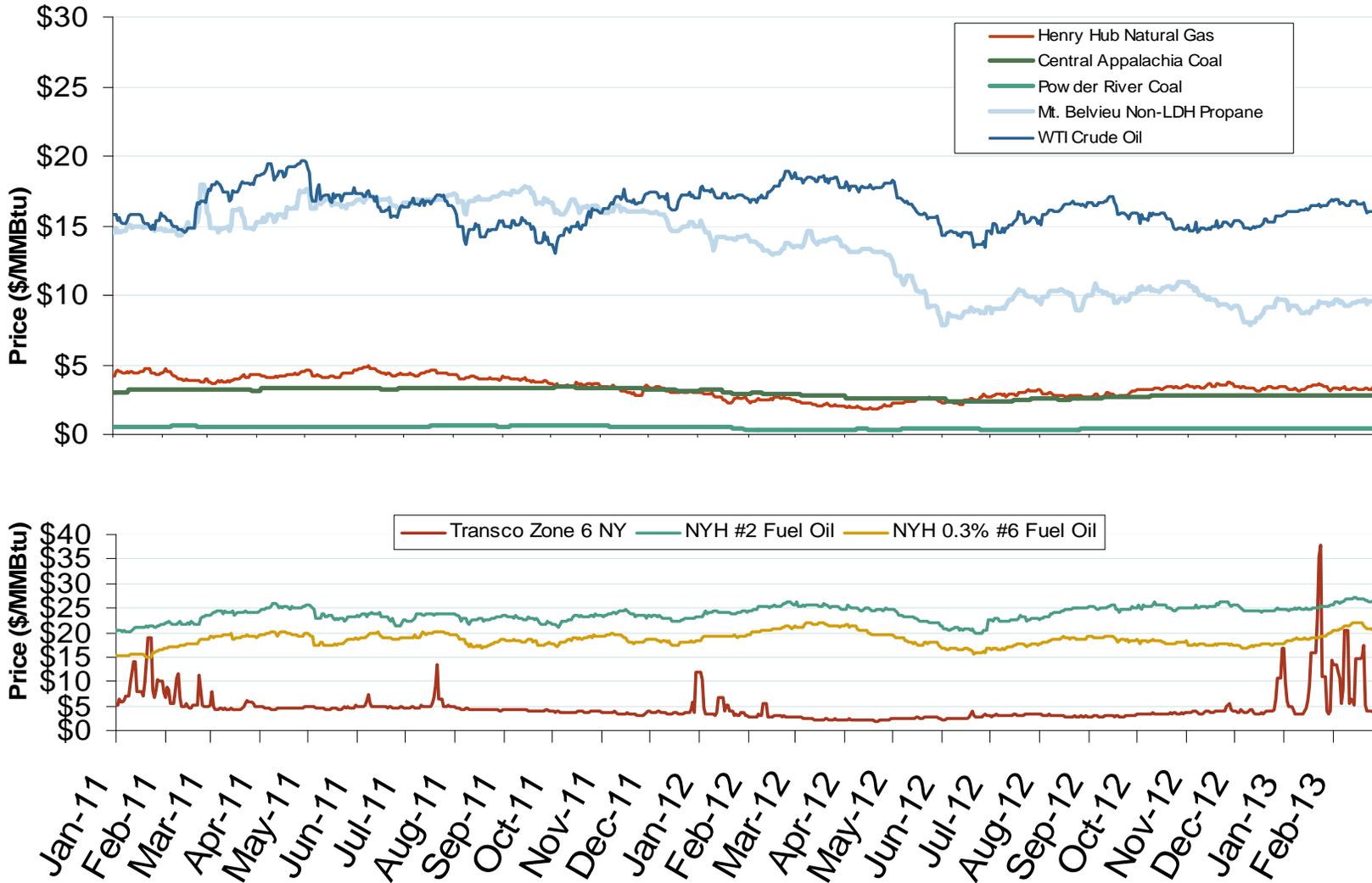
Notes: The final settlement day for this Nymex contract is three business days before the start of the contract term (which is the 1st day of the month)

Source: Derived from *Nymex* and *ICE* data  
March 2013 Northeast Snapshot Report

Updated: March 13, 2013

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



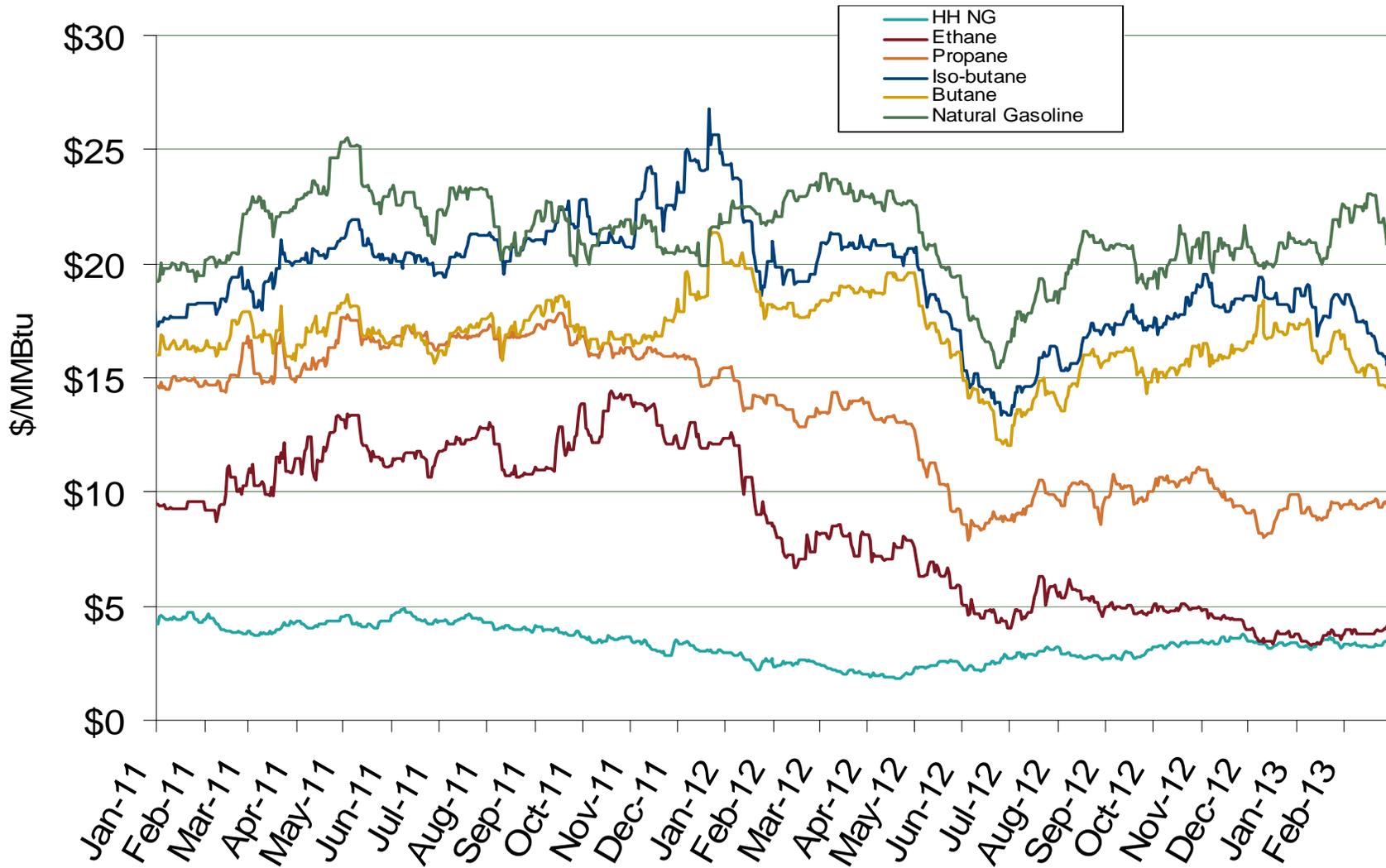
Notes: Coal prices are quoted in \$/ton. Conversion factors to \$/MMBtu are based on contract specifications of 12,000 btus/pound for Central Appalachian coal and 8800 btus/pound for Powder River Basin coal

Source: Derived from ICE and Bloomberg data

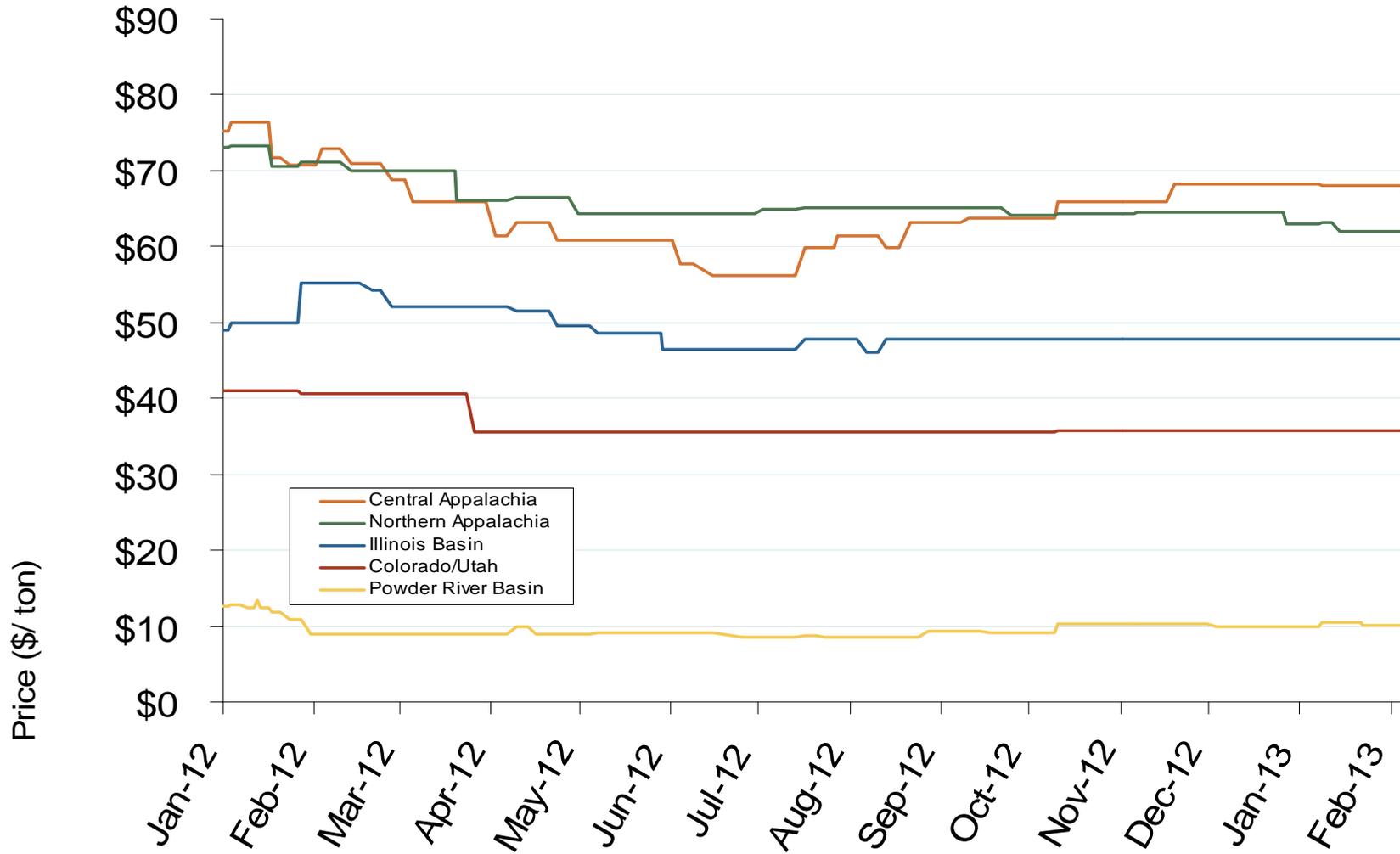
Updated: March 12, 2013

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



## Central Appalachian and Powder River Basin Coal Prices



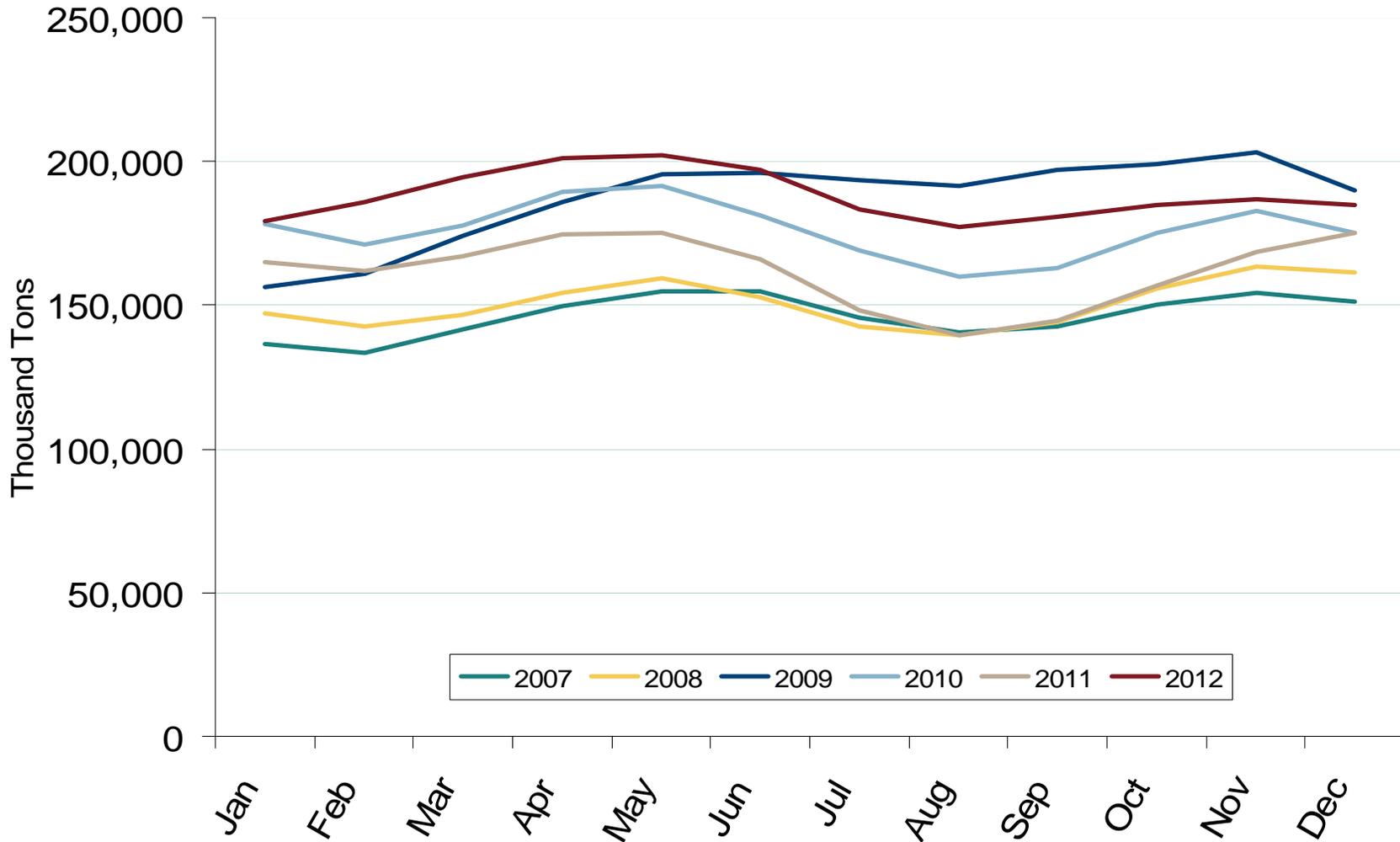
Notes: The Central Appalachian (CAPP) coal is priced at Big Sandy. All others are mine mouth prices. Prices do not include transportation costs to a plant, as those can vary widely by contract specifications. Prices exclude incremental cost of emissions allowances

Source: Derived from Bloomberg data

Updated: March 12, 2013

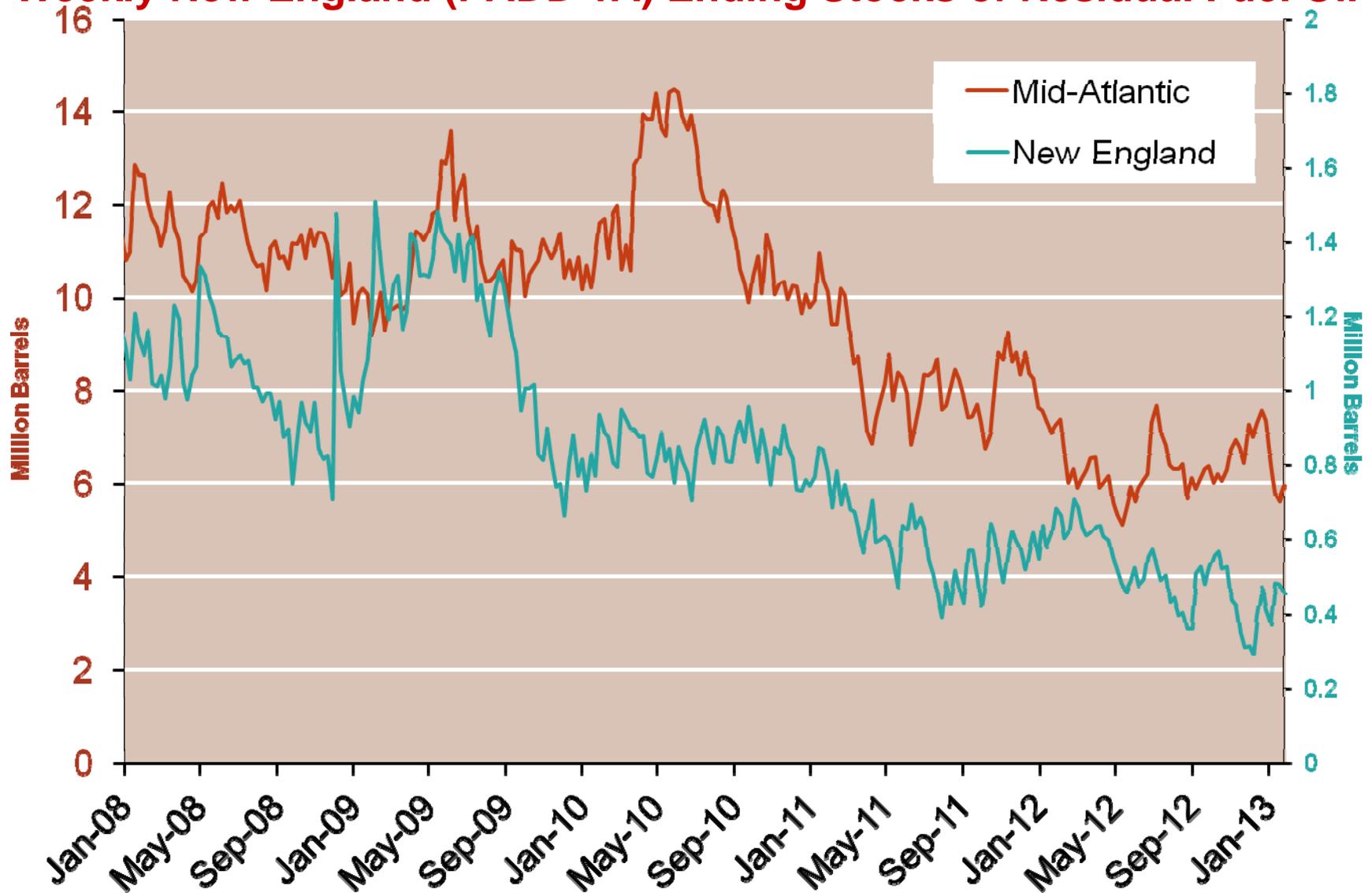
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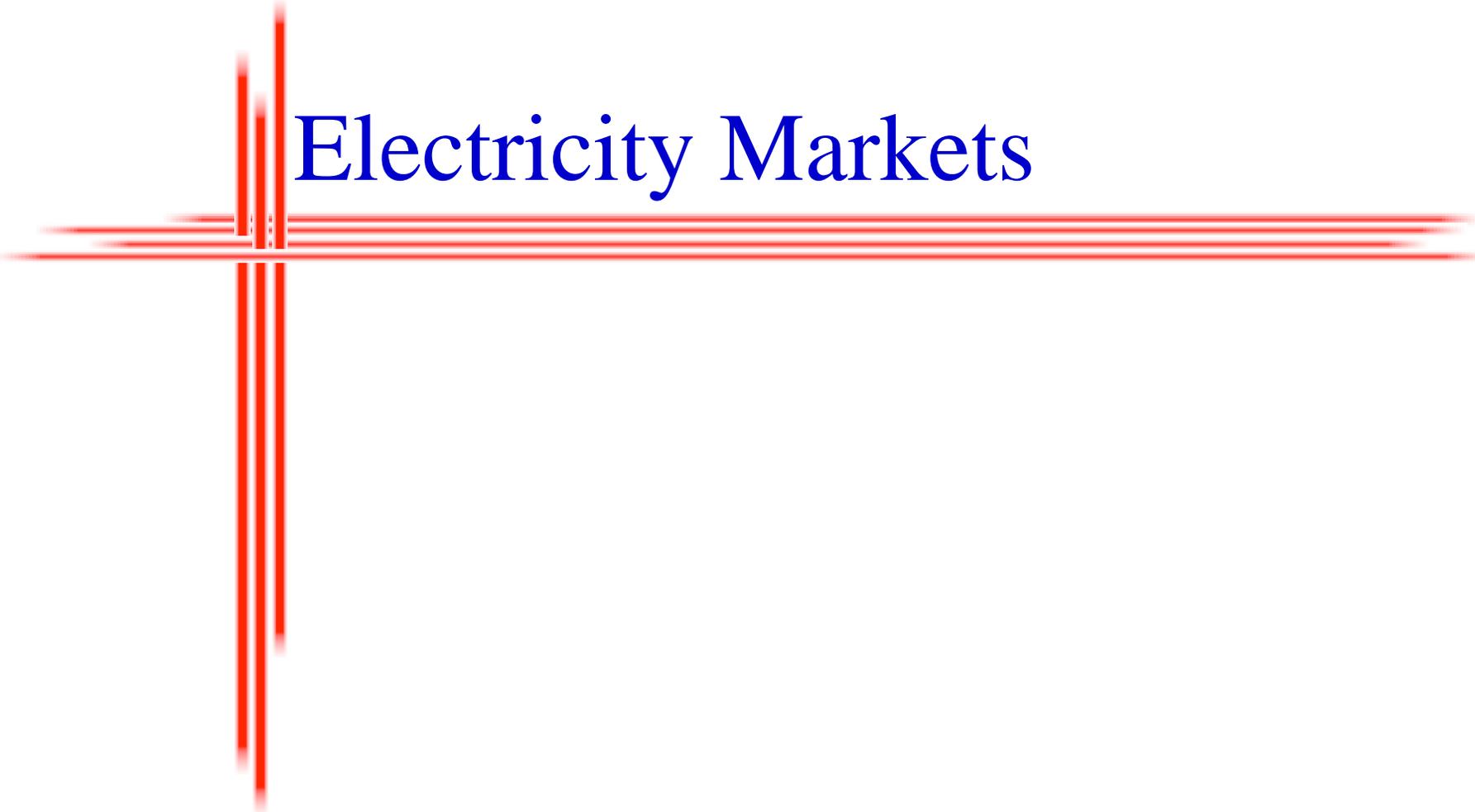
## U.S. Coal Stockpiles at Electric Power Generating Facilities



Source: Derived from EIA data. Excludes Industrial and Commercial Plants  
March 2013 Northeast Snapshot Report

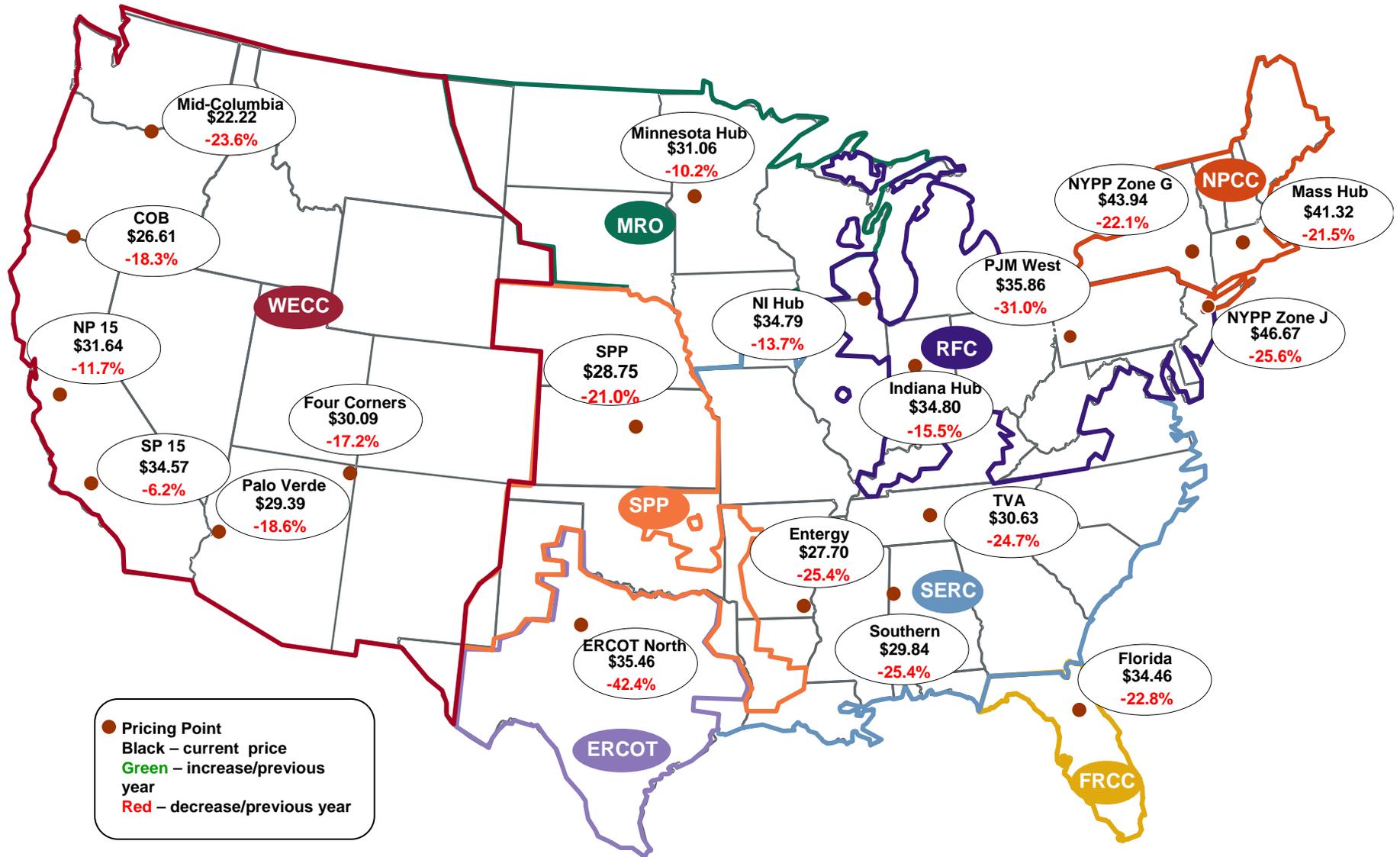
### Weekly New England (PADD 1A) Ending Stocks of Residual Fuel Oil





# Electricity Markets

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



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

## Regional Spot Prices: 2010-2012

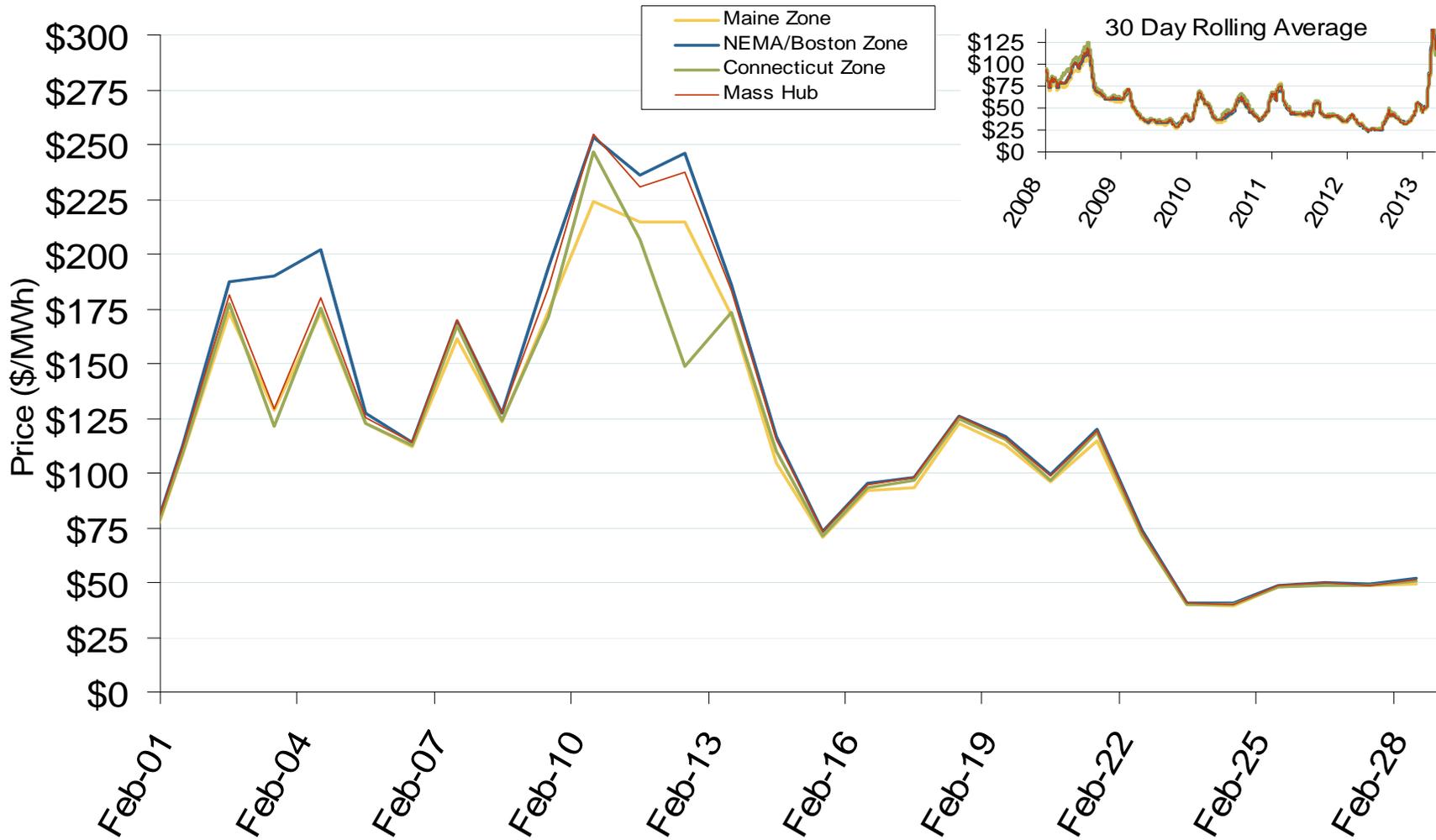
	On-peak Spot Prices (\$/MWh)					Off-peak Spot Prices (\$/MWh)				
	2010	2011	2012	% Change 10-11	% Change 11-12	2010	2011	2012	% Change 10-11	% Change 11-12
<b>Northeast</b>										
Mass Hub	56.18	52.64	41.32	-6.3%	-21.5%	38.84	37.95	28.36	-2.3%	-25.3%
Ny Zone G	59.48	56.41	43.94	-5.2%	-22.1%	39.47	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.

March 2013 Northeast Snapshot Report

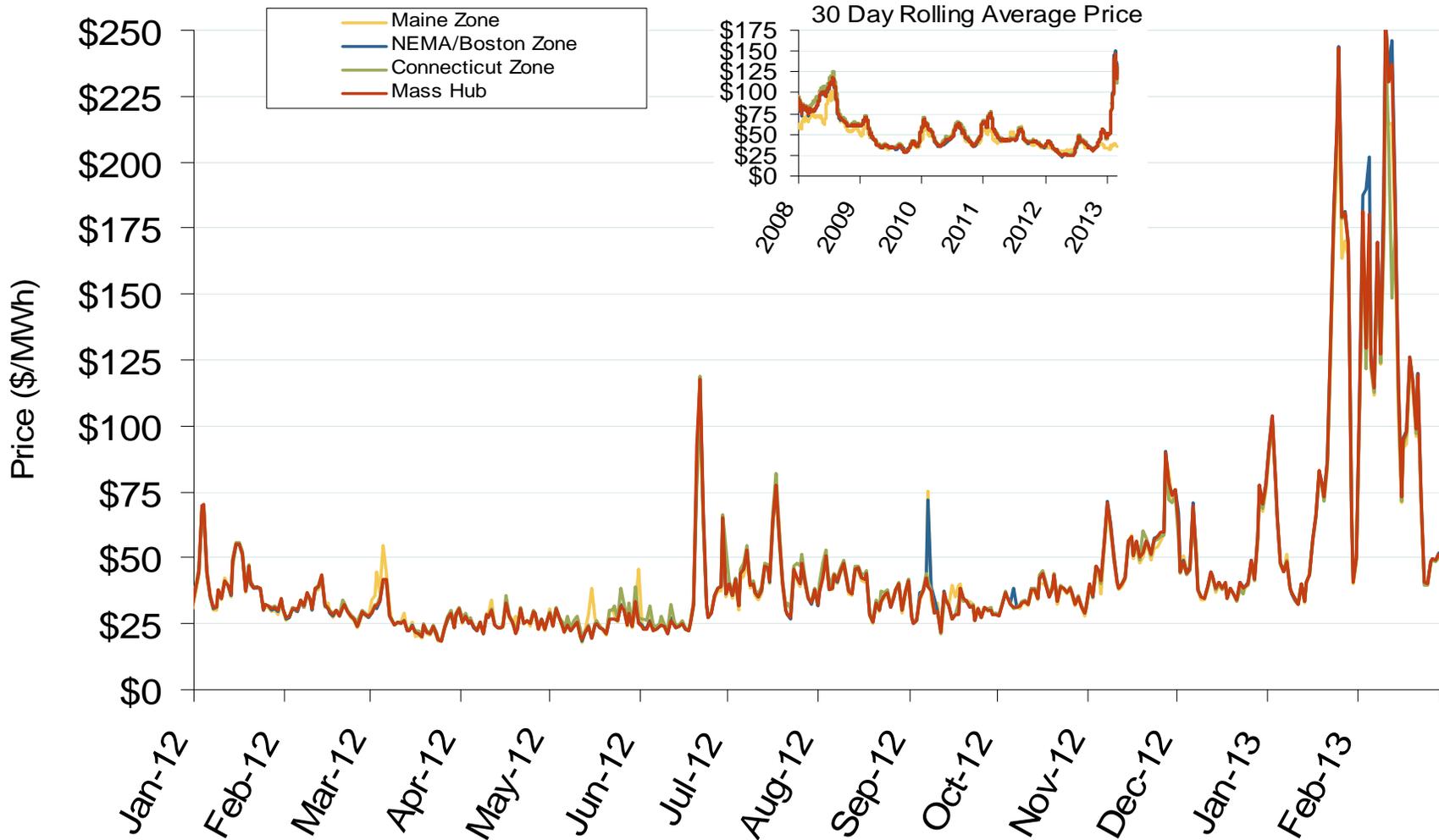
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## Daily Average of ISO-NE Day-Ahead Prices - All Hours



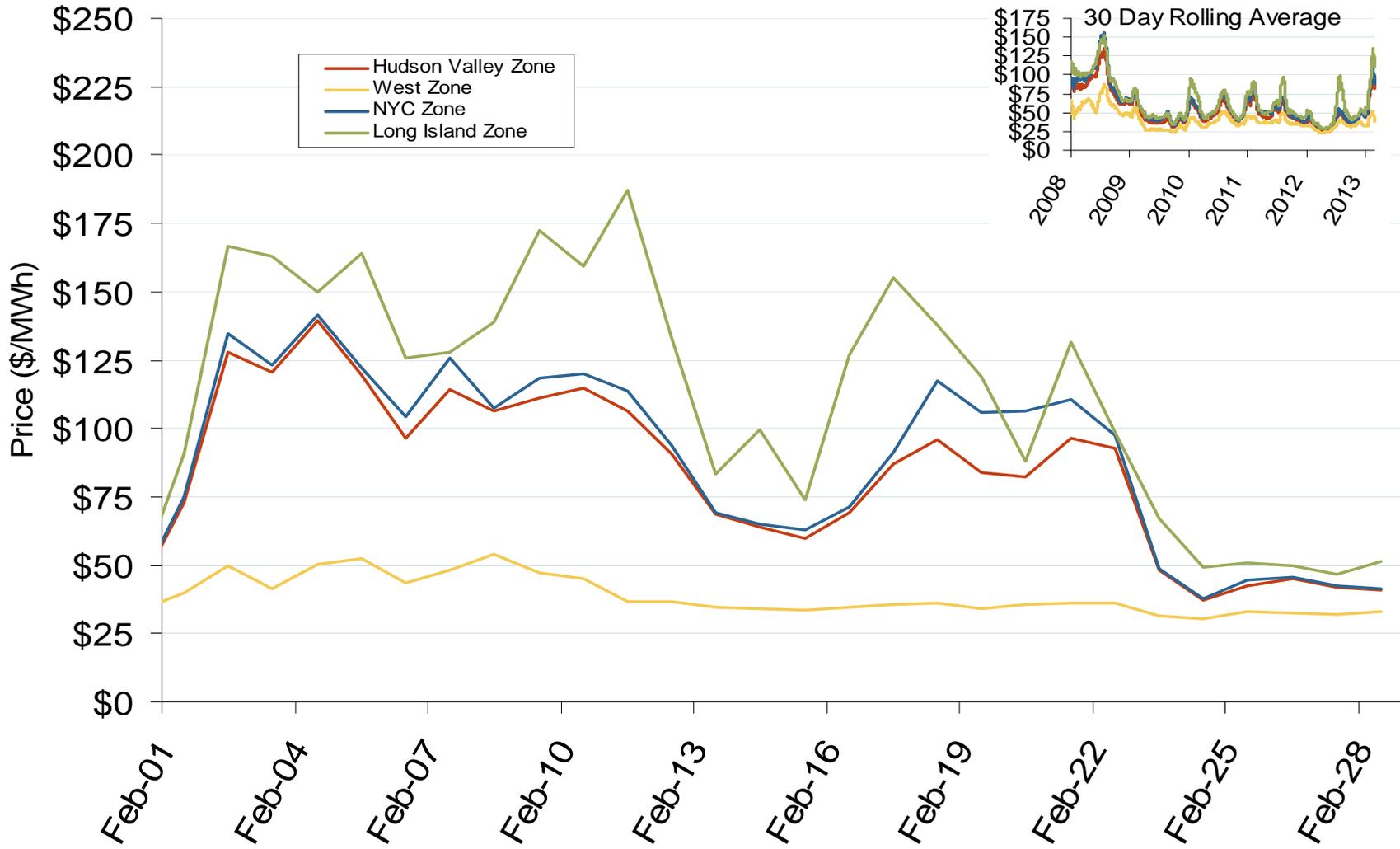
Federal Energy Regulatory Commission • Market Oversight • [www.ferc.gov/oversight](http://www.ferc.gov/oversight)

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

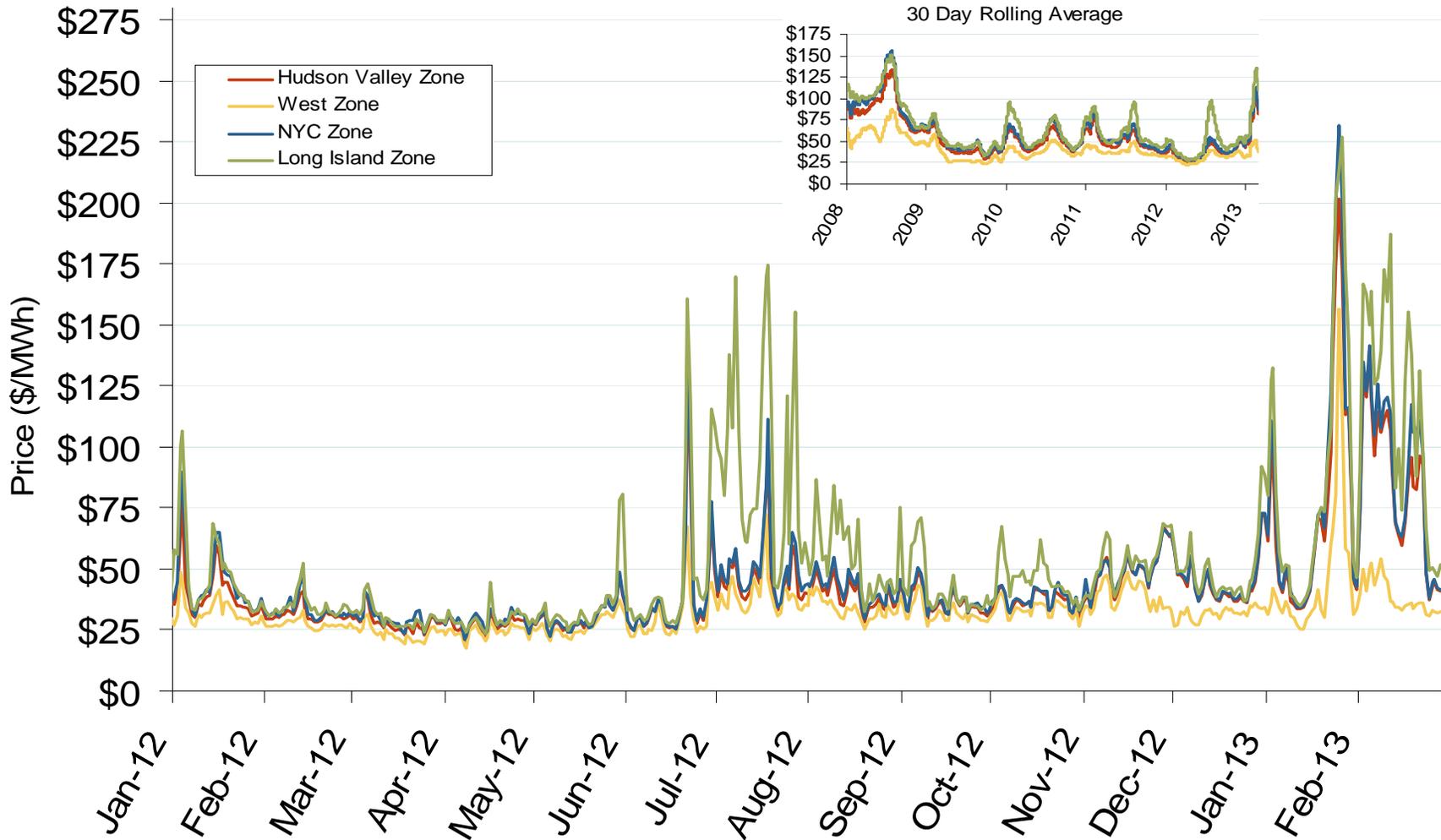


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## Daily Average of NYISO Day-Ahead Prices - All Hours



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



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

Source: Derived from Bloomberg data

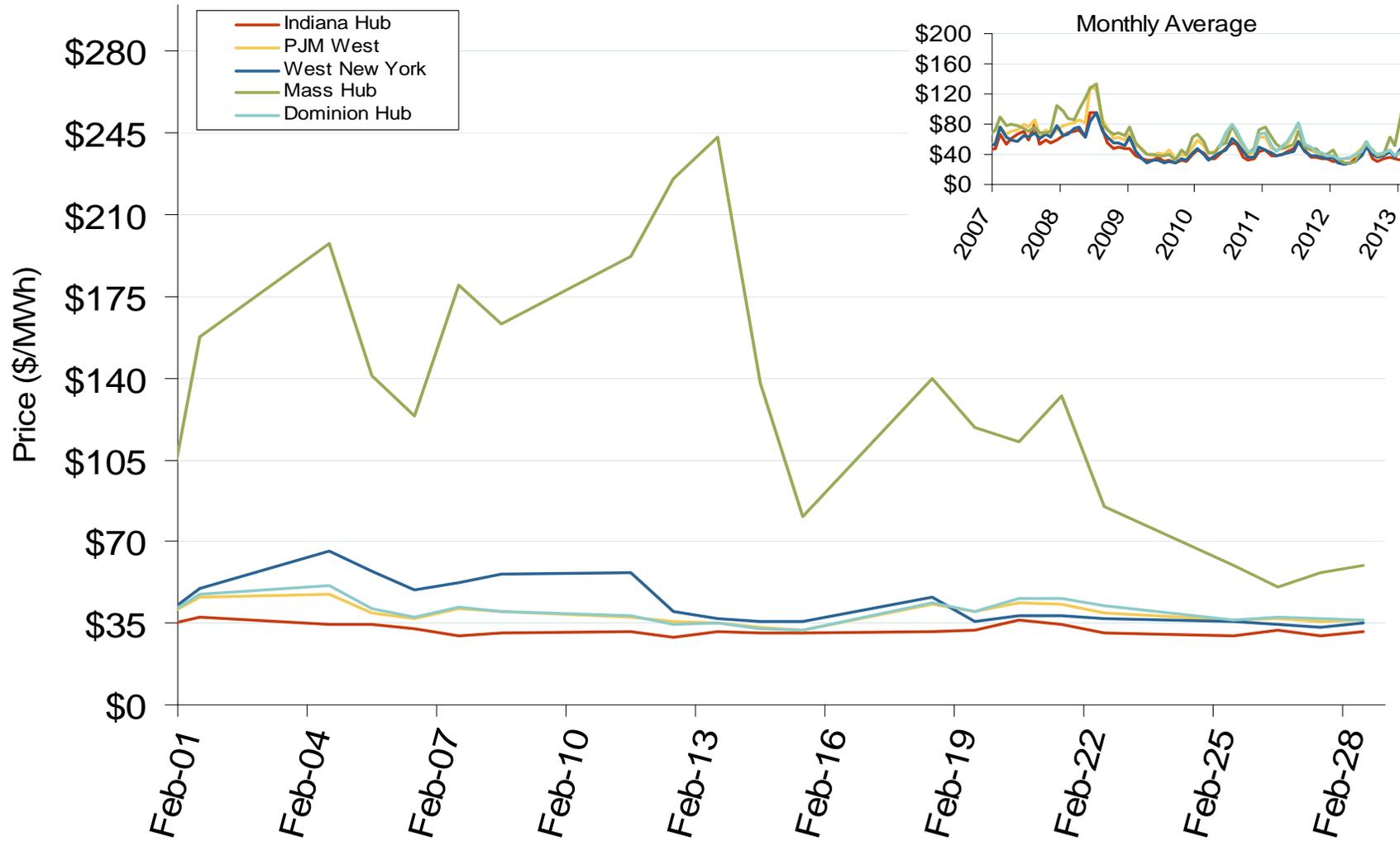
Updated: March 05, 2013

## New England Annual Average Bilateral Prices

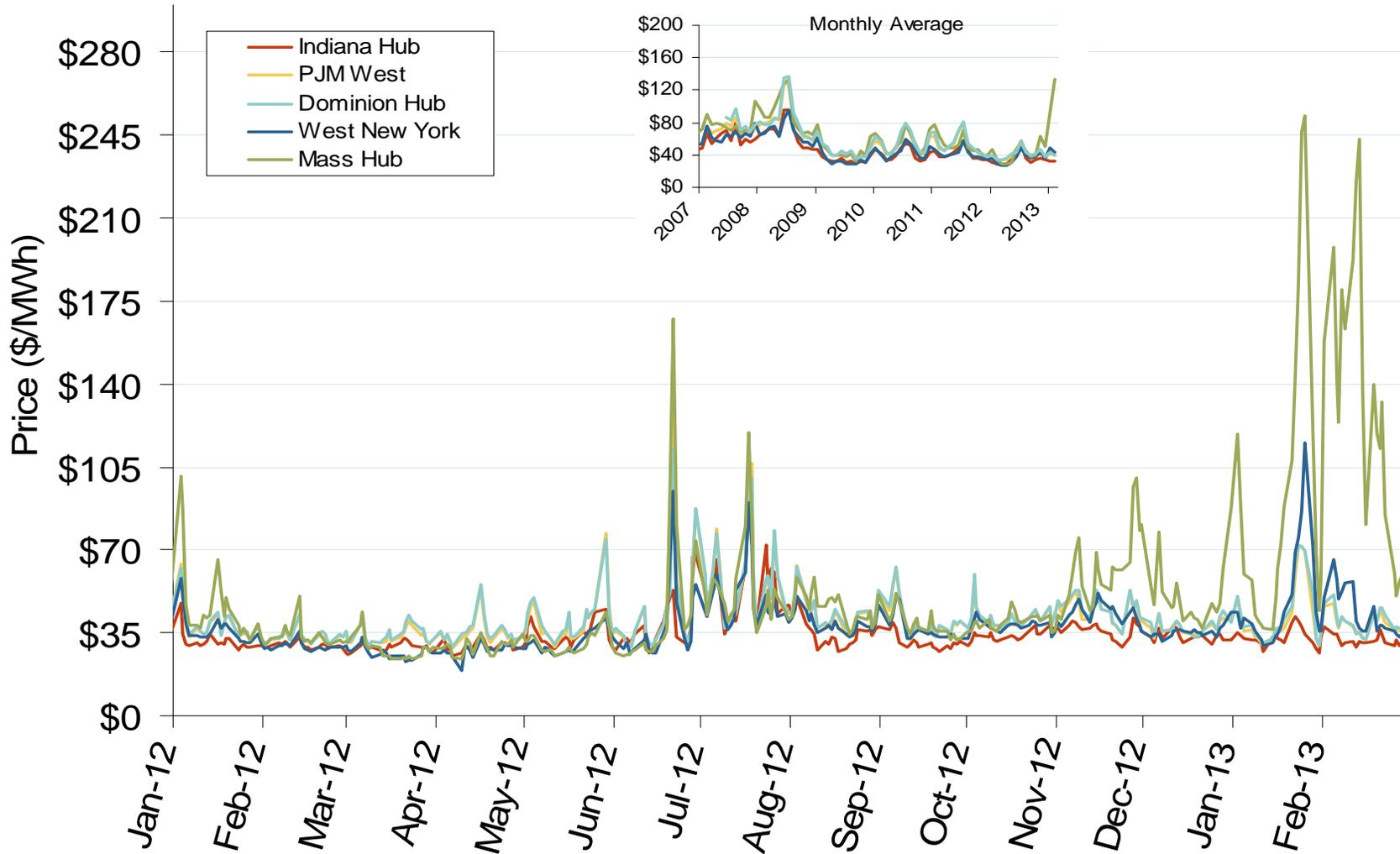
Annual Average Day Ahead On Peak Prices (\$/MWh)						
	2008	2009	2010	2011	2012	5-Year Avg
Mass Hub	\$91.55	\$46.24	\$56.18	\$52.64	\$42.06	\$57.75
Ny Zone G	\$100.99	\$49.80	\$59.48	\$56.41	\$44.35	\$62.22
NY Zone J	\$112.63	\$55.77	\$65.76	\$62.71	\$46.95	\$68.79
NY Zone A	\$68.34	\$35.54	\$43.89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

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

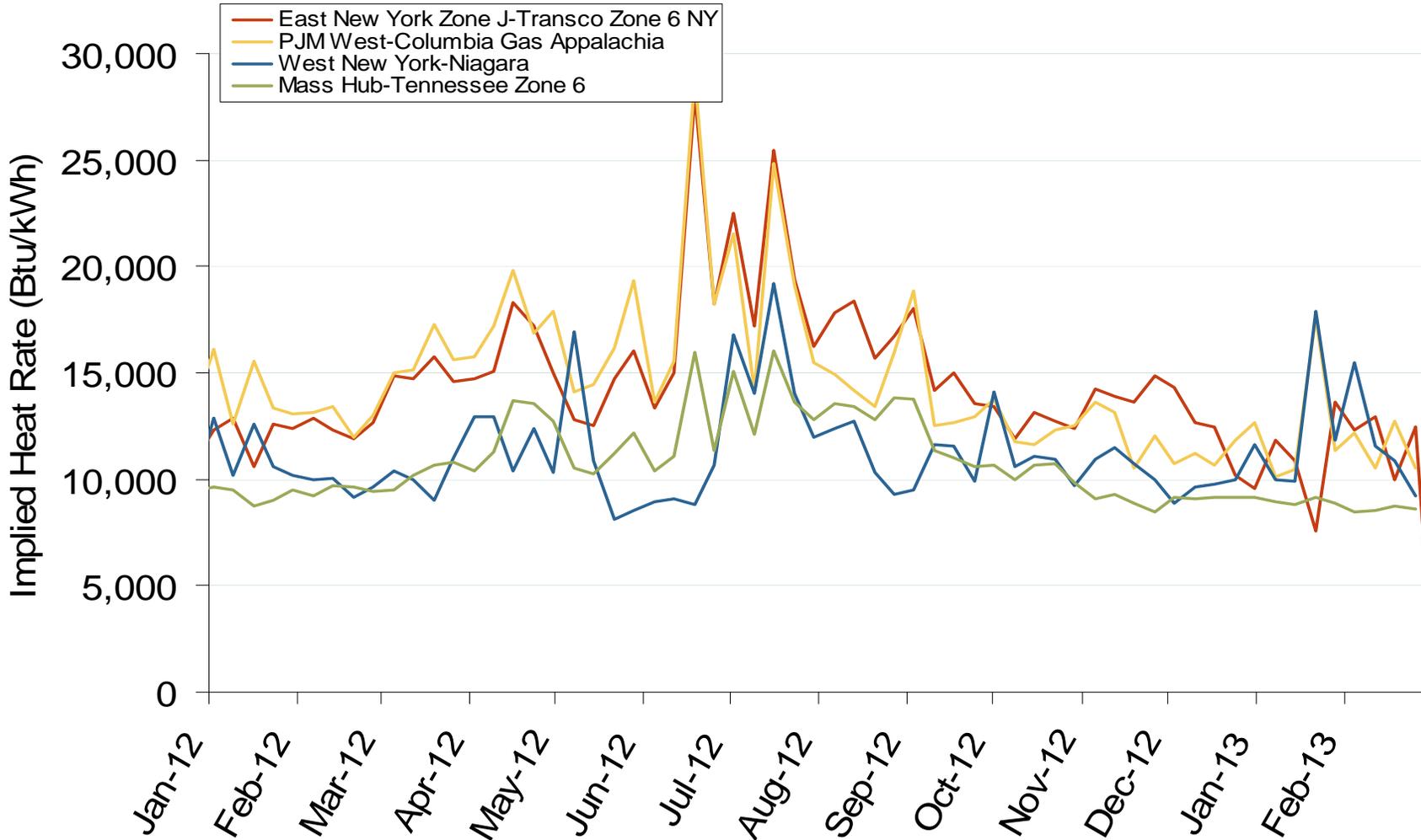


## Eastern Daily Index Day-Ahead On-Peak Prices



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

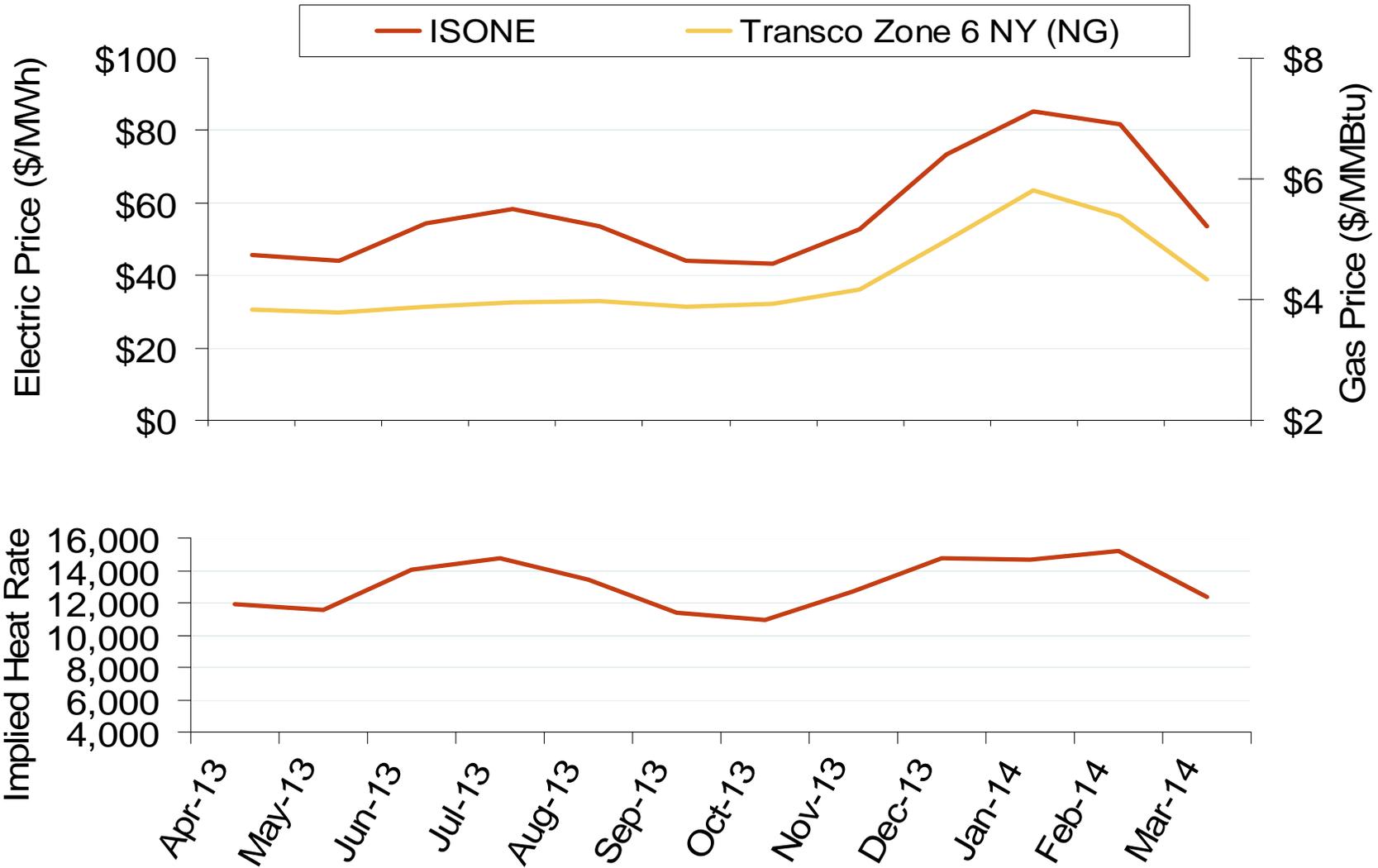


Source: Derived from *Platts* on-peak electric and natural gas price data  
March 2013 Northeast Snapshot Report

Updated: March 04, 2013

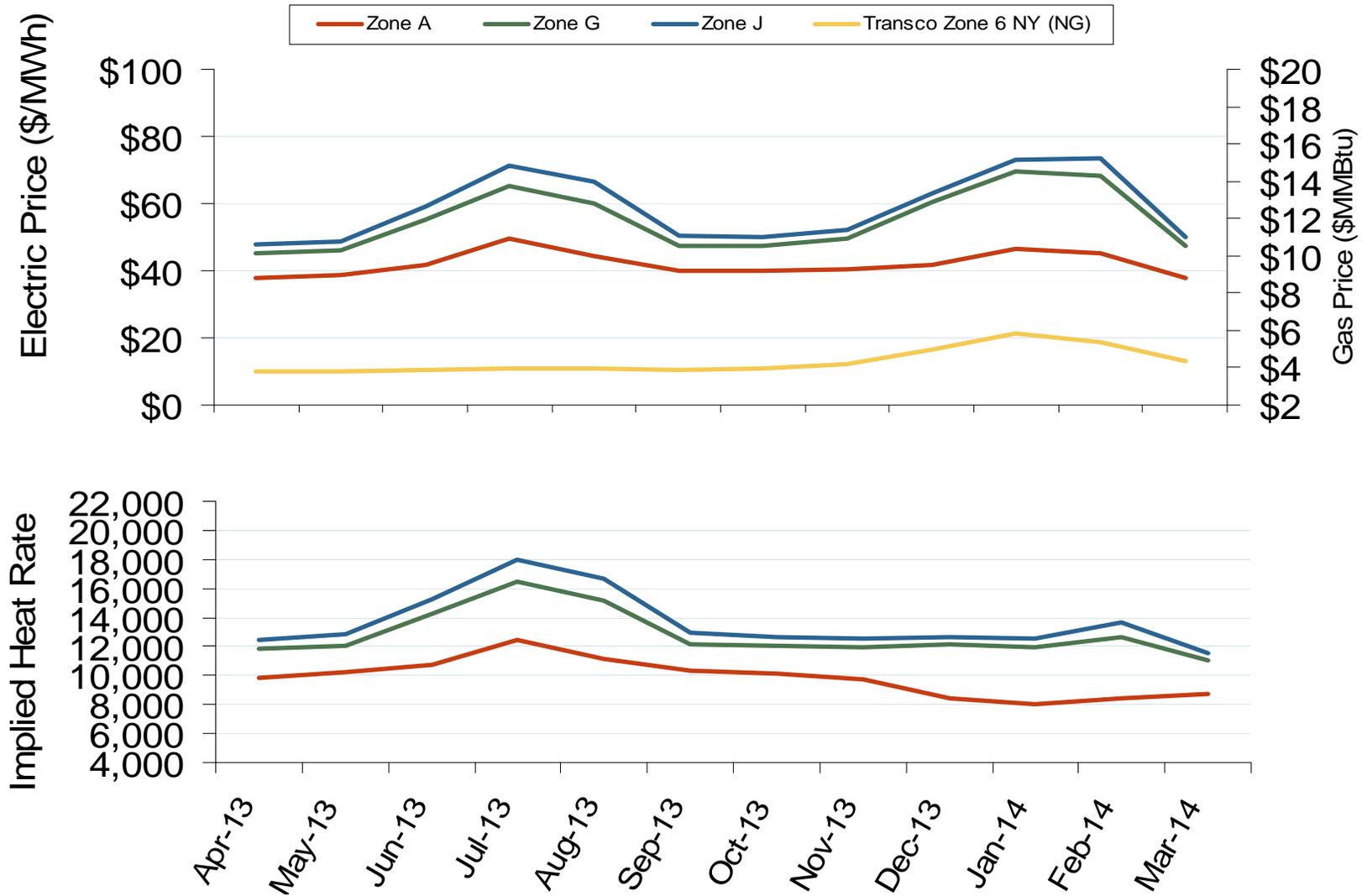
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## New England Electric Forward Price Curves and Implied Heat Rate

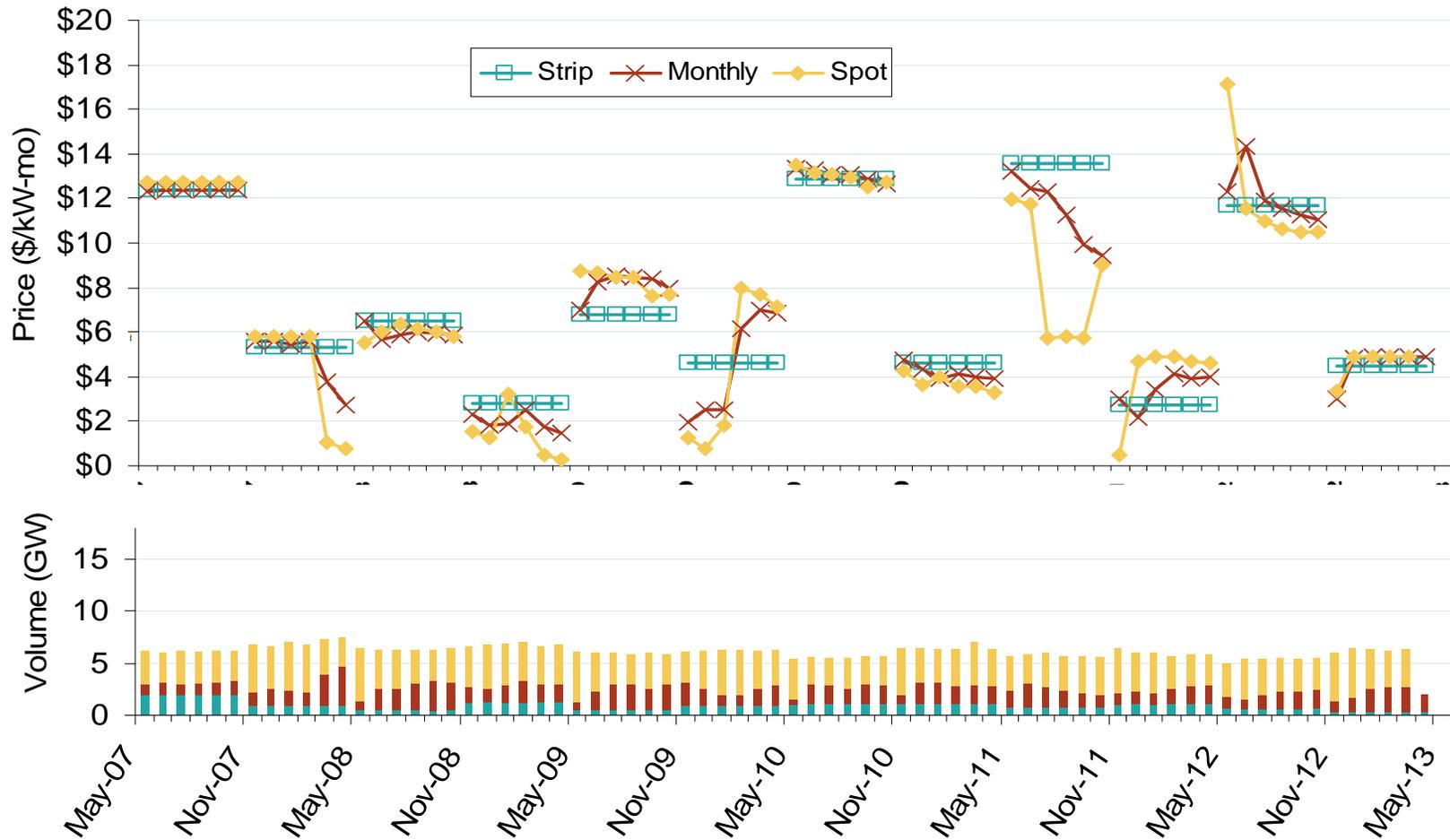


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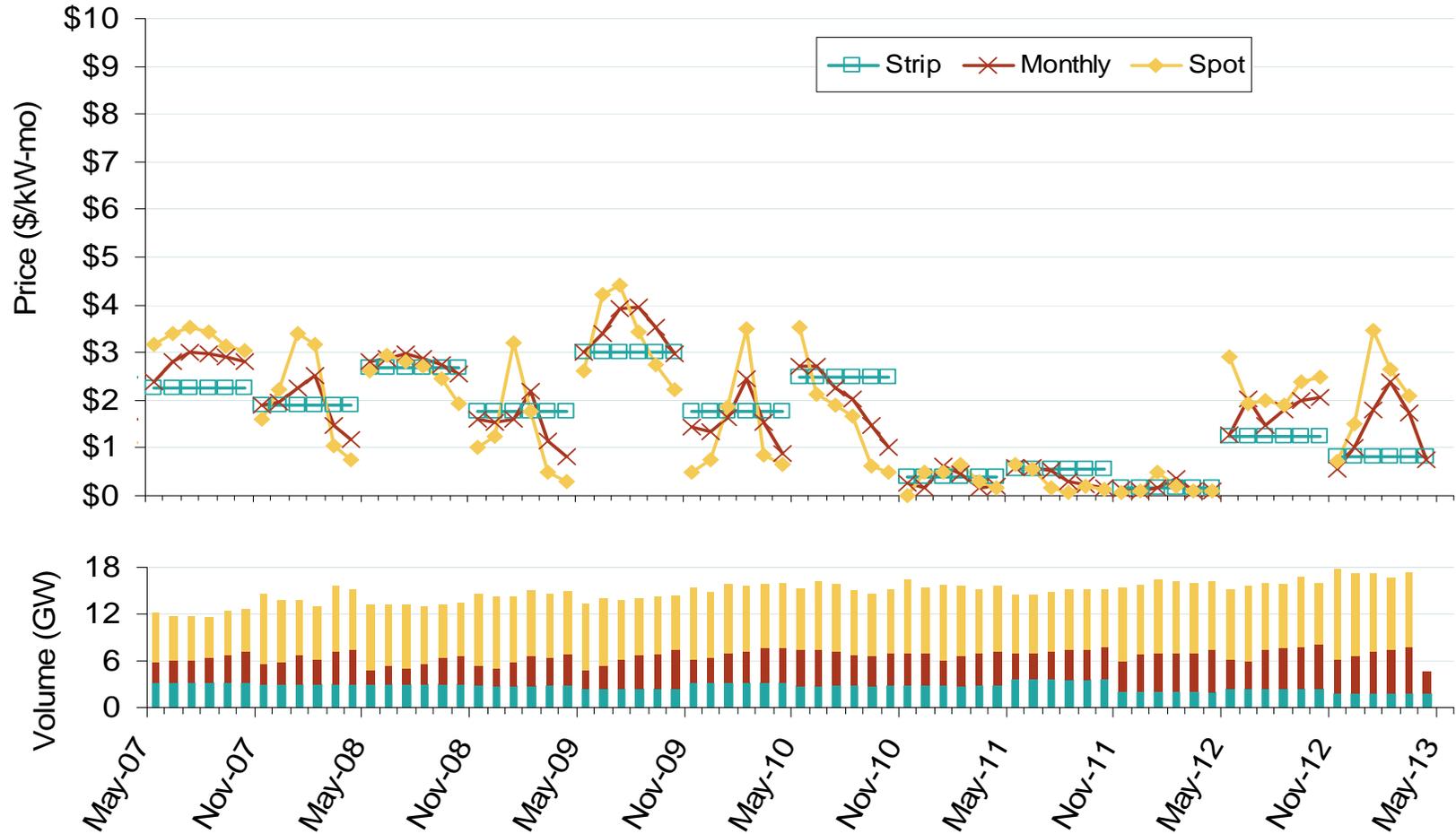
## New York Electric Forward Price Curves and Implied Heat Rates



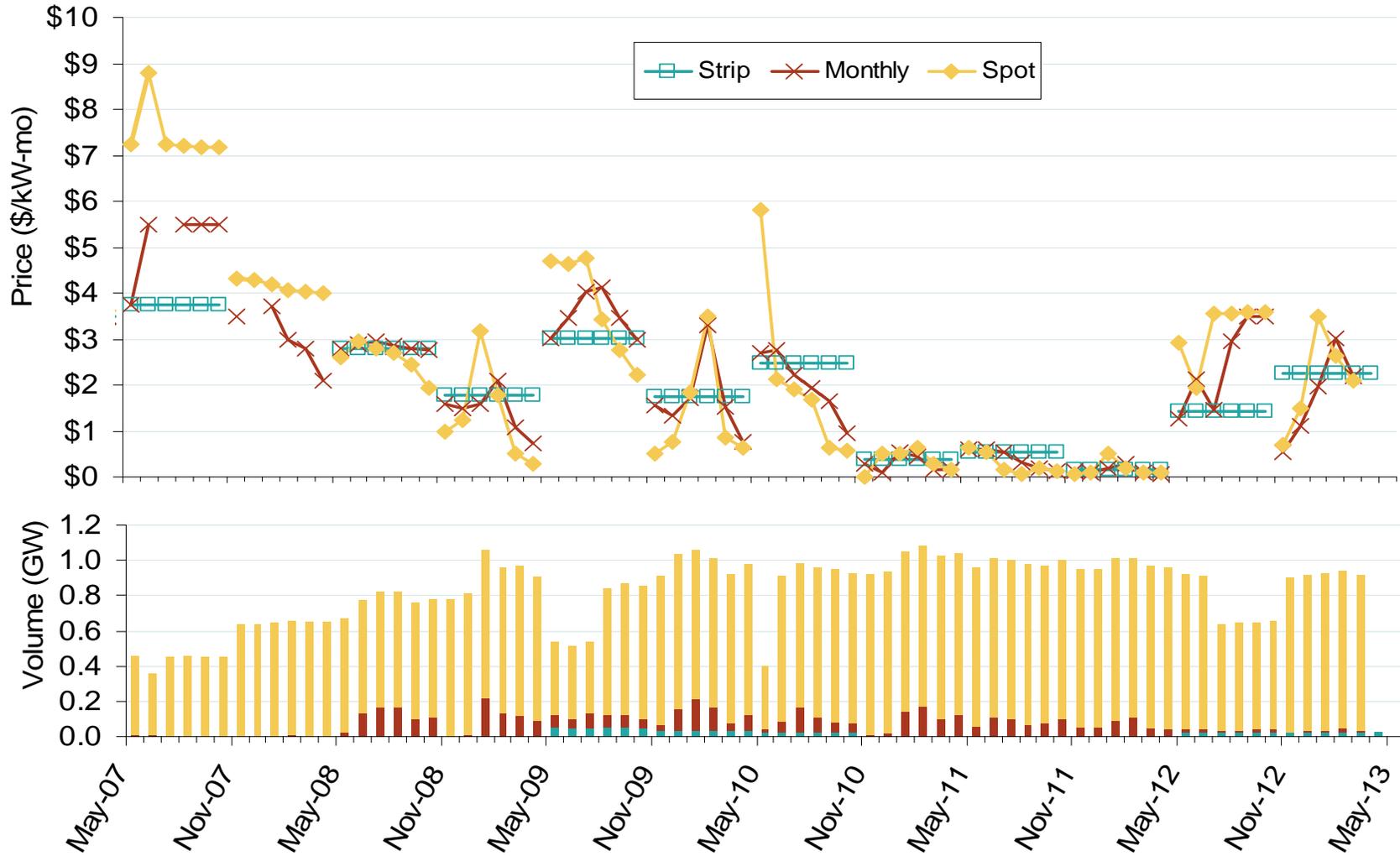
## Wtd. Avg. ICAP Prices & Volumes: NYC



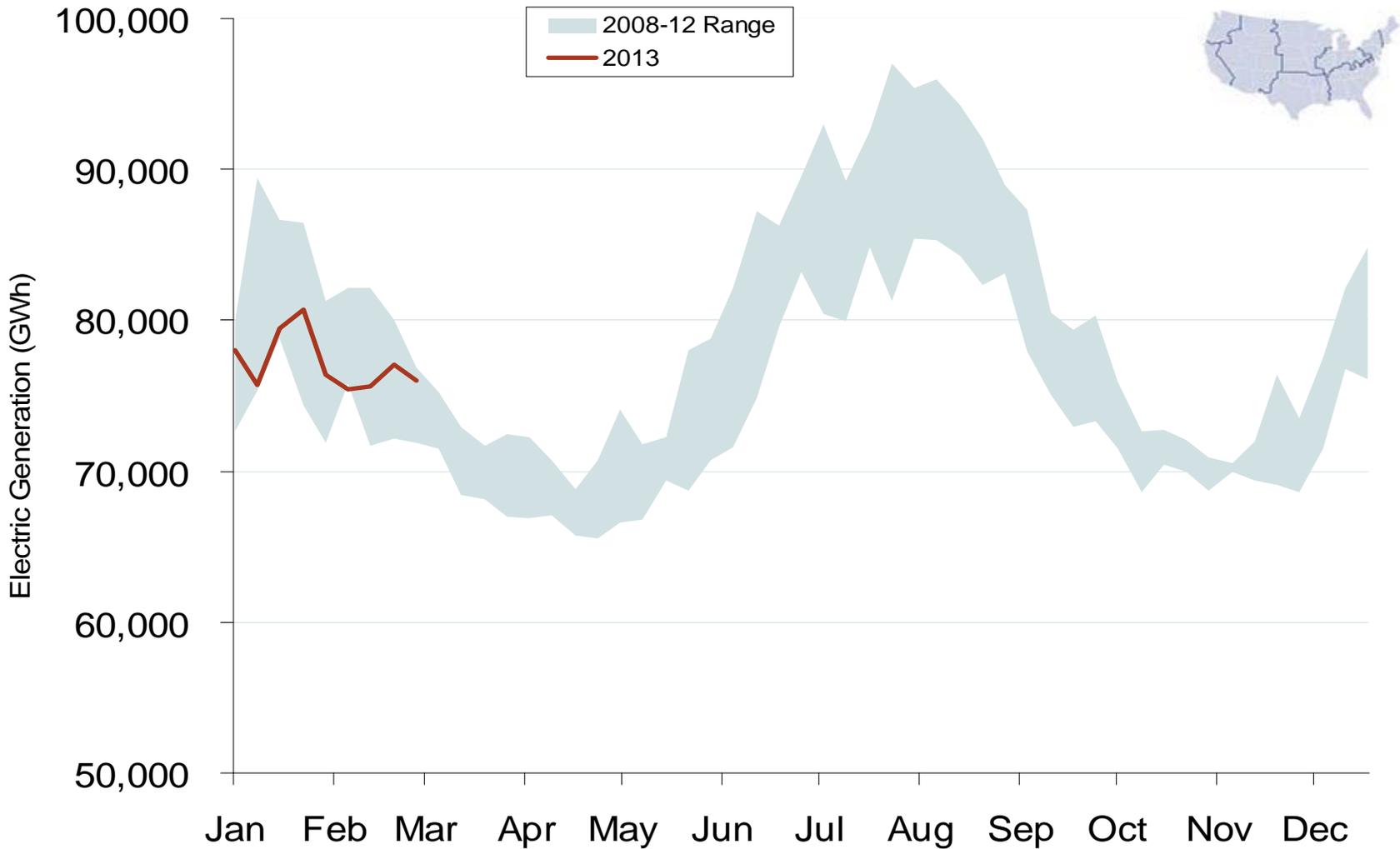
## Wtd. Avg. ICAP Prices & Volumes: New York State, excluding NYC



## Weighted Average ICAP Clearing Prices and Volumes: Long Island

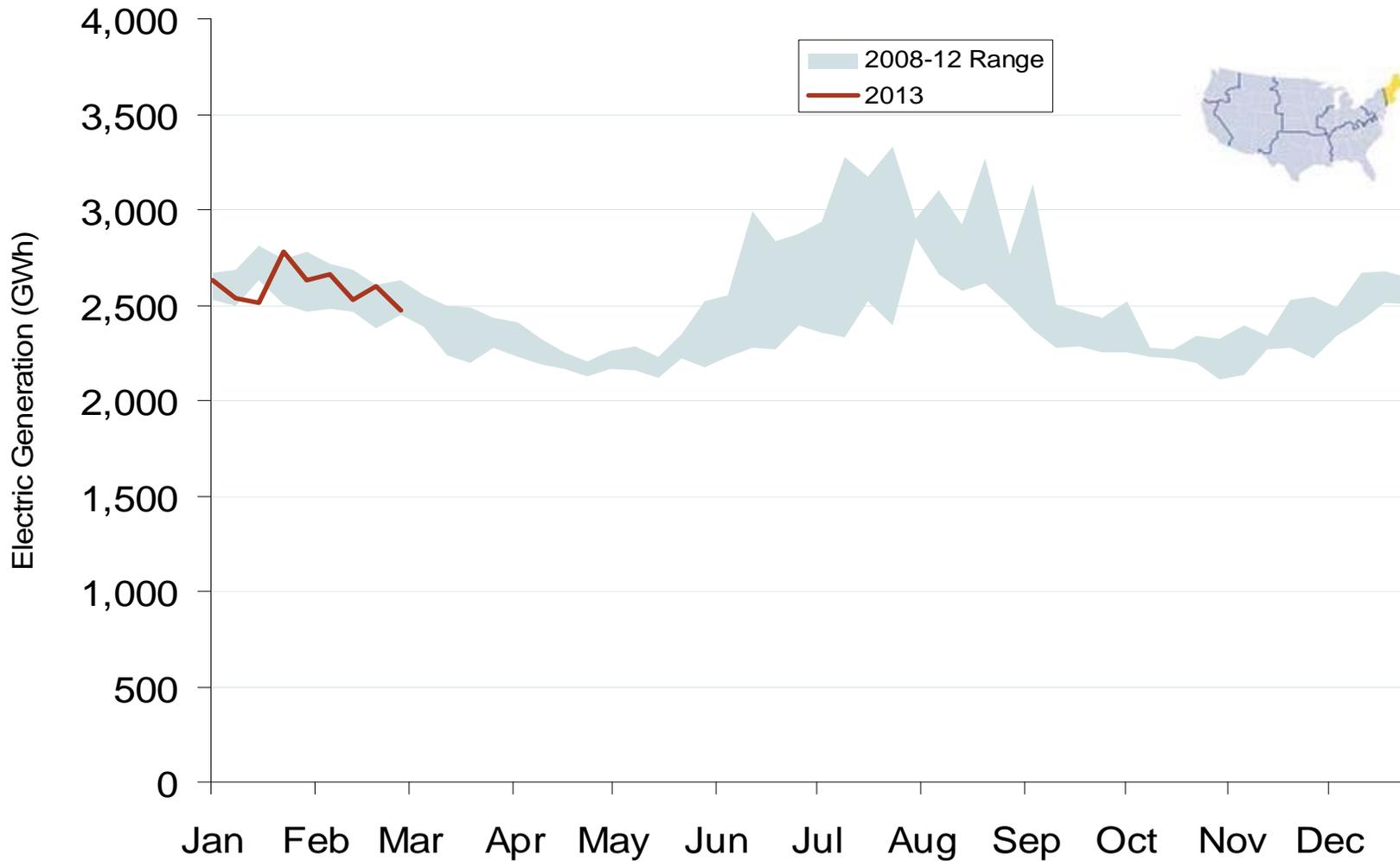


## Weekly U.S. Electric Generation Output



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## Weekly Generation Output New England



## Weekly Generation Output - Mid Atlantic

